

## Joint Research Centre (JRC)

# Results from expert consultations on the future of learning

Yves Punie & Christine Redecker

*Conference on Self-regulated Learning in Technology Enhanced Learning Environments: Problems and Promises, STELLAR NoE, 1 October 2010, University of Barcelona*

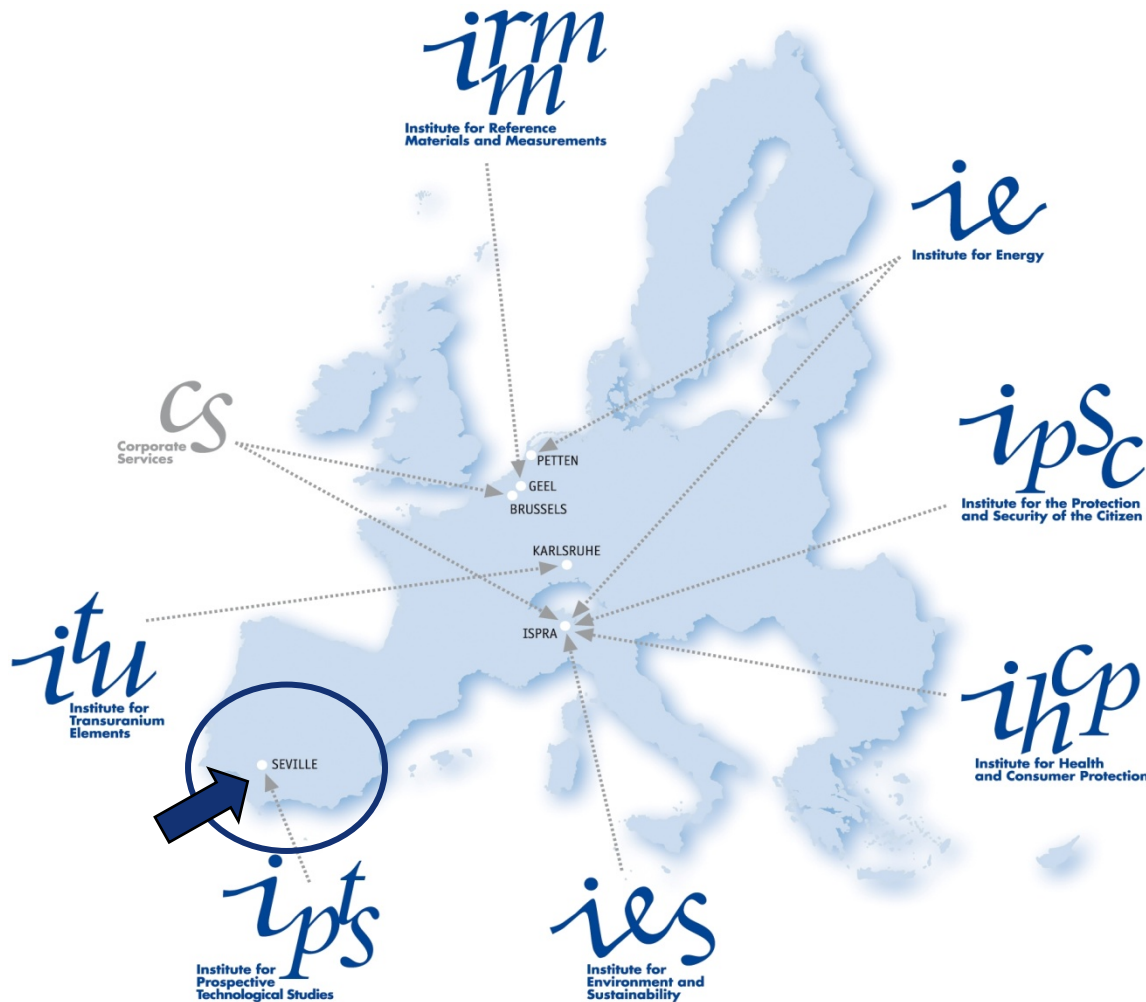
**IPTS - Institute for Prospective Technological Studies**

*Seville - Spain*

<http://ipts.jrc.ec.europa.eu/>

<http://www.jrc.ec.europa.eu/>





Part of Joint Research  
Centre of the EC

IPTS: Research Institute  
supporting EU policy-making  
on socio-economic, scientific  
and/or technological issues

## Learning Spaces

2005-2008

Future of Learning in knowledge-based society

## eLearning

2006-2008

Development of eLearning in NMS  
(EU10)

## Ageing

2008

Active ageing and the potential of  
ICT for Learning

## Learning 2.0

2008-2009

Use and potential of social media in  
**formal education** to support  
**innovation and inclusion**

