



An in-depth analysis of adult learning policies and their effectiveness in Europe

European Commission, Directorate General for Employment, Social Affairs and Inclusion



EUROPEAN COMMISSION

Directorate-General for Employment, Social Affairs and Inclusion

Directorate C (Europe 2020: Employment Policies)

Unit 5 (Vocational Training and Adult Education)

Contact: [First name Last name]

E-mail: [...]@ec.europa.eu (*functional e-mail if existing, or*)
[First name.Last name]@ec.europa.eu

*European Commission
B-1049 Brussels*

*Shane Beadle
July - 2015*

Study on the analysis of adult learning policies and their effectiveness in Europe - final report

European Commission, Directorate General for
Employment, Social Affairs and Inclusion

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

2015

***Europe Direct is a service to help you find answers
to your questions about the European Union.***

Freephone number (*):

00 800 6 7 8 9 10 11

(*) The information given is free, as are most calls (though some operators, phone boxes or hotels may charge you).

LEGAL NOTICE

This document has been prepared for the European Commission however it reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

More information on the European Union is available on the Internet (<http://www.europa.eu>).

Luxembourg: Publications Office of the European Union, 2014

ISBN 978-92-79-46380-8

Doi: 10.2767/076649

© European Union, 2014

Reproduction is authorised provided the source is acknowledged.

Printed in [Country]

PRINTED ON ELEMENTAL CHLORINE-FREE BLEACHED PAPER (ECF)

PRINTED ON TOTALLY CHLORINE-FREE BLEACHED PAPER (TCF)

PRINTED ON RECYCLED PAPER

PRINTED ON PROCESS CHLORINE-FREE RECYCLED PAPER (PCF)

Image(s) © [artist's name + image #], Year. Source: [Fotolia.com] (unless otherwise specified)

Contents

List of key terms	9
Executive Summary	10
Key findings.....	10
Increasing learners' disposition towards learning	11
Increasing employers' investment in learning.....	11
Overview of the report	14
1 Introduction.....	21
1.1 Study aims and objectives	21
1.2 Policy context	22
1.3 Shaping the study	23
1.3.1 Developing a conceptual framework.....	23
1.3.2 What are the design options for a suitable conceptual framework?.....	24
1.3.3 How can we assess the success of the conceptual framework.....	25
1.4 Definitions for adult learning	26
1.5 Methodology	27
1.5.1 Literature review	28
1.5.2 What does a conceptual framework need to look like to achieve this?	30
1.5.3 Qualitative and quantitative data review.....	30
1.5.4 Case study analysis	31
1.5.5 Measures and variables	31
1.5.6 Systematic review of online tools.....	32
1.5.7 Researcher and practitioner feedback.....	33
1.5.8 Policy literature	34
1.5.9 Limitations.....	35
1.6 Structure of the report	36
2 Understanding and analysing adult learning systems and policies	38
2.1 Context of adult learning systems and policies	38
2.1.1 Comparative analysis of adult learning	38
3 The conceptual framework.....	83
3.1 The final proposed conceptual framework	83
3.1.1 Developing the framework.....	83
3.1.1 The content of the framework	84
3.2 Assessment of the framework	93
3.2.1 How well does it meet the criteria for a conceptual framework	93
3.2.2 How does it compare to other frameworks	96
3.3 Conclusions	97
4 Monitoring adult learning policies.....	99
4.1 Considerations in selecting measures and variables	99
4.1.1 Implications in relation to the data sources available.....	100
4.2 Measures and variables of critical inputs for adult learning.....	102

Directorate-General for Employment, Social Affairs and Inclusion
 Directorate C (Europe 2020: Employment Policies)

4.2.1	Key Success Factor 1: Improve learners' disposition towards learning	103
4.2.2	Key Success Factor 2: Increase employers' investment in learning	105
4.2.3	Key Success Factor 3: Improve equity of access for all	106
4.2.4	Key Success Factor 4: Deliver learning that meets the needs of employers and learners	108
4.2.5	Key Success Factor 5: Deliver high quality adult learning	110
4.2.6	Key Success Factor 6: Coordinate an effective adult learning policy	111
4.3	Measures and variables measuring key success factors	111
4.4	Measures and variables measuring critical outputs	115
4.5	Further considerations	117
4.5.1	Limitations of measures and variables selected and some solutions	117
4.5.2	Non-availability of sources for suitable measures and variables	120
4.5.3	Inclusion of JAF measures and variables	120
4.5.4	Linking system level indicators with the outputs of concrete policy actions..	121
4.6	Conclusions	122
5	The analytical tool	127
5.1	Designing the analytical tool	127
5.1.1	Overview of the aims and audience for the tool	127
5.1.2	Design principles of the tool	128
5.1.3	Challenges in designing the tool	129
5.1.4	Assessing the analytical tool	129
5.1.5	The analytical tool	130
5.2	Assessment of the tool	130
5.2.1	Developing the tool further	132
5.3	Testing the tool	133
5.3.1	Critical outputs	133
5.3.2	Success factors	140
5.3.3	Building blocks	145
5.3.4	Overview of performance	148
5.4	Conclusions	150
5.4.1	The design and use of the tool	150
5.4.2	The analysis using the tool's measures and functionalities	152
6	Conclusions and recommendations	153
6.1	Effectiveness of adult learning policies in Europe – overview	153
6.2	A systematic, evidence-based approach	153
6.3	A new framework for analysing the effectiveness of adult learning policies..	154
6.3.1	Limitations	157
6.4	Key benefits of adult learning	158
6.5	Challenges in the field of adult learning policy in Europe	158
6.6	Effective policy actions	159
6.7	The state of the evidence base for policy making	162
6.8	Monitoring adult learning policies	162
7	Recommendations	164
Annex 1:	Sources included in the literature review	165
Annex 2:	Data analysis	170

Relationships between inputs and outputs	170
The relationship between obstacles which prevent participation and the participation rate	170
The relationship between public and employer funding and the participation rate	173
Relationships between outputs and outcomes	174
Relationships between outputs and impacts	176
Participation and life satisfaction	177
Participation and taking part in elections	178
Participation and tolerance	179
Participation and inequality	180
Sub-group analysis	181
Participation of employed individuals and GDP per inhabitant	181
Participation of economically inactive individuals and life satisfaction	182
Participation of unemployed individuals and the unemployment rate	182
Participation of subgroups and inequality	183
Annex 3: Summary of literature review – system level	185
Annex 4: Summary of literature review – policy actions	204
Annex 5: Previous versions of the conceptual framework	23
Annex 6: Systematic review of online tools	32
Composite Learning Index (Canadian Council on Learning)	32
European Lifelong Learning Index	34
Single Market Scoreboard	36
Mapping of EU Member States Higher Education External Cooperation Programmes and Policies	39
Dashboard of measure or variables on youth policy	41
European Massive Open Online Courses (MOOCs) Scoreboard	42
European Service Innovation Scoreboard	44
Digital Agenda Scoreboard	48
State Aid Scoreboard	50
Annex 7: Guidelines for the prototype tool	53
Technical guidance for the tool	53
Outline of the tool	53
Security	53
Data storage	53
Updating of the tool	54
Application of the tool for policy purposes	55
Logging on	55
Exploring the conceptual framework	57
Accessing the measures and data	59
Country profiles	63
Additional resources	64
Annex 8 : All measures and variables considered	66
Measures and variables of critical inputs for adult learning	68
Key Success Factor 1: Improve learners' disposition towards learning	68
Key Success Factor 2: Increase employers' investment in learning	71
Key Success Factor 3: Improve equity of access for all	73
Key Success Factor 4: Deliver learning that meets the needs of employers and learners	76

Directorate-General for Employment, Social Affairs and Inclusion
 Directorate C (Europe 2020: Employment Policies)

Key Success Factor 5: Deliver high quality adult learning	79
Key Success Factor 6: Coordinate an effective adult learning policy	80
Measures and variables measuring key success factors	81
Measures and variables measuring critical outputs.....	85
Annex 9: Improving the evidence base and monitoring tools: Technical recommendations	88
Improving the research evidence on adult learning policy effectiveness	88
Improving the statistical data to monitor those policy actions, for which available data is not of sufficient quality, coverage or frequency	88
Improving the statistical data to monitor those policy actions for which no appropriate data is available	89
Develop administrative data sources for quantitative and qualitative monitoring of policy effectiveness.....	89

List of key terms

Analytical tool: An analytical tool brings together existing data on adult learning and continuing vocational education and training (CVET) and provide a point of reference for monitoring performance and policy developments in adult learning. It is designed to provide assistance to policy makers in their analysis of the development of adult learning, policy development and implementation.

Building blocks: A building block is a policy action that has been identified in the evidence as being effective in leading to an improvement in the participation rate in adult learning, the overall level of skills and competences or the quality of adult learning.

Conceptual framework: A conceptual framework is best thought of as a model that explains the main things to be studied – key factors, concepts or variables, and the presumed relationship among them. The purpose of a conceptual framework is to demonstrate these high level relationships in a sequenced, interlinked manner, which simplifies but still represents how adult learning policies function effectively.

Critical outputs: Critical outputs are the main results of effective adult learning policy. They include an increase in the participation rate, an increase in skills and competences and an improvement in quality.

Key success factor: A key success factor is a group of related building blocks which are identified by evidence as having an impact on the effectiveness of adult learning policies, as shown by changes in the participation rate in adult learning, the level of skills and competences and the level of quality of adult learning.

Measures and variables: The measures and variables have to provide a point of reference for monitoring performance and policy developments in adult learning towards their expected outcomes, not least towards increasing participation by adults in learning and gaining skills and competences.

Outcomes: An outcome indicates the overall impact of adult learning policy on individual learners, employers and the community.

Performance enablers: Performance enablers are ingredients of policy actions or separate policy actions that may not directly lead to effective adult learning. This means that their impact often cannot be directly measured in relation to participation in adult learning and learning outcomes but they clearly influence the success of other policy actions. There is evidence in the research and policy literature that suggests that such policy actions are successful when they have certain ingredients or when they are being taken forward in association with other policy actions.

Policy action: A course or principle of action, adopted or proposed by government institutions(s), focused on the area of adult learning in general, or to any sub-sector of adult learning in particular

System-level indicators: A system-level indicator measures the overall effectiveness of adult learning policies. These include the participation rate in adult learning, the level of skills and competences and the quality of adult learning.

Executive Summary

Adult learning policies, like any other policies, need to be effective: they need to reach their objectives and attain the desired impacts, which should be carefully defined. Understanding the performance of policies allows policy makers to change and improve them. A growing body of research and statistics provides important insights into how better to achieve policy goals.

The study aimed to identify those factors that help to achieve effective adult learning policy.

Key findings

- A systemic review of the latest evidence confirms the significant benefits that adult learning brings to individuals, companies and society;
- However, the statistical evidence shows that these benefits are not accessible to a very large number of adults who do not undertake any learning;
- The study found that policies to ensure access to learning are often not in place or not sufficient to make a systemic impact;
- The study has identified a number of policy actions that are proven to be effective in increasing adult participation in learning;
- At the same time, Member States lack sufficient policy monitoring systems to ensure that the policy actions that are implemented achieve their intended impact;
- The study thus proposes an analytical framework: a template that can assist policymakers in analysing their adult learning policies.

The study concludes that adult learning policy could be made significantly more effective through a more systematic collection of data, and a more rigorous approach to evaluation to enable Member States' policy actions to be monitored against their objectives.

The benefits of adult learning

The study, through a systematic review of recent research evidence, has summarised the benefits of adult learning for learners themselves, for employers and for the wider community.

The benefits for learners are:

- Economic: increased wages, higher incomes and improved employability;
- Wellbeing: improved general wellbeing and health; and
- Social: improved engagement in community and civic activity.

The benefits for employers are:

- Companies' innovation performance can be increased;
- Higher motivation of the workforce can be attained; and
- Increased productivity and profitability can be achieved.

The benefits for the community are:

- Economic: greater economic competitiveness and higher GDP; and
- Social: positive effects on health, the environment and reduced reoffending.

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Challenges in the field of Adult learning in Europe

Despite these potential benefits, the EU is far from attaining its benchmark of 15% adult participation in learning by 2020. Indeed, there are major challenges to be confronted. At European level, challenges are:

- Significantly increasing rates of adult participation in learning, especially for economically inactive, unemployed, older and less skilled adults;
- Reducing the proportions of adults with poor literacy and numeracy;
- Substantially reducing the number of adults who have only a lower secondary qualification.

At Member State level:

- Few countries have in place all the policy actions that constitute the “building blocks for successful adult learning policies”;
- Every country faces challenges in improving equity of access and many face challenges in several other areas; and
- Coordinating adult learning policy actions at national and sub-national levels can be improved.

Ensuring equitable access to education and training, and improving adults’ basic skills are thus the critical weaknesses of current adult learning policies in EU Member States.

Which policies are effective?

In considering how to address these challenges, policy makers should note that:

- Participation in learning is strongly linked to the availability of government funded learning opportunities, and the amount of government investment in learning;
- Focusing investment on underrepresented groups not only reduces inequalities in accessing learning, but also increases overall adult participation in learning;
- Provision of employment- and work-related training is a key driver in increasing the overall rate of adult participation in learning; and
- Improving learners’ disposition to learning increases participation in learning.

The study identified six key factors for successful adult learning policies that could significantly increase adult participation in learning and the positive benefits that flow from it:

Increasing learners’ disposition towards learning

Building a positive disposition towards learning among individual learners is important in promoting participation and retention in learning. The evidence suggests that this is not motivated by direct financial incentives to adults but is facilitated by structural features of the adult learning system, such as guidance for learners, involving social partners in the adult learning system and raising awareness of the benefits of learning.

Increasing employers’ investment in learning

Employers play an important role in promoting a learning culture and promoting participation in learning. They should be considered an important partner in the delivery and design of adult learning. The research evidence highlights employers’ investment in learning as important for increasing the availability of learning opportunities as well as for increasing participation, especially among their workforce. As work-related

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

motivations are among the main reasons for adults to take up learning, job-related training is particularly effective in attracting learners.

Improving equity of access to learning for all

Engaging hard-to-reach groups in learning and overcoming barriers to their participation is challenging. Support for people in disadvantaged groups is important in assisting them to participate in learning. This includes funding learning opportunities for disadvantaged adults, ensuring that guidance support is tailored to individual learners' needs and motivations, recognition of non-formal and informal learning (NFIL) and embedding basic skills development in learning programmes for low-skilled people (who are also likely to be members of disadvantaged groups). Intermediary organisations such as community groups and trade unions can play a role in engaging harder to reach adults in learning.

Delivering learning that is relevant to employers and learners

The needs of learners and employers are important factors in the decision to undertake or provide learning, especially if learning is job-related. Designing learning opportunities to respond to learners' needs makes the prospect of participation in learning more attractive. The research evidence confirms that where learning takes account of the needs and motivations of both employers and learners, it is likely to be more effective in improving outcomes for both, and in increasing participation in learning.

Deliver high quality adult learning

While there has been little evaluation of systems and tools designed to assure the quality of adult learning, there is broad agreement among practitioners that delivery of high quality adult learning is important in ensuring positive outcomes for learners, employers and the community. This is reflected in the number of recent reports that have mapped and compared quality assurance systems in adult education and training in different Member States. However, this research has not systematically assessed the effectiveness of such policy actions; thus, evidence about their effectiveness is less robust. Nevertheless, the policy literature suggests that ensuring quality in adult learning should be considered an important priority, especially in the context of increased accountability for public investment and ET2020 objectives.

Co-ordinate an effective lifelong learning policy

There is a clear need to co-ordinate lifelong learning policy effectively to deliver the desired outcomes for learners, employers and the community. The research evidence, the policy literature and the case studies all suggest that collaboration and coordination of adult learning policies are important factors in their successful implementation at national or subnational level. A lifelong learning strategy on its own is not enough to increase participation, but it is enabled by co-ordination and collaboration between different institutions and stakeholders. In addition, the policy literature suggests that collection of data and evidence to monitor policy is crucial in ensuring its effectiveness.

Monitoring and evaluating adult learning policies

Countries currently collect only a limited range of data for monitoring adult learning. Ad-hoc research to monitor policy actions is also patchy. The case studies show that while some countries have data systems which can be used for monitoring policy actions, others are in the making and some appear only to make use of project data.

The case studies suggest that by no means all countries routinely set targets for policy actions so that they can monitor whether they have achieved improvements in adults' participation in learning or in their competences. A small number of countries have set targets in their national strategies or plans the attainment of which can be monitored either through information collected from adult learning providers or from surveys of

learners. As a consequence, it is often difficult to assess if policy actions are making a difference or if they are efficient.

Equally, the case studies show that governments are not commonly commissioning evaluations of policy actions so that they are able to provide evidence of the outcomes and impacts they are expecting to achieve from adult learning. Where evaluations are carried out, they tend to focus on shorter term outcomes such as gains in knowledge and confidence which are more often assessed qualitatively by participants, rather than by testing participants before and after their learning, or from learning outcomes gained from achieving accredited qualifications.

Without the measurement of medium and long term outcomes from adult learning, it is not then possible to estimate returns on investment, which would allow outcomes to be valued and compared with the costs of the policy action. The existing evidence is generally characterised by methodologically weak evaluation design (to measure impacts) and lacking objective measures to assess outcomes as measures of success.

Using European data sources to improve policy monitoring and evaluation

The study has explored to what extent European data sources could be used to improve the quality and coverage of monitoring adult learning policies in Europe. The assessment of the data sources available at the European level found that:

- There is a broad range of statistical data available for monitoring most adult learning policies at the macro-level, and in general they cover all Member States;
- Some sources provide sufficient data to permit annual monitoring of key elements of adult learning;
- Still, all policy actions are not equally well covered by existing data sources; and
- Data required to assess the performance and quality of adult learning policy interventions is seldom available.

Overall, there exist sufficient statistical data that can be used to improve the monitoring of most adult learning policies.

To assist policymakers, the study has devised an “analytical framework” that can be used as a template to guide the design, analysis, evaluation and monitoring of adult learning policies, at regional, national and international levels. An online tool is being developed to assist policymakers in using this analytical framework.

The analytical framework developed by this study provides a firm basis for any Member State wishing to put in place or improve a system for monitoring its adult learning policies.

Recommendations

The study recommends actions that could be taken by Member States, the European Commission and other stakeholders. In particular to make use of the analytical framework it has developed in designing adult learning policies and provision, and in monitoring policy effectiveness. National authorities should make sure that their policies take into account the six key factors for successful adult learning, in particular by improving equity of adult access to learning, and ascertain the extent to which the necessary types of policy action are in place. Better coordination of adult learning and other economic and social policies at national, regional and local levels is also recommended in order to ensure coherent provision and thereby ensure the best outcomes from policy interventions.

Overview of the report

This study contributes to one of the key European Union (EU) priorities for the period 2012-14 which is to 'improve the knowledge base on adult learning and monitoring the adult learning sector'. This is in the context of:

- The Council's Resolution on a Renewed European Agenda for Adult Learning and the more recent Commission's Communication, Rethinking Education¹ adopted in 2012 which draws out the significance of adult learning to economic challenges facing Member States but the difficulties of adequately monitoring the adult learning sector; and
- The commitment to strengthen the Open Method of Coordination (OMC) and the European Semester by providing comparative data to monitor progress towards improvements in adult learning and high quality country analysis to support Member States to implement effective adult learning policies.

The study's aims and objectives

The study had the objectives of:

- Developing an analytical tool that will help both the Commission in its analysis of the development of adult learning and Member States' policy makers in their policy development and implementation;
- Presenting data and analysis about performance in a way which clearly describes the situation and challenges of countries participating in the ET2020 process to support the European Semester process and the Open Method of Coordination;
- Carrying out an analysis of 10 countries that have been performing well over a long period of time and/ or improved recently to identify with the data analysis a set of success factors that constitute adult learning policy and its implementation;
- Evaluating the performance of European countries in the field of adult learning based on available pan-European data.

The approach to the study

To meet the Commission's aims and objectives, the study adopted a methodology to ensure that the analytical tool developed and the conceptual framework for it were evidence-based, robust and relevant. Key features of the study were:

- Taking a systematic approach to identifying how adult learning policies are effective, on three levels:
 - Relating the outputs of adult learning (participation principally²) to system features;
 - Relating the outputs themselves in relation to outcomes and benefits (which can be economic as well as relating to social for both individuals and the community); and

¹ Commission Communication Rethinking education: investing in skills for better socio-economic outcomes http://ec.europa.eu/education/news/rethinking/com669_en.pdf

² While participation is not the only 'output' of learning (knowledge, skills, qualifications, attitudes and ambitions are other outputs) the availability of data on participation means that this can be studied in relation to system features such as investments in training. If the PIACC survey is repeated, then it will also be possible to examine these in relation to competences.

- Relating the outputs and outcomes of adult learning to specific policy actions.
- Developing the framework for the tool so that it was underpinned by a systematic review of evidence of the effectiveness of adult learning policies. This was led by an assessment of published research literature, which was graded according to a set of predefined standards, and supplemented by data analysis and evidence presented by policy makers and experts, which was then used to map a set of discrete building blocks. These building blocks were tested using supplementary evidence from country case studies;
- Systematically reviewing available data to identify measures and variables that could be used to underpin monitoring of the building blocks identified by the evidence review. This informed the development of the tool to monitor the effectiveness of adult learning policies; and
- Testing the evidence base and the measures with researchers and practitioners in the field of adult learning, through consultations and meetings with the Adult Learning Working Group. In addition, the framework developed has been compared with other frameworks.

The limitations of the evidence available have implications for the following:

- The extent to which the framework for the analytical tool can be considered to reflect reality. It should be recognised that the framework is not intended to be “static” but is a reflection of what is known now, i.e. the evidence that is available up to 2014, and it should evolve with any improvement in published research;
- The ability of the 10 case studies to provide qualitative evidence of the successful implementation of policy actions which could inform the development of measures and policy conclusions. They more broadly provide evidence of the need to improve evidence based policy making if the framework and the tool are to be improved over time.

What the research says about policy actions which contribute to effective adult learning

The research evidence on how the adult learning system provides affective adult learning shows that:

- Participation in learning is strongly linked to the availability of learning opportunities which governments fund in whole or part and the amount of government investment in learning;
- Focusing investment on underrepresented groups in adult learning not only redresses the balance but increases overall adult participation in learning;
- Provision of employment and work-related training is a key driver in increasing the overall participation rate, not least because the majority of adults are in work;
- Improving learners’ disposition to learning increases participation in learning.

This suggests that critical policy actions should be those which achieve the following:

- Increasing the availability of learning (both formal and non-formal, both in work and out of work) and providing suitable opportunities for this for adults with a specific need (e.g. to re-skill or upskill) or an interest in learning;
- Encouraging and enabling access to adult learning by adults who do little or no learning;

- Increasing the motivation of employers to train and develop their employees as well as adults themselves to take up opportunities to learn which are available.

The analysis of the research literature on adult learning policy actions, together with the analysis of policy implementation in 10 country case studies that have improved their participation in adult learning, show which policy actions contribute to effective adult learning (as shown by increased participation, improved skills and competences and higher quality of learning) and the various outcomes rising from these and the groups that benefit from these outcomes (learners, employers and the community).

On the whole the analyses are sufficient to identify:

- Evidence to shape a set of success factors of effective adult learning;
- Evidence to describe a set of policy actions (building blocks) that are required for each success factor; and
- To what extent the evidence base needs to be improved to meet the ambitions of the OMC and to develop the use and analytical power of the analytical tool.

While this is a significant step forward in identifying the components of a framework which have evidence of an impact on the outputs and outcomes of adult learning and which policy areas have stronger research evidence than others, e.g. around employer training much more than around high quality learning, it is clear that the evidence base does not yet allow any conclusions on the relative contribution that policy actions make to effective adult learning to indicate which have greater effects than others.

What we see from the research literature and the case studies is that data is not always collected systematically by governments to enable policy actions and their targets to be monitored or for targets to be set in the first place. While evaluations provide some of the evidence base for the analysis here, they are not often commissioned nor when they are, are they of a quality to provide unequivocal evidence that their outputs and outcomes can be attributed to the policy actions.

The conceptual framework for the analytical tool

The framework proposed is fundamentally an input-output model which separates policy actions from their effects. With the policy actions designated as building blocks for success and grouped as success factors, the individual elements of the framework draw on the evidence reviewed above.

Individual policy actions have been grouped into six key success factors for adult learning policies as follows:

- **Improve learners' disposition towards learning:** These policy actions focus on heightening awareness of the benefits of learning; providing targeted guidance for learners about learning options; engaging social partners in the planning of, promotion of and recruitment of learners to adult learning; providing appropriate introductory learning experiences for learners;
- **Increase employers' investment in learning:** These policy actions focus on providing funding to assist employers to upskill and retrain their workforce, promoting the use of externally accredited qualifications by employers; and promoting the provision of work-based learning;
- **Improve equality of access for all:** These policy actions focus on funding learning for disadvantaged and difficult-to-engage groups, including the inactive and unemployed; providing targeted guidance and support services and promote programmes to learners in under-represented groups; providing scheme to recognise prior learning (informal and non-formal; using intermediary

Directorate-General for Employment, Social Affairs and Inclusion

Directorate C (Europe 2020: Employment Policies)

organisations in outreach to difficult-to-engage groups; and embedding basic skills development in adult learning programmes;

- **Deliver learning that meets the needs of employers and learners;** These policy actions focus on understanding and identifying needs and motivations of learners; identifying current and future skills needs of employers (through skills forecasting) and aligning provision with these; promoting innovation and flexibility in the delivery of learning; and providing progression pathways for learners across the national qualifications framework;
- **Deliver high quality adult learning:** These policy actions focus on establishing a quality control framework for monitoring and evaluation of adult learning programmes; and developing a skilled adult education workforce through initial teacher training and continuous professional development; and
- **Co-ordinate an effective lifelong learning policy:** These policy actions focus on co-ordinating adult learning (or lifelong learning) policy with other national policies for improving knowledge, skills and competences of adults; establishing mechanisms for policy alignment at local and regional levels; and building a knowledge base concerning what works in adult learning.

The framework **should be conceptually insightful** because it reflects up to date comprehensive empirical evidence of what works in adult learning and what is critical to successful outputs and outcomes from adult learning as well as providing a clear illustration of the links between policy actions and outcomes. All these elements should feature in successful adult learning systems.

Indeed, some of these features distinguish it from other frameworks developed for similar purposes by the OECD and the World Bank. This framework is derived from evidence on the effectiveness of adult learning policies, whereas the other frameworks are theoretical constructs which draw to a greater extent on the views of practitioners and researchers rather than a review of the literature and attempt to include all aspects of the adult learning system. As a consequence it provides more comprehensive coverage of policy actions and depicts the relationships between them on one level.

This framework also **provides the basis for monitoring the effectiveness of adult learning** policies. The framework can be applied at different levels: regional, national and international. As a result of the way in which it has been developed, it provides a strong basis for any Member State wishing to put a monitoring system for its adult learning policies in place.

The framework can therefore be adapted by Member States to establish (or enhance) a monitoring system for adult learning policy. This adaptation could be done at a national, regional and local level. In adapting the framework, policymakers could follow the same methodology as in this study by:

- Establishing the relevance of the framework, and the building blocks, to the situation pertaining to adult learning policy at national, regional and local level;
- Determining the extent of nation
- all evidence (or regional or local) that exists and how this could be used to adapt the framework, improve its underpinning evidence base and identify possible new building blocks for inclusion;
- Assessing the measures and data available and mapping them to the adapted framework; and

- Designing and developing new data collection tools to improve the fit of available data to those building blocks identified as being affective.

Developing measures for the analytical tool

Measures and variables must reflect the components of the conceptual framework to provide an analytical tool to monitor and compare performance and progress. They must be recognised as reliable by policy makers and relevant stakeholders. A diverse range is needed too. Equally they need to reflect the intended direction of travel and for the building blocks the research evidence of what works; be reliable (well defined and similarly interpreted by all countries and by all researchers collecting data); provide a high degree of comparability and pan-European; have a high frequency of data updates; and stability (consistency in their definition over time).

The assessment of the sources available found that:

- There is a broad range of measures and variables available for the monitoring of adult learning policies. In many cases, the measures and variables that are available correspond to the components of the conceptual framework;
- In the main the sources cover all of the Member States, the main exception is the PIAAC survey;
- Many useful sources are not updated frequently (every five years for example) or have only been produced once (with an intention to repeat) so cannot yet provide trends, only fixed comparisons;
- Most measures are dependent on the stability of definition to provide trends/time comparisons. This has a higher risk with qualitative data than quantitative data which is less easy to define unequivocally.

As a consequence, there is some variability in how well the framework's building blocks and success factors can be measured by the variables chosen. The latter tend to have a better range than the former. In some cases, there is a choice as well as a variety of measures available to monitor and compare. In other cases, there is only a single variable available which monitors an aspect of a building block, while in others none of the variables are a good fit with the intentions of the building block or success factor or the variable is a poor measure for the purpose of the analytical tool, such as a policy action in place or not in place, or a measure of the inputs (resources) without any measure of the outputs.

To improve the availability of measures requires:

- A commitment from Member States to participate in surveys, such as PIAAC over time and to take account the analytical tool when reviewing and revising definitions of variables in surveys;
- The inclusion of some questions currently in the AES and CVTS surveys in more frequent surveys (LFS or EU-SILC) so that data can be more frequently updated;
- The reintroduction of some questions in the AES and CVTS surveys so that some building blocks have better measures and trends can be analysed;
- Repeating past Eurobarometer surveys;
- Examining other sources of qualitative measures which are not frequently updated; and
- Introducing a streamlined updating process through Eurypedia, at least for the measures and variables selected for the analytical tool to increase the reliability and comprehensiveness of the information available.

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

It also requires where there is either no measure or variable currently available to measure certain building blocks to consider:

- Including measures in data collection exercises being planned by organisations such as Eurydice and ReferNet and in future Eurobarometer surveys;
- Exploring other means of measuring outputs and outcomes which are qualitative through surveys and independent assessments.

In many cases it would be desirable to have both qualitative and quantitative measures for each building block and success factor in the framework.

The design and testing of the tool

The analytical tool is designed in a way which provides a point of reference for monitoring performance and policy developments in adult learning, enables monitoring and assessment by users and explains the success factors and building blocks for success necessary for effective adult learning. Its key features are that it:

- Provides an overview of the conceptual framework, demonstrating how the framework is structured, explaining the various elements in the framework and provides information on the strength of the evidence underpinning each building block;
- Provides access to data (stored in the database underpinning the framework) on measures that monitor each of the building blocks and success factors in the framework as well as measures on the overall performance of Member States;
- Allows users to compare quantitative data across time periods (where available) and countries, and qualitative data across countries, and allows them to download the data;
- Provides individual country reports for each Member State that bring together all data pertaining to an individual country and compare it with the EU average where possible; and
- Provides access to additional resources, such as research evidence or data sources that may be of interest to policymakers and practitioners.

The tool has its weaknesses which are mostly related to the quality and range of measures available. This means that while comparisons between Member States are possible for both quantitative and qualitative data, the ability to compare Member States over time is more limited. Therefore there is also a limited ability at present to monitor progress in implementation. Also, qualitative data does not provide a graded assessment of progress, but rather identifies whether or not a policy is in place or not.

Testing the functionalities shows that the measures available are critical to the quality and depth of analysis which can be carried out. Improvements to increase longitudinal data and provide both quantitative and qualitative measures for some success factors/building blocks are essential in the medium term.

Even so the analysis that is possible can be extensive and is enhanced where it can draw on the understanding of relationships between success factors and which success factors/building blocks are significant contributors to the critical outputs and outcomes of adult learning. Improvements to increase the quality of research and fill gaps are essential in the medium term to address this.

What does analysis using the tool say about improving adult learning policies and their implementation?

The analysis in sections 2 and 5 to inform the development and testing of the tool, while not comprehensive, underlines that, if participation is to attain the ET2020 benchmark and if adults' skills are to be raised to meet social and economic needs, there are key challenges at both EU level and Member State level to ensure that there are adequate opportunities for learning, and policy actions in place to encourage and enable adults to take these up.

At European level, this suggests that there are challenges around:

- Reducing the large degrees of variation in inputs and outputs between countries;
- Increasing the participation rates of adults in some countries to the levels in others;
- Increasing the extent that inactive, older and less skilled people take part in education and training to the level achieved by younger and more qualified people (reducing the gaps);
- Providing training for those in work as much as for those who are unemployed;
- Reducing the gap in competences between age groups in all countries analysed. This is particularly large for problem solving in technology-rich environments; and
- Increasing the qualification levels of adults throughout people's working lives.

This also suggests that, in relation to the monitoring of policies there is a need to improve the evidence base around adult learning policy to identify what policy actions are most effective, but also to update the framework in the future. More streamlined procedures for data collection are also necessary to ensure a more consistent approach across Member States; along with new data collection tools to enable monitoring of policy actions.

As a consequence it could be argued that:

- Currently there are critical weaknesses in policy around training for the low skilled and unemployed adults and the improvement of adults' basic skills;
- Improving equity would increase participation and address low skills in the workforce;
- Priorities must continue to be funding opportunities for adult learning for both the employed and unemployed and by extension development of policy actions to make this happen

Implementation as indicated above would be improved if Member States evaluated policy actions and published the results.

1 Introduction

This is the final report of the study to develop from an-depth analysis of adult learning policies and their effectiveness an analytical framework and tool for the assessment of adult learning policies to support Member States in designing and implementing adult learning policies more effectively.

1.1 Study aims and objectives

The study's aims set out in the terms of reference are twofold:

- To evaluate the performance of European countries in the field of adult education and training based on available statistical data;
- To identify a set of success factors of effective development and implementation of relevant policies based on an analysis of well-performing countries.

With the objectives of:

- Developing an analytical tool (a scoreboard) that will help the Commission in its analysis of development of adult learning and Member States' policy makers in their policy development and implementation. This should bring together existing data on adult learning and continuing vocational education and training (CVET) and provide a point of reference for monitoring performance and policy developments in adult learning;
- Presenting the data and analysis about performance in a way which clearly describes the situation and challenges of countries participating in the ET2020 process, thus supporting the Thematic Working Group (TWG) on adult learning, and which can be updated to support the European Semester process and the Open Method of Coordination;
- Carrying out an analysis of 10 countries that have been performing well over a long period of time and/ or improved recently to identify with the data analysis a set of success factors that constitute coherent policy and its implementation which can inform the scoreboard's qualitative indicators.

The study therefore identifies from the analysis priority areas that are key for implementing reforms and provides policy conclusions drawing on the case studies and data analysis as well as providing the outputs Box 1.1 below.

Box 1.1: Study Outputs

A quantitative analytical tool (scoreboard) building on the data collected and the identification of success factors from the data analysis and evidence review (Section 5)

A set of qualitative criteria/success factors of effective adult learning policies which reflect the evidence review and from the evidence review and case studies identify effective implementation of adult learning policy reforms (Sections 2 and 3)

Ten country case studies which draw out strengths and weaknesses to inform effective implementation of adult learning policies (Section 2)

A final report including the analytical tool, guidelines on the use and application of the tool, and conclusions and recommendations to improve adult learning policies and their implementation based on the analysis done to develop the tool (Sections 5 and 6)

A concise literature review of the knowledge base which underpins the approach taken to develop the tool and identify the success factors and a review of indicators and benchmarks to provide the overview of performance in the analytical tool (Sections 2

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

and 4)

1.2 Policy context

This study will contribute to one of the key priorities within the European Agenda for Adult Learning for the period 2012-14 which is to 'improve the knowledge base on adult learning and monitoring the adult learning sector'³. This is in the context of:

- The Council's Resolution on a Renewed European Agenda for Adult Learning and the more recent Commission's Communication, Rethinking Education⁴ adopted in 2012 which draws out the significance of adult learning to economic challenges facing Member States but the difficulties of adequately monitoring the adult learning sector;
- The adoption of the Europe 2020 Integrated Guidelines on Economic and Employment Policies, which set out the framework for the Europe 2020 strategy and reforms at Member State level; and
- The commitment to strengthen the Open Method of Coordination (OMC) and the European Semester which draw on the actions to provide comparative data to monitor progress towards improvements in adult learning including the ET2020 target and high quality country analysis to support Member States to implement effective adult learning policies.

Rethinking Education draws attention to significant underperformance and identifies areas where joint actions are required in the adult learning sector to reduce the low skilled. The Communication highlights that '73 million adults have only a low level of education'. It also highlights the (still) low participation rates in lifelong learning across the European Union (EU) well short of the European benchmark⁵ with the EU average of only 8.9% of adults participating in lifelong learning. In some countries fewer than 5% of adults are participating.

The results of the OECD Survey of Adult Skills (PIAAC) highlight also both the low level of basic skills of many adults and the significant differences in competences between countries and between socio-economic groups within the EU. This suggests that many adults are not learning to maintain or increase their basic competences after they have left compulsory education.

As Rethinking Education sets out, adult learning is important for both human and social capital. Adult learning can build people's skills and competences for use in the labour market as well as their lives outside of work including how they manage their health and wellbeing and what they contribute to civil society. They can enable innovation and enterprise which can stimulate economic growth. Adult learning can also be expected to affect people's attitudes to work, learning and the community they live in and in turn their behaviours. All of these mean that adult learning is of interest to a wide range of government interests and policies.

³ OJ (2011/C 372/01)

⁴ Commission Communication Rethinking education: investing in skills for better socio-economic outcomes http://ec.europa.eu/education/news/rethinking/com669_en.pdf

⁵ Among the five benchmarks defined, adult learning was set the objective of reaching an average of at least 12.5% of adults participating in lifelong learning by 2010. In 2009, the EU Member States agreed to raise this benchmark to 15% to be attained by 2020, as part of the strategic framework for cooperation in education and training ('ET 2020')⁵.

To **strengthen the OMC** it is evident that the means for this (peer learning, benchmarking, guidance publications, expert networks, mutual learning etc) must be founded upon an evidence base of existing research which provides understanding of the effectiveness of strategies and policy actions that achieve the expectations of Rethinking Education and has mechanisms, such as the proposed analytical tool, to link research evidence and benchmarking data to policy.

What the reviews of the OMC (Lelie and Vanhercke 2013, Public and Policy Management Institute 2011) and the use of research evidence in policy making suggest (Gough et al 2011, European Commission/OECD 2013) is that:

- Hard pressed policymakers do not have policy relevant research available to them in a form which they can use;
- There are weaknesses in the collaboration and coordination of evidence to inform policy making;
- There are weaknesses in the quality of evidence some of which is commissioned by policy makers, either because it does not measure the outputs and outcomes of education policy or it does not seek to;
- Benchmarking tools, drawing together international research evidence in ways which can make it usable, and quality assuring empirical research are recognised as means which ought to improve the effectiveness of policy actions.

1.3 Shaping the study

Adult learning policies, like any other policies, need to be *effective* in reaching their objectives and having their desired impacts. Their outcomes and impacts need to be defined. But to be sure that they are successful in achieving these, it is necessary to understand the performance of adult learning policies. Like other policies, a first step to understanding their performance is to determine whether there is a relationship between different policy actions and their outputs and outcomes and a second step is to identify the extent of the relationship.

Therefore a key step in the work to develop an analytical tool is to define a conceptual framework for effective adult learning policies which reflects the currently existing knowledge base. For policy makers and the research community that support them it is important that such a framework is based on evidence of how adult learning policies and actions increase adults' participation in learning and the competences they gain from the learning which they can use in their lives. It is also important that the conceptual framework captures the relationships between such policy actions and their impacts.

1.3.1 Developing a conceptual framework

A conceptual framework is best thought of as something that explains the main things to be studied – key factors, concepts or variables, and the presumed relationship among them. The purpose of a conceptual framework is to demonstrate those high level relationships in a sequenced, interlinked manner, which simplifies but still represents how adult learning policies function effectively.

To arrive at the understanding necessary to underpin a conceptual framework, we need to use evidence to determine the relationships between different policy actions and measurable outputs and outcomes. This means that the main benefit of a conceptual framework is that it represents, in a simplified form, evidence of "what works" in achieving effective adult learning policy. This can assist policy-makers in designing policies that are effective in achieving their aims.

The conceptual framework to be developed for this study must:

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

- Provide a high level structure for the understanding of adult learning policies;
- Provide a framework for the collection of data for the monitoring of adult learning monitoring as well as enabling extensive comparative analysis; and
- Demonstrate understanding of how outputs and outcomes of adult learning are achieved effectively and which inputs and activities deliver them.

In order to assess the effectiveness of adult learning policies, the conceptual framework will:

- Define "effectiveness in adult learning policy", in terms of achieving outputs and the economic and social outcomes expected for beneficiaries, such as learners, employers and the community, from learning activities;
- Capture most of the key elements and policy actions (inputs and activities) which evidence suggests are critical to the achievement of key outputs and outcomes around adult learning;
- Clearly relate inputs and activities (policy actions) to outputs and outcomes and describe these linkages with logical and evidence-based explanations;
- Broadly relate policy actions to stages in the process of adult learners participating in learning and then achieving improved competences and outcomes for both the learner and other parts of society; and
- Clearly show the linkages between policy actions and outputs and outcomes.

It is important to note that the purpose of the conceptual framework is not to be a theoretical reflection on those elements that have been thought to contribute to effectiveness in adult learning. Rather, the basis of the conceptual framework needs to be rooted in evidence which clearly identifies certain policy actions and activities as being successful in achieving an effective adult learning system.

Equally, it cannot be expected to capture everything (such as all adult learning pathways and all sub-groups of learners), so a balance has to be struck between specificity and overall comprehension. Therefore it should provide the superstructure for disaggregating policies, adult learners and types of learning.

1.3.2 What are the design options for a suitable conceptual framework?

Examples of possible design options include the following:

- A **learner journey** model which would present those policy actions that affect different stages of the adult learner journey from understanding needs and identifying learning available to applying for and participating in, and then completing learning, recognising the knowledge, skills and competences gained, identifying uses and then applying them;
- A **policy progress** model which would present each policy action as well as each stage in its implementation and then the resultant output and outcome. As such, each group of policy actions in the model could be monitored to determine progress in achieving that particular action, as well as monitoring progress towards the outcome;
- An **outcomes-strand** model which would present the usual logic chain between inputs, activities and outputs. In this, the outcomes presented are categorised according to the various beneficiaries, e.g. learners, employers, the community and educational providers. This framework can also take account of the different relationships and linkages between inputs and activities; and

- An **input-output model** which would display a logical sequence of actions leading from inputs to activities to outputs and outcomes. Like other models, the individual learner's context as well as the overall economic context is taken account of. In addition, it can set out how barriers to participation in adult learning can be overcome, such as the importance of guidance for learners.

There are advantages and disadvantages with each model. To start the process of development and consultation, it was decided to design the model in a way which would draw on features of the policy progress and outcome strand models so that it could have:

- An explicit theory of change showing how progress is made from policy actions in the adult learning system towards outputs and outcomes which can assess effectiveness;
- An understanding of policy actions which contribute to effective adult learning based on evidence of attribution and relationships to be based on the evidence drawn together in the study;
- Each policy action identified as contributing to effective adult learning which could be presented as a 'building block' in the overall model and grouped with others which contribute to a 'success factor';
- Outcomes categorised according to the various beneficiaries of adult learning e.g. learners, employers and the community.

As the iterative process of drawing on the research evidence and consulting with policy makers and experts took place over several stages, some design features changed as well as the content. It was recognised after the first iteration, for example, that to maintain ease of understanding the model could not capture everything (all linkages between policy actions, all pathways for adult learning, all types of adult learner/learning) nor was there sufficient evidence to map the linkages between policy actions towards effective adult learning and the strength of these linkages (which policy actions had most effect on the outputs and outcomes). The various iterations are contained in Annex 5.

1.3.3 How can we assess the success of the conceptual framework

In order to ensure that the conceptual framework meets the objectives set out for it in section 1.3.1, its features must be considered against its overall purposes. To do this, a set of criteria were developed by which each iteration of the framework was assessed were developed. They are as follows:

- **Conceptual insightfulness to policy makers and experts:** The framework should clearly depict the policy actions and activities that lead to effective adult learning and demonstrate a clear understanding of the outputs and outcomes associated with adult learning as well as effectiveness in adult learning. It should also be able to demonstrate the relationships/linkages between inputs and activities and outputs and outcomes, which in turn reflect evidence of successful policy actions which deliver successful learning outcomes for adults.
- **Usability:** The framework should be easy to use as a model to develop and identify a set of measures that can be used to monitor effectiveness, as well as the achievement of outputs and outcomes and progress towards these.
- **Transferability:** It should be possible to use the framework to analyse the effectiveness of adult learning policies at different levels of geographical analysis (e.g. Member State or region). It should also be possible to use the framework as the starting point to analyse different levels of detail in the linkages in the framework.

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

- **Practicality and usefulness:** The framework should be useful tool which can be used by policy makers to improve policy and implementation. While the chosen framework may not capture everything, such as all adult learning pathways and all sub-groups of learners, it should provide the superstructure for disaggregating policies, adult learners and types of learning in an analytical tool. Policy makers should consider the framework as a help in understanding the challenges to be addressed.
- **Ease of understanding:** The framework should be easy to understand, in terms of representing the elements of the adult learning system which contribute to effective adult learning policy. It should also be easy to understand, in terms of the relationships and linkages between policy actions which need to be successful to produce the desired outputs and outcomes of adult learning.

1.4 Definitions for adult learning

For the purposes of this study, the following definitions are used:

- **Adult learning:** 'the entire range of formal, non-formal and informal learning activities which are undertaken by adults after a break since leaving initial education and training, and which results in the acquisition of new knowledge and skills'. This is taken to exclude the deferral of further or higher education by young people taking a gap year but to include adults entering vocational or higher education after they have undertaken work and all learning after they have entered the workforce or started the search for employment. Therefore, adult learning will include a proportion of adults aged between the end of compulsory schooling and about the age of 25⁶ and all adults thereafter (since all adults might be expected to engage in these types of learning).
- **Types of learning:** though no commonly agreed definition exists, formal, non-formal and informal learning are broadly understood as follows (or as shown in Figure 1.1):
 - Formal education: type of schooling provided in the system of primary schools, secondary schools, universities and other educational institutions that leads to attaining an official qualification, recognised on a National Framework of Qualifications. As Eurydice (2011) reflects, formal adult education can include education and training programmes leading to certificates/qualifications equal to those obtainable through the school or academic system;
 - Non-formal learning: organised and sustained educational activities which do not lead to attaining an official qualification. Non-formal education may take place both within and outside educational institutions and caters to all age groups⁷;
 - Informal learning: learning which is generally without tutoring, intentional, but less organised and less structured. This may include for example learning activities that occur in daily life (in and out of work) provided the learning is intentional.
- **Adult learning policy:** 'A course or principle of action, adopted or proposed by government institutions(s), focused on the area of adult learning in general, or to

⁶ This is the age by which almost all adults will have ended their formal education and started work.

⁷ This can mean that courses which do not lead to a 'qualification' positioned within a National Framework of Qualifications, such as basic skills courses may be treated as informal learning in some countries and formal in others

any sub-sector of adult learning in particular'. For this review in which we need to identify conditions which have positive effects on participation and outcomes for adult learners we ought to limit it to actions which have been adopted.

- **Effectiveness:** Effective adult learning policy can be demonstrated as:
 - **Outputs**, such as an increase in participation levels and the competence levels achieved among the adult population;
 - The longer-term educational outcomes/ impacts achieved:
 - Those **“social” outcomes/impacts** which arise from the use of knowledge, skills and competences gained in civic, voluntary and community life; and
 - Those **“economic” outcomes** related to labour market integration, increased wages and the use of knowledge, skills and competences in employment.

It is important to note that these two sets of outcomes are not mutually exclusive. In addition, policy actions that are relevant must contribute to the journey towards achieving such outputs and outcomes. For example, a policy action may result in people beginning to enquire about learning, rather than participating immediately in learning. Even so it still has a role in bringing about an increase in participation and contributing to effective adult learning.

It is also accepted, that adult learning can take place in a variety of settings, from established institutions like schools and colleges to the workplace to community halls, adult education institutes and community learning centres.

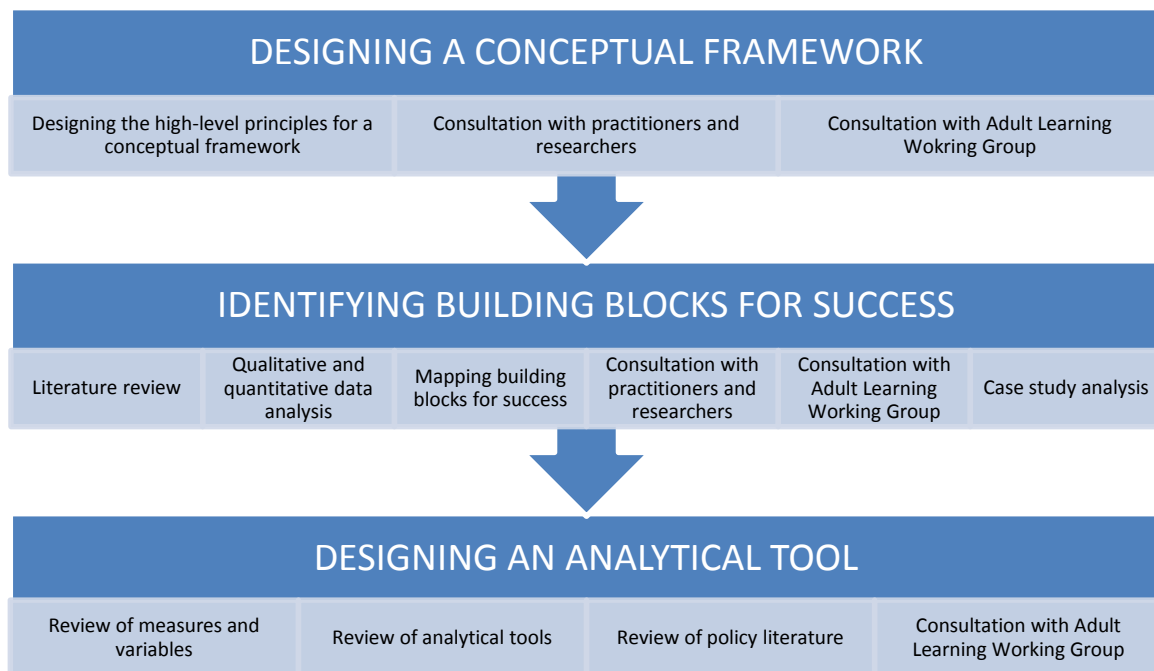
Figure 1.1: Types of adult learning



Source: Boeren (2011)

1.5 Methodology

The research carried out reflected the study aims and objectives and the study outputs set out above in section 1.1. The key tasks and their development are reflected in 0 and are outlined below.

Figure 1.2: Study methodology**1.5.1 Literature review**

To identify a set of sources for initial review, the study:

- Identified publications published or commissioned by the European Commission pertaining to the effectiveness of adult learning policies;
- Used Google Scholar and EBSCO to systematically search a range of international academic full text and abstract databases;
- Drew on the work of organisations such as the OECD, UNESCO, the World Bank and CEDEFOP as well as studies undertaken in the context of European research programmes and instruments.

These sources primarily identified peer reviewed research. However, they also include research and evaluation studies commissioned by government departments and agencies and third sector organisations in Europe and beyond.

Box 1.2 below sets out how the thinking behind the conceptual framework was translated into the critical review of the research literature.

Box 1.2: Criteria for research evidence to be included

In deciding on which sources to include for detailed review, each item had to show how the effectiveness of a policy action had been achieved and so:

- Empirically measure and assess the effect of adult learning policy actions, demonstrating compelling evidence of a causal relationship; and
- Demonstrate a relationship between adult learning and the expected outcomes OR between particular policy actions and their expected outputs and outcomes.

After a preliminary review of 150 items identified as relevant, a critical review of their quality and relevance identified 93 sources for inclusion in the final literature review,

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

which satisfied the criteria set out in Box 1.2 above. The sources are listed in Annex 1. Because of the need to identify empirical studies with compelling evidence of causal relationships, we have drawn significantly on meta-evaluations and literature reviews related to adult learning, research studies and evaluations of policy actions using quantitative and qualitative data, and quantitative analyses of statistical relationships between aspects of adult learning and the expected outcomes.

The material we have drawn on is international in nature and includes evidence from a range of countries both inside and outside the European Union which has been written in a wide range of European languages.

For the evaluation of policy actions, studies which have drawn conclusions from meta-reviews of robust evaluations provide more compelling evidence than single studies. Evaluation studies with counterfactual quantitative evidence⁸ of a significant causal impact provide more compelling evidence than studies which measure change before and after the policy action. Research studies which are sufficiently large in scale (for example adopting adequate sample sizes to enable robust statistical analysis, or based on sufficiently in depth case studies to allow full explanation of findings) and studies providing similar results in different contexts using mixed methods are stronger evidence than small scale studies dependent on qualitative data which has not been collected systematically. Thus different studies can be compared and ranked based on the quality/strength of evidence provided.

The approach to ranking the quality and robustness of the evidence is modelled on that of the Maryland Scientific Methods Scale⁹. This is a five-point scale used to classify the strength of scientific evidence in establishing causality. Table 1.1 describes the standards broadly set for the evidence reviewed as well as the notation used throughout the report.

Table 1.1: Strength of evidence demonstrating a causal effect

Type of study	Strength of evidence
Studies which have drawn conclusions from meta-reviews of robust evaluations	+++++
Evaluation studies with counterfactual quantitative evidence of a significant impact	++++
Studies which measure change before and after the policy action, controlling for other factors and which have large samples for robust statistical analysis	+++
Research studies which are based on sufficiently in depth case studies to allow robust qualitative assessments	++
Small scale studies dependent on qualitative data which has not been collected systematically	+

⁸ Counterfactual quantitative analysis is a comparison between what actually happened and what would have happened in the absence of the policy action/intervention using quantitative data.

⁹ The Maryland Scientific Methods Scale is a 5-point scale used to evaluate the methodological quality of studies. Further discussion of this approach can be found here.

We found that large-scale quantitative studies that evidence relationships between adult learning policy actions and outcomes are not plentiful. We have also found that there are relatively few previous impact assessment studies or reports on the effects of reform in adult learning policies.

1.5.2 What does a conceptual framework need to look like to achieve this?

Having set out the purpose of a conceptual framework in analysing effectiveness in adult learning, the next step is to give some thought to what the shape of a framework might look like. Considering the purposes of a conceptual framework described above, a model framework of an adult learning system must show the **linkages** between:

- Policy actions and their implementation;
- Intentional learning undertaken by adults in all its forms, either formal, non-formal or informal, and the structures to support this learning;
- The outputs, such as participation in adult learning and achievement of qualifications and competences;
- The outcomes, such as the use of competences gained in obtaining employment, raising productivity or enhancing active civic engagement; and
- The different parts of society that benefit from these outcomes.

This is broadly a logic model or theory of change model – a depiction of the logical relationships between the resources used, activities undertaken, outputs delivered and outcomes achieved.

The design of the framework should draw on evidence about which policy actions have an impact on these outputs and outcomes.

As a consequence this report draws on an in-depth review of the research evidence on the linkages, what the data on the outputs and outcomes of adult learning tells us about the linkages, and what case studies of 10 European Member States tell us about how policy actions are successful as well as researcher and practitioner feedback on versions of the conceptual framework presented in the interim report of this study and consultation with the European Commission’s Working Group on Adult Learning.

1.5.3 Qualitative and quantitative data review

Using the same definitions as in the literature review, a comparative analysis of qualitative and quantitative data for each country provides an opportunity to:

- Draw out the challenges facing countries in relation to adult learning;
- Explore trends in adult participation in education and training;
- Consider the relationships between trends and patterns and recent policy actions; and
- Identify relationships between: adult education and training inputs (activities, expenditure) and the participation rate; and the participation rate in adult education and training and outputs and outcomes expected from adult education and training (skills, competences achieved and the effect of their application).

It is recognised that much of this analysis is not new (the data having underpinned EU and national policies in recent years) though the context here of establishing linkages and success factors for the conceptual framework casts a new light on some of the material.

For the quantitative analysis, the most recent data available (as well as historical data to identify trends) has been drawn from: the Labour Force Survey (LFS), the Adult Education Survey (AES), the Organisation for Economic Cooperation and Development (OECD) Education at a Glance and Programme for the International Assessment of Adult Competencies (PIAAC) data, Eurofound Second European Quality of Life survey data, EU Statistics on Income and Living Conditions, Social Progress Imperative data, European Parliament election turnout data, and Eurostat annual national accounts data.

For the qualitative analysis, a set of fact sheets for 37 countries was compiled from published material about policy actions and country level research.

1.5.4 Case study analysis

Ten country case studies¹⁰ were carried out which present a more detailed analysis of recent national-level policies and strategies in the field of adult education where at national level there was evidence that policy actions had increased participation and improved adults' competences.

As a consequence, the case studies were selected on the basis of trends in participation and evidence of active policy actions which could be expected to have influenced these improvements. With the need to build on the evidence base particularly for policy actions with limited evidence as well as to validate the conceptual framework in different national contexts, the final selection ensured a range of contexts and strategic aims (for example around the unemployed, vulnerable groups, participation, low skilled, higher level work skills).

The analysis focused on the processes, achievements and shortcomings of the different national-level policy actions presented in the country case studies in order to:

- Confirm the extent to which they match components of the draft conceptual framework;
- Identify 'performance enablers' such as causal links between the conceptual framework's components or features of implementation which underpin policy success;
- Identify any evidence which may supplement the research-based findings underpinning the conceptual framework;
- Draw out the extent that policies reflect the success factors in the conceptual framework and identify both strengths and weaknesses which could inform recommendations on making policies more effective.

1.5.5 Measures and variables

In order to identify suitable measures and variables to include in the analytical tool, we reviewed all major available international databases related to employment, education and societal outcomes. These are principally the:

- Adult Education Survey (AES);
- Adult Skills Survey (PIAAC);
- Continuing Vocational Training Survey (CVTS);

¹⁰ The ten countries covered are: Austria, the Czech Republic, Denmark, Estonia, France, Hungary, Ireland, The Netherlands, Portugal and Spain. With a limited number of days per case study, the research examined published material on the policy actions and overarching strategies and published data and supplemented this with telephone interviews of policy makers and researchers with an overview of adult learning in the country.

- European Labour Force Survey (EULFS);
- European Company Survey (EUCS);
- European Statistics on Income and Living Conditions (EU SILC);
- European Working Conditions Survey (EWCS);
- Gallup World Poll (GWP);
- Labour Market Policy database (LMP)
- UNESCO/OECD/EUROSTAT (UOE) database on education statistics; and
- World Value Survey (WVS).

We also reviewed a large number of publicly available documents on various aspects of adult learning. In particular, we have thoroughly reviewed studies, reports and website content made available by:

- Cedefop;
- The European Commission;
- Eurydice;
- The OECD; and
- UNESCO.

Many of these sources have provided useful insights for the development of the conceptual framework but not generally yielded qualitative information that could be considered in a tool.

Feedback from the European Commission Standing Group on Indicators and Benchmarks is also incorporated in this report.

1.5.6 Systematic review of online tools

We reviewed a range of online policy analytical tools and scoreboards to examine possible functions that an analytical tool might have and what data is needed. These included examples of tools from the adult learning sector as well as other tools or scoreboards for other policy areas that are used at a European level. Our inclusion criteria were that each had to:

- Provide data on a set of both qualitative and/or quantitative indicators;
- Present it on an online platform; and
- Demonstrate comparisons between different countries and/or regions.

We identified nine tools or scoreboards for inclusion:

- European Lifelong Learning Index;
- Composite Learning Index (Canadian Council on Learning);
- European Commission Single Market Scoreboard;
- European Commission dashboard of indicators on youth policy;
- Mapping of EU Member States Higher Education External Cooperation Programmes and Policies;
- European Massive Open Online Courses (MOOCs) Scoreboard;
- European Service Innovation Scoreboard;

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

- Digital Agenda for Europe Scoreboard; and
- European Commission State Aid Scoreboard.

Data was recorded on each scoreboard/tool as follows:

- The organisation that operates it and whether or not the tool/scoreboard is still live;
- The purpose of the tool/scoreboard;
- The intended audience of the tool/scoreboard;
- The data and information presented as part of the tool/scoreboard;
- Notable features of the tool/scoreboard that make it interactive or user-friendly; and
- Whether the tool/scoreboard can be updated.

Using this review helped us to identify “best practice” features as well as principles that would underpin design of the adult learning tool. We then considered four possible design options for a tool, as well as criteria by which these options would be assessed.

1.5.7 Researcher and practitioner feedback

We undertook a number of activities to validate the framework, test the findings of our evidence review, check the choice of indicators and to incorporate feedback from researchers and practitioners.

Consultations

Two online consultations were open from 16 June to 13 July, and from 20 October to 17 November 2014. The first consultation concerned the overall design of the conceptual framework and the second provided an overview of the evidence identified to underpin the framework. Both papers took the form of a discussion paper with a set of structured questions for invited respondents to consider. Responses were invited from members of the ET2020 Working Group¹¹ on Adult Learning, academic experts in the field of adult learning, stakeholders in adult learning from individual Member States and social partner organisations.

Table 1.2 shows the number of respondents by category for each of the consultations.

¹¹ As part of the Education and Training 2020 (ET2020) Open Method of Coordination, the Commission and Member States cooperate in the form of Working Groups. Working Groups are designed to help Member States address the key challenges of their education and training systems, as well as common priorities agreed at European Level

Table 1.2: Consultation respondents

Category	Number of respondents to 1 st consultation	Number of respondents to 2 nd consultation
ET2020 Working Group	17	12
Academic experts	12	8
National stakeholders	24	16
Other	2	0
Total	55	36

These have been analysed to review the design and content of the conceptual framework and the approach to developing the analytical tool.

In addition to the two online consultations, members of the Standing Group on Indicators and Benchmarking (SGIB) were consulted on the proposed measures and variables identified for the adult learning tool. This consultation was open from 11 November to the 25 November and feedback from respondents was incorporated into the choice of measures and variables.

Meetings with the Adult Learning Working Group

We also participated in workshops with members of the Adult Learning Working Group on the following dates: 13 May; 16 September; and 25 November 2014 and 21 January 2015. These workshops were part of an iterative process meant to allow members of the Working Group to contribute to the development of the framework and the tool.

Each of these meetings had a particular theme and agenda. Meetings featured presentation on the progress of the study and what was being achieved as well as interactive sessions to collate feedback and gather supporting information.

The main themes at each meeting were as follows:

- The May meeting focused on the high-level design of the framework;
- The September meeting presented the results of the evidence review and high-level design principles for the tool;
- The November meeting focused on the standards of evidence underpinning the framework and the principles that should underpin the choice of measures for monitoring; and
- The January meeting presented a final version of the conceptual framework, provided an overview of the measures and variables to be used in the tool and described the functionalities of the tool.

1.5.8 Policy literature

From our review of the research literature, we found that some policy actions are successful because they have certain ingredients or they are being taken forward in association with other policy actions. However these ingredients of policy actions or separate policy actions often only indirectly contribute to effective adult learning, rather than having a direct impact. This means that their impact cannot be measured on their own in relation to, for example, participation in adult learning and learning outcomes, as described in section 1.5.2.

Drawing on feedback from practitioners and researchers in the field of adult learning as well as searching the work done by organisations such as Cedefop and the OECD, we were able to identify a number of items of “policy literature” to review. This policy literature includes policy handbooks and best practice guidelines which draw on evaluations to some extent and more frequently practitioner and expert views of what are the ingredients of effective policy actions in adult learning.

We used this policy literature to identify performance enablers which indirectly lead to effective adult learning, but for which no direct evidence of their impacts exist. The findings from this were used to complement the research evidence.

1.5.9 Limitations

While the study has included a comprehensive set of research tasks, there are some limitations which we have identified which affect the ability of the study to meet all its objectives.

In relation to the research literature, the constraints are around the availability and quality of evidence. With the former, the following has arisen:

- The difficulty in attributing adult learning outputs and outcomes to certain types of policy action or measuring the size of their effects. This is particularly the case with actions, such as strategy development and coordination and training and developing the teaching workforce, because the effects of these will be indirect and evident only in the long-term;
- The lack of studies for some common policy actions which evaluate or measure their effect because measurement of their effects is challenging or because such evaluations have not been commissioned; for example, evidencing the impact of policy co-ordination and wide ranging adult learning strategies could prove challenging while laws and regulations about employer contributions to training, qualifications, and teacher qualifications, for example, in most countries are not routinely reviewed and evaluated against their intended outcomes;
- The rarity of meta-studies which bring together evaluations and impact assessments of policies which have been systematically and commonly performed in a number of countries (either in the EU or elsewhere). These would enable a comparison of research studies in relation to the quality of their evidence as well as their consistency to draw wider lessons.

The quality of evidence as indicated above is also variable. With very few meta-reviews of studies of adult learning policies as well as very few large-scale quantitative studies that evidence relationships between adult learning policy actions and outcomes and relatively few impact assessment studies of reforms in adult learning policies, lower quality evidence has been considered (including the policy literature referred to in section 1.5.7). This particularly included the views of researchers and policy makers about policy actions that have an indirect effect on the outcomes and policy actions that are widely considered to be ‘good practice’ in developing adult learning policies. To take account of this variation in the quality of evidence, we have indicated in the framework where relatively strong and weak evidence is available. This is discussed further in section 3.

The case studies were able to provide supplementary evidence to show relationships between policy actions and effective adult learning which also reinforced the evidence from the research literature. This however would have been far stronger if the research had sourced more and/or better quality published evaluative evidence of policy actions undertaken by Member States to support the insights and conclusions drawn about their success by practitioners (where these have been fully implemented). As such material is lacking, it is more difficult to assess how well policy actions have worked and provide

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

strong evidence which would stand up to the standards set out in Table 1.1 above for the research literature. Equally if the study had compared the countries featured in the case studies with other countries where there had not been improvements in participation, it might have been possible to draw out features of success (Raffe 2011).

The limitations of the evidence available have implications for the following:

- The extent to which the framework can be considered to reflect reality. It should be recognised that the framework is not intended to be “static” but is a reflection of what is known now, i.e. the evidence that is available up to 2014. As the extent and quality of available evidence improves, the framework should be expected to change to reflect new as well as improved evidence of policy making. As such, the framework ought to evolve with time. This will result in changes to the framework that will improve its analytical power;
- The ability of the case studies to provide qualitative evidence of the successful implementation of policy actions and inform the development of the conceptual framework and policy conclusions. The case studies more broadly indicate the need to improve evidence based policy making. An improved evidence base will lead to improvements to the framework as well as to the tool.

1.6 Structure of the report

The report is structured as follows:

- Section 2 presents the findings of the research tasks undertaken and how the research evidence and case studies have informed our understanding of adult learning systems and policies;
- Section 3 presents the conceptual framework for the analytical tool which has emerged from the research evidence;
- Section 4 presents the measures and variables for inclusion in the analytical tool and discusses the availability of measures;
- Section 5 presents the concept for the tool and shows how it can be used;
- Section 6 draws out the conclusions; and
- Section 7 presents the recommendations.

The report is supported by the following annexes:

- Annex 1 presents the sources included in the literature review;
- Annex 2 presents the results of our quantitative data analysis;
- Annex 3 presents an overview of the studies that we used to inform our research about the system features of adult learning that increase participation and the outcomes that can be achieved from participation;
- Annex 4 presents an overview of the studies that we used to identify those policy actions that have been successful in bringing about increased participation in learning;
- Annex 5 presents previous versions of the conceptual framework developed during the study; and
- Annex 6 presents the detailed systematic review of online tools;
- Annex 7 presents a set of user guidelines for the tool;

- Annex 8 presents all the measures and variables considered for each of the building blocks; and
- Annex 9 sets out the technical recommendations arising from the study.

2 Understanding and analysing adult learning systems and policies

This section draws on the literature and policy reviews, the country case studies and the analysis of data on adult learning to provide a concise review of the knowledge base, and to identify success factors that underpin effective adult learning that will help policy makers. It thus uses the evidence base to derive success factors and broad related policy actions that should feature in the conceptual framework proposed to shape the analytical tool.

It begins by setting out briefly what the data and policy literature tell us about the state of adult learning in the EU and policy responses adopted by Member States towards achieving effective adult learning. It then draws on the literature and policy reviews, the case studies and an analysis of data to identify what factors and what policy actions lead to positive outcomes for adults, their employers and communities from learning. In the final part, it reflects on the evidence available to inform a conceptual framework in the context of accepted good practice on evidence based policy making.

In the second substantive part of this section, we examine the evidence from the literature and data analysis at three levels. This is organised principally in response to the nature and quality of the evidence on the effectiveness of adult learning. Some of this seeks to relate the outputs of adult learning (participation principally¹²) to system features, some focuses on the outputs themselves in relation to outcomes (which can be economic as well as relating to wellbeing for both individuals and the community), while some of it seeks to relate the outputs and outcomes of adult learning to specific policy actions.

With the first of these, insights are gained into the factors that lead to an overall increase in participation in adult learning. With the second it's insights into the outcomes and impacts that can be associated with participation in learning, for different beneficiaries, including the learner, employers and the community. With the third it's the policy actions that lead directly to an increase in participation or qualifications and the outcomes arising from these, but also those that contribute to the journey towards achieving these; for example policy actions which do not directly improve participation but are found to enable other policy actions to bring that about.

In the third and fourth parts of this section, we examine the evidence from the case studies and policy literature respectively particularly where it adds to the evidence from the research literature about the success factors and policy actions that contribute to effective adult learning.

2.1 Context of adult learning systems and policies

A brief overview of participation in adult learning and the policies and strategies in place to increase participation and improve adults' skills in the EU provide the context for this section's analysis.

2.1.1 Comparative analysis of adult learning

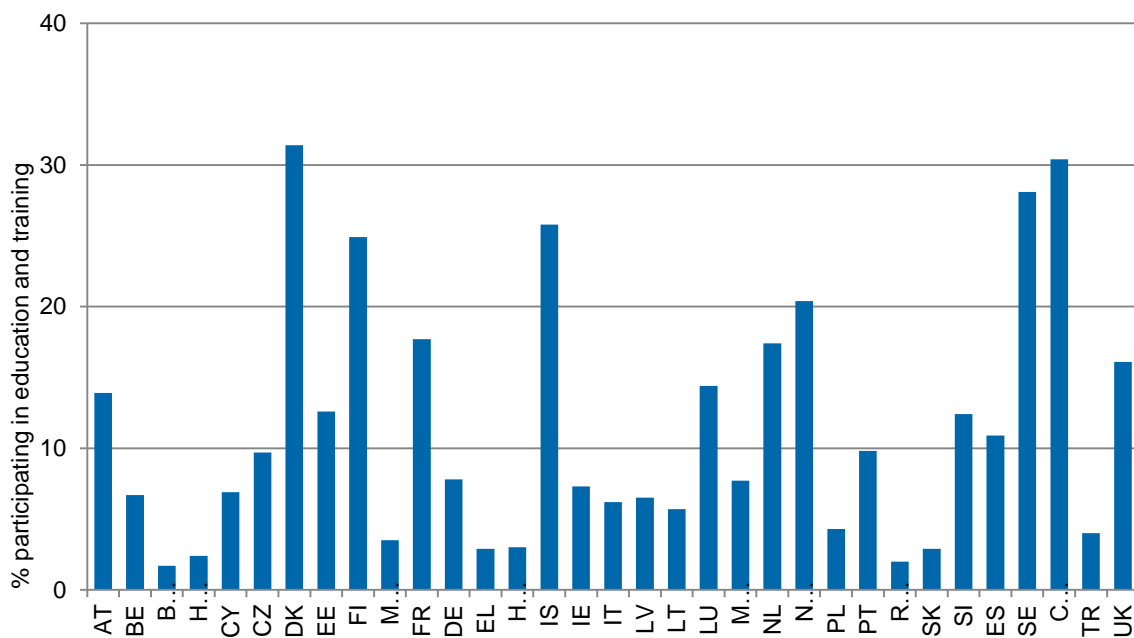
Participation in adult learning is measured differently in different surveys. While the LFS uses a 'past 4 weeks' reference period, the AES asks respondents about participation in adult learning activities in the past 12 months. Also, surveys differ with regard to the

¹² While participation is not the only 'output' of learning (knowledge, skills, qualifications, attitudes and ambitions are other outputs) the availability of data on participation means that this can be studied in relation to system features such as investments in training. If the PIACC survey is repeated, then it will also be possible to examine these in relation to competences.

type of learning activity they include in their definition of adult learning. While the LFS definition of adult learning excludes guided on-the-job learning and requires formal education to last for at least 6 months in order to be included, this is not the case for adult learning activities measured in the AES. As a result of these differences, the AES-based participation rate is generally found to be higher than the LFS-based participation rate.¹³ The ET2020 benchmark¹⁴ is based on the LFS definition of participation in adult learning.

There is considerable variation between countries in terms of the participation rate in adult learning. Figure 2.1 presents the percentage of adults who participated in education and training in the last four weeks of 2013. Participation is particularly high in Denmark, Switzerland, Sweden, Iceland, Finland and Norway. Higher rates in northern countries contrast with lower levels of participation in many eastern European countries, with Bulgaria, Croatia, Greece, Romania and Slovakia all having fewer than 3% of adults participating in education and training.

Figure 2.1: Percentage of people participating in education and training in the last four weeks, 2013



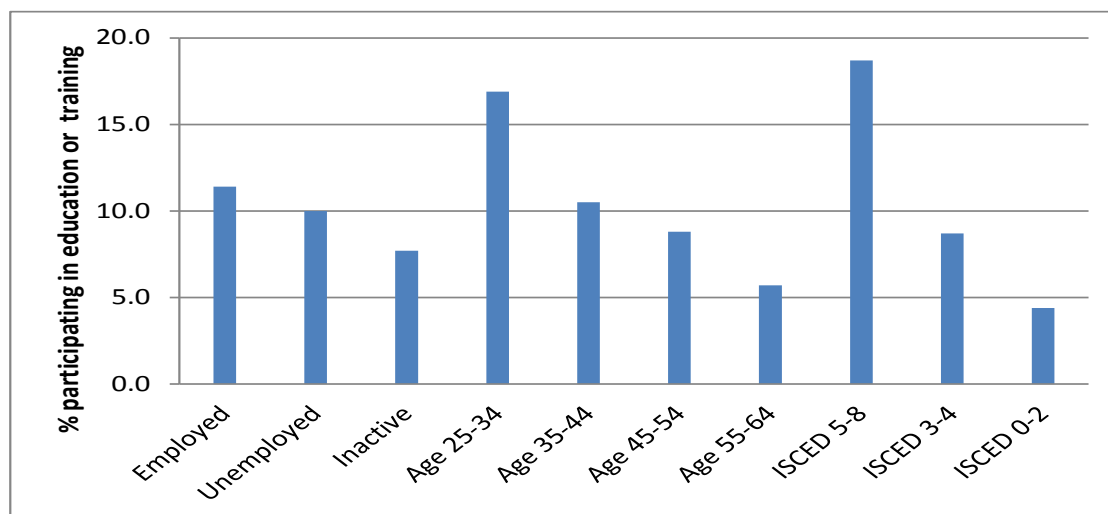
Source: Labour Force Survey, 2013

Participation in education and training varies between different groups of adults, as displayed in Figure 2.2. This shows considerable differences in participation between those aged 25-34 and those aged 55-64 and between the more highly qualified and the lower qualified. These differences have persisted for a long time.

¹³ For a more detailed analysis see <http://publications.jrc.ec.europa.eu/repository/handle/JRC92330>

¹⁴ The ET2020 benchmark for adult education is that at least 15% of adults should participate in lifelong learning by 2020.

Figure 2.2: Percentage of people participating in education and training in the last four weeks, 2013, by socio-demographic group (EU-28 average)



Some of the key patterns we have identified are as follows:

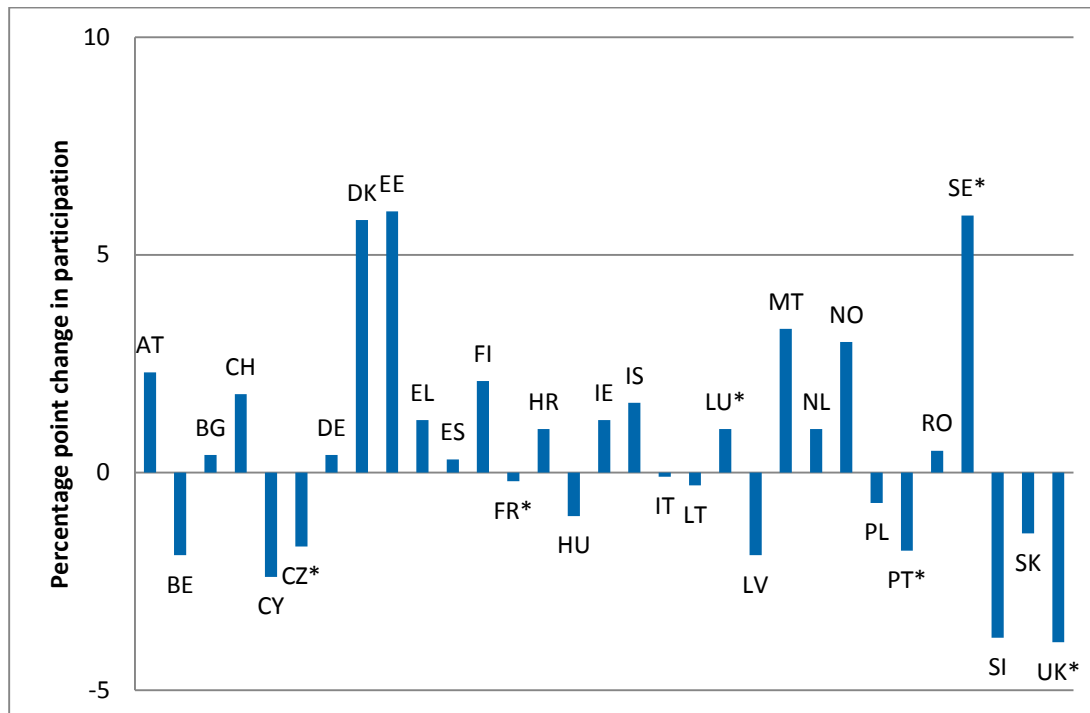
Participation in education and training decreases with age. Younger people (aged 25-34) are more likely to take part in education and training than older people (aged 55-64). The highest level of participation in education and training among those aged 55-64 is in northern countries (Denmark, Finland, Iceland, Norway and Sweden) – very similar to the pattern for adults as a whole;

A similar pattern is visible when comparing people with different qualification levels. In all countries, people with higher qualification levels (at ISCED level 5-6) are more likely to have taken part in education and training than those with low qualification levels (ISCED 0-2), and the difference between the participation rate of these two groups is large in all countries. Again, the highest level of participation among those with low levels of qualifications is in Denmark, Sweden and Iceland;

The participation rate in education and training for unemployed people and employed people is roughly the same in most countries. In a few countries, larger participation differences between the unemployed and the employed can be found. In Austria, Iceland and Sweden the unemployed are substantially more likely to participate in education and training. This contrasts with Finland, France and Switzerland where the employed are more likely to participate in education and training than the unemployed; and

The participation rate is clearly higher for economically active people than for inactive people in the majority of countries. Iceland and Ireland are exceptions as inactive people have substantially higher participation rates than active people in these two countries. In many countries with generally low participation rates, both groups of people have roughly the same relatively low participation rates.

Figure 2.3 presents the change in the overall participation rate in education and training between 2004 and 2013 (unless stated otherwise). This shows that the participation rate in education and training has increased in 18 out of 31 countries, with the largest increases being in Denmark, Estonia, and Sweden. The participation rate has fallen in twelve countries, with the largest decrease being in the United Kingdom.

Figure 2.3: Change in participation in education and training, 2004 to 2013

* Graph shows time interval other than 2004-2013 due to significant break in series: CZ 2011-2013, ES 2005-2013, FR 2005-2012, LU 2009-2013, PT 2011-2013, SE 2008-2013, and UK 2007-2013.

