Adult Learners in Digital Learning Environments: Interim Findings

17th September 2014

Why Intervene at the EU Level?

To respond to needs to:

- Increase overall **levels of adult learning** through the development of relevant skills and ensuring relevant, validated and recognised learning outcomes;

- Maximise the **access to relevant and high-quality learning materials** irrespective of where the adults live, or the language they speak;

- Ensure that wherever possible the **learning materials are 'openly' available** to learners without there being any requirement to pay; and

- Integrate **effective learning support mechanisms** so that learners with low levels of learning competency can be engaged to participate in learning.

Aims and Objectives of the Study

To contribute to the work of the Commission and Member States in achieving the objectives set out in ET 2020 in relation to ICT-enhanced learning, including OER in adult education/learning (AL), in particular through:

- Providing the Commission with a detailed description and analysis of the current state-of-play of the use of ICT-enhanced learning, including OER, in adult education in Europe, sampling across EU28 Member States, EFTA States and Candidate States;

- Providing policy-relevant analysis and advice;

- Developing policy conclusions and recommendations, for relevant policy makers in Member States, and for adult learning providers; and

- Developing an approach for a (self-assessment) toolkit for adult learning institutions (as well as policy makers) for analysing their state-of-play when it comes to ICT/OER use in adult learning.

Context and Key Challenges

First, we explored the diversity, and identify common activities and themes that range across the provision of adult education (without enforcing a particular definition)

- Finding examples of good practice where there is the combination of 'adult+education+provider+digital+OER' has been challenging;

- There are many examples of digital+OER, but these have been primarily in tertiary/higher education (and in relation to MOOCs);

- I(through funding instruments for example) are often focused on particular segments of adults: for example immigrants; NEETS; with low employability and transferable skills; older people lacking digital skills needed for learning;

- Due to the heterogeneity of the activities involving adult education, it seems unlikely that a single generic framework of good practice will emerge;

- Further work will be carried out at Member State levels where the focus will particularly identify case studies of good practice.

The Role of ICT and OER in Learning

A typology developed by Goertz emphasises the pedagogical use of technologies for learning (Goertz 2013) and indicates a trend towards more collaborative forms of formal and informal learning

(Blue indicates types of ICT that were already available in 2008). Source (Goertz 2013, p.11)
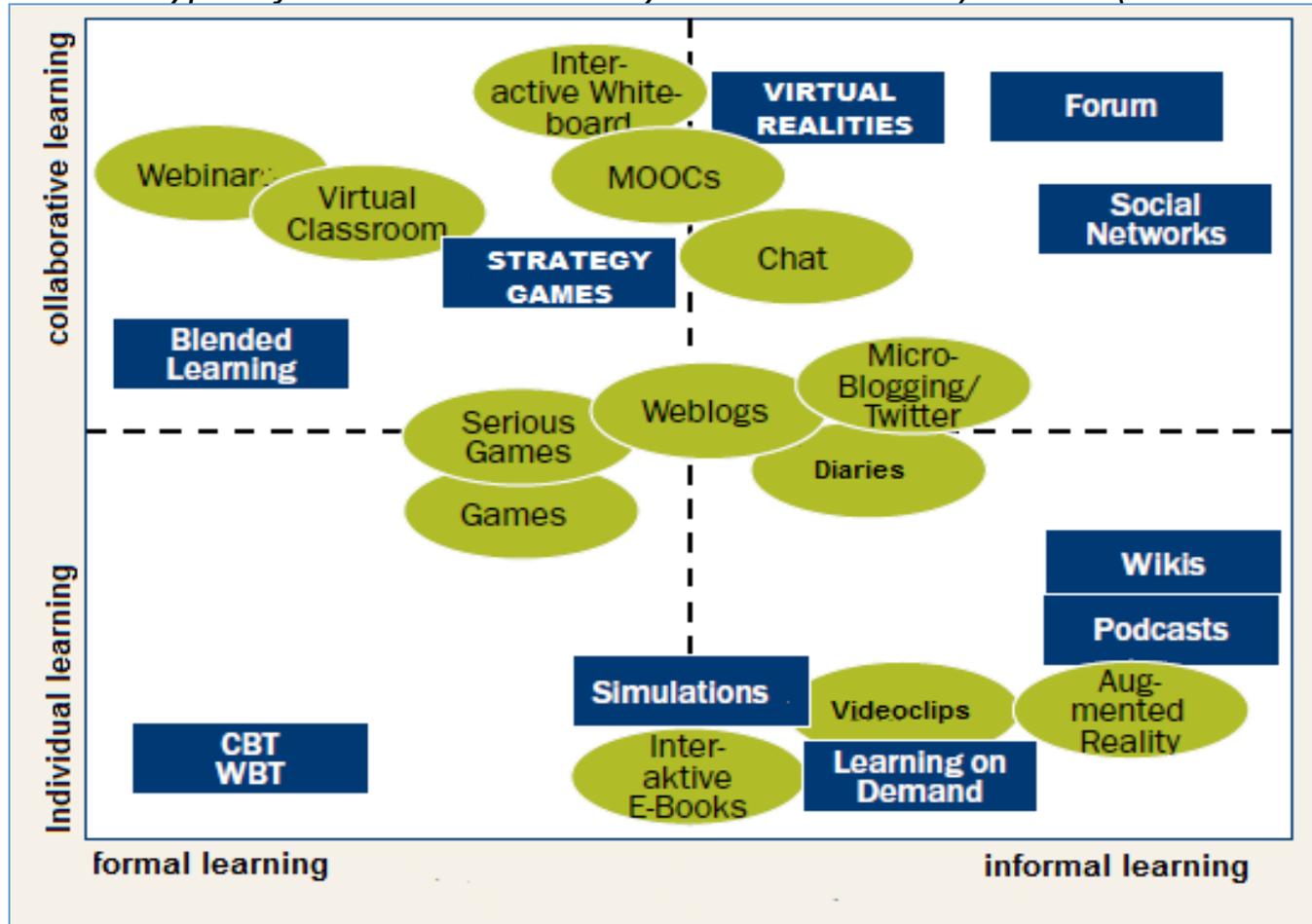
The Role of ICT and OER in Learning