Learning opportunities in online  
**informal networks and communities**

2009-2010

## Creativity & Innovation

in

**obligatory schooling**

2009-2010

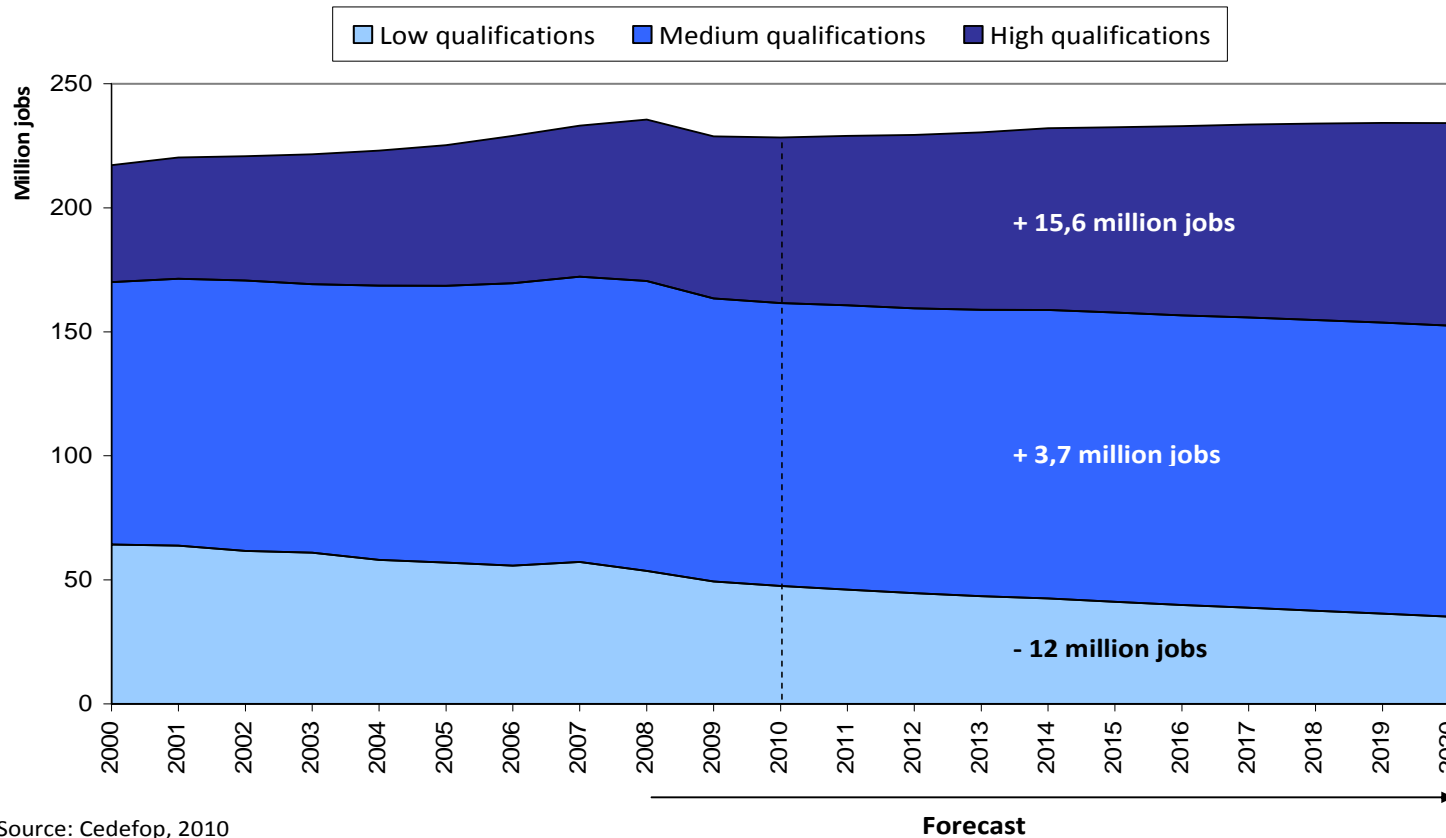
## The Future of Learning

**New ways to learn new skills for  
future jobs**

2009-2012 LLL project

## Tellnet

**Teachers LLL Networks**



In 2020, of all jobs  
 35% high qualifications  
 50% medium qualific.  
 15% low qualifications

Source: Cedefop, 2010

**According to European companies, 90% of jobs in 2015 will require some sort of ICT skills (IDC, Nov 2009)**

**As our societies are changing...**

**we need to rethink E&T and to envision future learning that is more efficient, equitable, innovative and meaningful than it ever was in the past**

***Foresight is not about predicting the future but rather a tool for longer-term strategic thinking and priority setting based on collaboratively developed shared visions and scenarios***

**How will E&T meet future learning needs?**

**How can demand & supply of skills be matched?**

Teachers

Experts & practitioners

EC policies

**Targeted consultations**

Workshop at  
eTwinning Conference,  
Seville, Feb 2010

GCM  
Vision  
Building  
Jan 2010

Online surveys, Apr-  
May 2010

Expert Workshop, May  
2010

Scoping Workshop  
Sept 2009

Interim Workshop  
May 2010

**Different approaches**

4 working sessions  
35 teachers

Email  
3 sessions  
13 experts

Via LinkedIn a.o.  
4 rounds,  
90 - 150 experts

1,5 day of synchronous  
discussion  
15 experts

DG EAC, DG  
INFSO, DG EMPL  
a.o.

2x circa 15  
participants

**Planned activities**

Online  
eTwinning  
Learning Event

Online Dissemination  
& Validation

MS educational  
policymakers

Student  
Competition

Teachers

Experts & practitioners

EC policies

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## One important change of Education in 20 years will be...

- Group Concept Mapping
- 13 Educational experts generated 203 unique statements
- Idea generation, clustering, ranking
- Individual – via email
- Clustering and rating of statements

TNO-NL, Open University  
NL and Attic Media-UK

Personalised, flexible, interactive learning

Learner in control  
Stronger focus on job-related learning

Formal education goes informal

LLL: learning shifts to home, work, community

Changing pedagogy: people learn differently

Increased use of facilitators (tools and services)