Source: Labour Force Survey, 2004 - 2013

When we examine the change in participation rates by subgroup, we find the following:

- For most countries, where there has been an increase or decrease in the participation rate for 25-34 year olds, there has also been an increase or decrease for 55-64 year olds. However, in four countries (Hungary, Latvia, Lithuania and Finland) there has been a decrease in the participation rate for 25-34 year olds, whereas there have been increases in the participation rate for those aged 55-64;
- An increase in participation in education and training in the ISCED 5-6 group is usually accompanied by an increase in the participation rate in the ISCED 0-2 group. However, there are some exceptions. In Germany, Hungary, Ireland, Italy, Latvia, Poland, and Spain there has been a decrease in the participation rate for people in the ISCED 5-6 group, but increases in the participation rate for those in the ISCED 0-2 group;
- On average, the change in the participation rate moves in the same direction for the unemployed and employed groups. However, in many countries the change in the participation rate for the unemployed and employed groups' moves in different directions. In Croatia, Finland, Malta and the Netherlands, the participation rate for the unemployed group has gone down, whereas it increased for the employed group. In Austria, Germany, Latvia and Poland, the opposite was true.

Data from the AES provides further detail about the type of education and training people are taking part in. The most recent data is for 2011 which shows that participation in non-formal education and training is higher in all countries than formal education and

training. The dominance of non-formal education and training is unsurprising given that most work-related training is non-formal. The highest participation rates in formal education and training are in the UK, Sweden, Denmark, Netherlands, Finland and Portugal. When this data is compared with 2007 data, we see that, in general, any changes to the participation rate in formal education and training are smaller than for non-formal education and training.

2.1.1 National strategies and policy actions

Many countries have been developing and implementing coherent and comprehensive lifelong learning strategies embedding various priorities for adult education in response to EU strategic frameworks (e.g. Lisbon strategy as presented in European Commission (2006), ET2020 as presented in Council of the European Union (2009)) and Commission Communications (e.g. 'It is never late to learn' as presented in European Commission (2006)) over the last ten years (though the definition of adult learning can vary from country to country). However others have only been active more recently in adopting national policies and strategies, a number of which appear to follow the 2014-2020 programming period for EU Structural Funds, particularly the ESF.

There is some diversity in the scope and key policy actions of these strategies; they vary in the extent to which they take into account each of the following elements, for example:

- Improving access to lifelong learning (e.g. by promoting a learning culture amongst adults or targeting excluded adult groups);
- Promoting flexibility and innovative models for adult education (e.g. centred on new technologies, distance learning);
- Recognising non-formal, informal education and prior education;
- Reshaping organisational or institutional setups for effective delivery and monitoring of adult education (e.g. coordination between government and wider stakeholders in the field of education and employment, establishment of one-stop shops such as career guidance agencies, establishment of assessment and certification agencies);
- Enhancing employer engagement and investment; and
- Articulating lifelong learning around wider socio-economic objectives (e.g. modernising the economy, improving competitiveness, reducing unemployment).

Many make relatively strong linkages between these elements and, to varying degrees, link the policy actions in the strategies to improving adults' employability and wellbeing with economic competitiveness.

Policies and strategies in most countries can be grouped as follows:

Wide-ranging adult learning strategies: There is a group of countries with well-established comprehensive adult education policies which include among others Denmark, Finland, Sweden) and the Netherlands. These policies and strategies follow to a large extent the EU recommendations on adult learning as part of lifelong learning. In these countries, the policy actions often centre on innovation and flexibility of learning: i.e. making full use of the opportunities to enhance learning and teaching offered by learning technology and the active engagement and independence of adults in learning of all kinds. Such policies are also often characterised by a bottom-up approach in which the provision of adult education is determined locally.

Strategies to widen participation: In a considerable number of countries, policies have focused on engaging socially excluded learners to improve their employability with the acquisition of basic skills.

Integrating adult learning into other strategies (e.g. employment, competitiveness, transition to work): Comprehensive lifelong learning strategies targeting adults are in some cases a component of wider ranging economic reforms for growth and competitiveness in a number of countries (e.g. Belgium, Bulgaria, and Poland). Coordination with other policies is common practice in countries undergoing general reforms for economic development. This appears to be the case in countries with high or growing unemployment rates where adult learning is usually embedded in employment or labour market activation policies.

Strategies focused on consolidating formal learning and validating non-formal and informal learning (NFIL): Many countries have been implementing the European Qualifications Framework (EQF) and encouraging lifelong learning and progression by promoting the validation of NFIL. Validation and recognition of NFIL is on the rise and is used as one of the tools to motivate adults to engage in further learning. There are also a considerable number of countries where strategies and policy actions specifically refer to the validation of NFIL for entry to higher education and measures addressing qualifications standards and quality assurance in VET to improve quality assurance systems.

Strategies with a strong focus on improving guidance: Many Member States have set up access points (one-stop shops) that integrate various learning services, such as the validation of NFIL and career guidance, and offer to provide tailored learning programmes to individual learners to address skills gaps and employability (as reported in European Commission (2012)). Almost half of the Member States have policy actions in progress or planned for improving guidance to adults.

Strategies focusing on the economically active: There appears to be a stronger emphasis on engaging the employed, unemployed and young adults in learning for economic outcomes perhaps more so in countries with a lower adult participation in lifelong learning (e.g. Italy, Spain) than countries which traditionally have a higher adult participation in lifelong learning (e.g. Denmark, Finland, the Netherlands) which have a focus on widening participation as well.

Fewer countries have strategies to improve educational standards and outcomes in adult learning and specific actions relating to motivating participation (which may act as a barrier to the effectiveness of certain strategies in guaranteeing that various socio-economic adult groups have equal access to lifelong learning).

In most cases, the adult learning strategies described above are focused on achieving a range of outputs and outcomes (e.g. widening participation, enhancing skills and competences, improving coordination in delivery, innovation) depending on each country's specific socio-economic situation. Most countries do not set definite targets and measures in relation to these (Eurydice (2015)) and this must make it difficult for countries to assess the success of their strategies after implementation.

2.2 Achieving effectiveness in adult learning: the research evidence

Below we examine what the research and policy literature and the data analysis tells us about the relationship between adult learning systems and the outputs and outcomes achieved by adult learning systems. In the first sub-section this focuses on what system features increase participation in adult learning (and for different groups of adults). In the second sub-section this focuses on what outcomes can be achieved from participation in learning. In the third sub-section, this focuses on what outputs and outcomes can be

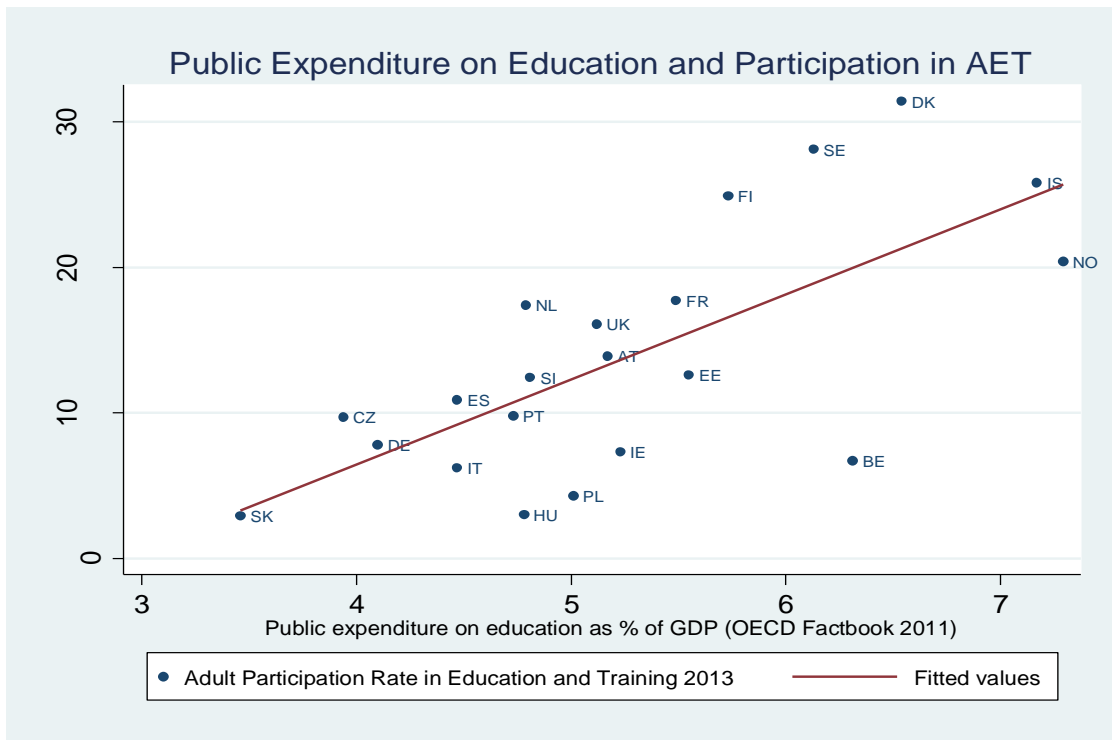
achieved from different policy actions being taken to increase effectiveness in adult learning.

2.2.1 Adult learning system features increasing participation in learning

There is evidence of relationships between some features of adult learning systems and the participation of adults in learning. The features where this has been found are described below.

Provision of opportunities: Overall participation is strongly linked to the overall availability of adult learning. It is clear that where investment in providing overall adult learning opportunities is increased, it usually results in an increased number of people participating and not just an increase in the amount of learning by existing participants (Stenberg (2003), Brožaitis et al (2010)). This is corroborated by an examination of levels of public spending on education from EU Member States, as presented in Figure 2.4. A one percentage point increase in public expenditure on education (as % of GDP) is associated with a 6 percentage point increase in the participation rate in adult education and training.

Figure 2.4: Relationship between participation in education and training and public expenditure on education (as % of GDP)



Source: Labour Force Survey, 2013; OECD Education at a Glance, 2012

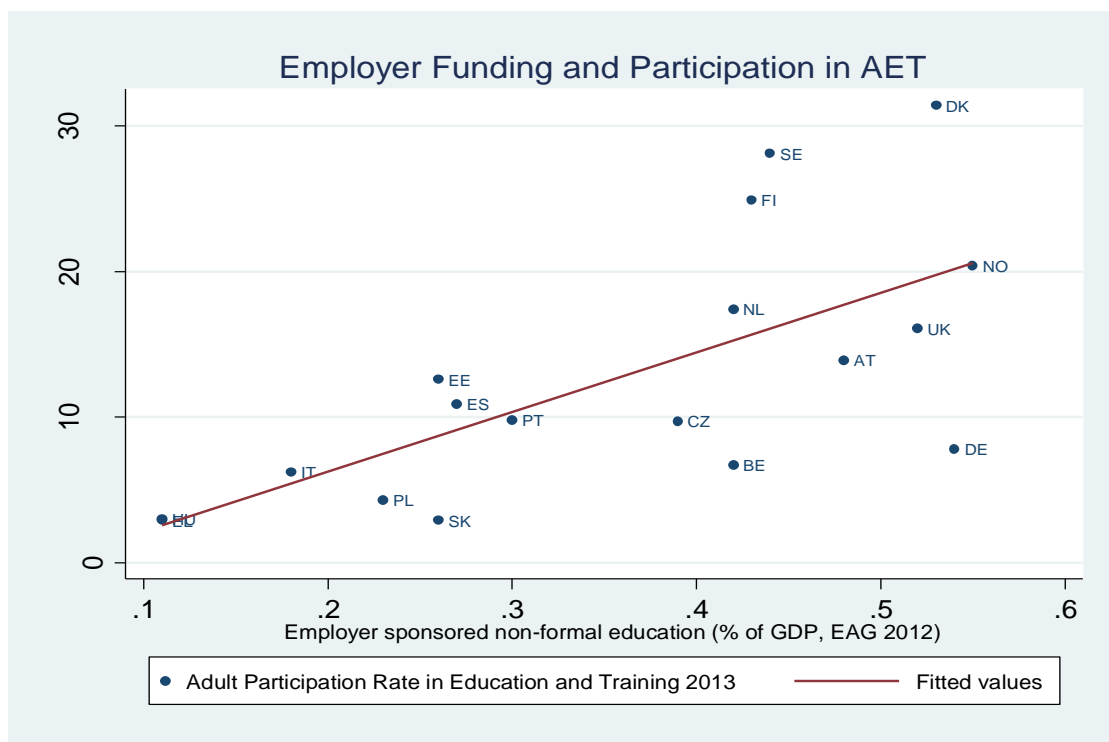
Focused investment on hard-to-reach groups: When provision is focused on increasing the overall participation level by attracting adults who have not participated in learning recently (Stenberg (2003)), there is an increase in the overall participation rate. Evaluations of European Social Fund programmes for adult learning (European Commission 2012) have shown how interventions focused on older people and people with a lack of basic skills, for example, are successful in increasing participation among these groups.

Provision of employment and work-related training opportunities by employers:

Where there is a high proportion of work-based training available in a country, this is likely to result in a higher level of participation in adult learning (Groenez et al (2007)). When the level of employer-sponsored non-formal education is considered (as shown in Figure 2.5), there is a positive correlation between an increase in employer funding (as a % of GDP) with an increase in the adult learning participation rate.

This can be related to the availability of such opportunities but adults in work may also be motivated by their employment needs to take part. For example, Rubenson (2009) reports that 80% of adult learners in Canada participate in adult learning for employment reasons while Boateng (2009) shows that there is a relationship between participation in learning and employment status¹⁵.

Figure 2.5: Relationship between participation in education and training and employer sponsored non-formal education (as % of GDP)



Source: Labour Force Survey, 2013; OECD Education at a Glance, 2012

Improving adults' disposition to learning: White (2012) finds that a positive disposition towards learning is important in ensuring that adults, first participate, and then continue to participate in learning. Lack of motivation to learn is a common reason given by potential learners when asked why they do not participate in adult learning which is available (Pont (2004)).

Provision of an appropriate introductory learning experience: An important part of improving adults' disposition to learning is providing an appropriate re-introduction to learning and getting them to continue to participate. Federighi (2013) reports that

¹⁵ The average non-participation rate across the EU-15 in 2007 for employed people was 56.9%, compared with 75.7% for the unemployed and 82.7% for the inactive. The non-participation rate for high-skilled white-collar occupations was 39.3% compared to 70.5% for low-skilled blue collar occupations.

workers with a tertiary level qualification were twice as likely to participate in adult learning than workers with a primary or lower secondary level qualification. This is confirmed by Eurydice (2015) which finds that people with lower educational attainment are less likely to search for information about learning opportunities than people with higher educational attainment. This report also finds that those who have had a poor experience of formal education are more difficult to attract back to learning. This shows the importance of providing an appropriate introductory learning experience to address the learner's particular circumstances.

The evidence above summarised in Table 2.1 suggests that there are five features of adult learning systems that lead to an overall increase in levels of adult learning.

Table 2.1: Main system features which increase participation in learning

System features	Impact	Other outputs/outcomes	Strength of evidence
Investment in providing opportunities for adult learning	Increased participation	Increased skills and competences Improved employability	+++
Focused investment on hard-to-reach groups	Increased participation for hard-to-reach groups (including older people, the inactive and people who lack basic literacy and numeracy skills)	Increased skills and competences	+++
Provision of employment and work-related training opportunities by employers	Increased participation among workers	Increased skills and competences Improved employability	+++
Improving adults' disposition to learning	Increased participation	Improved employability	++
Provision of appropriate introductory learning experiences	Increased participation	Improved employability	++

2.2.2 Benefits of adult learning

The outcomes found for each of the beneficiaries of adult learning (the latter usually measured as participation in learning, but also in some cases as accumulated skills levels, see section 1.4) are set out below. The beneficiaries are broadly the learners themselves, the employers of learners where knowledge, skills and competences are applied, and the wider community in which learners' live.¹⁶ These establish the

¹⁶ Providers of learning can be a beneficiary in that they are often organisations employing staff or volunteers who benefit from the activity. In this instance we have excluded them because the research evidence generally focuses on the role of teachers and tutors in increasing the competences of adults

relationship between policy actions to improve adults' competences and the wider benefits of increased social and human capital.

Effective adult learning – outcomes for learners

The outcomes for learners can be grouped into three:

Economic: Increased earning and improved employability are the main economic outcomes that arise from participation in learning. There are many examples of research evidence to support this. The What Works Evidence Review (2014) examines 71 studies of training programme impacts in OECD countries with persuasive evidence of causal impact. These studies show that in around half there are positive impacts on employment or earnings (35) and a further 22 where some groups of learners or some of the training had the same positive impacts.

Blanden et al (2012) illustrate that the attainment of certificated qualifications from participation in adult formal learning can yield a 10% increase in wages for women over the subsequent five years. For men, this effect is less pronounced and is related to their pre-existing level of qualification. Hallstein (2012) shows that Swedish adults aged over 30 who attained a university degree increased their earnings by 12% as a result. It also increased the likelihood of their being employed by 18%.

In the case of work-based learning, Feinstein et al (2004) show that male workers in the UK who undertook work-related training saw an increase in their earnings of 4-5% compared with workers who did not. Brunello et al (2010) found that participation in subsidised work-based learning increased earnings for workers by 1.4%. The What Works Review (2014) suggests that longer term courses generate employment gains when the content is skills intensive.

Training programmes focused on helping the unemployed back into work have been shown to be effective in helping them return to work. Richardson and van den Berg (2008) show that a vocational employment training programme in Sweden led to an increased likelihood of employment for participants following completion of the programme (though this effect diminishes over time). The What Works Review (2014) shows that re-training and vocational upskilling programmes have positive impacts for learners in almost all cases.

Evidence suggests that basic skills training provides returns for adult learners as well as vocational training (What Works review (2014)). For example, Decoulon et al (2007) and Dearden et al (2007) show that training on basic skills provides returns to individuals, both in terms of wages in their current employment but also in terms of earnings across their career.

Dorsett et al (2010) show that for men who were not already in employment, participation in formal learning resulted in a 22% improvement in the likelihood of their being employed. Stenberg (2003) reports that the Adult Education Initiative in Sweden was successful in reducing unemployment levels though not the duration that participants were unemployed. Many evaluations of tailored learning programmes for older people have found that learning is a strong contributory factor in assisting unemployed adults to obtain and remain in work.

Wellbeing: In terms of wellbeing, there is evidence showing improved wellbeing, including improved health as a result of participation in learning. Jenkins (2011) shows that participation in evening classes by older adults has a positive effect on their perception of their general wellbeing. Hammond and Feinstein (2005) demonstrate that adult learning can lead to increased self-confidence for participants. A report for the UK's Mental Health Foundation (2011) showed that community-based learning courses for adults were successful in improving the subjective mental wellbeing of adults. Feinstein

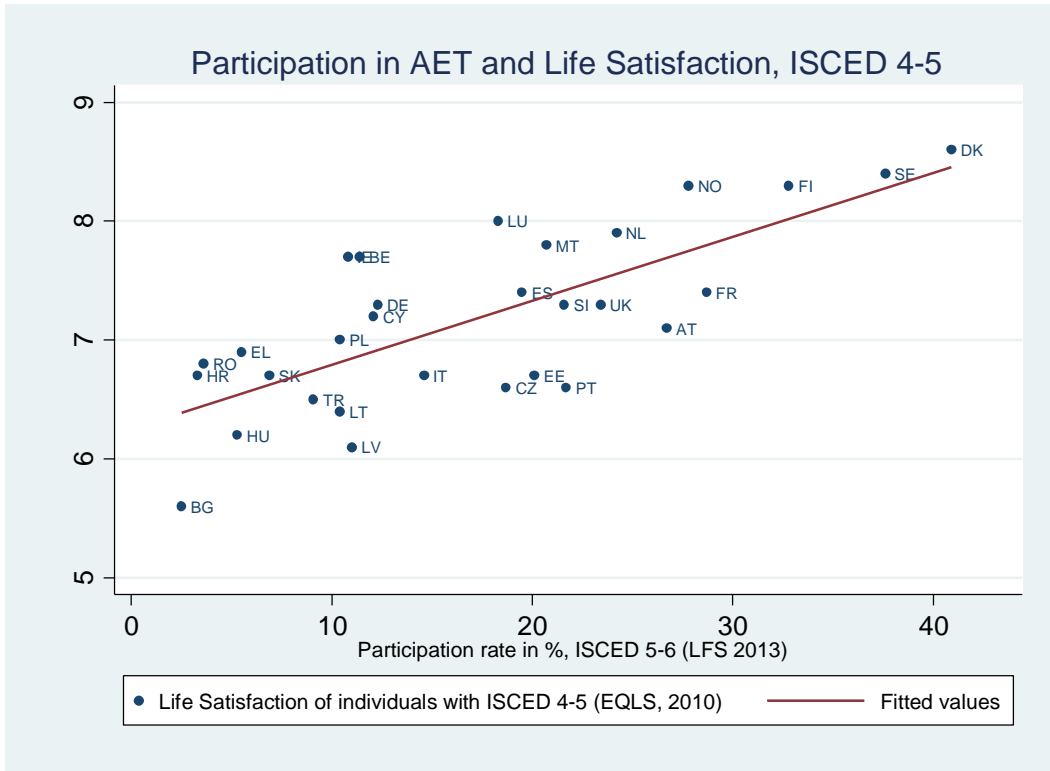
Directorate-General for Employment, Social Affairs and Inclusion

Directorate C (Europe 2020: Employment Policies)

at el (2003) analysed the contribution of adult learning to improvements in physical health and showed that it can reduce the likelihood of smoking and consumption of alcohol and increase the likelihood of exercise.

In addition, data analysis demonstrates a strong positive and statistically significant correlation between an individual’s life satisfaction and their participation in learning. This association is stronger for people with lower qualification levels¹⁷, as shown in Figure 2.7 and Figure 2.8¹⁸. This suggests that participation in learning is linked to an individual’s perception of their wellbeing.

Figure 2.7: Relationship between participation in education and training and life satisfaction, individuals with a highest qualification level at ISCED 4-5

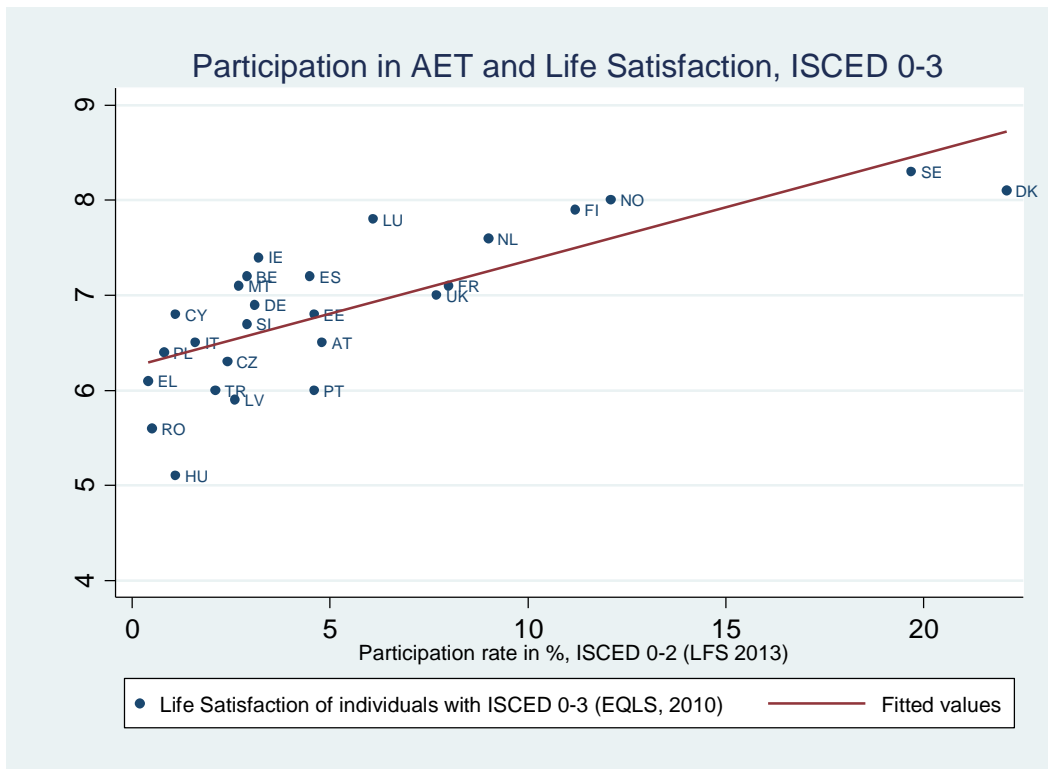


Source: Labour Force Survey, 2013; Eurofound, Second European Quality of Life Survey, 2010

Figure 2.8: Relationship between participation in education and training and life satisfaction, individuals with a highest qualification level at ISCED 0-3

¹⁷ For individuals with a highest qualification at ISCED level 0-2, a 10 percentage point increase in participation in training is associated with a 1.1 point increase in life satisfaction (on a ten point scale), whereas for individuals with higher qualification levels the associated increase in wellbeing is 0.5 points.

¹⁸ Data was not available to analyse the relationship between life satisfaction for adults with ISCED 4-5 and participation among adults with ISCED 5-6, or between life satisfaction for adults with ISCED 0-3 and participation among adults with ISCED 0-2.



Source: Labour Force Survey, 2013; Eurofound, Second European Quality of Life Survey, 2010

Social: In terms of social outcomes, Fujiwara (2012) showed that the social value of increased community participation owing to participation in adult learning is worth about £130 to the learner. Eurofound (2011) provides evidence from an evaluation of a training programme for older people in Denmark which shows that 73% of participants took up another voluntary commitment following participation in the programme. Feinstein et al (2003) show that there is an improvement in civic attitudes arising from participation in adult learning, as well as a 3% increase in the number of adults who were likely to join community organisations as a result of participating in adult learning.

There is much evidence to suggest that learners can benefit from a wide range of positive outcomes arising from participation in learning. Table 2.2 provides an overview of the main outcomes associated with adult learning, which we can identify from the literature.

Table 2.2: Outcomes from adult learning for learners

Outcome type	Outcome	Resulting from	Strength of evidence
Economic	Increased wages/income	Participation in learning Improved skills & competences (including basic skills)	++++
	Increased employability	Participation in learning Increased skills and competences	+++++
Wellbeing	General wellbeing (including improvements in self-confidence)	Participation in learning Increased skills and competences	+++
	Improved health (physical and mental)	Participation in learning Increased skills and competences	+++
Social	Improved disposition to voluntary and community activity	Participation in learning Increased skills and competences	++
	Improved civic attitudes and political participation	Participation in learning	++

Effective adult learning – outcomes for employers

The most common benefit identified in numerous contexts is that employee training provides improved productivity. For example, Almeida and Carneiro's study in Portugal (2009) finds that for 1,500 firms who employed over 100 employees, once the costs of training are excluded, there is a return to firms of an average 8.6% increase in productivity. This is comparable to returns from investment in physical capital. Similarly, Brunello et al (2012) report a statistically significant return to investment for firms that provide subsidised training. They found that this return can be 2.5% for each additional week of subsidised training provided by the firm.

Blundell et al (1999), in a review of the evidence, find that the benefits from training are positive. Their evidence also suggests that there can be a substantial increase, ranging from between 9.5% and 16.5%, in the return to a firm when a worker has undertaken training. This suggests that training has a longer term impact with a "spillover" effect for firms in an economy where there is significant provision of adult learning and/or workplace training.

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Cedefop's meta-review (2011) focused in particular on the evidence around the economic benefits of investment in vocational education and training (VET) at company level. It reports that 87% of the 62 studies reviewed provided evidence of positive and statistically significant effects of VET for employers. For the majority of performance measures and variables (e.g. quality, innovation and employment growth) it found that most studies reviewed demonstrate that the provision of training has a positive effect.

Dostie (2010) compared the differences in productivity for firms whose workers participated in formal learning and those who participated in work-sponsored training. Workers who had undergone any form of training were more likely to be more productive. Employees who undertook classroom training (training that is not delivered on the job or in the workplace) were 11% more productive than employees who had not. This compared with a 3.4% productivity increase for employees who had undertaken on-the-job training. Zwick (2005) reports that formal external courses have the largest positive impact on productivity (increase of 28%) compared with those formal internal courses provided by the employer themselves (4%).

Smaller scale studies, such as McNair et al (2008), show that increasing the extent of workforce training has positive benefits for employers in relation to employee motivation and commitment as well as performance and productivity.

Cedefop's meta-analysis of training and workplace learning on a firm's performance on innovation (2012) finds that the proportion of companies providing training, employee participation in training, and the costs of continuing vocational training (CVT) as a percentage of total labour costs have a positive relationship with innovation performance.

The positive outcomes for employers along with other business benefits as a result of increasing participation in adult learning are summarised in Table 2.3.

Table 2.3: Outcomes from adult learning for employers

Outcome type	Outcome	Resulting from	Strength of evidence
Economic	Increased productivity	Increased participation in learning by the workforce Improved skills & competences	+++++
	Increased profitability	Participation in learning	+++++
Workforce benefits	More motivated workforce	Participation in learning	+++
Innovation	Increase in innovation performance for firm	Increased skills and competences	+++

Effective adult learning – outcomes for the community

There are benefits to society in general, arising from adult learning which are largely found from evidence showing statistical relationships between adult learning (participation and skills and qualifications gained) and the economy and community.

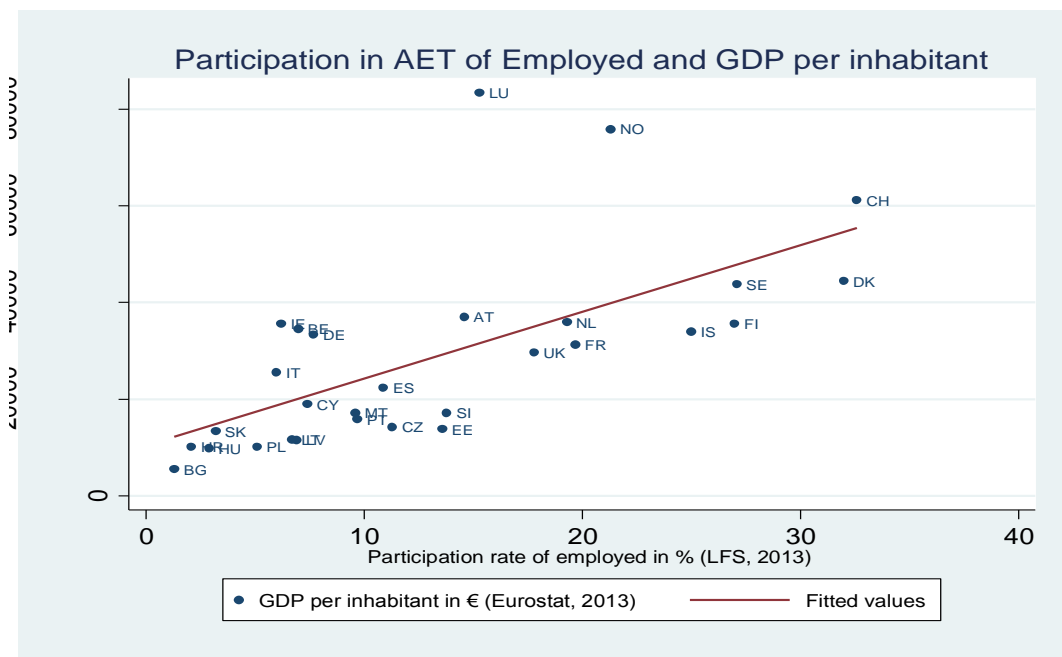
Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

The outcomes can be grouped as follows:

Economic growth: The importance of participation in adult learning in ensuring the economic wellbeing of a country is emphasised in the OECD Skills Outlook (2013). Countries with lower levels of skills and competences are more likely to be less competitive. This is corroborated by the statistically significant and positive correlation between the participation rate of employed individuals and GDP per resident shown in Figure 2.11. In addition, analysis of unemployment rates from across the European Union suggests a statistically significant correlation between the participation rate of unemployed individuals and the unemployment rate¹⁹. A graph of this correlation is presented in Figure 2.12.

Social cohesion and civic participation: The OECD Skills Outlook (2013) suggests that countries where skills levels in literacy and numeracy are higher, have higher participation in volunteer activity, higher levels of political interest as well as higher levels of trust. This is corroborated in 0 where there is a positive and statistically significant correlation between participation in learning and voter turnout in the most recent EU elections. In addition to these increased levels of civic participation, the data suggests a statistically significant correlation between increased participation in learning and a reduction in economic inequality (as measured by the Gini coefficient)²⁰. This is illustrated in Figure 2.13.

Figure 2.11: Relationship between participation of employed individuals in adult education and training and GDP per inhabitant

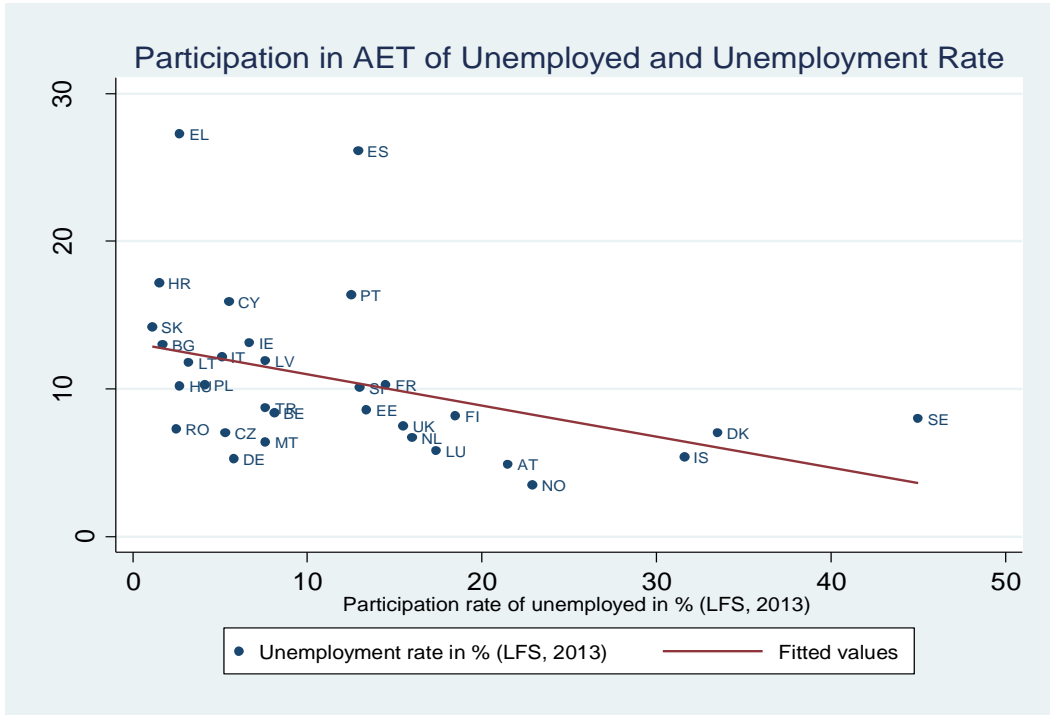


Source: Labour Force Survey, 2013; Eurostat national accounts data, 2013

¹⁹ An increase in the participation rate of unemployed individuals of 10 percentage points is associated with a decrease in the unemployment rate of 2.1 percentage points.

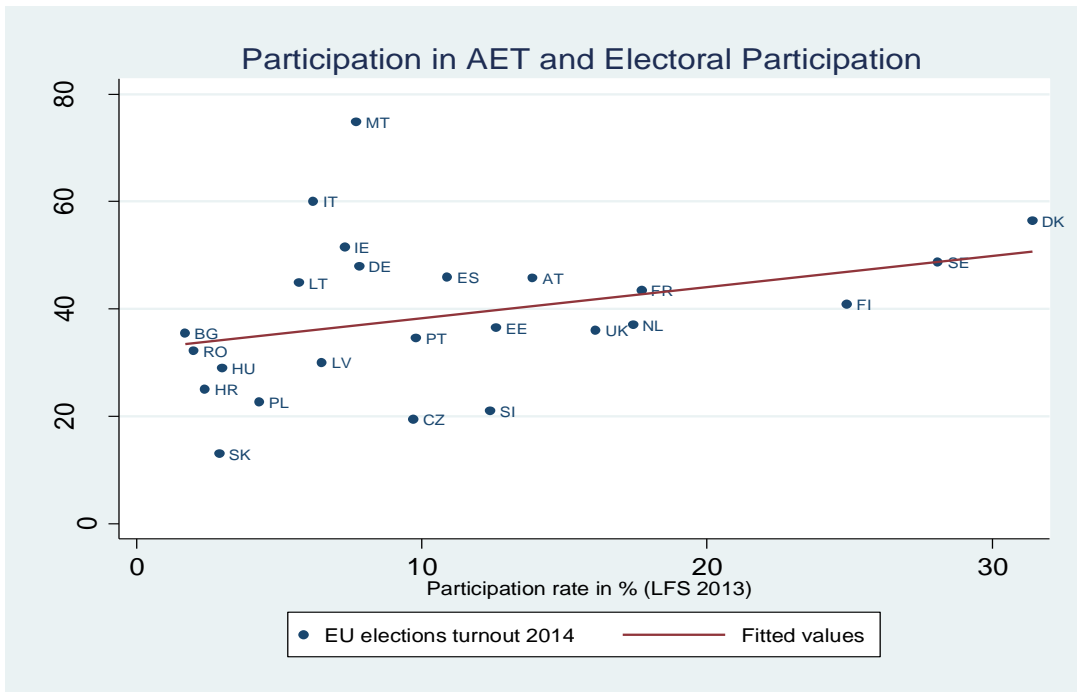
²⁰ An increase in the participation rate in learning by 10 percentage points is associated with a decrease of two points in the Gini coefficient (with zero representing equality on Gini coefficient).

Figure 2.12: Relationship between the participation of unemployed individuals in adult education and training and the unemployment rate



Source: Labour Force Survey, 2013

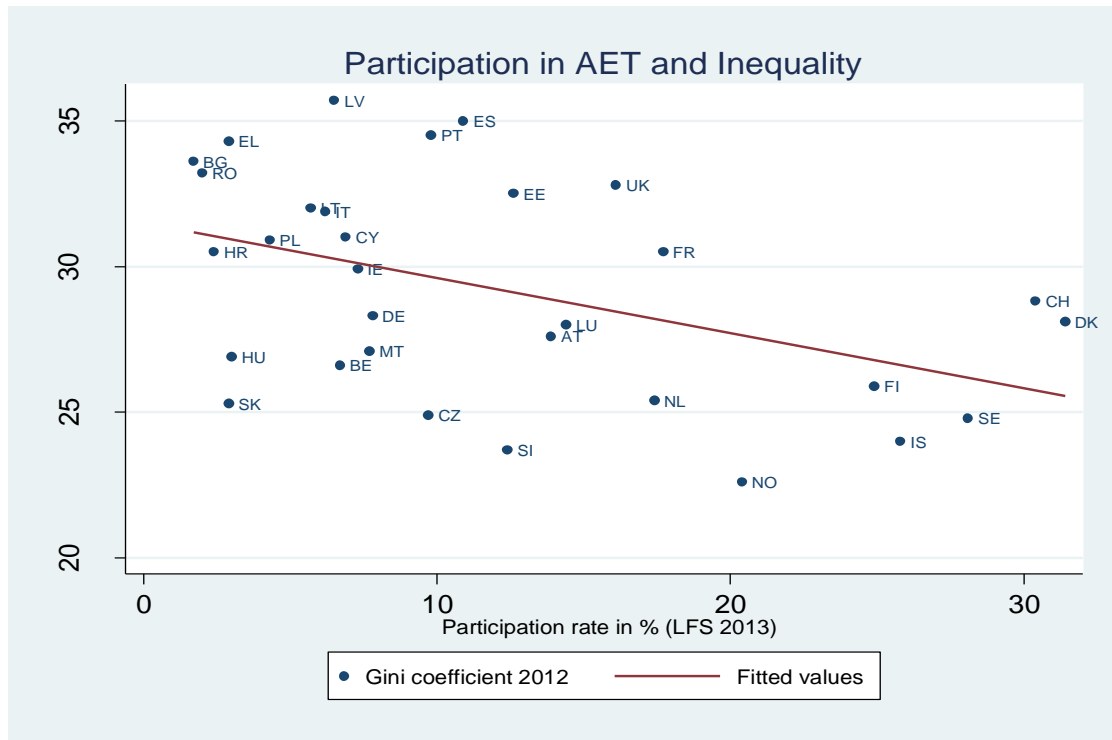
Figure 2.13: Relationship between participation in education and training and EU election turnout



Source: Labour Force Survey, 2013; European Parliament, Results of the 2014 European elections, 2014

Directorate-General for Employment, Social Affairs and Inclusion
 Directorate C (Europe 2020: Employment Policies)

Figure 2.14: Relationship between participation in education and training and inequality



Source: Labour Force Survey, 2013; EU Statistics on Income and Living Conditions, 2012

Health: There is strong evidence that targeted health education reduces the burden of chronic illness and increases the quality and years of healthy life of older people. A review of 598 studies (with a total of 61,000 patients) by Lager et al (2010) found that 64% of the studies reported positive health effects on the learners from their participation in a therapeutic education programme. Participation in learning can also result in savings for society in terms of expenditure on healthcare. A study by Schuller and Watson (2009) in the UK also showed that there are potential savings of between £18.2 million and £36.3 million to the state per annum from adults postponing entry into residential care by on average a month because of their participation in learning.

Other benefits: Digby (2012) shows the effectiveness of participation in adult learning in improving environmental literacy and hence behaviour in relation to the environment among adults. Reducing reoffending can be another result of increasing participation in adult learning among prisoners. Gordon and Welton (2003) show a reduction in reoffending rates among adult inmates in the United States because of participation in adult education programmes.

The positive outcomes for the community as a result of increasing participation in adult learning are summarised in Table 2.4.

Table 2.4: Outcomes from adult learning for the community

Outcome type	Outcome	Resulting from	Strength of evidence
Economic	Lower unemployment	Increased participation in learning Improved skills & competences	+++
	Higher GDP	Participation in learning	++++
Social cohesion and civic participation	Higher levels of political interest/civic participation	Participation in learning	+++
	Higher participation in volunteer activity	Participation in learning	+++
	Higher levels of trust	Participation in learning	+++
	Higher levels of equality	Participation in learning Improved skills & competences	+++
Health	Improved public health	Participation in learning	+++
Other benefits	Improved environmental literacy	Participation in learning	++
	Reduced reoffending rates	Participation in learning Improved skills & competences	++

2.2.3 Adult learning policy actions and the outputs and the outcomes achieved

Below we examine what the research literature and the data analysis tell us about the relationship between adult learning policy actions and the outputs and outcomes expected from adult learning. To guide and structure this analysis of the evidence to identify policy actions which lead to effective adult learning, we drew on schedules of policy actions, existing models of adult learning systems and an initial review of the literature. This included a review of existing frameworks aimed at the analysis of adult learning which have been developed by organisations such as the OECD, UNESCO, and the World Bank. We identified a “long-list” of different policy actions, which were suggested by the initial review as potentially leading to effective adult learning policy. These different policy actions were grouped into six high level categories as follows:

- Improving learners’ disposition towards learning;
- Using incentives to engage employers to invest in learning;

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

- Increasing equality of access for all;
- Delivering learning that is relevant to employers and learners;
- Delivering high quality and effective adult learning; and
- Co-ordinating adult learning policy with other public policies.

0 2.5 below contains a schedule of policy actions.

Table 2.5: Categories of policy actions for effectiveness in adult learning

Policy action type	Policy action
Improve learners' disposition towards learning	Engage social partners in the development of programmes and recruitment of learners
	Heighten awareness of benefits of learning to learners
	Provide appropriate introductory learning experiences for learners
	Provide evidence of the benefits of adult learning to social partners
Use incentives to engage employers to invest in learning	Raise awareness of adult learning through provision of information, guidance and counselling, e.g. "one-stop" centres providing integrated information on adult education opportunities
	Co-finance training with employers to deliver work-based learning/training
	Promote the embedding of basic skills in workforce development programmes
	Promote the use of externally accredited qualification by employers
	Promote vertical training networks between firms
	Provide subsidies to employers to provide training for upskilling and retraining
	Provide tax incentives to employers to provide training
Promote learning in the workplace as a path to innovation	
Increase equality of access for all	Engage with employers in the evaluation of training
	Design incentive programmes for employers to provide workplace learning for the low-skilled
	Design schemes to recognise prior learning done through informal and non-formal means
	Fund learning for the inactive and the unemployed
	Promote basic skills and literacy programmes for the low skilled to enable participation
	Provide individual learning accounts (ILAs) and subsidies (vouchers and allowances)
Target learning and incentives on specific groups	

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

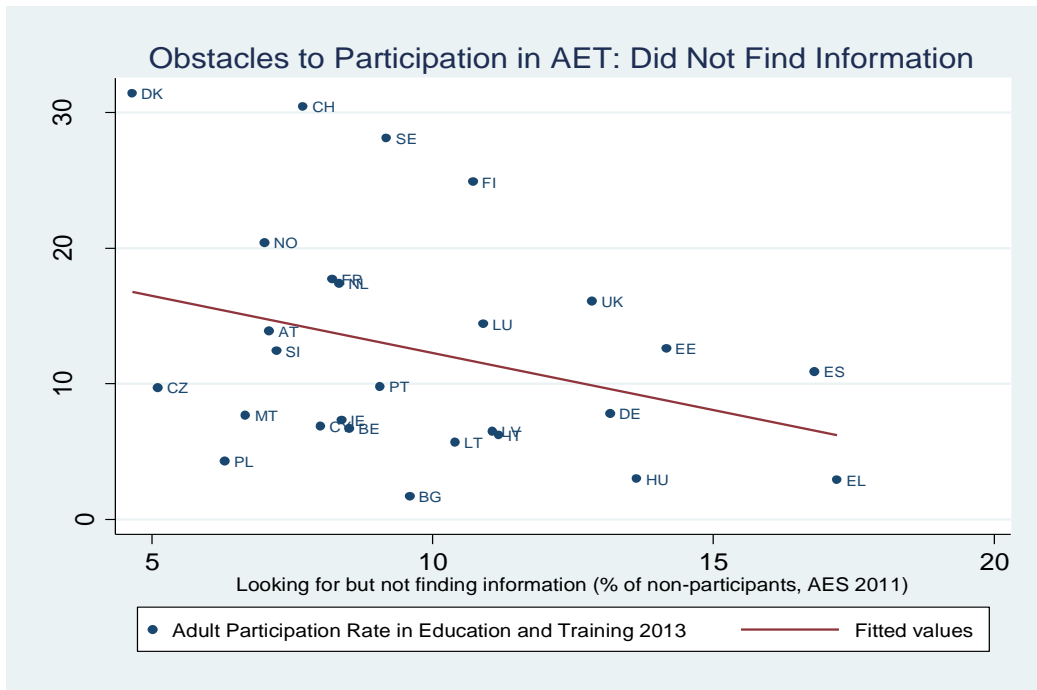
Policy action type	Policy action
	<p>Outreach programmes to engage learners in these groups, through non-formal or informal learning</p> <p>Use intermediary organisations in outreach to difficult-to-engage groups</p> <p>Financial incentives for learners</p>
Deliver learning that is relevant to employers and learners	<p>Align local provision of learning with needs of local employers</p> <p>Design appropriate and flexible delivery arrangements, e.g. distance learning, online learning, workplace delivery, part-time courses</p> <p>Ensure teachers develop their practices and skills through CPD</p> <p>Ensure that teachers are adequately trained and qualified</p> <p>Identify the training needs of employers</p> <p>Promote innovation in the delivery of learning</p>
Ensuring high quality and effective learning	<p>Engage social partners in the design of training and qualifications</p> <p>Establish a quality control framework for adult education programmes using programme and institutional assessment and evaluation</p> <p>Establish and maintain a qualifications framework</p> <p>Increase the knowledge base concerning adult learning through national programmes to promote evidence-based policy</p> <p>Monitor and evaluate adult learning programmes to improve adult learning experience</p> <p>Quality assure qualifications and their assessment</p> <p>Share best practice and innovation with providers of adult learning through CPD for staff</p> <p>Promote a diverse range of learning institutions</p>
Co-ordinating adult learning policies with other public policies	<p>Introduction of a lifelong learning/adult learning policy</p> <p>Integrate monitoring of adult learning policy with other policy monitoring processes</p> <p>Design adult learning policies to align them with other national policies, e.g. labour market policy or national education policy</p> <p>Develop regional, local and sectoral learning networks as mechanisms for policy alignment</p> <p>Establish adult learning institutions/agencies to meet learning needs and complement/support learning provided by social partners</p>

Directorate-General for Employment, Social Affairs and Inclusion
 Directorate C (Europe 2020: Employment Policies)

Improving learners’ disposition towards learning

We discussed the importance of availability of adult learning opportunities in Section 2.2.1 and the need to ensure that learners are positively disposed towards learning. Providing learners with information about learning opportunities and the benefits of learning is key to this. Figure below shows the importance of making information easy-to-find and accessible – a 10 percentage point increase in the number of individuals who stated that they were unable to find information on learning is associated with an eight percentage point lower participation rate in adult education and learning.²¹

Figure 2.15: Relationship between participation in education and training and obstacles to participation in AET: Respondent did not find information



Source: Labour Force Survey, 2013; Adult Education Survey, 2011

Heightening awareness of the benefits of learning among learners is an important part of improving their disposition towards learning. For example, Taylor (2002) found that one of the most effective outcomes of adult learning pathways in England was the connection that was made between work and learning. This connection was identified as being important for making learning attractive for participants because it made learning directly relevant to them.

Guidance for learners has a role in raising awareness about the benefits of learning but also in changing their disposition towards learning (ELGPN 2014). Tyers at al (2004) report that the Adult Guidance Partnerships across the UK were effective in recruiting learners to learning – 30% of clients surveyed reported that they had gained new skills since contacting the AGP. Evaluations of the Irish Adult Educational Guidance services (Hearne (2005) and Philips and Eustace (2010)) showed that clients of the service attributed their progression to further learning or employment to the guidance they had

²¹ The beta coefficient of a regression of the participation rate on the percentage of individuals the percentage of individuals who have looked for information on learning possibilities but did not find any is -0.84 and is statistically significant at the 10% level (N=25).

received. In one case, 20% stated that a guidance intervention played an important part in ensuring that they remained in education.

There is evidence that building links to collaborate with social partners (including employers) and various stakeholders is important in raising awareness of the benefits of learning among learners as well as engaging learners. For example, Cedefop (2010) showed that participation in training is 20% more likely by workers in companies that participate in a training agreement between social partners than those that do not. Various studies have evaluated the “Learning Regions – Promotion of Networks” programme in Germany including Forschungskonsortium (2004), Nuisl et al (2006) and Conein et al (2002) (cited in Brožaitis et al (2010)). These were regional networks designed to build linkages between employers, formal and non-formal education and training providers. The evaluations show that formation of these networks and engaging social partners led to increased participation in learning, especially among socially disadvantaged groups.

Changing a learner’s disposition towards learning can also be done by providing them with an appropriate re-introductory learning experience. White (2012) reports that participation in learning later in life is strongly associated with extended participation in initial, full-time education. This shows that those who participate in learning also tend to continue to participate, demonstrating the importance of an appropriate introductory learning experience. In addition, Eurydice (2015) report that those who have poor experiences of formal education are more likely to require targeted interventions to attract them to participate in learning. One of the successful types of intervention to engage with these potential learners is by designing learning opportunities that are appropriate for them.

Table 2.6 summarises our main findings relating to policy actions focused on improving learners’ disposition towards learning.

Table 2.6: Policy actions focused on improving learners’ disposition towards learning that contribute to effective adult learning

Policy action	Output/outcome	Strength of evidence
Raising awareness of the benefits of adult learning	Increased participation Increased earnings for workers	++
Providing guidance systems for learners	Increased participation Improved skills and competences Increased employability	+++
Working with social partners to plan, promote and recruit learners to learning	Improved skills and competences Increased employability	++

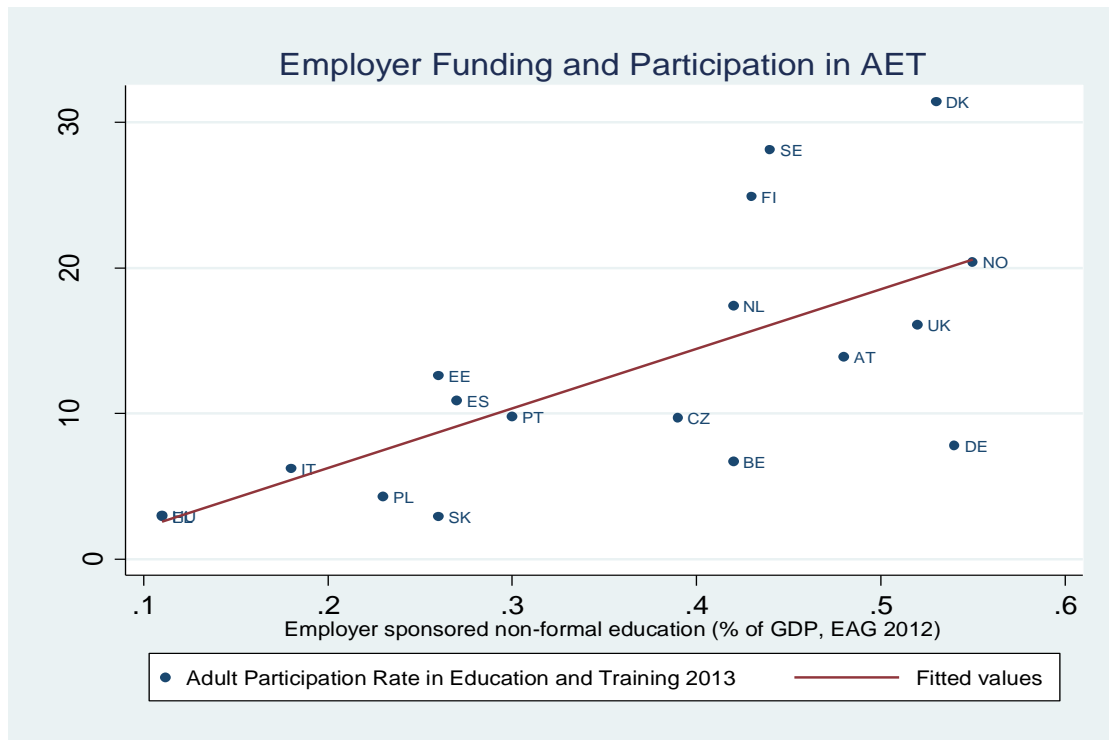
Using incentives to engage employers to invest in learning

Employers have a key role in increasing participation in adult learning. Figure 2.16 suggests that employer expenditure is strongly positively associated with participation in

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

adult learning - 0.1 percentage point increase in employer funding (as % of GDP) is associated with a 4 percentage point increase in the participation rate.

Figure 2.16: Relationship between participation in education and training and employer sponsored non-formal education (as % of GDP)



Source: Labour Force Survey, 2013; OECD Education at a Glance, 2012

Judging from the evidence, direct subsidies²² (in grant payment form) to employers seem to be the most effective financial incentive in increasing participation. Other financial incentives examined included tax incentives and levy-grant schemes. Lee (2004) shows that a training subsidy scheme in South Korea was effective in increasing the levels of training among firms in receipt of the subsidy when compared with unsubsidised firms. For example, in 1994, only 22.5% of employers trained their workers. By 2002, the participation rate of enterprises employing more than 150 workers in all industries reached 63%. This is further supported by Goerg and Strobl (2006) in their comparative assessment of the impact of training grants in Ireland where they show that grant aid increased employer investment in training by domestic firms.

Brunello et al (2012) report that additional training funded by subsidies can increase monthly earnings and lead to extra training opportunities for the workers. They find that for every euro received by a firm in subsidy, the amount of training made available increases by 1%. Monthly earnings for workers increase by 1.4% as a result of an additional week's participation in subsidised training.

Studies of other financial incentives targeted at employers suggest that they are not as effective as subsidies (Cedefop (2009) and Marsden and Dickinson (2013)). Examples of such studies include:

²² A direct subsidy is defined as a grant payment to employers to assist them in meeting the cost of training to upskill and retrain their workforce.

- Leuven and Oosterbook's (2004) investigation of the impact of a tax incentive for employers when they train employees aged 40 years or older finds that the increase in training could not be attributed to the tax incentive;
- Goerlitz (2010) assessed the effect of direct subsidies in the form of training vouchers in North Rhine Westphalia. This study shows that the vouchers increased the proportion of organisations investing in training for their employees by 5%, though there was no evidence that participation increased. This is an example of how deadweight loss can arise (provision of extra training opportunities without a corresponding increase in participation) if financial incentives are not well targeted; and
- Kamphuis et al's (2010) study of sectoral training funds/levies shows that there was no evidence to suggest that sectors that had such training funds had higher levels of training than those that did not.

However, evidence relating to the role of employers goes wider than just investment. The What Works Evidence Review (2014) shows that on the job training programmes outperform classroom based training programmes. This is attributed to employer co-design of training to more closely mirror jobs and work contexts and the speedier application of skills gained. Other examples of similar studies that highlight the importance of employer involvement include:

- Fitzenberger and Besser (2007) report that participants in a specific professional skills and techniques training course in Germany were more likely to be employed than non-participants at the time of evaluation;
- Neubamer (2012) investigated the relative effects of wage subsidies and further vocational training on employment prospects and found that both approaches lead to similar employment outcomes for unemployed workers;
- Richardson and van den Berg (2008) show that a vocational employment training programme in Sweden led to an increased likelihood of employment for participants following completion of the programme (though this effect diminishes over time).

In addition to this, workforce development programmes have been proven to be a useful vehicle for the improvement of the basic skills of low-skilled participants: Evidence of the impact it can have is discussed in the following studies:

- Paris (1992) reports that participants in a job-specific basic skills education programme reported that they had improved their basic academic skills as well as wider job skills;
- Scheer (1993) reports that 80% of participants in a literacy and numeracy instruction programme in Connecticut reported that they improved their numeracy skills as a result of participation; and
- Bensemman (2010) reports that 86% of participants in a workplace basic skills programme in New Zealand reported an improvement in their reading scores and 75% of participants reported an improvement in their soft skills as a result of participation.

As a consequence there is relatively strong evidence that suggests that policy actions which engage employers increase participation and the competences of those in training (as well as the unemployed), as described in Table 2.7.

Table 2.7: Employer engagement and investment policy actions that bring about effective adult learning

Policy action	Output/outcome	Strength of evidence
Subsidies to employers to provide training opportunities	Increased participation Increased earnings for workers	++++
Identify the training needs of employers and align workforce development programmes with these	Increased participation Improved skills and competences Increased employability	+++++
Promote the embedding of basic skills in workforce development programmes	Improved skills and competences Increased employability	+++

Achieving access for all

Increasing and enabling access to adult learning by people from all socio-economic and demographic groups is a common policy goal with policy actions to improve participation in adult learning by those who are least likely to participate.

Embedding basic skills development into general adult education programmes can play a significant role in retaining adult learners as well as improving outcomes for those learners. Casey et al (2006) and Grief (2002) both show that embedding literacy and numeracy into adult education programmes is effective in engaging and retaining learners, as well as facilitating their progression onto other opportunities. Alkema and Reani (2013) review literature from Canada, New Zealand, Ireland, Australia, and the United States and confirm the impact of embedding literacy and numeracy skills and the role that this plays in attracting learners who would not otherwise engage in learning programmes. A research study by the ESRI and NALA (2012) in Ireland reports that when those with literacy and numeracy difficulties receive training, they benefit more than average. They are 29 per cent more likely to find a job or enter full-time education, compared to 11 per cent of the whole unemployed population.

The research evidence also confirms the role of intermediary organisations in recruiting underrepresented groups to learning. From a systematic review of strategies to increase participation among low-skilled adults, Taylor (2005) finds that community groups play an important role in increasing participation in hard-to-engage groups. Shaw et al (2002) reported that 62% of employers surveyed for their evaluation of the Union Learning Fund in the UK believed that trade unions played a key role in making training opportunities available and ensuring participation. Aontas (2009) showed that community groups were particularly effective in engaging learners, especially those from disadvantaged backgrounds, in the Irish Adult Literacy and Community Education Scheme.

The evidence in relation to providing training vouchers/training accounts to individuals which they can 'cash in' shows that they have limited impact. Schwerdt et al (2011) find that vouchers have no effect in increasing participation. Messer and Wolter (2009) find that an increase in participation as a result of adult learning vouchers in Switzerland was offset by the deadweight loss of the voucher scheme, i.e. the amount participants would have paid to access adult learning without the voucher being made available. In a

controlled experiment in the UK, Brooks et al (2008) show that direct payments to learners do not increase the likelihood of participation in adult learning.

Guidance and counselling systems are more effective than direct financial incentives in engaging specific target groups and attracting them to adult learning. For example, Tyers et al (2004) show how Adult Guidance Partnerships are an effective means of assisting specific target groups to identify learning and work opportunities. Taylor (2002) identifies the successful features of learning pathways for learners in influencing learners about participation or progression, including a clear link between work and learning as well as the availability of tailored provision.

Recognition of prior learning can also play a role in recruiting learners and improving competences for learners from disadvantaged groups. Opheim and Helland (2006) showed that the *realkompetanse* reform in Norway – a reform designed to allow for the recognition of prior learning – was successful in increasing the number of students who participated in higher education on the basis of non-formal learning. Similarly, an evaluation of the New Opportunity Initiative in Portugal reported by Research voor Beleid (2010) which included recognising prior learning found that it had led to an improvement in competences and skills. People improved key competences of primary importance (i.e. literacy and e-skills) and learned new skills such as critical thinking and problem solving.

Table 2.8 describes the policy actions for which we have found evidence of effectiveness:

Table 2.8: Active inclusion policy actions that bring about effective adult learning

Policy action	Output/outcome	Strength of evidence
Embed basic skills development in adult learning programmes	Increased participation (including progression) Improved skills and competences Increased employability	+++
Provide targeted guidance and counselling to learners and promote programmes	Increased participation Improved employability Improved skills and competences More relevant qualifications	+++
Use intermediary organisations in outreach to engage the difficult to involve groups	Increased participation	+++
Introducing recognition systems for non-formal and informal learning	Increased participation Improved skills and competences Improved wages for learners	+++

Delivering learning that is relevant to employers and learners

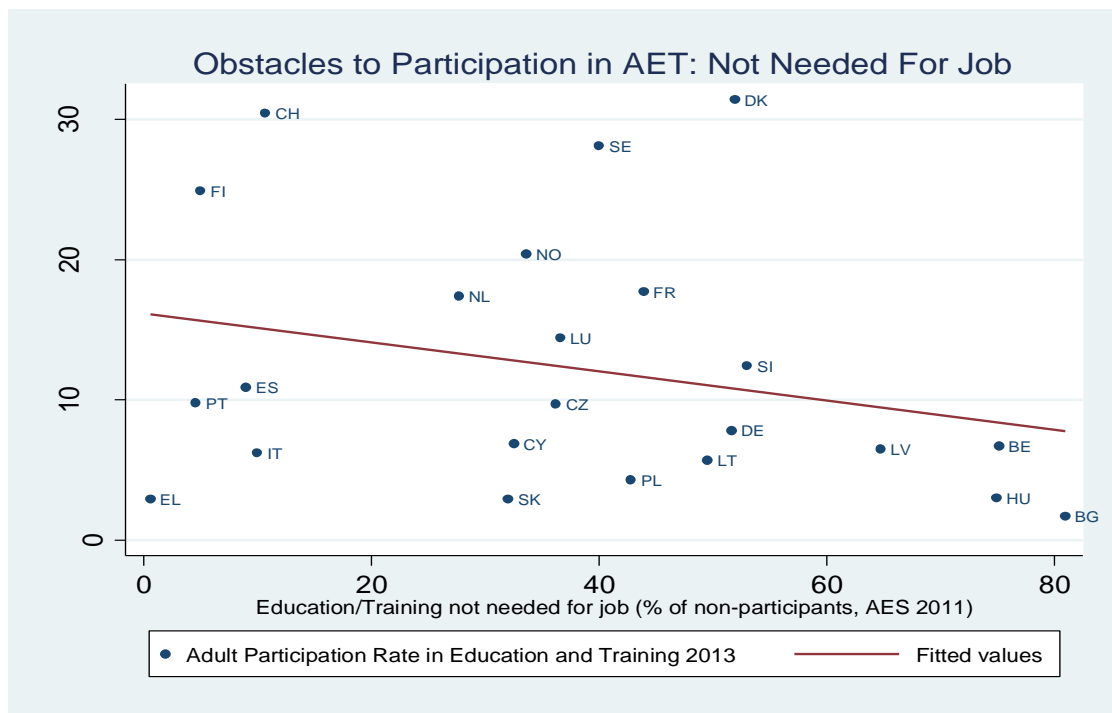
Policy actions to ensure that the adult learning provided, especially formal learning, is relevant and meets the needs of learners, employers and the wider community are

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

widely believed to reduce barriers to participation in learning and the achievement of positive outcomes.

In general, policies that are successful in delivering learning that is relevant to employers and workers take into account both the supply and demand sides of adult education. In other words, they show an understanding of the needs of both learners and employers, such as responding to employers' skills needs while providing opportunities to workers to secure their jobs or to improve their labour market prospects and develop professionally. As Figure 2.17 shows there is a negative association between the percentage of individuals stating that they did not participate in adult education and training because they did not need it for the job and the participation rate in adult education and training of a country.

Figure 2.17: Relationship between participation in education and training and obstacles to participation in AET: Training is not needed for respondent's job



Source: Labour Force Survey, 2013; Adult Education Survey, 2011

Pont (2004) reports that the most common responses by adults when asked about what would be effective incentives for them to take up learning are: the existence of personalised programmes of study (20%) and choices of methods of study (20%). However, we have not been able to identify research evidence that shows the impact of such incentives.

Ensuring that the provision of adult learning reflects employer and labour market demands is also important. A comparative case study of seven countries (Netherlands, Denmark, Sweden, UK, Belgium (Flanders), Germany and the state of California in the USA) by Broek and Hake (2012) found that one of the critical factors in attracting adults to return to higher education was the need for alignment between local educational providers and local employers. In a meta-review assessing the impact of the Hartz labour market reforms in Germany, Jacobi and Kluve (2006) found that redesigning training programmes to focus on labour market demands was effective in increasing the likelihood that participants found a job on completion of the programme.

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

The What Works Evidence Review (2014) shows that on-the-job training programmes outperform classroom based programmes because employers are more closely involved in their design and delivery. Paris (1992), for example, reports that job-specific basic skill programmes are effective in improving the job skills of participants in such programmes.

Table 2.9 describes the policy actions for which we have identified evidence supporting their effectiveness in relation to delivering learning that is relevant to employers and learners.

Table 2.9: Building learner and employer-focused policy actions that bring about effective adult learning

Policy action	Output/outcome	Strength of evidence
Provision of personalised programmes of study and choices of methods of study	Increased participation	+
Alignment of employers' needs with local and regional educational providers	Increased participation Improved employability More relevant qualifications	++
Training programmes should be designed to address labour market needs	Increased participation Improved employability	+++

Delivering high quality and effective adult learning

As noted by the Thematic Working Group on Quality in Adult Learning (2013), there has been little evaluation of systems and tools developed to assure the quality of adult learning. Panteia (2013) also found that there have been relatively few studies addressing the costs and benefits of quality assurance measures, especially in the field of adult learning.

There is some evidence available that the introduction of quality assurance has led to better performance, increased learner satisfaction and better outcomes. In case studies of quality assurance frameworks collected by Panteia (2013), there is some limited evidence presented by stakeholders interviewed that learner satisfaction was increased and learning outcomes were improved. Bertzeletou (2013) studied the effect of quality management systems in 16 VET institutions across 13 Member States as well as four VET providers that had an internal quality framework. This study found that students' satisfaction rates were higher, internal processes in the teaching area were improved and there was a greater attention to and awareness of labour market needs.

Ensuring that adult learning professionals have appropriate qualifications is considered to be an important contributory factor to delivering quality in adult learning (Cedefop 2014). But as with quality assurance mechanisms, there are very few studies which evidence the impact of teacher training in adult learning. Gauld and Miller (2004) surveyed workplace trainers in Australia to investigate qualifications and competencies of workplace trainers and to determine whether a relationship existed between these attributes and their effectiveness as trainers. They found that trainers with formal teaching qualifications and with ten years' experience, are considered to be more effective as trainers.

While there is little doubt that quality and effectiveness have become a central aspect of adult learning policies, there is a gap in the research evidence on the link between ensuring quality in adult learning and improving its effectiveness. However, there is

Directorate-General for Employment, Social Affairs and Inclusion

Directorate C (Europe 2020: Employment Policies)

consensus among policy makers that implementing quality assurance in adult learning is important, and this has been expressed as a priority, as recently as 2011 in the European agenda for adult learning. There is a growing emphasis on outcomes as an aspect of quality assurance (ICF GHK (2013)). For example, in Germany, the accreditation of providers of training funded by public employment agency requires information on labour market outcomes of training. Similarly, in the UK (England), the Skills Funding Agency links performance by VET providers on a set of benchmarks to funding for those providers. There have been no evaluations of such measures so their impact cannot be determined.

Table 2.10 summarises our findings.

Table 2.10: Quality assurance policy actions that bring about effective adult learning

Policy action	Output/outcome	Strength of evidence
Introduction of quality assurance systems	Improved quality of provision	++
Developing a skilled teaching workforce through initial teacher training and CPD	Improved quality of provision	+

Co-ordinating adult learning policy with other public policies

The approach that many countries have taken to increase effectiveness in adult learning has been to co-ordinate public policies with an impact on adult learning (if there is a specific policy on adult learning) and the work of different public funders and providers of adult learning. The effect of these can be difficult to measure so it is unsurprising that the research evidence is also scarce.

Desjardins and Rubenson (2013) examine the importance of co-ordinating institutions and public policy measures in maintaining investment and oversight of adult learning policies. While the evidence used is drawn from high-level measures and variables and is based on a relatively small sample, they find that collaboration between public policy stakeholders is an important factor in increasing the participation rate in adult learning across all social groups. Saar et al (2013) make a similar point – that institutional characteristics and configurations in different countries can have a potential impact on the extent of adult learning. However, there is no large scale empirical analysis underpinning this.

Similarly, there are some empirical studies that demonstrate the effectiveness of aligning policies at a local level. Byun and Valentine (2009) examined South Korea's Learning City project, an initiative to promote the development of local learning communities across the country. It is designed to enable communities to mobilise all resources for providing opportunities for lifelong learning available to its citizens. Using responses from 5,330 residents across 57 such cities in South Korea, they establish that participation in adult learning increased among older people, the less educated and the unemployed. Participants attributed positive social outcomes rather than positive economic outcomes to the learning gained. Similar findings have emerged from evaluations of Learning Regions in Germany. Forschungskonsortium (2004), Nuisl et al (2006) and Conein et al (2002) cited in Brožaitis et al (2010)) find evidence of higher participation rates, especially among socially disadvantaged people, after the policy action, as well as better quality in the adult education services provided.

Table 2.11 presents the policy actions relating to policy co-ordination for which we have found evidence to support their effectiveness.

Table 2.11: Co-ordination policy actions that bring about effective adult learning

Policy action	Output/outcome	Strength of evidence
Aligning the institutions who fund and provide adult learning at a local level	Increased participation Improved quality of provision Improved social participation	+++
Participation of employers and other social partners in training agreements and in planning of training at local and sectoral level	Increased participation	++

2.3 Achieving effectiveness in adult learning: the case study evidence

Below we examine what the ten case studies tell us about the relationship between adult learning systems and the outputs and outcomes achieved by them. This is considered in relation to the policy actions set out in section 2.2.3 above and draws out evidence which supports and supplements the evidence from the research literature.

2.3.1 Improving learners' disposition towards learning

Policy actions to improve learners' disposition towards learning appear to be common in countries which have raised participation in learning especially by groups who are less likely to participate in learning (EE, NL) and the unemployed (ES, PT).

Successful strategies to engage the low skilled, the unemployed and migrants in learning, for example, generally feature actions to provide information, advice and guidance and tailor learning to the needs of the target groups (AT, EE, ES, NL, PT). Where the target group is large, such as the unemployed, the process is more focussed on media promotion of the benefits of learning and the use of public employment services to engage learners (ES, PT).

Portugal's New Opportunities policy action to increase participation in learning among the unemployed is described in Box 2.1.

Box 2.1: Portugal: New Opportunities Initiative

The main objective of the New Opportunities Initiative, which was in place from 2005 to 2012, was to improve adults' disposition towards learning, particularly adults who had previously had a negative experience of learning and had not participated. **New Opportunities Centres** played a very important role as a gateway for learners to receive accurate information and individual guidance on how to validate prior learning or acquire new skills. The centres were located in public schools, vocational schools, training centres, social enterprises, local authorities, business associations, local development associations and various training bodies with extensive national coverage.

The New Opportunities Initiative met with some success in terms of **improving the basic competence levels and increasing the self-esteem and employment prospects of the adults who participated as well as a greater motivation to continue learning**. Following an evaluation of the initiative, the 450 New Opportunities Centres were replaced with a new network of centres known as Centros para a

Qualificação e Ensino Profissional (Centres for Qualification and Vocational Training). These centres will also target young people between 15 and 18 years of age as well as adults, and will be responsible for undertaking guidance, counselling and validation activities for these groups.

Where the target group is smaller and more dispersed, such as migrants and the low skilled, the process is more focused on awareness raising through specialist non-governmental organisations who have experience of working with these groups or with intermediaries (AT, EE, NL). Such groups are successful in engaging and recruiting adults to learning by providing guidance, needs assessments, and help to identify and join suitable courses. This works well for adults with basic skills' needs (NL) as well as the low skilled (AT) and appears to attract learners who would not otherwise take up learning because of personal motives. Such groups also benefit from building their capacity to deliver advice and guidance and to identify appropriate learning through building networks (AT, EE). Where such groups work with learning providers to develop courses tailored to need this helps to attract learners (NL).

Box 2.2 shows an example of an awareness-raising initiative from Estonia that has been successful in increasing the participation rate. This involved developing an understanding of the needs and motivations of learners and responding to them.

Box 2.2: Estonia: Adult Learning Development Plan 2009-2013

The Adult Learning Development Plan 2009-2013 included a range of actions to raise awareness of the value of lifelong learning for people who are economically active. The Development Plan included creating an adult learning network of training providers, representatives of local municipalities, employers, and the local media, as well as groups of former learners to reach out to local communities and promote adult learning.

The Association of Estonian Adult Educators (Andras) was asked to bring together, manage and coordinate a network of adult learning stakeholders taking part in awareness-raising activities on a voluntary basis. The knowledge and understanding of Andras ensured that actions to promote adult learning were successful.

A number of specific participation targets were set out under the Development Plan for the awareness-raising stakeholder network to meet. The most important one was to increase participation in learning among the unemployed from 9.5% to 20%.

This target was achieved and exceeded. Between 2008 and 2013, the participation rate among the unemployed in training increased from the baseline level of 9.5% to 26.5%.

While other actions in the Development Plan also substantially contributed to raising participation in adult learning among the unemployed (e.g. training vouchers), the activities of the awareness-raising network were considered to be effective in reaching out to the unemployed at the local level.

2.3.2 Using incentives to engage employers to invest in learning

Employees' participation in learning and their acquisition of skills and competences is increased by funding employers to contribute to the cost of training and/or the cost to the business of staff not working while being trained (EE, FR, NL). This appears to be the case with payments for training taken up (EE), tax rebates/reductions (FR, Contrat de Professionnalisation, CDP) and subsidised training (NL). It is not clear to what extent these create additional take up of training by employees though with large scale programmes, such as in the Netherlands and Estonia, the success of the programme can be measured against an increase in the proportion of employees undergoing training.

Directorate-General for Employment, Social Affairs and Inclusion

Directorate C (Europe 2020: Employment Policies)

Giving employers some choice and flexibility over the training provided and engaging employers or representatives of them in designing courses to meet their training needs (FR) are perceived to be features of actions which ensure that incentives are successful.

The Netherlands' Learning and Working Action Plan 2005-2011 is described in Box 2.3.

Box 2.3: Netherlands: 'Learning and Working' Action Plan 2005-2011

In the Netherlands municipalities are traditionally the main providers of adult education. One of the aims of the Action Plan was to create incentives for employers to offer training programmes to their staff co-funded by the Government.

The Ministry of Education and the Ministry of Social Affairs and Employment provided funding for the training programmes across different sectors and at different educational levels while the participating employers were required to pay into a 'training' fund.

The training programmes were designed through consultations at regional level between employers and providers of adult education overseen by public stakeholders. Nevertheless, employers were free to develop working partnerships with the adult education providers of their choice. Grants were then made available to the employer and were set based on the scope of the training.

The aim was to enable Dutch employers to create 35,000 new learning opportunities during the first phase of the Action Plan (i.e. 2005-2007) and a further 90,000 between 2008 and 2011 (125,000 in total). **In total, 146,246 new dual training opportunities were created between 2005 and 2011.**

The Action Plan also had a sizeable impact on employers' commitments to providing training. The evaluation of the Action Plan found that in 2010, **79% of enterprises** in the Netherlands provided either basic or vocational training to their staff, against an EU average of 66%.

2.3.3 Achieving access for all

Free learning appears to be necessary to increase the participation of adults who are unemployed, have deficient basic skills (literacy, numeracy and ICT) or low skills either in the form of an entitlement to attend a course (NL) or a training voucher to a specified value (EE). These appear to increase the numbers of adults participating in learning. In Estonia, for example, a programme to involve more unemployed adults in learning increased the proportion of the unemployed who took part in learning from under 10% to over 25% (2008-13). A programme in France (CSP) has successfully attracted potentially redundant employees to contribute their redundancy pay towards the cost of courses for re-training/ upskilling.

A programme in Spain is described in Box 2.4 below.

Box 2.4: Spain: Employment Workshops (Talleres de Empleo)

The Employment Workshop (Talleres de Empleo) Initiative aimed to improve the skills of unemployed adults who are also low skilled.

The workshops combined training in a learning institution with work-based learning/work experience in local public/community organisations over 6 to 12 months. Since the main objective of the initiative is to help participants to find a job, training is complemented with job searching techniques, information on health and safety at work, and basic ICT skills.

Despite the difficult labour market, the programme was meeting some success in helping

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

participants find employment – 18% found a job after completing the programme in 2010 and 2011 – which compared well with other initiatives and public employment service support for the low skilled.

Guidance is essential for the groups who are underrepresented in adult learning (CZ, EE, FR, NL, PT) whether through public employment services or specialist non-governmental organisations. They provide, depending on the group, help with assessing training needs and finding suitable training providers/courses as well as explaining the benefits and opportunities to use the skills gained. In several cases the recognition of non-formal and informal learning (NFIL) is perceived to have increased the ability to match learners' needs to training and engage adult learners in training (FR, PT). For the unemployed, providing work experience as well as training related to job market opportunities appears to encourage the take up of funded training (ES, HU).

Hungary's policy action to develop the basic skills of the long term unemployed and provide work experience has had some success (see Box 2.5).

Box 2.5: Hungary: Public work programme (Közmunkaprogram)

The public work programme starting in 2011 provided "transit employment" and skills training with the aim of integrating or re-integrating the longer term unemployed into the primary labour market.

Along with temporary employment in local, public sector employers and a wage instead of unemployment benefits, long term unemployed adults were given after assessment of their skills training to improve and update them. The results of the programme so far show that the participants have come from target groups (low school qualifications and the long-term unemployed) and it has made a difference to the improvements in the adult population's competence levels.

Improving adults' disposition towards learning is clearly a feature of effectively engaging groups who are underrepresented and this has an indirect effect on reducing differences in participation.

2.3.4 Delivering learning that is relevant to employers and learners

In several countries understanding of the needs of learners and employers has underpinned the development of specific successful adult training programmes. In Estonia, for example, the process for developing the Adult Learning Development Plan and in the Netherlands the learning and working programme engaged representatives of learners and employers in the process of developing the training offered.

Making learning relevant successfully engages learners as well as employers. Several policy actions appear to help to achieve this including:

- Forecasts of employment sector skills needs (CZ) with the engagement of employers in the development of these, and using this information to drive the development of qualifications and courses. This is described in Box 2.6 below;
- Sub-national arrangements to determine training for the unemployed to meet skills needs giving rise to labour shortages (FR, Formations Prioritaires pour l'Emploi) with the engagement of employers in this planning and analysis. See Box 2.6 below;
- National analyses of skills gaps to determine ESF training for the unemployed/low skilled (HU, IE). This can inform policy measures aimed at adapting the skills of

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

the unemployed or workers employed in declining sectors, as was the case of the Labour Market Activation Fund in Ireland. See Box 2.6 below.