- The MATEL study emphasises that **different types of ICT tools** may prove more useful within particular adult education settings but not necessarily in others;

- Open Educational Resources (particularly when delivered through ICT-enabled learning) are increasingly recognised as a major opportunity to enhance the scope of opportunities in the adult learning sector;

- A comprehensive typology of OER formats is offered by OPAL/POERUP), distinguishing between open courseware, open publishing, open artefacts and open support as four pillars of OER; BUT

- OER has been the more difficult of the study components to assess and structure. The heterogeneity of adult learners does is not easily addressed by OER in the way that MOOCs are for the more 'generic' higher education student community.

Country level review - outcomes

Not all countries have a policy that specifically targets adult learners, with foci in three areas:

- **Countries prioritising lifelong learning (LLL) -** include Czech Republic, Estonia (albeit the focus is not on adults explicitly), Greece, Norway, Turkey and Spain;

- **Countries emphasising employability and social mobility** - France, Hungary, Poland and the United States; and

- **Countries that do not address Adult learning separately, but rather have policies in place that are cross-age** - Poland, Estonia and the United Kingdom (although mechanisms exist to finance initiatives that benefit adult learning).

Country level review - outcomes

Key target groups for adult learning policies across the countries were:

- **Adults lacking basic skills in literacy and numeracy**: Germany (at least at the Lander level), Greece, Hungary, Netherlands, Norway, Sweden, UK, USA;

- **NEETs**: Portugal, UK (a particular focus is on younger adult NEETs);

- **Women**: Spain, Netherlands; and

- **Immigrants**: Netherlands, Norway, Spain, Sweden.

Country level review - outcomes

Relatively few countries have in place **policies for ICT-enhanced adult learning**:

- Norway has mainstreamed the use of digital tools within the basic skill-set of adult learners. ICT-based education is clearly within adult learning curricula;

- The USA has emphasised the role of ICT and digital learning, placing a particular interest on digital badges for workforce skills development and on programmes that support careers in Science, Technology and Maths;

- In Estonia, the government has established ad hoc consortia, with the specific mandate of bringing together relevant actors for the scaling up of ICT-based learning and OER;

- Scotland (UK) has a policy which explicitly sets out a need for providers to use ICT to enhance their adult education provision and reach out to more adults; and

- A focus on distance/online learning (e.g. Brazil, France, Spain); and OER (e.g. Greece, Norway and the Netherlands).

Country level review - outcomes

Country reviews highlight a number of barriers to accessing ICT-enhanced education:

- Financial constraints on the supply-side;

- Financial constraints on the demand-side;

- Low awareness of digital learning and its benefits;

- Lack of basic ICT skills;

- Information asymmetries, relating to lack of certification of training providers or to lack of transparency in learning trajectories; and

- Lack of adequate ICT infrastructures.

ICT Enabled Initiatives

- Initiatives often take place within higher education institutions, especially universities;

- There is a focus on e-learning/distance education (Brazil, Estonia, France, Greece), and OER (Germany, Netherlands, Norway, Portugal, USA);

- Larger-scale ICT/OER initiatives are predominantly designed for higher education, and transferability of HE resources to the diverse adult learner sector is difficult (but note some examples such as Starbucks Corporation); and

- Strong good practice initiatives were identified in the USA, Spain and in Germany, where ICTs helps address specific target groups (e.g. police officers in Germany) and policy areas, such as food security in the USA.