Recognise what people do and can

Globalisation of education

Institutions become enablers and connectors

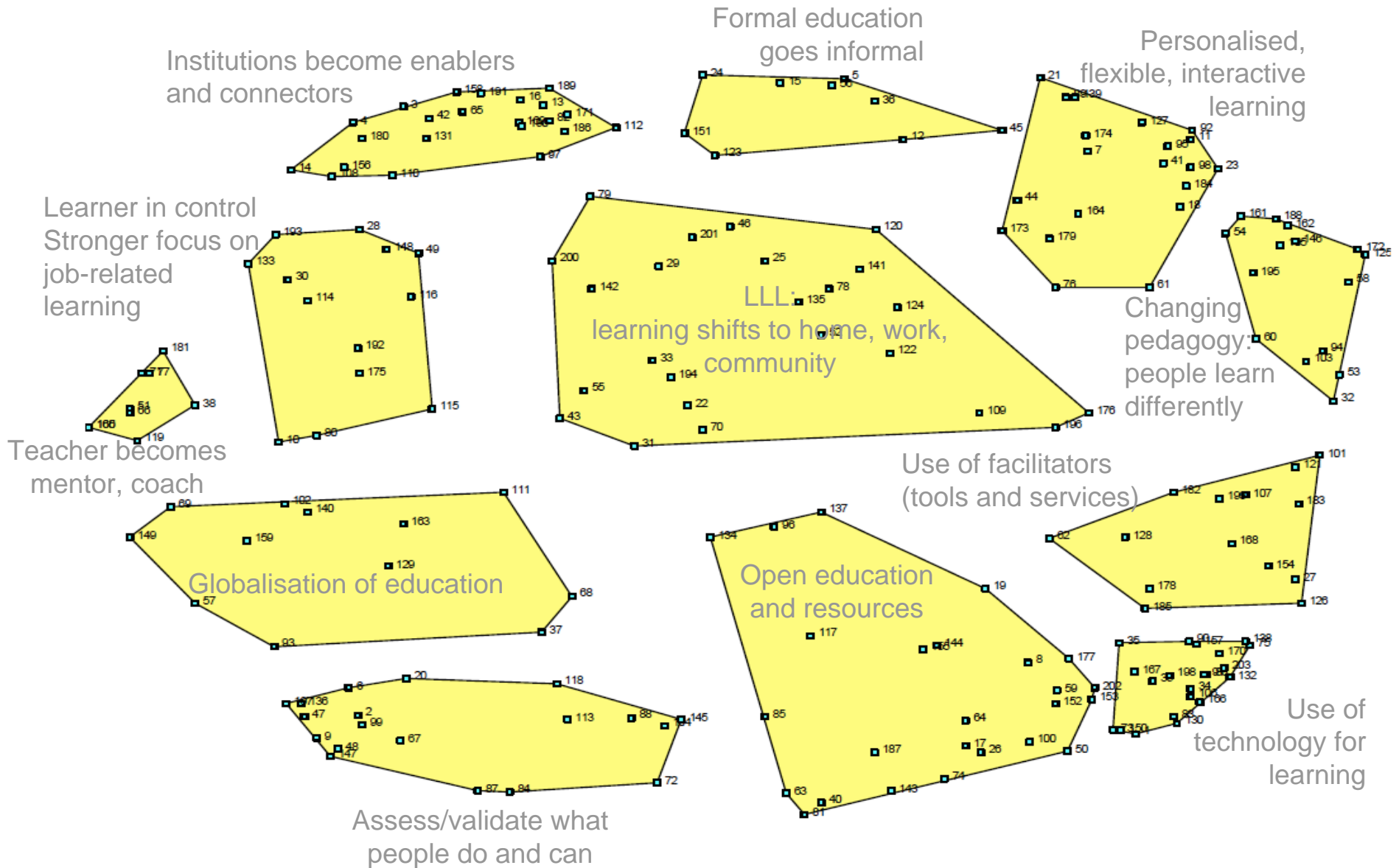
Teacher becomes also mentor, coach

Open education and resources

Use of technology for learning

4.06

3.21





## Changing roles of institutions, teachers and assessment



**Importance of technology-enabled learning**

Basic Account: Upgrade

Welcome, Yves Punie · [Add Connections](#) · S

**Linked in** Home Profile Contacts Groups Jobs Inbox (9) More...

Groups ▾



## Future of Learning

Discussions **Members** Promotions Search Manage More...

**NEW** What is Following in LinkedIn groups? Following makes it easy for your connections and others to see your contributions across groups you share. Just click c to any name in your groups.

### Search members

Search for names or keywords to find specific members of this group.

Search

[Advanced Search](#)

### New Members: Last 7 Days

**Judith Rijnders**,  
Directeur havo at  
Ashram College  
Alphen a/d Rijn  
The Hague Area,  
Netherlands

**Andrew Gakiria**,

### Members (605)

Sorted by: most relevant



**Yves Punie** YOU

Senior researcher at European Commission, Sevilla Area, Spain  
129 followers | [See activity](#) »



**Christine Redecker** 1st

Scientific Officer at European Commission, JRC IPTS, Seville, Sevilla Area, Spain  
39 followers | [Stop following](#) | [See activity](#) »



**Vicente Carabias** 1st

Project Manager at Institute for Prospective Technological Studies (IPTS-JRC), Sevilla Area, Spain  
70 followers | [Stop following](#) | [See activity](#) »



**Lieve Van den Brande** 1st

**TNO-NL, Open University NL and Attic Media-UK, in collaboration with IPTS**

# EMMA

Emma is an overachiever and reached her learning plateau within her high school.

School is  
Sooooo  
boring



“Open discussion on LinkedIn”



“Mini-survey”



Emma

## 2. Personalisation

Emma is 16 and a good student who generally enjoys learning. However, school bores her. There are so many things she wants to know, to say and to do and no room to express herself. She can't wait to get to university where she hopes to be finally treated like an adult.

**Please rate the following statements (1=strongly disagree - 5=strongly agree):**










Schools will become central hubs that organise learning activities within and outside their organisations to meet the needs of individual learners.