Box 2.6: Czech Republic: National System of Occupations

One of the key elements of the government's Lifelong Learning Strategy 2007-13 was development of a system to recognise adults' skills and competences gained on the job and for which they have no official certificate (NSK). The other was a National System of Occupations (Národní soustava povolání – NSP) to identify occupations which are needed in the labour market and require more training to be available to meet demand. The NSP has gradually produced a **common database of skills and competences** (including the description of occupations and jobs) and a source of information on skills needs for new entrants, job seekers and training providers.

The NSP was set up to strengthen the role of employers and other social partners in the development of human resources. To develop the NSP, Sector Councils were established to carry out skills reviews and forecasts, monitor and analyse labour market needs and inform adult learning requirements. As a consequence employer representatives are involved as members of Sector Councils in all the processes ranging from the setting of qualification requirements for occupations (including the definition of new qualifications) to the development and implementation of training programmes (including the processes for the evaluation and recognition of learning outcomes).

While no specific data is available to measure the impact of the NSP on participation and competence levels among adults in the Czech Republic, there were improvements in participation in training and further education in both 2010 and 2011.

It is believed that this encourages take up (by employers/learners), completion and application of the competences gained to find employment. The training focus on ICT skills in Ireland in the Springboard programme, for example, led to relatively high levels of those trained gaining employment (around two-thirds within six months of completion) which was attributed to the training matching skills needed in the labour market.

Providing learning pathways, recognising NFIL and allowing flexible learning is believed to make learning more relevant to learners (EE, FR, PT). In Portugal, Certified Modular Courses have provided pathways and flexible learning opportunities that learners find attractive though it is less clear to what extent they motivate adults to participate. In Estonia the training programme for unemployed people allowed them to choose training courses that met their job aspirations. 45% of participants found a job within six months of completing a training course under this scheme.

Box 2.7 : France : Plan Formations Prioritaires pour l'Emploi (PFPE)

This strategy was launched in July 2013 to enable an additional 30,000 job seekers to start training courses before the end of 2013 in areas offering opportunities for employment in the short or medium term (construction, transport, health and social sectors, public works). To set priorities for training, an exercise was undertaken to identify sectors and occupations that offer employment opportunities without sufficient qualified workers both at the national level and at the regional level. Regional authorities and local employers were actively involved in this process. A total of €200 million was earmarked for this Plan with equal contributions from the State, the regional councils, the social partners and the ESF. The regional Pole Emplois (French Public Employment Service) along with regional adult education providers centres were responsible for coordinating the provision of training courses.

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

The PFPE **successfully reached its participation targets** with 35,500 job seekers registered in December 2013, and 29,500 of them having already started their training course.

Box 2.8: Ireland: Labour Market Activation Fund (LMAF)

The LMAF was launched in 2010 and funded the provision of education and training programmes for unemployed people from specific priority groups. It was targeted at the low-skilled and those formerly employed in declining sectors such as construction, retail and manufacturing services with a particular emphasis on the under 35s and the long-term unemployed.

Over 12,000 participants were supported under the LMAF. An evaluation of the fund assessed outcomes for over 5,000 participants in LMAF programmes (many LMAF supported projects ceased operating before the evaluation). This represented 54% of total completions. Of these, the evaluation found that 29% were in employment, 13% were in self-employment, 43% had progressed to further education or training and just 15% were still unemployed.

The main reasons for the success of the LMAF in securing positive outcomes for learners was attributed to the fact that the programme promoted and encouraged a learner-centred approach, ensuring that learners had skills that matched employers' demands..

2.3.5 Delivering high quality and effective adult learning

In several countries, strategies to increase participation and the use of the knowledge and skills gained are underpinned by policy actions to improve the quality of learning providers and qualifications (AT, CZ, HU, PT). In many countries these are already well established (e.g. DK, NL). This includes:

- Quality assuring all adult training providers so that they can receive funding for learning (AT, HU). In Hungary this has been incorporated in legislation. The Initiative for Adult Education in Austria is described in 09;
- Establishing relationships between occupational qualifications and national qualification frameworks to provide an incentive for learners to gain them and widen recognition by employers (CZ);
- Collecting national data on adult learning outcomes (NL). The Ministry of Education collects data which enables policymakers to identify areas where learning policy is not delivering the desired outcomes. For example, successive Action Plans on Adult Literacy are designed using data collected through the monitoring process and ensure that policies to address the educational needs of the low-skilled and of migrants and minorities are correctly targeted.

While it is believed that these make a difference to learners' motivation and engagement in learning and the outcomes achieved by learners from what they have learnt, these are perceived to be policy actions which support greater participation and employer investment in training but for which there is little evaluative evidence. In Austria, for example, the accreditation of providers was part of a strategy to build capacity to provide basic literacy learning which it is believed to have contributed towards achieving.

As indicated in section 2.2.3 above these types of policy action are therefore more likely to have indirect than direct effects on participation.

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Box 2.9: Austria: Initiative for Adult Education

This Initiative included a policy action to establish a **quality assurance framework** for adult learning providers. This included developing a system of accreditation with:

- 1 A body responsible for accreditation (a national accreditation group consisting of six adult education experts);
- 2 A set of standards (based on a) institutional quality management arrangements b) quality of service and c) staff qualifications;
- 3 A requirement that only accredited providers can apply for public funding (although not providing any entitlement to funding).

And a system for monitoring accredited adult learning providers on a regular basis, a national monitoring group consisting of six external adult education experts. The monitoring group publishes quarterly and annual reports in cooperation with the office of the Initiative for Adult Education.

2.3.6 Coordinating adult learning policy with other public bodies

Several countries demonstrate that coordinating adult learning strategies and policy actions at national and sub-national levels assist them to better align funding and coordinate provision and to align adult learning with other government economic and social policies.

It is clear in many cases that the drivers of adult learning policy actions are economic where adult learning is recognised as a means of reducing unemployment and skills gaps/ shortages by adapting the skills of the economically active (CZ, ES, FR, HU, IE). Policy actions are therefore well linked to strategies for employment and the economy and to funding provided by these ministries (through taxation, ESF, employment services). These require good working relations between them at national levels to develop successful policy actions and implement wider strategies. Examples include the Czech Lifelong Learning Strategy (2007-13) with the successful establishment of sector councils and the French Plan de Formation Prioritaires pour l'Emploi which demonstrate the links between effective delivery and policy alignment at different levels of governance (local, regional, national).

It is also clear in some cases that sub-national coordination is necessary for effective implementation of policy actions especially in larger countries (DK, FR). In Denmark, for example, the network of 13 regional VEU centres to coordinate adult learning (including guidance as well as provision) is perceived to have increased system efficiency to increase underrepresented groups in adult learning (see Box 2.10 below). In France, for example, the CSP met its targets by establishing regional skills gaps and training programmes to fill them.

Box 2.10: Denmark: VEU-centres

A VEU-centre is a partnership between all adult education and training institutions at a regional level providing vocational and general adult education at non-tertiary level and a common gateway for guidance available to both employers and individuals. By coordinating their services, each VEU-centre should serve as a 'one stop shop' for employers and learners with complex educational needs.

In total there are 13 VET-centres across Denmark. Each VEU-centre enters into a development contract with the Danish Ministry of Education, indicating the goals and

targets it will achieve in return for funding.

The steering mechanisms and incentives are simple: The providers have to be partners in a VEU-centre in order to receive state funding. The funding is linked to adult learning targets set out in the development contract with the incentive that funding can be increased if targets are exceeded. This is expected to ensure the training providers work together and coordinate their adult learning guidance and learning provision to meet common targets.

The VEU-centres are believed to have contributed to **more effective and efficient delivery of adult learning** in Denmark, having contributed to reducing gaps in participation across the country's different regions which were targets set in development contracts.

2.4 What supports policy actions to be effective: evidence of policy literature and the case studies

There is evidence in the research and policy literature that suggests that policy actions are successful when they have certain ingredients or when they are being taken forward in association with other policy actions. These can be broadly described as *performance enablers* which help to achieve effective adult learning. These ingredients of policy actions or separate policy actions may not directly lead to effective adult learning which means that their impact often cannot be directly measured in relation to participation in adult learning and learning outcomes but they clearly influence the success of other policy actions.

We have identified performance enablers where the research evidence and case studies draw out processes and ingredients of policy actions which contribute to success and where literature, such as policy handbooks and best practice guidelines, has drawn on evaluations and practitioner and expert views of what are the ingredients of effective policy actions in adult learning.

2.4.1 Collaboration and co-ordination

The Cedefop (2014) Policy Handbook identifies collaboration and co-ordination as being two of the key features of successful policy implementation. As discussed in section 2.3.6 above, it is difficult to measure the impact of collaboration but it is considered to be an important ingredient of policy effectiveness.

For example, Markowitsch et al (2013) report that the success of skills strategies depends on the institutional environment in which they are implemented. A skills strategy on its own is not enough to increase participation, but it is enabled by co-ordination and collaboration between different institutions and stakeholders. Specifically, they suggest that forging coalitions removes the barriers that exist to more training being made available. Brozaitis et al (2010) report that strong and active political leadership '*in the relevant institutions responsible for the reform*' helps to establish explicit national targets to be achieved, maintain momentum throughout the implementation process, and provide sufficient public funding of activities to deliver the reform.

In the case studies it is clear that the success of several policy actions was linked to the collaboration and coordination put in place to implement them. For example, the coordination required among training providers in Denmark's VEU centres was a factor which brought together providers to achieve a national policy aim to narrow the gap in adult participation and achieve efficiencies and reduced the need for the government to set targets for individual providers. In France the PFPE required collaboration between employers and funders at a regional level to develop training that would meet skills gaps

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

in a relatively short time. This could not have been achieved by the government on its own.

2.4.2 Evidence-based policy making

It is commonly stated in the research evidence and the policy literature that best practice includes the use of evidence in policy design, the development of monitoring and evaluation of policy actions as part of their implementation, and the use of the results to be built into future policy (Gough et al 2011). For example Taylor (2004) suggests evaluation is necessary to enable the impact of policy actions to be measured with confidence while Shaw (2002) recommends the role of evaluations to build capacity, gather appropriate management information and use the information for the assessment of development options for policy actions.

While the policy literature advocates a systematic approach to monitoring and reviewing policy actions to ensure they meet their intended outputs, outcomes and impacts and can be adjusted, as can be seen in the case studies, this is not carried out as a rule. There are examples in the literature of reform measures which are explicitly introduced with a review/ evaluation requirement, such as the Hartz laws studied by Jacobi and Kluge (2006)²³. There are also requirements for the evaluation of ESF-funded programmes, for example, which the description of the LMAF in Ireland case study, for example, draws on. The case studies illustrate that using evaluation in policy making at all stages is only done in some instances.

A few of the country case studies can point to evaluations and data collection to show that their intended impacts have been achieved and the use of evidence to inform the policy actions developed. For example, the successful implementation of VEU in Denmark and the development of adult literacy policy actions in the Netherlands are both linked to having data to assess and review progress.

2.4.3 Qualifications

The policy literature (OECD 2005, Cedefop 2010, Cedefop 2014) suggests that qualification frameworks with qualifications levelled and credit rated provide a basis for increasing adults' interest and participation in learning because they provide for the better recognition and comparability of qualifications by employers.

Raffe et al (2013) report from a study of national qualification frameworks (NQFs) that the impacts of these are often complex and variable. Their impacts depend on the features of the framework and other factors. These include the availability of qualifications at different levels and the progression pathways and permeability available for adults who hold qualifications, for example.

Evidence on the impact of these features is limited and is largely qualitative in nature. For example, an evaluation of the Irish National Qualifications Framework by Collins et al (2009) studied the impact of features of the framework on learners – promoting access and pathways between qualifications. While the data was limited, the study found evidence that progression routes into higher education and training have increased for learners following the introduction of the framework. Similarly, evaluations of the Scottish Qualifications Framework (Gallacher et al (2005), Raffe et al (2009)) show that features, such as the credit system for qualifications and the levelling of vocational qualifications to upper secondary and university qualifications, has enabled adults to progress with accredited learning.

²³ The introduction of the Hartz reforms was the first time in the history of the German welfare state that a major measure was introduced with a requirement for a scientific evaluation of its impact.

A few of the case studies reinforce this by demonstrating that successfully implementing policy actions to increase learning by adults who are in work benefit from the recognition of NFIL (CZ) and the availability of courses and qualifications that can meet the needs of employers and learners (FR, NL).

2.4.4 Sustainable finance and investment

Financial backing for adult learning policies is an extremely important component of their success. However, this funding must be sustainable and not short-term in nature. Brozaitis et al (2010) identify funding as a key enabler to increase ownership of adult learning reforms among relevant institutions and actors. As with many studies of ESF and other government funded initiatives, Taylor (2005) finds that pilots in the UK had *'insufficient or unsuitable resources and accommodation in organisations hosting the learning provision'* and an end to the training once the pilots had finished.

The case studies highlight that time limited policy actions can give rise to increases in adults' participation in learning and their competences. In several cases these have been attributed to higher levels of participation reported where they have been sustained for several years (CZ, HU). Continued government funding for adult learning whether it be a contribution to the cost of learning for all adults or to the whole cost of learning for those with low skills and the unemployed appears to underpin higher sustained levels of participation in countries, such as Denmark and the Netherlands. These countries have strategies which have evolved over a considerable time with funding that has responded to changing needs for adult learning both in and out of work.

2.4.5 Training the adult learning workforce

Many evaluations point to training instructors and trainers as an ingredient of programmes to increase participation and the competences of learners where it has either enabled success or been a barrier. In compulsory education, training and development of the teaching workforce is generally seen as a performance enabler for improving children's competences in enabling them to respond to different learners' needs. While empirical evidence related to this is not plentiful for adult learning, the policy literature argues that the quality of trainers is important in ensuring effective training (Cedefop 2011).

A few of the case studies suggest that successful policy actions require an adult learning workforce which has continuing professional development if not also experienced initial teacher training. The quality of the workforce is one of the standards for accrediting and inspecting training providers (AT).

2.5 Reflections on the evidence of effective adult learning

This section considers the quality of evidence provided to establish the success factors of effective adult learning from the research and policy literature and the case studies to reflect on the quality of evidence based policy making in adult learning and its contribution to the OMC and European Semester process.

2.5.1 Collecting data to monitor outputs

The research literature reflects the availability of a limited range of data collected by countries for international benchmarking on participation and highest levels of qualification achieved which can be used to establish statistical relationships and the patchy commissioning of research to monitor policy actions within Member States and other countries. Indeed the case studies show that while some countries have data systems which can be used for monitoring policy actions, others are in the making (ES, IE) and some only appear to make use of project data. Countries with longer histories of data collection about participants in adult learning and longitudinal panel surveys of

adults provide more of the research literature which shows relationships between policy actions and their expected outputs.

Monitoring policy actions is not necessarily commonplace. The case studies as a whole suggest that by no means all countries routinely set targets for policy actions so they can monitor whether they have achieved improvements in participation or competences. Targets were set in the Netherlands adult basic skills strategy and the Estonia Adult Learning Development plan, for example, which could be monitored either from information collected from adult learning providers or from surveys of learners. In other instances policy actions have target numbers of participants but no target on increasing participation (such as France and Hungary). In these cases the numbers participating can be reported (and in relation to any groups of adults targeted) but without information on the higher competences achieved it has to be assumed that these were gained by participants.

As a consequence, it is often difficult to assess if policy actions are making a difference by, for example, providing learning to adults who are not learning or raising the level of competences of those who do participate. From the point of view of efficiency it is also not possible to estimate the cost of the deadweight in most policy actions.

2.5.2 Undertaking evaluations to establish outcomes and impacts

The research literature reflects both the difficulty (and cost) of measuring outcomes and impacts of adult learning policy actions and the limited extent that studies have been commissioned by governments that enable outcomes and impacts to be measured. What it also shows is that:

- Methods which can evidence a relationship between policy actions and outcomes are not commonly followed;
- These are often supplemented by studies which can show a statistical relationship between a long term outcome/impact and policy actions;
- All too often studies measure short term outcomes and not intermediate or longer term outcomes because they focus on the effects shortly after a policy action has been implemented;
- Relatively few studies go so far as to measure the cost of all inputs to a policy action and the value of outcomes and impacts to estimate the value for money.

Research carried out to establish outcomes and impacts has often not followed (or been able to follow) methods which can measure the level of attribution between the outcomes reported and the policy actions. As the literature on evidence based policy indicates, this requires studies which can measure the net difference before and after or the difference between those who participated in the policy action and a similar group who did not. The extent of these studies varies significantly between success factors and policy actions as shown in section 2.2 above. Equally the case studies show that governments are not commonly commissioning evaluations of policy actions so that they are able to provide evidence of the outcomes and impacts they are expecting in broad terms to achieve from adult learning. Where they have these are often relatively weak evaluations when compared to the standards needed to attribute outputs and outcomes to policy actions.

Where evaluations are carried out they tend to focus on shorter term outcomes such as gains in knowledge and confidence which are more often assessed qualitatively by participants not by testing participants before and after their learning or from learning outcomes gained from achieving accredited qualifications. Intermediate outcomes from the use of competences gained feature less because they require measurement away from (at work or in the home) and after the learning (6-12 months later depending on

the nature of the training). Again this is also evident in the case studies where evaluations are more commonly able to report on the former than the latter.

Without the measurement of medium and long term outcomes from adult learning, it is not then possible to estimate returns on investment where outcomes can be valued and compared with the costs of the policy action. These evaluations are relatively uncommon. Those that exist largely relate to employer training. This prevents the analysis from drawing out the differential scales of impact of different policy actions.

Without a large number of higher quality evaluations for a policy action, another consequence is the limited number of contexts in which the findings are available. This makes it more difficult to draw the generalisation that similar outcomes can be expected across the EU.

These weaknesses in relation to education have been exposed before. Gough et al (2011) concluded that 'existing evidence is generally characterised by methodologically weak evaluation design (to measure impacts) and lacking objective measures to assess outcomes' as measures of success. There was and continues to be a lack of systematic reviews of research and meta-evaluation.

2.5.3 Assessing the effectiveness of performance enablers

At the same time, the available research evidence indicates an essential difference between those policy actions that have a direct influence on adult participation in learning or on adult skills and those policy actions that have only an indirect influence.

The latter group, called "performance enablers" in this report, comprise actions which address institutional, legislative or structural features of adult learning systems. Analysing the effectiveness of the first group of policy actions is straightforward: a direct measurement of changes in participation rates or skills levels can be carried out. However, for the second group of policy actions, in most cases a direct logical (causal) link with adult learning outputs does not exist.

For example, quality assurance policies in adult learning do not aim nor automatically lead to changes in participation rates or skills levels; rather, they lead to changes in the behaviour of intermediaries (e.g. adult learning providers), which only then might have an indirect impact on participation rates or skills levels. Thus it is often hard, or even impossible, to establish empirically a direct causal link between such policy actions and outputs, as defined in the study, without undertaking complex and costly data collection.

In the list of effective policy actions, "performance enablers" fall primarily within the last three groups of policy actions – those focused on ensuring the relevance of learning, those focused on ensuring the quality of learning and those focused on improving coordination between different policies. There is a need for more evidence about their effectiveness and identifying different ways to assess their effectiveness (e.g. looking at different outputs rather than participation or skills).

2.6 Conclusions

This section summarises what we have learned from the research evidence described here about the adult learning system and what brings about effective adult learning. It also summarises how far the evidence base can be used to inform the analytical tool and the extent that it provides information to support the OMC and the implementation of effective policy actions in adult learning.

2.6.1 Understanding the adult learning system and what is effective in adult learning from the knowledge base

The research evidence on how the adult learning system provides affective adult learning shows that positive outputs and outcomes from adult learning can be attributed to features of the adult learning system and some of the policy actions taken relating to adult learning.

In particular it shows in relation to features of the adult learning system that:

- Participation in learning is strongly linked to the availability of learning opportunities which governments fund in whole or part and the amount of government investment in learning;
- Focusing investment on underrepresented groups in adult learning not only redresses the balance but increases overall adult participation in learning;
- Provision of employment and work-related training is a key driver in increasing the overall participation rate, not least because the majority of adults are in work;
- Improving learners' disposition to learning increases participation in learning.

This suggests that critical policy actions should be those which achieve the following:

- Increasing the availability of learning (both formal and non-formal, both in work and out of work) and providing suitable opportunities for this for adults with a specific need (e.g. to re-skill or upskill) or an interest in learning;
- Encouraging and enabling access to adult learning by adults who do little or no learning;
- Increasing the motivation of employers to train and develop their employees as well as adults themselves to take up opportunities to learn which are available.

It also shows that some of the positive outputs of adult learning give rise to expected outcomes or at least that there is a statistical relationship between them. In particular it shows that:

For learners, there are three types of positive outcome that arise from participation in learning and achieving, in some cases, from completing courses and achieving qualifications. These are as follows:

- **Economic:** Increased wages and incomes and improved employability arise to individuals from participation in learning and in the case of wages/income from the qualifications and improved basic skills gained from learning;
- **Wellbeing:** Improved general wellbeing (including improvements in self-confidence) as well as improved health (physical and mental) can be brought about as a result of participation in learning; and
- **Social:** Improved disposition to voluntary and community activity as well as improved civic attitudes can be brought about as a result of participation in learning.

For employers, the positive outcomes that arise from learning are as follows:

- **Innovation:** A firm's innovation performance can be increased as a result of the increased skills and competences brought about by a workforce's participation in learning;
- **Benefits to the workforce:** A firm can benefit from a more motivated workforce as a result of their participation in learning; and

Directorate-General for Employment, Social Affairs and Inclusion

Directorate C (Europe 2020: Employment Policies)

- **Economic:** As a result of the benefits arising from innovation as well as a more motivated workforce, economic benefits arise to the business. Thus, increased productivity and profitability arises from increased participation in learning among a business's workforce and their investment in this;

For the community, there are both positive economic and social benefits that arise as a result of increased participation in adult learning, as follows:

- **Economic:** Countries where there are high levels of participation in adult learning are more economically competitive and feature higher levels of GDP; and
- **Social:** Participating in adult learning and increasing skills have positive effects on behaviours in relation to health, the environment and reducing reoffending.

The knowledge base thus provides both evidence of the progression from taking part in adult learning to outputs, such as greater knowledge and skills, and outcomes, such as getting into employment and increasing civic participation as well as suggesting what are some of the success factors and policy actions which contribute to effective adult learning.

2.6.2 Policy actions which contribute to effective adult learning

The research literature and data analysis shows more clearly what the success factors are and which policy actions related to them achieve the positive outputs and outcomes expected of the adult learning system. The policy literature, which draws as much on the practical experience of policy makers and practitioners as on the empirical research, and the country case studies fill some gaps in understanding and provide evidence which supports the research literature.

Altogether this shows that the following are policy actions which contribute to effective adult learning:

Increasing learners' disposition:

- Raising awareness of the benefits of learning leads to increased participation;
- Providing guidance systems to inform learners about learning options leads to increased participation particularly for those least likely to participate; and
- Working with social partners to plan, promote and recruit learners to learning increases participation.

Increasing employers' investment in adult learning:

- Subsidies to employers are effective in increasing employer investment in learning opportunities which leads to significant increases in participation by employees;
- Aligning workforce development programmes with employers' needs is effective in increasing employees' participation rate; and
- Promoting the embedding of basic skills in workforce development programmes leads to improved skills and competences for employees.

Improving equity of access to learning for all:

- Embedding basic skills development in adult learning programmes is effective in increasing participation and progression among learners in hard-to-reach groups;
- Guidance and counselling targeted at learners from hard-to-reach groups is effective in increasing their participation in learning and raising their basic skills;
- Intermediary organisations play an important role in recruiting learners from hard-to-reach groups; and

Directorate-General for Employment, Social Affairs and Inclusion
 Directorate C (Europe 2020: Employment Policies)

- Introducing recognition systems for informal and non-formal learning can increase participation.

Delivering more learning that is relevant to employers and learners:

- Personalised programmes of study may increase participation by making learning more attractive to learners;
- Aligning the employers' needs with local and regional educational providers is effective in increasing participation and leads to provision of more relevant learning delivered in a way that will increase employees' skills; and
- Training programmes that are designed to address labour market needs including work experience lead to better outcomes for learners and employers because skills are applied.

Ensuring that high quality learning is delivered:

- The introduction of quality assurance systems, such as accrediting training providers and developing accredited courses, can lead to better outcomes for learners; and
- Developing a skilled teaching workforce should lead to a better quality of learning provision.

Co-ordinating adult learning policy with other public policies:

- Aligning the institutions who fund and provide adult learning at a local level can lead to increased participation;
- Collecting data on participation in learning which can be related to specific funded training can enable policy actions to be monitored and evaluated; and
- The participation of employers and other social partners in training agreements and in planning of training at local and sectoral level leads to increased learner participation.

Some policy actions are more clearly performance enablers because they contribute to the success of other policy actions when the policy literature and the case studies are examined. These are:

- Collaboration and co-ordination between stakeholders at national, regional and local levels;
- The use of evidence in policy-making especially evaluation;
- Features of qualification systems in terms of pathways from general education and IVET to CVET and higher education;
- Sustainable finance and investment in opportunities for adult learning both in work and in training providers; and
- Training the adult learning workforce so that it is better qualified for specialist teaching and benefits from continuing professional development.

2.6.3 The quality of the evidence base for the OMC and the implementation of effective adult learning

For the development of the analytical tool, there is sufficient evidence to develop a conceptual framework which as envisaged can identify success factors based on evidence. Nevertheless there are certain limitations; including:

- Some of the policy areas tested have much stronger research evidence than others, e.g. around employer training much more than around high quality learning;
- The research evidence is generally supported by the case studies and policy literature and this also fills some gaps especially around the quality of training and the delivery of adult learning policy;
- Some of the evidence is not attributional but only associational with a dependence on statistical relationships and qualitative evidence in some cases, limiting the assumptions about causality that can be made based on such evidence;
- There are gaps in the coverage and quality of the research literature which, if filled, might adjust the conclusions reached about success factors and policy actions.

What we see from the research literature and the case studies is that data is not always collected systematically by governments to enable policy actions and their targets to be monitored or for targets to be set in the first place. While evaluations provide evidence for this analysis they are not often commissioned nor when they are, are they of a quality to provide unequivocal evidence that their outputs and outcomes can be attributed to the policy actions.

The coverage and quality of these needs to be improved if the analytical framework proposed in section 3 is to be improved with gaps filled in the evidence base, more assured conclusions on the policy actions which contribute to effective adult learning, and with evidence of the contribution that policy actions make to effective adult learning.

3 The conceptual framework

This section presents how the review of the evidence has informed a final proposed conceptual framework for effective adult learning. It then presents a final proposed conceptual framework as the basis for the analytical tool to be developed which draws on the research and case study analysis described in section 2 and the consultation feedback which has challenged and added to the evidence provided by this. It finally assesses the framework against the criteria established at the outset of the study and other frameworks.

3.1 The final proposed conceptual framework

Figure 3.2 presents the **final proposed** version of the conceptual framework. Annex 5 has previous versions of the framework developed during the study which show the changes in the shape and content of the framework as the study has developed and taken account of feedback. Below we draw out the rationale for the components of the framework and then the content of the framework based on the findings in section 2.

3.1.1 Developing the framework

The development of the framework has been an iterative process. It is important to emphasise several changes to the framework that have occurred and how some significant issues have been addressed. These are:

- Assessment of the evidence from the literature review. This has had to be translated into success factors and building blocks (policy actions). The process of consultation and feedback has brought about clarification of the wording of building blocks to reflect the research evidence that exists and eliminated duplication resulting in fewer building blocks;
- The inclusion of building blocks without sufficiently strong quantitative evidence to underpin them. Such examples included in earlier versions “ensuring a qualified and high quality adult learning workforce” and “establishment of a qualifications framework”. It was argued that these were policy actions that should be included because they represent accepted “best practice” by policy makers and practitioners. It is recognised that this could be a function of the research available rather than an indication that they are not policy actions which contribute to success. By drawing on policy literature (in section 2.3 above), this has brought in evidence based on practice and experience;
- Reflecting the quality of evidence in the framework. As indicated in the literature review, there is considerable variation in the availability and quality of evidence relating to success factors and policy actions. As a consequence, each building block in the framework is shaded to reflect the standard of evidence drawing on the Maryland index. This is explained in Table 3.1.

Table 3.1: Reflecting the variability of evidence

Type of study	Strength of evidence	Shading
Studies which have drawn conclusions from meta- reviews of robust evaluations	+++++	
Evaluation studies with counterfactual quantitative evidence of a significant impact	++++	
Studies which measure change before and after the policy action, controlling for other factors and which have large	+++	

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Type of study	Strength of evidence	Shading
samples for robust statistical analysis		
Research studies which are based on sufficiently in depth case studies to allow robust qualitative assessments	++	
Small scale studies dependent on qualitative data which has not been collected systematically	+	

3.1.1 The content of the framework

The design of the framework draws on features of the policy progress model mentioned in section 1.3.3 as well as features of the outcome strand model. Like the other model types in section 1.3.3, it illustrates a logic chain demonstrating how key success factors and individual policy actions (“building blocks for success”) contribute to effective adult learning (as shown by the system-level indicators) as well as the outcomes arising from this. Figure 3.1 presents a simplified model of this logic chain. These outcomes are then categorised according to the various beneficiary groups, e.g. learners, employers and the community.

Figure 3.1: Relating policy actions to outcomes

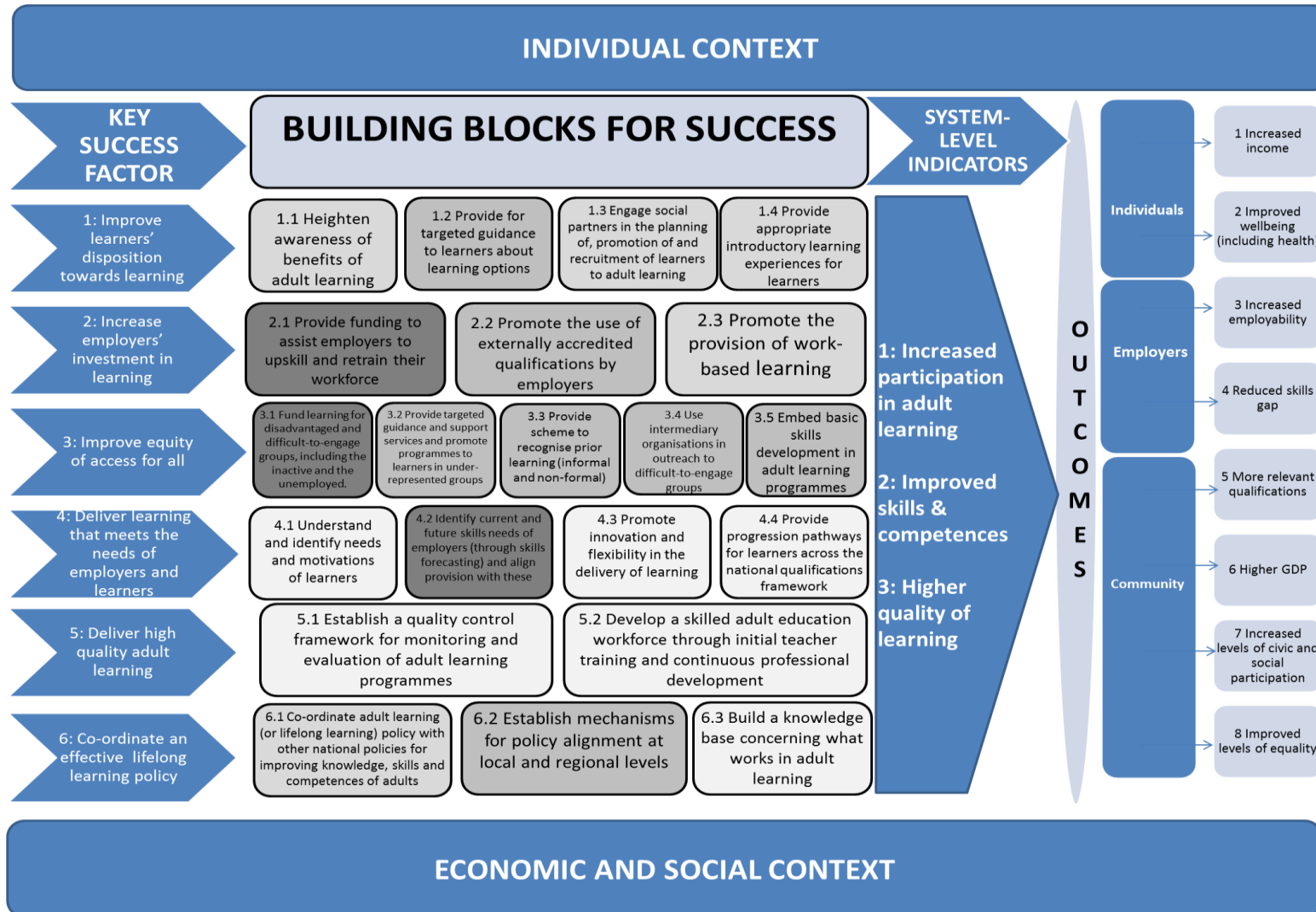


Figure 3.2 presents the final proposed framework. The content of the framework proposed is led by the evidence base of policy actions that affect the policy outcomes expected from adult learning, as presented in section 2. It reflects the three levels at which the evidence and data were analysed. The first level relates to the overall success factors that have been identified in the evidence as being critical to deliver effective adult learning. The second level shows the different outputs, outcomes and impacts that can be associated with participation in learning, for different beneficiary groups, including the learner, employers and the community. The third level relates to the “building blocks for success” – the policy actions that lead directly to an increase in participation in learning or impact on the outcomes arising from that as well as those that contribute to the journey towards achieving these.

Identifying the success factors and the building blocks inside each one has been an iterative process, both in terms of identifying the individual elements and agreeing the wording of each. The feedback received during consultations with practitioners and workshops with the Adult Learning Working Group have been incorporated during this process. We have identified the following six key success factors from this process, and grouped the building blocks for success accordingly:

- Improve learners’ disposition towards learning;
- Increase employers’ investment in learning;
- Improve equality of access for all;
- Deliver learning that meets the needs of employers and learners;
- Deliver high quality adult learning; and
- Co-ordinate an effective lifelong learning policy.

Figure 3.2: Conceptual framework for the study of the effectiveness of adult learning policies



Key Success Factor 1: Improve learners' disposition towards learning

Success factor: Analysis of the evidence shows that building a positive disposition towards learning among individual learners is important in terms of promoting participation and retention in learning. A positive attitude towards learning and awareness of the benefits arising from it are important factors in increasing participation among learners. The evidence suggests that this is not motivated by direct financial incentives to adults but is facilitated by structural features of the adult learning system, such as guidance for learners, involving social partners in the adult learning system and raising awareness of the benefits of learning to adults. A key part of building this positive disposition is highlighting the benefits of learning and making them relevant for learners, especially in the context of upskilling and reskilling for employment purposes.

To reflect the evidence supporting the basis of this success factor, we have identified the following building blocks:

- **1.1 Heighten awareness of learning:** The research evidence and the data analysis demonstrate that adults need to be made aware of learning opportunities in order to improve their disposition to learning. Providing adults with information about learning is associated with an increased participation rate. However, providing potential learners with information is made more effective if they are made aware of the benefits arising from participation. One of the main reasons given by adults for not participating in learning, as presented in the data, is a lack of motivation. The research evidence showed that where adults were made aware of the benefits arising from work-related learning (especially in terms of reskilling and upskilling), there was an increased likelihood of an increased participation rate. Effective strategies to raise awareness about learning, as identified by the case studies, include the use of public employment services and media promotion campaigns.
- **1.2 Provide targeted guidance for learners about learning options (including career management skills):** Providing targeted guidance to adults about learning opportunities and promoting the acquisition of career management skills are effective policy actions to increase participation in learning. The research evidence demonstrates that adults who have participated in learning highlighted the importance of a guidance system in improving their disposition to learning because it assisted them in identifying relevant learning opportunities. Providing guidance for learners about relevant learning opportunities ensures that learners are clear on the specific benefits arising to them from learning. It can also provide information on support for learners to overcome barriers to learning. Guidance is particularly effective when it is tailored to address individual adults' personal and professional circumstances, is progressive and encourages the acquisition of career management skills. This is supported by the case study evidence.
- **1.3 Engage social partners in planning, promotion and recruitment of learners to learning:** The evidence demonstrates that social partners (not just employers) play a significant role in increasing participation in learning and expanding the existence of a "learning culture". The phrase "social partners" is used in different contexts in different Member States, but usually includes employers, trade unions and other professional groups representing sectoral interests. The research evidence and the case studies suggest that the roles that social partners have in the adult learning system are wide-ranging. This role is broader than just recruitment of learners to learning (as demonstrated by the research evidence on the role of employers) and also includes the design and promotion of adult learning strategies (as presented in the evidence from the case

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

studies). The need for this broad role to be reflected in the building block was also supported by feedback from practitioners.

- **1.4 Provide appropriate introductory learning experience for learners:** The research evidence demonstrates that a significant determinant in remaining in learning is previous participation in learning. Adults' experience of learning is important, as it will influence their likelihood of future participation. As evidence from Portugal showed, previous negative learning experience can dissuade learners from participating in further learning. The research evidence and the case studies demonstrate that tailoring introductory learning experiences (especially for hard-to-reach adults) is important in attracting adults to participate in learning, and, importantly, encourages them to continue to learn.

Key Success Factor 2: Increase employers' investment in learning

Employers play an important role in promoting a learning culture and promoting participation in learning. They should be considered an important partner in the delivery and design of adult learning. That is clear from the research evidence, the analysis of the data and the evidence provided in the case studies as well as the feedback received from practitioners. The significance of this role makes it challenging to reflect all aspects in one success factor. The role of employers thus features in other success factors, for example, the planning and promotion roles of employers are reflected in Key Success Factor 1.

The research evidence highlights employers' investment in learning as being important to increasing the availability of learning opportunities as well as increasing participation, especially among their workforce. The data demonstrates a positive association between the participation rate in adult learning and the level of employer funding. As work-related motivations are among the main reasons for taking up learning, job-related training is particularly effective in attracting learners. However, there is also evidence that suggests that the type of training provided by employers can influence the effectiveness of participation in learning.

To reflect the evidence supporting the basis of this success factor, we have identified the following building blocks:

- **2.1 Provide funding to assist employers to upskill and retrain their workforce:** Employees' participation in learning and their acquisition of skills and competences is increased when funding is provided to assist employers with the cost of training (direct and indirect). The form that this funding takes differs from country to country. The evidence suggests that the most effective form is direct funding to employers, through a subsidy or a grant.
- **2.2 Promote the use of externally accredited qualifications by employers:** Using externally accredited and nationally recognised qualifications, such as those provided as part of vocational training programmes, are effective in increasing participation in adult learning. The research evidence shows that such courses that award externally accredited qualifications are more effective in improving outcomes for employers and learners in terms of productivity and wages. As externally accredited qualifications also result in improved employability for workers, this can also contribute to a "spillover" benefit for the economy.
- **2.3 Promote the provision of work-based learning:** The research evidence demonstrates that formal work-based training programmes are effective in increasing productivity and improving the skills and competences of workers. This is because of the role of employers in designing such training programmes, but also the speedier application of the skills that are learned. Promoting work-based

Directorate-General for Employment, Social Affairs and Inclusion

Directorate C (Europe 2020: Employment Policies)

learning is thus an effective way of increasing participation but also delivering outcomes for learners. Evidence from the case studies shows how linking funding for employers to support training with a role for them in designing training programmes is effective (as in the Netherlands) in promoting provision of work-based learning.

Key Success Factor 3: Improve equity of access for all

This success factor is focused on ensuring that learners from disadvantaged and underrepresented groups are able to access and benefit from learning. It recognises the challenges in engaging these groups in learning and overcoming barriers to their participation, but also focuses on the need to engage adults who are low-skilled and unemployed. The research evidence and the evidence from the case studies suggest that enabling access to adult learning by people from all socio-economic and demographic groups is a common policy goal. Policy actions underpinning this success factor are generally focused on improving participation in adult learning by those who are least likely to participate.

As was the case with Success Factor 1, direct financial incentives are not as effective as structural features of the adult learning system to encourage increased participation in learning among these groups. Support for people in disadvantaged groups is important in assisting them to participate in learning. This includes funding learning opportunities for disadvantaged adults, ensuring that guidance support is tailored to individual learners' needs and motivations, recognition of non-formal and informal learning (NFIL) and embedding basic skills development in learning programmes for the low-skilled (who are also likely to be members of disadvantaged groups). Intermediary organisations such as community groups and trade unions can play a role in engaging harder to reach adults in learning.

To reflect the evidence supporting the basis of this success factor, we have identified the following building blocks:

- **3.1 Fund learning for disadvantaged and difficult-to-engage groups, including the inactive and the unemployed:** Funding learning opportunities leads to increased participation. Evidence from the case studies and evaluation of ESF programmes demonstrates that funding of learning is necessary to increase the participation of adults who are unemployed, inactive and have low skills. In addition, the funding of learning for the disadvantaged has been shown to help them overcome the financial barriers they face in participating in learning. This need to support learners in overcoming situational barriers to learning was highlighted by respondents to the consultations and in meetings of the Adult Learning Working Group as an important policy action in improving access for all.
- **3.2 Provide targeted guidance and support services and promote programmes to learners in under-represented groups:** Targeted guidance and access to tailored support programmes to assist adults to overcome situational barriers to learning are particularly effective in increasing participation. Adults in difficult-to-engage groups can face additional barriers to learning. The research evidence suggests that such adults require additional policy interventions in overcoming those extra barriers, which makes this building block distinct from Building Block 1.2. because this building block also includes extra support, besides guidance, which learners in these difficult-to-engage groups might require, such as social services and health support (including mental health).
- **3.3 Provide scheme to recognise prior learning (informal and non-formal):** The research evidence suggests that recognising prior learning plays an important role in recruiting learners (especially those with little or no experience

Directorate-General for Employment, Social Affairs and Inclusion

Directorate C (Europe 2020: Employment Policies)

of learning in the past) but also leads to increased levels of competences and skills. This is also supported by evidence from the case studies that suggests that providing such a recognition scheme is important in matching learners' needs to available learning and training.

- **3.4 Use intermediary organisations in outreach to difficult-to-engage groups:** The research evidence highlights the important role of intermediary organisations (such as community groups and charities) in recruiting underrepresented groups to learning. It shows that such groups are effective at recruiting adults, especially those from disadvantaged backgrounds to learning. This building block is distinct from the Building Block 1.3, because of the specific groups targeted by this policy action. It is also distinct from the overall design and planning roles identified for social partners in Building Block 1.3.
- **3.5 Embed basic skills development in adult learning programmes:** Including literacy and numeracy in adult education programmes is effective in engaging and retaining learners, as well as facilitating their progression onto other opportunities. The research evidence demonstrates that embedding literacy and numeracy skills into learning programmes plays an important role in attracting learners who would not otherwise participate in learning opportunities. There is also evidence that when those with literacy and numeracy difficulties participate in learning programmes of this type, they benefit more than average than other participants do.

Key Success Factor 4: Deliver learning that is relevant to employers and learners

This success factor is aimed at ensuring that learning is relevant for both employers and learners. The research evidence confirms that where learning takes account of the needs and motivations of both employers and learners, it is likely to be more effective in improving outcomes for both and in increasing participation in learning. The research evidence shows that policy actions focused on ensuring that learning is relevant are effective in increasing participation, but also in ensuring positive outcomes for learners.

While there are similarities with other success factors, this group of policy actions is distinct from those focused on changing learners' disposition and providing increasing employer investment in learning. This distinctiveness is because of the focus of these policy actions on the "supply" of learning rather than the "demand" aspect of learning. It therefore complements the approach taken in Success Factors 1 and 2, rather than duplicating them.

To reflect the evidence supporting the basis of this success factor, we have identified the following building blocks:

- **4.1 Understand and identify needs and motivations of learners:** Analysis of the data demonstrates that needs and motivations of learners are important factors in the decision to participate in learning, especially if learning job-related. Designing learning opportunities to respond to learners' needs makes the prospect of participation in learning more attractive. The research evidence shows that where learning opportunities correspond to learners' needs (or where they are given the flexibility to choose learning opportunities suitable for them), they are more likely to participate in learning. Evidence from the case studies supports this. It also shows that involving representatives of learners in planning and design of provision is a useful method of understanding learners' needs and designing learning opportunities appropriately.

- **4.2 Identify current and future skills needs of employers (through skills forecasting) and align provision with these:** Ensuring that the provision of adult learning reflects labour market demands is important. Key Success Factor 2 established the importance of the employer's role in adult learning. This building block focuses on ensuring that provision is responsive to employers' current and future needs. Examples from the research evidence show that where local educational providers align their provision with the requirements of local employers, this results in higher participation and better outcomes for learners and employers. This alignment can be done on a local, regional or national level as demonstrated by the case study evidence. This building block complements building blocks 1.3 and 2.3 which show that involving employers in the design of training programmes is effective in making learning relevant to working life.
- **4.3 Promote innovation and flexibility in the delivery of learning:** Evidence from the case studies suggests that encouraging flexibility in how learning is delivered is important in helping adults overcome barriers to learning they may face. Surveys of adult learners have identified the existence of personalised programmes of study have been identified as being important incentives to attract them into learning. Feedback from practitioners has flexibility of delivery as an important factor in making learning attractive to learners, especially in relation to technological flexibility and distance learning. Feedback from practitioners also emphasised the importance of encouraging innovation in the delivery of learning to support development of more flexible forms of delivery.
- **4.4 Provide progression pathways for learners across the national qualifications framework:** While there is little evidence that suggests that the introduction of a qualifications framework has an effect on the level of participation, there are features of qualifications frameworks that are important in facilitating retention of learners. In the context of adult learning, feedback from practitioners and analysis of the policy literature suggests that the existence of progression pathways across higher and further education as a part of a qualifications framework play a role in attracting learners into learning and also encourage investment in learning from employers. Evidence from the case studies suggests that such permeability provides an incentive to learners to gain qualifications and progress on to further learning.

Key Success Factor 5: Deliver high quality adult learning

While there has been little evaluation done of systems and tools designed to assure the quality of adult learning, there is broad agreement among practitioners that delivery of high quality adult learning is important in ensuring positive outcomes for learners, employers and the community. This is reflected in the number of reports that have been recently published that have mapped and compared quality assurance systems in adult education and training in different Member States. However, this research has not systematically assessed the effectiveness of such policy actions.

As such, the evaluative evidence underpinning this success factor is not as robust as in the case of others. However, the policy literature we have reviewed suggests that ensuring quality in adult learning should be considered an important priority, especially in the context of increased accountability for public investment as well as the fact that attainment of quality in adult learning is an identified priority of ET2020.

To reflect the evidence supporting the basis of this success factor, we have identified the following building blocks:

- **5.1 Establish a quality control framework for monitoring and evaluation of adult learning programmes:** The limited evidence relating to quality

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

assurance and adult learning from the research literature suggests the introduction of quality assurance has some positive impact on the quality of adult learning. This was corroborated by evidence from the case studies which suggested that introduction of such quality control frameworks had an indirect effect on participation. In addition, given the priority afforded to quality assurance as part of the European agenda on adult learning, feedback from practitioners indicated a need to reflect this policy action as part of the framework.

- **5.2 Develop a skilled adult education workforce through initial teacher training and continuous professional development:** While there are few research studies which evidence the impact of teacher training in adult learning, a few of the case studies suggest that successful policy actions require an adult learning workforce which has continuing professional development if not also experienced initial teacher training. The feedback from practitioners emphasised the need to ensure that those involved in adult education were sufficiently qualified. In addition, the need to ensure that those involved in adult education availed of continuous professional development was highlighted by most practitioners.

Key Success Factor 6: Co-ordinate an effective lifelong learning policy

This success factor is focused on the need to co-ordinate lifelong learning policy effectively to deliver the desired outcomes for learners, employers and the community. The research evidence, the policy literature and the case studies all suggest that collaboration and coordination of adult learning policies are important factors in their successful implementation at national or subnational level. A lifelong learning strategy on its own is not enough to increase participation, but it is enabled by co-ordination and collaboration between different institutions and stakeholders. In addition to this, the policy literature suggests that collection of data and evidence to monitor a policy is crucial in ensuring its effectiveness.

To reflect the evidence supporting the basis of this success factor, we have identified the following building blocks:

- **6.1 Co-ordinate adult learning (or lifelong learning) policy with other national policies for improving knowledge, skills and competences of adults:** The evidence from the case studies suggested that coordinating adult learning strategies and policy actions at national level assists in the better alignment of adult learning with other government economic and social policies.
- **6.2 Establish mechanisms for policy alignment at local and regional levels:** Aligning policies and institutions who fund and provide adult learning at a local level can increase participation, as well as improving the overall quality of the provision. This is particularly relevant for larger countries, where sub-national alignment is important to ensure effective implementation. The research evidence provides examples of where local alignment of policies and stakeholders is not only effective in increasing participation but also in terms of improving outcomes for learners.
- **6.3 Build a knowledge base concerning what works in adult learning:** While there is little evidence suggesting that collecting data and reviewing policies to assess what is effective plays a role in increasing participation, the policy literature advocates a systematic approach to monitoring and review of policy actions. This is crucial in determining whether a policy is effective in achieving its desired outcomes and impacts. This is something that is echoed by practitioners

Directorate-General for Employment, Social Affairs and Inclusion

Directorate C (Europe 2020: Employment Policies)

and policy makers, especially in those Member States where no such knowledge base exists.

Outcomes

The evidence suggests that there is a range of outcomes which can be associated with adult learning, and this is reflected in the framework. These are not just economic or employment related but also relate to general wellbeing and an increase in volunteerism and social capital. We have identified those outcomes, drawing on the evidence, as follows:

- Increased income;
- Improved wellbeing (including health);
- Increased employability;
- Reduced skills gap;
- More relevant qualifications;
- Higher GDP;
- Increased levels of civic and social participation; and
- Improved levels of equality.

3.2 Assessment of the framework

In this section the framework is assessed against the criteria developed to test drafts of the framework and compared with other frameworks of adult learning which have been developed.

3.2.1 How well does it meet the criteria for a conceptual framework

Table 3.2 presents an overview of the strengths and weaknesses of the framework in relation to each of the criteria outlined in section 1.3.3. These criteria have been used to assess the iterations of the framework developed throughout the study and to determine how each iteration has improved it in response to feedback from practitioners and members of the Adult Learning Working Group. The criteria have been used to guide the improvements made to the framework.

In relation to conceptual insightfulness, a strength of the framework is that it comprehensively reflects the policy actions that evidence has shown to be significant in the achievement of key outputs and outcomes around adult learning. The design of the framework reflects the linkages between these policy actions, outcomes and the beneficiary groups. The “building blocks” approach to describing the policy actions also demonstrates that policy actions do not have to follow a particular sequence. However, we have been unable to demonstrate the vertical linkages between success factors, as we have not identified sufficient evidence to do so, and doing so would over-complicate the design of the framework. While the building blocks included are supported by evidence, there is variation in the strength of evidence underpinning each building block. This has been reflected in the design of the framework (using the shading system described in Table 3.1).

In relation to the transferability, the framework has been designed so that it can be used at different geographical levels of analysis, as the building blocks chosen reflect the policy actions available in all Member States. While policy actions may be available in all Member States, there may be certain country-specific differences in the wording used to describe such policy actions or where responsibility for those policy actions lies. We have

sought to reflect this by incorporating feedback from practitioners in revising the wording of each building block.

In relation to the usability, the framework has provided a very robust basis with which to select a set of measures and variables to monitor effectiveness and progress in implementing policy actions. Identifying discrete and distinct policy actions has been useful in identifying measures and data to be used in monitoring progress. The framework is only focused on those policy actions which evidence has identified as being effective. It does not allow for the monitoring of policy actions which may be effective, but for which evidence of effectiveness is not available. This constrains its usability for designing the monitoring of innovative and new policy actions by policy-makers. However providing evidence of effectiveness of those new policy actions would allow them to be included in an (updated) framework and thus provide the basis for including them in monitoring system(s) which are based on this framework.

In relation to practicality and usefulness, the “building blocks” provide a useful approach for policy makers to monitor progress in policy implementation. This approach allows policymakers to focus on individual policy actions as well as the overall effectiveness of adult learning policy. However, the framework does not provide information on the level of impact associated with each policy action or the cost-effectiveness of it. This is because the evidence to do this is not available. For future development of the framework, this information could be incorporated to further enhance its practicality and usefulness.

In relation to ease of understanding, the design of the framework enables clear understanding of the relationship between individual building blocks, key success factors and the outputs and outcomes associated with effective adult learning policies. The linkages between various elements are clearly shown and are supported by evidence. However, the framework is designed using a “top-down” perspective, rather than a learner perspective. Attempting to incorporate different perspectives in the design of the framework would have over-complicated the design and affected ease of understanding. Given the intended users of this framework are policymakers and practitioners, a “top-down” perspective is probably most useful.

Table 3.2: Strengths and weaknesses of the conceptual framework against our criteria

Criterion	Definition	Strengths	Weaknesses
Conceptual insightfulness	Ability to show relationships/linkages between different elements of the framework which reflect the evidence on those relationships.	<p>The framework comprehensively reflects the policy actions that evidence has shown to be critical to the achievement of the key outcomes and outputs around adult learning</p> <p>The framework takes account of the fact that policy actions may not always follow a logical sequence and thus</p>	<p>The framework does not reflect the linkages between building blocks that are located in different success factors. There is significant overlap between the success factors identified, though we have tried to minimise this.</p> <p>There is variation in the strength of evidence underpinning some of the building blocks</p>

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Criterion	Definition	Strengths	Weaknesses
		<p>“building blocks” approach is better to describe the system</p> <p>Clear linkages between outcomes and beneficiary groups</p>	
Transferability	Possibility of using the framework to analyse the effectiveness of adult learning policies at different levels of geographical analysis.	The framework can be used for analysis of effectiveness of adult learning at different geographical levels as the building blocks reflect policy actions available across all Member States	It does not take account of different country contexts
Usability	Ability to use it to develop a set of indicators that can measure effectiveness, as well as the achievement of outputs and outcomes and progress towards these	The various building blocks in the revised framework have provided a useful basis for the selection of variables to measure effectiveness in adult learning policy	<p>The framework is only focused on policy actions for which evidence exists.</p> <p>The framework does take account of possible new policy actions.</p>
Practicality and usefulness	A useful tool for policy makers to improve policy and implementation and should provide the superstructure for disaggregating policies, adult learners and types of learning in an analytical tool	The framework provides “building blocks” which can be used to provide an overview of progress in implementing certain success factors, as well as measuring achievement of overall outputs and outcomes.	The framework does not provide information on the level of impact associated with each building block.
Ease of understanding	Easy to understand, in terms of representing the elements of the adult learning system which contribute to adult learning	There is a clear illustration of the linkages of policy actions with outputs and outcomes	The framework is from a “top-down” perspective and does not incorporate a learner perspective.

3.2.2 How does it compare to other frameworks

The framework proposed for the Commission is different in some respects to the frameworks produced by the OECD (Borkowsky 2013) and World Bank (SABER 2013 which only covers workforce development) for similar but not the same purposes as the Commission's. Because the purposes are different, it would not be appropriate to assess whether any of the frameworks is better than another as a basis for comparison, monitoring and developing adult learning. Some comparisons are made below in relation to the way the frameworks have been developed, the components of the frameworks and the content.

Construction

The OECD and World Bank frameworks are both theoretical constructs. While they draw on a deep understanding of adult learning systems and all the components influenced by government policy which make them up, they are not driven by evidence of which components contribute to the policy outcomes expected. In this respect they assume an equal weighting and that the policy actions they include have a strong relationship with the outcomes of adult learning.

The framework proposed here is led by the evidence base of policy actions which affect the policy outcomes expected from adult learning. This should have the advantage of assisting Member States to focus on actions which are known to have positive effects on these outcomes (i.e. they drive the outputs and outcomes expected) and, in time, prioritising, if they wish, those which have the greatest effects. However like the other frameworks the framework proposed has accepted the views of practitioners and researchers where the evidence base is not so strong.

Components

All of the frameworks clearly separate policy actions from their effects so are basically input-output models which assume that learning makes a difference. The OECD and SABER frameworks are in two parts: an overview of the concept then a more detailed framework of policy actions. The proposed framework here is in one part and also separates outputs from outcomes and covers economic as well as non-economic outcomes. Both the SABER and OECD set out measures of inputs and outputs as the proposed framework here does (see next section).

All of the frameworks also group policy actions (described as policy goals in SABER, policy areas in OECD, and success factors in the proposed framework here). But there are some fundamental differences in these and how they are framed:

- The OECD framework assumes that countries have some common policy goals rather than a set of policy actions. This could make it less transferable to different settings where these would not be supported. The proposed framework here only assumes that countries should expect a range of outputs and outcomes for learners, employers etc in line with ET2020 which demonstrate effective adult learning policies. This is more widely accepted for a tool which is expected to assist development;
- For workforce development, SABER adopts a model of policy actions which are linked to a concept of 'system performance' so they are classified as strategy (which includes providing direction and coordination), system oversight (which includes providing funding, equity and standards) and delivery (which includes providing support for and inputs to provision and collecting information). These appear to be mutually exclusive though some of the policy actions around oversight and delivery would be combined on the ground;

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

- The framing of the wording of the policy actions in SABER is similar to those used in the framework proposed here (develop, build, establish). The OECD framework has some policy goals which are framed more like outputs or outcome targets (achieve, enhance, ensure) which reflects that they are goals not actions. The former seem more appropriate for policy actions which need to be more neutral and can be easily related to policy actions taken by governments.

Content

Despite differences in how they have been shaped, the frameworks have many similarities in their policy actions, such as the recognition of NFIL, flexible learning pathways, using policy relevant data and needs based provision. Also, they all group actions around equity and the quality of learning.

There are differences in balance. SABER and the framework proposed here have a more closely similar range of coverage of policy than the OECD framework. The latter has less explicitly around employer based learning although this accounts for the majority of adult learning.

3.3 Conclusions

The development of the framework presented here was an iterative process. It draws on the evidence from the literature, the data analysis and findings from the case studies presented in section 2. In addition to this, it has incorporated feedback from practitioners and members of the Adult Learning Working Group to include evidence based on practice and experience.

The framework is fundamentally an input-output model which separates policy actions from their effects. The overall design of the framework draws on features of the policy progress and the outcome strand models. It illustrates a logic chain showing how key success factors and individual policy actions (“building blocks for success”) contribute to effective adult learning (as shown by increased participation, improved skills and competences and higher quality of learning) and the various outcomes rising from these and the groups that benefit from these outcomes (learners, employers and the community).

The individual elements of the framework draw on the evidence we have reviewed and are supported by the findings from the case studies, feedback from practitioners and review of the policy literature. The individual policy actions have been grouped into six success factors as follows:

- **Improve learners’ disposition towards learning:** These policy actions focus on heightening awareness of the benefits of learning; providing targeted guidance for learners about learning options; engaging social partners in the planning of, promotion of and recruitment of learners to adult learning; providing appropriate introductory learning experiences for learners;
- **Increase employers’ investment in learning:** These policy actions focus on providing funding to assist employers to upskill and retrain their workforce, promoting the use of externally accredited qualifications by employers; and promoting the provision of work-based learning;
- **Improve equality of access for all:** These policy actions focus on funding learning for disadvantaged and difficult-to-engage groups, including the inactive and unemployed; providing targeted guidance and support services and promote programmes to learners in under-represented groups; providing scheme to recognise prior learning (informal and non-formal; using intermediary

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

organisations in outreach to difficult-to-engage groups; and embedding basic skills development in adult learning programmes;

- **Deliver learning that meets the needs of employers and learners;** These policy actions focus on understanding and identifying needs and motivations of learners; identifying current and future skills needs of employers (through skills forecasting) and aligning provision with these; promoting innovation and flexibility in the delivery of learning; and providing progression pathways for learners across the national qualifications framework;
- **Deliver high quality adult learning:** These policy actions focus on establishing a quality control framework for monitoring and evaluation of adult learning programmes; and developing a skilled adult education workforce through initial teacher training and continuous professional development; and
- **Co-ordinate an effective lifelong learning policy:** These policy actions focus on co-ordinating adult learning (or lifelong learning) policy with other national policies for improving knowledge, skills and competences of adults; establishing mechanisms for policy alignment at local and regional levels; and building a knowledge base concerning what works in adult learning.

Using the criteria established to assess the framework, we can say the following:

- The framework is conceptually insightful. It comprehensively reflects the policy actions that evidence has shown to be critical to the achievement of key outputs and outcomes around adult learning. However, there is variation in the strength of evidence underpinning each of the building blocks;
- The framework can be used for analysis of effectiveness of adult learning policies at different geographical levels;
- The building blocks have provided a useful basis for the selection of measures and variables with which to monitor adult learning policy. However, it is limited in that it only focuses on those policy actions for which evidence exists;
- The framework is useful in that it provides a comprehensive overview of the policy actions that evidence has shown to lead to effective adult learning, but does not provide information on the level of impact associated with each building block;
- The framework is easy to understand in that there is a clear illustration of the links between policy actions and outcomes. However, vertical linkages between policy actions are not represented.

When comparing the framework presented here to other frameworks developed for similar purposes by the OECD and the World Bank, we can say the following:

- This framework is derived from evidence on the effectiveness of adult learning policies, whereas the other frameworks are both theoretical constructs. However, like the other frameworks, the views of practitioners and researchers have been incorporated in the development of this framework;
- This framework, like the other frameworks, is an input-output model that shows how policy actions impact on outcomes and outputs but does so more clearly on one level;
- The three frameworks group policy actions, but adopt different approaches both to identifying the individual policies and to the wording of each one. While there are some similarities in the types of policy actions that they all cover, this framework is more comprehensive.

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

4 Monitoring adult learning policies

This section draws on a review of pan-European quantitative and qualitative indicators and benchmarks available to assess the performance and policy development of adult learning to provide measures to best monitor adult learning systems and policy actions in a comparable way across countries. Using pan-European data sources does not limit the use of the tool on a national level as local sources of data (and their links to implemented policies) can be used to supplement these.

After providing an overview of the considerations in selecting measures and variables for monitoring and analysis of adult learning, we then present proposed measures and variables to monitor each of the success factors and building blocks in the proposed final conceptual framework. This provides one of the key features of the analytical tool. This is followed by an assessment of the measures and variables available for monitoring and consideration of the gaps which the Commission should consider filling if it is to improve the ability of Member States to benchmark and to monitor and evaluate progress.

4.1 Considerations in selecting measures and variables

The measures and variables have to provide a point of reference for monitoring performance and policy developments in adult learning towards their expected outcomes, not the least towards increasing participation by adults in learning and gaining skills and competences. They should help policy makers understand what measures and variables are needed in relation to measuring progress towards effective adult learning as well as for the effective implementation of specific policy actions contributing to this. It should also facilitate comparison of progress.

The measures and variables must reflect the conceptual framework to provide an analytical tool and must be recognised as reliable by policy makers and relevant stakeholders. This has important implications for the criteria which data sources have to fulfil in order to come into consideration for their selection and use.

We believe that the measures and variables should therefore fulfil the following criteria:

- There is a significant relationship between the measures or variables chosen and the building blocks, the success factors, and the outputs of the system as a whole identified in the conceptual framework. This means that they should reflect the intended direction of travel and for the building blocks the research evidence of what works;
- High reliability. This means that they have been well defined and similarly interpreted by all countries and by all researchers collecting data;
- High degree of comparability and country coverage of data. This means that there is data for almost all EU countries to the same standard;
- High frequency of data updates. This means that there is a regular defined point at which the data sources are updated (generally annually but exceptionally for longer periods) or a commitment for future updating at a regular interval; and
- High questionnaire stability. This means that variables used for the construction of measures and variables remain available over longer time periods to avoid breaks in statistical time series.

For the analytical tool, measures of outcomes, such as countries' economic performance or levels of wellbeing or civic participation, are not proposed. As demonstrated in section 2, significant relationships between countries' participation in adult education and training rates and important country level outcomes illustrate that adult learning is an important ingredient of countries' economic prosperity and civic development, and

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

underlines the importance of investing in it. However, including these outcomes in the tool would be inappropriate because it could misleadingly suggest that participation in adult learning is their only and most significant driver.

4.1.1 Implications in relation to the data sources available

Most of the data sources currently available do not fulfil the ideal criteria identified in Section 4.1.1 above. Most available qualitative sources do not fulfil the criterion of a high degree of comparability. Moreover, most quantitative as well as most qualitative data sources are not frequently updated. Currently, only quantitative measures and variables taken from the EULFS, the DG EMPL Labour Market Policy database, and the UNESCO, OECD, Eurostat (UOE) database fulfil both the comparability and the updating frequency criteria.

Therefore, we have not strictly applied all the criteria stated above and propose measures and variables from databases for which comparability and frequency of updating is not yet sufficient. By taking this approach, we are able to show which measures and variables are generally available to measure the building blocks and key success factors of the conceptual framework. Section 4.5 below indicates where data source gaps exist and where improvement in data comparability and data updating frequency is needed to ensure the functionality of the identified measures and variables for the tool.

Table 4.1 describes the data sources that we have used.

Table 4.1: Data sources used in selecting measures and variables

Data source	Description	Coverage	Frequency
<i>Quantitative data sources</i>			
Adult Education Survey (AES)	The Adult Education Survey (AES) is a household survey which is part of the EU Statistics on lifelong learning. People living in private households are interviewed about their participation in education and training activities (formal, non-formal and informal learning). The target population of the survey is composed of people aged 25 to 64.	EU27+NO, CH and the Republic of Serbia (2011)	Every 5 years, next cycle 2016 (data available later)
Adult Skills Survey (PIAAC)	The PIAAC dataset is the only internationally comparable source of objectively assessed skills levels of the adult population. The first round of PIAAC took place in 2012 and covered 17 EU countries. In 2016 and 2018 further countries will conduct the survey which will increase coverage.	2012: AT, BE-FL, CY, CZ, DE, DK, EE, ES, FI, FR, IE, IT, NL, NO, PL, SK, SE, UK(England, N. Ireland) 2016: EL, LT, SI	Some countries in the first wave may repeat the survey in 2018. A repetition of the survey in all countries is under discussion for the early 2020s.
Continuing Vocational Training	This survey gives an overview of companies' training policies in the European Union (EU) in 2010. It is based	EU28 +NO	Every 5 years, next cycle 2015

Directorate-General for Employment, Social Affairs and Inclusion

Directorate C (Europe 2020: Employment Policies)

Data source	Description	Coverage	Frequency
Survey	on interviews with companies – establishments with 10 employees or more – in the industrial production and marketing services sectors.		(data available later).
EU Labour Force Survey	The EULFS is a large household sample survey of labour participation of people aged 15 and over as well as persons outside the labour force.	EU28+EFTA	Annually (and quarterly)
Labour Market Policy (LMP) database, DG Employment, Social Affairs and Inclusion	This database provides information on public labour market interventions which are explicitly targeted at groups of people with difficulties in the labour market, such as training provided to the unemployed by Public Employment Services	EU28	Annual
The Special Eurobarometer 417 – European area of skills and qualifications.	Special Eurobarometer reports are based on in-depth thematic studies carried out for various services of the European Commission or other EU Institutions and integrated in Standard Eurobarometer's polling waves. Sampling methodology, and thus reliability, is not as good as the other quantitative sources mentioned in this overview.	EU28	One-off study unless a repeat is requested.
The UOE Database	The UNESCO/OECD/EUROSTAT (UOE) database on education statistics is compiled on the basis of national administrative sources, reported by Ministries of Education or National Statistical offices according to international standards, definitions and classifications. The collected annual data cover the outputs of educational institutions, the policy levers that shape educational outputs, the human and financial resources invested in education, structural characteristics of education systems, and the economic and social outcomes of education. The main annual publications based on these data are 'Education at a Glance' and 'Education Policy Analysis'. The data is also published annually on the Eurostat website. The lag between the reference year and the year the data becomes available is three years	EU28+EFTA	Annual
<i>Qualitative sources</i>			
Cedefop Trends in VET	These reports monitor member states' progress towards the 22 short-term	EU28+NO, IS+	2012, 2014

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Data source	Description	Coverage	Frequency
policy in Europe report	deliverables defined in the Bruges communiqué of 2010. Analysis is to a large extent based on information collected through Cedefop's ReferNet.	Candidate countries	
EU Skills Panorama	The EU Skills Panorama is a central access point for data, information and intelligence on trends for skills and jobs across Europe. While the EU Skills Panorama is primarily a repository, not a primary source, its sections on national data offer an overview of the employer and graduate surveys available in a particular country. Annual updating and scoping activities make it a suitable source of information on available employer and graduate surveys.	EU28+EFTA	Annually
European Inventory on validation of non-formal and informal learning	The European Inventory on validation of non-formal and informal learning is a regularly updated overview of validation practices across Europe. This inventory is compiled in cooperation between Cedefop and the European Commission. So far the inventory has been updated five times (2004, 2005, 2008, 2010, 2014). The 2014 version includes 36 reports for 33 countries (more than one for Belgium and the UK), eight in-depth thematic reports, two case studies, and a synthesis of main findings.	EU 28+EFTA	Every 3-4 years
Eurypedia	Eurypedia is a Eurydice product which aims at presenting the most accurate picture of national education systems across Europe. Data is collected in templates from public authorities in the Member States.	EU28+EFTA	Annual

4.2 Measures and variables of critical inputs for adult learning

This section presents the proposed key measures and variables for each of the building blocks for success as defined in the current conceptual framework in Tables 4.2 – 4.7. All the measures and variables considered for each of the building blocks can be found in tables in Annex 8.

When applicable and possible, we have marked measures and variables which best measure a particular building block/success factor and which best fulfil the criteria laid out in section 4.1.1 with an asterisk "*". We have marked building blocks/success factors for which other new measures and variables may need to be identified to augment the choices already made to ensure that progress on the building block/success factor is adequately reflected with a "‡".

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

4.2.1 Key Success Factor 1: Improve learners' disposition towards learning**Table 4.2: Measures and variables measuring critical improvements of learners' disposition towards learning**

Building block for success	Measure/variable	Source	Comments
1.1 Heighten awareness of benefits of adult learning‡	Percentage ²⁴ of respondents whose reason(s) for participating in most recent education and training activity was one of the following: "to do my job better", "to improve my career prospects", "to be less likely to lose my job", "to increase my possibilities of getting a job, or changing a job/profession"*	AES (variable FEDREASON_1a to FEDREASON_03)	The reason this measure is based on beneficial economic outcomes rather than everyday life outcomes is that the main focus of policy actions is on these benefits.
	Scope of awareness raising activities (small/medium/large) based on local, regional, national scale and size of target group (social background and educational level, formal and/or non-formal education and/or informal learning, fields and sectors)	Eurypedia section 12.8 on Guidance and Counselling in a Lifelong Learning Approach, and section 14.2.3 Reforms in Vocational Education and Training and Adult Learning	Awareness-raising activities, such as information campaigns, are the main tool for policy makers to heighten awareness of benefits of adult learning.
1.2 Provide for targeted guidance to learners about learning options	Percentage of individuals who have looked for information on learning possibilities in the last 12 months but did not find any*	AES (until 2011)	This variable is significantly related to the adult participation rate in education and training. A 10 percentage point increase in this variable is on average associated with an 8 percentage point decrease of the participation rate.

²⁴ Throughout the document, quantitative measures and variables are formulated as levels rather than trends. However, the use of the tool as a monitoring instrument implies that trends and percentage point changes will be calculated and displayed.

Building block for success	Measure/variable	Source	Comments
	Percentage of respondents who did not receive any information or advice/help on learning opportunities from institutions/organisations*	AES (GUIDEINST_3, as of 2016)	This variable may be a proxy for the above on the unavailability of information on learning opportunities
	Percentage of persons who have used career guidance services when looking for additional education or training opportunities	Special Eurobarometer 417	Career guidance services play an important role in the provision of targeted, personalised information on learning options. This measures their utilisation by learners.
1.3 Engage social partners in the planning of, promotion of and recruitment of learners, locally, sectorally, nationally‡	Percentage of respondents stating that they have received free of charge information or help/advice on learning possibilities from employer, employer organisations, trade unions or the work council during the past 12 months.*	AES (variable GUIDESOURCE_3 and 4, 2016 onwards)	This measure is an indicator of the effort exerted by the social partners in recruiting learners.
	Percentage of respondents stating that first non-formal learning activity was provided by employer's organisations or trade unions.	AES (variable NFEPROVIDER1)	This measure indicates the prominence and success of the social partners in providing education and training.
	Employment authorities and social partners in committees dealing with VET (policy)	Cedefop Trends in VET policy in Europe report	This variable is a proxy for social partner engagement by the existence of committees involving social partners and relevant public authorities. The formulation of the measure or variable focuses on

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Building block for success	Measure/variable	Source	Comments
			VET and does therefore not measure the extent to which committees are dealing with general adult learning.
1.4 Provide appropriate introductory learning experience for learners ‡	Percentage of respondents who state that negative previous learning experiences prevented them from participating in (more) training	AES (variable DIFFTYPE_12, 2016 onwards)	This measure can indicate education and training providers' inability to provide appropriate learning experiences for learners.

4.2.2 Key Success Factor 2: Increase employers' investment in learning

Table 4.3: Measures and variables measuring employers' investment in learning

Building block for success	Measure/variable	Source	Comments
2.1 Provide funding to assist employers to upskill and retrain their workforce	Percentage of enterprises which received any payments from training funds or financial subsidies from the EU or governments for the provision of CVT courses*	CVTS (variable B5b-d)	This variable measures the provision of subsidies to enterprises that applied for them and received them (not providing information on those enterprises which waived application, whose application was rejected, or which did not know of these possibilities). Nevertheless, this variable is a proxy of the general availability of subsidies for CVT to employers (including public authorities' effort to raise awareness for subsidy opportunities and low application barriers).
	Percentage of enterprises which report that too high costs for continuing vocational training (CVT) courses limited the provision of CVT courses to employees	CVTS (D3e)	This variable indicates the extent to which funding for CVT courses is a barrier to training in enterprises.

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Building block for success	Measure/variable	Source	Comments
2.2 Promote the use of externally accredited qualifications by employers ‡	Percentage of enterprises which usually consider certification of external providers (e.g. national registers) to ensure the quality of CVT*	CVTS (variables D1a, until 2010)	This variable is a direct measure of the use of accredited qualification by employers. The variable is discontinued in CVTS5.
	Percentage of enterprises which usually certify the outcomes of all or some training activities after written or practical test	CVTS (variables D2a and D2ba)	This variable measures the degree to which enterprises certify training activities. However, this may not necessarily be externally accredited certificates/ qualifications. It is not known whether this variable forms part of CVTS5.
	Percentage of respondents who state that the (first) learning activity led to a certificate required by the employer, a professional body or by law	AES (NFECERT1)	This variable measures the degree to which certificates (externally accredited qualifications) are required by (not only) employers to perform certain work tasks.
2.3 Promote the provision of work-based learning	None		

4.2.3 Key Success Factor 3: Improve equity of access for all

Table 4.4: Measures and variables measuring the improvement of equity of access for all

Building block for success	Measure/variable	Source	Comments
3.1 Fund learning for disadvantaged and difficult-to-engage groups, including the inactive and the unemployed.‡	Active labour market participants (ALMP) in training: ALMP participants per 100 persons wanting to work, category training*	LMP	This is a JAF variable and proxy for the prevalence of training as a labour market policy measure
	Percentage of respondents whose education and training activity was paid by Public	AES (FEDPAIDBY, NFEPaidBY1)	This variable measures the prevalence and level (partly/fully paid) of funding for the inactive and unemployed. The variable

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Building block for success	Measure/variable	Source	Comments
	Employment Services or other public institutions, by unemployed/inactive, fully paid/partly paid, formal/non-formal education		is not published on the EUROSTAT website.
3.2 Provide targeted guidance and support services and promote programmes to learners in under-represented groups ‡	Percentage of individuals who have looked for information on learning possibilities in the last 12 months but did not find any*	AES (until 2011)	These are the same variables proposed for measuring building block 2 of success factor 1: Provide targeted guidance to learners about learning options. However, here, the measures should show percentages for under-represented groups, such as the low educated or individuals with migrant background.
	Percentage of respondents who did not receive any information or advice/help on learning opportunities from institutions/organisations*	(GUIDEINST_3, as of 2016)	
3.3 Provide scheme to recognise prior learning (informal and non-formal)	Percentage of respondents who state that they have been involved in any procedure of recognition of skill or competences*	AES (optional in 2011, HATCOMP)	This variable is a direct measure of the use of skill recognition schemes.
	Status of the development of validation of non-formal and informal learning (high degree of implementation, medium level of development, low level of activity)	European Inventory on validation of non-formal and informal learning	The European Inventory has been specifically designed to monitor the development of recognition/validation schemes in the area of informal and non-formal learning. The 2010 report contains a categorisation of countries into the three levels proposed. It is not known to what extent the 2014 update will contain a similar categorisation.

Directorate-General for Employment, Social Affairs and Inclusion
 Directorate C (Europe 2020: Employment Policies)

Building block for success	Measure/variable	Source	Comments
3.4 Use intermediary organisations in outreach to difficult-to-engage groups	None		
3.5 Embed basic skills development into adult learning programmes ‡	Percentage of enterprises which targeted numeracy and/or literacy skills in CVT courses*	CVTS (variable C5k)	This variable measures to what extent basic skills such as numeracy and literacy are targeted by enterprises' training activities so these may be embedded.
	Percentage of respondents who state that their non-formal learning activity was a basic programme or focused on literacy and numeracy *	AES (NFEFIELD1, time series break in 2016)	This measures the prevalence of basic skills development in adult learning so it reflects supply and demand though these are not necessarily embedded. As of 2016, answer categories "basic programme" and "literacy and numeracy" has changed to "generic programmes and qualifications", which may cause a break in time series.
	Presence of large-scale publicly subsidised provisions aiming to raise achievement in basic skills, in particular literacy, numeracy and ICT	Eurypedia (sub-heading 8.4.1 in 2015 updating guide)	This measure indicates the existence of public subsidies to embed basic skills into adult learning.

4.2.4 Key Success Factor 4: Deliver learning that meets the needs of employers and learners

Table 4.5: Measures and variables measuring the delivery of learning that meets the needs of employers and learners

Building block for success	Measure/variable	Source	Comments
4.1 Understand and identify needs and motivations of learners	None		

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Building block for success	Measure/ variable	Source	Comments
4.2 Identify current and future skills needs of employers (through skills forecasting) and align provision with these	Percentage of enterprises stating that a lack of suitable offerings of continuing vocational training courses in the market limit their provision of training	CVTS (D3d)	This is an indirect measure of the effectiveness of the identification of employers' current and future skills needs and the alignment of the results of this identification process with training provision.
4.3 Promote innovation and flexibility in the delivery of learning ‡	Percentage of respondents stating that they have used online educational resources frequently or very frequently in their most recent formal education and training activity*	AES (FEDOERA, 2016 onwards)	This variable measures the frequency with which online educational resources are used in formal education and training activities.
	Percentage of respondents who state that one of their formal or non-formal education and training activities in the past 12 months was organised mainly as distance learning*	AES (FEDDIST, NFEDIST1, 2016 onwards)	This variable measures the prevalence of distance learning in adult education and training. Before 2016, similar information was collected in variable FEMETHOD, NFEMETHOD1: percentage of respondents stating that distance learning - including both using computer and traditional teaching materials - was the main method used in education and training activity,
	Part-time students as % of all students, ISCED 5A	UIS/OECD/EUROSTAT (educ_bo_ac_el1t)	Innovation and flexibility in the delivery of learning is needed in programmes that extend over a longer period of time. This measure focuses on programmes at the ISCED 5A level, where most formal adult education

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Building block for success	Measure/variable	Source	Comments
			(e.g. masters degrees) takes place. The reference to ISCED5A will be replaced by ISCED 6-7 as soon as data collected according to ISCED2011 becomes available.
4.4 Provide progression pathways for learners across the national qualifications framework	None		

4.2.5 Key Success Factor 5: Deliver high quality adult learning

Table 4.6: Measures and variables measuring the delivery of high quality adult learning

Building block for success	Measure/variable	Source	Comments
5.1 Establish quality control framework for adult learning ‡	Quality control framework for adult learning	Eurypedia section 11.3 on Quality Assurance in Adult Education and Training, and section on 14.2.3 Reforms in Vocational Education and Training and Adult Learning	This variable attempts to measure the existence and updating of such a framework.
5.2 Develop a skilled adult education workforce through initial teacher training and continuous professional development ‡	Percentage of enterprises which usually consider continuous training of internal trainers to ensure the quality of CVT*	CVTS (D1a)	This variable measures the degree to which employers ensure CPD for their internal trainers. The variable does not cover initial teacher/trainer education and excludes external training providers.