Some Examples

- *(OER and Language Learning) – USA.* With funding from the William and Flora Hewlett Foundation, the Learning Games Network developed Xenos as an OER for language learning for English as a Second Language Learners (ESL) in the United States;

- *(OER Licensing) – USA.* The California Community College system voted to acquire a Creative Commons Attribution license for any works created under grants or contracts funded by the California Community Colleges Chancellor's Office;

- *(OER Resource Sharing using ICTs) Norway* www.delogbruk.no Delogbruk.no is a Norwegian Web 2.0 initiative which stimulates educators at all levels to share learning resources and experiences; and

- *(ICT learning – Maths for Adults) Norway* http://www.regnehjelpen.no/ www.leseogskriv.no. Regnehjelpen (Maths Aid), a digital learning tool with interactive tasks across a variety of adult relevant arenas.

Some Examples

*(ICT Literacy Games for Socially Excluded Adults) – Germ*any
- Winterfest is a standard single-player game and aims to help illiterate adults to develop basic literacy and numerical skills;

- Hopscotch, developed by the Fraunhofer Institute for Digital Media Technologies, is an innovative approach to gaining basic skills through game-based learning, combining motion-capture techniques and computer-assisted feedback;

(ICT tools for vocational skills for young adults)
- Kompetenzwerkstatt is an open source software-framework modelled on Powerpoint. It allows providers as well as learners to embed all sorts of learning content in it (text, sound, graphics, animations, videos).

Some Examples

- *(ICTs for developing digital competencies) – UK.*
  http://www.bbc.co.uk/learning/adults/
  - Developing skills in adults, in particular digital skillsthrough web resources such as the BBC's WebWise (http://www.bbc.co.uk/webwise/0/)

- http://maths4us.org/ http://www.mathseverywhere.org.uk/
  - Maths4us is a NIACE-led initiative to raise awareness of the role, value and importance of maths for adults. Maths4us has introduced a range of mobile apps to help with maths learning.

OER and ICTs: Conditions for Success

- Precondition for the take-up and usage of ICT in learning **is access to good quality** ICT facilities **through high-speed broadband**, and **familiarity with computers and use of the Internet** in providers;

- The **need to develop the skills and competences** of adult learning professionals. The OECD has also emphasised the **importance of professionalisation of educators** in developing and updating the necessary technical and didactical skills;
  - Individual digital skills;
  - Skills to use ICT in teaching;
  - Skills to develop digital competences in learners;
  - Skills in addressing disadvantaged and new emerging learner groups;
  - Legal knowledge about OER and licensing; and
  - New digital content production skills.

OER and ICTs: Conditions for Success

- Adult learning providers will need to find **new institutional strategies** – e.g. providing a context that encourages and rewards staff to invest their time in developing high quality learning resources that will be openly available to anyone;

- The OECD, while referring to schools, addresses issues that are also relevant to adult education - **the need for sufficient levels of funding for ICT-infrastructure** (digital inclusion) and its maintenance, both for providers and learners; and

- **Public investments for the development of high quality digital learning resources** that meet the needs of both educators and learners, and are available through **clearly understood legal/licensing frameworks**.

  (Many of these challenges are overcome by HE institutions through size and economies of scale. This is less easy for many smaller more heterogeneous adult education providers. So …)

OER and ICTs: Conditions for Success

- Beyond the more individual (person or group) focus there is the **potential for learning to be delivered through stakeholder cooperation and multi-stakeholder partnerships** to create economies of scale;

- Partnerships further need to have resources, as well as the motivation, to work together, rather than passively waiting for content to become available in the right formats;