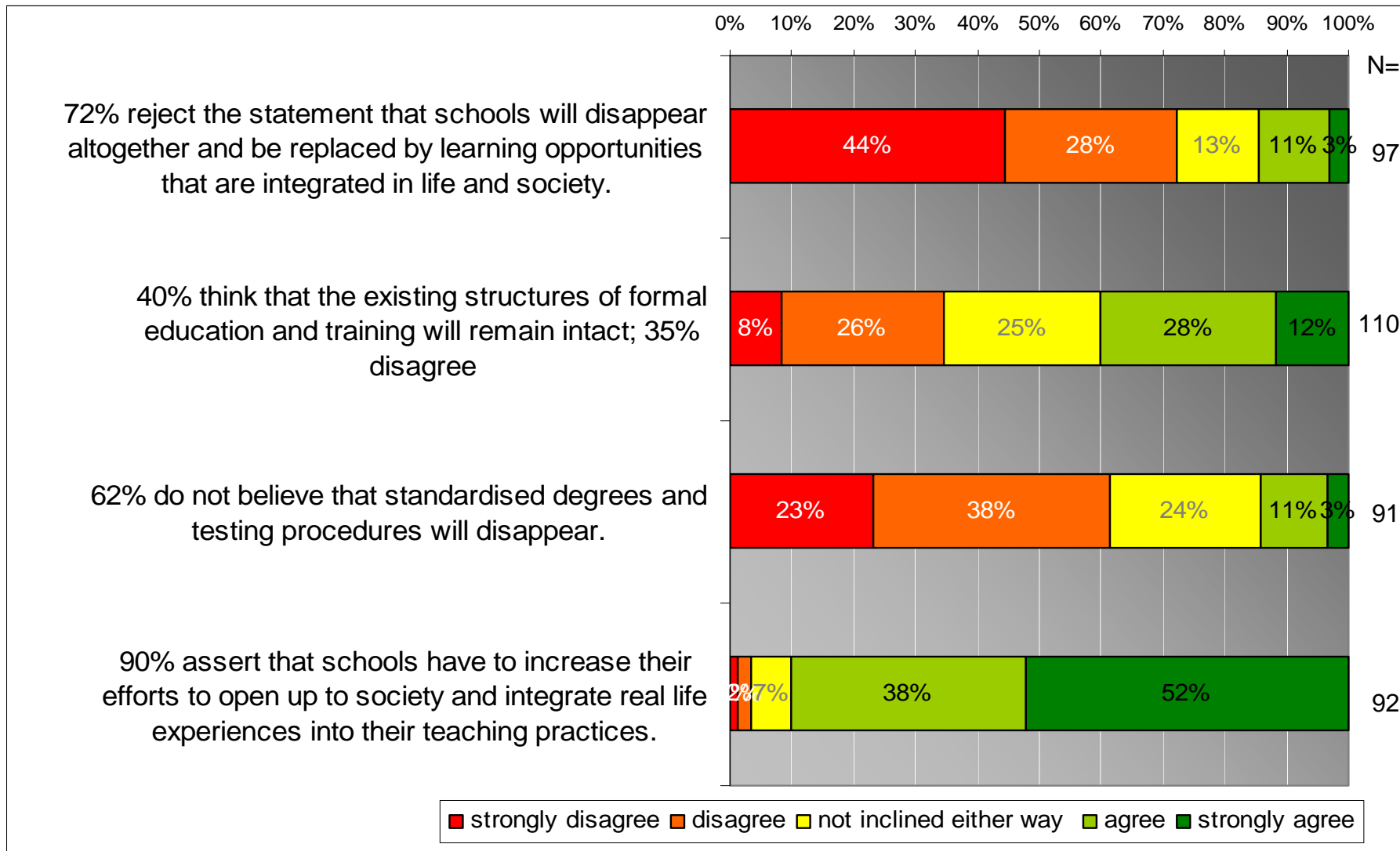
Schools will work together with other (educational) organisations and companies to offer a learning path that is not restricted to the boundaries of school.

You wouldn't believe how cute my Spanish tutor from the EIT is



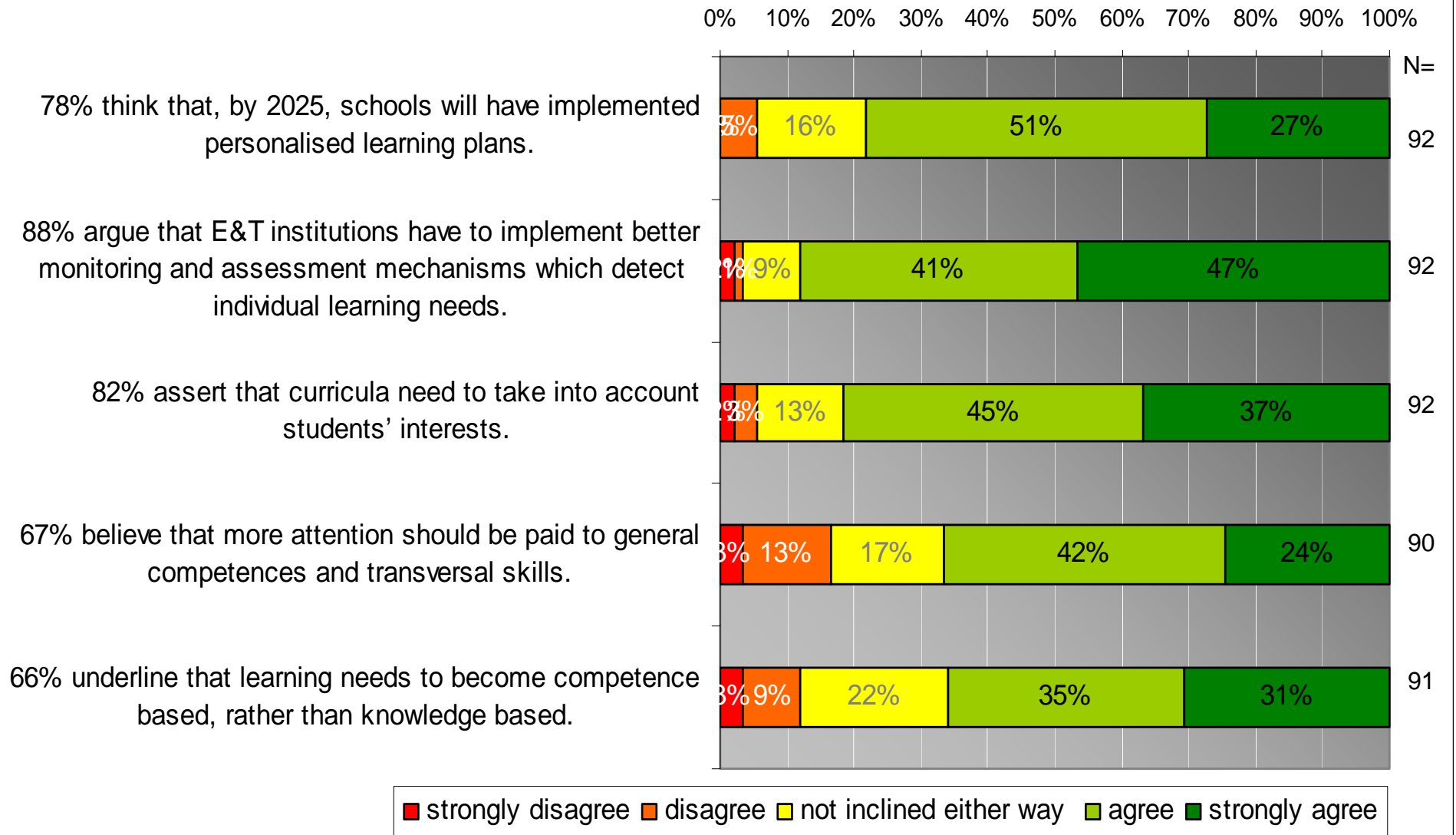
The European Institute of Technology has started an online volunteering network for Europe's best students to help them promote the use of green technologies in their communities.