4.2.6 Key Success Factor 6: Coordinate an effective adult learning policy**Table 4.7: Measures and variables measuring the coordination of an effective adult learning policy**

Building block for success	Measure/variable	Source	Comments
6.1 Co-ordinate adult learning (or lifelong learning) policy with other national policies for improving knowledge, skills and competences of adults	None		A potential future source are the new Eurypedia article updates on "Developments and current policy priorities
6.2 Establish mechanisms for policy alignment at local and regional levels	None		
6.3 Build knowledge base concerning what works in adult learning	Existence of a knowledge base on what works in adult learning held by designated institutions.	Eurypedia section 11.3 on Quality Assurance in Adult Education and Training, and section on 14.2.3 Reforms in Vocational Education and Training and Adult Learning	Building a knowledge base concerning what works is strongly related to quality assurance, and the existence of institutes which manage this knowledge.
	Monitoring and evaluation frameworks	Eurypedia section 11.3 on Quality Assurance in Adult Education and Training, and section on 14.2.3 Reforms in Vocational Education and Training and Adult Learning	The existence and updating of policies, strategies or action plans is the basis for coherent monitoring and evaluation of adult learning programmes.

4.3 Measures and variables measuring key success factors

This section presents the proposed output measures and variables for each of the key success factors as defined in the current conceptual framework in Table 4.8. All the measures and variables considered for each of the building blocks can be found in tables in Annex 8.

Table 4.8: Output measures and variables measuring success factors

Key success factor	Measure/variable	Source	Comments
1 Improve learners' disposition towards learning	Share of respondents looking for information in the last 12 months*	AES	The first variable is a JAF variable. This measures adults' disposition towards learning.
2 Increase employers' investment in learning	Percentage of employed respondents whose education and training activity was paid by employer, by fully paid/partly paid*	AES	These variables measure the investment of employers in learning. The variables are not published on the EUROSTAT website.
	Percentage of employed respondents whose education and training activity took place only or mostly during paid working hours*	AES	
	Share of respondents who wanted but could not participate/participate more in education and training (both formal and non-formal) who answered main reason for non-participation were a Lack of employer's support' and conflicts with the work schedule'*	AES	This variable is a JAF variable.
3 Improve equity of access for all	Difference in participation in adult learning in percentage points between adults with high educational attainment and adults with low educational attainment of education*	AES ²⁵	This is a measure of inequality of access in relation to socio-economic status and educational level.
	Difference in participation in adult learning in	AES	This is a measure of inequality of

²⁵ All AES based equality measures and variables mentioned under this key success factor can alternatively be constructed from annually available EU LFS data. However, AES per definition covers more learning activities, in particular guided on the job training, which is a substantial part of adult learning. The part excluded in the LFS is of diverging significance between countries and for groups of individuals within countries. Furthermore, the AES way of asking participation in adult learning (using examples, additional explanations, lists etc.) helps interviewees to remember the learning activities they took part in and provides a fuller picture of adult learning.

Key success factor	Measure/variable	Source	Comments
	percentage points between men and women*		access in relation to gender.
	Difference of the percentage of young men neither employed nor in education or training and the percentage of young women neither employed nor in education or training, 25-29 olds	LFS	This is a measure of inequality of access in relation to gender.
	Difference in the participation in adult learning in percentage points between adults aged 25-34, 35-54, and 55-64*	AES	This is a measure of inequality of access in relation to age. Due to diverging shares of economically active persons above 55+ across countries and the possible distortion of the measure, the variable may need to be limited to employed adults.
	Difference in the participation in adult learning in percentage points between unemployed adults and employed adults*	AES	This is a measure of inequality of access in relation to employment status.
	Difference in the participation in adult learning in percentage points between inactive adults and employed adults	AES	This is a measure of inequality of access in relation to labour force status.
4 Deliver learning that meets the needs of employers and learners	Percentage of respondents who state that they are currently using (or expect to be using) the skills or knowledge that they acquired from the first non-formal learning activity a fair amount or a lot*	AES (NFEUSE1, split into NFEUSEA1 and FNEUSEB1 as of 2016)	This variable directly measures the relevance of training received.

Directorate-General for Employment, Social Affairs and Inclusion
 Directorate C (Europe 2020: Employment Policies)

Key success factor	Measure/variable	Source	Comments
	Percentage of enterprises which state that the level of training provided was appropriate to the enterprise's needs (no limiting factors)	CVTS (D3a)	Although the measure refers to the level of training provided, it specifies that there were no limiting factors. It may therefore be a good proxy for the overall sufficient relevance of training offers/provision for employers.
	Percentage of respondents who state that their education and training activity has helped them in any of the following ways: getting a (new) job, promotion in the job, higher salary, new tasks, better performance in present job, by formal/non-formal education and training, and source of finance (private, employer, PES or public institution)	AES ²⁶	The measure or variable refers to relevant positive training outcomes for learners, which at the same time convey the relevance of the skills and competences acquired by the training for employers. The limitation of this measure or variable is its reliance on the subjective assessment of respondents.
5 Deliver high quality adult learning ‡	Percentage of respondents whose reason for not being satisfied with education and training activity was the quality of teaching*	AES (FEDUNSATREASON_4, NFEUNSATREASON_4 optional until 2011)	This variable is a subjective indicator of the extent to which the low quality of teaching is a reason for individuals' non-

²⁶ A similar measure is available from EWCS. However, the advantage of using AES over EWCS is the availability of more detailed breakdowns, e.g. whether education and training was funded by the employer or another source. Another advantage of the AES is its larger sample size.

Key success factor	Measure/variable	Source	Comments
			satisfaction with education and training activities.
	Percentage of respondents who state that their education and training activity has helped them to better performance in their present job, by formal/non-formal education and training, and source of finance (private, employer, PES or public institution).	AES ²⁷	High quality and effective training will improve the way employees work. Better performance, is a direct outcome of effective adult learning. This variable is based on the subjective assessment of respondents.
6 Coordinate an effective lifelong learning policy	None		A potential future source are the new Eurypedia article updates on "Developments and current policy priorities"

4.4 Measures and variables measuring critical outputs

This section presents the proposed measures and variables for outputs of each of the key success factors as defined in the current conceptual framework. They are presented in Table 4.9. All the measures and variables considered for each of the critical outputs can be found in tables in Annex 8.

Table 4.9: Critical output measures and variables

Output	Measure/variable	Source	Comments
1 Increased participation in adult learning	Percentage of persons who participated in education or training in past 4 weeks, total, by age group, by highest level of qualification obtained, by gender, by employment status, by public/private sector, enterprise size and by type of education and training	EULFS	The percentage total refers to the ET2020 benchmark. Additional information on age groups, highest level of qualification obtained, gender, employment status, public/private sector and the type of education and training will provide information in relation to the composition of

²⁷ A similar measure is available from EWCS. However, the advantage of using AES over EWCS is the availability of more detailed breakdowns, e.g. whether education and training was provided by the employer or by another type of provider. Another advantage of the AES is its larger sample size.

Output	Measure/variable (formal, non-formal)	Source	Comments
	Average hours spent on all learning activities within the last 4 weeks (only those who participated in education and training),	EULFS	Time spent in education and training is an important measure or variable of the intensity of participation.
	Percentage of employees participating in CVET courses	EULFS	This is a JAF measure or variable
	Percentage of persons who participated in education or training in the last 12 months, by job-related/not job-related, employer-sponsored/not employer-sponsored	AES	Although only available every 5 years, this AES based adult learning participation measure or variable adds value as it applies a broader non-formal education definition than the EULFS and because breakdowns according to job-related/not job-related, employer-sponsored/not employer-sponsored are available.
2 Improved levels of skills and competences	Highest level of qualification obtained , age/gender cohort change over defined period (say 10 years), by national/non-national	EULFS	The measure or variable encompasses initial education and adult learning but is an important contextual measure or variable of skill levels of the population. By breaking the measure or variable down in nationals and non-nationals, trends net of migration effects can be monitored. As legislation in relation to obtaining the national citizenship differs across, it may be useful to include non-nationals with more than 10 years of residence in the country in the "nationals" category.
	Percentage of persons without school leaving qualification (highest level of qualification obtained at most lower secondary school), by national/non-national, by age group and by gender	EULFS	One of the main aims of adult learning is to bring the low qualified to a level of qualification which enables them to continue learning in the formal education system, and to a skill level with which they are more likely to engage in non-formal education and training. A high percentage of persons without

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Output	Measure/variable	Source	Comments
			a school leaving degree indicates that this aim has not been achieved. As legislation in relation to obtaining the national citizenship differs across, it may be useful to include non-nationals with more than 10 years of residence in the country in the "nationals" category.
	Percentage of adults with low literacy skills ²⁸	PIAAC	Improving the levels of skills of adults with low levels of skills is one of the major aims of adult learning policy.
	Percentage of adults with low numeracy skills ²⁹	PIAAC	
	Percentage of adults with low problem-solving in technology rich environments skills ³⁰	PIAAC	
3 Higher quality of learning ‡	Percentage of respondents who state that their education and training activity has helped them in any of the following ways: getting a (new) job, promotion in the job, higher salary, new tasks, better performance in present job, by formal/non-formal education and training, and source of finance (private, employer, PES or public institution).	AES	This measure or variable has also been proposed to measure key success factors 4 ("Deliver learning that is relevant to employers and learners") and 5 ("Deliver high quality and effective adult learning"). Relevant and effective training will have positive outcomes for learners. This measure or variable is based on the subjective assessment of respondents.

4.5 Further considerations

4.5.1 Limitations of measures and variables selected and some solutions

There are clearly some limitations with a few of the selected sources given the intentions of the analytical tool because of the frequency with which updated data is available and the specificity of information necessary. This is particularly so in the cases below in addition to those marked above where the measure is not a particularly good fit with the success factor/building block. In these instances, other new measures and variables may

²⁸ Scoring at literacy proficiency level 1 or below (below 226 points), excluding literacy-related non-response.

²⁹ Scoring at numeracy proficiency level 1 or below (below 226 points), excluding literacy-related non-response.

³⁰ Scoring at problem-solving proficiency level 1 or below (below 241 points), excluding literacy-related non-response.

need to be identified to augment the choices already made to ensure that progress on the building block/success factor is adequately reflected. We have marked these building blocks/success factors with a “‡”.

Quantitative measures and variables

With the quantitative sources:

- Measures and variables based on the AES and the CVTS can only be updated every five years. Quantitative measures and variables based on PIAAC and the Special Eurobarometer 417 “European Area of Skills and Qualifications” can only be updated if a survey containing the same questions is repeated. As it is not very likely that the frequency of AES and CVTS will be substantially increased in the near future³¹, the inclusion of selected AES and CVTS questions in surveys which are carried out more frequently, such as the LFS or EU-SILC³² should be considered. Alternatively, national or small-scale, targeted mid-term monitoring surveys for relevant policy actions/reforms could be implemented by Member States;
- The Eurobarometer Survey has a relatively small sample size, which may affect the reliability of the measures and variables based on this source.

For some of the key success factors/building blocks (e.g. Key Success Factor 4: Deliver learning that meets the needs of employers and learners) longitudinal data would be necessary to improve measures and variables. The inclusion of a broader range of education and training related variables into EU-SILC should be considered. This would enable a longitudinal analysis of how motivation and needs, career guidance, material deprivation, etc. affects participation in learning, and how participation in learning translates into increased employment and better labour market outcomes across EU countries.

Qualitative measures and variables

With the qualitative measures and variables, the following limitations must be taken into account:

- Qualitative measures and variables based on Eurypedia are currently not updated in a streamlined fashion, as countries choose the Eurypedia articles to update. In addition, articles may not provide the level of detail needed for the measures and variables. Additional sources may have to be reviewed. This may imply using a mixed sources approach and using data not frequently updated, such as Cedefop’s European inventory on the validation of NFIL, Eurydice thematic reports or UNESCO’s GRALE reports, whenever they become available. It may, however, also imply that national sources have to be systematically reviewed each time the measures and variables are updated. This is only possible where there is a systematic update of sources such as for the EU Skills Panorama. A substantial improvement of the reliability and comprehensiveness of the information available

³¹ Note that there are ongoing discussions to increase the frequency of the AES to 4 years as of 2020.

³² The EU statistics on income and living conditions provide detailed information on people’s income components, as well as education, health, labour, social exclusion and housing conditions. The statistics are used to monitor the EU2020 strategy in particular in the area of poverty reduction. In contrast to most other EU statistics, it provides information on individual-level changes over a four year period.

through Eurypedia would be the establishment of a streamlined updating process, at least for the measures and variables selected for the monitoring tool;

- Qualitative measures and variables based on Cedefop's Trends in VET policy in Europe reports have a very strong focus on initial vocational education and training (IVET) and therefore may in some instances not cover important aspects of adult learning. Also, the reports do not systematically report survey results by country and it is not always easy to trace the data sources. Access to the raw data collected by Cedefop through ReferNet would be necessary to increase the reliability and relevance of the Trends in VET policy in Europe report for the tool. The inclusion of questions on any adult learning (as opposed to VET) in the data collection should be considered. This could be done without much additional burden on ReferNet experts by formulating the question/measure or variable in a more general way and offering two answer category columns (adult learning in general/CVET);
- Qualitative measures and variables based on Cedefop's Trends in VET policy in Europe are limited in the level of detail they provide. In many cases, the measure or variable simply states if a policy or building block is in place or not or is in the process of being implemented, without providing further detail on implementation or evaluation of its success³³. Including additional information on the progress made towards having a building block in place (for example stages reached in development and implementation or scale of national coverage) should be considered in the ReferNet survey since alternative sources for these measures and variables do not exist. This would require a typology of stages which could be applied to all of the Member States such as those used to define progress with the validation of NFIL.

More sophisticated ways of qualitative assessment require more resources. This can be through:

- Identifying means to survey stakeholders affected of their perceptions of progress and the functioning of a system (which would test whether they believed something was in place, that progress had been made, and that it worked as expected, for example). For example, building block 4.1 might be better measured through a survey of adults who have participated in learning about the degree to which their needs and motivations have been taken into account by training providers. This would provide indirect evidence of the effectiveness of policies aimed at encouraging the use of data to design learning opportunities which are better aligned to learners' needs and motivations;
- Establishing a more complex description of policy action stages and their components for a periodic independent assessment of progress and the 'quality' achieved. These are generally used in inspection or quality accreditation processes to assess whether a standard has been reached and what gaps there are in achieving a stage or standard level. To some extent this is done with the periodic reviews of progress with NFIL.

³³ The Cedefop Trends in VET Policy in Europe report assesses the following stages of development of the policy options referred to in the measures and variables: a) in place before 2010 and not changed; b) in place before 2010 and adjusted since then; c) put in place since 2010; d) preparing for implementation (e.g. discussing, agreeing on, piloting a measure), and e) no action reported.

In many cases it would be desirable to have both qualitative and quantitative measures for each building block and success factor in the framework.

4.5.2 Non-availability of sources for suitable measures and variables

For some of the building blocks and key success factors, it is possible to formulate measures and variables where there are no identifiable data sources.

This concerns the measures and variables described in Table 4.10.

Table 4.10: Elements of the conceptual framework for which no suitable data sources have been identified

Key success factor	Building block	Potential measures
Increase employers' investment in learning	Promote the use of externally accredited qualification by employers	Measure and source have been identified , but variable is discontinued in upcoming survey wave (CVTS5, 2015)
Improve equity of access for all	Use intermediary organisations in outreach to difficult-to-engage groups	Use of intermediary organisations in outreach to difficult-to-engage groups
Co-ordinate an effective lifelong learning policy	Co-ordinate adult learning (or lifelong learning) policy with other national policies for improving knowledge, skills and competences of adults	Funds allocated to research and/ or data collection on the role played by adult learning for welfare, schools, prisons and labour market policy
		Laws or regulations to require cooperation over adult learning between welfare, schools, prisons and labour market policy
		Legislation allowing data on adult learning, welfare, schools, prisons and labour market outcomes to be combined
		Commitments/targets relating to adult learning included in other national strategies
	Establish mechanisms for policy alignment locally, e.g. regional learning networks	Mechanisms for policy alignment locally, e.g. regional learning networks

One possible solution may be to include questions on these measures and variables in data collection undertaken by Eurydice, ReferNet. Alternatively it would be necessary to develop new qualitative measures from periodic surveys and independent assessments.

4.5.3 Inclusion of JAF measures and variables

All EAC-JAF quantitative sub-measures and variables on adult learning are represented in the current proposal as presented in Table 4.11.

Table 4.11: Inclusion of JAF sub-measures and variables

JAF sub-measure or variable	KSF/Output	Building block
ALMP participants to training: ALMP participants per 100 persons wanting to work, category training	KSF3 Improve equity of access for all	3.1 Fund learning for disadvantaged and difficult-to-engage groups, including the inactive and the unemployed.
Share of respondents who wanted but could not participate/participate more who answered reason for non-participation is affordability	KSF3 Increase equity of access for all	3.1 Fund learning for disadvantaged and difficult-to-engage groups, including the inactive and the unemployed.
Share of respondents who wanted but could not participate/participate more who answered reason for non-participation was work related	KSF2 Increase employers' investment in learning	
Percentage of employees participating in CVET courses	Output1 Participation in adult learning	
Share of respondents looking for information in the last 12 months	KSF1 Improve learners' disposition towards learning	

4.5.4 Linking system level indicators with the outputs of concrete policy actions

The gaps in statistics described above, could be overcome by ensuring better coverage and a closer fit between the data collected through surveys and the policy actions to be monitored, either by increasing the stability of measures or by increasing the frequency of collection. However, with adult learning it is difficult to attribute changes in statistical data to the performance of policies because, unlike other sectors of education, most adult education is not carried out in the public sector. Changes in macro-indicators are likely to be driven by the behaviour of private actors, which is currently only weakly and indirectly influenced by adult learning policy³⁴.

Thus, monitoring and assessment at a policy ("meso") level is necessary to complement macro-level statistical monitoring to assess the impact and efficacy of interventions. But the research literature and the case studies show that governments do not always collect data systematically to enable different policy actions and their objectives to be monitored (or for their objectives to be set in the first place).

Administrative policy monitoring at the national level is either not commonplace or the data is not made publicly accessible. Post-hoc policy evaluations are also not commissioned often and seldom provide evidence of causality.

It must also be kept in mind that in most countries responsibilities for different areas of adult learning are distributed horizontally across ministries and vertically across different levels of government (national, regional and local). But policies are often not well aligned

³⁴ A recent study confirmed weak links between adult learning policy frameworks and macro-level indicators: Beblavý, M. and Martellucci, E. (2015) Extending Working Lives. A comparative analysis of how governments influence lifelong learning

within and between the implementing authorities. This further complicates the collection and assessment of data. Better policy alignment would make data collection easier and allow policies to attain better impact.

At the European and International level a number of administrative data collection systems may capture, at least in part, the adult education sector³⁵. However the precision and coverage of adult learning in these data sources is limited so they are not currently used for adult learning policy monitoring. No international statistics cover the training services industry or training provision for public sector employees. Qualitative data on adult learning policies at the international level is equally scarce³⁶.

Adult learning policies could be made more effective through better use of available monitoring tools, accompanied by a substantial development of the evidence base so that it covers policy efficiency, coherence and quality. The new ESF monitoring system, to provide data from 2016, could become a valuable source of such data.

But only if quantitative data are underpinned by reliable and comparable qualitative data, will a real transformation be achieved in the capacity of researchers and policy analysts to provide a comprehensive assessment of the performance of adult learning policies and interventions.

4.6 Conclusions

This section assessed the availability of pan-European quantitative and qualitative indicators for monitoring the performance and policy development of adult learning with the help of a tool. Using pan-European data sources does not limit the use of the tool on a national level as it can be supplemented by national sources of data to measure progress in the implementation of building blocks in the tool.

The exercise to identify and specify measures and variables relating to each of the components of the conceptual framework for the analytical tool results in some components with relatively good measures against the criteria established for selection, some components with measures which could be improved on and some without measures.

A diverse range of sources of evidence are needed by the analytical tool so it can be used for monitoring and benchmarking. The assessment of the sources available found that:

- There is a broad range of measures and variables available for the monitoring of adult learning policies. In many cases, the measures and variables that are available correspond to the components of the conceptual framework;
- In the main the sources cover all of the Member States, the main exception is the PIAAC survey;

³⁵ This includes: the EU Labour market policy reporting system; the European Social Fund monitoring system, with new data available as from 2016; the UOE (Unesco-OECD-Eurostat) data collection and the COFOG (general government expenditure according to the Classification of the Functions of Government).

³⁶ The Commission's Eurydice network currently provides only high-level descriptive information on adult learning policies. Monitoring by CEDEFOP, through its Refernet network, is limited to an assessment of the presence or absence of several elements of continuous training policies, though some development is foreseen from 2016. UNESCO national progress reports on Adult learning and education seem to be the best-developed example of qualitative data collection currently available.

- Many useful sources are not updated frequently (very five years for example) or have only been produced once (with an intention to repeat) so cannot provide trends only fixed comparisons;
- Most measures are dependent on the stability of definition to provide trends/time comparisons. This has a higher risk with qualitative data than quantitative data which is less easy to define unequivocally.

In addition to the limitations of the sources there is variability in how well building blocks and success factors are measured by the variables chosen. The latter tend to have a better range than the former. In some cases, there is a choice as well as a variety of measures available to monitor and compare. In other cases, there is only a single variable available which monitors an aspect of a building block, while in others none of the variables are a good fit with the intentions of the building block or success factor or the variable is a poor measure for the purpose of the analytical tool, such as a policy action in place or not in place, or a measure of the inputs (resources) without any measure of the outputs.

Figure 4.1 below summarises the proposed measures for each of the success factors and building blocks and indicates which are considered to be good measures and which need to be improved on. In making an assessment of the measures and variables that are available, we have grouped the elements of the conceptual framework into five categories:

- **Quantitative measures and variables that are a good fit:** We have identified measures and variables based on quantitative data for elements where the measures correspond very closely with the policy action or effect of the policy action which we are trying to capture;
- **Quantitative measures and variables that are a poor fit:** We have identified measures and variables based on quantitative data for elements where the measure is related to the policy action or effect of the policy action which we are trying to capture. However, the measure does not correspond exactly to the policy action.
- **Qualitative measures and variables that are a good fit:** We have identified measures and variables based on qualitative data for elements where the measures corresponds very closely with the policy action or effect of the policy action which we are trying to capture
- **Qualitative measures and variables that are a poor fit:** We have identified measures and variables based on qualitative data for elements where the measure is related to the policy action or effect of the policy action which we are trying to capture. However, the measure does not correspond exactly to the policy action.
- **No measures and variables are available:** These are elements of the conceptual framework for which we have been unable to identify measures and variables that capture that element or are related to it.

Steps necessary to improve the availability of data further are discussed in Chapter 6. However, improving the availability of measures requires:

- Increasing the scope and quality of available statistical data – including:
 - A commitment from Member States to participate in surveys, such as PIAAC, over time and to take account of the analytical tool when reviewing and revising definitions of variables in surveys;

- A re-introduction of some questions/variables which have been discontinued in surveys such as the AES and the CVTS (these are outlined in Table 4.12);
- The inclusion of some questions currently in the AES and CVTS surveys in more frequent surveys (LFS or EU-SILC) so that data can be more frequently updated; and
- National level targeted monitoring surveys for relevant policy actions/reforms could be implemented by Member States;
- Increasing the scope and quality of qualitative data sources, including:
 - Introducing a streamlined updating process through Eurypedia and ReferNet, at least for the measures and variables selected for the analytical tool to increase the reliability and comprehensiveness of the information available;
 - Including new measures in data collection exercises being planned by organisations such as Eurydice and ReferNet. This should be a greater priority for some success factors, such as success factor 6, where there are no suitable measures; and

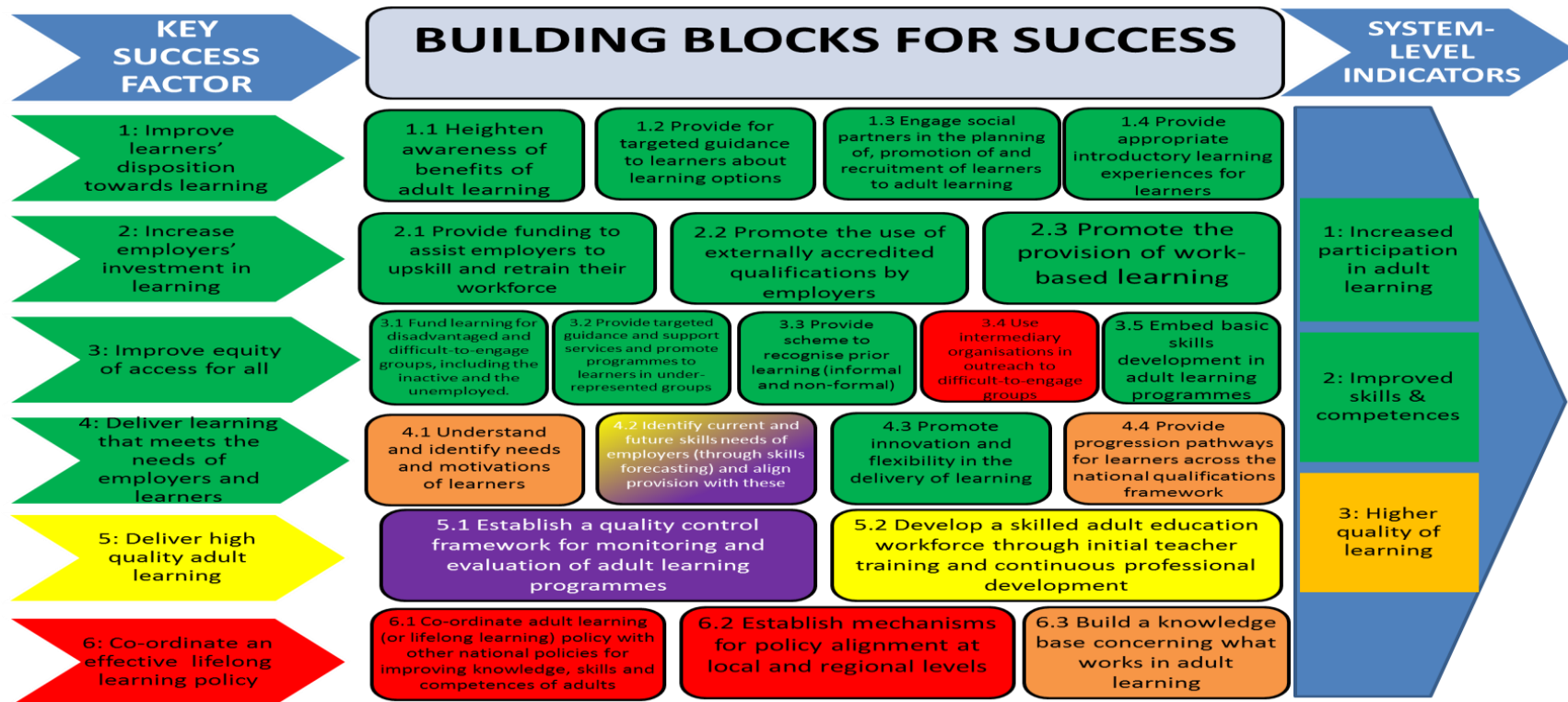
Table 4.12: Exploring other means of measuring outputs and outcomes which are qualitative through independent assessments, including the examination of other sources of qualitative measures which are not frequently updated. Recommendations in relation to the (re-)introduction of variables into the AES and CVTS

Building block for success/Key success factor	Measure/variable	Source	Recommended action
1.2 Provide targeted guidance to learners about learning options and 3.2 Provide targeted guidance and support services and promote programmes to learners in under-represented groups	Percentage of respondents who have looked for information on learning possibilities in the last 12 months but did not find any	AES (SEEKFOUND)	This variable is discontinued and to some extent replaced by variable GUIDEINST_3 in AES 2016. SEEKFOUND was significantly correlated with participation rates in adult learning across countries. It needs to be examined whether this is also the case with GUIDEINST_3. If not, and also to avoid a break in time series, we recommend re-introduction of SEEKFOUND.
3.3 Provide scheme to recognise prior learning (informal and non-formal)	Percentage of respondents who state that they have been involved in any procedure of recognition of skill or competences	AES (HATCOMP, optional until 2011)	This variable is a direct measure of the use of skill recognition schemes. AES 2016 will contain a variable GUIDETYPE_3 which measures the reception of free of charge information or advice/help on procedures for validation/recognition of

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Building block for success/Key success factor	Measure/variable	Source	Recommended action
			skills, competences or prior learning. The concept of receiving information is not as strongly related to the building block as actual use of recognition/validation. We therefore recommend introducing HATCOMP as a core variable into the AES.
3.5 Embed basic skills development into adult learning programmes	Percentage of respondents who state that their non-formal learning activity was a basic programme or focused on literacy and numeracy	AES (NFEFIELD1, change of definition in 2016)	The AES 2016 question uses the formulation "generic programme and qualification". This formulation is very general and is less explicitly related to the building block. We recommend re-introducing explicit reference to basic skills, such as literacy and numeracy, to increase the relevance of this variable for the tool.
2.2 Promote the use of externally accredited qualification by employers	Percentage of enterprises which usually consider certification of external providers (e.g. national registers) to ensure the quality of CVT*	CVTS (variables D1a, until 2010)	This variable is a direct measure of the use of accredited qualification by employers. The variable is discontinued in CVTS5 and we recommend re-introduction.
KSF 5 Deliver high quality adult learning	Percentage of respondents whose reason for not being satisfied with education and training activity was the quality of teaching	AES (FEDUNSATREASON_4, NFEUNSATREASON_4 optional until 2011)	This variable was optional and is not taken up in AES 2016. We recommend making this variable a core variable to obtain a good-fit measure of this key success factor.

Figure 4.1: Availability of suitable measures and variables



There are quantitative measures and variables available or which may become available in the future which are a good fit for this element.	
There are quantitative measures and variables available or which may become available in the future which are a poor fit for this element.	
There are qualitative measures and variables available or which may become available in the future which are a good fit for this element	
There are qualitative measures and variables available or which may become available in the future which are a poor fit for this element.	
No measures or variables have been identified as a good fit for this element.	

5 The analytical tool

The analysis of the available evidence in the literature as described in sections 2 and 3 and the assessment of the data, as described in section 4, facilitated the design of an analytical tool. In addition to the assessment of the available data and measures, we have identified sufficient data that will enable the construction of a practical tool. In this section, we provide an overview of the design and development of that tool and present an analysis of some of the measures to show how the tool can be used.

The section begins with a brief outline of the considerations which have informed the design of the tool. We then provide an overview of the proposed analytical tool with an analysis of some of the measures proposed to show how it can be used. The design draws on the literature review and assessment of measures available for monitoring in sections 2 and 4 as it has to take into account the quality of evidence and data available, as well as an assessment of other online policy tools to consider how the purposes of this tool could be met.

5.1 Designing the analytical tool

The tool's design has been shaped by the purpose defined by the Commission, a review of other online policy tools with similar purposes, and the extent that the purposes could be met with the data available (as described in sections 2 and 4). This is set out briefly below.

5.1.1 Overview of the aims and audience for the tool

The overall purpose of the tool is to bring together existing pan-European data on adult learning and continuing vocational education and training and provide a point of reference for cross-country monitoring of performance and policy developments in adult learning towards expected outcomes, not the least towards increasing participation by adults.

The aims of the tool were defined by the Commission as follows:

- To show the progress of Member States in implementing effective adult learning policies;
- To enable policy-makers to identify where they need to make further progress to implement and improve their range of policy actions (the building blocks identified in the conceptual framework);
- To help Member States develop, monitor and improve the effectiveness of their adult learning policies;
- To provide Member States with information on their relative performance on each of the outputs identified in the conceptual framework; and
- To provide a publicly accessible source of information on adult learning.

As a consequence, the expected users of this tool include policy-makers from Member States, the Commission, and by providing a comprehensive knowledge base on adult learning policies, experts and other stakeholders with an interest in adult learning who will find it to be a useful resource.

In considering how these aims would be met, the following underpinning assumptions were agreed:

- The tool will be made available in English, consistent with other tools and similar platforms overseen by the European Commission;

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

- The European Commission will have overall responsibility for ownership of the tool and, if applicable, overseeing the updating of the tool from external sources;
- The primary sources for data underpinning the tool will be external sources which will be updated; and
- The tool (and the conceptual framework for the tool) will be improved as research evidence emerges and new measures become available.

5.1.2 Design principles of the tool

To meet the aims set out above, the tool's functionalities would have to enable comparisons between countries and the identification of trends as well as providing information on what is needed to improve the effectiveness of adult learning.

A review of a range of similar policy tools found that if the data is available, a tool can be designed with the ability to:

- Allow users to view comparisons between countries;
- Show the progress made by any Member State in implementing policies and allow comparison with other Member States;
- Provide individual country profiles or reports for individual Member States;
- Provide clear explanations about the measures and variable being used to assess relative performance/improvement and what they are measuring;
- Allow users to share evidence of what is effective; and
- Provide guidance to users on factors which contribute most to effectiveness.

Further details of the review are provided in Annex 6.

What appear to be design features that enable tools to meet the aims above are:

- A clear structure which would make it easy to navigate to the different purposes of the tool. This can be done in a number of ways:
 - An introductory screen that provides a directory to the different sections in the scoreboard and explains the purpose of each;
 - Building the structure of the scoreboard around a clear framework; and/or
 - A video tutorial on how best to use the scoreboard.
- An easy to use comparative view which is not just limited to quantitative data but should also provide scope for comparison using qualitative data where this measures progress;
- A means to provide individual country or thematic profiles as standalone documents or customised by the user;
- Clear explanations about the measures and variables being used to assess performance/progress and what they are measuring and about the evidence around in this instance the building blocks which contribute to the effectiveness of adult learning;
- Allow users to share and add new evidence, such as around the effectiveness of adult learning policies.

5.1.3 Challenges in designing the tool

The literature and policy reviews and the mapping of measures and variables against the conceptual framework present a number of limitations in meeting the aims of the tool set out above which have a bearing on its potential functionalities. These are:

- **Much of the data available for the measures and variables is not frequently or consistently updated as described in section 4.** The value of the tool to policymakers would be increased if the data available is recent, often updated, and provide trends. Most of the external sources proposed are updated with varying levels of regularity and frequency. This is a similar issue for the qualitative measures and variables chosen which also need to be updated consistently to be of value in examining trends. This has implications for the tool's ability to track policy implementation over time and in a comparable way and the extent that policy makers may use the tool.
- **Measures are not available for all the building blocks and success factors.** One of the main findings from the mapping of the available measures and variables in section 4 is that measures and variables are not available for all building blocks in the conceptual framework. This has implications for the ability of the tool to monitor the overall set of policy actions because some success factors can only be partially monitored by the tool. It will take time to provide full coverage.
- **The measures available are not necessarily the ideal measures.** In some cases, the measures identified can only measure a particular aspect of the building block or the measure available can only measure whether a policy action is in place not the stage of implementation or its impact. While this can be improved over time, it will be necessary to give guidance to users about the building blocks for which there are the most robust measures and variables. This limits the extent that the tool can track progress in policy implementation.
- **Variation in the strength and robustness of the research evidence for different components of the framework.** This is described in section 2. Because of the variation, users need to be made aware of the relative strength of evidence underpinning the framework. It also means that the tool cannot at this point indicate to what extent building blocks contribute to the effectiveness of adult learning. Users can be guided to the extent that the research evidence indicates which building blocks make a significant contribution on the basis of the current research evidence.

5.1.4 Assessing the analytical tool

The following criteria were developed based on the desired requirements set out above to assess versions of the tool. These are:

- **Comparability:** The tool should enable users to compare progress between different Member States using both qualitative and quantitative data. It should also provide tools for them to visualise comparisons of interest to them, both between Member States and using trend data.
- **Ability to monitor progress in implementation:** The tool should be able to allow policy-makers to monitor progress in the implementation of policies in a single Member State or between Member States.
- **Clear linkages to the conceptual framework:** The tool should be presented in a way that demonstrates a clear link between the data and measures and variables presented and the various elements of the conceptual framework.

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

- **Usefulness:** The tool should be useful for policy-makers so that they can easily access information on the progress being made by Member States.
- **Usability and clarity:** The user should be able to navigate the tool intuitively and efficiently. The layout of the tool should be clear with signposting to assist users in navigating it.
- **Updatability:** The tool should be updatable and provide users with data that is as recent as possible. Where possible, the tool should also allow for users to upload data and evidence to it for wider use.

5.1.5 The analytical tool

Taking account of the challenges in meeting the requirements envisaged for the tool, the main features of the tool are that it:

- Provides a home page that outlines the purpose of the tool, presents an overview of how the research to construct was conducted and provides contact details within the Commission;
- Provides an overview of the conceptual framework, demonstrating how the framework is structured, explaining the various elements in the framework and provides information on the strength of the evidence underpinning each building block;
- Provides access to data (stored in the database underpinning the framework) on measures that monitor each of the building blocks and success factors in the framework as well as measures on the overall performance of Member States;
- Allows users to compare quantitative data across time periods (where available) and countries, and qualitative data across countries, and allows them to download the data;
- Provides individual country reports for each Member State that bring together all data pertaining to an individual country and comparing it with the EU average where possible; and
- Provides access to additional resources, such as research evidence or data sources that may be of interest to policymakers and practitioners.

More detail on the main sections of the tool and their functionalities can be found in Annex 7. Guidelines for the use and application of the tool can also be found in Annex 7.

5.2 Assessment of the tool

Table 5.2 sets out the performance of the proposed tool against the criteria established in the development stage (and outlined in in section 5.1.4). We have set out the strengths and limitations of the tool according to each criterion.

Table 5.2: Performance of proposed tool against criteria for assessment

Criterion	Strengths	Limitations
Comparability	<ul style="list-style-type: none"> • Comparison between Member States is a core characteristic of the tool. • Quantitative measures and variables can be compared across Member States because measures selected are available for most if 	<ul style="list-style-type: none"> • This comparability is constrained by the availability of time series data. • The qualitative data provided is quite limited in the level of

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Criterion	Strengths	Limitations
	not all Member States. Where time-series data is available, this can be used to show trends.	information they give.
Ability to monitor progress in implementation	<ul style="list-style-type: none"> The section providing information on measures and variables can provide an overview of whether or not progress is being made where there is appropriate quantitative data. The country reports allow users to compare an individual country's performance on one measure with the EU average. 	<ul style="list-style-type: none"> This is not possible for all building blocks because for some there is no suitable quantitative data or qualitative data which does not adequately measure progress. Most of the qualitative data does not provide comprehensive information on the level of implementation of particular policies.
Clear linkages to conceptual framework	<ul style="list-style-type: none"> There is an introductory section which provides an overview of the conceptual framework and provides an explanation of the various elements of the framework and why they are important. Measures and variables are directly linked to the elements of the conceptual framework. 	<ul style="list-style-type: none"> There are still some elements of the conceptual framework for which relevant measures and variables have not been identified.
Usefulness	<ul style="list-style-type: none"> Users can access specific information relating to their Member State. Users can access data relating to adult learning from multiple data sets in one location. Users can download the data to examine it themselves. There are links to other resources which may be useful to users. 	<ul style="list-style-type: none"> The tool does not provide information on the level of impact of a particular building block, or its effectiveness in terms of value for money.
Usability	<ul style="list-style-type: none"> The introductory section provides a clear overview of the sections of the tool and the purposes of each section. Links between each section are provided and the purpose of each section is clear. 	<ul style="list-style-type: none"> The nature of the qualitative data constrains the level of analysis which the tool can provide.

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Criterion	Strengths	Limitations
	<ul style="list-style-type: none"> • There is easy access to the data from the conceptual framework page, and building blocks link directly to the relevant data for that page. • The user has the option of viewing the data in graphical and tabular form. • The user has the option of exploring data using subgroups, where the dataset is structured to allow this. • The country reports provide all the data for one country in one place. 	
Updatability	<ul style="list-style-type: none"> • The tool is underpinned by a bespoke database that stores the data (discussed in the guidelines). We have designed this database in such a way that it can be updated when required. 	<ul style="list-style-type: none"> • The updating of the tool can only be done with the same frequency with which the external data sources underpinning it are updated.

5.2.1 Developing the tool further

The design of the tool allows it to be developed further. The guidelines in Annex 7 outline how the tool can be updated to take account of new data that is collected for each of the measures and variables.

As new research evidence becomes available, especially evaluation of policy actions, the framework will need to be adapted. This has consequences for the tool in a number of ways:

- The quality and strength of evidence underpinning the building blocks will have to be assessed on a regular basis to consider if stronger evidence is available about the impact of a policy action. The information contained in the section of the tool (shading of the building blocks) on the framework diagram will need to be revised to reflect this; and
- New building blocks may need to be included in the framework or the description of the building blocks adjusted if new evidence becomes available about the impact of policy actions. This would then effect the design of the section of the tool dealing with the framework and would require identification of measures and data to monitor new or revised building blocks.

A desirable feature for future development as part of the tool would be information on the level of impact and effectiveness each building block has in achieving the positive outcomes associated with adult learning. In order to achieve this, however, further research evidence that specifically determines the impact of a policy action on the participation rate or other outcomes is necessary. While some evidence of this kind exists for a number of the building blocks, it is not plentiful. Such a feature would be useful to practitioners and policymakers in that it would identify those building blocks that have

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

the greatest impact on achieving effective adult learning. Currently, the tool is unable to provide that information, given the nature of the evidence that has been used to determine the framework.

The tool should become a catalyst for the collection of better data. In Section 4, we identified measures and variables that could be improved in terms of the data they collect and we also identified other new measures for which data could be collected. This is particularly relevant in the case of qualitative data. In order to enhance the usefulness of the tool, the structure of qualitative data will need to be improved. This will strengthen the overall functionality of the tool as well as making it more useful for policymakers and practitioners in the field of adult learning. Comparison between countries solely on the basis of whether or not they have a particular policy in place is limiting and developing qualitative measures with one more than one category is an important step in enhancing functionality.

5.3 Testing the tool

The tool has the capacity to draw out an:

- Overview of the position and progress in adult learning as a whole, specific success factors and specific building blocks (where there are measures available);
- Understanding of the comparative position and progress with success factors and building blocks to discern which are progressing;
- Overview of the relative position and progress of Member States in achieving adult learning outcomes as well as taking forward specific success factors and building blocks (where there are measures available);
- Understanding for Member States of the position with success factors and building blocks to discern which are progressing;
- Understanding for Member States of where national data could supplement the pan-European data to assess progress being made.

This is expected to enable policy makers to identify where progress is being made in adult learning policies and where further progress with the implementation of policy actions is needed.

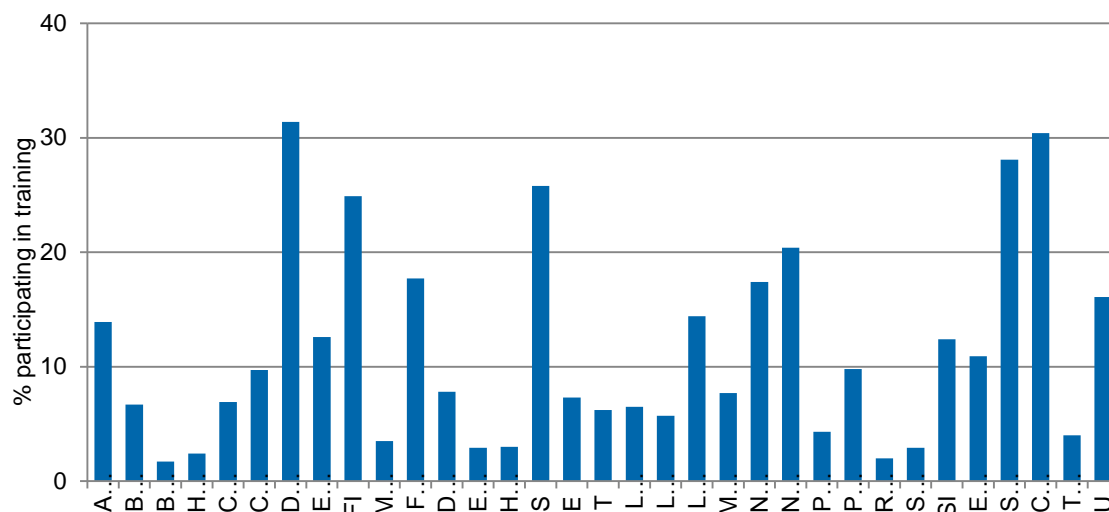
This is demonstrated to some extent below with an analysis of some of the measures of the critical outputs and success factors and a few of the building blocks which will be possible with the tool. These show overviews of progress on specific success factors and building blocks and the comparative positions of Member States for specific success factors and building blocks with both quantitative and qualitative measures.

5.3.1 Critical outputs

Participation

Figure 5.1 shows the measure of participation in education and training based on LFS data used for the ET2020 target and which is therefore included in the tool as a measure of critical output. Participation in education and training varies greatly across countries. While many Nordic countries (e.g. DK, FI, and SE) attain rates of well above 20%, other countries' participation in education and training is below 5% (e.g. BG, HR, HU, RO, SK).

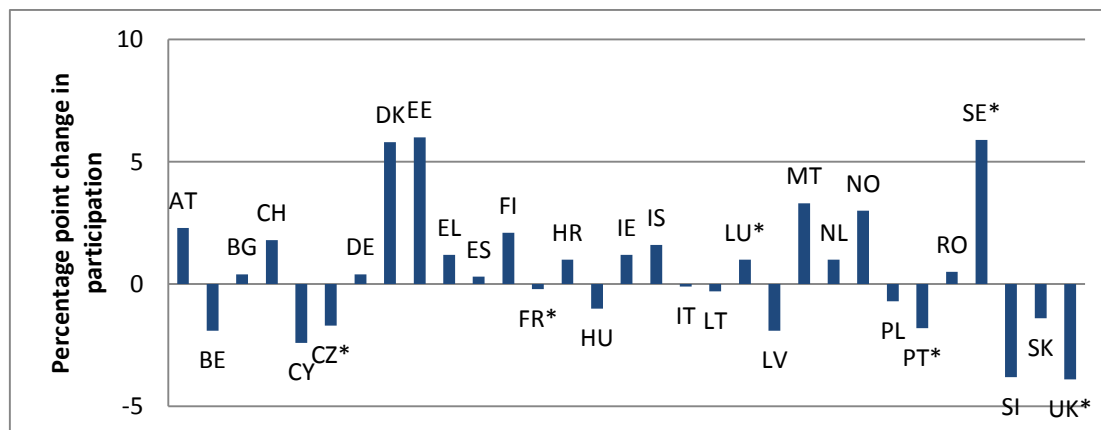
Figure 5.1: Percentage of people participating in education and training in the last four weeks, 2013



Source: Labour Force Survey, 2013

By populating the tool with data from several survey waves, it will be possible to track changes over time. Figure 5.2 presents the change in the overall participation rate in education and training between 2004 and 2013 (unless stated otherwise). This shows that the participation rate in education and training has increased in some countries and fallen in others. Denmark, Estonia and Sweden seem to have made the most progress in achieving higher participation rates, while Slovenia and the UK display the largest decrease in participation.

Figure 5.2: Change in participation in education and training, 2004 to 2013



* Graph shows time interval other than 2004-2013 due to significant break in series: CZ 2011-2013, ES 2005-2013, FR 2005-2012, LU 2009-2013, PT 2011-2013, SE 2008-2013, and UK 2007-2013.

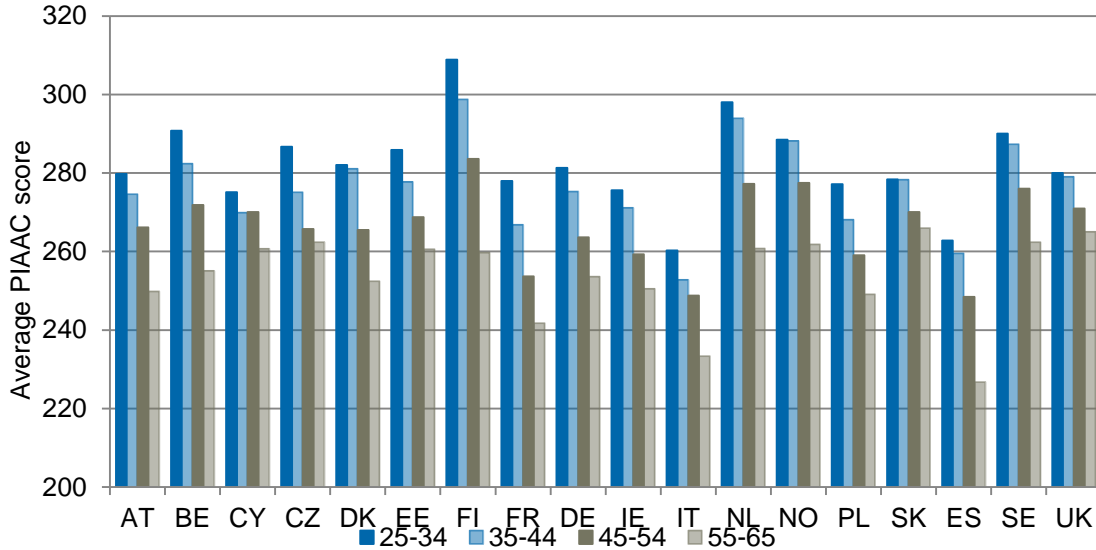
Source: Labour Force Survey, 2004 - 2013

Improving skills

Figure 5.3 to Figure 5.5 show measures of skills and competences. Figure 5.3 presents information on literacy proficiency by country. This shows that in all countries, literacy proficiency is higher for younger age groups than older age groups. The lowest average

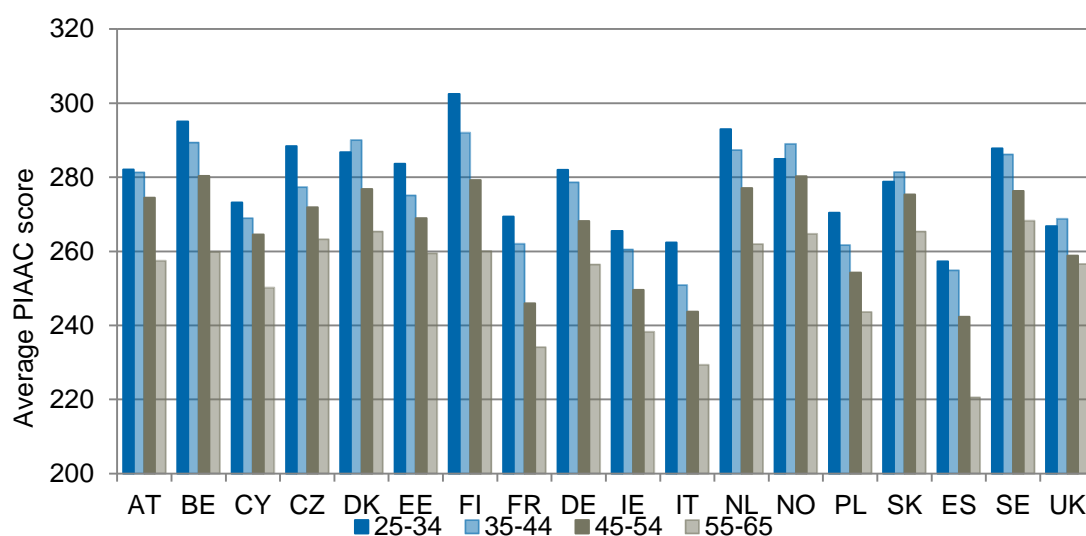
scores for literacy proficiency are in Spain and Italy, whereas the highest average scores are in Finland and Netherlands. There are considerable differences between age groups in almost all countries particularly between the younger age groups (25-34 and 35-44 compared with 55-65). These are smallest in Cyprus, Slovakia and the UK.

Figure 5.3: Mean literacy proficiency scores by age group



Source: OECD Programme for the International Assessment of Adult Competencies, 2013

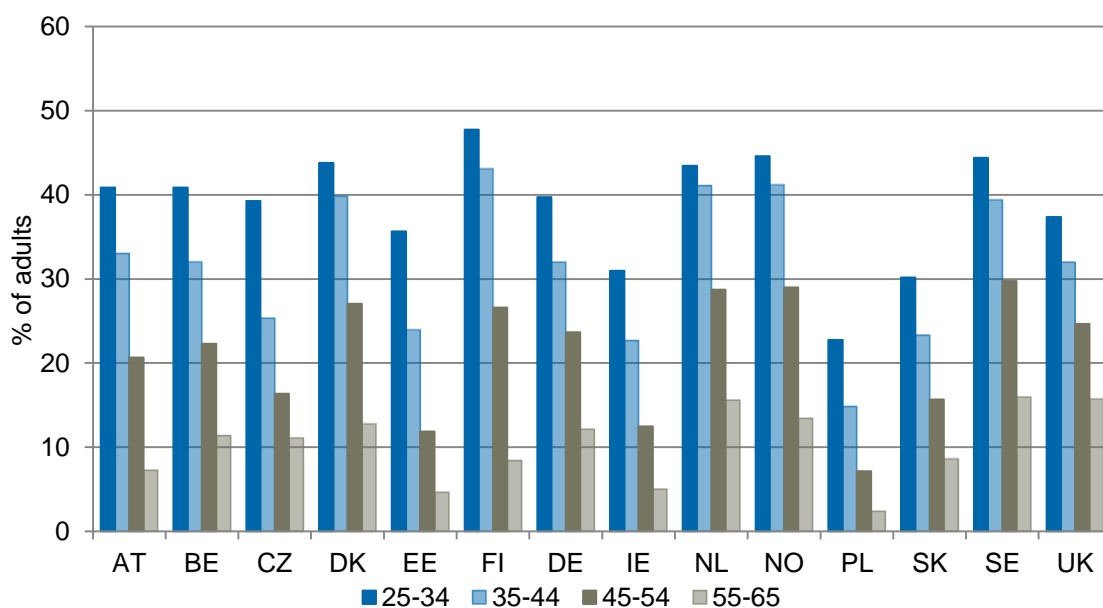
Figure 5.4 presents a measure of numeracy proficiency. This follows a similar pattern to that of literacy proficiency. In all countries, younger age groups have a higher proficiency score than older age groups. However, unlike for literacy, in four countries (Denmark, Norway, Slovakia and the UK) the proficiency score for the age group 35-44 is higher than for those aged 25-34. In these four countries, as in all other countries, the proficiency score decreases for the age groups 45-54 and 55-65 but the age group differences are least in Slovakia, Sweden and the UK. The lowest scores, as was the case for literacy, are in Spain and Italy.

Figure 5.4: Mean numeracy proficiency by age group

Source: OECD Programme for the International Assessment of Adult Competencies, 2013

Figure 5.5 presents a measure of problem solving skills. A decline in ability with age is even more striking although the data relate to only 14 countries³⁷. In the UK, Poland and Slovakia, the decrease across the age groups is smaller than in the other countries, but the difference between the youngest and oldest age group is still around 20 percentage points in each of these countries. The countries where the percentage of people aged 25-34 with a level 2 in problem solving is highest are Finland, Sweden, Netherlands, Norway, Belgium and Austria, whereas for the age group 55-65 the better performance is in the UK, Netherlands, Sweden, Norway and Denmark.

³⁷ At Level 2, adults can complete problems that have explicit criteria for success, a small number of applications, and several steps and operators. They can monitor progress towards a solution and handle unexpected outcomes or impasses. This is in contrast to Level 1, at which individuals can solve problems involving a relatively small number of steps, the use of a restricted range of operations, and a limited amount of monitoring. Source: OECD Skills Outlook 2013 available at http://skills.oecd.org/OECD_Skills_Outlook_2013.pdf.

Figure 5.5: Percentage of adults with level 2 in problem solving in technology-rich environments

Source: OECD Programme for the International Assessment of Adult Competencies, 2013

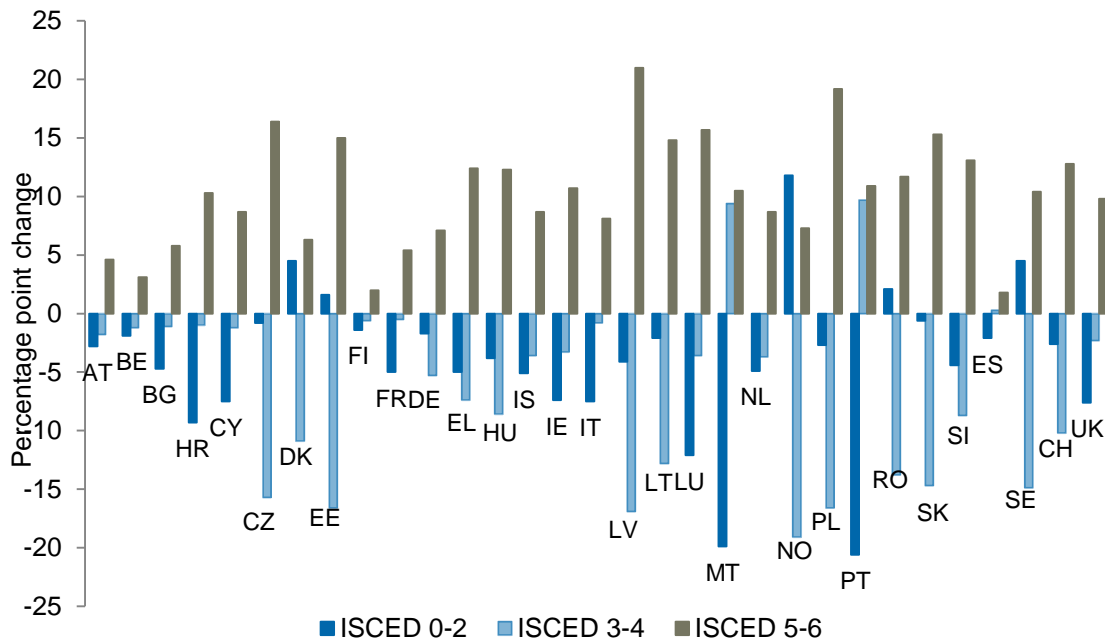
Figures 5.20 to 5.23 measure changes in skills and competences. They show that generally countries have increased the proportions of adults with higher level skills over 10 years which can be attributed to adult learning and not school education.

The general pattern across all countries is that in the period 2004 to 2013 the percentage of the population with a highest qualification level at ISCED level 0-2 has decreased, and the percentage of people with a highest qualification level at ISCED level 5-6 has increased. In only seven countries has the percentage of people with a highest qualification level at ISCED level 0-2 increased in any single age group.³⁸ The only country with a decrease in the percentage of people with a highest qualification at ISCED level 5-6 is Denmark, and this is a small decrease for the 45-54 age group only.

There is a clear difference between age groups when the change in the percentage of the population with a highest qualification level at ISCED level 3-4 is examined. In the younger age groups (25-34 and 35-44), the general trend across countries is that the percentage of the population with a highest qualification at ISCED level 3-4 has decreased between 2004 and 2013 (although this pattern is clearer for the 25-34 age group). For the two older age groups (45-54 and 55-64), the percentage of the population with a highest qualification at ISCED level 3-4 has generally increased. The only countries where there has been a decrease being Denmark, Norway, Sweden, Switzerland and the UK (in all of these countries there is a decrease for both age groups).

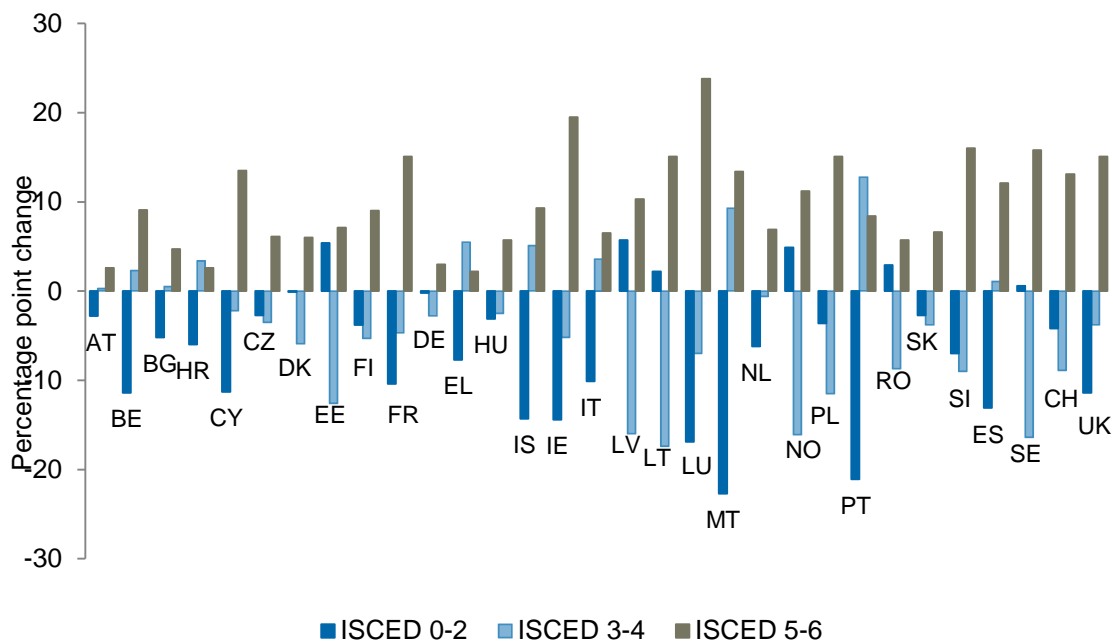
³⁸ These countries are: Denmark and Norway (in three of the four age groups examined); Sweden, Estonia and Romania (in two of the age groups); Latvia and Lithuania in a single age group.

Figure 5.6: Change in the percentage of the population with highest qualification at different ISCED levels, 2004 to 2013, age 25-34



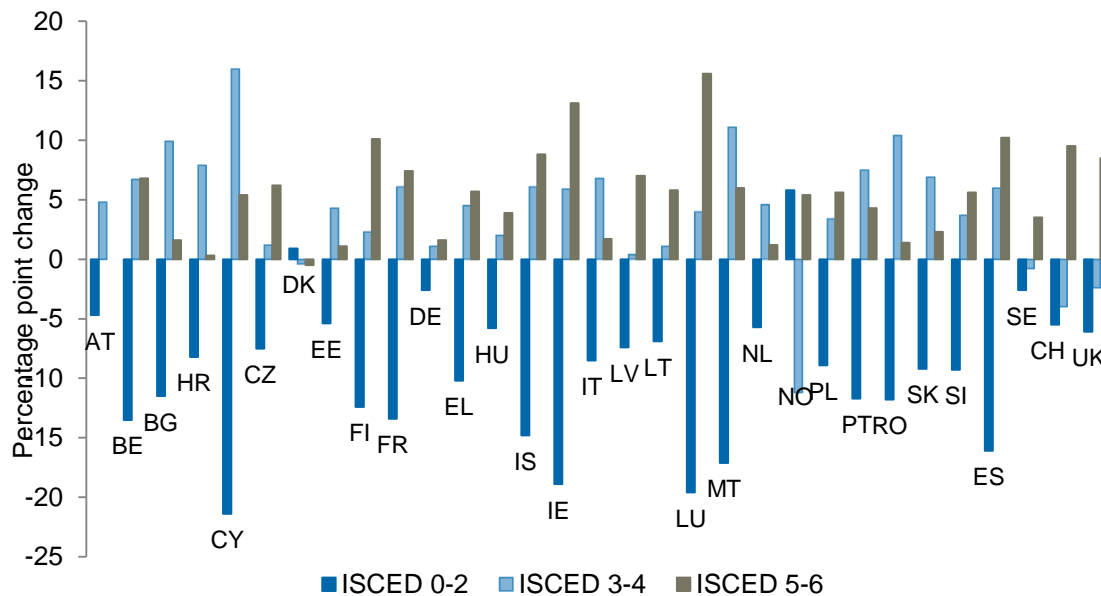
Source: Labour Force Survey, 2004 and 2013

Figure 5.7: Change in the percentage of the population with highest qualification at different ISCED levels, 2004 to 2013, age 35-44



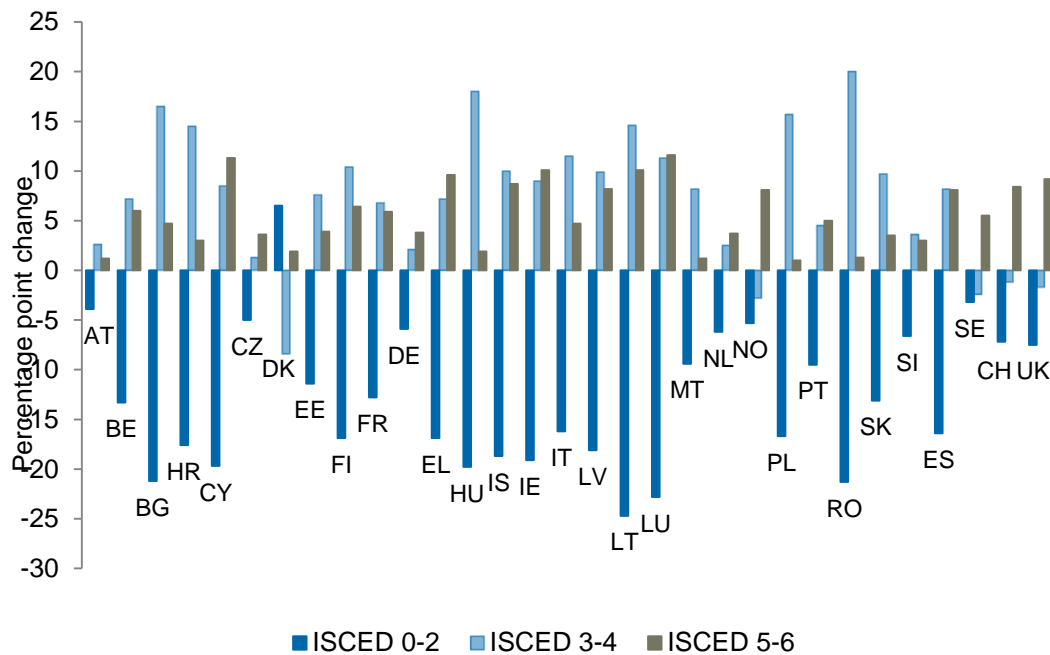
Source: Labour Force Survey, 2004 and 2013

Figure 5.8: Change in the percentage of the population with highest qualification at different ISCED levels, 2004 to 2013, age 45-54



Source: Labour Force Survey, 2004 and 2013

Figure 5.9: Change in the percentage of the population with highest qualification at different ISCED levels, 2004 to 2013, age 55-64



Source: Labour Force Survey, 2004 and 2013

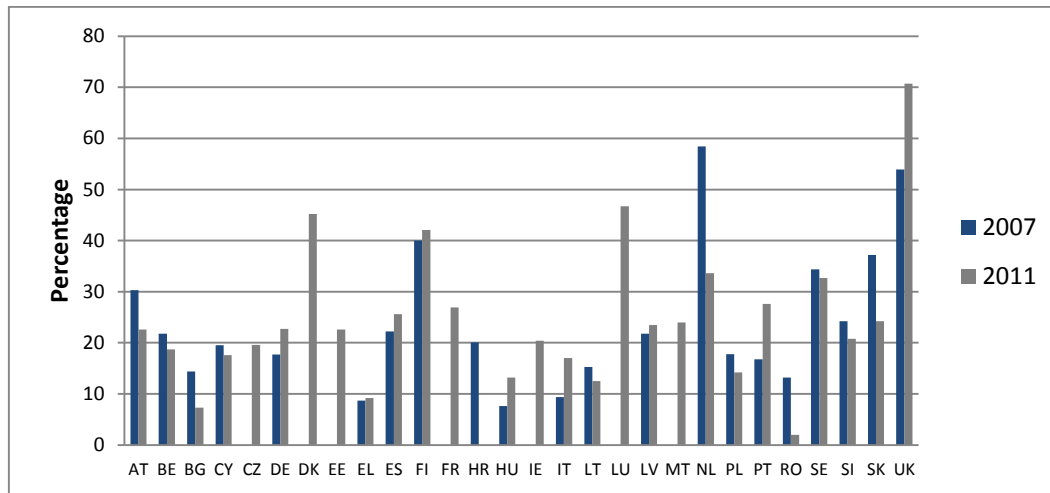
Source:

5.3.2 Success factors

Success factor 1: improve learners' disposition towards learning

Figure 5.10 shows a measure of access to information as an indicator of learners' disposition towards learning. It shows the percentage of people who looked for information on education and training in the past 12 months in 2007 and 2011. In 2007, the three countries with the highest percentage were Finland, the Netherlands and the UK, whereas in 2011 these were Denmark, Luxembourg and the UK.

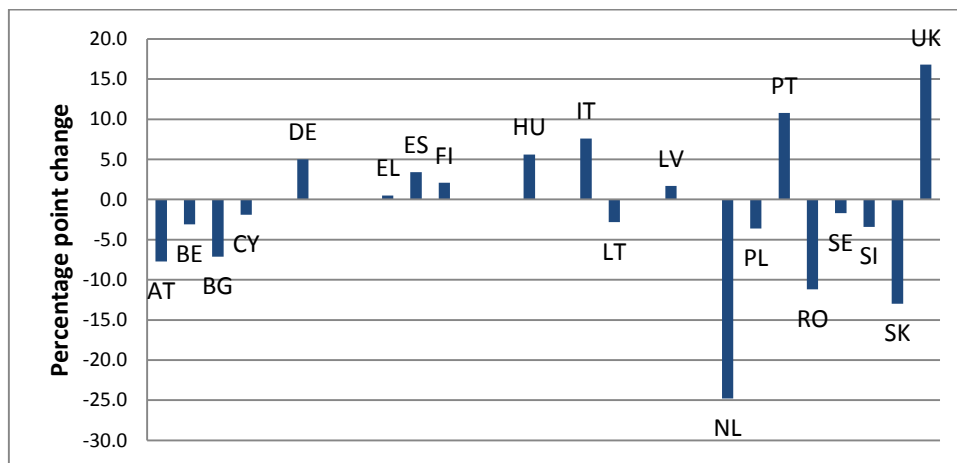
Figure 5.10: Percentage of people who looked for information on education and training, 2007 and 2011



Source: Adult Education Survey, 2007, 2011

The largest increases in the percentage of respondents who had looked for information on education and training between the two AES survey waves occurred in Italy, Portugal and the UK. The Netherlands, Slovakia and Romania saw the biggest falls.

Figure 5.11: Change in the percentage of people who looked for information on education and training 2007 to 2011

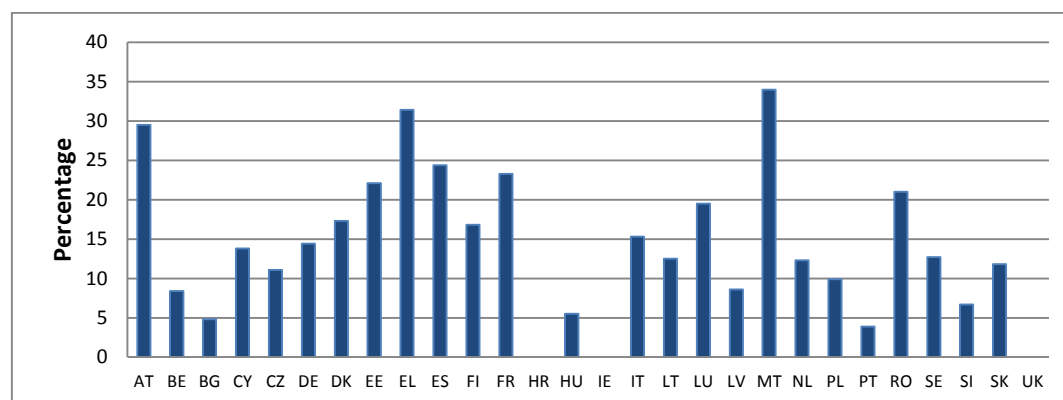


Source: Adult Education Survey, 2007, 2011

Success factor 2: increasing employers investment in learning

Figure 5.12 shows a measure of employer support for training. It shows the percentage of people who stated that the conflict between training and work was an obstacle to attend training. This is a particularly important factor in Malta and Austria (over 20%) but relatively unimportant in Bulgaria and Portugal (fewer than 5% of respondents).

Figure 5.12: Percentage of people who did not attend training who stated the main obstacle to training was work-related³⁹, 2011



Source: Adult Education Survey, 2011

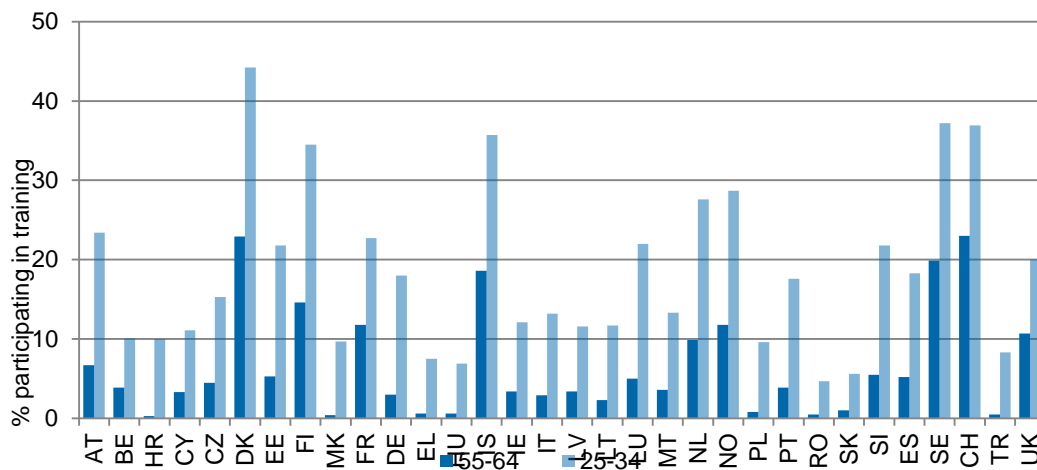
Success factor 3: equity of access

Figures 5.27 to 5.29 show measures of the gap in participation in education and training between different groups of adults.

Figure 5.13 shows that with age, a clear pattern emerges across Europe. In all countries, younger people (aged 25-34) are more likely to take part in education and training than older people (aged 55-64), and in most countries the difference between the participation rate in the two groups is large. The highest level of participation in education and training among those aged 55-64 for example is again in northern countries (DK, FI, IS, NO and SE) – very similar to the pattern for adults as a whole.

³⁹ Eurostat trng_aes_179 (PAROBS: OBSSUPP + OBSWRSC), Due to a break in time series for this measure it is not possible to calculate changes between 2007 and 2011.

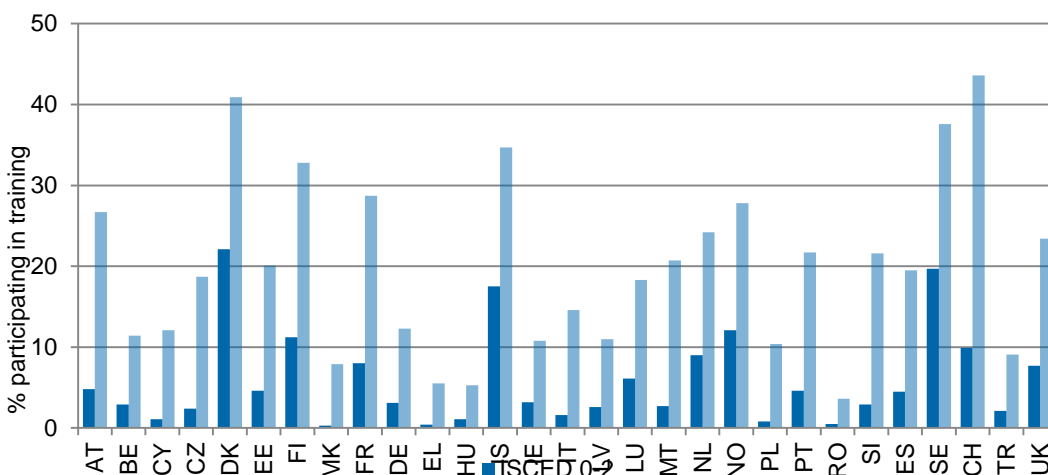
Figure 5.13: Participation rate in education and training in the last four weeks by age, 2013



Source: Labour Force Survey, 2013

Figure 5.14 shows the differences between adults with different qualification levels. In all countries, people with higher qualification levels (at ISCED level 5-6) are more likely to have taken part in education and training than those with low qualification levels (ISCED 0-2). The difference between the participation rate of these two groups is substantial in all countries and smallest in those countries in which people with high levels of qualifications have very low participation rates (EL, HU, and RO). Again, the highest level of participation among those with low levels of qualifications includes Denmark and Sweden.

Figure 5.14: Participation rate in education and training in the last four weeks by highest level of qualification achieved, 2013

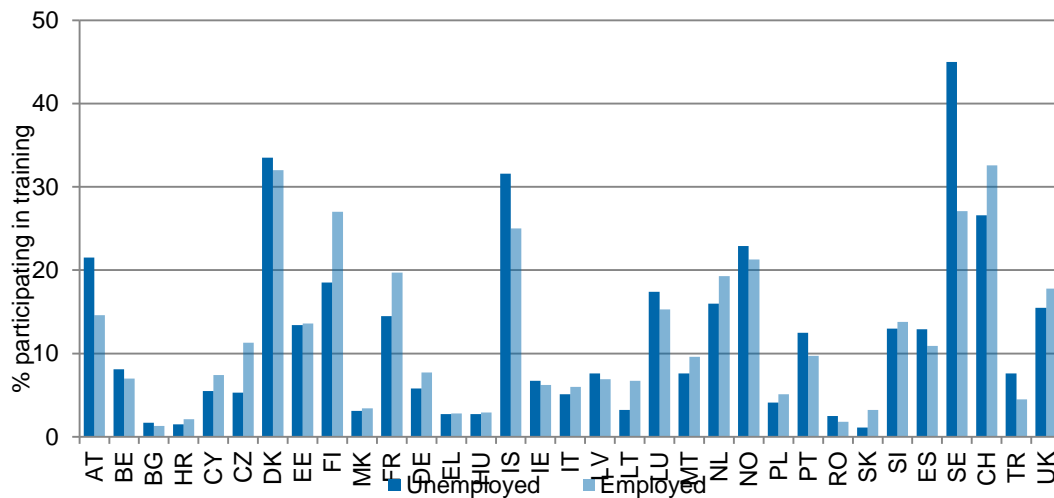


Source: Labour Force Survey, 2013

Figure 5.15 shows that generally the participation rate in education and training for unemployed people and employed people is roughly the same in most countries. In a few countries, such as Austria and Sweden the unemployed are substantially more likely to participate in education and training than the employed whereas in Finland and France

the employed are substantially more likely to participate in education and training than the unemployed.