- Without motivation many providers are unlikely to invest in the production of OER themselves, or to assign staff working-time to focus on re-purposing OER that is available for re-use.
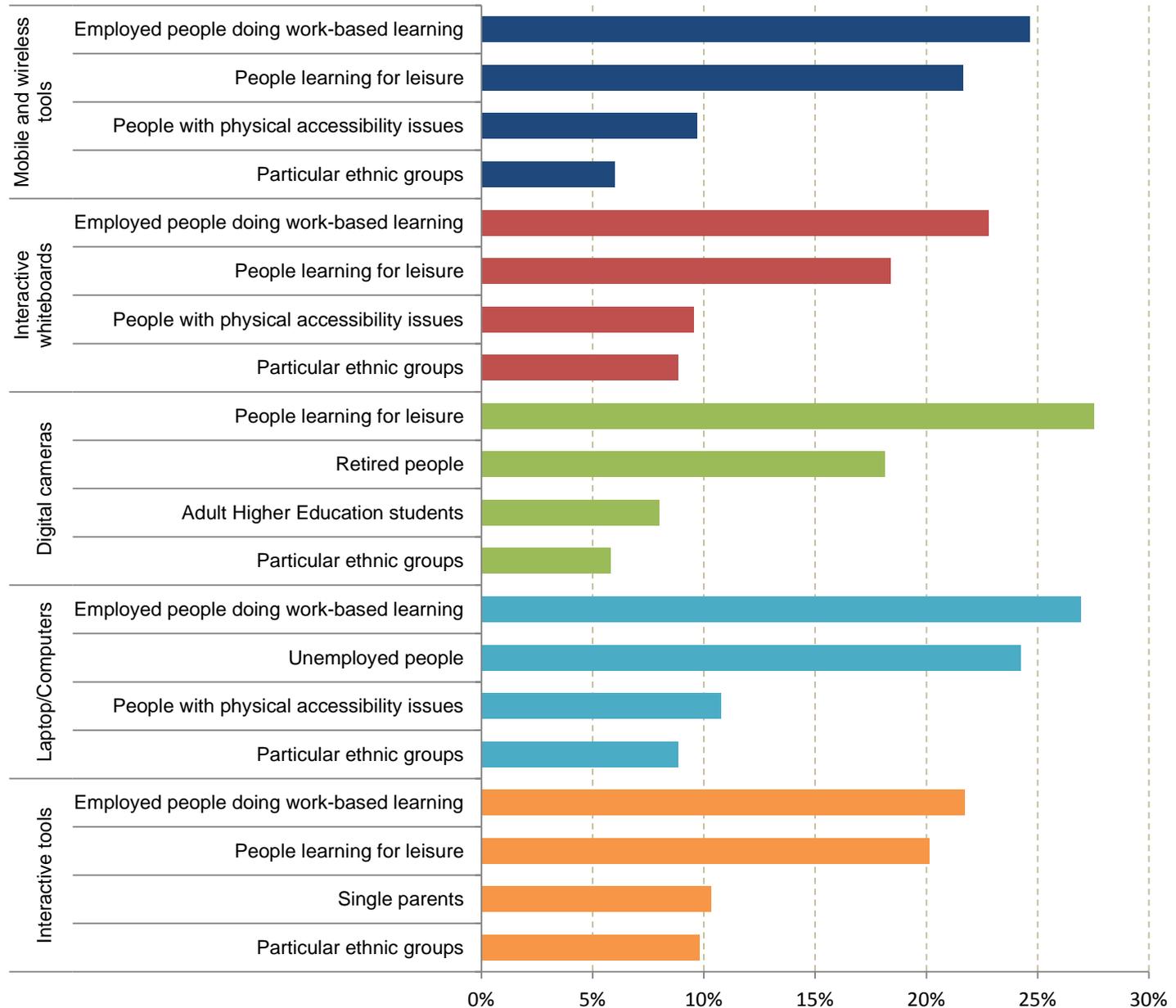
Survey Results

- 54% of the institutions responding were at the 'established' or 'embedded' stage when using ICT equipment to enhance adult learning provision

- 17% either had no access to computer resources or information technology/ICT equipment ('not yet started' stage), or were in the 'early' stages with limited access to both;

- 10 out of 14 institutions who were in the 'early' stages delivered non-formal education and training, 6 of these were 'not for profit' private sector adult education organisations;

- 17 out of 28 of the 'for profit' private sector adult education organisations in the survey reported that they were at the 'embedded' stage; and

- For the majority (95%) who used ICT equipment to enhance their adult learning provision, laptops/desktop computers (rather than tablets or smartphones) were the most common form of ICT equipment used.

Survey Results

- 46% of the institutions who used interactive tools such as videos and games were at the 'developing stage', with only some courses offered using this approach; and