	Formal Learning	Non-Formal Learning	Informal Learning
Children & Youth	<p>Quality &amp; Efficiency</p>  <p><b>Emma, 16, needs new challenges</b></p>	<p>Early School Leaving</p>  <p><b>Bruno, 14, skips school</b></p>	<p>Social Cohesion</p>  <p><b>Chanta, 8, feels lost in a foreign country</b></p>
Qualifying for a job	<p>Workers with no/low qualifications</p>  <p><b>Ingrid, 32, needs to enter a new job field</b></p>	<p>Re-skilling</p>  <p><b>Martina, 59, needs to enter a new job field</b></p>	<p>Labour Market Re-integration</p>  <p><b>Sven, 42, full-time father, looking for a job</b></p>
Skills development	<p>Transition from Higher Education</p>  <p><b>Joshua, 23, relevant degrees, but lack of key skills</b></p>	<p>Up-skilling</p>  <p><b>Slavi, 55, wants to improve his management skills</b></p>	<p>Teacher Training</p>  <p><b>Frank, 75, wants to pass on his knowledge</b></p>

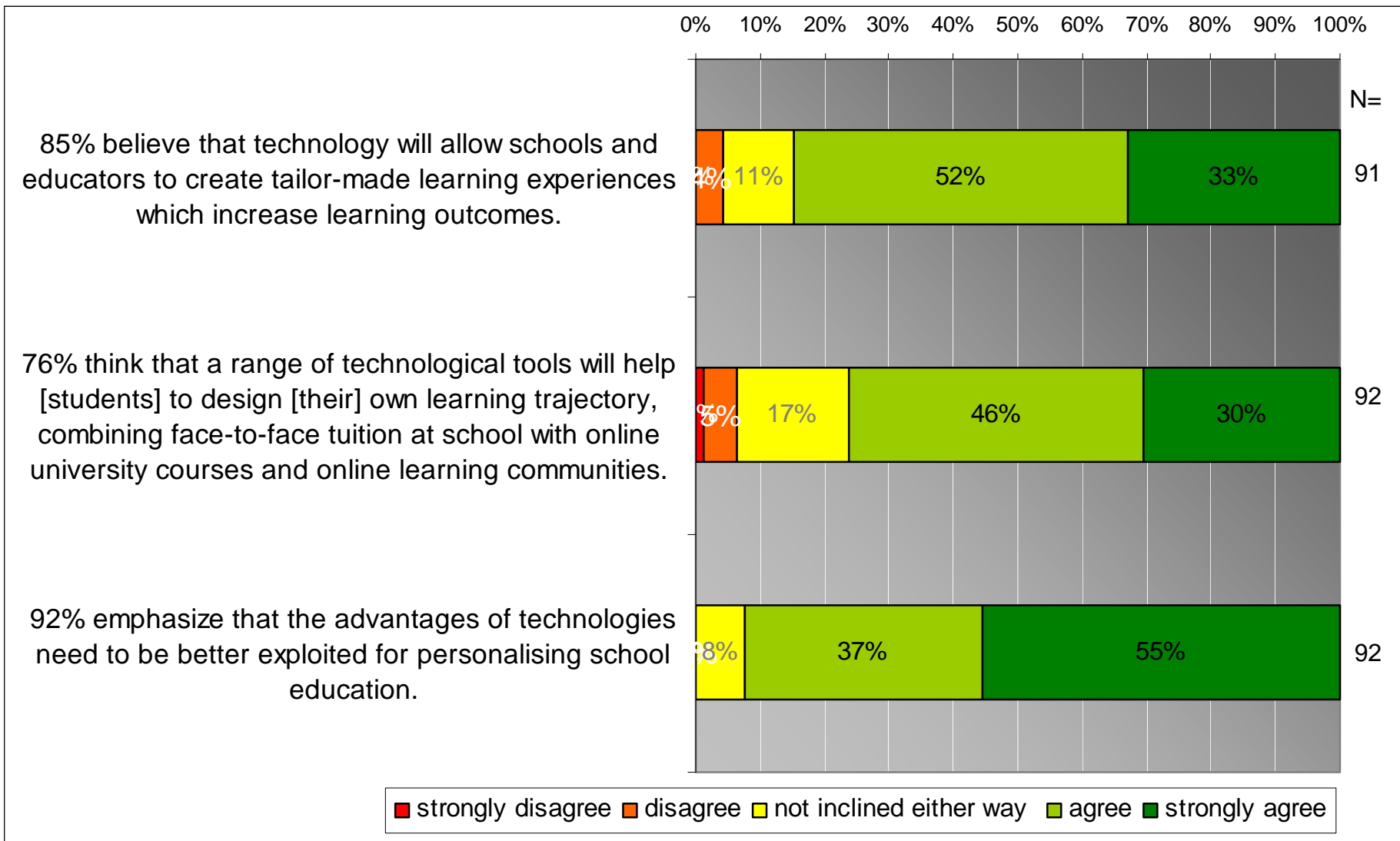