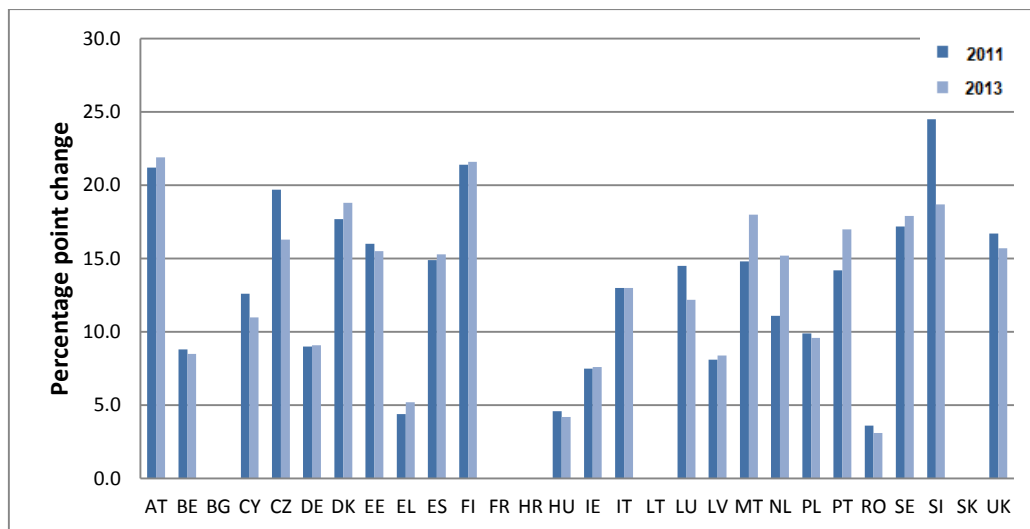
Figure 5.15: Participation rate in education and training in the last four weeks for employed and unemployed people, 2013



Source: Labour Force Survey, 2013

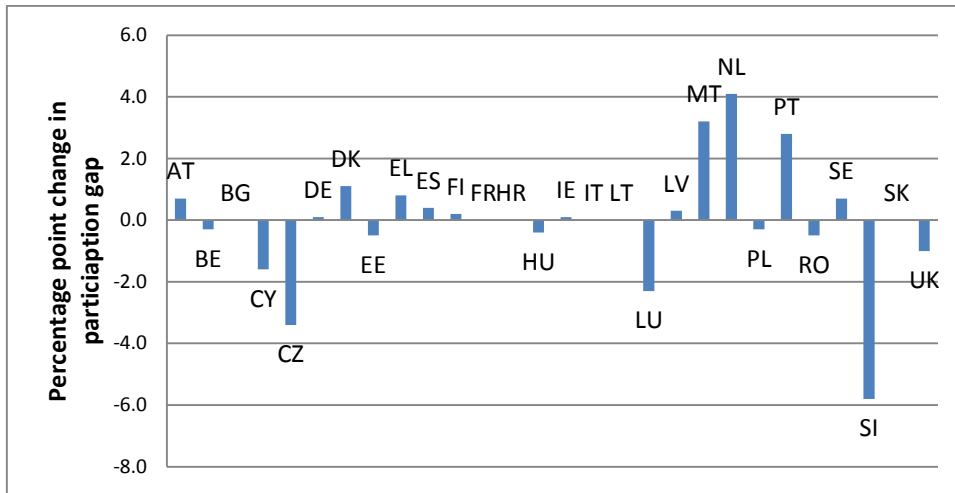
By following participation rates of different groups over time it is possible to monitor the narrowing or widening of any equity gap. Figure 5.16 presents the difference between participation in education and training of persons with low and high levels of qualifications in 2011 and 2013 and Figure 5.17 indicates in which countries this gap has narrowed and in which countries this gap has widened.

Figure 5.16: Differences in the participation in education and training between persons with low and high qualification levels (2011 and 2013)



Source: Labour Force Survey, 2013

Figure 5.17: Change in the participation gap between persons with low and high qualification levels between 2011 and 2013

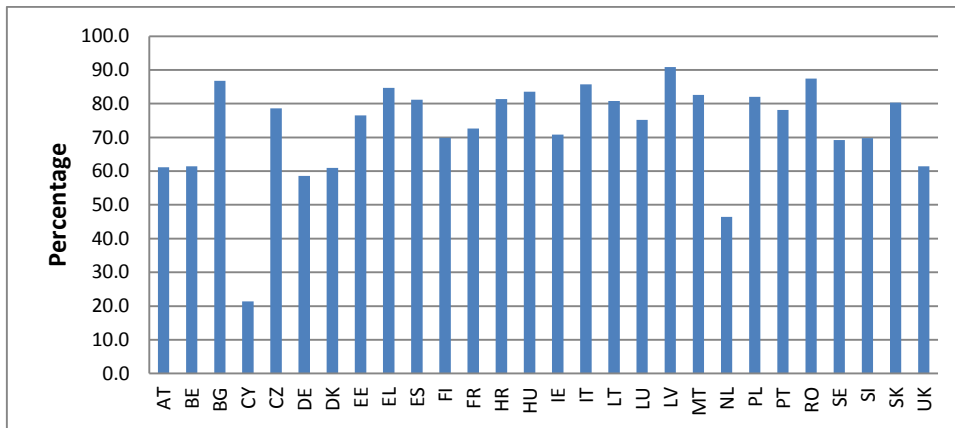


Source: Labour Force Survey, 2013

Success factor 4: training that meets the needs of employers and learners

The (subjective) relevance of training for employees can be measured by the extent to which respondents agree to the statement “I feel that my job is more secure because of my training”. Figure 5.18 shows that on average more than 60% agree to this statement (with over 80% in 10 Member States). However, in Cyprus and the Netherlands this percentage is much lower.

Figure 5.18: Percentage of respondents who agree to the statement: “ I feel that my job is more secure because of my training”, 2010



Source: European Working Conditions Survey⁴⁰

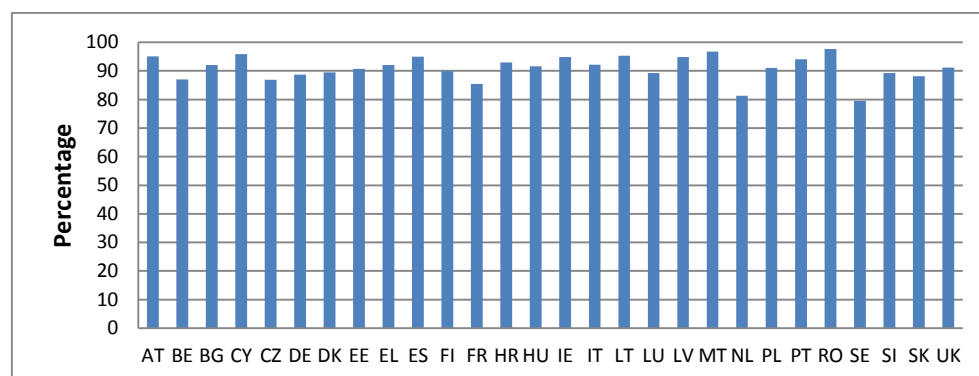
Success factor 5: quality of adult learning

The (subjective) quality and effectiveness of adult learning for employees can be measured by the extent to which respondents agree to the statement “The training has

⁴⁰ In Section 4 we propose to use the Adult Education Survey for this measure. However, for the illustrative purposes of this section we use EWCS data as AES data for this measure is not readily available (restricted access micro data).

helped me to improve the way I work". In all countries, the vast majority of employees agree with this statement, reaching almost 100 percent in Romania, though only around 80% in the Netherlands and Sweden. While subjective measures cannot easily be compared across countries due to different national response styles, following trends over time can reveal interesting developments.⁴¹

Figure 5.19: Percentage of respondents who agree to the statement: "The training has helped me to improve the way I work", 2010



Source: European Working Conditions Survey⁴²

Success factor 6: coordination of adult learning policy

Qualitative measures for this success factor may become available with the 2015 Eurypedia update.

5.3.3 Building blocks

The figures below illustrate how the measures for building blocks can be used with some selected examples from each success factor.

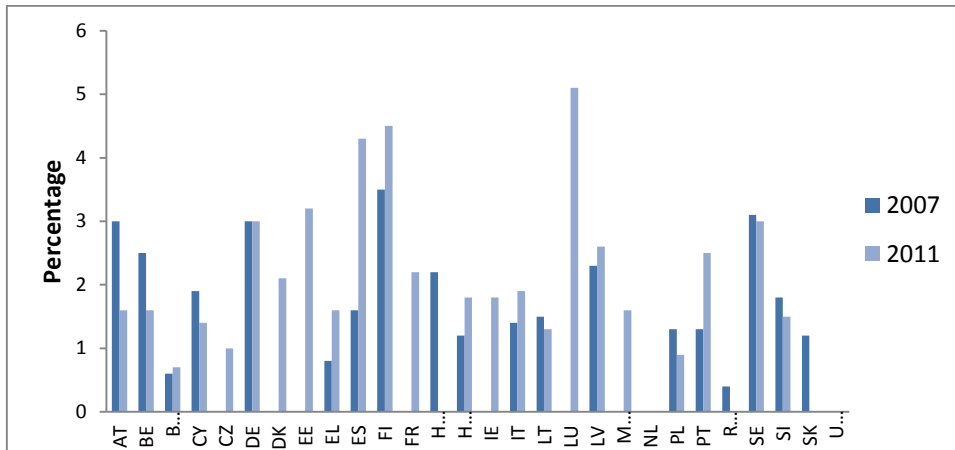
Building block 1.2: provide targeted guidance to learners about learning options

Figure 5.20 shows a measure of the availability of information on learning possibilities. In 2011, the percentage of respondents who looked for information on education and training but could not find it was relatively high in Spain, Finland and Luxembourg, and relatively low in Bulgaria and Romania.

⁴¹ Similar to 0, AES and time series data is not readily available.

⁴² In Section 4, we propose to use the Adult Education Survey for this measure. However, for the illustrative purposes of this section we use EWCS data as AES data for this measure is not readily available (restricted access micro data).

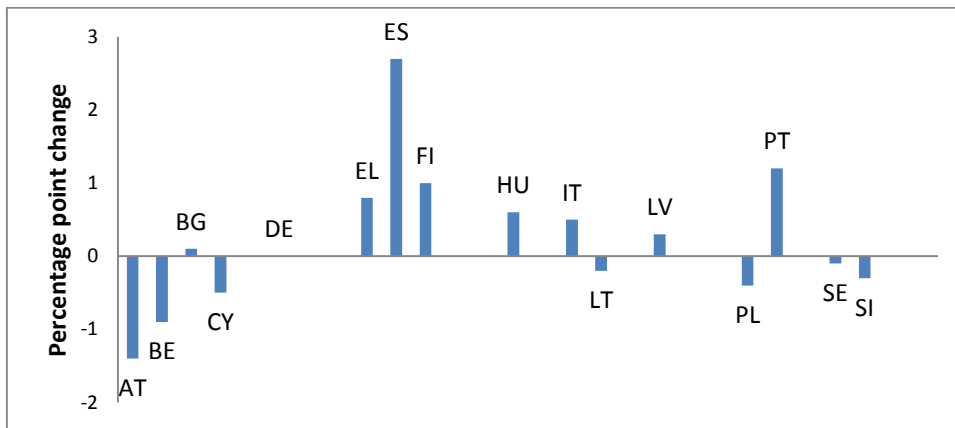
Figure 5.20: Percentage of people who looked for information on education and training but could not find it, 2007 and 2011



Source: Adult Education Survey, 2007, 2011

Between 2007 and 2011, the largest change in the percentage of respondents who looked for information on education and training but could not find it occurred in Spain and Portugal (increase) and Austria and Belgium (decrease).

Figure 5.21: Change in the percentage of people who looked for information on education and training but could not find it between 2007 and 2011



Source: Adult Education Survey 2007, 2011

Building Block 3.3: provide scheme to recognise prior learning (informal and non-formal)

Indicators for building blocks can be qualitative or quantitative. For building block 3.3 (develop scheme to recognise prior learning (informal and non-formal)), qualitative measures (see Table 5.2) and quantitative measures are available (see Figure 5.22). Table 5.2 shows that countries are at different stages of developing the recognition of NFIL from the extent they have established practices of NFIL. Figure 5.36 presents a measure of individuals' awareness of various methods for documenting skills and qualifications which shows that fewer are aware in Belgium, France and the United Kingdom, but over half are aware in Latvia, Malta and Slovenia.

Table 5.2: Status of the development of validation of non-formal and informal learning

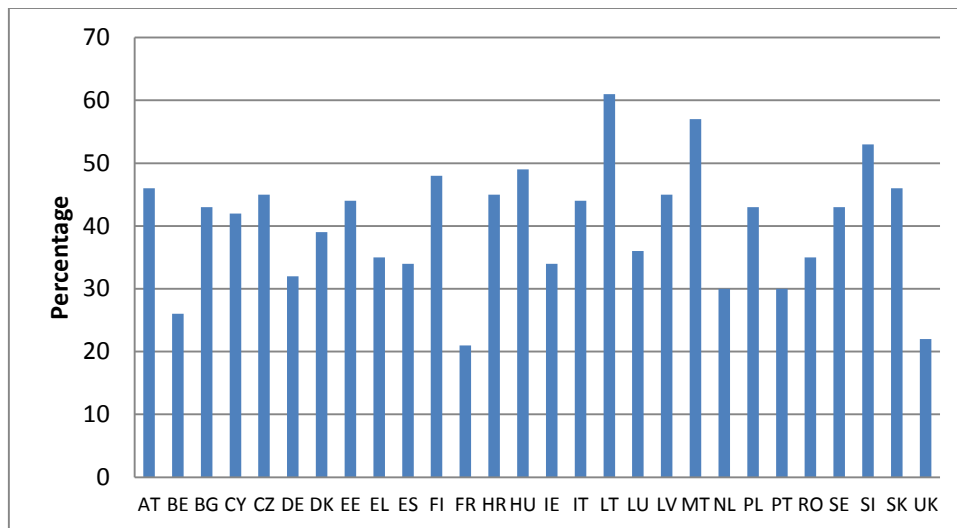
AT	BE	BG	CY	CZ	DE	DK	EE	EL	ES	FI	FR	HR	HU	IE	IT	LT	LU
High	High	Low	Low	High	Medium-high	Medium-high	High	Low	Medium-high	High	High	Low	Low	High	High	High	
LV	MT	NL	PL	PT	RO	SE	SI	SK	UK								
Low	Medium-high	High	Low	High	Medium-high	Medium-high	High	High	Medium-high								

Legend:

High	Medium-high	Medium-low	Low	N/A
------	-------------	------------	-----	-----

Source: Update to the European Inventory on validation of non-formal and informal learning 2010.

Figure 5.22: Percentage of people who are aware that there are methods for documenting skills and qualifications for employment (Europass CV, etc)



Source: Special Eurobarometer 417 (European Area of Skills and Qualifications)

Building Block 3.5: embed basic skills development into adult learning programmes

Table 5.3 indicates in which countries there are dedicated basic skill programmes and programme frameworks for adult learners. 12 out of 28 have these kinds of programmes or frameworks in place.

Table 5.3: Existence of dedicated basic skill programmes and programme frameworks for adult learners

AT	BE	BG	CY	CZ	DE	DK	EE	EL	ES	FI	FR	HR	HU	IE	IT	LT	LU
LV	MT	NL	PL	PT	RO	SE	SI	SK	UK								

Legend:

Yes	No
-----	----

Source: Source: European Commission/EACEA/Eurydice, 2015. *Adult Education and Training in Europe: Widening Access to Learning Opportunities. Eurydice Report. Luxembourg: Publications Office of the European Union.*

5.3.4 Overview of performance

While the analysis above is by no means comprehensive, it shows that the analytical tool can enable a wide ranging comparative analysis of both critical outputs of adult learning as well as specific success factors and building blocks drawing on different data sets.

For some of the critical outputs of adult learning, it is clear that progress is being made in relation to:

- The levels of adults' participation in learning in many but by no means all countries;
- Raising the literacy and numeracy of young people compared to the older generations (though this can be partly attributed to school education);
- Maintaining the literacy, numeracy and problem solving skills of adults as they grow older in some countries where the level achieved by older adults are not much lower than younger adults;
- Increasing adults' qualification levels in most countries.

But further progress is needed to:

- Increase overall levels of participation and reverse the falls in some countries that could be linked to funding and the economic downturn;
- Reduce the proportions of adults with poor literacy and numeracy, especially older adults who can expect to remain in the workforce for longer;
- Achieve a consistent reduction in the number of adults with ISCED 0-2 highest qualifications across all age groups; a few countries are not seeing reductions among those aged 25-34.

The framework and the supporting evidence base would suggest that countries which need to improve in these areas have to increase participation in learning which will address low skills through what they do to fund adult education providers and public employment services and engage employers in training their workforce (supply of learning) and what they do to encourage adults to participate (demand for learning).

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Most of the findings here are well rehearsed from analyses of the key data sources by the Commission and researchers. They show that there are challenges around:

- Reducing the large degrees of variation in inputs and outputs between countries;
- Increasing the participation rates of adults in some countries to the levels in others;
- Increasing the extent that inactive, older and less skilled people take part in education and training to the level achieved by younger and more qualified people (reducing the gaps);
- Providing training for those in work as much as for those who are unemployed;
- Reducing the gap in competences between age groups in all countries analysed. This is particularly large for problem solving in technology-rich environments;
- Increasing the qualification levels of adults throughout people's working lives.

These should be taken account of in devising the indicators for the analytical tool.

With some of the success factors, the analysis shows that:

- People looking for information on education and training is an indicator of disposition. Countries with lower levels tend to have lower participation, higher levels should be a sign that adults who are not necessarily targeted (e.g. the employed) are interested and are motivated to look. When adults look for information they are generally able to find information (very few countries with more than 3% report being unsuccessful);
- Working adults who find it difficult to participate in training because of their work/employer is an indicator of employer support. While this is unlikely to be eliminated completely, countries with proportions in excess of, say, 10% should consider this to be a problem which would benefit from policy actions to engage employers in understanding the benefits and opportunities. Where coupled with low participation (EL, MT, RO), this may well relate to the lack of employer training;
- Differences in participation (age, gender, qualifications) ought to be much narrower than they are in all countries if progress is to be made in reskilling and upskilling adults. For example, in no countries are there only small differences between the older and younger age groups and between the lower and higher skilled in terms of their participation in learning. Overall, higher levels of participation by low skilled and older adults tend to be in countries where all adults are more likely to participate in learning. This again suggests that policy actions to increase disposition to learn and the availability of learning are needed but targeting specific groups with learning needs. Gaps are narrowing between the lower and higher skilled in some countries (CY, CZ, LU, SI, UK) but these are not generally very significant, while increasing in others;
- Differences in participation in learning by the employed and unemployed show large differences in the extent of support for the unemployed to reskill and upskill as well as identifying countries where the unemployed participate considerably less than the employed in education and training (CZ, FI, FR, SK). With the opportunity available for training, higher levels might be expected. The level of unemployed adults' participation does not appear to be related to the progress made with recognising NFIL;

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

- Training is generally perceived to have made them more secure in their work for those who are employed though in some countries this is significantly less than perhaps should be expected if it is relevant. Higher proportions believe it has helped them to improve their work, with relatively few countries under 90%.

The experience of doing the analysis using the measures within the framework also shows that:

- It enables the examination of relationships between factors and building blocks. The tool can provide access to the research evidence of relationships and contributions of building block to outputs and outcomes which will help users;
- The analysis is richer with a range of measures for success factors and certainly having quantitative measures as well as qualitative;
- Some measures are clearly not ideal measures of success factors and building blocks on their own. The measure of worker perception of training benefit for success factor 5 (the quality and effectiveness of adult learning) while an outcome needs to be examined with other measures;
- The analysis is stronger where longitudinal data is available;
- The analysis could be better in some cases where countries can compare their measures against not the just the average but an expected level of good performance. Setting benchmarks would not be advisable but drawing on research to indicate aspirations could help.

5.4 Conclusions

5.4.1 The design and use of the tool

Not all the aims of the analytical tool agreed with the Commission can be met. It can meet the following aims:

- It can help Member States develop, monitor and improve the effectiveness of their adult learning policies;
- It can provide Member States with information on their relative performance on each of the outputs identified in the conceptual framework; and
- It can provide a publicly accessible source of information on adult learning.

It does not fully meet the following aims:

- It can provide a limited overview of the progress of Member States in implementing effective adult learning policies, where data is available;
- It can provide some information to Member States to identify where they need to make further progress to implement and improve their range of policy actions.
- As a consequence, the tool should allow for comparison of Member States on many measures and variables, as well as providing information on the performance of Member States on each of the main outputs identified in the conceptual framework. It brings together various sources of data that are of interest to practitioners and policymakers of adult learning in one accessible location.

The main limitations arise from the knowledge base. These limitations include:

- The frequency with which measures are updated;

- The availability of measures for all of the success factors and building blocks in the conceptual framework;
- The suitability of some of the measures for specific building blocks; and
- The variable strengths of evidence underpinning building blocks in the framework.

As a result, this means that not all success factors/building blocks can be equally monitored or compared and that any overview will be confined to a portion of the framework.

In terms of the development of the tool itself, the prototype of the tool has the following key features:

- It provides an overview of the conceptual framework, demonstrating how the framework is structured, explaining the various elements in the framework and provides information on the strength of the evidence underpinning each building block;
- It provides access to data (stored in the database underpinning the framework) on measures that monitor each of the building blocks and success factors in the framework as well as measures on the overall performance of Member States;
- It allows users to compare quantitative data across time periods (where available) and countries, and qualitative data across countries, and allows them to download the data;
- It provides individual country reports for each Member State that bring together all data pertaining to an individual country and comparing it with the EU average where possible; and
- It provides access to additional resources, such as research evidence or data sources that may be of interest to policymakers and practitioners.

In terms of the criteria established to assess the tool's design, we can say the following:

- Comparison between Member States is possible for both quantitative and qualitative data. However, the ability to compare Member States over time is limited, given the nature of the data. The comparison that can be done by the qualitative measures and variables is limited by the extent of the information available. In many cases, the measure or variable states whether a policy action is in place whereas a graded assessment of a policy action implementation would be preferable;
- The tool has limited ability to monitor progress in implementation, particularly using quantitative data. As stated before, not all success factors and building blocks are equally monitored. In addition, the qualitative data does not provide a graded assessment of progress, but rather identifies whether or not a policy is in place or not;
- The tool is designed so that all measures and variables can be accessed through the corresponding element of the framework, demonstrating clear linkages to the conceptual framework;
- The tool provides a number of useful features, such as country reports and data download facilities. However, the tool does not provide information on the level of impact of a particular building block, or its effectiveness in terms of value for money;

- The tool is designed to be user-friendly. The various sections of the tool are linked to one another, making it easy for users to navigate and also provides clear explanation of each of the features; and
- The tool can be updated, but this is contingent on the frequency with which the data sources used to populate it are updated.

5.4.2 The analysis using the tool's measures and functionalities

The analysis of measures in the analytical tool shows that the measures available are critical to the quality and depth of analysis which can be carried out. Improvements as set out in section 4 to increase longitudinal data and provide both quantitative and qualitative measures for some success factors/building blocks are essential in the medium term.

Even so the analysis that is possible can be extensive and is enhanced if it draws on an understanding of relationships between success factors and which success factors/building blocks are significant contributors to the critical outputs and outcomes of adult learning. Improvements set out in section 2 to increase the quality of research and fill gaps are essential in the medium term to address this.

The analysis, while not comprehensive, draws out that the challenges for Member States continue to be those relating to both providing opportunities for learning and encouraging and enabling adults to take these up if participation is to increase towards the benchmark and if adults skills are to be raised to meet social and economic needs.

Most countries appear to have challenges in relation to at least one critical output, most have more and all countries appear to have a challenge in particular to success factor 3 (equity of access). As a consequence it could be argued that there are critical weaknesses in policy around training for the low skilled and the unemployed and the improvement of basic skills.

6 Conclusions and recommendations

6.1 Effectiveness of adult learning policies in Europe – overview

Adult learning policies, like any other policies, need to be effective: they need to reach their objectives and attain the desired impacts, which should be carefully defined.

To check whether policies are effective, it is necessary to understand their performance; a first step is to determine whether there is a relationship between different policy actions and their outputs and outcomes; a second step is to identify the extent of any relationship identified. This involves gathering evidence about the effectiveness of different policies and actions. Understanding the performance of policies allows policy makers to change and improve them. A growing body of research and statistics provides important insights into how better to achieve policy goals.

The study aimed to shed light on the current state of the evidence about the effectiveness of adult learning policies and, based on evidence about the relationships between policy actions and their results, to define ways to better design policies and monitor policy effectiveness.

The study found:

- There is strong evidence about the benefits of adult learning for individuals, companies and society;
- However, many adults in Europe are not acquiring these benefits, because they do not participate enough, or at all, in learning;
- Current policies also do not sufficiently ensure that the benefits of learning in adulthood are accessible to everybody;
- Still, there is substantial evidence about a number of policy actions that have been proven to be effective, particularly in raising rates of adult participation in learning;
- However, many of these effective policies are not in place in many Member States, or are limited in scope;
- When these kinds of policies are in place, they rarely have explicit measurable targets, their effectiveness is seldom systematically monitored and their performance is seldom evaluated;
- Nevertheless, there is a good base of European statistics on adult learning to improve the design, evaluation and monitoring of these policies.
- Improving the evidence, particularly from the administrative monitoring of policy implementation, would further enhance countries' capacity to ensure the effectiveness of their adult learning policies.

6.2 A systematic, evidence-based approach

The study adopted an advanced methodology to ensure that its results would be evidence-based, robust and policy-relevant. Key features were:

- The study took a systematic approach to identifying how adult learning policies are effective, on three levels:
 - Identifying the key factors for successful adult learning and relating them to system level output indicators (principally participation⁴³);

⁴³ While participation is not the only 'output' of adult learning policy at the system level (knowledge, skills, qualifications, attitudes and ambitions are other outputs) the availability of

- Relating the outputs of adult learning to outcomes and benefits (which can be economic or social, for both individuals and the community); and
- Relating the outputs and outcomes of adult learning to specific policy actions.
- This systematic approach was underpinned by a review of evidence about the effectiveness of adult learning policies. It was led by an assessment of published research literature, the quality of which was graded according to a set of predefined standards, and supplemented by data analysis and evidence presented by policy makers and experts. This was then used to map a set of 'building blocks of effective policies'. These were tested using supplementary evidence from country case studies. A systematic review of available statistical data was also undertaken to identify variables that could be used to underpin the monitoring of the building blocks identified by the review of evidence. This informed the development of a framework that could be used to monitor the effectiveness of adult learning policies; and
- The framework and the evidence base underpinning it were tested with researchers and practitioners in the field of adult learning, including through consultations and meetings with the Adult Learning Working Group⁴⁴ and the Standing Group on Indicators and Benchmarks⁴⁵. In addition, the framework has been compared with other frameworks.

6.3 A new framework for analysing the effectiveness of adult learning policies

As a result of this systematic approach, one of the study's key innovations is that it identifies six key factors for successful adult learning policies which are:

1. Improving learners' disposition towards learning;
2. Increasing employers' investment in learning;
3. Improving equity of access for all;
4. Delivering learning that meets the needs of employers and learners;
5. Delivering high quality adult learning; and
6. Co-ordinating an effective lifelong learning policy.

Another key innovation is that the study proposes an "analytical framework" which can be used as a template to guide improvements in the design, analysis, evaluation and monitoring of adult learning policies, at regional, national and international levels. It:

- Includes a detailed depiction of the elements identified as important in achieving effective adult learning, and demonstrates their linkages;

data on participation means that this can be studied in relation to system features such as investments in training. If the PIACC survey is repeated, then it will also be possible to examine these in relation to competences.

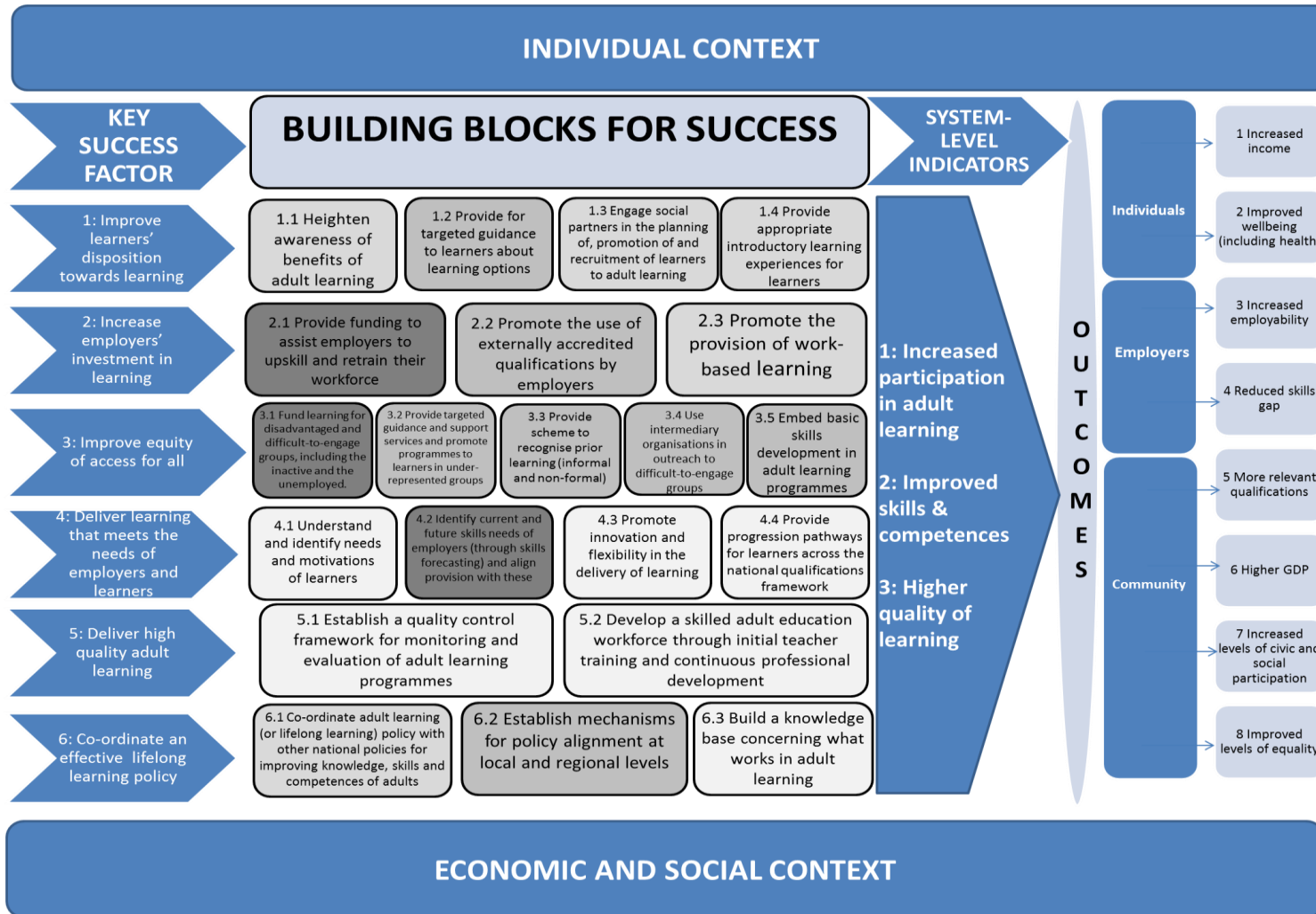
⁴⁴ As part of the Education and Training 2020 (ET2020) Open Method of Coordination, the Commission and Member States cooperate through Working Groups. The working group was mandated by the Member States to support Commission's work on adult learning policy effectiveness and provided guidance to the study team at four of its meetings and through two online consultations in 2014 and 2015.

⁴⁵ The Standing Group on Indicators and Benchmarks is the Commission's advisory body on statistics for education.

- Illustrates how specific adult learning policy actions – which can be seen as the “building blocks” for successful policies- contribute to achieving the six key factors for success;
- Illustrates how these policy actions bring about effective adult learning (primarily as shown by increased participation in learning);
- Shows the various outcomes arising from these policies, and the groups that benefit from these outcomes (learners, employers and the community).

Figure 6.1: Analytical Framework

The analytical framework is illustrated below.



Directorate-General for Employment, Social Affairs and Inclusion
 Directorate C (Europe 2020: Employment Policies)

A key aspect of this analytical framework is the logical separation between the performance of concrete policies and the performance of system-level indicators. This is due to the difficulty of attributing changes in statistics to the performance of actual policies. Most adult learning, unlike other sectors of education, is neither financed nor provided by public institutions. Thus, changes in macro indicators are likely to be driven by the behaviour of private actors, which may be only weakly and indirectly influenced by adult learning policy. Accordingly, assessing the effectiveness of concrete policies requires data on concrete outputs of those policies and the outputs to have an impact on the system level.

To assist policymakers in using this analytical framework to analyse and monitor adult learning policies, an online tool is being developed which will:

- Present and explain the analytical framework in an interactive fashion;
- Provide access to the existing data and collected evidence;
- Provide country fact-sheets;
- Provide references to the background literature on adult learning policies.

6.3.1 Limitations

The study collected a large quantity of research evidence, providing valuable insights into the outcomes of adult learning and identifying specific policies that seem to be effective in increasing adult participation in learning and/or bringing about higher levels of adult skills. This evidence forms the backdrop to the study's analysis and conclusions.

Nevertheless, in the research literature there are constraints on the availability and quality of evidence. It is often difficult to attribute adult learning outputs and outcomes to certain types of policy action or to measure the size of their effects. For some common policy actions there is a lack of studies that evaluate or measure their effect; this may be due to lack of data, the intrinsic difficulty of evaluating some policies and/or simply because such studies have not been commissioned. There is a paucity of meta-studies which bring together evaluations and impact assessments of policies which have been systematically and commonly performed in a number of countries.

The body of evidence about adult learning policies would have been stronger if governments collected data more systematically to enable policy actions and their targets to be monitored or for targets to be set in the first place; if more Member States had evaluated their policy actions and published their findings, and if the evaluations undertaken had been of a higher quality. This would have made it possible for this study to connect the insights of practitioners to evidence from evaluations.

The current availability of evidence and data therefore limits what can be achieved through the analytical framework. For example, it currently cannot provide information on the level of impact or value for money of specific policies, nor compare them across countries. It cannot indicate if or to what extent policies made an impact at a system level. Nor can it yet allow an assessment of quality or of progress in the implementation of different policy actions. A substantial improvement in countries' policy monitoring – including a more rigorous collection of data – together with the comparative evaluation of policies across countries, would be needed to enable such analysis.

It should be kept in mind that it is possible to acquire evidence of effectiveness only about policies that have already been implemented and evaluated *ex-post*. An analysis of policy effectiveness cannot cover policy interventions, no matter how innovative, which are only at the planning or design stage. So the analysis in this report should not discourage policy makers from adopting innovations; but where countries do not already have in place those interventions that have already been tried and tested elsewhere, it

might make sense to consider adopting them first, before undertaking interventions whose effectiveness and impact is less certain.

6.4 Key benefits of adult learning

The study has summarised the evidence from research about the main benefits of adult learning: for learners themselves, for employers and for the wider community. It also shows that adult learning gives rise to a number of outcomes or at least that there is a statistical relationship between them. In particular it shows that:

- For **learners**, three types of positive outcome arise from participation in learning and, in some cases, from completing courses and achieving qualifications. These are as follows:
 - **Economic:** Increased wages and incomes and improved employability arise to individuals from participation in learning and in the case of wages/ income from the qualifications and improved basic skills gained from learning;
 - **Wellbeing:** Improved general wellbeing (including improvements in self-confidence) as well as improved health (physical and mental) can be brought about as a result of participation in learning; and
 - **Social:** Improved disposition to voluntary and community activity as well as improved civic attitudes can be brought about as a result of participation in learning.
- For **employers**, the positive outcomes that arise from learning are as follows:
 - A firm's **innovation** performance can be increased as a result of the increased skills and competences brought about by workforce participation in learning;
 - A firm can benefit from a more **motivated workforce** as a result of their participation in learning; and
 - As a result of the benefits arising from innovation and a more motivated workforce, **economic benefits** arise to the business. Thus, increased productivity and profitability arises from increased workforce participation in learning and the business' investment in this;
- For the **community**, positive benefits, both economic and social, arise from increased adult participation in learning, as follows:
 - **Economic:** Countries where there are high rates of adult participation in learning are more economically competitive and feature higher levels of GDP; and
 - **Social:** Participating in adult learning and increasing skills have positive effects on behaviours in relation to health, the environment and reducing reoffending.

6.5 Challenges in the field of adult learning policy in Europe

It is clear from the research indicated above that adult learning brings considerable benefits to individuals and to society. Despite these benefits, the EU is far from attaining its modest benchmark of 15% adult participation in learning by 2020. Indeed, the analysis in sections 2 and 5 of the study, while not comprehensive, shows that there are significant challenges to be confronted.

Progress towards achieving the European adult learning benchmark has been limited. Although the rate of adult participation in learning has slightly increased, this may well

Directorate-General for Employment, Social Affairs and Inclusion

Directorate C (Europe 2020: Employment Policies)

be largely due to changes in data collection methodology. Equally, there has been an increase in adults' qualification levels, but this can be mostly attributed to the effects of initial education rather than adult learning.

At European level, this suggests that there are challenges around:

- Significantly increasing overall rates of adult participation in learning;
- Increasing the rate at which economically inactive, unemployed, older and less skilled adults take part in education and training to the level achieved by younger and more qualified people;
- Reducing the proportions of adults with poor literacy and numeracy (especially older adults who can expect to remain in the workforce for longer);
- Achieving a substantial reduction across all age groups in the number of adults who have at most an ISCED 0-2 qualification.

At Member State level, the analysis suggests that:

- Few, if any, countries have in place all the policy actions that constitute the "building blocks for successful adult learning policies";
- Every country faces challenges in relation to at least one key factor for success and all countries appear to face a challenge in relation to improving equity of access;
- Coordinating adult learning strategies and policy actions at national and sub-national levels assists Member States to better align funding and coordinate provision and to align adult learning with other government economic and social policies; and
- Ensuring equitable access to education and training, and improving adults' basic skills are critical weaknesses of current adult learning policies in EU Member States. Improving equity would help increase overall participation and address workforce skills gaps. To achieve this, financing learning for disadvantaged groups is essential, but should be underpinned by other policy actions in order to achieve lasting change.

6.6 Effective policy actions

In considering how to address the challenges outlined above, policy makers will wish to pay particular attention to those policy actions that are likely to be most effective.

The following broad conclusions can be drawn from the overall analysis in this study.

- Participation in learning is strongly linked to the availability of learning opportunities which governments fund in whole or part, and the amount of government investment in learning; this suggests that critical policy actions should be those which increase the availability of learning (both formal and non-formal, both in work and out of work).
- Focusing investment on underrepresented groups in adult learning not only reduces inequalities in accessing learning, but also increases overall adult participation in learning; critical policy actions should be those which provide suitable learning opportunities for adults with a specific need (e.g. to re-skill or upskill).
- Provision of employment- and work-related training is a key driver in increasing the overall participation rate, not least because the majority of adults are in work; so critical policy actions should be those which increase the motivation of

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

employers to train and develop their employees as well as the motivation of adults themselves to take up available opportunities to learn.

- Improving learners' disposition to learning increases participation in learning; this suggests that critical policy actions should be those which encourage and enable access to adult learning by adults, particularly those who currently undertake little or no learning.

In addition, the research analysed by this study shows that, in terms of increasing adult participation in learning, the adult learning policy actions set out in the box below are effective.

Increasing learners' disposition towards learning:

- Heighten awareness of learning
- Provide targeted guidance for learners about learning options (including career management skills)
- Engage social partners in planning, promotion and recruitment of learners to learning
- Provide appropriate introductory learning experience for learners

Increasing employers' investment in learning:

- Provide funding to assist employers to upskill and retrain their workforce
- Promote the use of externally accredited qualifications by employers
- Promote the provision of work-based learning

Improving equity of access to learning for all:

- Fund learning for disadvantaged and difficult-to-engage groups, including the inactive and the unemployed
- Provide targeted guidance and support services and promote programmes to learners in under-represented groups
- Provide scheme to recognise prior learning (informal and non-formal)
- Use intermediary organisations in outreach to difficult-to-engage groups
- Embed basic skills development in adult learning programmes

Delivering learning that is relevant to employers and learners:

- Understand and identify needs and motivations of learners
- Identify current and future skills needs of employers (through skills forecasting) and align provision with these
- Promote innovation and flexibility in the delivery of learning
- Provide progression pathways for learners across the national qualifications framework

Deliver high quality adult learning:

- Establish a quality control framework for monitoring and evaluation of adult learning programmes
- Develop a skilled adult education workforce through initial teacher training and continuous professional development

Co-ordinate an effective lifelong learning policy:

- Co-ordinate adult learning (or lifelong learning) policy with other national policies for improving knowledge, skills and competences of adults
- Establish mechanisms for policy alignment at local and regional level
- Build a knowledge base concerning what works in adult learning

6.7 The state of the evidence base for policy making

A key ingredient in policymaking is hard evidence about what does and does not work to achieve specific policy goals. This study has concluded that:

- There is substantial research available on the effectiveness of a number of adult learning policy interventions; some of it is high quality research, including systemic meta-reviews;
- However, the evidence base is limited in coverage and quality. Certain policy areas have been analysed in depth but most lack high quality studies and meta-reviews to prove their effectiveness. There is a lack of data collected and published by national authorities about the long-term outcomes of their policy interventions;
- In particular there is a lack of research for policy areas which only indirectly increase participation in learning (called “policy performance enablers” in this report). They comprise actions which address institutional, legislative or structural features of adult learning systems; for example the introduction of qualifications frameworks, quality assurance systems or policy coordination instruments. There is a need for more evidence about their effectiveness. Finding different ways to assess their effectiveness (e.g. via other outputs than participation or skills) may also be useful;
- There is also a lack of research on the relative efficiency and effectiveness of policies. There is little data on the cost of different actions; outputs are often defined differently and thus hardly comparable. There are very few studies comparing the effectiveness of different types of policy interventions or different policy mixes;
- The evidence that is available about the outcomes of policy actions which are effective in increasing adults’ participation in learning or their skills can, however, be used for designing adult learning policies and putting in place effective monitoring systems.

6.8 Monitoring adult learning policies

Member States need to draw upon a diverse range of sources of evidence to monitor effectively and benchmark their adult learning policies and actions. Besides identifying which policies are shown by evidence to be effective in general, it is also important to know the extent to which the specific policy actions implemented in specific Member States are effective. This would provide concrete guidance to Member States about which aspects of adult learning face particular challenges or which policy actions lack effectiveness to bring about the required change. The study’s assessment of the data sources available at the European level found that:

- There is a broad range of measures and variables available for monitoring most adult learning policies at the macro-level. In many cases, the measures and variables available correspond to the policy actions identified in the study as being effective;
- In general the sources cover all Member States; the main exception is the PIAAC survey;
- Some sources, particularly the Labour Force Survey, provide sufficient data to permit annual monitoring of key elements of adult learning; other sources, although updated less frequently, provide data to cover most other policy actions;

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

- Still, all policy actions are not equally well covered by existing sources. Some existing surveys are carried out infrequently and over time some relevant measures are changed or removed from surveys;
- To assess the performance and quality of adult learning policy interventions, policy level administrative data (both quantitative and qualitative) is needed. However, such data is seldom available or not accessible for research and evaluation.

The analytical framework developed by this study provides a firm basis for any Member State wishing to put in place a monitoring system for its adult learning policies. Unlike other frameworks, it is derived from evidence on policy effectiveness. The analytical framework comprehensively reflects the policy actions that are critical to the achievement of key outputs and outcomes, and provides a clear illustration of the links between policy actions and outcomes. It seeks to devise a logical linkage between macro-level indicators and concrete policy interventions. It can be applied at different levels: regional, national and international. It also can be enhanced through the use of national or sub-national data.

However, two key changes are required in order to enable a frequent assessment of the actual impact of policies implemented. Firstly, it would be helpful to improve the statistics on adult learning policy (frequency, stability, coverage and relevance). Secondly, it would help to enhance administrative and qualitative policy monitoring (by gathering more data on the outputs, quality and implementation of specific policy actions) in order to construct causal links between macro level indicators and the outputs of concrete policy actions.

7 Recommendations

In the light of the study's findings, the Commission, Member States and other relevant stakeholders are recommended to:

- Recognise that in order for adult learning policy to be effective, there is a need for explicit quantitative targets, systematic monitoring of policy implementation and assessment of the impact of adult learning policy actions that have been implemented (6.3 above);
- Take note of the significant scope to revise and improve adult learning policies, to ensure that they are fully effective in securing the proven benefits of adult learning for learners, for employers and for the wider community (6.4 above);
- Address in particular the serious challenges (6.5 above) that hamper progress towards the attainment of the EU benchmark on adult participation in learning;
- Make full use of the available evidence about which policies are most effective (6.6 above) and of available statistics to improve the design, evaluation and monitoring of adult learning policies; and
- Set targets, systematically monitor and evaluate the effectiveness of adult learning policies; and take steps to improve the quantity and quality of necessary evidence and statistics (6.7 and 6.8 above). More detailed recommendations on this are set out in Annex 9.

Member States are recommended to:

- Make use of the analytical framework outlined in this study in designing adult learning policies and provision, and in monitoring policy effectiveness;
- Ensure that their policies take into account the six key factors for successful adult learning (6.3 above), in particular by improving equity of access to learning;
- Review their current policy and provision to ascertain the extent to which, for each broad policy objective, the necessary types of policy action - the building blocks for successful policies - are in place; and
- Coordinate adult learning and other economic and social policies at national, regional and local levels to align funding, ensure coherent provision and thereby ensure the best outcomes from policy interventions.

The European Commission is recommended to:

- Make use of the results of the study to inform its analysis of the performance of Member States' adult learning policies;
- Support national authorities to design effective adult learning policies by making full use of the evidence base and the analytical framework described in this study;
- Support national authorities to enhance their systems for evaluation and monitoring adult learning policies in the light of the methodology adopted in this study;
- Consider updating and further improving the analytical framework and the analytical tool in the light of users' comments, for example by taking account of newly available or new sources of data.

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Annex 1: Sources included in the literature review

- Almeida, R and Pedro Carneiro (2009) 'The return to firm investments in human capital', *Labour Economics* 16, 1, 97-106
- Aontas (2009) More than just a course
- Benseman, John (2010) 'Planning and teaching effective workplace literacy, language and numeracy programmes: what does research tell us?' *Journal of Adult Learning Aotearoa New Zealand* 38, 2, 19-28
- Bertzeletou, T. (2013) Is Quality paying off? Yes, answer VET providers. Presentation at EQAVET 4th Annual Forum, Dublin, 14 – 15 March 2013.
- Blanden, J., Buscha, F., Sturgis, P. & Urwin, P. (2012), 'Measuring the Returns to Lifelong Learning', *Economics of Education Review* 31, 501-514
- Blundell, R, L Dearden, C Meghir and B Sianesi (1999) 'Human Capital Investment: The Returns from Education and Training to the Individual, the Firm and the Economy', *Fiscal Studies* 20, 1, 1-23
- Boateng, S (2009) 'Population and Social Conditions Eurostat – Statistics in Focus' 44/2009
- Boeren, E (2011) 'Gender differences in formal, non-formal and informal adult learning', *Studies in Continuing Education* 33, 3, 333-346
- Broek S and J Buiskool (2012) 'Mapping and comparing mobilisation strategies throughout Europe: Towards making lifelong learning a reality', *Journal of Adult and Continuing Education* 18, 1, 4-26
- Brooks, G., Burton, M., Cole, P., Miles, J., Torgerson, C.J. and Torgerson, D. (2008) 'Randomised controlled trial of incentives to improve attendance at adult literacy classes', *Oxford Review of Education* 34, 5, 493-504
- Brozatis, H. et al (2010) 'Assessment of the impact of ongoing reforms in education and training on adult education: Final report'. Vilnius: Public Policy and Management Institute
- Brunello, G., Comi, S., and Sonedda, D. (2012), 'Training Subsidies and the Wage Returns to Continuing Vocational Training: Evidence from Italian Regions', *Journal of Labour Economics* 19, 3, 361-372
- Casey, H. et al (2006) 'You wouldn't expect a maths teacher to teach plastering: Embedding literacy, language and numeracy in post-16 vocational programmes – the impact on learning and achievement'. NRDC
- CEDEFOP (2009) 'Using tax incentives to promote education and training'
- CEDEFOP (2010) 'Employer-provided vocational training in Europe'
- Cedefop (2010) Changing qualifications A review of qualifications, policies and practices
- CEDEFOP (2011) 'Learning while working: Success stories on workplace learning in Europe'
- CEDEFOP (2011) 'The impact of vocational education and training on company performance'
- CEDEFOP (2012), 'Research paper 27, 'Learning and innovation in enterprises'
- Cedefop (2014) Policy handbook: Access to and participation in continuous vocational education and training (CVET) in Europe
- CIDEC – 'Interdisciplinary Centre for Economic Studies (2004) The Impact of the Recognition and Certification of Lifelong-earned Competences'
- Conein, S., Ambos, I., Nuisl, E. 'Lernende Regionen –wissenschaftlich begleitet' in Nuisl, E., Schiersmann, Ch., Siebert, H. (Hrsg.) (2002) 'Literatur und Forschungsreport Weiterbildung', 50 Dezember 2002 W. Bertelsmann Verlag. 44-58
- Council of the European Union (2009) Council Conclusions of 12 May 2009 on a strategic framework for European cooperation in education and training (ET 2020)

Directorate-General for Employment, Social Affairs and Inclusion
 Directorate C (Europe 2020: Employment Policies)

David Raffe (2013) What is the evidence for the impact of National Qualifications Frameworks?, *Comparative Education*, 49:2, 143-162

Dearden, L., McIntosh S., Vignoles A., and Myck M., (2002), 'The returns to academic and vocational qualifications in the UK' *Bulletin of Economic Research* 54, 3, 249-274

DeCoulon, Augustin Oscar Marcenaro Gutierrez and Anna Vignoles, 2007, "The Value of Basic Skills in the British Labour Market," *CEE Discussion Papers 0077*, Centre for the Economics of Education, LSE.

Desjardins, Richard, and Kjell Rubenson (2013) 'Participation Patterns in Adult Education: the role of institutions and public policy frameworks in resolving coordination problems' *European Journal of Education* 48, 2, 262-280

Desmedt, E. and Groenez, S.(2008) 'Participation in Lifelong Learning in the EU-15: The Role of Macro-Level Determinants' *International Journal of Contemporary Sociology* 45, 2, 51-83

Digby (2013) 'The Impact of Non-formal and Informal Learning on Adult Environmental Behaviors' *International Electronic Journal of Environmental Education* 3, 1, 37-55

Dorsett, R, Lui, S and Weale, M (2010) 'Economic Benefits of Lifelong Learning' published by the Centre for Learning and Life Chances in Knowledge Economies and Societies at: <http://www.llakes.org.uk>.

Dostie, B. (2010). 'Estimating the returns to firm-sponsored on-the-job and classroom training' Bonn: Institute for the Study of Labor (IZA Discussion papers; 5258).

ESRI (2012) *Literacy, Numeracy and Activation among the Unemployed*

Eurofound (2011) 'Older People and Volunteering'

European Commission (2001) Communication from the Commission of 21 November 2001 on making a European area of lifelong learning a reality

European Commission (2006) Communication of 23 October 2006 from the Commission to the Council - Adult learning

European Commission (2012) 'Education and Training in Europe 2020 – responses from the Member States'

European Lifelong Guidance Policy Network (ELGPN) (2014) *The Evidence Base on Lifelong Guidance: a Guide to Key Findings for Effective Policy and Practice*

Eurydice (2011) 'Adults in formal education, policies and practice in Europe'

Eurydice (2015). *Adult Education and Training in Europe: Widening Access to Learning Opportunities*. Eurydice Report. Luxembourg: Publications Office of the European Union.

Federighi, Paolo (2013) 'Adult and Continuing Education in Europe: Using public policy to secure a growth in skills'

Feinstein, L, Anna Vignoles & Fernando Galindo-Rueda, (2004) 'The Labour Market Impact of Adult Education and Training: A Cohort Analysis' *Scottish Journal of Political Economy* 51, 2, 266-280

Feinstein, Leon, and Cathie Hammond (2003), 'Health and social benefits of adult learning' *Adult Learning* 14, 10, 22-23

Feinstein, Leon, and Cathie Hammond (2004), 'The contribution of adult learning to health and social capital', *Oxford Review of Education* 30, 2, 199-221

Fitzenberger, B., and Besser, S. (2007) 'Employment effects of the provision of specific professional skills and techniques in Germany' *Empirical Economics* 32, 529-573.

Fujiwara, Daniel 2012, 'Valuing the Impact of Adult Learning: an analysis of the effect of adult learning on different domains in life', London School of Economics and Political Science

Gallacher, J., Toman, N., Caldwell, J., Edwards, R. and Raffe, D. (2005) *Evaluation of the impact of the Scottish Credit and Qualifications Framework*. Edinburgh: Scottish Executive.

Directorate-General for Employment, Social Affairs and Inclusion

Directorate C (Europe 2020: Employment Policies)

- Goerg, H. and Strobl, E. (2006), 'Do Government Subsidies Stimulate Training Expenditure? Micro-econometric Evidence from Plant Level Data', *Southern Economic Journal* 72, 4, 860-876
- Goerlitz, K. (2010), 'The effect of subsidising continuous training investments - evidence from German establishment data', *Labour Economics* 17, 5, 789-798
- Gordon, H and Bracie Weldon (2003) 'The Impact of Career and Technical Education Programs on Adult Offenders: Learning Behind Bars' *Journal of Correctional Education*, 5, 4, 200-209
- Gough D, Tripney J, Kenny C, Buk-Berge E (2011) *Evidence Informed Policy in Education in Europe: EIPEE final project report*. London: EPPI-Centre, Social Science Research Unit, Institute of Education, University of London.
- Grief S and Taylor C (2002) 'Final Report: Evaluation of the basic skills and ESOL in local communities' projects' Coventry: Learning and Skills Council
- Hällsten, Martin, 'Is it ever too late to study? The economic returns on late tertiary degrees in Sweden' *Economics of Education Review* 31, 1, 179-194
- Hammond, Cathie, and Leon Feinstein (2005), 'The effects of adult learning on self- efficacy', *London Review of Education* 3, 3, 265-287
- Hearne, L. (2005). "Opening a Door": Evaluating the benefits of guidance for the adult client. Available from http://repository.wit.ie/515/1/ncge_article.pdf [Accessed 27 January 2014].
- Hearne, L. (2005). "Opening a Door": Evaluating the benefits of guidance for the adult client. Available from http://repository.wit.ie/515/1/ncge_article.pdf
- Jacobi, L. and J. Kluve. (2006) 'Before and After the Hartz Reforms (2006): The Performance of Active Labour Market Policy in Germany' Bonn: Institute for the Study of Labor (IZA Discussion papers; 2100)
- Jenkins, A (2011) 'Participation in learning and well-being among older adults' *International Journal of Lifelong Education* 30, 3, 403-420
- Jongim, Byun, and Valentine Tomas (2009) 'The Republic of Korea's Lifelong Learning City Project: an empirical re-conceptualization of learner satisfaction and societal outcomes' *KEDI Journal of Educational Policy* 6, 2, 161-181
- Kamphuis, P., Glebbeek, A. and van Lieshout, H. (2010), 'Do sectoral training funds stimulate training?' *International Journal of Training Development*, 14, 4, 273-290
- Lagger, G., Pataky, Z., and Golay, A. (2010) 'Efficacy of therapeutic patient education in chronic diseases and obesity' *Patient Education and Counselling* 79, 3, 283-286
- Lee, B. H. (2004), 'Is levy-grant scheme for employer-provided training effective? The experience of Korean employment insurance system', *Seoul Journal of Economics* 17, 2, 235-253
- Leuven, E. and Oosterbeek, H. (2004), 'Evaluating the Effect of Tax Deductions on Training', *Journal of Labor Economics* 22, 2, 461-488
- Lorig KR, Ritter P, Stewart AL, et al. Chronic Disease Self-Management Program: 2-year health status and health care utilization outcomes. *Med Care* 2001 39, 11, 1217-23 quoted in Agency for Healthcare Research and Quality (2002), *Preventing Disability in the Elderly with Chronic Disease*
- Lorig KR, Sobel DS, Stewart AL, et al. (1999) 'Evidence suggesting that a chronic disease self-management program can improve health status while reducing hospitalization: a randomized trial' *Med Care* 37, 1, 5-14
- Marsden, J and P Dickinson (2013) 'Final Report: International Evidence Review on Co-funding for Training' Department for Business, Innovation and Skills
- McDougall, G. , Becker, H., Acee, T., Vaughan, P., Pituch, K., & Delville, C. (2010), 'Health-training intervention for community-dwelling elderly in the SeniorWISE study', *Archives of Psychiatric Nursing* 24, 2, 125-136.
- McNair, S. (2008), 'Strengthening the older workforce: an evaluation of the ReGrow project of the south east region', Centre for Research into the Older Workforce (CROW), NIACE, Leicester

Directorate-General for Employment, Social Affairs and Inclusion
 Directorate C (Europe 2020: Employment Policies)

Mental Health Foundation (2011) Learning for Life

Messer, Dolores & Stefan C. Wolter, (2009) "Money Matters - Evidence from a Large-Scale Randomized Field Experiment with Vouchers for Adult Training," CESifo Working Paper Series 2548, CESifo Group Munich

Neubaumer, R. (2012) 'Bringing the unemployed back to work in Germany: training programs or wage subsidies?' International Journal of Manpower 33, 159-177.

Nuissl, E., Dobischat, R., Hagen, K., Tippelt, (2006) R. 'Regionale Bildungsnetze. Ergebnisse zur Halbzeit des Programms,,Lernende Regionen – Foerderung von Netzwerken'

OECD (2005) Promoting Adult Learning

Darryl Gauld, Peter Miller, (2004) "The qualifications and competencies held by effective workplace trainers", Journal of European Industrial Training, Vol. 28 Iss: 1, pp.8 – 22

Opheim, V. and H. Helland, (2006) 'Evaluation of the Competence Reform in Norway: Access to Higher Education Based on Non-formal Learning'. In: OECD, Higher Education Management and Policy', 18, 2, 1-15

Overman, H (2014) 'Evidence Review: Employment Training 'What Works Centre of Local Economic Growth'

Panteia (2013) Developing the adult learning sector. Quality in the Adult Learning Sector (Lot 1). Final report.

Paris KA (1992) 'Evaluation of the Third Year of Implementation of the Wisconsin Workplace Partnership Training Program'. March 1, 1991 through August 31, 1992. Washington, DC: National Workplace Literacy Program, Office of Vocational and Adult Education.

Phillips, S. & Eustace, A. (2010). Overarching Research on the Adult Educational Guidance Initiative 2000-2006. Dublin: National Centre for Guidance in Education.

Phillips, S. & Eustace, A. (2010). Overarching Research on the Adult Educational Guidance Initiative 2000-2006. Dublin: National Centre for Guidance in Education

Pont, Beatriz (2004) 'Improving Access to and Participation in Adult Learning in OECD Countries.' European Journal Of Education 39, 1, 31-45

Research voor Beleid, Pantea group, (2010). 'Impact of ongoing reforms in education and training on the adult learning sector – second phase' Final report for the European Commission

Richardson, K., and van den Berg, G.J. (2008). 'Duration dependence versus unobserved heterogeneity in treatment effects: Swedish labor market training and the transition rate to employment', Institute for Evaluation of Labour Market and Education Policy, 28, 2, 325-351

Rubenson, Kjell, and Richard Desjardins (2009) 'The Impact of Welfare State Regimes on Barriers to Participation in Adult Education.' Adult Education Quarterly 59, 3, 187-207 EBSCOhost (accessed June 27, 2014).

Saar, E and T Roosalu (2011) 'Towards a Lifelong Learning Society in Europe: the Contribution of the Education System' Talinn: LLL2010 (Working Paper No. 7)

Saar, E., Ure, O. B. and Desjardins, R. (2013). 'The Role of Diverse Institutions in Framing Adult Learning Systems. European Journal of Education', 48, 2, 213-232

Scheer RL (1993) READS Program, 'National Workplace Literacy Program Final Report' Washington, DC: Office of Vocational and Adult Education, National Workplace Literacy Program

Schuller, T. and Watson, D. (2009) 'Learning Through Life: Inquiry into the Future for Lifelong Learning', NIACE, Leicester

Schwerdt, D Messer, Ludger Woessmann, Sterfan Wolter (2011) 'Effects of Adult Education Vouchers on the Labour Market: Evidence from a Randomized Field Experiment' CESifo Working Paper Series 3331, CESifo Group Munich

Shaw N, Armistead C (2002) 'Evaluation of the Union Learning Fund Year 4', London: Department for Education and Skills

Directorate-General for Employment, Social Affairs and Inclusion

Directorate C (Europe 2020: Employment Policies)

Stenberg, A. (2003) 'Comprehensive Education for the Unemployed - Evaluating the Effects on Unemployment of the Adult Education Initiative in Sweden' Umeå University

Taylor S, MacLeod D, Houghton N, Zwart R, Sachdev D (2005) 'A systematic review of effective strategies to widen adult participation in learning. In: Research Evidence in Education Library'. London: EPPI-Centre, Social Science Research Unit, Institute of Education, University of London

Thematic Working Group on Quality in Adult Learning (2013) Final Report

White, Patrick. (2012) 'Modelling the 'learning divide: predicting participation in adult learning and future learning intentions 2002 to 2010' British Educational Research Journal 38, 1, 153-175

Zandniapour L, Conway M (2001) 'Gaining Ground: The Labor Market Progress of Participants of Sectoral Employment Development Programs' SEDLP Research Report No. 3, Washington, DC: The Aspen Institute

Zwick, Thomas (2005) 'Continuing Vocational Training Forms and Establishment Productivity in Germany' German Economic Review 6, 2, 155-184

Annex 2: Data analysis

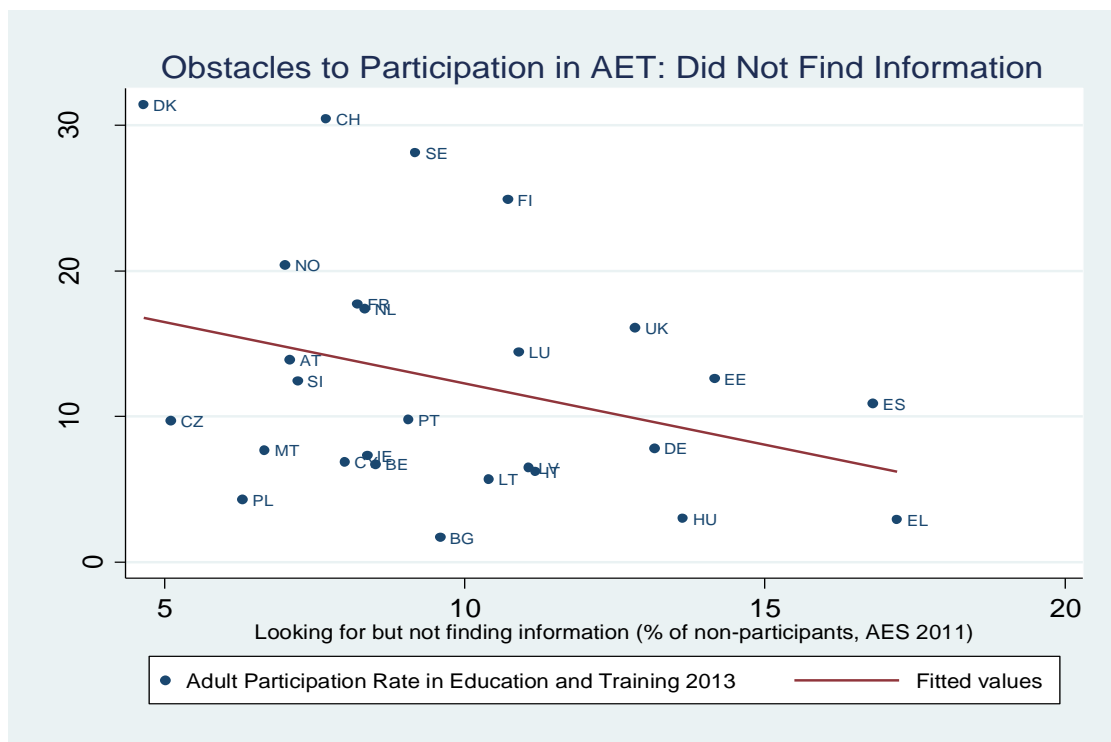
Relationships between inputs and outputs

This section examines how strongly input factors described and compared across countries are associated with participation in adult education and training. While these associations cannot be strictly interpreted as causal, they provide important suggestive evidence about the extent to which inputs (and policy actions which influence these) are relevant in the conceptual model of adult learning.

The relationship between obstacles which prevent participation and the participation rate

Of all preventing obstacles, the inability of individuals to find information on adult education and training has the strongest negative association with participation in adult education and training. Figure A2.1 shows that, on average, a 10 percentage point increase of individuals stating the availability of information as an obstacle is associated with an eight percentage point lower participation rate in adult education and learning.⁴⁶

Figure A2.1: Relationship between participation in education and training and obstacles to participation in AET: Did Not Find Information



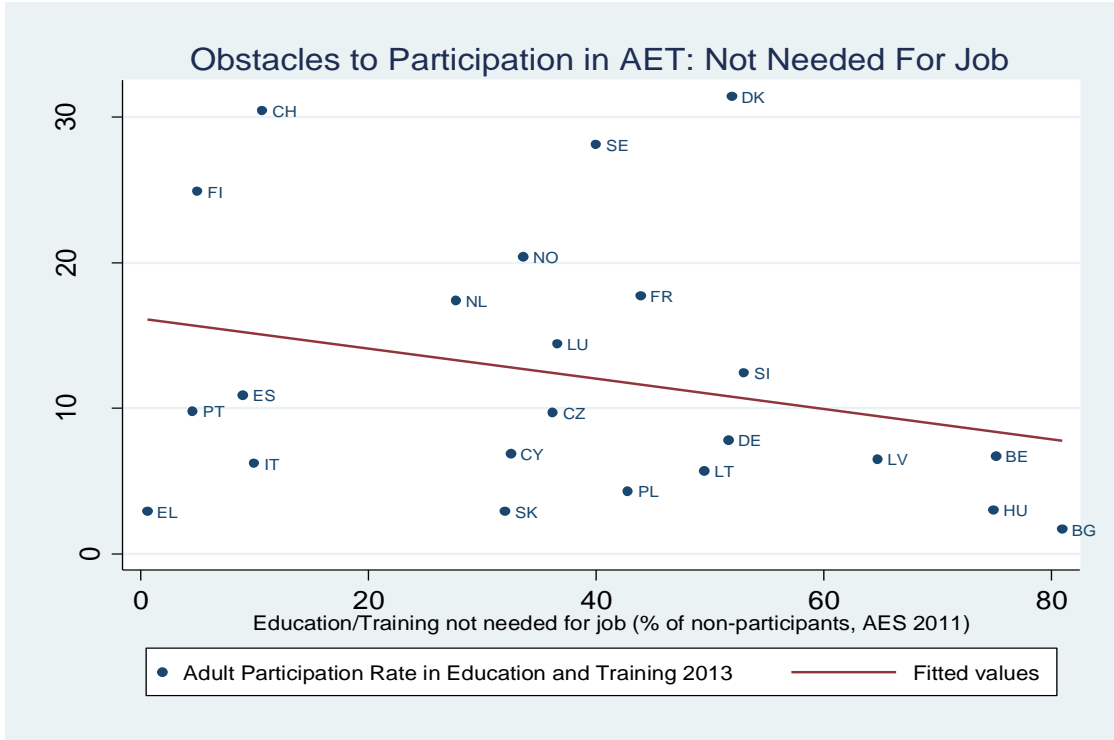
Source: Labour Force Survey, 2013; Adult Education Survey, 2011

Meeting the requirements of the job or increasing chances of promotion are important incentives for participating in education and training. Consequently, if work related incentives are low or do not exist, participation in continuous learning is lower. This argument is supported by Figure A2.2, which shows a negative association between the

⁴⁶ The beta coefficient of a regression of the participation rate on the percentage of individuals the percentage of individuals who have looked for information on learning possibilities but did not find any is -0.84 and is statistically significant at the 10% level (N=25).

percentage of individuals stating that they did not participate in adult education and training because they did not need it for their job and the participation rate in adult education and training of a country.⁴⁷

Figure A2.2: Relationship between participation in education and training and obstacles to participation in AET: Not needed for job



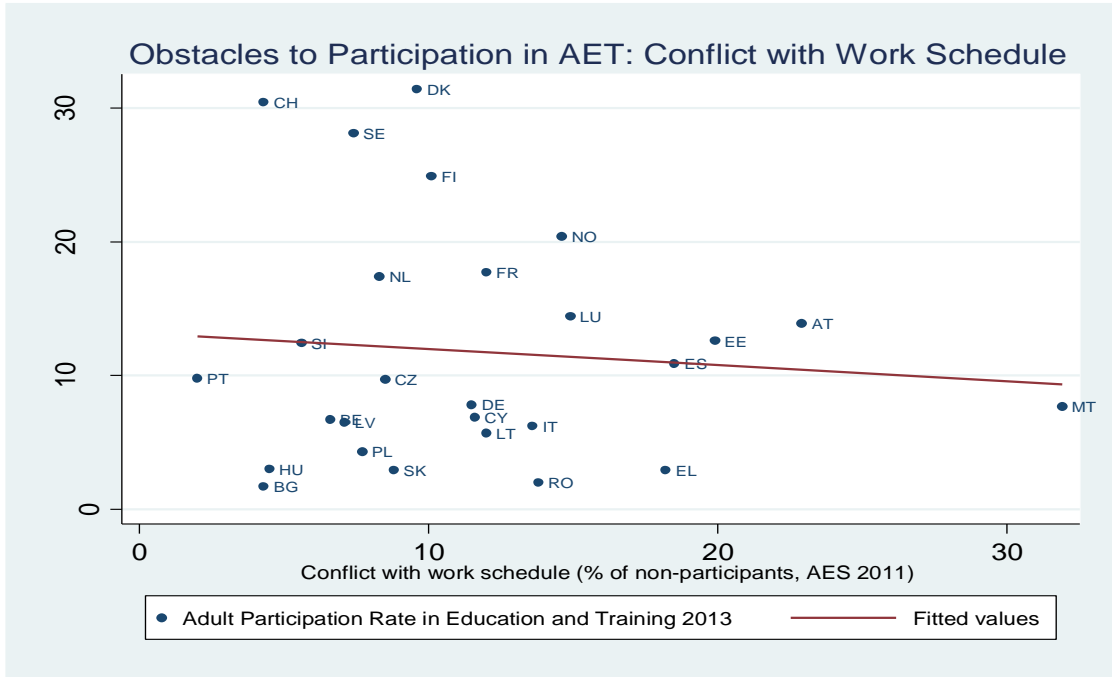
Source: Labour Force Survey, 2013; Adult Education Survey, 2011

Figure A2.3 and Figure A2.4 suggest that there is only a weak negative association between these obstacles in countries and countries' adult participation rate in education and training.⁴⁸

⁴⁷ The relationship is not statistically significant at 10% level.

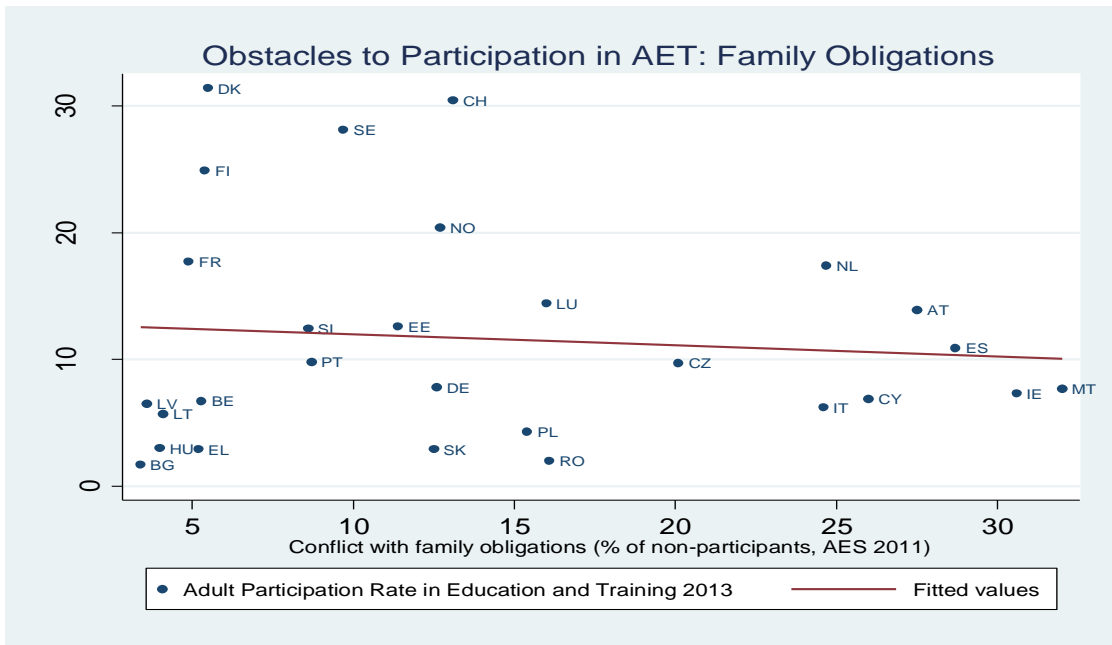
⁴⁸ These relationships are not statistically significant at 10% level.

Figure A2.3: Relationship between participation in education and training and obstacles to participation in AET: Conflict with work schedule



Source: Labour Force Survey, 2013; Adult Education Survey, 2011

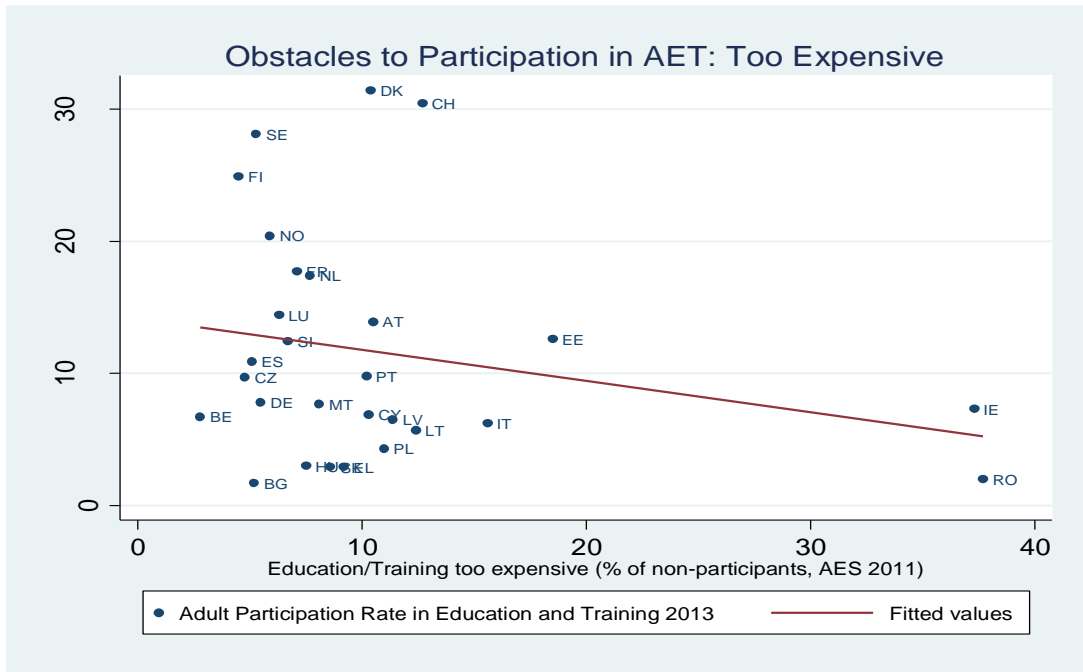
Figure A2.4: Relationship between participation in education and training and obstacles to participation in AET: Conflict with family obligations



Source: Labour Force Survey, 2013; Adult Education Survey, 2011

Cost to individuals is not generally a preventing obstacle in many countries but there is a statistically significant negative relationship between the percentage of adults stating that they did not participate in education or training because it was too expensive and the country's participation rate (Figure A2.5). This is affected by the two outliers, Ireland and Romania.

Figure A2.5: Relationship between participation in education and training and obstacles to participation in AET: Training too expensive



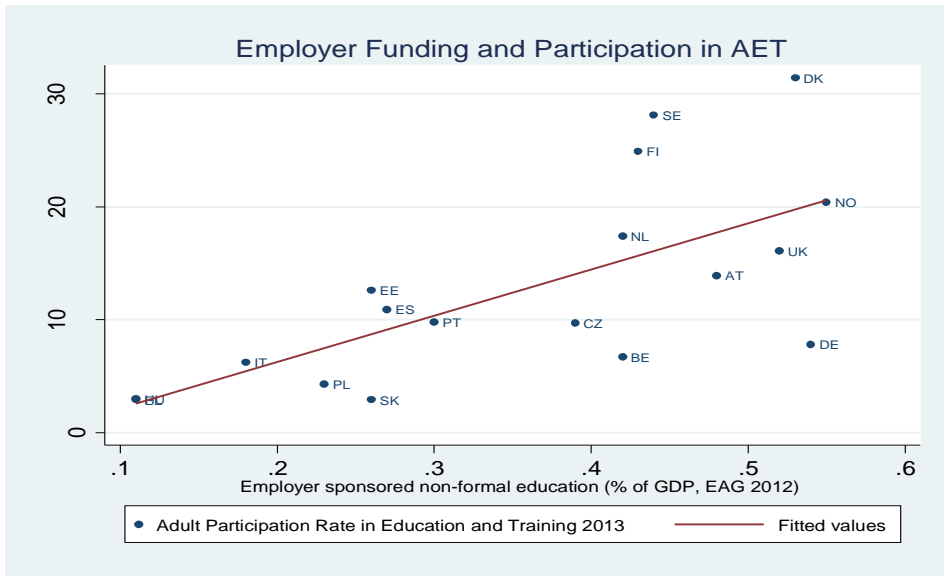
Source: Labour Force Survey, 2013; Adult Education Survey, 2011

The relationship between public and employer funding and the participation rate

Adult education and training requires financial inputs as well as a system to allow people to successfully access education and training, and it can be expected that employer and public expenditure is strongly positively associated with participation in adult education and training.

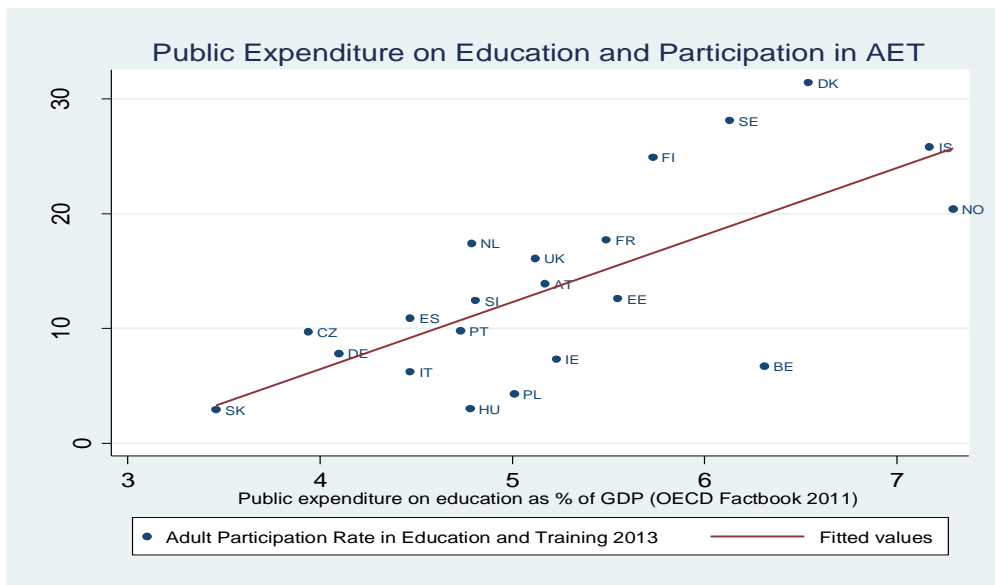
Figure A2.6 and Figure A2.7 present evidence for this expected relationship. A 0.1 percentage point increase in employer funding (as % of GDP) is associated with a 4 percentage point increase in the participation rate. Moreover, a one percentage point increase in public expenditure on education (as % of GDP) is associated with a 6 percentage point increase in the participation rate in adult education and training.