- Institutions that used Laptops/Desktop computers were likely to be at the 'developing' or 'embedded stages'.
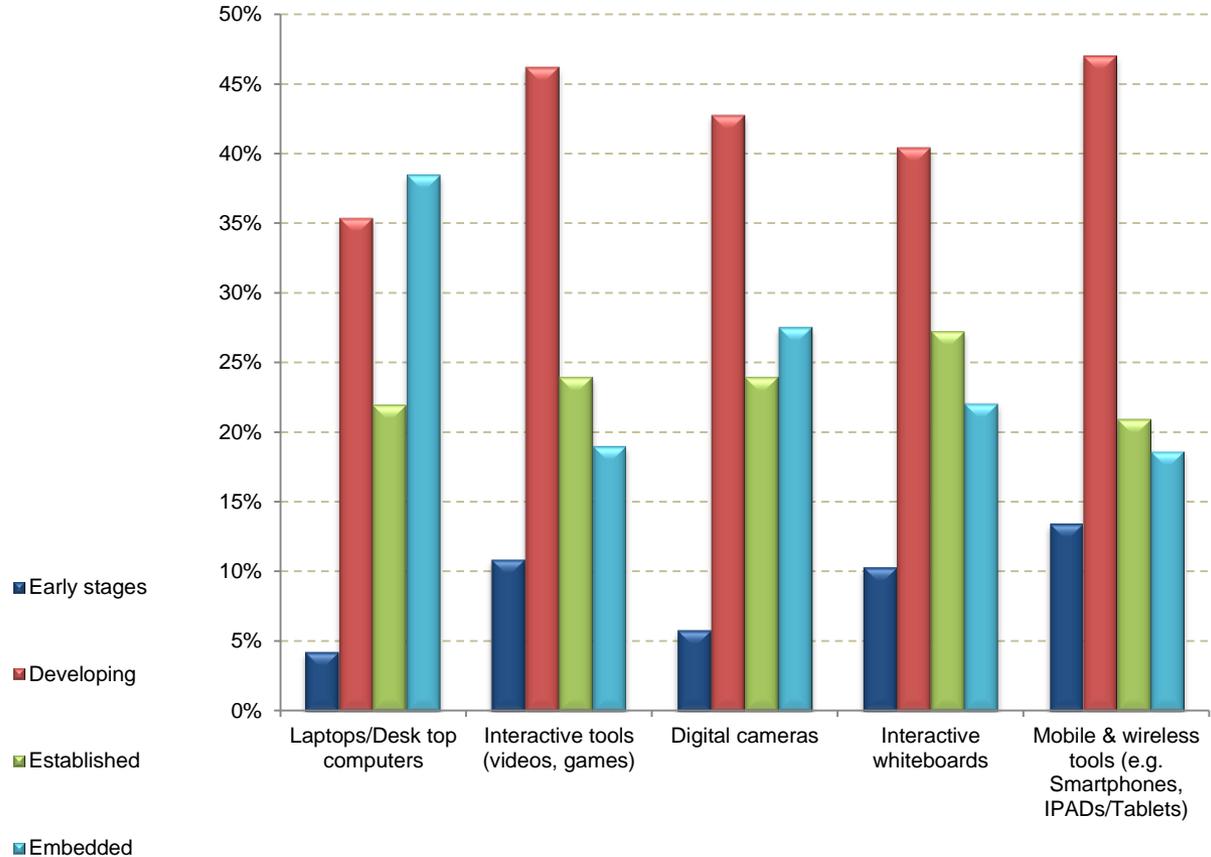
Survey Results

Survey Results

- However, adult learning provision offered by institutions involved in the survey is mainly classroom based; and

- On average, over half of the adult learning provision offered by these institutions involved classroom teaching .

| Delivery mode of adult learning provision	Mean (% proportion of learning)
E-learning	14.64
Online courses	6.97
Blended learning	16.84
Classroom teaching	58.39
Other	4.45

Survey Results

- Survey findings indicate broadly that training staff on how to use ICTs is not a priority for the adult learning institutions;
    - Only 28% had an 'established'/'embedded' staff training programme;

- For institutions that provided no staff training, the reasons for not doing so were mainly cited as costs, a lack of funding and limited resources; and

- Only 27% of the institutions who responded to the survey had an ICT policy or strategy.

Survey Results

78% of the institutions involved in the survey cited barriers that prevented them from using ICT in the delivery of their adult learning provision.