**No radical change for schools structures and standard assessment practices**

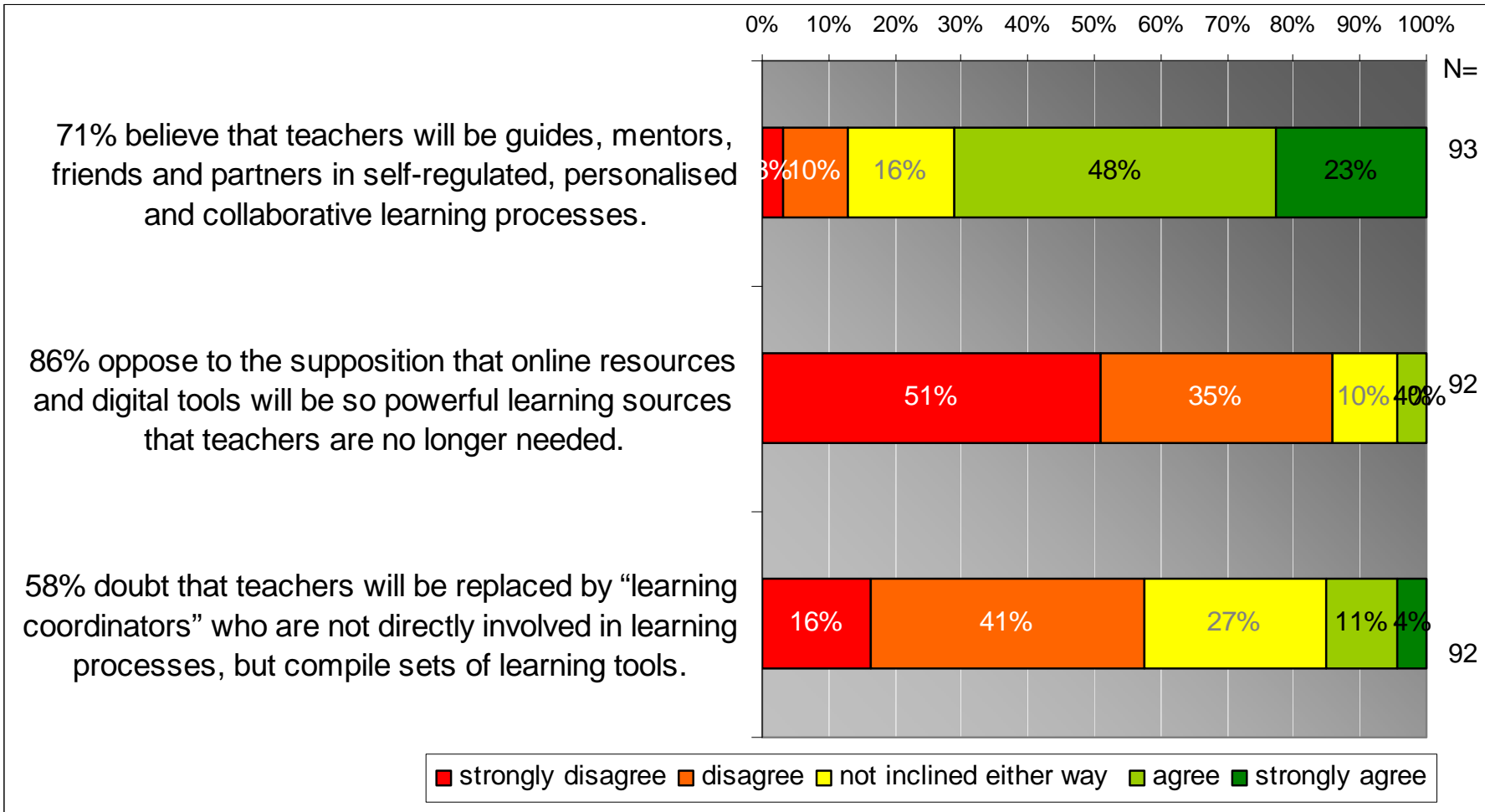




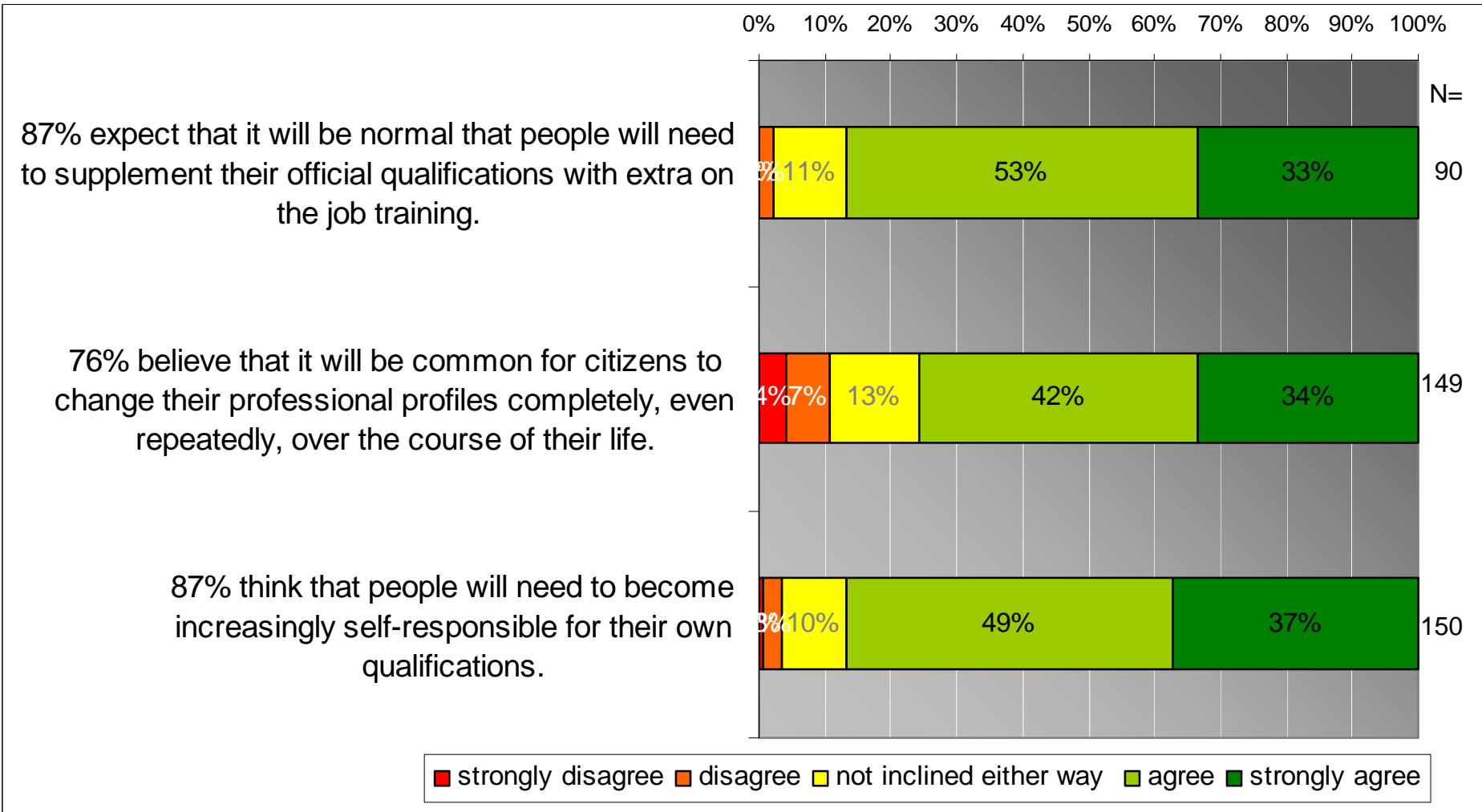
## Towards personalisation and competence based learning



## ICT enables personalisation and learner-centred learning



**Changing not disappearing, emphasis on pedagogical guide**



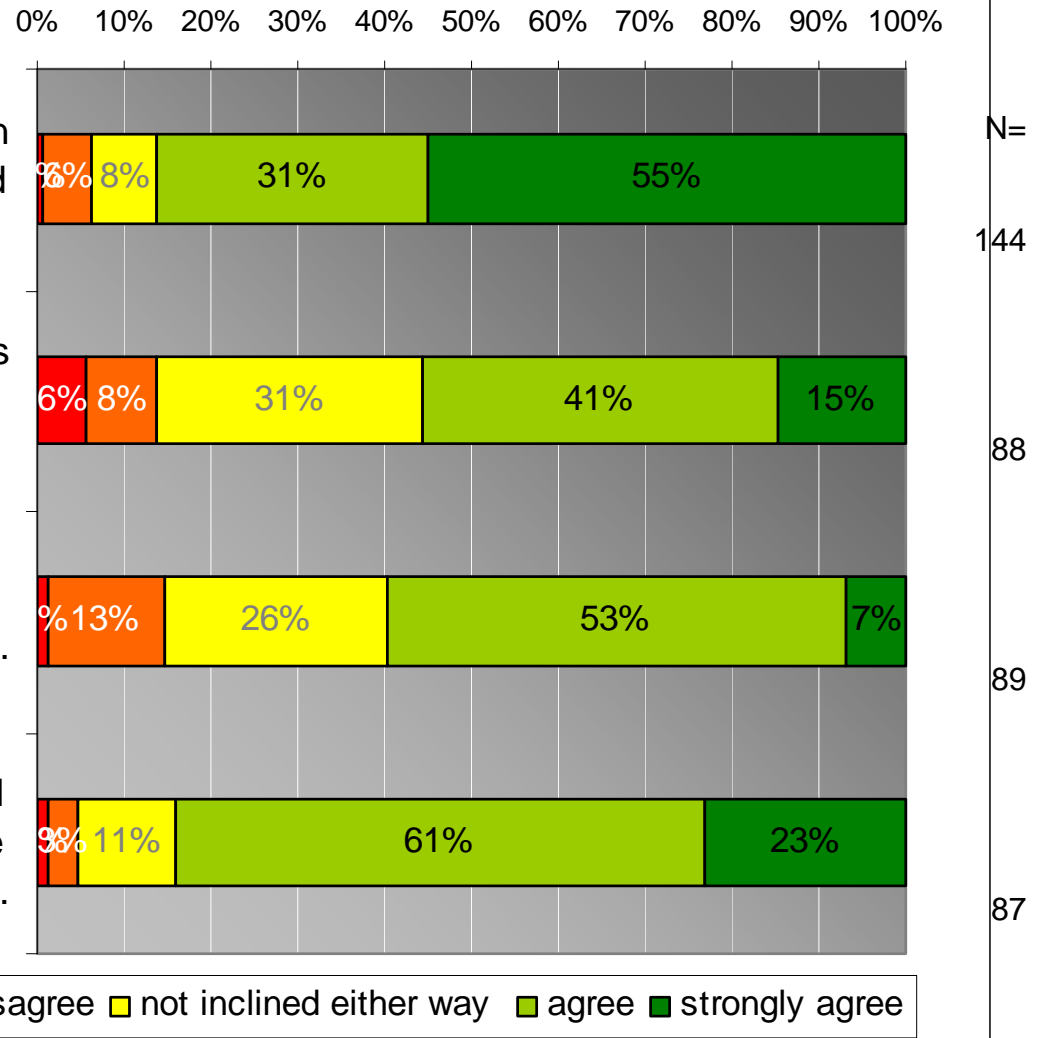
## Lifelong learning; flexibility and change; self-responsibility