Figure A2.6: Relationship between participation in education and training and employer sponsored non-formal education (as % of GDP)



Source: Labour Force Survey, 2013; OECD Education at a Glance, 2012

Figure A2.7: Relationship between participation in education and training and public expenditure on education (as % of GDP)



Source:

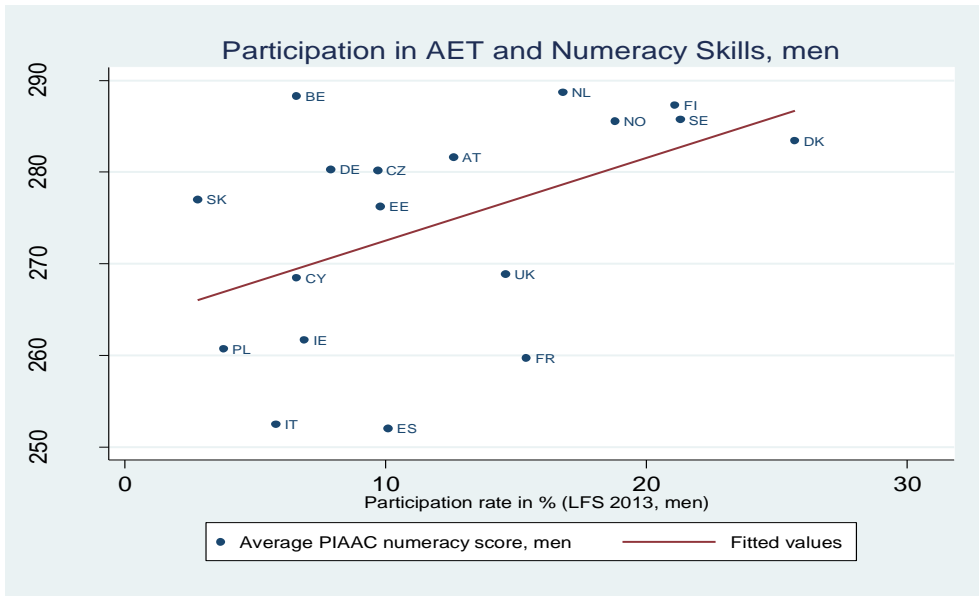
Labour Force Survey, 2013; OECD Education at a Glance, 2012

Relationships between outputs and outcomes

If effective, education and training will translate into higher skills among the adult population. Figure A2.9 and Figure A2.10 display the relationship between the participation rate and average numeracy scores separately for male and female adults as measured in the PIAAC survey. For both genders, countries with a higher participation rate in adult education and training attain higher average numeracy scores. This relationship is similar, but slightly weaker, for literacy scores (not shown here).

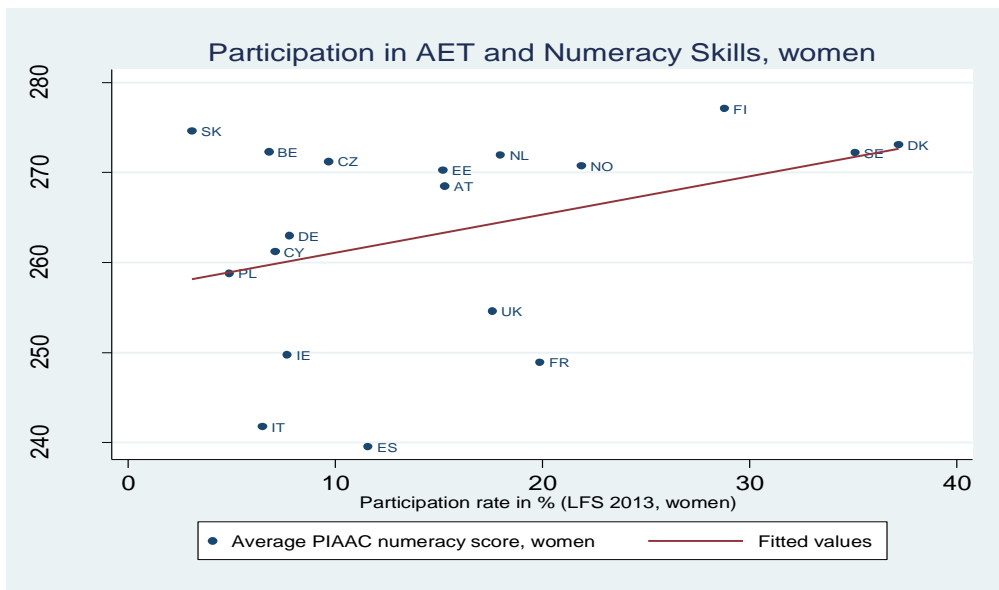
Directorate-General for Employment, Social Affairs and Inclusion
 Directorate C (Europe 2020: Employment Policies)

Figure A2.8: Relationship between participation in education and training and numeracy skills for men



Source: Labour Force Survey, 2013; OECD Programme for the International Assessment of Adult Competencies, 2013

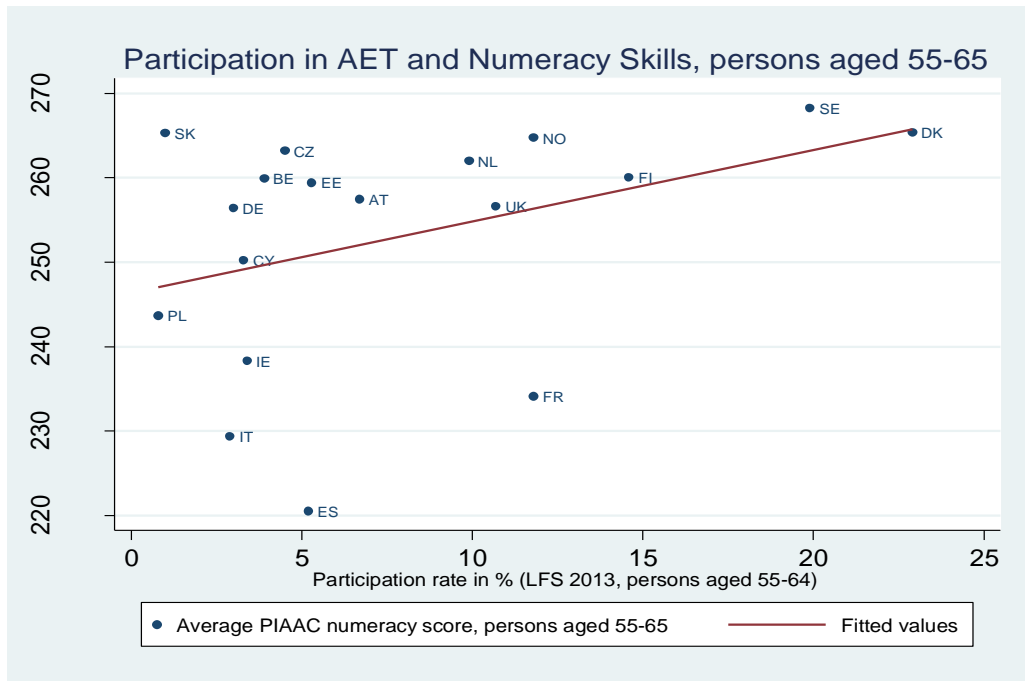
Figure A2.9: Relationship between participation in education and training and numeracy skills for women



Source: Labour Force Survey, 2013; OECD Programme for the International Assessment of Adult Competencies (PIAAC), 2013

The positive relationship between participation in education and training and PIAAC numeracy⁴⁹ scores is robust to zooming in on selected age groups, for example it holds for older persons aged 55-64 as presented in Figure A2.10.

Figure A2.10: The relationship between participation in education and training and numeracy skills for persons aged 55-64



Source: Labour Force Survey, 2013; OECD Programme for the International Assessment of Adult Competencies (PIAAC), 2013

There is reason to believe that the causal direction does not only go from participation in education and training to higher skills, but also the other way round. Consequently, the two variables may form part of a virtuous cycle: education and training provides adults with higher skills, and at the same time higher skilled adults are more likely to participate in education and training because they recognise the benefits.

Relationships between outputs and impacts

The relationships between the following impacts and the participation rate in education and training have been examined:

- National output (GDP): Increases in the participation rate in education and training could increase the productivity of the workforce, and therefore increase GDP;
- Employment and unemployment rate: Increase in the participation rate in education and training could increase people's skill levels, and increase their employability;
- Economic activity and inactivity rate: As for employment, an increase in employability owing to improved skills, but also increases in education and training participation could increase people's motivation to find employment;

⁴⁹ Again, this relationship is similar but slightly weaker for literacy skills.

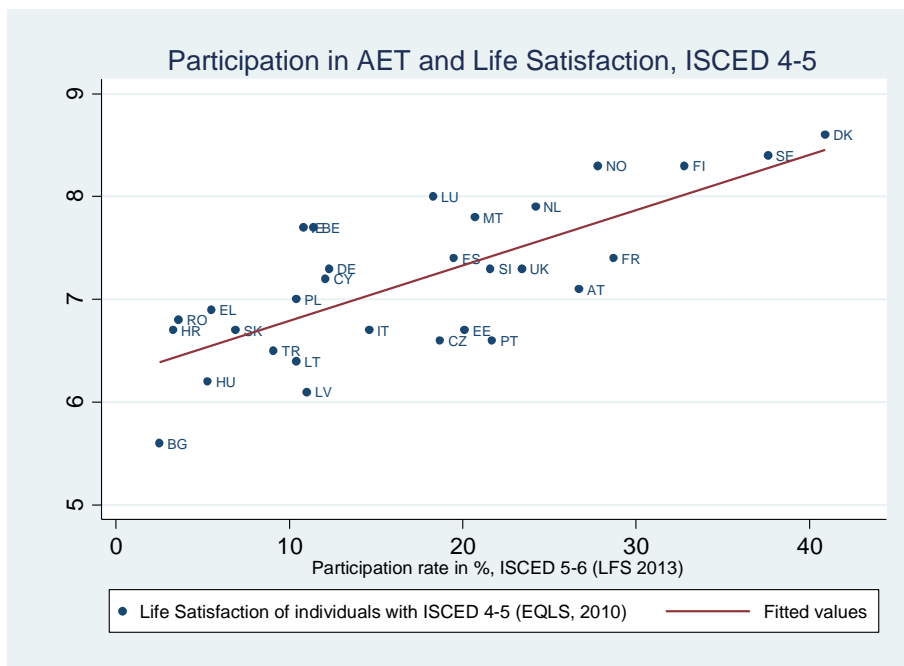
- Life satisfaction: participation in education and training could lead to increase people's wellbeing;
- Social responsibility: increases in participation in education and training could lead to increases in social responsibility, for example the likelihood to vote, or taking part in community projects, becoming more tolerant of others and not participating in criminal activities; and
- Inequality: increases in the participation rate in education and training could lead to reductions in inequality, as people receiving training could increase their earnings and increase their social responsibility.

The following were found to have significant relationships with the data available.

Participation and life satisfaction

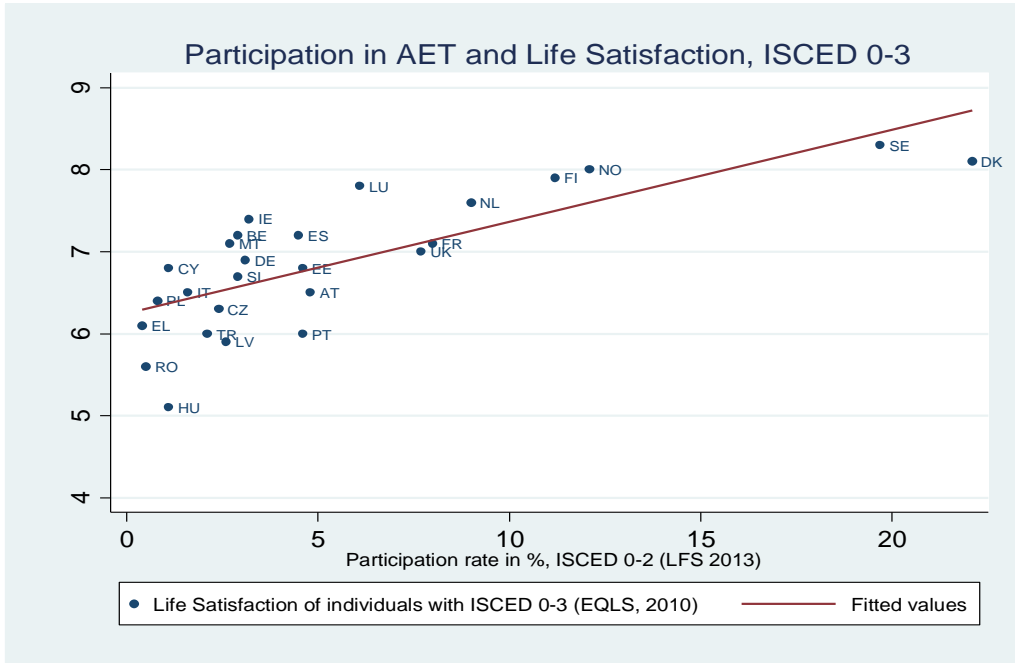
When the participation rate in education and training is compared with the life satisfaction of individuals in each country, a strong positive relationship is found to exist (see Figure A2.11 and A2.12). The positive relationship between participation in training and life satisfaction is higher for people with low qualification levels than for those with high qualification levels. For individuals with a highest qualification at ISCED level 0-2, a 10 percentage point increase in participation in training is associated with a 1.1 point increase in life satisfaction (on a ten point scale), whereas for individuals with higher qualification levels the associated increase in wellbeing is 0.5 points.

Figure A2.11: Relationship between participation in education and training and life satisfaction, individuals with a highest qualification level at ISCED 4-5



Source: Labour Force Survey, 2013; Eurofound, Second European Quality of Life Survey, 2010

Figure A2.12: Relationship between participation in education and training and life satisfaction, individuals with a highest qualification level at ISCED 0-3



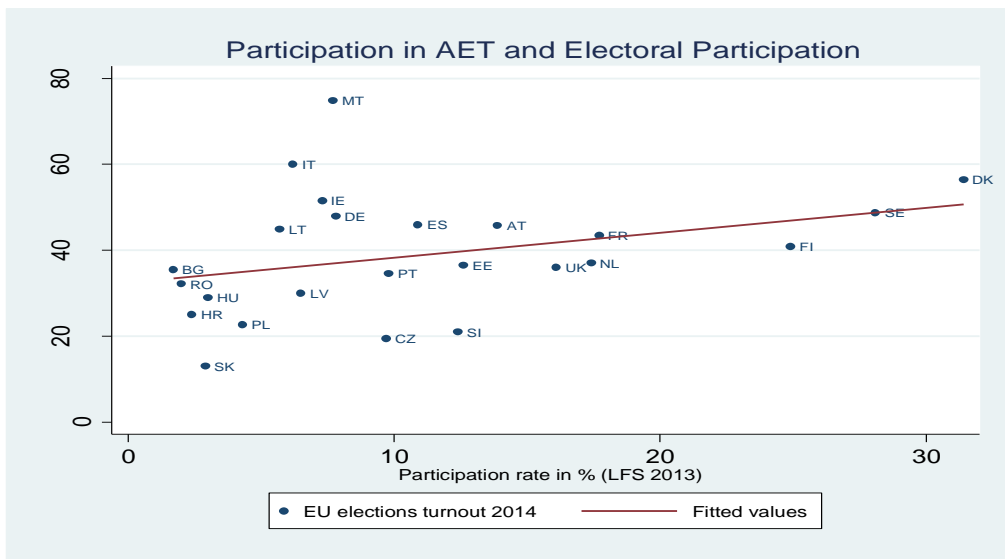
Source: Labour Force Survey, 2013; Eurofound, Second European Quality of Life Survey, 2010

Participation and taking part in elections

An increase in participation in education and training could result in an increase in social participation and responsibility. One aspect of this would be participation in elections and voting. Figure A2.13 shows the relationship between participation in education and training and turnout in the 2014 EU elections. This shows that there is a positive relationship between participation in education and training and voter turnout in the most recent EU elections. A 10 percentage point increase in education and training is associated with a 6 percentage point increase in voter turnout.⁵⁰

⁵⁰ Data for BE, LU, EL and CY was omitted as voting is compulsory in these Member States.

Figure A2.13: Relationship between participation in education and training and EU election turnout

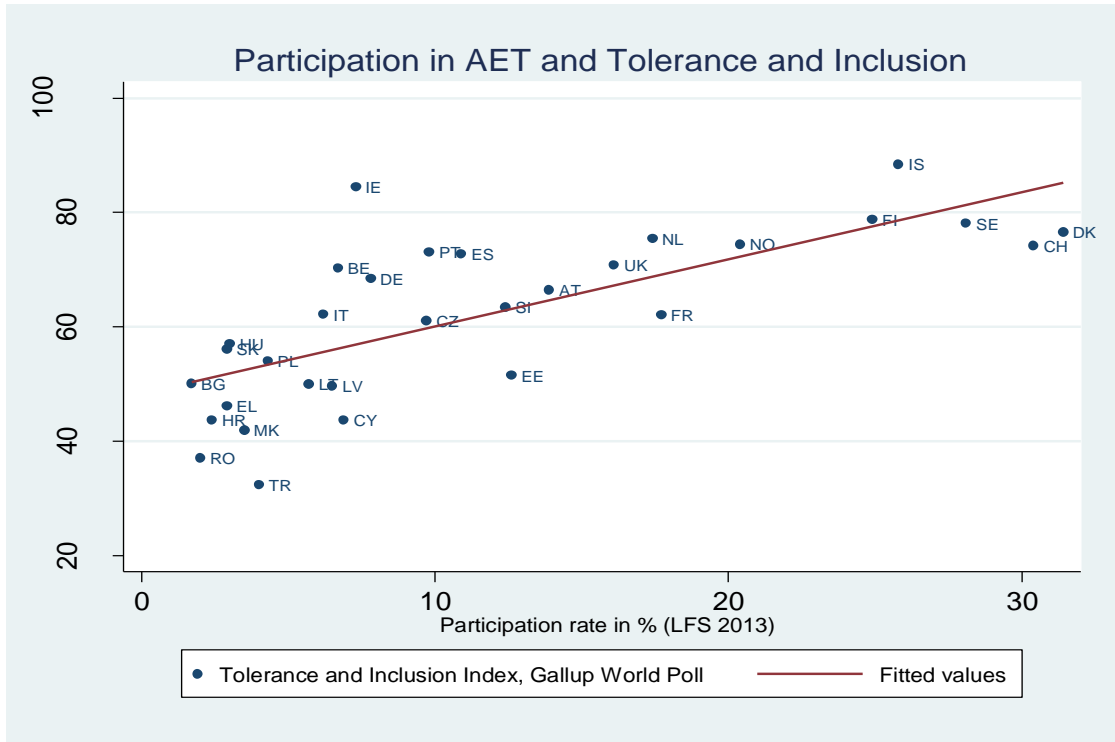


Source: Labour Force Survey, 2013; European Parliament, Results of the 2014 European elections, 2014

Participation and tolerance

The relationship between participation in education and training and the tolerance and inclusion index score in each country has been examined. An improvement in tolerance would be expected with an increase in participation and education and training in a country. There is a strong positive relationship between participation in education and training and the tolerance and inclusion index score, with a 10 percentage point increase in the participation rate in education and training being associated with a 12 percentage point increase in the index score (see Figure A2.14).

Figure A2.14: Relationship between participation in education and training and tolerance index score

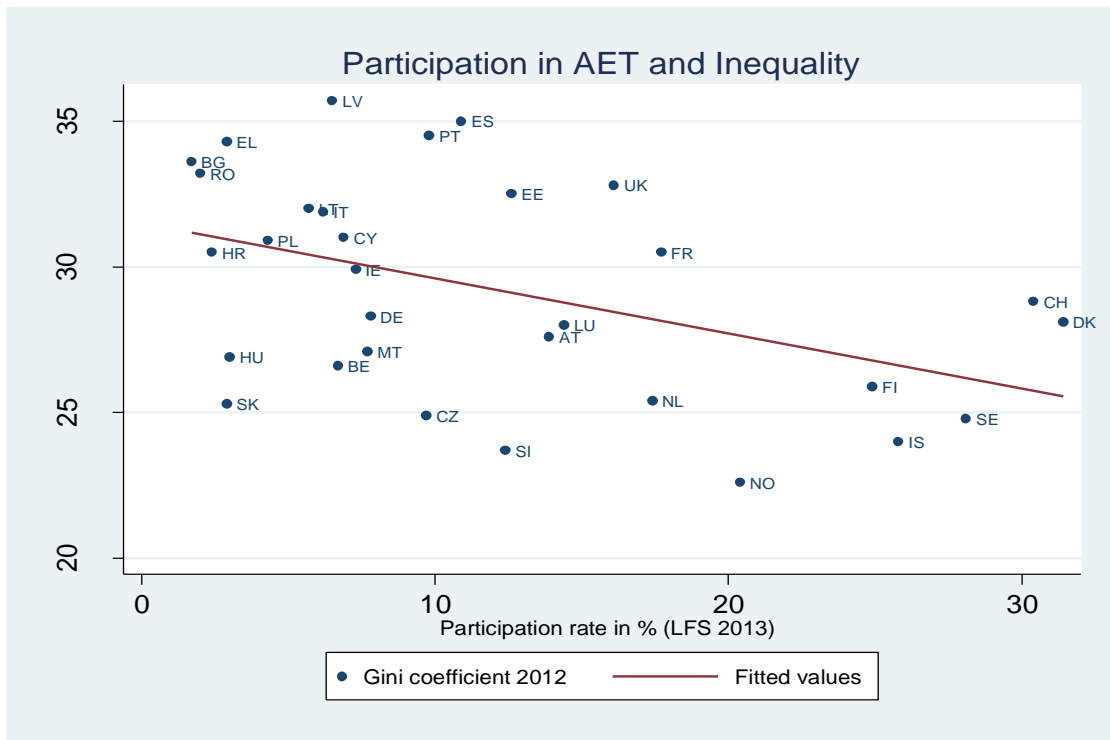


Source: Labour Force Survey, 2013; Social Progress Index, 2014

Participation and inequality

A decrease in inequality could be expected as a result of increasing participation in education and training. Figure A2.15 shows the relationship between participation in education and training and inequality, as measured by the Gini coefficient. This shows that there is a negative relationship between participation in education and inequality. An increase in the participation rate in education and training by 10 percentage points is associated with a decrease of two points in the Gini coefficient (with zero representing equality on Gini coefficient).

Figure A2.15: Relationship between participation in education and training and inequality



Source: Labour Force Survey, 2013; EU Statistics on Income and Living Conditions, 2012

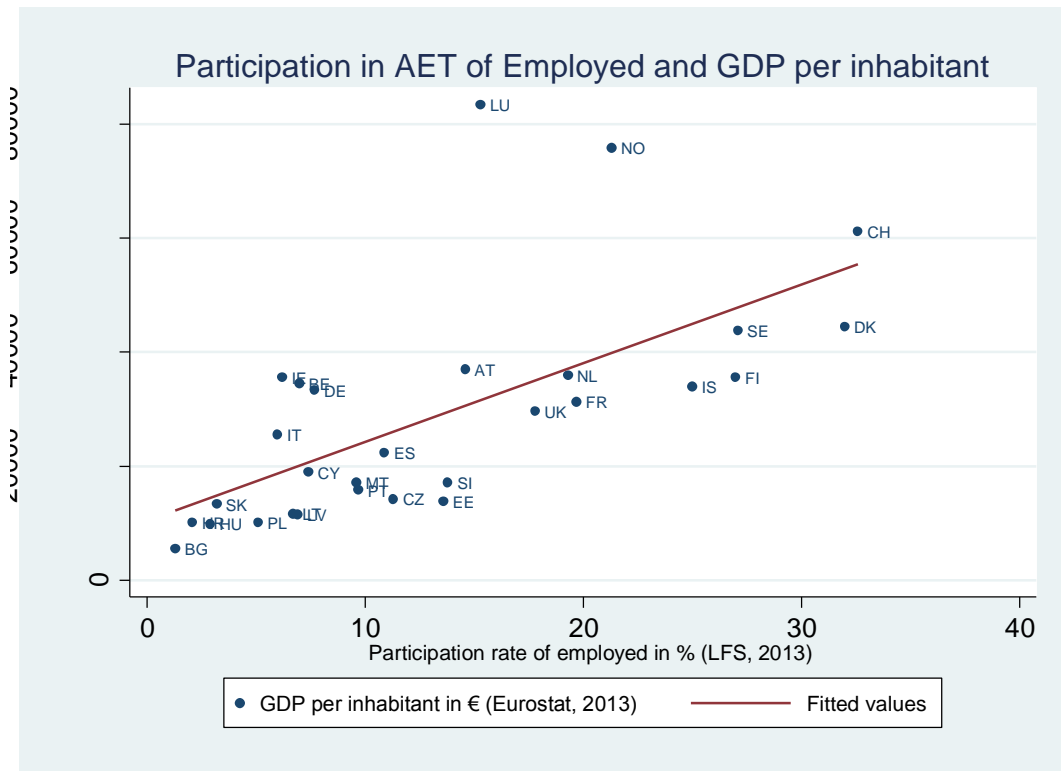
Sub-group analysis

The relationship between outcomes and the participation rate in adult education and training for some subgroups has been analysed, where it may be expected that a particular subgroup is likely to have a greater degree of impact on outcomes than the population as a whole.

Participation of employed individuals and GDP per inhabitant

Increasing employed adults' participation in adult education and training could be expected to improve the productivity of the workforce, and therefore increase national output (GDP). In order to explore this relationship, the measure of GDP has to be adjusted for the size of the population of the country; therefore a GDP per resident variable has been used. The relationship between the participation rate of employed individuals and GDP per resident is a significant, positive relationship (see Figure A2.16).

Figure A2.16: Relationship between participation of employed individuals in adult education and training and GDP per inhabitant



Source: Labour Force Survey, 2013; Eurostat national accounts data, 2013

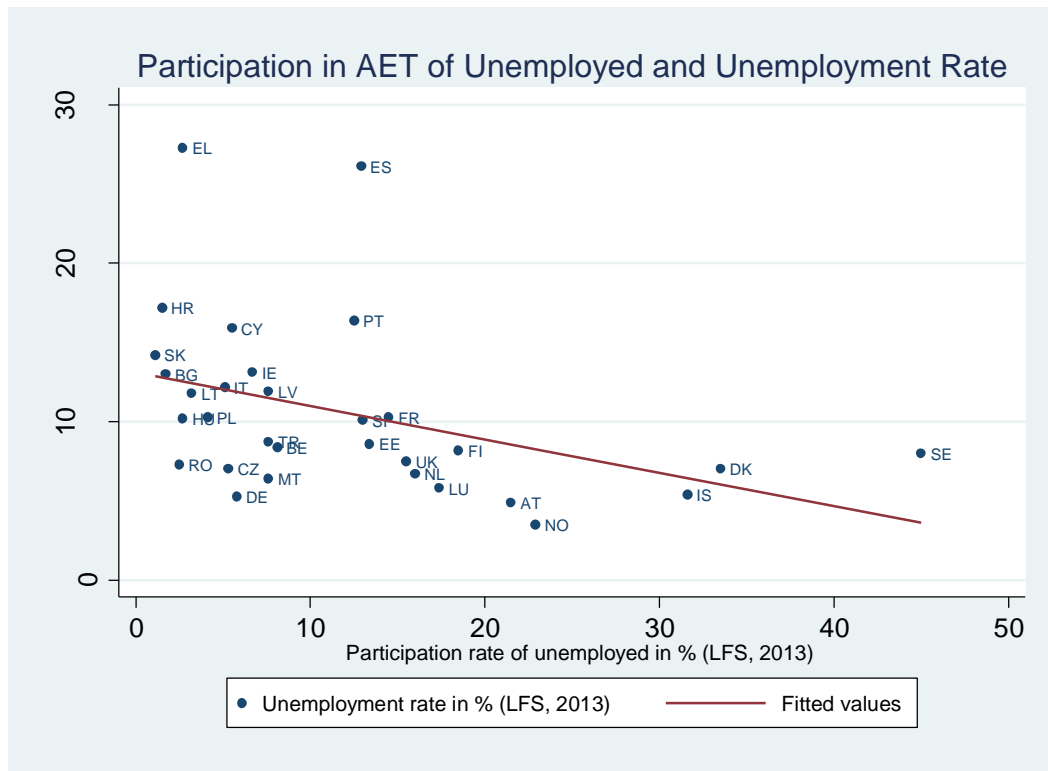
Participation of economically inactive individuals and life satisfaction

An increase in the participation in adult education and training among the economically inactive population would be expected to have a positive impact on life satisfaction. This is because it provides these individuals with an opportunity to take part in activities where they otherwise may not have taken part in any activities, meet new people and improve their quality of life. When this relationship was analysed, a significant positive relationship was found between the participation rate of economically inactive individuals in adult education and training. However, this relationship was the same as the relationship between the participation rate for the population as a whole and life satisfaction.

Participation of unemployed individuals and the unemployment rate

The relationship between the participation rate of unemployed individuals in adult education and training is presented in Figure A2.17. Participating in adult education and training by unemployed individuals would be expected to improve their skills and increase their employability, which could help to reduce the unemployment rate. The actual relationship between the participation rate of unemployed individuals and the unemployment rate is a significant negative relationship, with an increase in the participation rate of unemployed individuals of 10 percentage points being associated with a decrease in the unemployment rate of 2.1 percentage points.

Figure A2.17: Relationship between the participation of unemployed individuals in adult education and training and the unemployment rate



Source: Labour Force Survey, 2013

Participation of subgroups and inequality

The relationship between participation in training and inequality was explored above, showing that there is a negative relationship between participation in adult education and training and the Gini coefficient (meaning increases in participation in adult education and training are associated with improvements in equality). The participation of some sub-groups in adult education and training could have more of an impact on inequality than others. For example, the participation of unemployed individuals, inactive individuals and individuals with low qualification levels in adult education and training could have more of an impact on inequality than the participation of employed individuals with high qualifications levels.

The relationships between the participation rate in adult education and training of individuals with low levels of qualification, unemployed individuals and inactive individuals have been analysed. All of these subgroups have a significant, negative relationship with the Gini coefficient. Somewhat surprisingly, the negative relationship between the participation rate for unemployed individuals and the Gini coefficient is slightly smaller than the relationship between the participation rate for the entire population. The other two subgroups have a slightly larger negative relationship with the Gini coefficient than the population as a whole shares with it (see Table A2.1).

Table A2.1: Relationship between the participation rate in adult education and training of different groups and the Gini coefficient

Group	An increase of 10 percentage points in the adult education and training participation rate is associated with a:
Population as a whole	1.9 point decrease in the Gini coefficient
Unemployed individuals	1.5 point decrease in the Gini coefficient
Inactive individuals'	2.1 point decrease in the Gini coefficient
Individuals with a highest qualification level at ISCED 0-2	2.9 point decrease in the Gini coefficient

Source: Labour Force Survey, 2013; EU Statistics on Income and Living Conditions, 2012

Annex 3: Summary of literature review – system level

Table A3.1 provides an overview of studies we have identified providing evidence explaining what drives up overall levels of participation in adult learning.

The research literature describes various positive outcomes for learners as a result of participation in adult learning. These can be divided into three categories – economic, wellbeing and social. An overview of the studies that provide such evidence can be found in Table A3.2.

Adults' participation in learning also brings positive returns on investment for employers along with other business benefits. Table A3.3 provides an overview of the key evidence of these in the research literature.

Table A3.4 presents evidence of other community level benefits that can be attributed to higher levels of adult learning.

Table A3.1: Drivers of overall participation in adult learning

Study	Summary/context	Impact demonstrated	Research method used
Federighi (2013) examined adult and continuing education across EU Member States to look at variations in participation and provision.	The study examined the conclusions of the findings of several EU-funded research projects under the 6th and 7th Framework Programmes for Research and made recommendations about how policies could support adult learning and how to advance research in the area.	The study demonstrated that: <ul style="list-style-type: none"> • People with university level qualifications were twice as likely to participate in adult learning than people with primary or lower secondary level qualifications. 	The study was a review of the findings of several EU-funded research projects under the 6th and 7th Framework Programmes for Research.
The European Commission (2012) performed an evaluation of the European Social Fund (ESF) as a funder for lifelong learning.	The study brought together research concerning the adult learning programmes that were funded under the ESF (€32bn between 2007 and 2010).	<ul style="list-style-type: none"> • Impacts demonstrated as a result were that: • The ESF supported adult learning interventions for 5.5 million people with low skills and 576,000 older people, that might not have taken place otherwise; • 25-35% of ESF LLL participants in the low-skilled group took up employment; and • Employment outcomes were lower for older workers. 	The study was based on ESF data sets, the European Union Labour Force Survey, reports and evaluations of ESF provision, and case study work in eight Member States: Austria, Italy, Lithuania, Netherlands, Poland, Spain, Sweden and the UK.
Desmedt and Groenez (2008) examined the variation in adult participation rates between the EU-15.	This study examined the components of the overall provision of adult education in the EU-15, in terms of how/where it was provided.	This study found higher levels of participation in adult learning in countries with higher levels of work-based or employer-provided training.	Descriptive statistical analysis as well as econometric analysis was used to ascertain the determinants of variation in lifelong learning between the EU-15.
Stenberg (2003) evaluated the introduction of the Adult Educational Initiative (AEI) in Sweden.	The AEI was a five-year programme to increase the uptake of adult learning and to increase employment introduced in Sweden in 1997. As part of this, state grants were provided to promote adult learning and municipalities were given responsibility to ensure that flexible and	Low-skilled adults in particular participated in further learning as a result. The evaluation found that: <ul style="list-style-type: none"> • Around 800,000 extra adults were brought into participation because of 	Statistical analysis and econometric modelling methods were used to attribute impact and measure additionality. Counterfactual methods were also used - those that underwent conventional labour market training were compared

Directorate-General for Employment, Social Affairs and Inclusion

Directorate C (Europe 2020: Employment Policies)

Study	Summary/context	Impact demonstrated	Research method used
	individualised learning was provided for adults.	the AEI; <ul style="list-style-type: none"> 25% of participants in the AEI went onto further learning as opposed to labour market training. 	with participants on the AEI.
Pont (2004) analysed patterns in selected OECD countries and the different policy measures adopted by governments to improve access to, and participation in, adult learning.	The study provided an overview of the differences in participation rates between countries and explored the reasons that people gave for participation and non-participation in adult-learning.	The study found that: <ul style="list-style-type: none"> People think they learn best in informal settings; Most reasons given by people for not participating in learning were time-related (family commitments (21%) and job commitments (19%)). 	Data was drawn from the European Union Labour Force Survey and the EU survey on views on lifelong learning. This was complemented by a literature review.
Rubenson (2009) examined the variation in participation rates in adult education between countries, with a specific focus on Canada.	The paper explored the level of inclusiveness and relative importance of the state, employer and individual in the structuring of learning opportunities, reviewing adult learning policies from a Canadian perspective.	The study found that: <ul style="list-style-type: none"> There was significant variation between countries in terms of the participation rate in adult learning, which was attributed to major differences in the role of the state and the availability of work-based opportunities; In particular, the Nordic states have shown how policy measures aimed at overcoming both structurally and individually based barriers have been successful in increasing participation and how public funding of popular adult learning programmes (distinct from employer-funded or formal education) can also increase participation; and There is a strong link between employment and participation (almost 80% of Canadians participating in adult learning report to have participated for 	Data is drawn from a) comparative evidence on participation patterns, barriers and levels of inequalities in adult learning; b) Canadian participation data and c) information on national strategies to increase participation in adult learning.

Study	Summary/context	Impact demonstrated	Research method used
White (2012) investigated the reasons behind the progression of adults to further levels of education.	The study analysed the characteristics associated with both participation in adult education and the intention to participate in future learning.	The study found that: <ul style="list-style-type: none"> Participation in 'later' learning is most strongly associated with positive 'learning dispositions' and extended participation in initial, full-time education; and Individuals reporting an intention to learn in the subsequent three years were approximately 6–11 times more likely to have also reported participation in previous or current learning compared to those who considered future participation unlikely. 	Data is drawn from questionnaires from more than 47,000 individuals in the UK collected by the National Institute of Adult Continuing Education (NIACE) over the course of nine annual surveys administered between 2002 and 2010.
Brožaitis et al (2010) investigated the relationship between funding for adult education and the national participation rate across the 27 EU Member States.	The overall report assessed the impact of ongoing reforms in education and training on adult learning, including the effect of changes in public investment.	The study found that: <ul style="list-style-type: none"> Spending on education in absolute terms (as % of GDP) and in relative terms (as the amount money spent per student) was correlated with the overall level of participation in adult learning (using a number of different measures and subgroups); and These correlations were statistically significant and ranged from 0.49 and 0.84 for the different measures used for participation in adult learning. 	As part of a general statistical analysis to identify the factors that increase participation in adult learning, Spearman's correlation coefficients were calculated to examine the relationship between the overall participation rate in adult learning and the amount of public investment in education and training

Table A3.2: Evidence of the impact of adult learner policies on outcomes for learners

Outcome type	Outcome	Study	Summary/Context	Impact demonstrated	Research methods
--------------	---------	-------	-----------------	---------------------	------------------

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Outcome type	Outcome	Study	Summary/Context	Impact demonstrated	Research methods
Economic returns	Increases in wages	Blanden et al (2012)	This study aimed to ascertain the increase in wages that resulted from workers' participation in adult learning	The impacts demonstrated by the study were: <ul style="list-style-type: none"> A return for women of 10% on hourly wages after participation in learning in the previous five years ; and For men, any increase in wages is determined by their pre-existing level of qualification. 	Data is drawn from the British Household Panel Survey (BHPS) for the period 1991–2006. Econometric methods were used to relate participation in formal adult learning with increases in wages.
		Hällsten (2012)	Labour market legislation in Sweden enables employees to take leave to participate in higher education.	The study demonstrated that degrees obtained by adults aged over 30: <ul style="list-style-type: none"> Increased their employment rate by 18 percentage points; Increased their earnings while employed by 12%. 	Longitudinal data based on annual population level registers from 1981 to 2007. Econometric analysis was used to track the effects of extra degrees on employability and wages.
		Feinstein, Galindo-Rueda and Vignoles, (2004)	This study was undertaken to test the hypothesis that work-related training has a positive effect on workers' wages. It also sought to investigate whether or not firms tend only to train those workers who will gain from training.	The study found that: <ul style="list-style-type: none"> Male workers who undertook work related training between the ages of 33-42 experienced 4-5% higher wage growth than those workers that 	Data was drawn from the UK National Child Development Study (NCDS). Econometric methods were used to investigate the effect of participation in work-related training on the wages earned by men.

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Outcome type	Outcome	Study	Summary/Context	Impact demonstrated	Research methods
				did not; <ul style="list-style-type: none"> Workers who firms anticipated would benefit from training experienced a 12% growth in wages. 	
		Brunello et al (2010) investigated the effect of training subsidies on returns for firms and workers in the Italian regions.	In Italy, government subsidies for CVT are managed by regional authorities and fall into three categories – European Social Fund programmes, national programmes and industry based training funds.	The study found that: <ul style="list-style-type: none"> The marginal effect of one additional week of work-based training (as a result of the subsidy) on monthly earnings was 1.4%. 	Longitudinal data on Italian regional training policies for the period 1999 to 2005 was collected as well as information on individual and firm characteristics.
Acquisition of basic skills		Dearden, McIntosh, Myck and Vignoles (2002) investigated the economic returns of improvements in workers' basic skills in the UK.	This study assessed the impacts of improving basic skills on earnings.	The impacts shown by this study were: <ul style="list-style-type: none"> Workers who reported that their skills had improved generally earned more than those who did not; and In particular, males between 16 and 37 who improved basic skills earned more than men in the same group who did not. 	Data for this study was drawn from the UK National Child Development Study (NCDS). Econometric methods were used to investigate the effect of improvement of basic skills on the wages earned by men. A number of different measures were used including whether a basic literacy or numeracy course had been taken, respondents' perception of their skills improvement and changes in respondents' literacy and numeracy test scores between the ages of 16 and 37
		DeCoulon, Marcenaro-Guitierrez and Vignoles (2007) investigated the	Similar to Dearden et al above, this study assessed the effect of improvements to basic skills on wage levels of	This study showed that: <ul style="list-style-type: none"> Men who improve their literacy and numeracy 	Data for this study was drawn from the 1970 British Cohort Study and econometric analysis was used to attribute

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Outcome type	Outcome	Study	Summary/Context	Impact demonstrated	Research methods
		economic returns of improvements in workers' basic skills in the UK.	workers in the UK.	<p>skills increased their hourly wage by 14% and 11% respectively; and</p> <ul style="list-style-type: none"> For women, these estimates are 15% and 13% for literacy and numeracy respectively 	these impacts.
		Paris (1992) evaluated the Wisconsin Workplace Partnership Training programme in its third year.	The Wisconsin Workplace Partnership Training (WPT) programme provided job-specific basic skills education to employees at their workplace. It was a cooperative effort between the Wisconsin board of education, trade unions, and employers' associations.	<p>The study found that:</p> <ul style="list-style-type: none"> Participants strongly agreed that the programme had improved their basic academic skills, job skills, self-image, work quality, and problem-solving skills; and Local partners strongly agreed that participants' basic academic skills improved after participation in the program, but they expressed weak agreement with the statements that the program enhanced participants' job and problem-solving skills. 	102 participants were interviewed at 10 randomly selected sites; 160 local partners from these and other sites completed mail surveys.
		Zandniapour and Conway (2002) evaluated the success of six industry-based	The aim of such workforce development programmes was to increase the skills of employees, including basic skills, which were also tailored	<p>The evaluation study found the following impacts:</p> <ul style="list-style-type: none"> Annual earnings for participants increased 	The evidence used in the report is drawn from a survey of 732 participants in six industry-based workforce development programs over

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Outcome type	Outcome	Study	Summary/Context	Impact demonstrated	Research methods
		workforce development programmes in the United States.	to the needs of employers. These programmes were targeted specifically at helping low-skilled and low-income individuals maintain employment.	<p>by 24% on the previous year;</p> <ul style="list-style-type: none"> 94% of respondents had remained in employment compared to the previous year; 82% of respondents stated they were satisfied with the quality of their job as a result of participating. 	time.
	Increased employability	Stenberg (2003) evaluated the introduction of the Adult Educational Initiative (AEI) in Sweden.	The AEI was a five-year programme to increase the uptake of adult learning and to increase employment introduced in Sweden in 1997. As part of this, state grants were provided to promote adult learning and municipalities were given responsibility to ensure that flexible and individualised learning was provided for adults.	<p>Low-skilled adults in particular participated in further learning as a result. The evaluation found that:</p> <ul style="list-style-type: none"> The reform succeeded in reducing unemployment levels but did not reduce the duration for which participants were unemployed. 	Statistical analysis and econometric modelling methods were used to attribute impact and measure additionality. Counterfactual methods were also used - those that underwent conventional labour market training were compared with participants on the AEI.
		Dorsett, Liu, and Weale (2010) undertook a study to examine the effect of adult learning on men's employment and wages.	This study investigated the effect of participation in learning on men's employment prospects and their wages.	<p>The study demonstrated that:</p> <ul style="list-style-type: none"> The marginal increase in the likelihood of employment for men was 5.5% after participating in adult learning; and that For men not in employment, participation in adult 	Data for this study was drawn from the British Household Panel Survey. Econometric analysis is used to attribute increased employability to an upgrading of skills through adult learning.

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Outcome type	Outcome	Study	Summary/Context	Impact demonstrated	Research methods
				learning led to a 22% improvement in the likelihood of their being employed.	
		Richardson and van den Berg (2008) investigated the success of a vocational training programme to assist people back into employment.	The study analysed the effect of the Swedish Vocational Educational programmes (a series of labour-market focused skill-enhancing courses) on increasing likelihood of employment.	The study found that: <ul style="list-style-type: none"> The training programme increased the likelihood of employment following participation. 	Data was drawn from Swedish employment offices and from the register of recipients from the Swedish unemployment insurance fund.
		The European Commission (2012) commissioned an evaluation of the European Social Fund (ESF) as a funder for lifelong learning.	The study brought together research concerning the adult learning programmes that were funded under the ESF (€32bn between 2007 and 2010).	Impacts demonstrated as a result were that: <ul style="list-style-type: none"> 25-35% of ESF LLL participants in the low-skilled group took up employment; and Employment outcomes were lower for older workers. 	The study was based on ESF data sets, the European Union Labour Force Survey, reports and evaluations of ESF provision, and case study work in eight Member States: Austria, Italy, Lithuania, Netherlands, Poland, Spain, Sweden and the UK.
Employability and wages		What Works Centre for Local Economic Growth (2014) an evidence review of over 1000 studies of the impact of training programmes.	The meta-review identified 71 studies of the impact of training programmes in OECD countries that met quality criteria to show a causal impact.	The analysis of the 71 studies of training programmes concluded that: <ul style="list-style-type: none"> 35 studies showed positive impacts on participants' employment or earnings; only five had a negative effect; 22 had mixed results with positive impacts for some groups of 	The meta review established which studies provided evidence of causal impact (comparator evidence stronger than before and after).

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Outcome type	Outcome	Study	Summary/Context	Impact demonstrated	Research methods
				<p>participants or some of the training;</p> <ul style="list-style-type: none"> • Shorter programmes were effective in upskilling and provided short term gains; longer programmes generated employment gains and longer term impacts on employment or wages; • Both basic skills and vocational qualification programmes had positive effects in all but a few programmes. 	
Wellbeing	General wellbeing	Jenkins (2011) studied the effects of participation in learning on the subjective wellbeing of older adults.	This study aimed to assess the impact on the wellbeing of older adults from participation in three different types of learning: formal learning, gym/exercise classes, and music classes.	<p>The key impacts demonstrated were that:</p> <ul style="list-style-type: none"> • Participation in music, arts and evening classes was significantly associated with positive changes in subjective wellbeing; • Participation in formal courses and gym/exercise classes was not significantly associated with wellbeing. 	Data was from the English Longitudinal Study of Ageing (ELSA), a large-scale, nationally representative survey of those aged 50 and above, containing several wellbeing measures and information on three types of learning: formal courses, music/arts/evening classes and gym/exercise classes.
	Self-confidence	Hammond and Feinstein (2005) used quantitative and qualitative	This study sought to establish how participation in adult learning could lead to direct and indirect improvements in	<p>The impacts evidenced by the study included:</p> <ul style="list-style-type: none"> • Perceptions of 	Quantitative analyses of data from the National Child Development Study (NCDS) (n=11, 419) were used to

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Outcome type	Outcome	Study	Summary/Context	Impact demonstrated	Research methods
		methods to investigate the links between participation in adult learning and self-confidence, particularly focusing on adults with low levels of school achievement.	self- confidence for learners.	<p>achievement in adult education increase self-confidence;</p> <ul style="list-style-type: none"> • Adult education led participants to participate in more challenging occupations because it built self-confidence; • Participation in adult learning improved the self-confidence of participants which increased the likelihood of further participation; and • Work-based learning increased self-confidence. 	provide evidence and this was complemented with in depth interviews with 15 women with poor school attainment sampled from the NCDS.
Mental health		The Mental Health Foundation (2011) carried out an evaluation of a series of community-based adult learning courses for people with mild to moderate depression and anxiety in the UK.	The courses, known as the Learn 2b programme, were provided by a partnership between an Adult Learning Service and a Primary Care Trust in Northamptonshire in England. The courses were structured around the themes of wellbeing, creative expression and healthy living.	<p>The impacts demonstrated by the evaluation showed that:</p> <ul style="list-style-type: none"> • Mental wellbeing of adults improved after participation on the courses; and • Participants experienced, on average, less severe symptoms of depression and anxiety as a result of attending the courses. 	The Mental Health Foundation independently evaluated this programme over a period of three years. The 256 people who had attended Learn 2b courses were surveyed and asked about their perceived wellbeing. This was complemented by a small number of interviews and focus groups with tutors.

Outcome type	Outcome	Study	Summary/Context	Impact demonstrated	Research methods
	Physical health (e.g. smoking)	Feinstein et al (2003) analysed the contribution of adult learning to health and social capital for UK adults.	This study was designed to track, using statistical analysis, the effects of participation in adult learning on a range of health-based outcomes, including smoking, exercise and alcohol consumption. This was part of a wider analysis of the effects of adult learning and health and social outcomes.	<p>The study found that participation in adult learning contributed to statistically significant changes in health behaviours. These include:</p> <ul style="list-style-type: none"> • The effect of participating in one or two adult learning courses between the ages of 33 and 42 leads to a 3.3% increase in the probability of giving up smoking; • The effect of participating in three to ten adult learning courses leads to a 7% increase in the probability of taking up more exercise; and • Participation in adult learning can lead to a decrease in the amount of alcohol consumed by a person. 	The source of data for analysis is the UK National Child Development Study. Data relating to almost 10,000 adults born in Britain in 1958 was used. This data pertained to changes in their lives between the ages of 33 (in 1991) and 42 (in 2000).
Social/community	Voluntary activity	Fujiwara (2012) used a method of valuing social impact to express the benefits of individuals' participation in adult learning.	This study sought to identify the effects of participating in a one year part-time adult learning course on aspects of wellbeing, including health and employability, social relationships and participation in voluntary activity.	<p>In relation to voluntary activity, the study found that:</p> <ul style="list-style-type: none"> • Participation in adult learning led to a greater likelihood that people volunteer on a regular basis, which, if expressed in cash form, has a value of £130 to 	Data for the study was drawn from the British Household Panel Survey (BHPS) – a representative sample of 10,000 adults. A Wellbeing Valuation (WV) approach was used to calculate the amount of money that would be required to keep individuals

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Outcome type	Outcome	Study	Summary/Context	Impact demonstrated	Research methods
				the individual.	just as happy or satisfied with life in the absence of the good.
		Eurofound (2011) which provides information on an evaluation of the Elderly Helping the Elderly national initiative in Denmark.	This initiative trained volunteers over the age of 60 (3,500 in 2006) to help other older people with a range of activities, such as shopping and IT. The learning initiative also encouraged volunteers to participate in other volunteering opportunities.	The evaluation showed that nearly three-quarters (73%) of the participants took up another voluntary commitment.	Participants were surveyed as to whether or not they had taken up another voluntary activity following completion of the programme.
Political interest and civic participation		Feinstein et al (2003) analysed the contribution of adult learning to health and social capital for UK adults.	This study tracked the effects of participation in adult learning on a range of social and political outcomes, including voting, attitudes to racial tolerance and authoritarianism and political cynicism.	The study demonstrated that participation in adult learning led to an improvement in political outcomes for participants: <ul style="list-style-type: none"> Adults who participated in one or two courses were 3% more likely to increase their number of memberships of organisations; There was no statistically significant effect of participation demonstrated on the likelihood of voting; and Respondents who had participated in adult learning reported that their attitudes towards racial tolerance improved as did their attitudes towards 	Data for analysis was drawn from the UK National Child Development Study. Data relating to almost 10,000 adults born in Britain in 1958 was used. This data pertained to changes in their lives between the ages of 33 (in 1991) and 42 (in 2000).

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Outcome type	Outcome	Study	Summary/Context	Impact demonstrated	Research methods
				authoritarianism.	

Table A3.3: Evidence of outcomes for employers from adult learning policies

Outcome type	Outcome	Study	Summary/Context	Impact demonstrated	Research methods	
Economic returns	Productivity returns on investment from training	Almeida and Carneiro (2009)	estimated the rate of return on firms' investments in formal job training.	This study aimed to investigate the size of the return on investment for training in firms providing training in Portugal.	The study demonstrated that firms could: <ul style="list-style-type: none"> Benefit from a return on investment of 8.6% as a result of providing training for their workforce. 	Data was gathered about a panel of 1500 large firms (more than 100 employees) within Portugal including detailed information on the duration of training, the direct costs of training, and several other firm characteristics.
		Cedefop (2011)	carried out a meta-evaluation of evidence on the economic benefits of vocational education and training at company level.	Given that the benefits of investment in VET for firms have been the object of several studies, this study sought to bring together the evidence that exists and to analyse the magnitude of economic returns to a company.	The study showed that in 86% of the studies reviewed, investment in VET had a positive and significant effect on the economic performance (including productivity, profitability and quality of output) of firms	The analysis was based on 62 studies, covering many different contexts, businesses and training inputs. The different methodologies in each study limited the ability to arrive at a composite estimate of the size of returns to a firm.
		Dostie (2010)	investigated the difference in returns to productivity between classroom training and on-the-job training.	The study determined the increase in productivity for Canadian workers based on the type of training they had undertaken.	The study found that: <ul style="list-style-type: none"> Employees who had undertaken training were more productive than those who had not; Employees that had undertaken classroom-based training were more likely 11.4% more productive than similar employees; and Employees who had undertaken on-the-job training were 3.4% more productive than employees 	Data from the 1999 – 2006 Canadian Workplace and Employee Survey (WES) were used to track the types of learning employers engaged in as well as the increases in productivity. Productivity was measured as "value-added" per worker.

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Outcome type	Outcome	Study	Summary/Context	Impact demonstrated	Research methods
				who had not.	
		Zwick (2005) examined the productivity effects of different continuing vocational training forms in Germany.	The study examined different types of vocational training supplied by German companies. It assessed the level of increases in productivity from each form of training.	The study found that: <ul style="list-style-type: none"> • Formal external training increases productivity by 28%; • Formal internal courses improved productivity by 4%; and • Self-induced learning increases productivity by 5%. 	Data was gathered about the training provided by German companies on the IAB establishment panel between 1997 and 1999. These are companies that employ at least one person who has a social security number. Productivity was measured in terms of "value-added".
	Profitability (as distinct from productivity) gains	Blundell et al (1999) conducted a meta-evaluation of the literature that exists on the profitability returns to firms from training.	This study brought together evidence pertaining to the impact of training/adult learning on the profitability of individual firms.	The study showed that formal off-the-job training generated substantial increases in profitability for firms ranging between 9.5% and 16.5%.	The results of this study were based on a meta-review analysing the returns to firms of training and investment in human capital.
Workforce benefits		McNair, S. (2008) performed an evaluation of the ReGrow project in the South East of England.	This project piloted the delivery of Information Advice and Guidance (IAG1), Mentoring and Training to people over 50 in employment in the South East Region of England, with a view to increasing participation in adult learning.	Employers reported the following benefits as a result of their workforce's increased participation in adult learning: <ul style="list-style-type: none"> • Increased employee motivation (67%); • Increased productivity / performance (61%); • Increased commitment to the firm (48%); • Increased flexibility 	The 353 employers involved in the delivery of the ReGrow project were surveyed as part of the evaluation of the programme. (Participants were also surveyed)

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Outcome type	Outcome	Study	Summary/Context	Impact demonstrated	Research methods
				(45%); <ul style="list-style-type: none"> Improved industrial relations (22%); Helped people face retirement (18%); Reduced sickness (8%); and Helped people face redundancy (4%). 	
		Brunello et al (2010 investigated the effect of training subsidies on returns for firms and workers in the Italian regions.	In Italy, government subsidies for CVT are managed by regional authorities and fall into three categories – European Social Fund programmes, national programmes and industry based training funds.	The study found that: <ul style="list-style-type: none"> The increase in returns to the firm of one additional week of work-based training (as a result of the subsidy) was 2.5%. 	Longitudinal data on Italian regional training policies for the period 1999 to 2005 were collected as well as information on individual and firm characteristics.
Innovation	Increase in innovation performance for firm	A Cedefop study (2012) investigated the effect on work-based learning on the innovative capacity of a firm.	This study examined the links between learning in the workplace and the effects that this had on improving the innovation performance of firms.	The study demonstrated that investment in training was likely to have the following impacts: <ul style="list-style-type: none"> Investment in human capital formation (measured by a composite index) can have a statistically significant (at the 10% level) effect of a 25% improvement in the overall performance in innovation by the firm; and Having a higher proportion of degree-level educated workers does not have a statistically significant 	Both quantitative and qualitative research methods were used for the report – a multiple regression analysis as well as a factor analysis were used to attribute the effect of training to innovation. Data was drawn from the European Working Conditions Survey (EWCS), the vocational training survey (CVTS) and the innovation union scoreboard. This was complemented with extensive qualitative research. The EU-27 and Norway were included in the research.

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Outcome type	Outcome	Study	Summary/Context	Impact demonstrated	Research methods
				effect on innovation performance.	

Table A3.4: Evidence of other benefits for society from adult learning policies

Outcome type	Outcome	Study	Summary/Context	Impact demonstrated	Research methods used
Societal benefits	Social benefits	Digby (2012) investigated the role of non-formal and informal learning in improving environmental learning among adults.	This study investigated the impacts of participation in non-formal and informal learning on adult environmental literacy and behaviour using data from a Minnesota environmental literacy survey.	The study showed that participation in non-formal and informal learning increased the likelihood of improved environmental behaviour and literacy by between 13 and 15%.	A sample of 1000 residents in Minnesota was surveyed on their environmental attitudes, behaviours and knowledge.
		Gordon and Weldon (2003) investigated the impact of education programmes on adult offenders.	This study examined the reoffending rates of adult inmates who participated in adult learning while imprisoned in West Virginia	The study showed that: <ul style="list-style-type: none"> • Participants in vocational training had a reoffending rate of 9% on release, • Inmates who participated in both General Educational Development and vocational training reported a reoffending rate of 7%, and • The general rate of re-offending for those inmates who did not participate in learning was 26%. 	Data was provided about inmates who were enrolled in educational programmes during 1999-2000. Those inmates that participated in education programmes were compared with those inmates that did not.
		Schuller and Watson (2009) provided a report giving an overview of the expenditure on adult	The report showed what the main components of expenditure on adult learning were and the returns realised to the state as a result of	The study found that: <ul style="list-style-type: none"> • Potentially between £18.2 million and £36.3 million per annum savings could be 	The amount of savings were based on the percentage of the care costs from adults postponing entry into residential care for a month by participating

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Outcome type	Outcome	Study	Summary/Context	Impact demonstrated	Research methods used
		learning in the UK.	public investment in learning.	realised as a result of older people postponing their entry into residential care as a result of participation in learning.	in learning, based on the number of people in residential care in 2007/2008.
		Lagger et al (2010) investigated the effect of patient education on patient outcomes.	The study examined available literature to determine whether or not patient education had a positive effect on patient outcomes.	<p>The study found that:</p> <ul style="list-style-type: none"> 64% of the studies reported positive health effects on the learners from their participation in a therapeutic education programme. 	A thorough search of the medical and nursing literature was conducted. 598 studies (covering 61,000 patients between them) were identified for analysis.

Annex 4: Summary of literature review – policy actions

Planning and governance of adult learning are considered to be an important ingredient in bringing about effective adult learning. Table A4.5 provides an overview of some studies that provide evidence in this area.

It is widely believed that engaging employers in promoting and providing adult learning is an effective way to increase participation and improve competences. There is relatively strong evidence available on the range of policy actions that have been taken to engage employers to increase participation in adult learning. Table A4.1 presents an overview of some of the evidence on this area.

Increasing and enabling access to adult learning by people from all socio-economic and demographic groups is a common policy goal with policy actions to improve participation in adult learning by those who are least likely to participate as well as yielding positive outcomes for such learners. Table A4.3 provides an overview of some studies that provide evidence in this area.

Policy actions to ensure that the adult learning provided, especially formal learning, is relevant and meets the needs of learners, employers and the wider community are widely believed to reduce barriers to participation in learning and the achievement of positive outcomes. Table A4.4 provides an overview of some studies that provide evidence of this.

Table A4.1: Success factors for effectiveness in adult learning – improving learners' disposition towards learning

Success factor	Study	Summary/context	Impact demonstrated	Research method used
Heighten awareness of benefits of learning	Taylor (2002) led a study which looked at the effectiveness of "adult learning pathways" in England.	This study evaluated the success of Adult Learning Pathways for adults in Oxfordshire, Milton Keynes and Buckinghamshire and examined three employment sectors – tourism, health and social care and construction.	The study found that: <ul style="list-style-type: none"> Learning pathways that make a connection between work and learning are important in making adult learning attractive for participants. 	The study used qualitative data from interviews with employers, focus groups with learners and focus groups with providers.
Engage social partners in the recruitment of learners	Cedefop (2010) analysed the results of the third European survey on continuing vocational training to assess the effects of employer engagement on participation in adult learning.	The study used data concerning the volume, content and cost of training in enterprises, and on their training policy and management. It also examines the effect of training agreements between social partners and public policies designed to promote workplace learning to employers.	The study demonstrated the following impact: <ul style="list-style-type: none"> Participation in training is 20% more likely by workers in companies that participate in a training agreement between social partners than those that do not. 	The primary data source for this study came from the European survey on continuing vocational training that was conducted across the EU-27 and Norway. The effects of various strategies and policy actions were determined using a range of statistical methods.
	Various studies have evaluated the "Learning Regions – Promotion of Networks" programme in Germany including Forschungskonsortium (2004), Nuisl et al (2006) and Conein et al (2002) (cited in Brožaitis et al (2010))	This programme was designed to build regional networks between employers, formal and non-formal education, and training providers.	The study found: <ul style="list-style-type: none"> Increased participation in adult learning programmes, especially among underrepresented groups; A more robust network of education and guidance services; and Perception of higher quality in the provision of educational services. 	The studies drew on surveys of network managers and partners, expert interviews, document analysis, secondary data analysis and case studies.

Success factor	Study	Summary/context	Impact demonstrated	Research method used
Provide guidance for learners about learning options	Tyers et al (2004) evaluated the success of the Adult Guidance Partnerships across the UK.	The Adult Guidance Partnerships (AGP) were a pilot initiative designed to assist specific target groups and make them aware of learning and work opportunities.	<p>The evaluation found that:</p> <ul style="list-style-type: none"> • 50% of participants accessed AGP members more than once; • 9% of clients improved their qualification level since their first contact with the AGP; 27% of those who first contacted the AGP with no qualification now have a qualification of some kind; • 30% of the clients surveyed reported that they had gained new skills since contacting an AGP member and over half of these attributed it to the work of AGP staff. 	Data was drawn from the responses of 544 clients who had benefited from the AGPs. This data was subject to econometric analysis to ascertain the success of the initiative in increasing participation. This was also complemented by a case study analysis of a number of the pilot projects.
	Hearne (2005) evaluated the Regional Educational Guidance Service for Adults in the Waterford Institute of Technology in Ireland.	The purpose of the research was to evaluate the benefits of guidance for adult clients accessing the guidance service.	<p>The study demonstrated the following impacts:</p> <ul style="list-style-type: none"> • 89.4% of clients who accessed the service identified both direct and indirect benefits as a result of accessing the guidance service; • 56.5% of respondents attributed their taking up employment or participating in further learning opportunities to accessing the guidance service. 	Both quantitative and qualitative methods were used for this study. The qualitative component of the study consisted of a literature review. The quantitative element involved a survey of 198 users of the guidance service.

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Success factor	Study	Summary/context	Impact demonstrated	Research method used
	Philips and Eustace (2010) performed an evaluation of the Irish Adult Educational Guidance Initiative in Ireland.	The study aimed to identify models of good practice emerging in the area of guidance provision as well as presenting recommendations on the future development of lifelong learning.	The evaluation found that: <ul style="list-style-type: none"> Over 20% of those interviewed stated that guidance was instrumental in their remaining in a particular course or in education. 	The evaluation was based on a literature review of previous evaluations and reviews and annual reports. It also involved the analysis of statistical data, including quarterly returns. It also involved semi-structured interviews with 101 users of the service.
Provide learners with an appropriate introductory learning experience	Federighi (2013) examined adult and continuing education across EU Member States to look at variations in participation and provision.	The study examined the conclusions of the findings of several EU-funded research projects under the 6th and 7th Framework Programmes for Research and made recommendations about how policies could support adult learning and how to advance research in the area.	The study demonstrated that: <ul style="list-style-type: none"> People with university level qualifications were twice as likely to participate in adult learning than people with primary or lower secondary level qualifications. 	The study was a review of the findings of several EU-funded research projects under the 6th and 7th Framework Programmes for Research.
	White (2012) investigated the reasons behind the progression of adults to further levels of education.	The study analysed the characteristics associated with both participation in adult education and the intention to participate in future learning.	The study found that: <ul style="list-style-type: none"> Participation in 'later' learning is most strongly associated with positive 'learning dispositions' and extended participation in initial, full-time education; and Individuals reporting an intention to learn in the subsequent three years were approximately 6–11 times more likely to have 	Data is drawn from questionnaires from more than 47,000 individuals in the UK collected by the National Institute of Adult Continuing Education (NIACE) over the course of nine annual surveys administered between 2002 and 2010.

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Success factor	Study	Summary/context	Impact demonstrated	Research method used
			also reported participation in previous or current learning compared to those who considered future participation unlikely.	

Table A4.2: Success factors for effectiveness in adult learning – using incentives to engage employers to invest in learning

Success factor	Study	Summary/context	Impact demonstrated	Research method used
Promoting adult learning among employers	Cedefop (2010) analysed the results of the third European survey on continuing vocational training to assess the effects of employer engagement on participation in adult learning.	The study used data on the volume, content and cost of training in enterprises, and on their training policy and management. It also examines the effect of public policies designed to promote workplace learning to employers. It established patterns across Member States relating to the promotion of training by companies, as well as the effect of public policies on employer engagement.	<p>The study demonstrated the following impacts:</p> <ul style="list-style-type: none"> • Participation in training is 20% more likely by workers in companies that participate in a training agreement between social partners than those that do not; and • 36% of training enterprises surveyed indicated that, in 2005, public measures⁵¹ had an effect on their planning, policy and practices regarding CVT – though this perception is likely to be higher among larger companies than smaller ones. However, there was a huge 	The primary data source for this study came from the European survey on continuing vocational training that was conducted across the EU-27 and Norway. The effects of various strategies and policy actions were determined using a range of statistical methods.

⁵¹ Public measures include publicly-funded advisory services, financial subsidies towards the costs of training, tax relief on training expenditure, procedures to ensure the standards of trainers and the provision of recognised standards and frameworks for qualification and certification.

Success factor	Study	Summary/context	Impact demonstrated	Research method used
			variation in proportions from country to country – ranging from 72% in Cyprus and 8% in Romania.	
Financial incentives	Leuven and Oosterbeek, (2004) examined the effect of a tax incentive targeted at employers to encourage the training of older workers.	Due to a tax law implemented in 1998, Dutch employers can claim an extra tax deduction when they train employees aged 40 years or older.	The study found that: <ul style="list-style-type: none"> The training rate of workers above age 40 was between 15% - 20% higher than that of workers just below age 40; but The increase was not stimulated by the tax incentive, but rather was a result of learners postponing their training. 	This study used cross-section data from 1994 and 1999. The data was drawn from a representative sample of the Dutch population aged 16-64. A regression discontinuity model was used to investigate attribution.
	Cedefop (2009) undertook an analysis of the use of tax incentives for employers (and individuals) to encourage employers to undertake training.	The study provides overview of the range of tax incentives available across the EU and how the design of these differs between Member States, and whether this has a bearing on provision of training.	The study found that Germany, Austria and the Netherlands had designed tax incentives that were effective because they encouraged training not only for current jobs but also to prepare people for movement into other occupations. However, the study also found that there was little evidence available to evaluate the effectiveness of such policies.	The study was based on a comparative case study approach analysing six countries – Germany, Finland, Austria, Netherlands, Ireland and France. The report qualified its findings with the fact that there is no evidence base on the effectiveness of such measures.
	Goerlitz (2010) assessed the effect of direct subsidies in the form of training vouchers in North Rhine Westphalia.	The German federal state of North Rhine-Westphalia introduced a training voucher programme in 2006. This increased training incentives for employees in small and medium-sized establishments by reducing training costs by 50%.	The study found that: <ul style="list-style-type: none"> The share of organisations that invest in training increased by approximately 5 percentage points; Participation levels were 	Data came from a representative sample of all German organisations who made social security contributions for at least one employee in North Rhine Westphalia. Econometric analysis was used to attribute

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Success factor	Study	Summary/context	Impact demonstrated	Research method used
			unaffected.	impact.
	Brunello et al (2010) investigated the effect of training subsidies on returns for firms and workers in the Italian regions.	In Italy, government subsidies for CVT are managed by regional authorities and fall into three categories – European Social Fund programmes, national programmes and industry based training funds.	<p>The study found that:</p> <ul style="list-style-type: none"> • For every euro received in subsidy, the availability of training opportunities increased by 1%; • The marginal increase for workers because of one additional week of formal training (as a result of the subsidy) on monthly earnings was 1.4%. 	Longitudinal data on Italian regional training policies for the period 1999 to 2005 was collected as well as information on individual and firm characteristics.
	Kamphuis et al. (2010) investigated whether or not sectoral training funds stimulated training.	“Sectoral levelling funds” are funds used in the Netherlands to fund training. These funds are financed by a levy on the firm’s total payroll costs and are managed jointly by the social partners.	The study found that there was no statistically significant difference in the levels of regular and apprenticeship training in sectors with a training fund than those without.	Data consisted of information on 1,106 Dutch firms that employed more than five workers and where information was available on the training undertaken by employees.
Basic skills	Paris (1992) evaluated the Wisconsin Workplace Partnership Training programme in its third year.	The Wisconsin Workplace Partnership Training (WPT) programme provided job-specific basic skills education to employees at their workplace. It was a cooperative effort between the Wisconsin board of education, trade unions, and employers’ associations.	<p>The study found that:</p> <ul style="list-style-type: none"> • Participants strongly agreed that the programme had improved their basic academic skills, job skills, self-image, work quality, and problem-solving skills; and • Local partners strongly agreed that participants' basic academic skills improved after participation in the program, but they expressed weak agreement with the statements 	102 participants were interviewed at 10 randomly selected sites; 160 local partners from these and other sites completed mail surveys.

Success factor	Study	Summary/context	Impact demonstrated	Research method used
			that the program enhanced participants' job and problem-solving skills.	
	Scheer (1993) led an evaluation of a Workplace Literacy Programme which was operated in workplaces in Connecticut in the USA.	The River East Alliance for Developmental Studies (READS) provided occupationally based literacy and numeracy instruction, over 18 months, for 451 entry-level workers, supervisors, and floor managers. Participants were drawn from four diverse Connecticut manufacturing companies.	<p>The following impacts of participating in the programme were as follows:</p> <ul style="list-style-type: none"> • 94% indicated they felt better about themselves as workers; • 73% reported they had improved the quality of their work; • 85% of those taking Reading or ESL improved their communication skills; and • 80% of those taking Maths improved their numeracy skills. 	Data was drawn from course evaluations submitted by participants in the programme (294 of the 347 participants submitted an evaluation).
	Benseman (2010) explored the effectiveness of workplace basic skills programmes based on an evaluation of 18 workplace courses, set up by 16 companies in New Zealand.	Courses covered a range of programme formats, durations and catered to different types of learners. The companies came from a range of industries, locations, company sizes and organisational structures. The courses used either an embedded basic skills approach or teaching material related to the companies' operations and the participants' jobs.	<p>The study demonstrated the following impacts which came about as a result of the provision:</p> <ul style="list-style-type: none"> • In relation to improvement in basic skills, of the 278 participants, who were re-tested for reading at the end of their course, 86% showed an improvement in their reading scores and average reading scaled scores increased by 10.1 points out of 100; • 60% of course participants reported changes in their perceived self-confidence, satisfaction with basic skills and an increased belief in their 	The evaluation took place over three years, and quantitative and qualitative data was gathered to identify outcomes for the course participants, their workplace practices, the companies they work for and their lives outside work. 491 course participants were interviewed and assessed pre-course and 343 (69.8%) of these participants were also interviewed and assessed post-course.

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Success factor	Study	Summary/context	Impact demonstrated	Research method used
			<p>ability to do their jobs;</p> <ul style="list-style-type: none"> 80% of course participants reported doing their job better as a result of the course; Additionally, 75% of participants reported improvements in their soft skills (such as speaking or listening to colleagues in the workplace). 	
Workforce retraining/upskilling	Fitzenberger and Besser (2007) investigated the effectiveness of publicly sponsored training programmes.	This study compared three different types of training programme in West Germany to assess their effectiveness in getting people back into employment.	<p>The study found that:</p> <ul style="list-style-type: none"> Participants in the programme were more likely to be employed after participation in the training programme 	
	Richardson and van den Berg (2008) investigated the success of a vocational training programme to assist people back into employment.	The study analysed the effect of the Swedish Vocational Educational programmes (a series of labour-market focused skill-enhancing courses) on increasing likelihood of employment.	<p>The study found that:</p> <ul style="list-style-type: none"> The training programme increased the likelihood of employment following participation. 	Data was drawn from Swedish employment offices and from the register of recipients from the Swedish unemployment insurance fund.
	Neubamer (2012) investigates the relative effects of wage subsidies and further vocational training on the subsequent employment prospects of	The study investigated whether or not firms were more likely to value individuals who had previously undertaken a vocational training programme than those who were subsidised in employment.	<p>The study found that:</p> <ul style="list-style-type: none"> There is no difference in the likelihood of employment for those adults who take up subsidised employment or entering a further vocational training programme; and Firms value training on a 	The study was conducted using treatment groups consisting of unemployed persons who either took up subsidised employment or entered a further vocational training program, respectively, during March 2003

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Success factor	Study	Summary/context	Impact demonstrated	Research method used
	previously unemployed adults.		subsidised job as much as formal training programmes	
	What Works Centre for Local Economic Growth (2014) an evidence review of over 1000 studies of the impact of training programmes.	The meta-review identified 71 studies of the impact of training programmes in OECD countries that met quality criteria to show a causal impact.	<p>The analysis of the 71 studies of training programmes concluded that:</p> <ul style="list-style-type: none"> • Both vocational and basic skills programmes have a positive impact on participants' employment; • On the job training programmes outperform classroom based training programmes. 	The meta review established which studies provided evidence of causal impact (comparator evidence stronger than before and after).

Table A3.3: Success factors for effectiveness in adult learning – improving equality of access for all

Type	Success factor	Study	Summary/context	Impact demonstrated	Research method used
Basic skills provision	Embedding basic skills development in adult learning programmes	Casey et al (2006) investigated whether embedding literacy and numeracy into adult education programmes were effective in engaging and retaining learners.	The project explored the impact of embedded approaches to literacy, language and numeracy (LLN) on 79 vocational programmes. These courses were based in 15 further education colleges and one large training provider located in five regions of England.	<p>The study compared the outcomes of courses where literacy, language and numeracy was embedded with those where it was not embedded:</p> <ul style="list-style-type: none"> • On the embedded courses, retention of students was 16% higher than the non-embedded courses; • Fully embedded courses are likely to have a success rate that is 26% higher than non-embedded courses • 93% of those with an identified literacy need achieved a literacy/ESOL qualification, compared to 	A sample of 200 learners was drawn from the total population of 1916 learners who were preparing for Level 1 or Level 2 National Vocational Qualifications.

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Type	Success factor	Study	Summary/context	Impact demonstrated	Research method used
				<p>only 50% for those on non-embedded courses.</p> <ul style="list-style-type: none"> 93% achieved a numeracy/maths qualification, compared to 70% for those on non-embedded courses. 	
		Alkema and Rean (2013) review literature from Canada, New Zealand, Ireland, Australia and the United States to assess the impact of embedding literacy and numeracy skills in adult learning programmes.	The study examined the role played by embedding literacy and numeracy skills in learning programmes in attracting learners who would not otherwise engage in such programmes.	<p>The review found that:</p> <ul style="list-style-type: none"> Embedding (the practice of combining/integrating literacy and numeracy into adult vocational and workplace training) improves the likelihood of retention and success of adult learners. 	<p>Literature was reviewed which dealt with the impact of policy interventions designed to improve adult literacy, language and numeracy skills.</p>
	Basic skills education in community settings	Grief (2002) performed an evaluation of the Basic Skills and the ESOL (English for Speakers of Other Languages) initiative.	£2million was allocated to the Further Education and Funding Council in England to fund outreach basic skills provision in local community settings. 230 institutions were funded by the scheme and developed various innovative approaches to basic skills provision.	<p>The evaluation reported that, as a result of participating in the course :</p> <ul style="list-style-type: none"> Over 50% of learners expressed an intention to proceed to further basic skills or ESOL training; and 30% of learners planned to take up other learner opportunities. 	776 learner evaluation forms were analysed to explore the outcomes for learners as a result of participating in the projects funded by the initiative.
Engaging harder-to-reach groups	Use of community-based outreach strategies/intermediary	Shaw et al (2002) performed an evaluation of the Union Learning Fund scheme in the United	The Union Learning Fund (ULF) was established to help trade unions to promote and enable participation in adult learning among their	The evaluation of the ULF reported that 62% of employers surveyed felt that the training activities generated by ULF funding would not have otherwise taken place.	Data was collected from 121 projects supported by the Union Learning Fund, using surveys of project managers, employers and

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Type	Success factor	Study	Summary/context	Impact demonstrated	Research method used
	organisations, e.g. trade unions, community groups to engage with hard-to-reach learners	Kingdom. Taylor et al (2005) performed a systematic review of strategies aimed at widening participation in adult learning.	members, by engaging and supporting them. The study assessed the success of strategies in increasing participation in adult education.	The review found that: <ul style="list-style-type: none"> • Networking and partnership, including the use of intermediary organisations were important factors in increasing participation in adult learning; • Tailored flexible support and provision created through networking and partnerships between key organisations which is responsive to individual learner needs is more likely to engage 'hard to reach' learners; and • Provision of funding which can be used flexibly to support additional costs incurred by learning providers can help to set up and sustain innovative learning provision for hard to reach groups. 	management information. Attribution of outcomes was done on the basis of these surveys. The review systematically screened evaluations of strategies to widen participation in adult learning. It identified 17 such evaluations for in-depth review.
Financial assistance	Individual learner accounts/adult education vouchers	Schwerdt, G. et al. (2011) used a controlled experiment to study the effects of adult education vouchers.	The study evaluated the effects of a large-scale randomized field experiment issuing vouchers for adult education in Switzerland.	The study found that the vouchers had no significant effects on earnings, likelihood of employment, and subsequent education one year after their use. The study also found that while individuals with lower educational	A random sample of participants in the Swiss Labour Force Survey (SLFS) (first observed in 2005), was issued a voucher that could be redeemed for adult

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Type	Success factor	Study	Summary/context	Impact demonstrated	Research method used
				attainments were most likely to benefit from adult education, they were least likely to use them.	education courses in the first half of 2006. A treatment group of 1,422 participants was drawn from this group and set against a control group of 9,099 who did not receive the voucher.
		Messer and Wolter (2009) used a randomized experiment to analyse the use of vouchers for adult training in Switzerland.	The field experiment underpinning this paper was conducted in Switzerland in 2006-2007. Some cantons in Switzerland have an adult education voucher scheme.	The study demonstrated that: <ul style="list-style-type: none"> • The vouchers raised adult learning participation in the experimental group by approximately 20%; but • This increase was more than offset by a deadweight loss of 50%, (the proportion of voucher value that was redeemed but only for adult training which participants would have paid for themselves). 	In 2006, 2,400 people were issued with a training voucher that they were entitled to use in payment for a training course of their choice. User behaviour was compared with a control group of 14,000 people. People in the treatment and in the control group were not aware at any time that they were part of an experiment.
Financial incentives for attendance		Brooks et al (2008) investigated the effect of a financial incentive on attendees at adult literacy classes in the UK.	The study sought to measure two outcomes – class attendance (whether or not attendance at class fell) and literacy scores and whether or not these were affected by payment of a financial incentive to class participants.	The study demonstrated: <ul style="list-style-type: none"> • A statistically significant reduction of about 1.5 sessions attended by the intervention group compared with the control group; and • Reading scores of the intervention group were 2 points lower than the control group, though this was not statistically significant. 	The experiment used was a cluster-randomised design. Twenty-nine adult literacy classes were randomised in two groups. Intervention group learners received 5 GBP for each class attended.

Type	Success factor	Study	Summary/context	Impact demonstrated	Research method used
Guidance, information and counselling	Ensure suitably resourced guidance systems in place to assist special target groups.	Tyers et al (2004) evaluated the success of the Adult Guidance Partnerships across the UK.	The Adult Guidance Partnerships (AGP) were a pilot initiative designed to assist specific target groups and make them aware of learning and work opportunities.	<p>The evaluation found that:</p> <ul style="list-style-type: none"> • 50% of participants accessed AGP members more than once; • 9% of clients improved their qualification level since their first contact with the AGP; 27% of those who first contacted the AGP with no qualification now have a qualification of some kind; • 30% of the clients surveyed reported that they had gained new skills since contacting an AGP member and over half of these attributed it to the work of AGP staff. 	Data was drawn from the responses of 544 clients who had benefited from the AGPs. These data was subject to econometric analysis to ascertain the success of the initiative in increasing participation. This was also complemented by a case study analysis of a number of the pilot projects.
	Introduce individualised learning pathways	Taylor (2002) led a study which looked at the effectiveness of "adult learning pathways" in England.	This study evaluated the success of Adult Learning Pathways for adults in Oxfordshire, Milton Keynes and Buckinghamshire and examined three employment sectors – tourism, health and social care and construction.	<p>The study found that:</p> <ul style="list-style-type: none"> • Tailored provision was identified as a very important factor for learners when deciding whether to enter adult learning or to progress to the next level; and • Learning pathways that make a connection between work and learning are important in making adult learning attractive for participants. 	The study used qualitative data from interviews with employers, focus groups with learners and focus groups with providers.