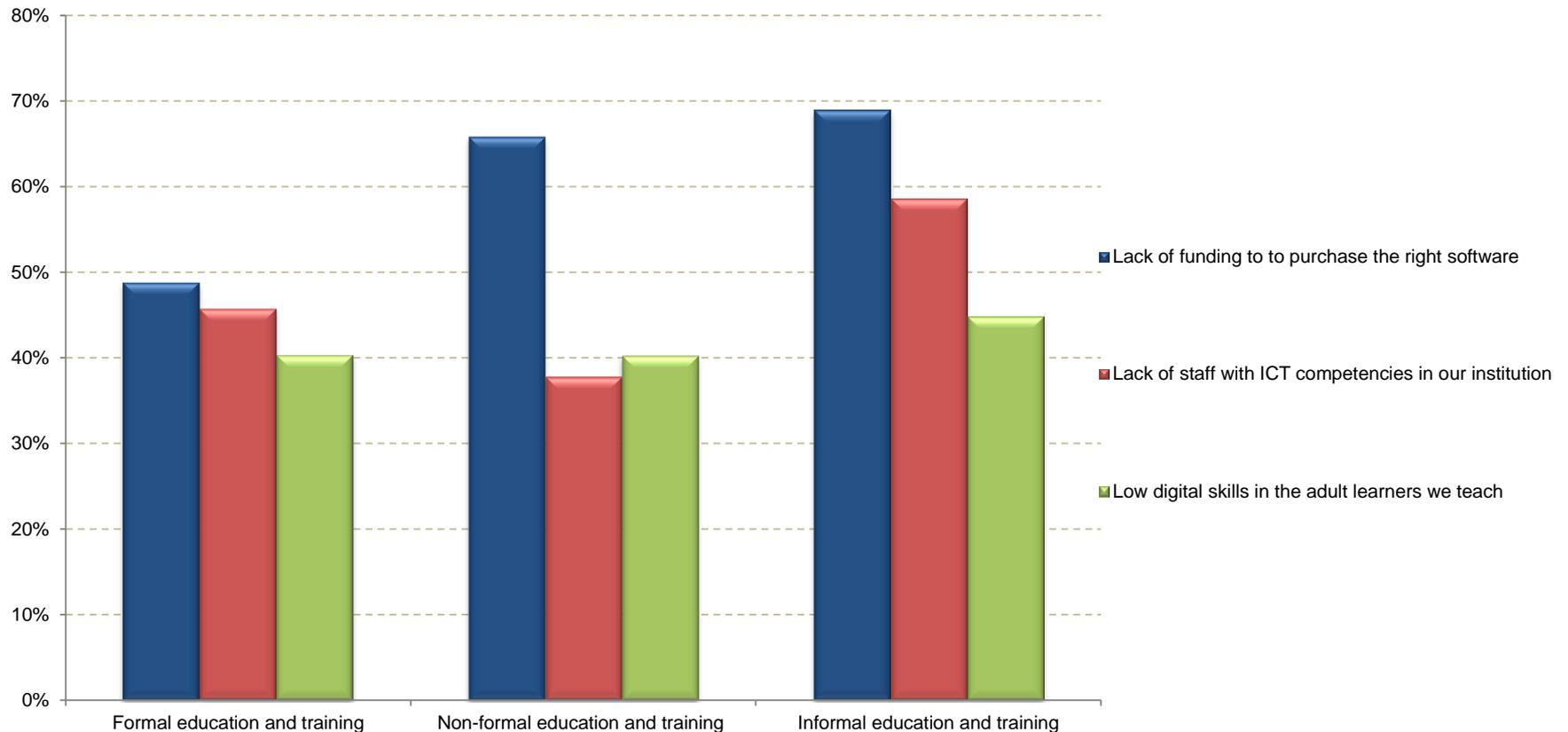## Barriers which prevent institutions from using ICT in its adult learning provision
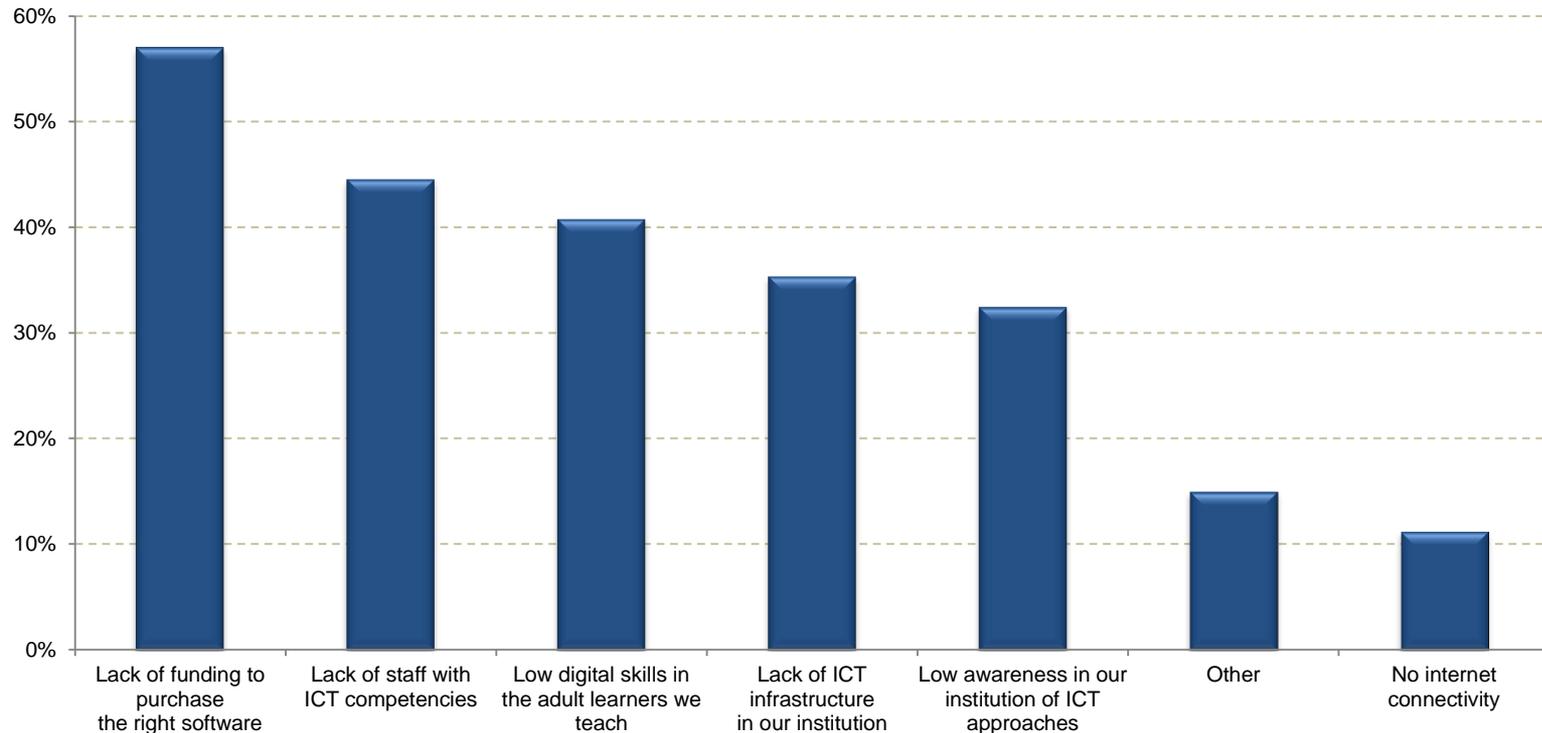
Source: Adult Learners in Digital Learning Environments Survey n=240