Type	Success factor	Study	Summary/context	Impact demonstrated	Research method used
Developing scheme to recognise prior learning (informal and non-formal)	Recognition for prior learning	Ophelm and Helland (2006) evaluated the success of the <i>realkompetanse</i> reform in Norway.	The reform was designed to allow people who had not completed secondary school to enter higher education based on documented non-formal learning.	In general, the measure was perceived to have been successful in terms of increasing access to higher education for people who had non-formal competences. There was considerable variation in this - universities in rural areas with lower numbers of applicants, in general, were found to have reacted more positively to the reform.	The study used interviews with key personnel at selected universities and university colleges, and examined quantitative data from the applicant register as well as a document analysis of admission guidelines from institutes of higher education.
		CIDEC (2004) and Instituto de Gestão do Fundo Social Europeu (2004) evaluated the introduction of the National System for the Recognition, Validation and Certification of Competences (RVCC) in Portugal.	The RVCC was introduced in Portugal to put procedures in place for the recognition and validation of knowledge and skills acquired as a result of non-formal and informal learning.	The introduction of the RVCC had a number of impacts, according to the two evaluations carried out: <ul style="list-style-type: none"> • 13% of survey respondents who had gone through the recognition process continued to formal education; • 65% of these respondents stated that they were considering studying further; • The number of adults directed to other training courses (including vocational training) increased from 1,996 in 2001 to 4,808 in 2002. • Respondents to the survey also reported higher levels of self-esteem as well as improved employment and salaries as a result of having 	In both studies, participants in the RVCC were surveyed. This was also complemented by desk research and case studies.

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Type	Success factor	Study	Summary/context	Impact demonstrated	Research method used
				their learning recognised under the RVCC procedure.	
		A report by Research voor Beleid (2010) assessed the impact of a number of ongoing reforms in adult learning.	This study aimed to assess the effects of reforms in adult learning policy on participation rates, including the introduction of the New Opportunity initiative in Portugal.	The report stated that: <ul style="list-style-type: none"> • People improved key competences of primary importance (i.e. literacy and e-skills) and learned new skills such as critical thinking and problem solving as a result of the New Opportunity initiative. 	A comparative case study approach was used to analyse five initiatives from Portugal, the UK, Netherlands, Norway and Poland.

Table A4.4: Success factors for effectiveness in adult learning – delivering learning that is relevant to employers and learners

Type	Success factor	Study	Summary/context	Impact demonstrated	Research method used
Learner-centred provision	Deliver learning in a flexible manner	Pont (2004) analysed patterns in selected OECD countries and the different policy measures adopted by governments to improve access to, and participation in, adult learning.	The study provided an overview of participation rate and explored the reasons that people gave for participation and non-participation in adult-learning.	The study found that: <ul style="list-style-type: none"> • The most effective incentives for adults to take up learning are the existence of personalised programmes of study (20%) and choices of methods of study (20%). 	Data was drawn from the European Union Labour Force Survey and the EU survey on views on lifelong learning. This was complemented by a literature review.
Employer-focused provision	Make provision of courses relevant to labour market and	Jacobi and Kluge (2006) studied the overall impact of labour market reforms in Germany, one of the pillars of which was	As part of the Hartz Labour Market Reforms in Germany, training programmes were redesigned to improve their effectiveness. They were also scheduled to take place at an	The study found that the redesign of training programmes, as a part of a broader set of labour market reforms has: <ul style="list-style-type: none"> • Increased their effectiveness in activating the unemployed (no 	A meta-analysis of earlier smaller impact assessment reports and evaluations of the Hartz reforms was used to identify evidence of

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Type	Success factor	Study	Summary/context	Impact demonstrated	Research method used
	employer needs	improving adult learning and training (cited in Brožaitis et al (2010))	earlier stage of the unemployment cycle.	information available on the size of the effect).	impact.
		Broek and Hake (2012) explained the variation in participation rate of adults in higher education.	The study identified the success factors in increasing the participation of adults in higher education.	The study found that: <ul style="list-style-type: none"> Aligning the needs of local employers were engaged with the content of courses provided by local education providers was successful in attracting adults to return to higher education. 	The research method used was a comparison of seven countries using a comparative case study method.
		Paris (1992) evaluated the Wisconsin Workplace Partnership Training programme in its third year.	The Wisconsin Workplace Partnership Training (WPT) programme provided job-specific basic skills education to employees at their workplace. It was a cooperative effort between the Wisconsin board of education, trade unions, and employers' associations.	The study found that: <ul style="list-style-type: none"> Participants strongly agreed that the programme had improved their basic academic skills in the exercise of the duties associated with their job. 	102 participants were interviewed at 10 randomly selected sites; 160 local partners from these and other sites completed mail surveys.

Table A4.5: Success factors for effectiveness in adult learning – deliver high quality and effective adult learning

Type	Success factor	Study	Summary/context	Impact demonstrated	Research method used
Quality assurance systems	Introduce quality assurance systems	Bertzeletou (2013) studied the effect of quality management systems in 16 vocational education and training (VET) institutions across 13 Member States as well as four VET providers that had an internal quality	The study investigated whether there were any benefits arising from the introduction of quality assurance systems.	The study found that as a result of the introduction of a quality assurance system: <ul style="list-style-type: none"> Students' satisfaction rates were higher; 	Twenty case studies were produced and analysed. These case studies were drawn from semi-structured interviews with trainers, students and VET managers.

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Type	Success factor	Study	Summary/context	Impact demonstrated	Research method used
		framework.		<ul style="list-style-type: none"> Internal processes in the teaching area were improved; and There was a greater attention to and awareness of labour market needs. 	
		Panteia (2013) was commissioned by the Thematic Working Group on Quality in Adult Learning to examine empirical evidence of quality assurance systems in European Member States.	The study mapped interesting practices in quality assurance throughout Europe.	<p>The study found that:</p> <ul style="list-style-type: none"> There was limited evidence of better performance by teaching staff and increased learner satisfaction resulting from introduction of quality assurance systems; and Introduction of quality assurance systems indirectly led to debates on issues related to quality. 	The study involved a literature review of EU documents and academic literature addressing quality in adult learning, preparing case studies on interesting quality systems in European Member States and meetings with the Thematic Working Group on Adult Learning.
Teaching workforce		Gauld and Miller (2004) investigated the relationship between the qualifications and competences of workplace trainers and their effectiveness.	This study investigated the qualifications and competencies of workplace trainers and, sought to determine if there is a relationship between these attributes and their effectiveness.	<p>The study found that:</p> <p>Trainers who have formal teaching qualifications and who have been in training positions for more than ten years are more effective trainers.</p>	A survey questionnaire was administered to 303 trainers and econometric methods were used to analyse the findings.

Table 4.6: Success factors for effectiveness in adult learning – co-ordinate adult learning policy with other public policies

Type	Success factor	Study	Summary/context	Impact demonstrated	Research method used
Policy co-ordination	Co-ordination between institutions	Desjardins and Rubenson (2013) explain variations in the participation rates in adult education and interpret these patterns from an institutional and public policy perspective.	The study examined the role played by institutional arrangements and/or specific public policy measures to increase participation in adult learning. It assesses how they foster favourable structural conditions for participation in adult learning, alleviate various barriers to participation, and ensure that disadvantaged groups have equal opportunity to take up adult learning.	<p>This study found that:</p> <ul style="list-style-type: none"> • Countries with high participation rates have a specific and developed adult learning policy; • This adult learning policy is co-ordinated with other policies to address broader social outcomes and guarantee equity of access; and • Countries that focus almost exclusively on adult learning policy as a means to achieve labour market access are likely to have more unequal access to learning. 	The research draws on high level measures or variables pertaining to access to adult education policy and equity of access to adult education and uses a classification of institutional framework to explain differences in participation.
		Cedefop (2010) analysed the results of the third European survey on continuing vocational training to assess the effects of employer engagement on participation in adult learning.	The study used data concerning the volume, content and cost of training in enterprises, and on their training policy and management. It also examines the effect of training agreements between social partners and public policies designed to promote workplace learning to employers.	<p>The study demonstrated the following impact:</p> <ul style="list-style-type: none"> • Participation in training is 20% more likely by workers in companies that participate in a training agreement between social partners than those that do not. 	The primary data source for this study came from the European survey on continuing vocational training that was conducted across the EU-27 and Norway. The effects of various strategies and policy actions were determined using a range of statistical methods.

Type	Success factor	Study	Summary/context	Impact demonstrated	Research method used
	Sub-national learning networks	Byun and Valentine (2009) assessed learner satisfaction and learner-perceived outcomes from the Learning City project in South Korea.	The Learning City project in South Korea promoted the development of local learning communities across the country.	<p>Impacts reported as a result of the Learning City Project included:</p> <ul style="list-style-type: none"> Older people, the less educated, the unemployed, and those who attended free programmes were the groups of individuals most likely to attribute positive outcomes to the learning city project. Participants were more likely to attribute positive social outcomes than economic outcomes. The most frequently mentioned positive social outcome was that the project had improved social cohesion. 	<p>A questionnaire was administered to 5,530 residents in 57 Lifelong Learning Cities across Korea (the study was one of the evaluation tools for the overall project)</p>
		Various studies have evaluated the "Learning Regions – Promotion of Networks" programme in Germany including Forschungskonsortium (2004), Nuisl et al (2006) and Conein et al (2002) (cited in Brožaitis et al (2010))	This programme was designed to build regional networks between employers, formal and non-formal education, and training providers.	<p>The study found:</p> <ul style="list-style-type: none"> Increased participation in adult learning programmes by socially disadvantaged people; A more robust network of education and guidance services; and Perception of higher quality in the provision of educational services. 	<p>The studies drew on surveys of network managers and partners, expert interviews, document analysis, secondary data analysis and case studies.</p>

Type	Success factor	Study	Summary/context	Impact demonstrated	Research method used
Developing scheme to recognise prior learning (informal and non-formal)	Recognition for prior learning	Ophelm and Helland (2006) evaluated the success of the <i>realkompetanse</i> reform in Norway.	The reform was designed to allow people who had not completed secondary school to enter higher education based on documented non-formal learning.	In general, the measure was perceived to have been successful in terms of increasing access to higher education for people who had non-formal competences. There was considerable variation in this - universities in rural areas with lower numbers of applicants, in general, were found to have reacted more positively to the reform.	The study used interviews with key personnel at selected universities and university colleges, and examined quantitative data from the applicant register as well as a document analysis of admission guidelines from institutes of higher education.
		CIDEC (2004) and Instituto de Gestão do Fundo Social Europeu (2004) evaluated the introduction of the National System for the Recognition, Validation and Certification of Competences (RVCC) in Portugal.	The RVCC was introduced in Portugal to put procedures in place for the recognition and validation of knowledge and skills acquired as a result of non-formal and informal learning.	The introduction of the RVCC had a number of impacts, according to the two evaluations carried out: <ul style="list-style-type: none"> • 13% of survey respondents who had gone through the recognition process continued to formal education; • 65% of these respondents stated that they were considering studying further; • The number of adults directed to other training courses (including vocational training) increased from 1,996 in 2001 to 4,808 in 2002. • Respondents to the survey also reported higher levels of self-esteem as well as 	In both studies, participants in the RVCC were surveyed. This was also complemented by desk research and case studies.

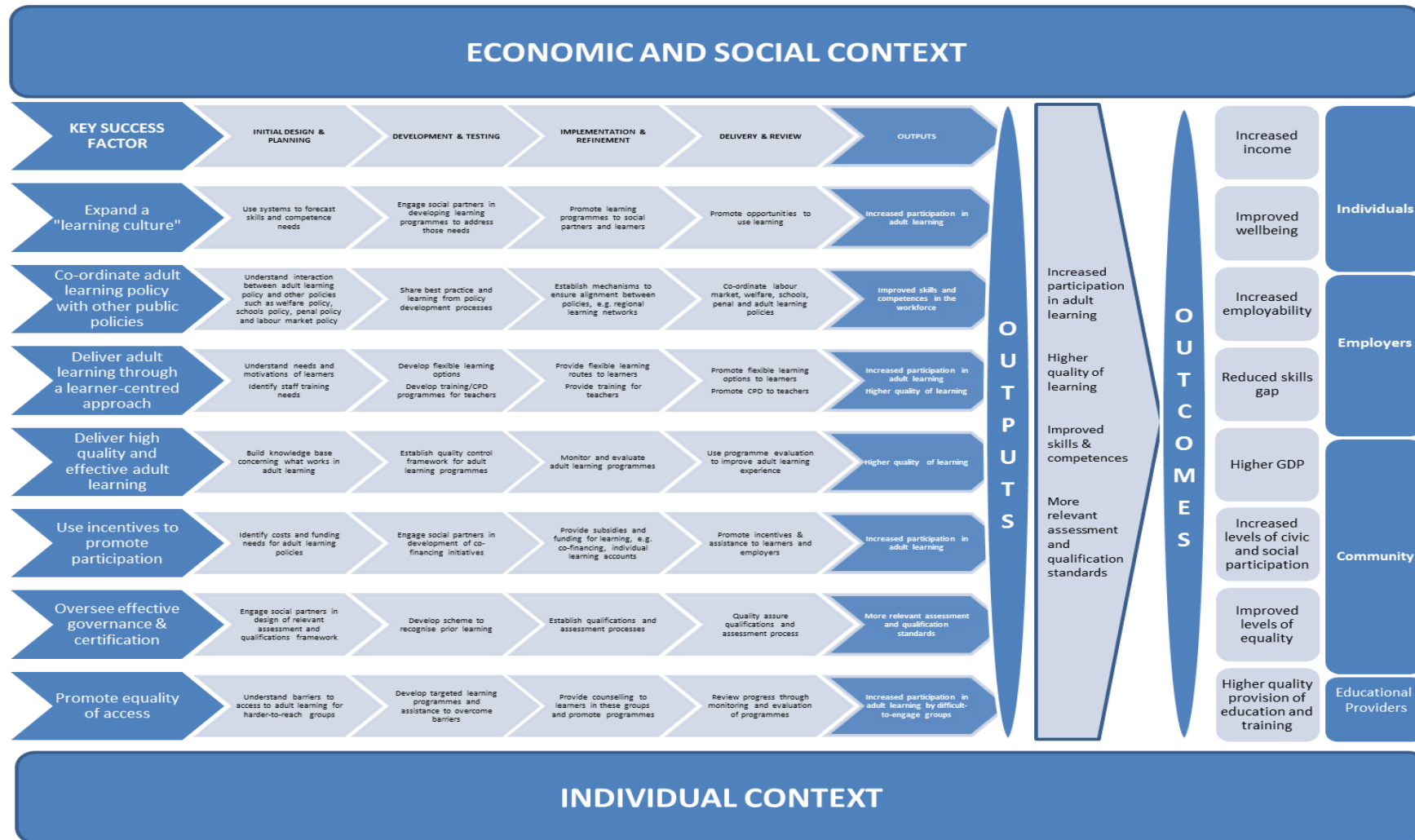
Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Type	Success factor	Study	Summary/context	Impact demonstrated	Research method used
				improved employment and salaries as a result of having their learning recognised under the RVCC procedure.	
		A report by Research voor Beleid (2010) assessed the impact of a number of ongoing reforms in adult learning.	This study aimed to assess the effects of reforms in adult learning policy on participation rates, including the introduction of the New Opportunity initiative in Portugal.	<p>The report stated that:</p> <ul style="list-style-type: none"> • People improved key competences of primary importance (i.e. literacy and e-skills) and learned new skills such as critical thinking and problem solving as a result of the New Opportunity initiative. 	A comparative case study approach was used to analyse five initiatives from Portugal, the UK, Netherlands, Norway and Poland.

Annex 5: Previous versions of the conceptual framework

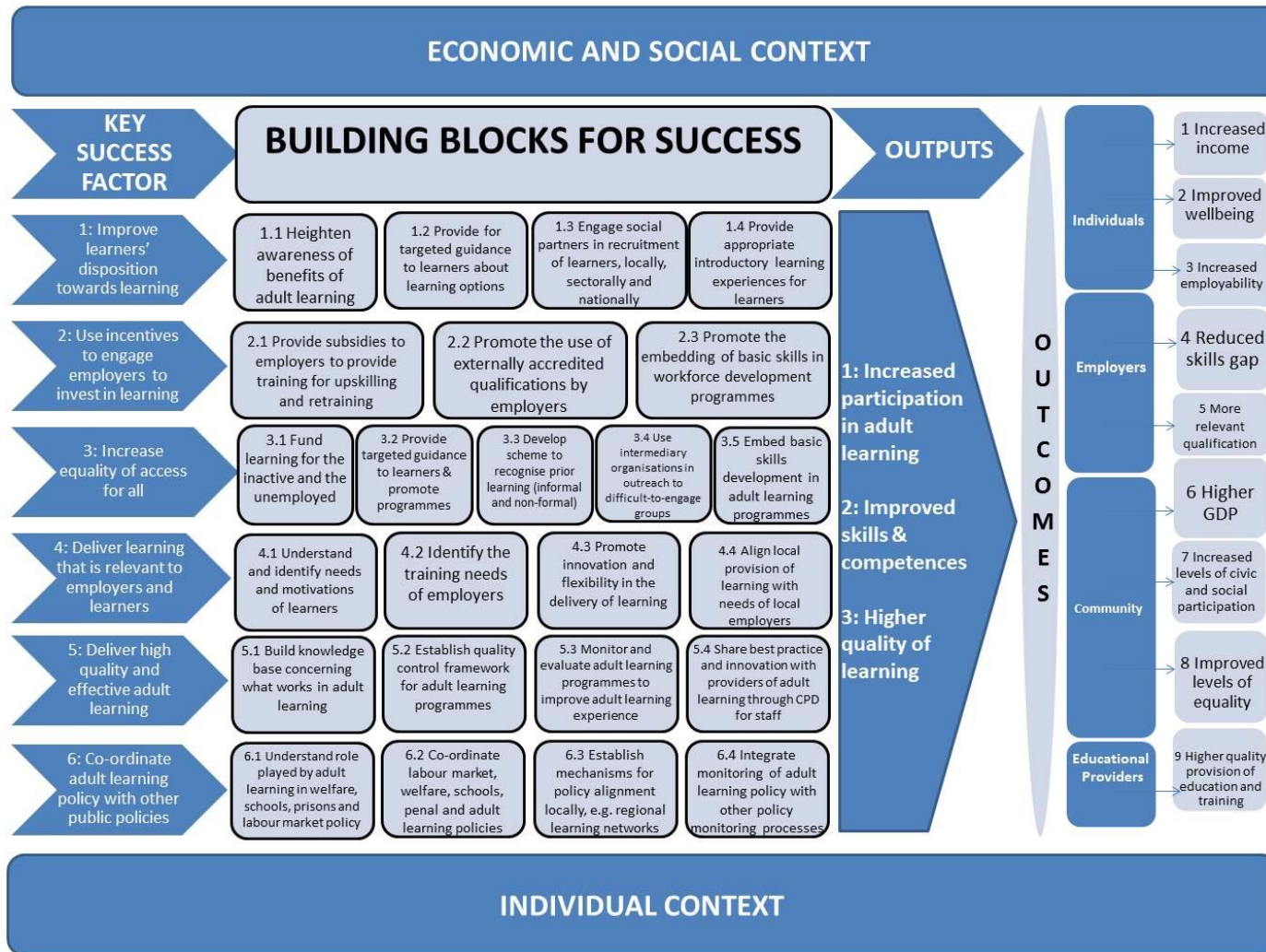
This Annex presents the previous versions of the conceptual framework that were developed throughout the study.

Figure A5.1: Conceptual framework developed in June 2014



Directorate-General for Employment, Social Affairs and Inclusion
 Directorate C (Europe 2020: Employment Policies)

Figure A5.2: Conceptual framework developed in September 2014



Directorate-General for Employment, Social Affairs and Inclusion
 Directorate C (Europe 2020: Employment Policies)

Table A5.1: Revisions to the conceptual framework December 2014

Success factor (revision in italics)	Current name of building block	Revised title	Strength of evidence
1: Improve learners' disposition towards learning (no change)	1.1 Heighten awareness of benefits of adult learning		++
	1.2 Provide targeted guidance to learners about learning options		+++
	1.3 Engage social partners in the recruitment of learners, locally, sectorally and nationally	1.3 Engage social partners in the planning of, promotion of and recruitment of learners to adult learning	++
	1.4 Provide appropriate introductory learning experiences for learners		++
2: Use incentives to engage employers to invest in learning (Increase employers' investment in learning)	2.1 Provide subsidies to employers to provide training for upskilling and retraining		+++++
	2.2 Promote the use of externally accredited qualification by employers		+++
	2.3 Promote the embedding of basic skills in workforce development programmes		++
3: Increase equality of access for all (Improve equity of access for all)	3.1 Fund learning for the inactive and the unemployed		+++++
	3.2 Provide targeted guidance to learners and promote programmes to under-represented groups	3.2 Provide targeted guidance and support services and promote programmes to learners in under-represented groups	+++
	3.3 Develop scheme to recognise prior learning (informal and non-formal)	3.3 Provide scheme to recognise prior learning (informal and non-formal)	+++
	3.4 Use intermediary organisations in outreach to difficult-to-		+++

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Success factor (revision in italics)	Current name of building block	Revised title	Strength of evidence
	engage groups		
	3.5 Embed basic skills development in adult learning programmes		+++
4: Deliver learning that is relevant to employers and learners	4.1 Understand and identify needs and motivations of learners		+
(Deliver learning that meets the needs of employers and learners)	4.2 Identify the training needs of employers (and align workforce development programmes with these)	4.2 Identify current and future skills needs of employers (through skills forecasting) and align provision with these	+++++
	4.3 Promote innovation and flexibility in the delivery of learning		+
	4.4 Align local provision of learning with needs of local employers	DELETE	
	INSERT NEW BUILDING BLOCK	4.4 Provide progression pathways for learners. across the national qualifications framework to improve permeability between vocational education and higher education	+
5: Deliver high quality and effective learning	5.1 Build knowledge base concerning what works in adult learning		+
(Deliver high quality learning)	5.2 Establish quality control framework for adult learning programmes	5.2 Establish quality control framework for monitoring and evaluation of adult learning programmes	+
	5.3 Monitor and evaluate adult learning programmes to improve adult learning experience	DELETE	
	5.4 Share best practice and innovation with providers of adult learning through CPD for staff	5.4 Develop a skilled teaching workforce through initial teacher training and CPD.	+
6: Co-ordinate	6.1 Understand role	DELETE	

Directorate-General for Employment, Social Affairs and Inclusion
Directorate C (Europe 2020: Employment Policies)

Success factor (revision in italics)	Current name of building block	Revised title	Strength of evidence
adult learning policy with other public policies	played by adult learning in welfare, schools, prisons and labour market policy delete		
(Co-ordinate a lifelong learning policy)	6.2 Co-ordinate labour market, welfare, schools, penal and adult learning policies	6.1 Co-ordinate adult learning (or lifelong learning) policy with other national policies for improving knowledge, skills and competences of adults	++
	6.3 Establish mechanisms for policy alignment, locally e.g. regional learning networks	6.2 Establish mechanisms for policy alignment at local and regional levels	+++
	6.4 Integrate monitoring of adult learning policy with other policy monitoring processes	DELETE	

Figure A5:3: Conceptual framework developed in December 2014

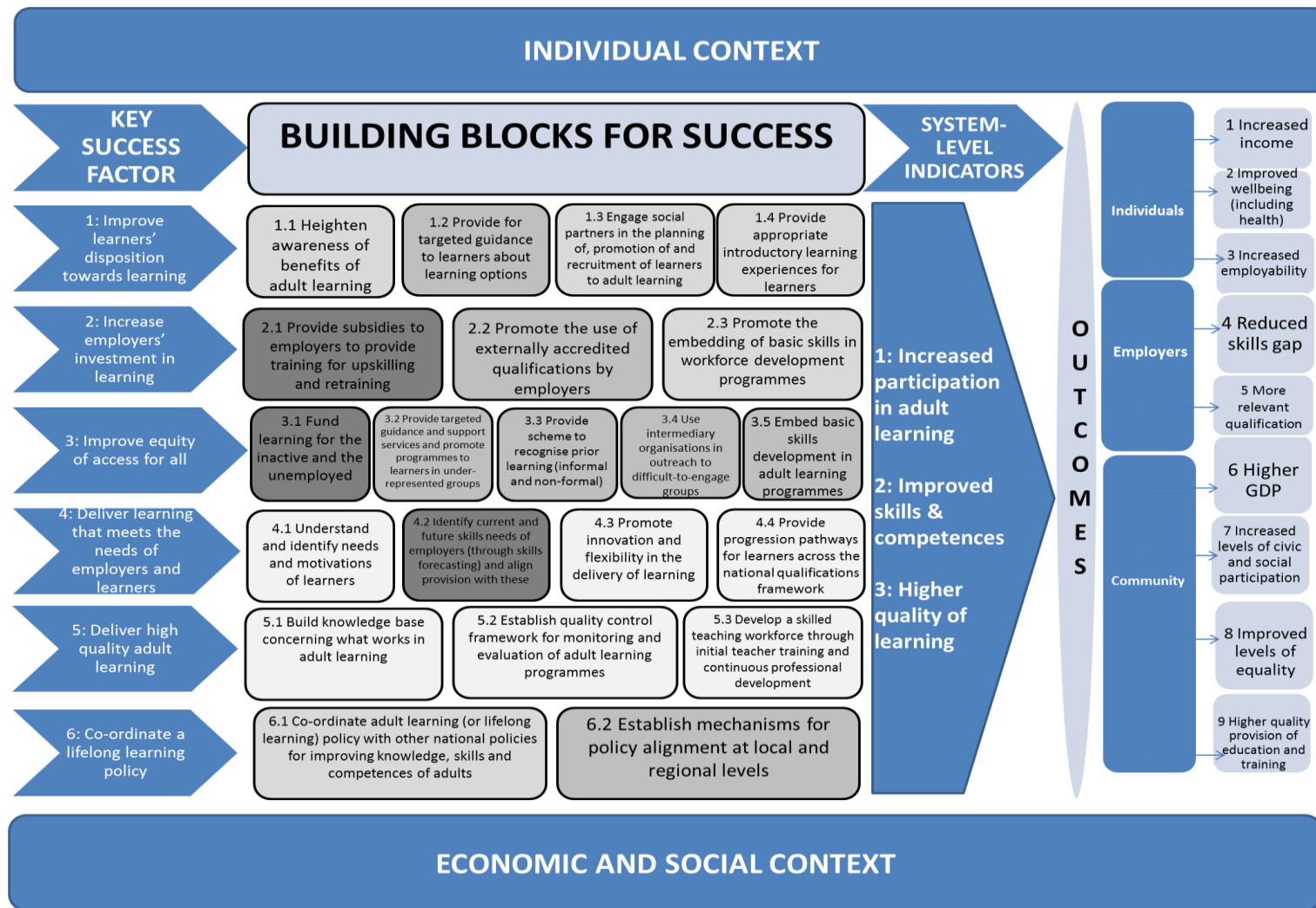


Table A5.2: Revisions to the conceptual framework – February 2015

Success factor (revision in italics)	Current name of building block	Proposed change
1: Improve learners' disposition towards learning	1.1 Heighten awareness of benefits of adult learning	
	1.2 Provide targeted guidance to learners about learning options	<i>1.2 Provide targeted guidance to learners about learning options and ensure an appropriate introductory learning experience</i>
	1.3 Engage social partners in the planning of, promotion of and recruitment of learners to adult learning	
	1.4 Provide appropriate introductory learning experiences for learners	
2: Increase employers' investment in learning	2.1 Provide subsidies to employers to provide training for upskilling and retraining	<i>2.1 Provide funding to assist employers to upskill and retrain their workforce</i>
	2.2 Promote the use of externally accredited qualification by employers	
	2.3 Promote the embedding of basic skills in workforce development programmes	<i>2.3 Promote the provision of work-based learning</i>
3: Improve equity of access for all	3.1 Fund learning for the inactive and the unemployed	<i>3.1 Fund learning for disadvantaged and difficult-to-engage groups, including the inactive and the unemployed</i>
	3.2 Provide targeted guidance and support services and promote programmes to learners in under-represented groups	
	3.3 Provide scheme to recognise prior learning (informal and non-formal)	
	3.4 Use intermediary organisations in outreach to difficult-to-engage groups	
	3.5 Embed basic skills development in adult learning programmes	
4: Deliver learning that meets the needs of employers and learners	4.1 Understand and identify needs and motivations of learners	
	4.2 Identify current and future skills needs of employers (through skills forecasting) and align provision with these	
	4.3 Promote innovation and flexibility in the delivery of learning	
	4.4 Provide progression pathways for learners. across the national qualifications framework to improve permeability between vocational	

Directorate-General for Employment, Social Affairs and Inclusion
 Directorate C (Europe 2020: Employment Policies)

Success factor (revision in italics)	Current name of building block	Proposed change
	education and higher education	
5: Deliver high quality learning	5.1 Build knowledge base concerning what works in adult learning	Move to KSF 6
	5.2 Establish a quality control framework for monitoring and evaluation of adult learning programmes	<i>I don't think we need to change this.</i>
	5.3 Develop a skilled adult education workforce through initial teacher training and CPD.	
6: Co-ordinate an effective lifelong learning policy	6.1 Co-ordinate an adult learning (or lifelong learning) policy with other national policies for improving knowledge, skills and competences of adults	
	6.2 Establish mechanisms for policy alignment at local and regional levels	
	6.3 <i>Build a knowledge base concerning what works in adult learning</i>	
SYSTEM-LEVEL INDICATORS		
1 Increased participation in adult learning		
2 Improved skills and competences		
3 Higher quality of learning		
OUTCOMES		
1 Increased income		
2 Improved wellbeing (including health)		
3 Increased employability		
4 Reduced skills gap/more productivity		
5 More relevant qualification		
6 Higher GDP		
7 Increased levels of civic and social participation		
8 Improved levels of equality		
5) 3)		

Annex 6: Systematic review of online tools

This section presents a systematic review of scoreboards used in the field of adult learning as well as in other policy domains. They include:

- European Lifelong Learning Index;
- Composite Learning Index (Canadian Council on Learning);
- European Commission Single Market Scoreboard;
- European Commission dashboard of measure or variables on youth policy;
- Mapping of EU Member States Higher Education External Cooperation Programmes and Policies;
- European Massive Open Online Courses (MOOCs) Scoreboard;
- European Service Innovation Scoreboard;
- Digital Agenda for Europe Scoreboard; and
- European Commission State Aid Scoreboard.

Data was recorded on each tool as follows:

- The organisation that operates it and whether or not the tool is still live;
- The purpose of the tool;
- The intended audience of the tool;
- The data and information presented as part of the tool;
- Notable features of the tool that make it interactive or user-friendly; and
- Whether the tool can be updated.

Using this review helped us to identify “best practice” features as well as principles that would underpin design of the adult learning scoreboard. We then considered four possible design options for a scoreboard, as well as criteria by which these options would be assessed.

Composite Learning Index (Canadian Council on Learning)

Name	Composite Learning Index (http://www.cli-ica.ca/en.aspx) (the scoreboard was operational between 2006 and 2010)
Organisation	Canadian Council on Learning (abolished in 2012)
Purpose	<p>The Composite Learning Index (CLI) was developed as an annual measure of progress in lifelong learning in Canada. It was based on a combination of statistical measure or variables reflecting different types of learning available, including in school, in the home, at work or within the community.</p> <p>A high CLI score meant that a particular city, town or rural community possesses the kinds of learning conditions that fostered social and economic well-being. A low CLI score meant that a community was under-performing in certain aspects that are key to lifelong learning.</p>
Intended audience	The intended audience for the CLI was policy-makers at provincial, regional and local level. It also aimed to be accessible to the public to help Canadians understand the state of lifelong learning in their communities and to encourage them to think of concrete ways to improve on those conditions.
Data presented	<p>The CLI was composed of 17 measure or variables and 26 specific measures, which were organised under the four pillars of learning (learning to know, to do, to live together, and to be). It presented data in a number of formats:</p> <p>A “heat map” showing CLI scores for each province, town and rural area in Canada (see Figure A6.1);</p> <p>Tables showing the performance of each province, town and rural area on each measure or variable as well as ranking of “most improved” and “top</p>

Name	<p>Composite Learning Index (http://www.cli-ica.ca/en.aspx) (the scoreboard was operational between 2006 and 2010)</p> <p>performers” in each category (see Figure A6.2);</p> <p>Detailed case studies on how certain areas improved their standing on the CLI and what policy measures they took to achieve this; and</p> <p>Breakdown of data to enable comparison over geography and/or year.</p>
Notable features	<p>The scoreboard had a number of useful features:</p> <p>Users were able to download the relevant data for the region of interest (province, town or rural community);</p> <p>A “CLI Simulator tool” which enabled users to adjust a series of CLI measure or variables and witness the effect it can have on a community’s CLI score;</p> <p>A video tutorial on how to use the scoreboard is provided;</p> <p>Users were able to construct ‘motion charts’ - interactive graphs that enabled users to witness the interaction between CLI results, economic measure or variables, population and geographic location, and the industrial profile of a community; and</p> <p>Users were able to construct customised reports on the progress of their locality on achieving each of the measure or variables included in the CLI.</p>
Dynamic updating	<p>The scoreboard was operational between 2006 and 2012 and contains data for the years 2006-2010. While it was active, the data was updated annually.</p>

Figure A6.1: Composite Learning Index (Canadian Council on Learning) – home screen

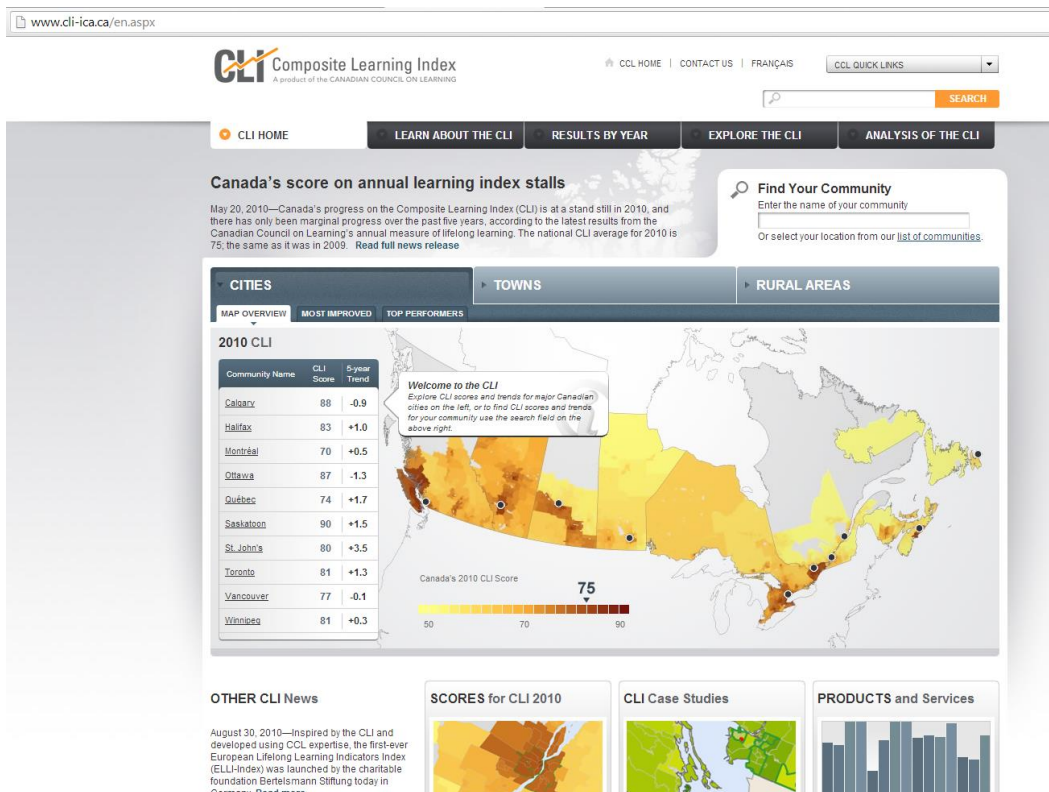
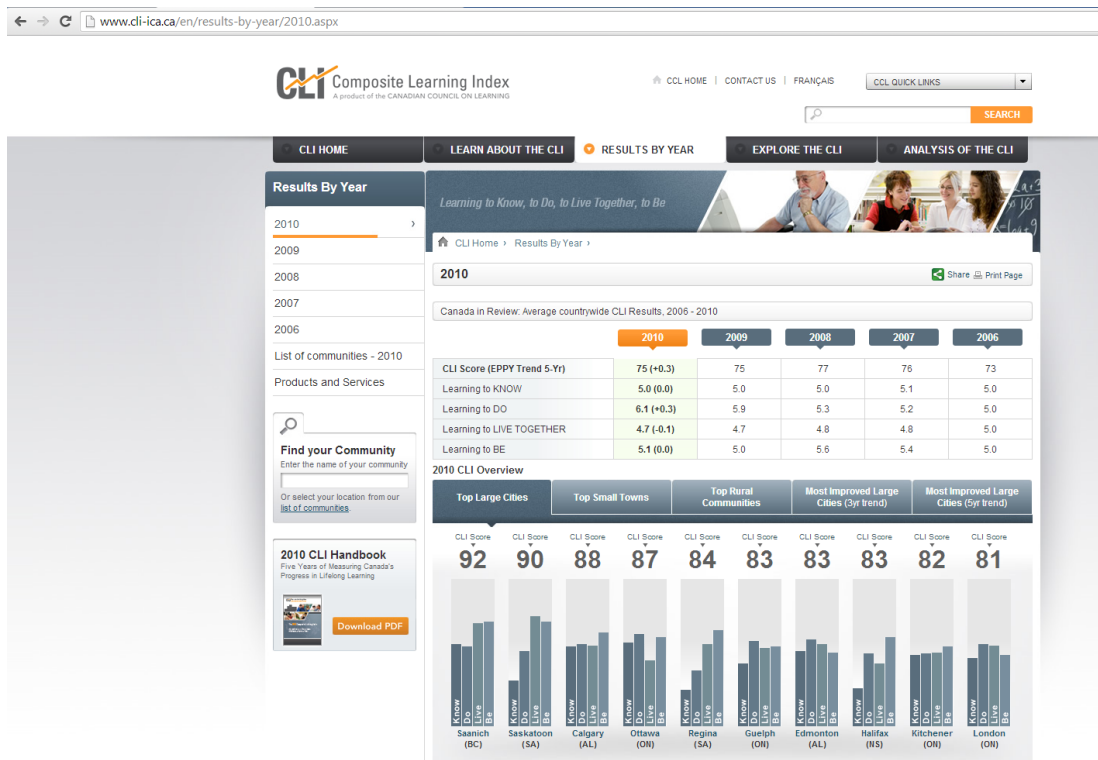


Figure A6.2: Composite Learning Index (Canadian Council on Learning) – Tabular presentation of data



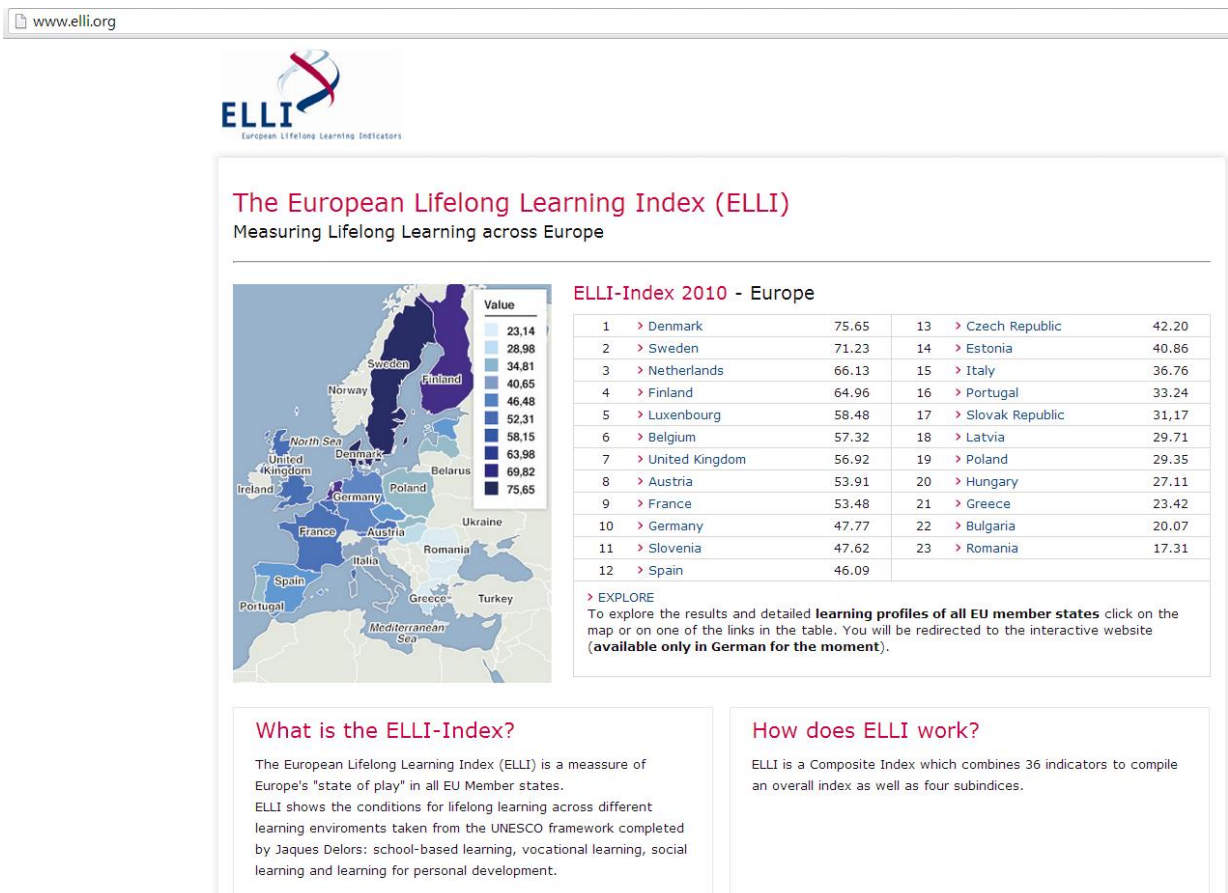
European Lifelong Learning Index

Name	European Lifelong Learning Index (http://www.elli.org/) (the scoreboard was launched in 2010 and has not been updated since)
Organisation	Bertelsmann Stiftung (non-profit organisation)
Purpose	The scoreboard is intended to provide access to data related to learning and socio-economic outcomes in Europe and to be a monitoring instrument to facilitate comparisons between Member States.
Intended audience	The scoreboard does not identify its intended audience. Supporting documentation states that the index (and presumably the website) has been developed with a view to be accessible to a wide audience ⁵² . This includes policy-makers, education researchers and practitioners, individual students and parents.
Data presented	Data is drawn primarily from Eurostat. The scoreboard presents a number of measure or variables to provide an overview on the state of lifelong learning in Europe: 36 measure or variables relating to lifelong learning in Europe (Examples participation rates in formal education and training, literacy skills (PISA), employees participating in CVT courses, labour market policies expenditure, and community engagement through cultural activities.); 4 composite sub-indices (drawn from the original 36) on social learning, vocational learning, personal learning and school-based learning; and

52 Bertelsmann Stiftung. What is the ELLI Project? (<http://www.elli.org/en/about-elli/the-elli-project.html/>)

	<p>One composite index of all 36 measure or variables – the European Lifelong Learning Index.</p> <p>It also provides a detailed profile of each EU Member State on the state of lifelong learning in that particular country.</p>
Notable features	<p>The scoreboard and supporting documentation mentions a number of planned design features⁵³:</p> <ul style="list-style-type: none"> • A heat map of all EU Member States showing their position on the European Lifelong Learning Index; • A tabular breakdown of the score of each Member State on the index; • A detailed report on lifelong learning in each Member State (these reports were not accessible at the time of review).
Dynamic updating	<p>The scoreboard is not currently up to date and some of the links are not functioning correctly (states that it is currently in the process of being developed). Data is from 2010. Supporting documentation states that it is intended that users will be able to add new data for existing geographical entities but will not be able to add new geographical entries⁵⁴.</p>

Figure A6.3: European Lifelong Learning Index – home screen



53 ibid

54 ibid

Single Market Scoreboard

Name	The Single Market Scoreboard (http://ec.europa.eu/internal_market/scoreboard/index_en.htm)
Organisation	European Commission
Purpose	The Single Market Scoreboard aims to give an overview of the practical management of the Single Market. It is designed to indicate what extent EU Member States and European Free Trade Area (EFTA) countries implement EU rules on the single market; how Member States cooperate in a number of policy fields where coordination is essential; and how much information and assistance they provide to citizens and businesses on their opportunities within Europe.
Intended audience	Policy-makers in Member States are the intended audience for the scoreboard. It is also intended to be accessible to members of the public and businesses across the EU.
Data presented	The scoreboard presents data and information on the following: <ul style="list-style-type: none">• Reports on progress of implementation of Single Market rules in a number of policy areas to given an indication of the performance of Member States against their Treaty obligations;• A grading (green, amber and yellow) of each Member State's performance in the implementation of Single Market governance tools;• Detailed reports on individual Member States' performance on implementation of governance tools using time-series data and other performance metrics.
Notable features	The scoreboard has a number of useful features: <ul style="list-style-type: none">• An interactive diagram that shows the "governance cycle" of the Single Market (Figure A6.5). Users can click on each component of this diagram and see the tools/policies that fall under each heading. Clicking on these tools/policies provides the user with a further, more detailed explanation.• A map that allows for users to click on each Member State and see a detailed report relating to their progress in implementing Single Market rules (Figure A6.6);• A "traffic light" chart shows at a glance how individual Member States have performed in terms of the governance tools and policy areas monitored, including the correct transposition of EU directives, infringement proceedings, administrative cooperation networks and various information and problem-solving services (Figure A6.7);• The traffic light chart is connected to the individual country reports, so clicking on Italy's progress in Transposition will bring the user to the relevant section of the detailed country report (Italy's record on Transposition).
Dynamic updating	It is regularly updated and a new edition of the Single Market Scoreboard is released every six months.

Figure A6.4: Single Market Scoreboard – home screen



Figure A6.5: Single Market Scoreboard – Governance Cycle



Figure A6.6: Single Market Scoreboard – Performance per Member State

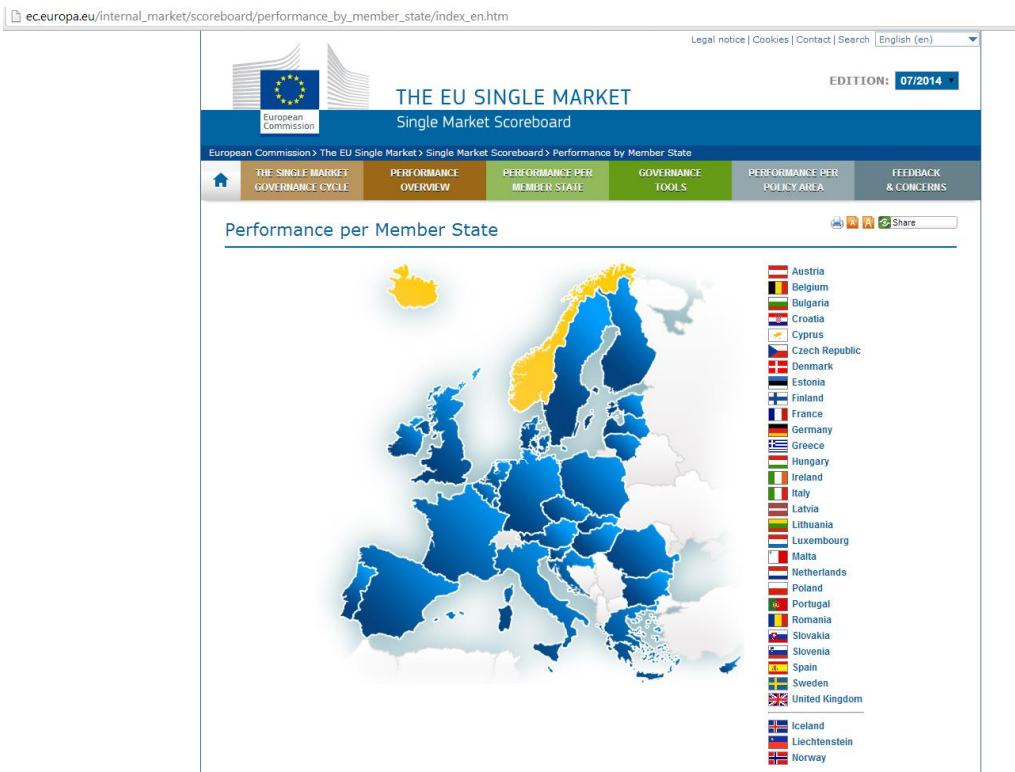
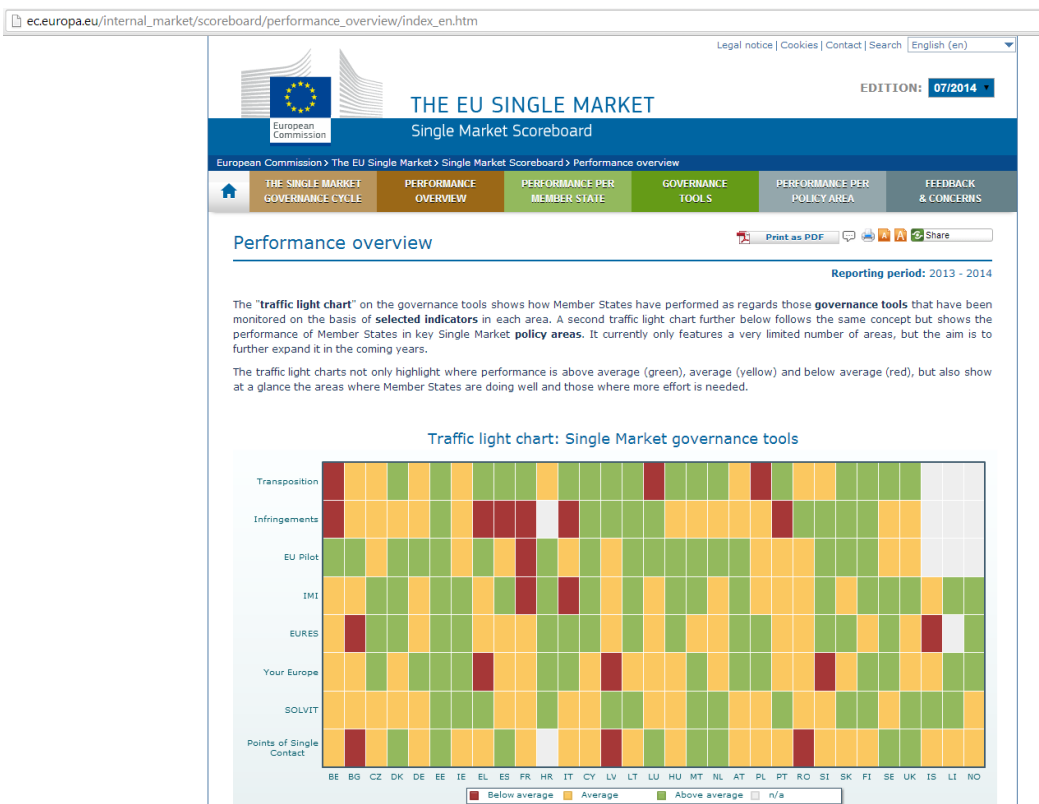


Figure A6.7: Single Market Scoreboard – Performance Overview



Mapping of EU Member States Higher Education External Cooperation Programmes and Policies

Name	Online Database on Higher Education External Cooperation
Organisation	European Commission (DG EAC) (developed by ICF)
Purpose	The online database on higher education external cooperation is designed to provide introductory information on how higher education external cooperation is supported at national level and to compare the programmes and policies of each Member State. The scoreboard also offers information on national initiatives and practices as well as useful links for further reading.
Intended audience	The tool is intended to help European policy-makers and practitioners interested in getting further insights into ongoing national policies and programmes in this field.
Data presented	<p>The data provided in the scoreboard results from a mapping study on external cooperation in education and training initiated in 2008. The website provides:</p> <ul style="list-style-type: none"> • Individual country fiches which detail the extent of higher education external cooperation policies in each of the Member States; • A searchable database of ongoing external cooperation programmes with information on characteristics such as the level/type of higher education, the budget associated with each programme and the target groups for each programme; • Information on the methodology used in the project; and • Reports and other written information sources that may be of interest to users.
Notable features	<p>There are a number of user-friendly features that are part of the scoreboard including:</p> <ul style="list-style-type: none"> • Search functions (basic and advanced) that allow users the ability to get information on individual programmes in each Member State (Figure A6.8); • Individual country fiches which can be accessed through the website (Figure A6.9) • A “heat map” that indicates the number of programmes per Member State as well as other sub-categories of data (these can be filtered using the search functions); and • A library of resources and links to further reading.
Dynamic updating	The database was designed so that it can be updated if required. The most recent data available is from 2010.

Figure A6.8: HE External Cooperation Programmes and Policies Scoreboard – Programmes Information

www.mapping-he.eu/Programmes/Default.aspx

- Austria (3)
- Belgium (6)
- Bulgaria (5)
- Cyprus (5)
- Czech Republic (3)
- Denmark (7)
- Estonia (2)
- Finland (14)
- France (7)
- Germany (10)
- Greece (5)
- Hungary (4)
- Iceland (3)
- Ireland (8)
- Italy (6)
- Latvia (15)
- Liechtenstein (2)
- Lithuania (9)
- Luxembourg (1)
- Malta (6)
- Netherlands (4)
- Norway (1)
- Poland (10)
- Portugal (6)
- Romania (2)
- Slovakia (7)
- Slovenia (4)
- Spain (18)
- Sweden (4)
- United Kingdom (10)

Programmes

This section of the site offers the possibility to find information and/or refine one's search on ongoing higher education external cooperation programmes managed by EU/EEA countries.

The search tool set out below has been designed accordingly with the main categories used in the templates provided online. All these were previously validated at national level. As mentioned in the 'About the project' section (see 'Methodology'), the list of programmes provided online is not meant to be exhaustive but to be rather considered as a 'snapshot' of up-to-date information.

In order to make this tool as user-friendly as possible, users can, as a minimum, search by 'country managing the programme(s)'; target regions or countries (i.e. within third countries). This functionality is accessible via the 'Basic search' option which is set out below. Users wishing to either refine their search or looking for more specific information are furthermore offered the possibility to search information according to the following criteria: levels and types of higher education; target groups (e.g. students, teaching staff, administrative staff, institutions, etc.); types of cooperation/activities (e.g. mobility, institutional and academic cooperation); financial category/size of the programmes per year. This functionality is accessible via the 'Advanced search' option which is also set out below.

In practice, users can select (i.e. simply clicking on the different items) any criteria of their choice within the different scroll down lists provided under the 'Basic search' and/or 'Advanced search' functions. Depending on users' needs, both functions can be indeed used separately or simultaneously.

Search Tool

Basic Search

Home Countries Managing Programmes

Regions

Target Countries

Advanced Search

Levels and types of Higher Education

Target Groups

Types of cooperation/activities

Financial category/size of the programmes per year (€)

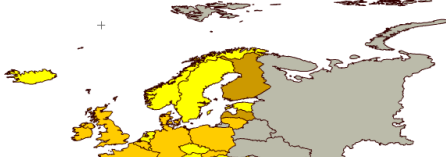


Figure A6.9: HE External Cooperation Programmes and Policies Scoreboard – Policies Information

www.mapping-he.eu/External_Coordination_Policies.aspx

Mapping European Union Member States Higher Education External Cooperation Programmes and Policies


Home | About the Project | Policies | Programmes | Links | Contact

Policies

This section contains comprehensive introductory chapters on national policies aimed to support external cooperation in the field of higher education. They include up-to-date key data on the internationalisation of higher education, information on main policies and strategies as well as on key actors involved in the process and useful links for further reading.

These introductory chapters have been produced as part of the first phase of the Mapping study, reviewed and updated for the purpose of the second phase. Their reference year is 2010.

This part of the database offers information on European (EU 27, Iceland, Norway and Liechtenstein) and four major industrialised countries (Canada, Australia, Japan and the USA) policies.



EU Countries

EEA Countries

--	--	--

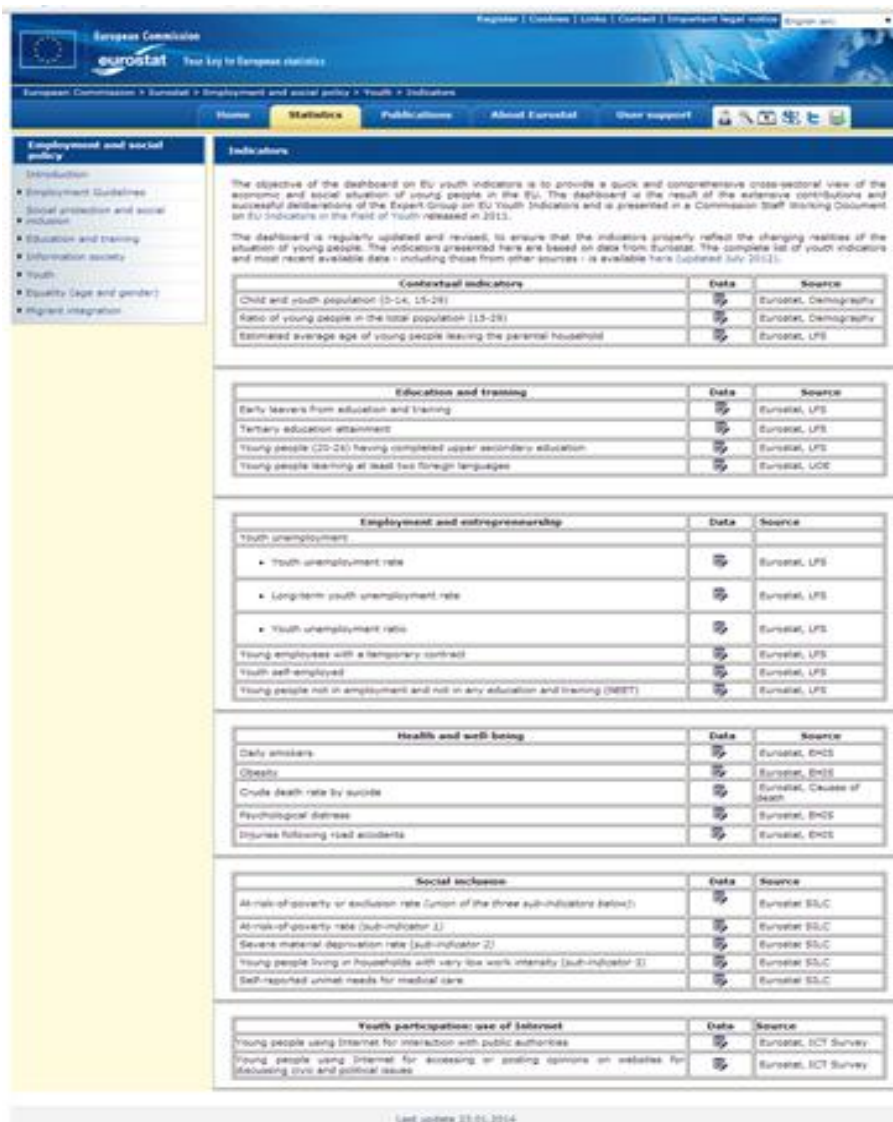
Non EU Countries

--	--	--	--

Dashboard of measure or variables on youth policy

Name	Dashboard of measure or variables on youth policy (http://epp.eurostat.ec.europa.eu/portal/page/portal/employment_social_policy_equality/youth/measure_or_variables)
Organisation	European Commission
Purpose	The objective of the dashboard on EU youth measure or variables is to provide a quick and comprehensive cross-sectoral view of the economic and social situation of young people in the EU. The dashboard is the result of the extensive contributions and successful deliberation of the Expert Group on EU Youth Measure or variables.
Intended audience	There is no intended audience identified for the dashboard.
Data presented	The measure or variables presented in the dashboard are based on data from Eurostat. Measure or variables are presented by category. Data is drawn from Eurostat, the Labour Force Survey, UOE (UNESCO/OECD/EUROSTAT), Member State Census data, the European Health Interview Survey and European Union Statistics on Income and Living.
Notable features	The dashboard has a number of features: <ul style="list-style-type: none">• Users can click on each measure or variable and are brought to the relevant measure or variable in the Eurostat database for all Member States by year;• Data for each measure or variable can be presented by sub-category; and• Data can be downloaded by the user to a spreadsheet for further analysis.
Dynamic updating	The scoreboard states that it is updated regularly. The most recent data available is from 2013.

Figure A6.10: Dashboard on EU Youth Measure or variables – home screen



European Massive Open Online Courses (MOOCs) Scoreboard

Name	European Massive Open Online Courses (MOOCs) Scoreboard (http://openeducationeuropa.eu/en/european_scoreboard_moocs)
Organisation	European Commission (Open Education Europa)
Purpose	The aim of the scoreboard is to highlight the extent of MOOCs hosted by European institutions and to visualize this by compiling a database of the existing European-provided MOOCs available on different open websites.
Intended audience	The intended audience for the scoreboard is the public. The scoreboard is intended to be a resource for them to see what MOOCs are available and where they are available.
Data presented	The data is compiled by Open Education Europa Staff and consists of information on the MOOCs offered by European institutions. Information is presented on the following: The number of MOOCs in the EU, as well as the number of MOOCs in each Member State;

<p>Name</p>	<p>European Massive Open Online Courses (MOOCs) Scoreboard http://openeducationeuropa.eu/en/european_scoreboard_moocs</p> <ul style="list-style-type: none"> • The distribution of MOOCs across each subject area; • The growth rate of European versus non-European MOOCs; and • The number of new MOOCs starting the following September.
<p>Notable features</p>	<p>There are a number of user-friendly features as part of the scoreboard including:</p> <ul style="list-style-type: none"> • Data on the distribution and availability of MOOCs is presented in a graphical display on the home page of the website (Figure A6.11); • Links are provided to further information on each of the MOOCs; • Data can be downloaded to a spreadsheet or the graphics can be downloaded as a pdf file; • The scoreboard provides a link to a MOOC “aggregator” that provides a searchable database for users wishing to find a certain MOOC or the MOOCs offered by a certain institution.
<p>Dynamic updating</p>	<p>The scoreboard is updated every month, following an updating of the database.</p>

Figure A6.11: European MOOCs Scoreboard - Home page



European Service Innovation Scoreboard

Name	European Service Innovation Scoreboard (ESIS) Online Tool (http://ec.europa.eu/enterprise/initiatives/esic/scoreboard/esis-database/index_en.htm)
Organisation	European Commission (DG Enterprise and Industry)
Purpose	<p>The purpose of the ESIS online scoreboard is to demonstrate the effect of the 'transformative power' of service innovation. There are three different scorecards included in the ESIS scoreboard:</p> <ul style="list-style-type: none"> • The ESIS scorecard for service innovation and transformative power measures the importance of service innovation in a region; • The ESIS scorecard for systemic functions and structural measure or variables which can be used to inform regional policy making; and • The ESIS scorecard for the general socio-economic situation which provides a summary of the economic performance of a region reflecting the overall results of its policies, innovation and business activities.
Intended audience	The intended audience for the ESIS scoreboard are policy-makers at national level and regional level in Member States. The scoreboard is also intended to be accessible to the public.
Data presented	<p>The three scorecards presented are drawn from 59 measure or variables. These measure or variables are used to present a statistical profile of each region or Member State. These profiles show the relative strengths and weaknesses of the regions or Member States and highlight potential areas for new policies aimed at improving the impact of service innovation. These results can then be compared with the overall EU27 performance.</p> <p>Examples of measure or variables include measures from the Community Innovation Survey (CIS), such as the proportion of enterprises introducing service innovations or employment shares in so-called 'service innovation-intensive industries'. There are also measure or variables from other sources including Gross Domestic Product (GDP), employment shares of highly educated people and Knowledge-Intensive Business Services (KIBS).</p> <p>The self-assessment feature on the tool</p>
Notable features	<p>There are a number of user-friendly features that are part of the website including:</p> <ul style="list-style-type: none"> • A map which can be used to select a particular country or a region in Europe and then to see the values for the measure or variable data. This can be further broken down to display data at regional level by clicking on a country on the map; • Geographical areas can be examined by one, or all, of the 59 measure or variables. A map and bar chart is generated in which the data in question is compared to the EU27 average; • Qualitative data reports on service innovation are also provided for each region; • The performance of a Member State/region can also be compared to another Member State/region); and • A self-assessment tool with which can be used to encourage

reflection on the implementation of innovation policy in a particular region/country (Figure A6.13 and Figure A6.14).

Dynamic updating

The scoreboard is in the process of being updated to include other European countries by the end of 2014. Regional coverage for some Member States is also in the process of being updated. Data is only available for 2014 and there was no information available on the frequency with which the scoreboard will be updated in the future.

Figure A6.12: ESIS Online Tool – home page

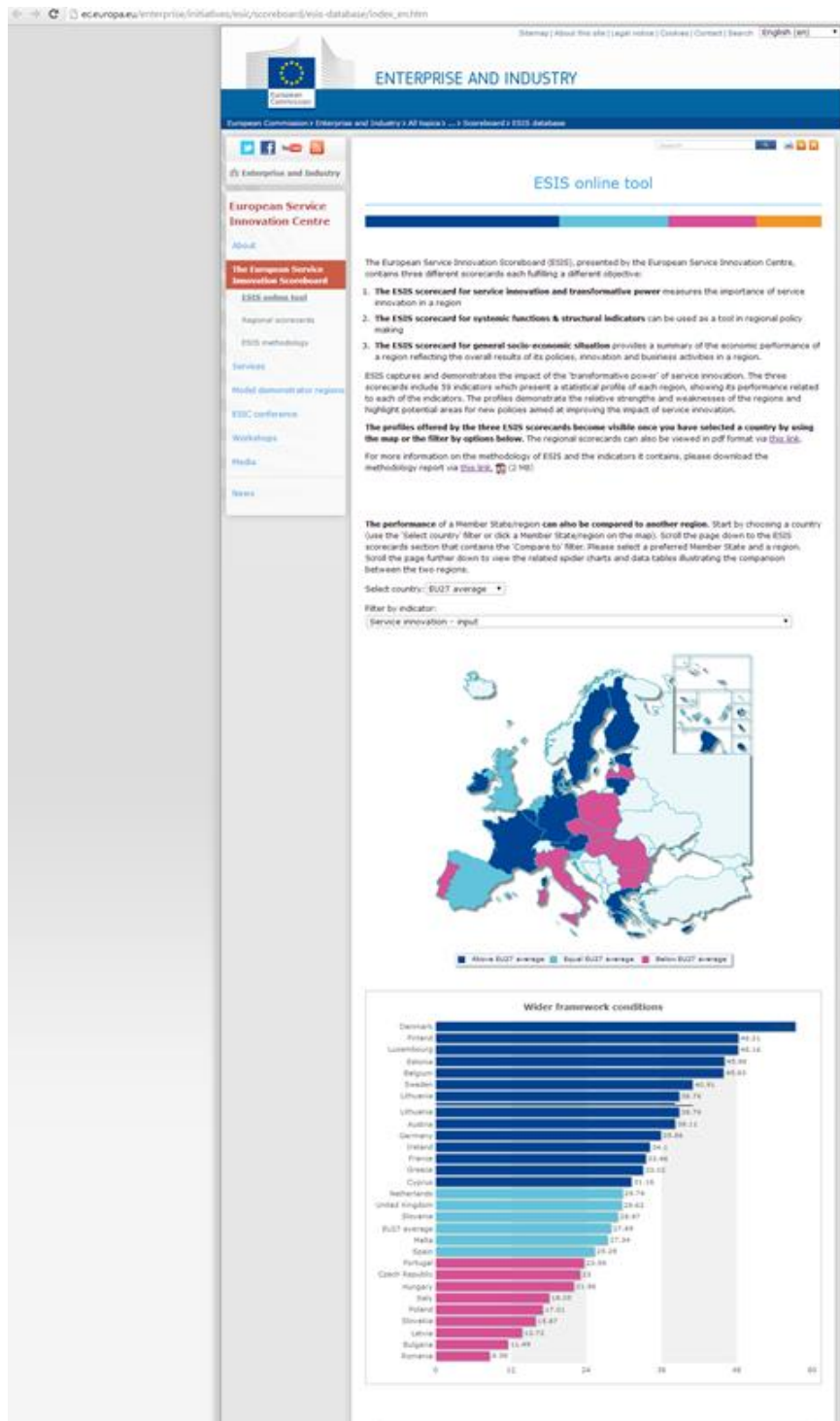


Figure A6.13: ESIS Online Tool – Self assessment tool – questions

← → ec.europa.eu/enterprise/initiatives/esic/services/self-assessment/index_en.htm#

Workshops
Media
News
Events
Publications
Useful links
Contact

Select your region: Ireland | Border, Midland and Western

1.1. Innovation and business model generation

Please choose one of the following three statements.

- The political hierarchy in your region does not recognise service innovation to an adequate extent.
- There is a strong high-level political commitment to support service innovation as a catalyst to regional development and economic transformation.
- Individual targeted policy measures that support services or service innovation receive adequate attention at the political level and are recognised as important.

Please choose one of the following three statements.

- Service innovation is fully addressed by your regional innovation policy mix and integrated into measures aiming at generating new business models in the region.
- Support to business innovation is focused on fostering research activities in firms and the development or the acquisition of new technologies.
- There are specific policy measures in support of business innovation launched that are targeted at services firms.

Please choose one of the following three statements.

- Initiatives have been launched to involve users into innovation processes which focus on specific services industries such as in the area of ICT, telecommunications, creative industries etc.
- Your regional innovation policy supports living labs, design or user community platforms in any industrial area including manufacturing industries where users and producers can interact and develop new business models.
- User-driven innovation is not addressed by your regional policy mix.

1.2. Knowledge development and transfer

Please choose one of the following three statements.

- Support to knowledge transfer is focused mainly on technology transfer and fostering knowledge spillovers between 'research' (universities) and businesses.
- There are specific knowledge transfer measures targeting services and service industries.
- Service innovation forms an integral part of knowledge transfer measures in your regional policy mix, where the linkages between manufacturing and service industries are encouraged.

Please choose one of the following three statements.

- Universities or higher education institutions in your region offer specific courses on service innovation or on integrating design into manufacturing.
- Engineering, economics or business related education does not tackle service innovation and does not offer any particular knowledge on that to students in your region.
- University education offers specific interdisciplinary diplomas that connect engineering, business and design/service thinking.

Please choose one of the following three statements.

- Your regional policy is advised by strategic intelligence and policy learning to deepen its knowledge and understanding about the potential of service innovation to transform the economy.
- Studies have been commissioned about services industries, design support or service innovation that advised regional policy makers.
- No strategic intelligence about service innovation is available or organised.

1.3. Financing innovation and growth

Please choose one of the following three statements.

- There are no financial sources available to support service innovation in your region.
- There are adequate dedicated financial and other means to support the implementation of a regional service innovation strategy that integrate service innovation throughout regional innovation support.
- A specific funding pool has been allocated to support specific services industries in your region.

Please choose one of the following three statements.

- There are specific innovation funds or financial mechanisms in place in your region that focus on service industry firms, for instance particularly funding projects concerning new service concepts.
- Support to financing innovation and growth is available for integrated service innovation projects that focus on developing hybrid product-service offerings.

Figure A6.14: ESIS Online Tool – Self-assessment tool – evaluation

ec.europa.eu/enterprise/initiatives/esic/services/self-assessment/index_en.htm#

Sitemap | About this site | Legal notice | Cookies | Contact | Search English (en)

ENTERPRISE AND INDUSTRY

European Commission

European Commission > Enterprise and Industry > All topics > Services >

Enterprise and Industry

European Service Innovation Centre

About

The European Service Innovation Scoreboard

Services

Self-Assessment Tool

Model demonstrator regions

ESIC conference

Workshops

Media

News

Events

Publications

Useful links

Contact

Self-Assessment Tool

Evaluation of the questionnaire

Disclaimer: Please note that this self-assessment tool aims at raising attention to service innovation and initiate discussions about the regional innovation policy mix, but does not claim that it can assess the regional policy mix to any extent.

Your answers reflect that:

You are following a policy where individual policy measures reflect technological, demarcation and systemic approaches, but none is dominant.

Your regional innovation policy might not exploit the potential in service innovation and more would need to be done to address service innovation through better integrating a systemic thinking about innovation into the regional innovation policy and to better link manufacturing to service industries.

Each reply corresponds to a type of policy approach. The scoring and typologisation of the regional policy mix follows the logic of service-innovation policy groups:

Score	Response
Technological approach	Support to service innovation in the policy mix is non-existent.
Demarcation approach	'Demarcation' type of answer: Services and service innovation are supported in ways that are fundamentally distinct from manufacturing-based approaches, mainly through vertical policy measures that are specific for individual service sectors (OECD, 2012).
Systemic approach	'Systemic' type of answer: A systemic approach values the interrelations between technological and service innovation and aims to create structures and incentives that optimise the functioning of the entire innovation system. (OECD, 2012). The Smart Guide to Service Innovation provides further conceptual explanations and concrete examples for practical measures. Further information is available at the ESIC webpages http://ec.europa.eu/enterprise/initiatives/esic/materials/expert_panel_report.pdf

Your policy approach has been also compared to the indicators of the European Service Innovation Scoreboard along five innovation system dimensions such as:

1. Entrepreneurship
2. Knowledge development and transfer
3. Innovation and business model development
4. Financing innovation and growth
5. Collaboration and networking

The spider diagram below is illustrating both your policy approach and service innovation performance. Please bear in mind that this does not mean a judgement about your policy or performance but has the objective to spark reflection and should be followed up with a further analysis.

Comparison between the service innovation performance and your policy approach

1.1. Innovation and business model generation

1.2. Knowledge development and transfer

1.3. Financing innovation and growth

1.4. Entrepreneurial activities

1.5. Collaboration & networking

Legend: ■ Border, Midland and Western's score on ESIS ■ Your answers

The scores and area highlighted in blue show the service innovation performance as captured by the indicators of the European Service Innovation Scoreboard (ESIS). The scores and area highlighted in pink display the results of your self-assessment that indicate how much service innovation has been considered in the policy approach of your region. This overview may indicate, for instance, whether service innovation has been considered sufficiently across the five dimensions of the innovation system. In addition, the comparison between the two results (i.e. blue versus pink) may provide further input for a policy discussion. For instance, on whether the policy approach in your region focuses on addressing bottlenecks (i.e. a dimension with a low ESIS score).

Please contact ESIC for further analysis.

Digital Agenda Scoreboard

Name	Digital Agenda Scoreboard (http://ec.europa.eu/digital-agenda/en/digital-agenda-scoreboard)
Organisation	European Commission (DG CONNECT)
Purpose	The Digital Agenda Scoreboard assesses progress with respect to the 13 specific goals set in the Digital Agenda for Europe (DAE). It is used to chart the progress of both announced policy actions and key performance targets, to allow the monitoring and benchmarking of the main developments in the information society in Member States.
Intended audience	The Digital Agenda Scoreboard does not specify who its intended audience is. However, the scoreboard is likely to be of interest to policy-makers at Member State level.
Data presented	<p>The overall progress of the EU in meeting the 13 targets set by the Digital Agenda for Europe is calculated and presented in graphical form on the home page (see Figure A6.16)</p> <p>Data is presented in two forms – reports provided by the European Commission and also quantitative data on about 100 measure or variables (corresponding to the actions identified in the Digital Agenda for Europe), divided into thematic groups, for all Member States over a number of years.</p> <p>Data and reports are accessible in a number of different ways:</p> <ul style="list-style-type: none"> • By theme – themes are broadband, Internet use, Digital Skills and Online content, eGovernment and eHealth and ICT Sector and R&D; • By Member State – profiles on progress in implementation in each Member State have been generated and can be accessed; • By Pillar – the seven pillars of the Digital Agenda for Europe are used to categorise the data and reports provided by the European Commission.
Notable features	<p>There are a number of user-friendly features that are part of the website including:</p> <ul style="list-style-type: none"> • A tool which allows users to generate 10 different types of graph exploring progress in implementation of the Digital Agenda for European goals (Figure A6.17) including analysis of one measure or variable across countries, evolution of one measure or variable over time and comparison of two measure or variables; • A video tutorial on how to use the scoreboard; • Individual country profiles can be generated and accessed for each Member State to provide an assessment of progress in meeting the 13 goals of the Digital Agenda for Europe; • Users can download data from the scoreboard from the results of Eurostat ICT community surveys and datasets compiled by DG CONNECT; and • Users can access reports compiled by DG CONNECT through a bibliography section.
Dynamic updating	The Digital Agenda Scoreboard is an annual publication. Data is collected every year and has been collected since 2009.

Figure A6.15: Digital Agenda Scoreboard – home screen



Figure A6.16: Digital Agenda Scoreboard – Progress in meeting targets

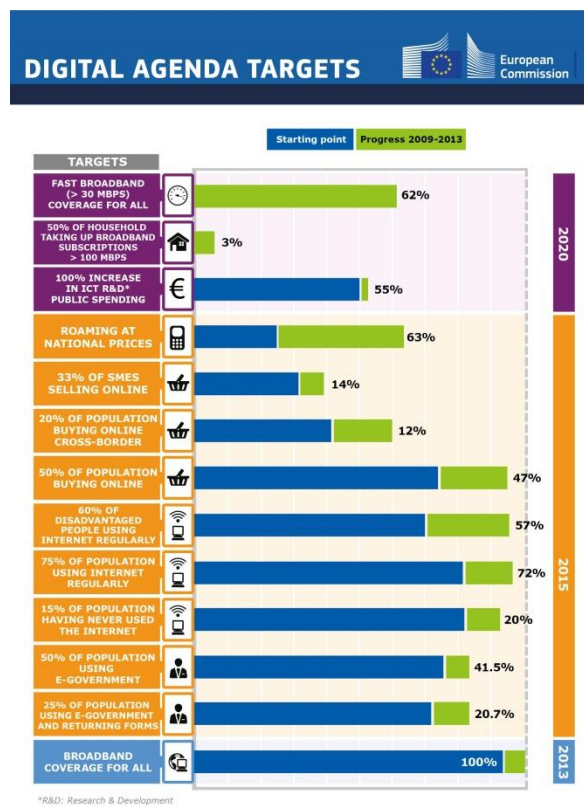
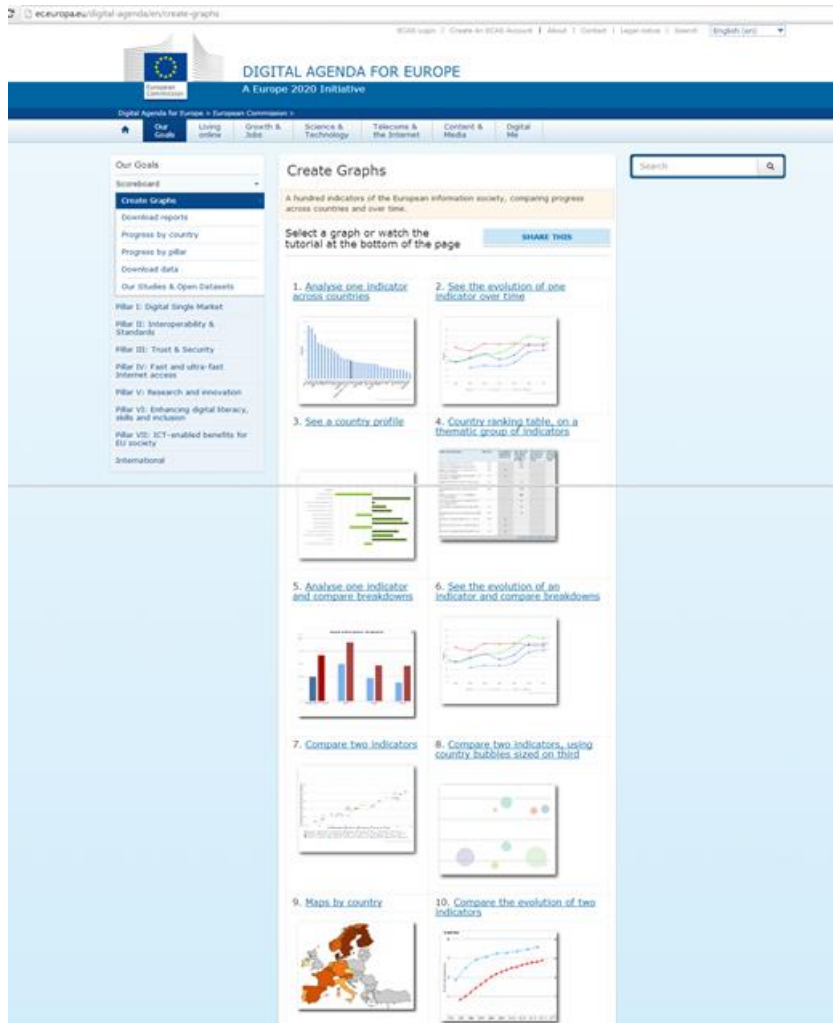


Figure A6.17: Digital Agenda Scoreboard – Create graphs



State Aid Scoreboard

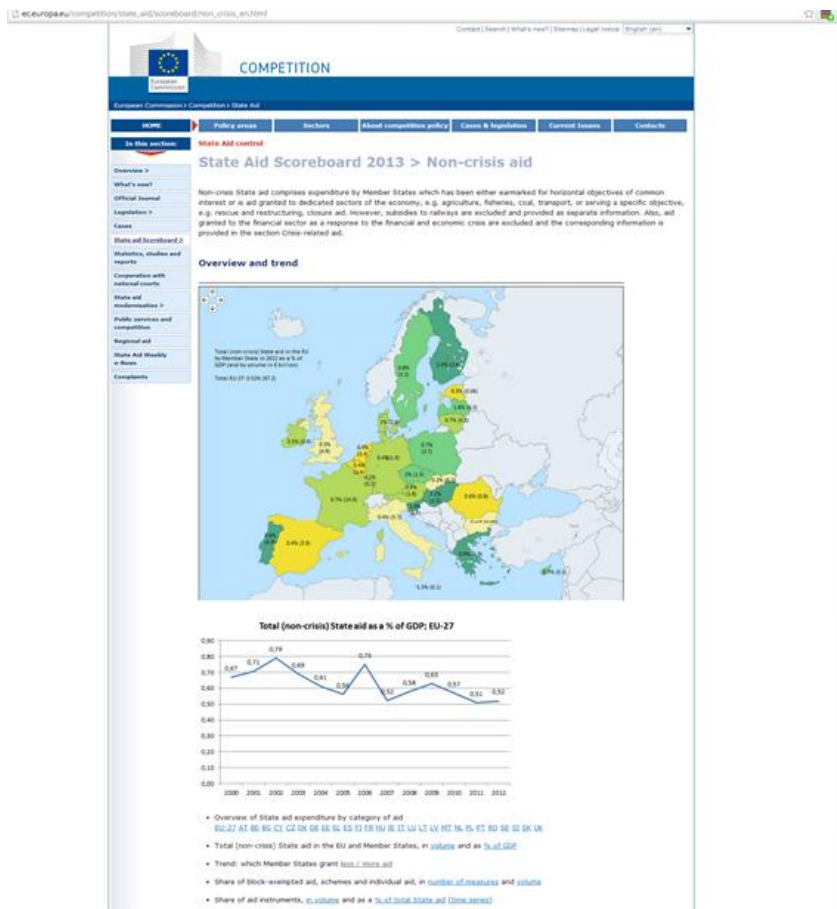
Name	European State Aid Scoreboard (http://ec.europa.eu/competition/state_aid/scoreboard/index_en.html)
Organisation	European Commission (DG COMP)
Purpose	The State Aid Scoreboard is the Commission's benchmarking instrument for providing a transparent and publicly accessible source of information on state aid expenditure in the EU and the Member States.
Intended audience	The intended audience for the scoreboard is policymakers from across the EU. It is also intended to be accessible to the public.
Data presented	<p>The information is based on the annual reports on state aid which are provided by Member States to the Commission.</p> <p>The scoreboard structure is presented in the diagram that the user sees on the home page when logging on to the website (see Figure A6.18). Data is presented in two main categories:</p> <p>Crisis-related aid (e.g. state aid provided to address the effects of the financial crisis);</p>

Name	European State Aid Scoreboard (http://ec.europa.eu/competition/state_aid/scoreboard/index_en.html)
	Non-crisis aid (e.g. targeted at sectors of the economy or across the economy) Both qualitative and quantitative data is presented for each country.
Notable features	<p>There are a number of notable features about the scoreboard:</p> <ul style="list-style-type: none"> • Data can be viewed in various formats – table, graph or map; • The scoreboard diagram (see Figure A6.18) is the main route by which the user can access the data. For example, if the user clicks on 'non-crisis aid' (see Figure A6.19), they are brought to a map showing the various levels of non-crisis aid across the EU, as well as a graph displaying the evolution of that measure or variable over time; • A link is provided for users to access the archive of previous State Aid Scoreboards; • There are links to various reports that may be of interest to the user as well as graphs displaying other measure or variables of interest; and • Data can be downloaded for each individual Member State for further analysis by the user.
Dynamic updating	The scoreboard is published on an annual basis. Data is available for all years since 2000. Earlier data was collected for State Aid Surveys, which preceded the establishment of the scoreboard.

Figure A6.18: State Aid Scoreboard – Home screen



Figure A6.19: State Aid Scoreboard – Example of data presented



Annex 7: Guidelines for the prototype tool

These guidelines provide guidance for the technical aspects of the prototype tool, as well as the application of the tool in policy areas on a European, national and regional level.

As development of the tool proceeds, modifications to these guidelines may be necessary.

Technical guidance for the tool

Outline of the tool

The tool is a web-based, database-driven application hosted on the EPALE platform. The prototype has been developed using the Drupal 7 Multisite platform.

The structure of the tool is shown below in Figure A7.1. This shows how the various sections of the tool are linked/. The measures and data section can be accessed directly from the section which outlines the conceptual framework.

Figure A7.1: Outline of tool structure



Security

The publicly viewable adult learning tool will not have any functionality to allow public users to log in to the website. No password or login policies will be required.

Data storage

Data in the tool is stored in a specific database. Data is stored according to the following fields (depending on availability), and in the following hierarchy:

- High-level category (key success factor/system-level indicator);
- Individual system-level-indicator or building block
- Measure or variable of choice;
- Country;
- Years
 - Subgroup characteristics (gender, economic status, age group).

Updating of the tool

We appreciate that the next stage of tool development / implementation for the Commission will include making a decision about where exactly the tool should sit on the EPAL platform and who (within the Commission or externally) will have responsibility for updating the data over time. We have not therefore presumed how this will happen in practice, other than to provide below an outline of approach and requirements for doing so.

The tool will include a password-protected content management system to enable updating of source information. It also allows users to update information relating to measures and variables. This is done by clicking on the admin link on the top right of the screen, and provides users with additional links to 'edit' or enter 'new' data as relevant.

The data for the measures and variables we have identified are outlined in 0 as well as the frequency with which they are updated. Most of the quantitative and the qualitative sources are not frequently updated. Currently, only quantitative measures and variables taken from the EULFS, the DG EMPL Labour Market Policy database, and the UNESCO, OECD, Eurostat (UOE) database are updated on a frequent basis.

It is suggested that an annual updating of the data would be most effective for maintaining the tool. This would involve sourcing data from at least five of the sources, with other data being updated as it becomes available. Checking and updating the tool every year will require appropriate protocols to be put in place.

Table A7.1: Data sources used in selecting measures and variables

Data source	Responsible organisation	Coverage	Frequency of updating
Quantitative data sources			
Adult Education Survey (AES)	Eurostat	EU27+NO, CH and the Republic of Serbia (2011)	Every 5 years, next cycle 2016 (data available later)
Adult Skills Survey (PIAAC)	OECD	2012: AT, BE-FL, CY, CZ, DE, DK, EE, ES, FI, FR, IE, IT, NL, NO, PL, SK, SE, UK(England, N. Ireland) 2016: EL, LT, SI	Some countries in the first wave may repeat the survey in 2018. A repetition of the survey in all countries is under discussion for the early 2020s.
Continuing Vocational Training Survey	Eurostat	EU28 +NO	Every 5 years, next cycle 2015 (data available later).
EU Labour Force Survey	Eurostat	EU28+EFTA	Annually (and quarterly)
Labour Market Policy (LMP) database, DG Employment, Social Affairs and Inclusion	European Commission	EU28	Annual

The Special Eurobarometer 417 – European area of skills and qualifications.	Eurobarometer/European Commission	EU28	One-off study unless a repeat is requested.
The UOE Database	UNESCO/OECD/EUROSTAT (UOE)	EU28+EFTA	Annual
Qualitative sources			
Cedefop Trends in VET policy in Europe report	Cedefop	EU28+NO, IS+ Candidate countries	2012, 2014
EU Skills Panorama	Cedefop/European Commission	EU28+EFTA	Annually
European Inventory on validation of non-formal and informal learning	Cedefop/European Commission	EU 28+EFTA	Unregularly, next update late 2014
Eurypedia	Eurydice	EU28+EFTA	Annual

Application of the tool for policy purposes

The main functions of the tool that we anticipate to be of interest to policymakers are outlined below:

- Exploring the conceptual framework;
- Accessing the measures and data;
- Accessing the country report for an individual Member State; and
- Accessing additional resources on adult learning.

Logging on

The user logs onto the tool and is presented with an introductory screen (Figure A7.2). This provides useful information on:

- The background to the tool (Figure A7.2);
- Details on the information and data contained on the tool;
- Contact details for the administrators of the tool (Figure A7.4); and
- An outline of the tool to assist navigation.

Figure A7.2: Tool – Introductory screen

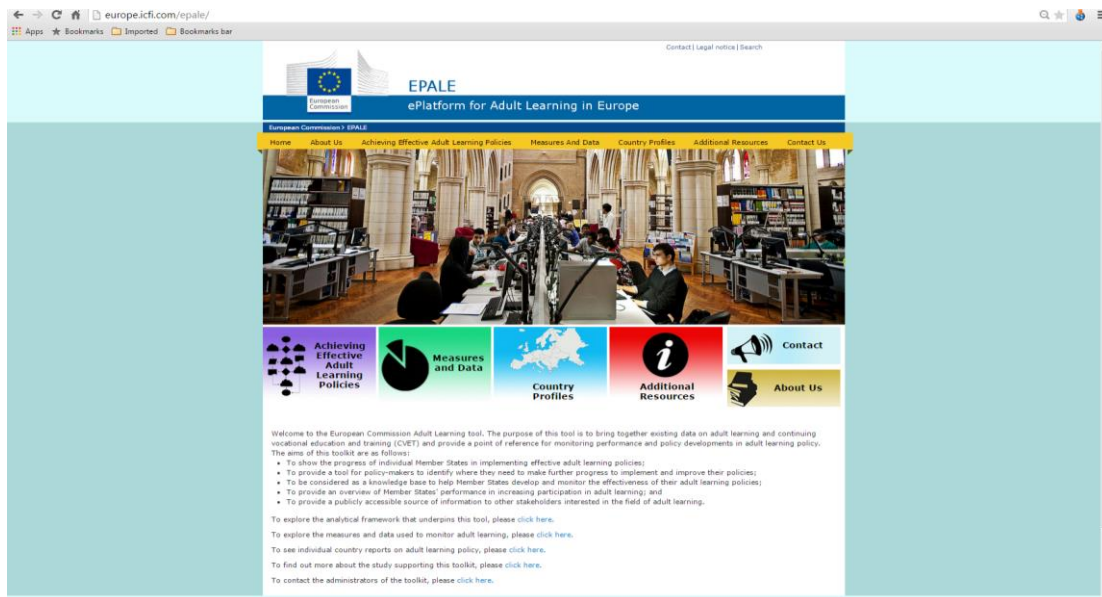


Figure A7.3: Tool – “About us”

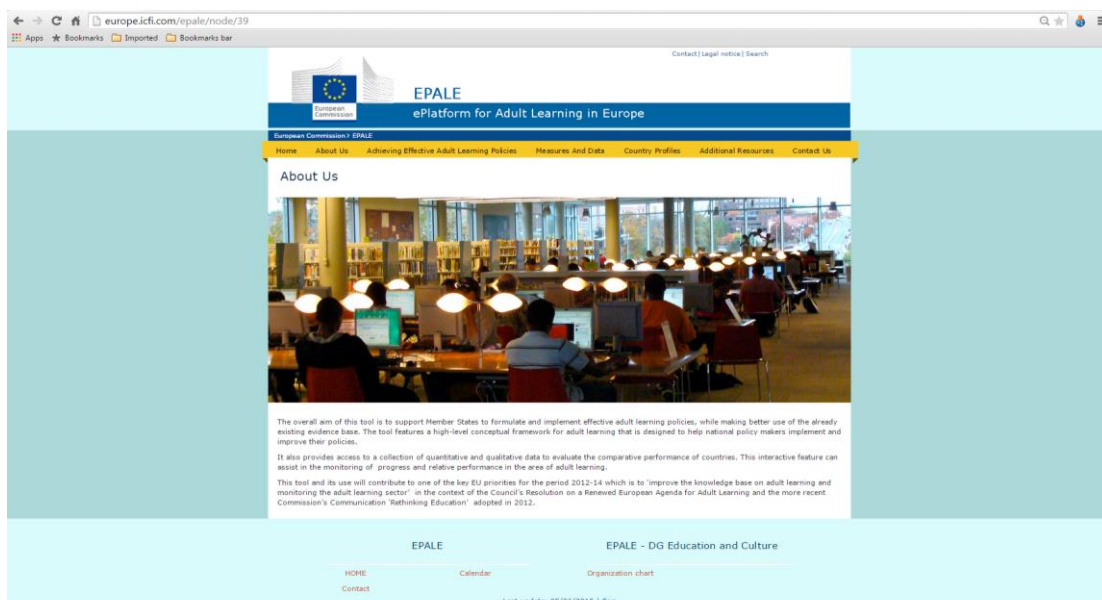


Figure A7.4: Tool – “Contact us”



Exploring the conceptual framework

The second section of the website presents the user with an overview of the conceptual framework for the study. It explains the overall structure of the framework (Figure A7.5) and shows how the logic chain underpinning the framework works. The user has the option of hovering the cursor above each element to access a definition of success factor, building block, system-level indicators and outcomes (an example is demonstrated in Figure A7.6).

The list of key success factors are accessed by clicking on the "success factor" section of the diagram (Figure A7.7). This presents the six key success factors that underpin the framework. In order to see the building blocks for each success factor, the user can click the success factor of interest. They are then presented with a list of the building blocks in that success factor (Figure A7.8).

Hovering the cursor over each building block provides a longer description of the policy action in question as well as an indication of the strength of the evidence underpinning the choice of building block. Clicking on the building block itself also brings the user to the section of the tool that provides access to measures and data for the monitoring of that particular policy action. The user can click on each key success factor and examine the building blocks in each.

Once the user has chosen to see all the particular building blocks in a success factor, they will also be presented with the three main system-level indicators (that measure effective adult learning) as well as the positive outcomes which are associated with adult learning. By clicking on each of the system-level indicators, the user is brought to the relevant measures and data available.

Figure A7.5: Tool – introducing the conceptual framework

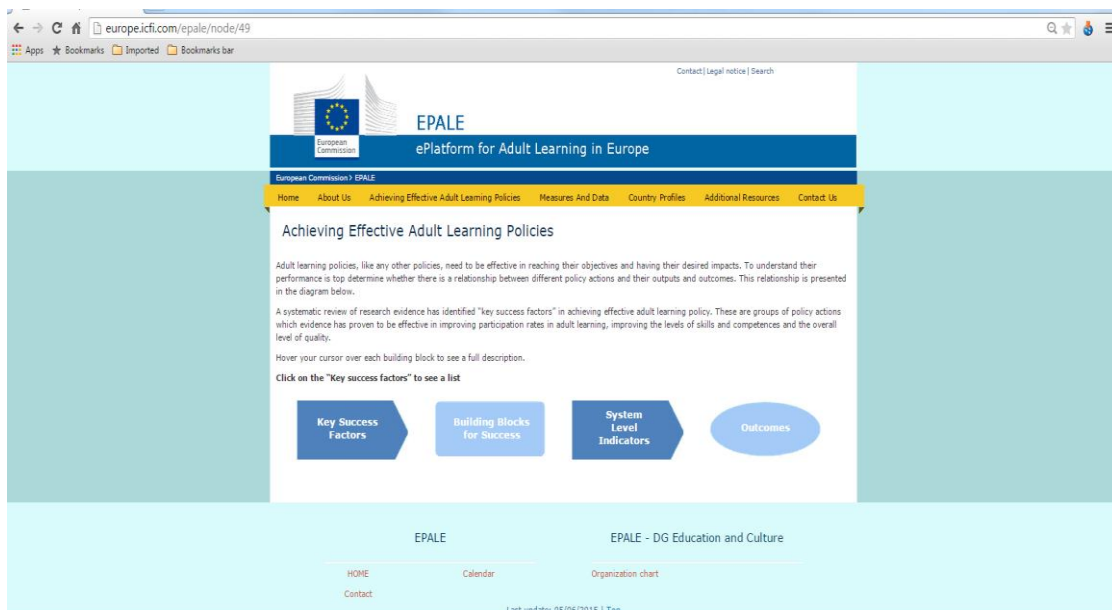


Figure A7.6: Tool – explaining elements of the conceptual framework



Figure A7.7: Tool – presenting the key success factors

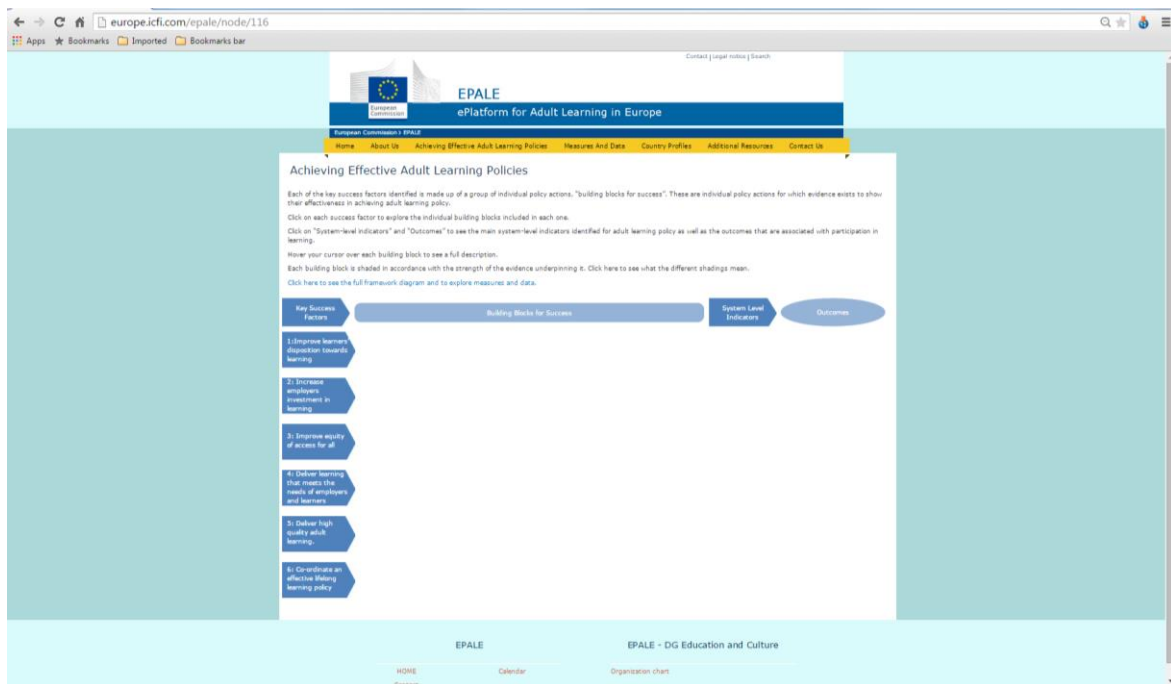


Figure A7.8: Tools – presenting the building blocks

The screenshot displays the EPALe website interface. The top section, titled 'Achieving Effective Adult Learning Policies', introduces 'Key Success Factor 3: Improve equity of access for all'. It includes a brief description of the success factor and a navigation prompt. Below this is a simplified flowchart showing the relationship between Key Success Factors, Building Blocks for Success, System Level Indicators, and Outcomes. A specific building block is highlighted with a black box: 'Provide targeted guidance and support services and promote programmes to learners in under-represented groups'. This block is linked to 'Fund learning for disadvantaged' and 'Targeted guidance'.

The bottom section provides a detailed view of the framework. It lists six Key Success Factors, each with associated Building Blocks for Success. For example, '1. Improve learners' disposition towards learning' is supported by 'Heighten awareness', 'Targeted guidance about option', 'Engage social partners', and 'Appropriate introductory learning experience'. The System Level Indicators are listed as: 1. Increased participation in adult learning, 2. Improved skills & competences, 3. Higher quality of learning, 4. Higher GDP, 5. Increased levels of use and participation, and 6. Improved levels of equity.

At the bottom, there is a 'Standards of Evidence' table:

shading	Type of study	Strength of evidence
	Studies which have drawn conclusions from meta-reviews of robust evaluations	++++
	Evaluation studies with counterfactual quantitative evidence of a significant impact	++++
	Studies which measure change before and after the policy action, controlling for other factors and which have large samples for robust statistical analysis	+++
	Research studies which are based on sufficiently in-depth case studies to allow robust qualitative assessments	++

Accessing the measures and data

This section of the tool provides users with access to the measures and data necessary to monitor the effectiveness of adult learning policies. This section can be accessed through the menu bar at the top of the screen. Alternatively, users can click on an element of the framework diagram (a key success factor, a building block or a system-level indicator) and they are able to access the measure relevant for that element.

Measures and variables are grouped thematically according to the six success factors in the framework. The main system-level indicators are grouped separately (participation rate, level of skills and competences and quality of learning). Users can click on each of the links on the left hand menu bar to access the menu for the measure in question.

Users are able to access all the data according to the analysis matrix presented in 0. The user can access menus in the following sequence to see data of interest to them:

- Selection of the category of interest (column 1 in 0);
- Identification of the relevant building block (column 2 in 0);
- Choice of measure (if more than one measure is available) (column 3 in 0)
- Choice of country (default option is all countries) (column 4 in 0);
- Choice of years of interest (if data is available) (column 5 in 0); and
- Choice of sub-group (if sub-groups are available) (column 6 in 0).

Table A7.2: Tool – options for analysis

1	2	3	4	5	6
Success factor category	Building block or output	Choice of measure (if more than one measure)	Country choice (default option is all countries)	Years of interest (if more than one time point available)	Subgroup (if data is available – default option is total population)
General system-level indicators	One of the three “system-level indicators” identified in the framework				
Key success factor 1	Building blocks 1.1 – 1.4		Users can have the option to select one or more countries for which the data exists. The default option would be to present data for all countries.		There may be some measures where the data can be segmented by sub-group (employment status, migrant status, gender). This option allows users to drill down further into the data
Key success factor 2	Building blocks 2.1 – 2.3	Where a choice of measure exists, the user has the option to select one.		Users may have the choice to select years of interest (if data is available in a time-series format)	
Key success factor 3	Building blocks 3.1 – 3.5				
Key success factor 4	Building blocks 4.1- 4.4				
Key success factor 5	Building blocks 5.1 – 5.2				
Key success factor 6	Building blocks 6.1 – 6.3				

When the user has completed their choice, they have the option of displaying the data in graphical form or in tabular form. As noted in previous discussions, the qualitative data we have identified is limited in the level of detail it provides. This limits the way it can be displayed. Figures A7.9 to A7.12 provide a sample of the displays generated by the tool when a user accesses the section on measures and date.

Figure A7.9 presents an overview of quantitative data on participation rates in adult learning in two different years in graphical form. Figure A7.10 presents the tabular view of the data provided in Figure A7.9. This can be accessed by clicking the "table" option. Once the selection of the data is made, the user can alternate between graphical and tabular form.

Figure A7.11 presents an example of a graphical view of subgroup analysis. In this case, it presents data on change in adult learning participation rates, broken down by gender.

A7.12 illustrates how qualitative data is presented graphically by the tool. The measure in question relates to the existence of schemes to recognise prior learning. There are four categories on this variable. A map is used to provide an overview of such schemes across the European Union (or in this case, nine countries selected by the user). As with other measures, the user has the choice to click on the "table" option to generate the data in tabular form. This approach is used for other qualitative measures and variables, though the number of categories on the variable will differ depending on the measure in question.

In addition to the tabular and graphical display of data, users have the option to download the data in Excel format or export the graph/map in pdf form by clicking on the appropriate icon on the tool.

Figure A7.9: Tool – presentation of quantitative data (graphical)

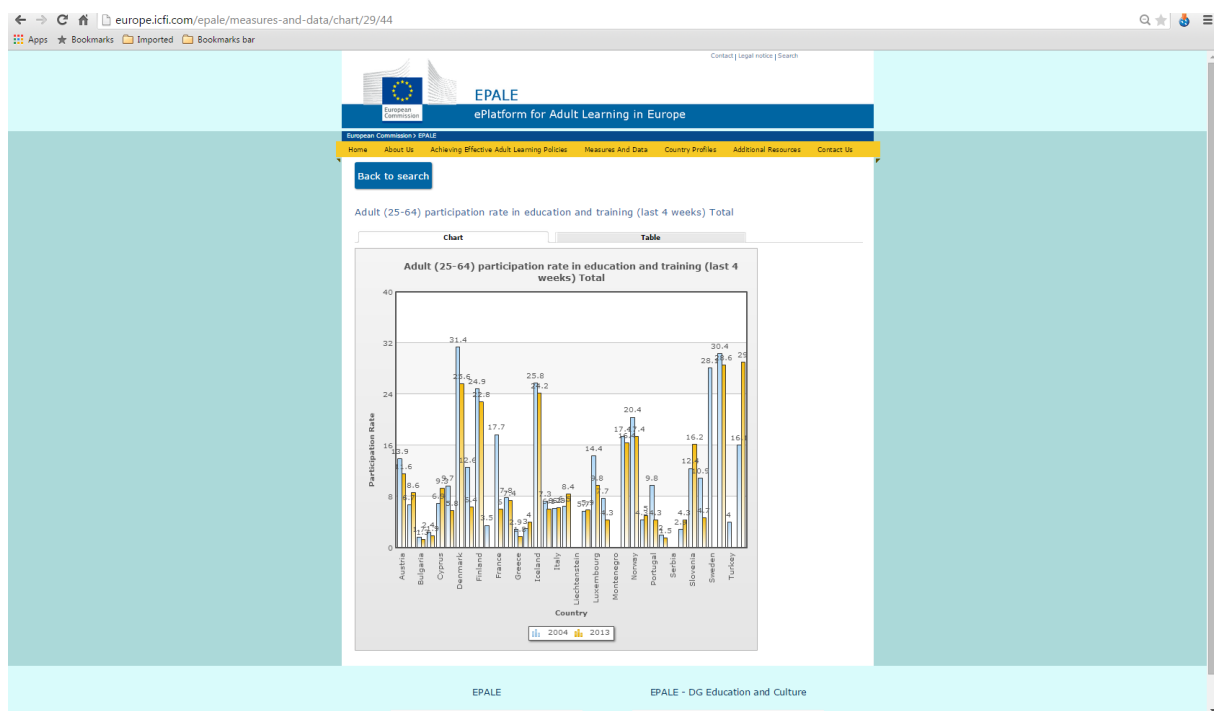


Figure A7.10: Tool – presentation of quantitative data (tabular)

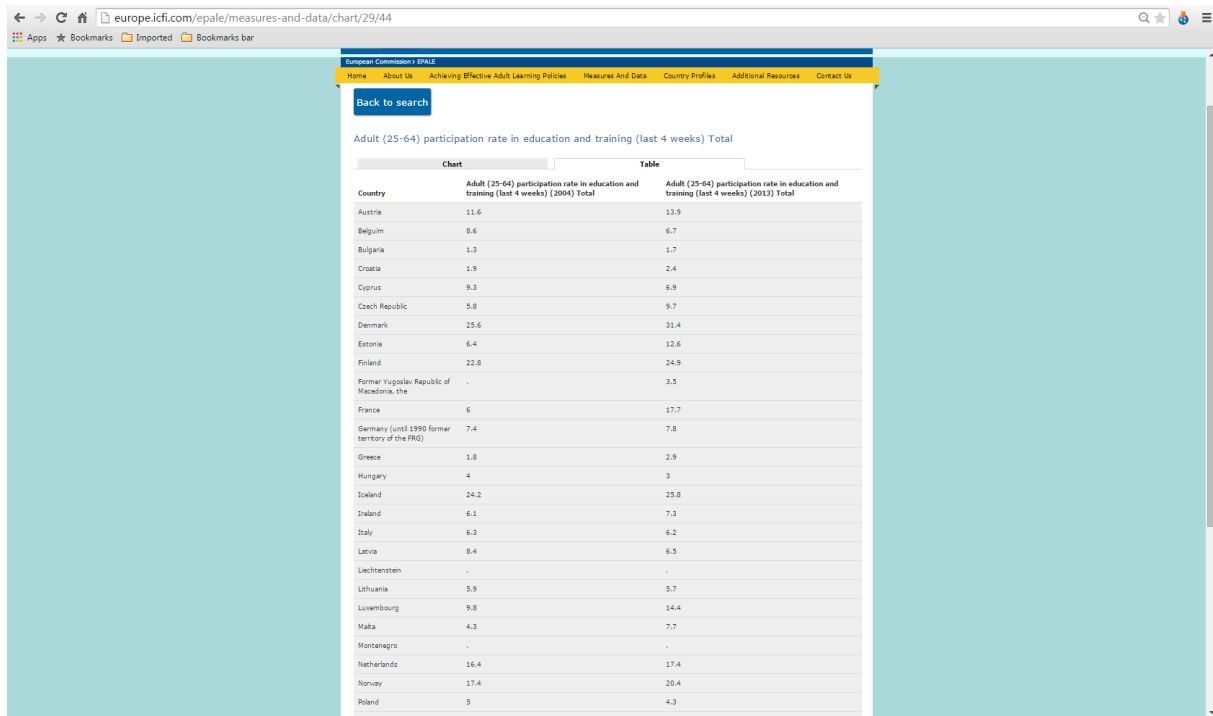


Figure A7.11: Tool – presentation of quantitative data (graphical)

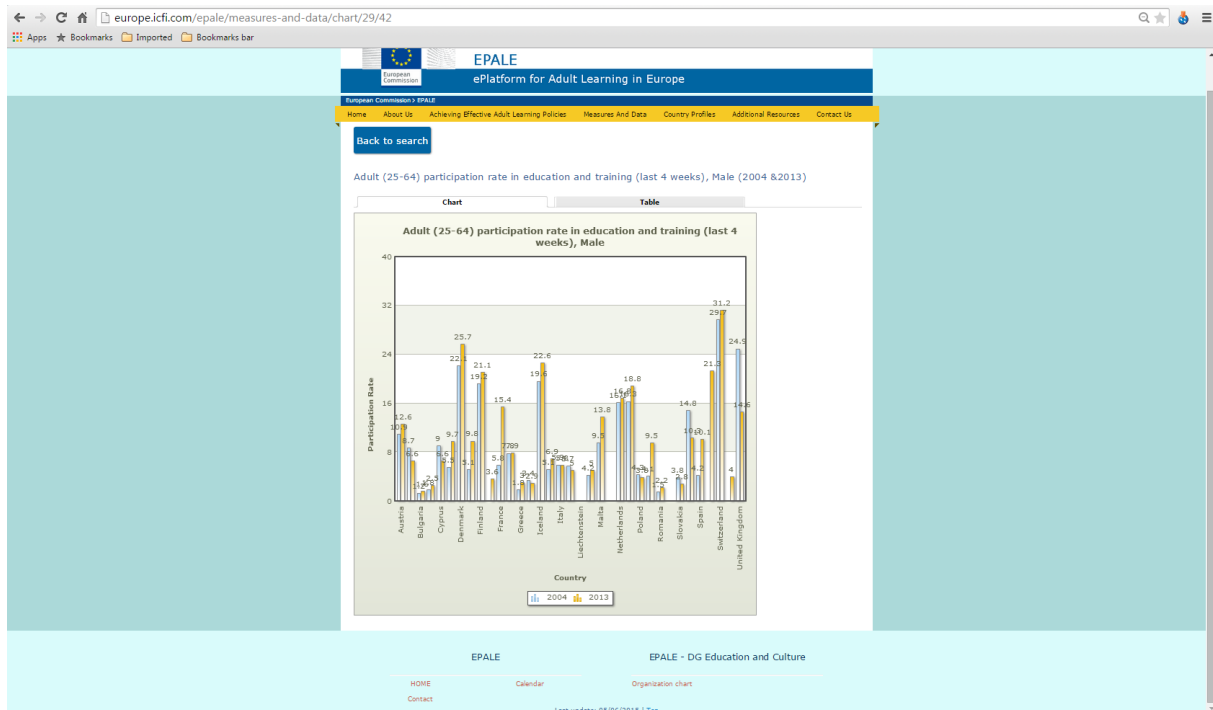
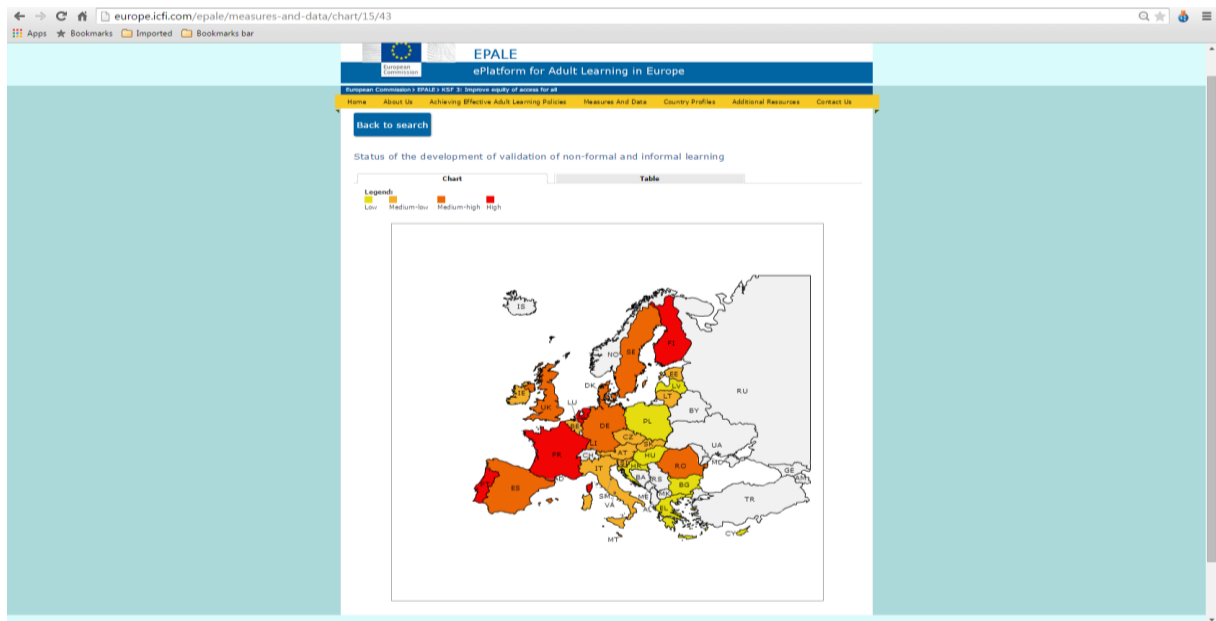


Figure A7.12: Tool – presentation of qualitative data (graphical)



Country profiles

This section of the tool provides a link to individual country reports for each Member State (Figure A7.14). Reports are provided for each of the EU28 as well as Iceland, Liechtenstein, Norway, Serbia, Switzerland and Turkey. By clicking on the chosen country, the user is brought to a page presenting an overview of the measures and data contained on the tool for the country in question.

0 provides a sample of such a country report – Ireland. For each of the elements in the conceptual framework, data is provided for the corresponding measure. Results for the system-level indicators are presented at the top of the report. These are followed by the measures for each of the building block, where available, grouped by success factor.

This table provides both qualitative and quantitative data. The data for each country is then compared to the average for the EU 28, where possible. The blue column presents the EU28 average for each of the measures as well as an indication of the difference between the progress of the country and the EU average.

Figure A7.13: Tool – country reports menu

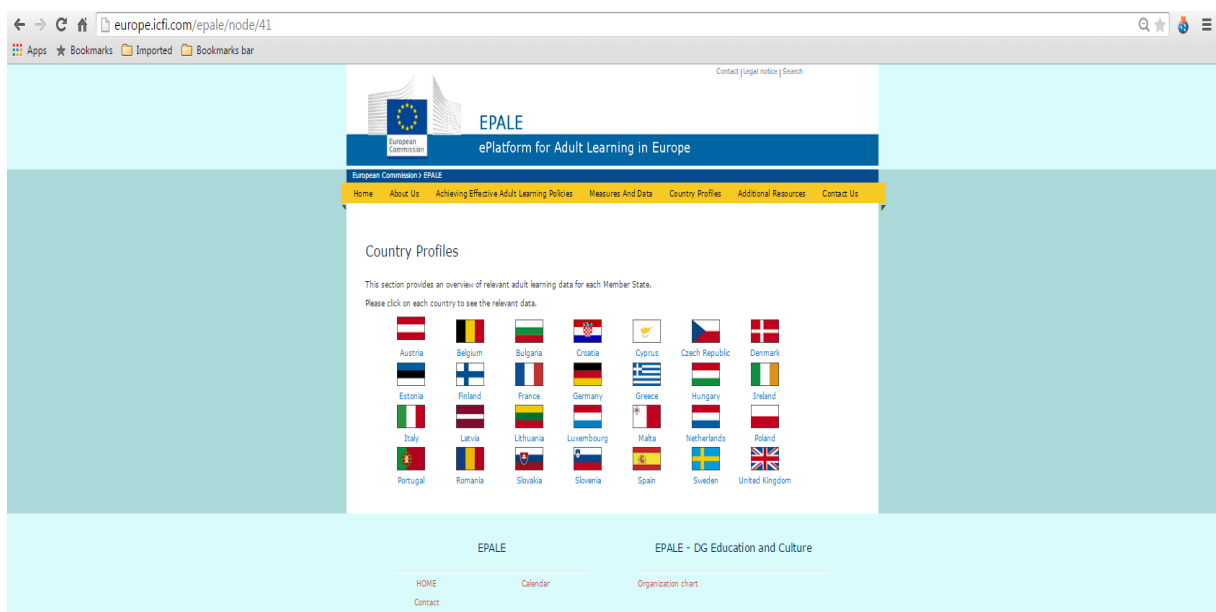


Figure A7.14: Tool – sample country report

Category/success factor	IE	EU average
Participation rate		
Percentage of people participating in education and training in the last four weeks (2013)	7.3	10.48
Improving skills and competences		
Percentage of population reporting attainment by first and second stage of tertiary education (levels 5-2)	24.7	21.87
Percentage of population reporting attainment by first and second stage of tertiary education (levels 3-4)	36.6	49.04
Percentage of population reporting attainment by first and second stage of tertiary education (levels 3-6)	38.7	29.09
KSF 1: Improving learners' disposition towards learning		
Percentage of people who looked for information on education and training (2013)	20.4	24.56
KSF 2: Increasing employers' investment in learning		
Percentage of people who did not attend training who stated the main obstacle to training is cost-related		40.11
KSF 3: Improve equity of access		
Percentage of people aged between 25-34 who reported participating in education and training in the last four weeks (2013)	12.1	17.05
Percentage of people aged between 35-44 who reported participating in education and training in the last four weeks (2013)	3.4	5.76
Percentage of people at ISCED level 0-2 participating in education and training in the last four weeks (2013)	3.2	5.32
Percentage of people at ISCED level 3-4 participating in education and training in the last four weeks (2013)	10.8	16.96
Percentage of people at ISCED level 0-2 participating in education and training in the last four weeks (2013)	2.9	5.02
Percentage of people at ISCED level 3-4 participating in education and training in the last four weeks (2013)	10.4	16.37
Percentage of employed people participating in education and training in the last four weeks (2013)	6.2	11.03
Percentage of unemployed people participating in education and training in the last four weeks (2013)	6.7	10.89
KSF 4: Deliver training that meets the needs of employers and learners		
Percentage of respondents who agreed to the statement: 'I feel that my job is more secure because of my training'	70.8	72.83
KSF 5: Quality of adult learning	94.9	

Additional resources

This section of the tool contains access to “additional resources” (Figure A7.15). This features links to studies on adult learning provided by the European Commission as well as external studies commissioned on adult learning. It also features links to relevant research identified by the research team during the study and provides signposts to other useful sources. These items are grouped into five categories:

- European-level evidence and research
- European data sources
- European websites of interest
- Other useful resources.

This page will be updated with further links over time. If users have identified sources of interest which they believe should feature on this page, they can contact the Commission through the “contact us” portal.

Figure A7.15: Tool – additional resources

Additional Resources

This section provides access to the evidence that was reviewed as part of the development of the tool. As further evidence becomes available, this list will be updated.

European evidence

- Borjovsky, A. (2013). "Monitoring Adult Learning Policies: A Theoretical Framework and Indicators". OECD Education Working Papers, No. 89, OECD Publishing.
- Cedefop (2014) Policy handbook: Access to and participation in continuous vocational education and training (CVET) in Europe
- European Commission (2012) Developing the Adult Learning Sector
- European Commission (2013) Developing the adult learning sector: Quality in the Adult Learning Sector
- European Commission, 2013. Adult and continuing education in Europe. Using public policy to secure a growth in skills.
- European Commission (2013) Education and Training in Europe 2020: Responses from the EU Member States
- Eurydice (2011) Adults in Formal Education: Policies and Practice in Europe
- European Commission/EACEA/Eurydice, 2015. Adult Education and Training in Europe: Widening Access to Learning Opportunities. Eurydice Report. Luxembourg: Publications Office of the European Union.
- Public Policy and Management Institute (PPMI), 2010. Assessment of the impact of ongoing reforms in education and training on adult learning – first phase. Final report for the European Commission.
- Research voor Beleid (2011) Impact of ongoing reforms in education and training on the adult learning sector

European data sources

- Eurostat

Study on the analysis of adult learning policies and their effectiveness in Europe - final report

The screenshot shows a web browser window with the URL europe.icfi.com/epale/node/37. The page is the 'Contact Us' page of the EPALE (ePlatform for Adult Learning in Europe) website. The header includes the European Commission logo and the text 'EPALE ePlatform for Adult Learning in Europe'. A navigation menu contains links for Home, About Us, Achieving Effective Adult Learning Policies, Measures And Data, Country Profiles, Additional Resources, and Contact Us. The main content area features a 'Contact Us' form with fields for Name, Email, Subject, and a Message box, along with a 'Send' button. To the right of the form, there is contact information: Telephone: XXXXXXXX, Fax: XXXXXXXX, and Email: XXXXXXXX. Below this information are three circular icons representing email, a phone, and an '@' symbol. The footer contains the text 'EPALE' and 'EPALE - DG Education and Culture', along with links for HOME, Calendar, and Organization chart. A small note at the bottom right states 'Last update: 05/06/2015 | Top'.

Annex 8: All measures and variables considered

Table A8.1 describes the data sources that we have used.

Table A8.1: Data sources used in selecting measures and variables

Data source	Description	Coverage	Frequency
Quantitative data sources			
Adult Education Survey (AES)	The Adult Education Survey (AES) is a household survey which is part of the EU Statistics on lifelong learning. People living in private households are interviewed about their participation in education and training activities (formal, non-formal and informal learning). The target population of the survey is composed of people aged 25 to 64.	EU27+NO, CH and the Republic of Serbia (2011)	Every 5 years, next cycle 2016 (data available later)
Adult Skills Survey (PIAAC)	The PIAAC dataset is the only internationally comparable source of objectively assessed skills levels of the adult population. The first round of PIAAC took place in 2012 and covered 17 EU countries. In 2016 and 2018 further countries will conduct the survey which will increase coverage.	2012: AT, BE-FL, CY, CZ, DE, DK, EE, ES, FI, FR, IE, IT, NL, NO, PL, SK, SE, UK(England, N. Ireland) 2016: EL, LT, SI	Some countries in the first wave may repeat the survey in 2018. A repetition of the survey in all countries is under discussion for the early 2020s.
Continuing Vocational Training Survey	This survey gives an overview of companies' training policies in the European Union (EU) in 2010. It is based on interviews with companies – establishments with 10 employees or more – in the industrial production and marketing services sectors.	EU28 +NO	Every 5 years, next cycle 2015 (data available later).
EU Labour Force Survey	The EULFS is a large household sample survey of labour participation of people aged 15 and over as well as persons outside the labour force.	EU28+EFTA	Annually (and quarterly)
Labour Market Policy (LMP) database, DG Employment, Social Affairs and Inclusion	This database provides information on public labour market interventions which are explicitly targeted at groups of people with difficulties in the labour market, such as training provided to the unemployed by Public Employment Services	EU28	Annual
The Special	Special Eurobarometer reports are based on	EU28	One-off

Data source	Description	Coverage	Frequency
Eurobarometer 417 – European area of skills and qualifications.	in-depth thematic studies carried out for various services of the European Commission or other EU Institutions and integrated in Standard Eurobarometer's polling waves. Sampling methodology, and thus reliability, is not as good as the other quantitative sources mentioned in this overview.		study unless a repeat is requested.
The UOE Database	The UNESCO/OECD/EUROSTAT (UOE) database on education statistics is compiled on the basis of national administrative sources, reported by Ministries of Education or National Statistical offices according to international standards, definitions and classifications. The collected annual data cover the outputs of educational institutions, the policy levers that shape educational outputs, the human and financial resources invested in education, structural characteristics of education systems, and the economic and social outcomes of education. The main annual publications based on these data are 'Education at a Glance' and 'Education Policy Analysis'. The data is also published annually on the Eurostat website. The lag between the reference year and the year the data becomes available is three years	EU28+EFTA	Annual
Qualitative sources			
Cedefop Trends in VET policy in Europe report	These reports monitor member states' progress towards the 22 short-term deliverables defined in the Bruges communiqué of 2010. Analysis is to a large extent based on information collected through Cedefop's ReferNet.	EU28+NO, IS+ Candidate countries	2012, 2014
EU Skills Panorama	The EU Skills Panorama is a central access point for data, information and intelligence on trends for skills and jobs across Europe. While the EU Skills Panorama is primarily a repository, not a primary source, its sections on national data offer an overview of the employer and graduate surveys available in a particular country. Annual updating and scoping activities make it a suitable source of information on available employer and graduate surveys.	EU28+EFTA	Annually
European Inventory on validation of non-formal and informal	The European Inventory on validation of non-formal and informal learning is a regularly updated overview of validation practices across Europe. This inventory is compiled in cooperation between Cedefop and the European Commission. So far the inventory has been updated five times	EU 28+EF TA	Every 3-4 years

Data source	Description	Coverage	Frequency
learning	(2004, 2005, 2008, 2010, 2014). The 2014 version includes 36 reports for 33 countries (more than one for Belgium and the UK), eight in-depth thematic reports, two case studies, and a synthesis of main findings.		
Eurypedia	Eurypedia is a Eurydice product which aims at presenting the most accurate picture of national education systems across Europe. Data is collected in templates from public authorities in the Member States.	EU28+E FTA	Annual

Measures and variables of critical inputs for adult learning

This section presents the proposed measures and variables for each of the building blocks for success as defined in the current conceptual framework in Tables A8.2 – A8.7.

When applicable and possible, we have marked measures and variables which best measure a particular building block/success factor and which best fulfil the criteria laid out in section 4.1.1 with an asterisk “*”. We have marked building blocks/success factors for which other new measures and variables may need to be identified to augment the choices already made to ensure that progress on the building block/success factor is adequately reflected with a “‡”.

Key Success Factor 1: Improve learners’ disposition towards learning

Table A8.2: Measures and variables measuring critical improvements of learners’ disposition towards learning

Building block for success	Measure/variable	Source	Comments
1.1 Heighten awareness of benefits of adult learning ‡	Percentage ⁵⁵ of respondents whose reason(s) for participating in most recent education and training activity was one of the following: “to do my job better”, “to improve my career prospects”, “to be less likely to lose my job”, “to increase my possibilities of getting a job, or changing a job/profession”*	AES (variable FEDREASON_1a to FEDREASON_03)	The reason this measure is based on beneficial economic outcomes rather than everyday life outcomes is that the main focus of policy actions is on these benefits.
	Scope of awareness raising activities (small/medium/large) based on local, regional, national scale and size of target	Eurypedia section 12.8 on Guidance and Counselling in a Lifelong Learning Approach, and	Awareness-raising activities, such as information campaigns, are the main tool for policy makers to heighten

⁵⁵ Throughout the document, quantitative measures and variables are formulated as levels rather than trends. However, the use of the tool as a monitoring instrument implies that trends and percentage point changes will be calculated and displayed.

Building block for success	Measure/variable	Source	Comments
	group (social background and educational level, formal and/or non-formal education and/or informal learning, fields and sectors)	section 14.2.3 Reforms in Vocational Education and Training and Adult Learning	awareness of benefits of adult learning.
	Campaigns to make adults aware of the benefits of VET ⁵⁶	Cedefop Trends in VET policy in Europe report	The formulation of this variable from the Cedefop report focuses on VET and does therefore not measure campaigns to raise awareness for general adult learning.
1.2 Provide for targeted guidance to learners about learning options	Percentage of individuals who have looked for information on learning possibilities in the last 12 months but did not find any*	AES (until 2011)	This variable is significantly related to the adult participation rate in education and training. A 10 percentage point increase in this variable is on average associated with an 8 percentage point decrease of the participation rate.
	Percentage of respondents who did not receive any information or advice/help on learning opportunities from institutions/organisations*	AES (GUIDEINST_3, as of 2016)	This variable may be a proxy for the above on the unavailability of information on learning opportunities
	Percentage share of career guidance providers as compared to other sources of information on learning possibilities	AES (until 2011)	Career guidance services play an important role in the provision of targeted, personalised information on learning options. The first indicator refers to the existence and
	Percentage of persons who have used career guidance services	Special Eurobarometer 417	

⁵⁶ The Cedefop Trends in VET Policy in Europe report assesses the following stages of development of the policy options referred to in the measures and variables: a) in place before 2010 and not changed; b) in place before 2010 and adjusted since then; c) put in place since 2010; d) preparing for implementation (e.g. discussing, agreeing on, piloting a measure), and e) no action reported.

Building block for success	Measure/variable	Source	Comments
	when looking for additional education or training opportunities		prevalence of career guidance providers. The second measures their utilisation by learners.
	Statutory provision or guidelines improving guidance and counselling for adults	Cedefop Trends in VET policy in Europe report	Mandatory provisions are a first step towards targeted guidance to adults about learning options
	Existence of interventions providing labour market guidance for unemployed and other target groups	LMP qualitative reports	
1.3 Engage social partners in the planning of, promotion of and recruitment of learners, locally, sectorally, nationally‡	Percentage of respondents stating that they have received free of charge information or help/advice on learning possibilities from employer, employer organisations, trade unions or the work council during the past 12 months.*	AES (variable GUIDESOURCE_3 and 4, 2016 onwards)	This measure is an indicator of the effort exerted by the social partners in recruiting learners.
	Percentage of enterprises in which staff representatives/committees are usually involved in establishing the criteria for the selection of participants or specific target groups	CVTS (variable A16bb)	This measure focuses on staff representatives rather than all social partners but could demonstrate participation in the recruitment of learners.
	Percentage of respondents stating that first non-formal learning activity was provided by employer's organisations or trade unions.	AES (variable NFEPROVIDER1)	This measure indicates the prominence and success of the social partners in providing education and training.
	Percentage of enterprises in which written agreements between social partners concluded at	CVTS (variable A15)	This variable measures involvement of social partners in the provision in general, not only in terms of

Building block for success	Measure/variable	Source	Comments
	local, sectoral or national level usually cover the provision of continuing vocational training (CVT).		the recruitment of learners. The positive relationship between this variable and adult training participation has been demonstrated in CEDEFOP (2010) 'Employer-provided vocational training in Europe'.
	Employment authorities and social partners in committees dealing with VET (policy)	Cedefop Trends in VET policy in Europe report	This variable proxies social partner engagement by the existence of committees involving social partners and relevant public authorities. The formulation of the measure or variable focuses on VET and does therefore not measure the extent to which committees are dealing with general adult learning.
	Employment services and social partners participating in VET policy implementation	Cedefop Trends in VET policy in Europe report	This variable assesses social partner involvement in policy implementation directly. The formulation of the variable focuses on VET and does therefore not measure the participation of these actors in general adult learning policy implementation.
1.4 Provide appropriate introductory learning experience for learners‡	Percentage of respondents who state that negative previous learning experiences prevented them from participating in (more) training	AES (variable DIFFTYPE_12, 2016 onwards)	This measure can indicate education and training providers' inability to provide appropriate learning experiences for learners.

Key Success Factor 2: Increase employers' investment in learning

Table A8.3: Measures and variables measuring employers' investment in learning

Building block for success	Measure/variable	Source	Comments
2.1 Provide funding to assist employers to upskill and retrain their workforce	Percentage of enterprises which received any payments from training funds or financial subsidies from the EU or governments for the provision of CVT courses*	CVTS (variable B5b-d)	This variable measures the provision of subsidies to enterprises that applied for them and received them (not providing information on those enterprises which waived application, whose application was rejected, or which did not know of these possibilities). Nevertheless, this variable is a proxy of the general availability of subsidies for CVT to employers (including public authorities' effort to raise awareness for subsidy opportunities and low application barriers).
	Average subsidy received per enterprise in Euro (PPP adjusted, only enterprises which received subsidies)	CVTS (B5b-B5a)	This variable is a measure of the level of subsidies available to enterprises which successfully applied for them.
	Percentage of enterprises which report that too high costs for CVT courses limited the provision of CVT courses to employees	CVTS (D3e)	This variable indicates the extent to which funding for CVT courses is a barrier to training in enterprises.
2.2 Promote the use of externally accredited qualifications by employers‡	Percentage of enterprises which usually consider certification of external providers (e.g. national registers) to ensure the quality of CVT*	CVTS (variables D1a, until 2010)	This variable is a direct measure of the use of accredited qualification by employers. The variable is discontinued in CVTS5.
	Percentage of enterprises which usually certify the outcomes of all or some training activities after written or practical test	CVTS (variables D2a and D2ba)	This variable measures the degree to which enterprises certify training activities. However, this may not necessarily be externally accredited certificates/ qualifications. It is not known whether this variable forms part of CVTS5.
	Percentage of respondents who state that the (first) learning activity led	AES (NFECERT1)	This variable measures the degree to which certificates (externally accredited qualifications) are required by

Building block for success	Measure/variable	Source	Comments
	to a certificate required by the employer, a professional body or by law		(not only) employers to perform certain work tasks.
2.3 Promote the provision of work-based learning	Percentage of respondents who have participated in guided-on-the-job-training during the last 12 months, which means planned periods of education, instruction or training directly at the workplace, organised by the employer with the aid of a designated teacher/instructor	AES (variable NFGUIDEDJT)	This variable measures the degree to which adults have participated in job-based learning activities, not promotion.

Key Success Factor 3: Improve equity of access for all

Table A8.4: Measures and variables measuring the improvement of equity of access for all

Building block for success	Measure/variable	Source	Comments
3.1 Fund learning for disadvantaged and difficult-to-engage groups, including the inactive and the unemployed	Active labour market participants (ALMP) in training: ALMP participants per 100 persons wanting to work, category training*	LMP	This is a JAF variable and proxy for the prevalence of training as a labour market policy measure
	Public expenditure on training related labour market policy measures	LMP	These variables are a direct measure of the funding of training, mostly for PES registered individuals. These are mostly unemployed and inactive, but may also be employed and at risk of losing their job.
	Labour market policy expenditure on PES sponsored training as percentage of GDP	LMP	
	Percentage of respondents whose education and training activity was paid by Public Employment Services or other public institutions,	AES (FEDPAIDBY, NFEPAIDBY1)	This variable measures the prevalence and level (partly/fully paid) of funding for the inactive and unemployed. The variable is not published on the EUROSTAT website.

Building block for success	Measure/variable	Source	Comments
	by unemployed/inactive, fully paid/partly paid, formal/non-formal education		
	Share of respondents who wanted but could not participate/participate more who answered reason for non-participation is affordability	AES	This is a JAF variable. The variable may have to be restricted to the unemployed and inactive to better reflect the building block's focus.
3.2 Provide targeted guidance and support services and promote programmes to learners in under-represented groups‡	Percentage of individuals who have looked for information on learning possibilities in the last 12 months but did not find any*	AES (until 2011)	These are the same variables proposed for measuring building block 2 of success factor 1: Provide targeted guidance to learners about learning options. However, here, the measures should show percentages for under-represented groups, such as the low educated or individuals with migrant background.
	Percentage of respondents who did not receive any information or advice/help on learning opportunities from institutions/organizations*	(GUIDEINST_3, as of 2016)	
	Percentage share of career guidance providers as compared to other sources of information on learning possibilities	AES (until 2011)	
	Percentage of persons who have used career guidance services when looking for additional education or training opportunities	Special Eurobarometer 417	
3.3 Provide scheme to	Percentage of respondents who	AES (optional in 2011, HATCOMP)	This variable is a direct measure of the use of skill

Building block for success	Measure/variable	Source	Comments
recognise prior learning (informal and non-formal)	state that they have been involved in any procedure of recognition of skill or competences*		recognition schemes.
	Status of the development of validation of non-formal and informal learning (high degree of implementation, medium level of development, low level of activity)	European Inventory on validation of non-formal and informal learning	The European Inventory has been specifically designed to monitor the development of recognition/validation schemes in the area of informal and non-formal learning. The 2010 report contains a categorisation of countries into the three levels proposed. It is not known to what extent the 2014 update will contain a similar categorisation.
	Percentage of people who are aware that there are methods for documenting skills and qualifications for employment (Europass, etc)	Special Eurobarometer 417	This variable measures documentation, rather than recognition. However, a person's knowledge of methods for documenting skills may better indicate the status of recognition systems than just the existence of a scheme.
3.4 Use intermediary organisations in outreach to difficult-to-engage groups	None		
3.5 Embed basic skills development into adult learning programmes‡	Percentage of respondents who state that their non-formal learning activity was a basic programme or focused on literacy and numeracy	AES (NFEFIELD1, time series break in 2016)	This measures the prevalence of basic skills development in adult learning so it reflects supply and demand though these are not necessarily embedded. As of 2016, answer categories "basic programme" and "literacy and numeracy" has changed to "generic programmes and qualifications", which may cause a break in time series.
	Percentage of enterprises which	CVTS (variable C5k)	This variable measures to what extent basic skills

Building block for success	Measure/variable	Source	Comments
	targeted numeracy and/or literacy skills in CVT courses*		such as numeracy and literacy are targeted by enterprises' training activities so these may be embedded.
	Presence of labour market policy interventions focusing on basic skills for the employed.	LMP – qualitative reports	This variable measures whether national qualitative reports contain references to interventions relevant for this building block.
	Presence of large-scale publicly subsidised provisions aiming to raise achievement in basic skills, in particular literacy, numeracy and ICT	Eurypedia (sub-heading 8.4.1 in 2015 updating guide)	This measure indicates the existence of public subsidies to embed basic skills into adult learning.
	Presence of provisions to achieve a recognised qualification during adulthood	Eurypedia (sub-heading 8.4.2 in 2015 updating guide)	As these provisions mostly target persons with low or no educational attainment, they can be understood as targeting the development of basic skills.

Key Success Factor 4: Deliver learning that meets the needs of employers and learners

Table A8.5: Measures and variables measuring the delivery of learning that meets the needs of employers and learners

Building block for success	Measure/variable	Source	Comments
4.1 Understand and identify needs and motivations of learners [†]	Legislation allowing data on learning, labour market entry and career to be linked	Cedefop Trends in VET policy in Europe report	This building block aims to measure whether policy encourages data analysis of motivations and needs by responsible authorities and institutions and training providers. The proposed variables measure the scope for these actors to take account of the characteristics of learners in the delivery of learning. The variables do not yet clearly assess whether available data provides
	Learning methods and support taking account of transition and employability data	Cedefop Trends in VET policy in Europe report	
	Funding schemes to encourage VET providers to use graduate transition data	Cedefop Trends in VET policy in Europe report	

Building block for success	Measure/variable	Source	Comments
			information on the needs and motivations of individuals who do not succeed to participate in education and training. Moreover, the formulation of the third variable focuses on VET and does therefore not measure the existence of funding schemes for general education and training providers.
4.2 Identify current and future skills needs of employers (through skills forecasting)	Existence of regular national, regional or sectoral skills forecasting activities	EU Skills Panorama website, section on national sources/country analytical highlights	This measure indicates whether regular skill forecasting activities exist which can inform adult learning policy and education and training provision.
and align provision with these	Percentage of enterprises stating that a lack of suitable offerings of continuing vocational training courses in the market limit their provision of training	CVTS (D3d)	This is an indirect measure of the effectiveness of the identification of employers' current and future skills needs and the alignment of the results of this identification process with training provision.
	Percentage of enterprises which uses public information centres/services and authorities to be informed about continuing vocational training providers and offerings.	CVTS (variable A17a)	There are two channels through which this measure should be associated with the building block: First, enterprises will only use these centres/services if they offer relevant information to satisfy their needs. Second, the more these centres/services interact with employers the more they will know about their needs and the higher the likelihood of alignment.
4.3 Promote innovation and flexibility in the delivery of	Percentage of respondents who state that one of their formal or	AES (FEDDIST, NFEDIST1, 2016 onwards)	This variable measures the prevalence of distance learning in adult education and

Building block for success	Measure/variable	Source	Comments
learning‡	non-formal education and training activities in the past 12 months was organised mainly as distance learning		training. Before 2016, similar information was collected in variable FEMETHOD, NFEMETHOD1: percentage of respondents stating that distance learning - including both using computer and traditional teaching materials - was the main method used in education and training activity,
	Percentage of respondents stating that they have used online educational resources frequently or very frequently in their most recent formal education and training activity*	AES (FEDOERA, 2016 onwards)	This variable measures the frequency with which online educational resources are used in formal education and training activities.
	Percentage of respondents stating that they have used online educational resources in their non-formal education and training activity	AES (NFEOERA1, 2016 onwards)	This variable measures the prevalence of the use of online educational resources in non-formal education and training activities.
	Part-time students as % of all students, ISCED 5A	UIS/OECD/EUROSTAT (educ_bo_ac_el1t)	Innovation and flexibility in the delivery of learning is needed in programmes that extend over a longer period of time. This measure focuses on programmes at the ISCED 5A level, where most formal adult education (e.g. masters degrees) takes place. The reference to ISCED5A will be replaced by ISCED 6-7 as soon as data collected according to ISCED2011 becomes available.
	Guidelines on time arrangements for VET that suit adult learners' needs	Cedefop Trends in VET policy in Europe report	Time arrangements and family obligations are important aspects of

Building block for success	Measure/variable	Source	Comments
	Guidelines helping learners to combine (C)VET with family obligations	Cedefop Trends in VET policy in Europe report	flexibility in the delivery of learning. The formulation of the variables focuses on VET and does therefore not measure the existence of guidelines for adult learning in general.
4.4 Provide progression pathways for learners across the national qualifications framework	Existence of permeability between higher education and VET as an objective of the national qualifications framework	Cedefop Trends in VET policy in Europe report	This variable does not provide a graded assessment of policy implementation.

Key Success Factor 5: Deliver high quality adult learning

Table A8.6: Measures and variables measuring the delivery of high quality adult learning

Building block for success	Measure/variable	Source	Comments
5.1 Establish quality control framework for adult learning ‡	Quality control framework for adult learning	Eurypedia section 11.3 on Quality Assurance in Adult Education and Training, and section on 14.2.3 Reforms in Vocational Education and Training and Adult Learning	This variable attempts to measure the existence and updating of such a framework.
	Percentage of enterprises which usually base CVT and certification on national/sectoral recognised standards or framework	CVTS (variable D1c, until 2010)	This variable is an indirect measure of the existence of a quality control framework for adult learning. The variable is discontinued in CVTS5.
5.2 Develop a skilled adult education workforce through initial teacher training and continuous professional development ‡	Percentage of enterprises which usually consider continuous training of internal trainers to ensure the quality of CVT*	CVTS (D1a)	This variable measures the degree to which employers ensure CPD for their internal trainers. The variable does not cover initial teacher/trainer education and excludes external training providers.

Building block for success	Measure/variable	Source	Comments
	VET teachers/trainers trained to use modern technology and teaching methods	Cedefop Trends in VET policy in Europe report	This variable measures progress with regard to policies on CPD for teachers and trainers on VET. Although it excludes some forms of adult learning it may be a good proxy for practices related to the sharing of best practice and innovation with providers of adult learning through CPD.

Key Success Factor 6: Coordinate an effective adult learning policy

Table A8.7: Measures and variables measuring the coordination of an effective adult learning policy

Building block for success	Measure/variable	Source	Comments
6.1 Co-ordinate adult learning (or lifelong learning) policy with other national policies for improving knowledge, skills and competences of adults	None		A potential future source are the new Eurypedia article updates on "Developments and current policy priorities"
6.2 Establish mechanisms for policy alignment at local and regional levels	None		
6.3 Build knowledge base concerning what works in adult learning	Existence of a knowledge base on what works in adult learning held by designated institutions.	Eurypedia section 11.3 on Quality Assurance in Adult Education and Training, and section on 14.2.3 Reforms in Vocational Education and Training and Adult Learning	Building a knowledge base concerning what works is strongly related to quality assurance, and the existence of institutes which manage this knowledge.
	Monitoring and evaluation frameworks	Eurypedia section 11.3 on Quality Assurance in Adult Education and Training, and section on 14.2.3 Reforms in Vocational Education and	The existence and updating of policies, strategies or action plans is the basis for coherent monitoring and evaluation of adult learning programmes.

Building block for success	Measure/variable	Source	Comments
		Training and Adult Learning	
	Percentage of enterprises which usually assess the outcomes of all or some CVT activities	CVTS (variable D2a)	This variable refers to the use of monitoring tools by enterprises which complements external evaluation activities in this area.

Measures and variables measuring key success factors

This section presents the proposed output measures and variables for each of the key success factors as defined in the current conceptual framework in Table A8.8.

Table A8.8: Output measures and variables measuring success factors

Key success factor	Measure/variable	Source	Comments
1 Improve learners' disposition towards learning	Share of respondents looking for information in the last 12 months*	AES	The first variable is a JAF variable. Both variables measure adults' disposition towards learning.
	Percentage of respondents who participated in lifelong learning or who did not participate in lifelong learning but wanted to participate	AES	
2 Increase employers' investment in learning	Percentage of employed respondents whose education and training activity was paid by employer, by fully paid/partly paid*	AES	These variables measure the investment of employers in learning. The variables are not published on the EUROSTAT website.
	Percentage of employed respondents whose education and training activity took place only or mostly during paid working hours*	AES	
	Share of respondents who wanted but could not participate/participate more in education and training (both formal and non-formal) who answered main reason for non-participation were a Lack of employer's support' and conflicts with the work schedule'*	AES	This variable is a JAF variable.
	Average costs incurred by	CVTS (variable	This variable is a

Key success factor	Measure/variable	Source	Comments
	enterprises in the provision of CVT courses	C7tot)	direct measure of the level of the costs incurred by employers.
3 Improve equity of access for all	Percentage of youth neither employed nor in education or training (NEET), 25-29 olds	LFS	This variable measures the share of young people not participating in adult learning.
	Difference in participation in adult learning in percentage points between adults with high educational attainment and adults with low educational attainment of education*	AES ⁵⁷	This is a measure of inequality of access in relation to socio-economic status and educational level.
	Difference in participation in adult learning in percentage points between men and women*	AES	This is a measure of inequality of access in relation to gender.
	Difference of the percentage of young men neither employed nor in education or training and the percentage of young women neither employed nor in education or training, 25-29 olds	LFS	This is a measure of inequality of access in relation to gender.
	Difference in the participation in adult learning in percentage points between adults aged 25-34, 35-54, and 55-64*	AES	This is a measure of inequality of access in relation to age. Due to diverging shares of economically active persons above 55+ across countries and the possible distortion of the measure, the variable may need to be limited to employed adults.

⁵⁷ All AES based equality measures and variables mentioned under this key success factor can alternatively be constructed from annually available EU LFS data. However, AES per definition covers more learning activities, in particular guided on the job training, which is a substantial part of adult learning. The part excluded in the LFS is of diverging significance between countries and for groups of individuals within countries. Furthermore, the AES way of asking participation in adult learning (using examples, additional explanations, lists etc.) helps interviewees to remember the learning activities they took part in and provides a fuller picture of adult learning.

Key success factor	Measure/variable	Source	Comments
	Difference in the participation in adult learning in percentage points between unemployed adults and employed adults*	AES	This is a measure of inequality of access in relation to employment status.
	Difference in the participation in adult learning in percentage points between inactive adults and employed adults	AES	This is a measure of inequality of access in relation to labour force status.
	Difference in the participation in adult learning in percentage points between nationals and immigrants (non-nationals)	AES	This is measure of inequality of access in relation to nationality. As legislation in relation to obtaining the national citizenship differs across, it may be useful to include non-nationals with more than 10 years of residence in the country in the "nationals" category.
4 Deliver learning that meets the needs of employers and learners	Percentage of respondents who state that they are currently using (or expect to be using) the skills or knowledge that they acquired from the first non-formal learning activity a fair amount or a lot*	AES (NFEUSE1, split into NFEUSEA1 and FNEUSEB1 as of 2016)	This variable directly measures the relevance of training received.
	Percentage of enterprises which state that the level of training provided was appropriate to the enterprise's needs (no limiting factors)	CVTS (D3a)	Although the measure refers to the level of training provided, it specifies that there were no limiting factors. It may therefore be a good proxy for the overall sufficient relevance of training offers/provision for employers.
	Percentage of respondents	AES ⁵⁸	The measure or

⁵⁸ A similar measure is available from EWCS. However, the advantage of using AES over EWCS is the availability of more detailed breakdowns, e.g. whether education and training was

Key success factor	Measure/variable	Source	Comments
	who state that their education and training activity has helped them in any of the following ways: getting a (new) job, promotion in the job, higher salary, new tasks, better performance in present job, by formal/non-formal education and training, and source of finance (private, employer, PES or public institution)		variable refers to relevant positive training outcomes for learners, which at the same time convey the relevance of the skills and competences acquired by the training for employers. The limitation of this measure or variable is its reliance on the subjective assessment of respondents.
5 Deliver high quality adult learning ‡	Percentage of respondents whose reason for not being satisfied with education and training activity was the quality of teaching*	AES (FEDUNSATREA SON_4, NFEUNSATREAS ON_4 optional until 2011)	This variable is a subjective indicator of the extent to which the low quality of teaching is a reason for individuals' non-satisfaction with education and training activities.
	Percentage of respondents who state that the their education and training activity has helped them to better performance in their present job, by formal/non-formal education and training, and source of finance (private, employer, PES or public institution).	AES ⁵⁹	High quality and effective training will improve the way employees work. Better performance, is a direct outcome of effective adult learning. This variable is based on the subjective assessment of respondents.
6 Coordinate an effective lifelong learning policy	None		A potential future source are the new Eurypedia article updates on "Developments and current policy priorities"

funded by the employer or another source. Another advantage of the AES is its larger sample size.

⁵⁹ A similar measure is available from EWCS. However, the advantage of using AES over EWCS is the availability of more detailed breakdowns, e.g. whether education and training was provided by the employer or by another type of provider. Another advantage of the AES is its larger sample size.

Measures and variables measuring critical outputs

This section presents the proposed measures and variables for outputs of each of the key success factors as defined in the current conceptual framework. They are presented in Table A8.9.

Table A8.9: Critical output measures and variables

Output	Measure/variable	Source	Comments
1 Increased participation in adult learning	Percentage of persons who participated in education or training in past 4 weeks, total, by age group, by highest level of qualification obtained, by gender, by employment status, by public/private sector, enterprise size and by type of education and training (formal, non-formal)	EULFS	The percentage total refers to the ET2020 benchmark. Additional information on age groups, highest level of qualification obtained, gender, employment status, public/private sector and the type of education and training will provide information in relation to the composition of the total participation rate.
	Average hours spent on all learning activities within the last 4 weeks (only those who participated in education and training),	EULFS	Time spent in education and training is an important measure or variable of the intensity of participation.
	Percentage of employees participating in CVET courses	EULFS	This is a JAF measure or variable
	Percentage of persons who participated in education or training in the last 12 months, by job-related/not job-related, employer-sponsored/not employer-sponsored	AES	Although only available every 5 years, this AES based adult learning participation measure or variable adds value as it applies a broader non-formal education definition than the EULFS and because breakdowns according to job-related/not job-related, employer-sponsored/not employer-sponsored are available.
2 Improved levels of skills and competences	Highest level of qualification obtained , age/gender cohort change over defined period (say 10 years), by national/non-national	EULFS	The measure or variable encompasses initial education and adult learning but is an important contextual measure or variable of skill levels of the population. By breaking the measure or variable down in nationals and non-nationals, trends net of migration effects can be monitored. As legislation in relation to obtaining the national

Output	Measure/variable	Source	Comments
			citizenship differs across, it may be useful to include non-nationals with more than 10 years of residence in the country in the "nationals" category.
	Percentage of persons without school leaving qualification (highest level of qualification obtained at most lower secondary school), by national/non-national, by age group and by gender	EULFS	One of the main aims of adult learning is to bring the low qualified to a level of qualification which enables them to continue learning in the formal education system, and to a skill level with which they are more likely to engage in non-formal education and training. A high percentage of persons without a school leaving degree indicates that this aim has not been achieved. As legislation in relation to obtaining the national citizenship differs across, it may be useful to include non-nationals with more than 10 years of residence in the country in the "nationals" category.
	Percentage of adults with low literacy skills ⁶⁰	PIAAC	Improving the levels of skills of adults with low levels of skills is one of the major aims of adult learning policy.
	Percentage of adults with low numeracy skills ⁶¹	PIAAC	
	Percentage of adults with low problem-solving in technology rich environments skills ⁶²	PIAAC	
3 Higher quality of learning ‡	Percentage of respondents who state that their education and training activity has helped them in any of the following ways: getting a (new) job, promotion in the job, higher salary, new tasks, better performance in present job, by formal/non-formal education	AES	This measure or variable has also been proposed to measure key success factors 4 ("Deliver learning that is relevant to employers and learners") and 5 ("Deliver high quality and effective adult learning"). Relevant and

⁶⁰ Scoring at literacy proficiency level 1 or below (below 226 points), excluding literacy-related non-response.

⁶¹ Scoring at numeracy proficiency level 1 or below (below 226 points), excluding literacy-related non-response.

⁶² Scoring at problem-solving proficiency level 1 or below (below 241 points), excluding literacy-related non-response.

Output	Measure/variable	Source	Comments
	and training, and source of finance (private, employer, PES or public institution).		effective training will have positive outcomes for learners. This measure or variable is based on the subjective assessment of respondents.

Annex 9: Improving the evidence base and monitoring tools: Technical recommendations

In order to provide a firm base for policy development and monitoring at European, national and regional levels, the Commission, Member States and other relevant stakeholders are recommended to take action to increase the quantity and improve the quality of research and of statistical data as set out below.

Improving the research evidence on adult learning policy effectiveness

The Commission, Member States and other relevant stakeholders are recommended to improve the evidence base on adult learning policy by commissioning meta-reviews of the literature or other research to fill gaps in the evidence, in particular on the effectiveness of the following policy actions:

- Understanding and identifying the needs and motivations of learners;
- Promoting innovation and flexibility in the delivery of learning;
- Providing progression pathways for learners across the national qualifications framework;
- Establishing a quality control framework for monitoring and evaluation of adult learning;
- Developing a skilled adult education workforce through initial teacher training and continuous professional development; and
- Building a knowledge base concerning what works in adult learning.

Improving the statistical data to monitor those policy actions, for which available data is not of sufficient quality, coverage or frequency

With regard to policy measures for which available data is not of sufficient quality, coverage or frequency, the European Commission is recommended to consider:

- Improving the stability and comparability of good quality variables within surveys across time by ensuring that variables identified in this study are maintained in future surveys;
- Improving the data sources to measure in particular the effects of the following policy actions:
 - Understanding and identifying needs and motivations of learners;
 - Identifying current and future skills needs of employers and aligning provision with these;
 - Providing progression pathways for learners across the national qualifications framework;
 - Developing a skilled adult education workforce through initial teacher training and continuous professional development; and
 - Building a knowledge base concerning what works in adult learning.
- Including variables measuring key factors for success, which are currently in AES and CVTS, in more frequent surveys (LFS or EU-SILC) so that data can be more frequently updated.
- The re-introduction of certain questions into the AES and CVTS, including:
 - Percentage of respondents who have looked for information on learning possibilities in the last 12 months but did not find any;
 - Percentage of respondents who state that they have been involved in any procedure of recognition of skill or competences;

- Percentage of respondents who state that their non-formal learning activity was a basic programme or focused on literacy and numeracy;
- Percentage of enterprises which usually consider certification of external providers (e.g. national registers) to ensure the quality of CVT;
- Percentage of respondents whose reason for not being satisfied with education and training activity was the quality of teaching;

Improving the statistical data to monitor those policy actions for which no appropriate data is available

The European Commission is recommended to consider:

- Improving the data sources by developing relevant statistical measures and introducing them in European surveys, to properly measure the effects of the following policy actions:
 - Using intermediary organisations in outreach to difficult-to-engage groups;
 - Coordinating adult learning policy with other national policies for improving the knowledge, skills and competences of adults; and
 - Establishing mechanisms for policy alignment at local and regional levels.

Develop administrative data sources for quantitative and qualitative monitoring of policy effectiveness

The European Commission is recommended to consider:

- Exploring how administrative data can be best used to evaluate policy actions and monitor policy implementation; make relevant improvements in the collection of such administrative data;
- Enhancing its quantitative data collections including:
 - the Labour Market Policy statistics on training for unemployed people; ,
 - the UNESCO-OECD-Eurostat statistics, to collect at European level data on provision of and participation in formal adult learning programmes and
 - the European Social Fund monitoring system to better quantify the adult learning that is financed by the ESF ;
- Exploring ways to increase the comparability and precision of its qualitative data collections for policy monitoring.

The Member States are recommended to consider, for example:

- Commissioning and publishing robust evaluations of their adult learning policy actions;
- Undertaking surveys to monitor relevant policy actions/reforms where pan-European surveys are not sufficiently frequent enough for their policy needs.
- Developing coherent and integrated administrative and qualitative data collection and monitoring systems, across departments and levels of government.

The availability and quality of available data is visualised in Figure 4.1.

HOW TO OBTAIN EU PUBLICATIONS

Free publications:

- one copy:
via EU Bookshop (<http://bookshop.europa.eu>);
- more than one copy or posters/maps:
from the European Union's representations
(http://ec.europa.eu/represent_en.htm);
from the delegations in non-EU countries
(http://eeas.europa.eu/delegations/index_en.htm);
by contacting the Europe Direct service
(http://europa.eu/europedirect/index_en.htm) or calling 00 800 6 7 8 9 10 11
(freephone number from anywhere in the EU) (*).

(*) The information given is free, as are most calls (though some operators, phone boxes or hotels may charge you).

Priced publications:

- via EU Bookshop (<http://bookshop.europa.eu>).

Priced subscriptions:

- via one of the sales agents of the Publications Office of the European Union
(http://publications.europa.eu/others/agents/index_en.htm).