Survey Results

Institutions that provided informal education and training were more likely to cite a lack of funding as the main barrier

Barriers by Type of Institution

- ■ Lack of funding to to purchase the right software
- ■ Lack of staff with ICT competencies in our institution
- ■ Low digital skills in the adult learners we teach

Source: Adult Learners in Digital Learning Environments Survey n=different sub-samples for different types of institution

Survey Results

- A large proportion, 73% of the institutions involved in the survey indicated that they used some form of OER in their adult learning provision;

- Of those who used OER, the most common types of OER used in adult learning are open artefacts (60%), open courseware (59%) and open publishing (55%); and

- Open support (43%) was also used, but not as frequently as the above types of OER.

Survey Results

For institutions that used OERs, the main challenges preventing widespread usage were low awareness of OERs (48%) and a lack of funding to support the development of OERs (46%).

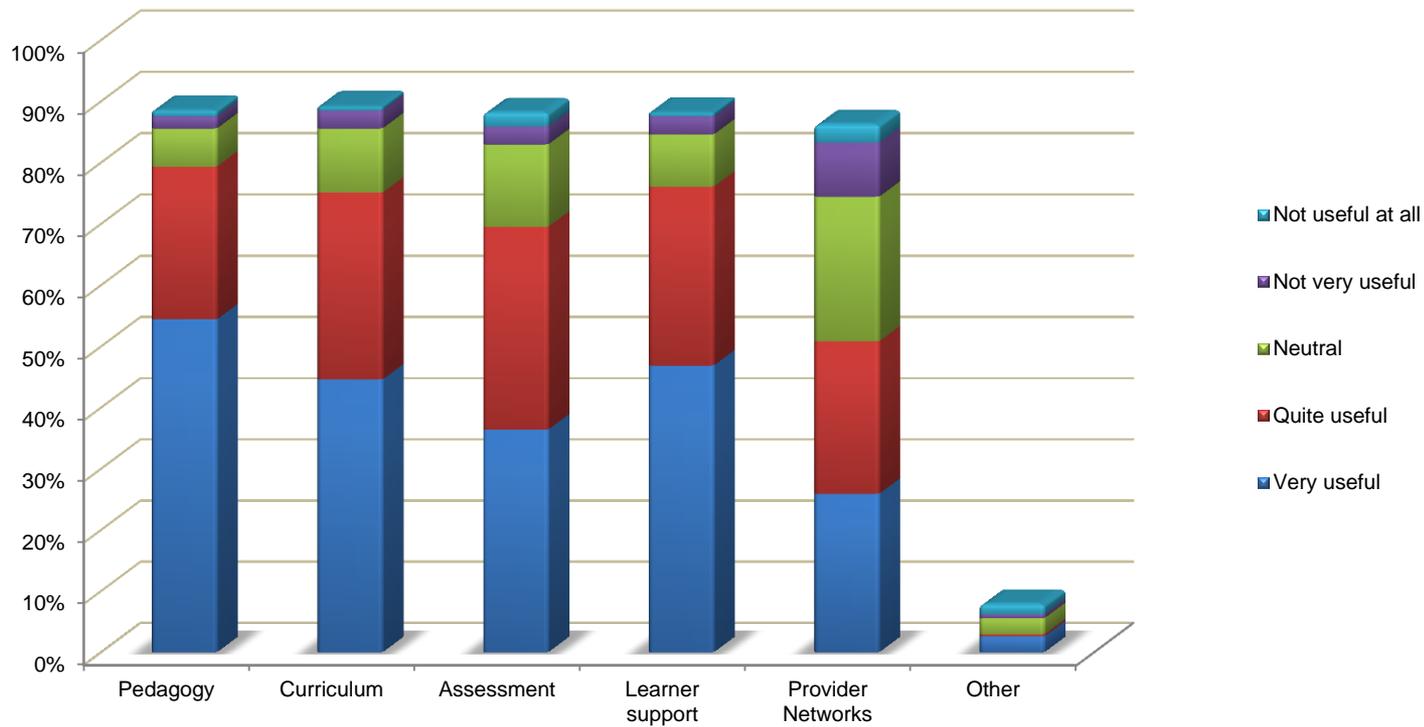## Challenges preventing institutions from using OERs in adult learning provision
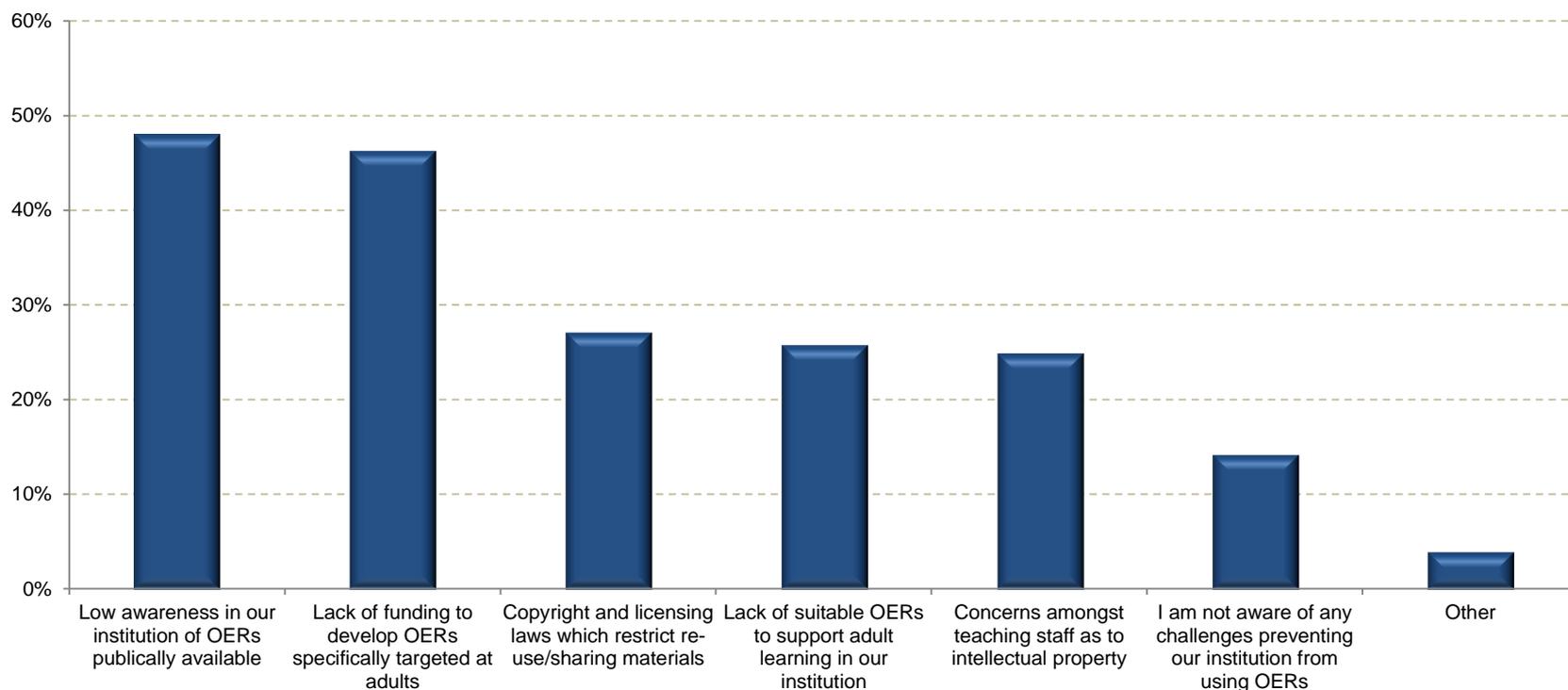
Source: Adult Learners in Digital Learning Environments Survey n=225

Future support needs - development of a toolkit for adult learning providers

Pedagogy was regarded as the most useful area with respect to content.

Views on areas of the toolkit

Source: Adult Learners in Digital Learning Environments Survey n=305

Potential Policy Implications

- **Funding Instruments.** A need to explore how Erasmus+ can be mobilised to enhance the development and delivery of ICT-enhanced OER for adult learners across the EU, in a way that also develops sustainable business models that avoid over-dependence on governmental funding, or where projects 'die' at the end of a funding cycle.;

- **Funding outcomes**. The consideration of impact and sustainability – any EU intervention needs to be clearly needed at the EU level, to deliver measurable and tangible impact, and to sustain the investment into the future; and

- **OER and IPR issues**. Employers (the dominant users/providers of adult education) may commission learning from external developers who themselves will have proprietary learning programmes. Many will wish to protect the commercial advantage of their learning strategies through copyright and control over the use of their IPR.

Potential Policy Implications

Across the two dimensions of policy and provision there are emerging challenges at the European level:

- Placing digital learning and OERs at the core of lifelong learning agendas;

- Enabling and supporting appropriate infrastructures;

- Targeting public finances towards communities and projects with pan-European relevance through developments that build sustainable good practice; and

- Ensuring that good practice is well-documented and easily shared.

Thank you