86% argue that skills and competences obtained in non-formal ways need to be better recognised and accepted as formal qualification criteria.

56% think that, by 2025, informal learning experiences will have been recognised as a valuable asset for a new job.

60% believe that people will be able to obtain official recognition of their skills by taking a standardised test.

84% assert that people with low qualifications should aspire to follow a training course to formally upgrade their qualifications to have more employment options.



- Validation of non-formal and informal learning but not only...
- Formal qualifications remain important

## Expert ratings on....

### Importance

### Feasibility

Personalised, flexible, interactive  
learning

4.06

3.91

Learner in control

Open education and resources

Use of facilitators (tools and services)

Stronger focus on job-related learning

Use of technology for learning

Formal education goes informal

Recognise what people do and can

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3.21

3.15

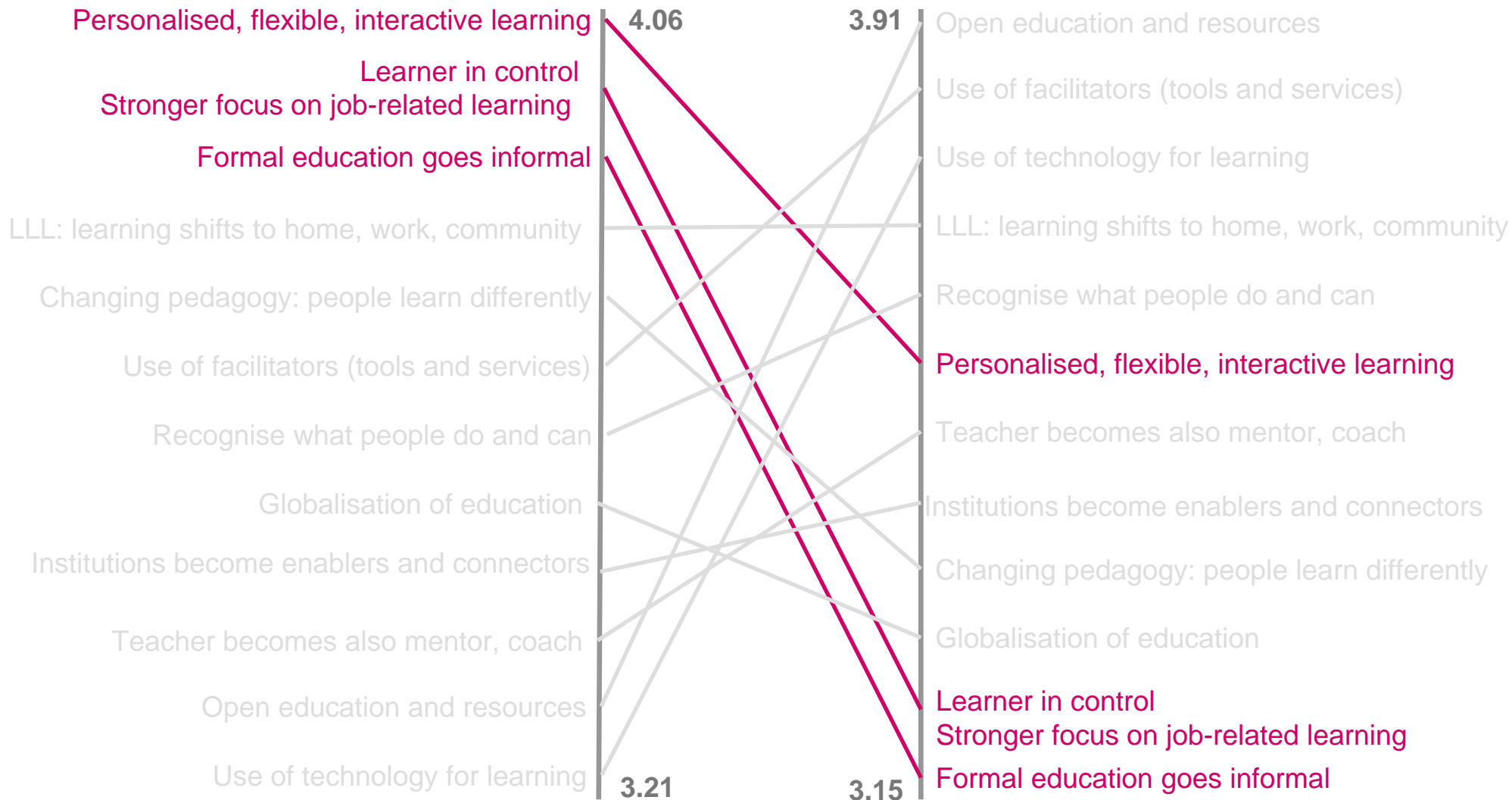
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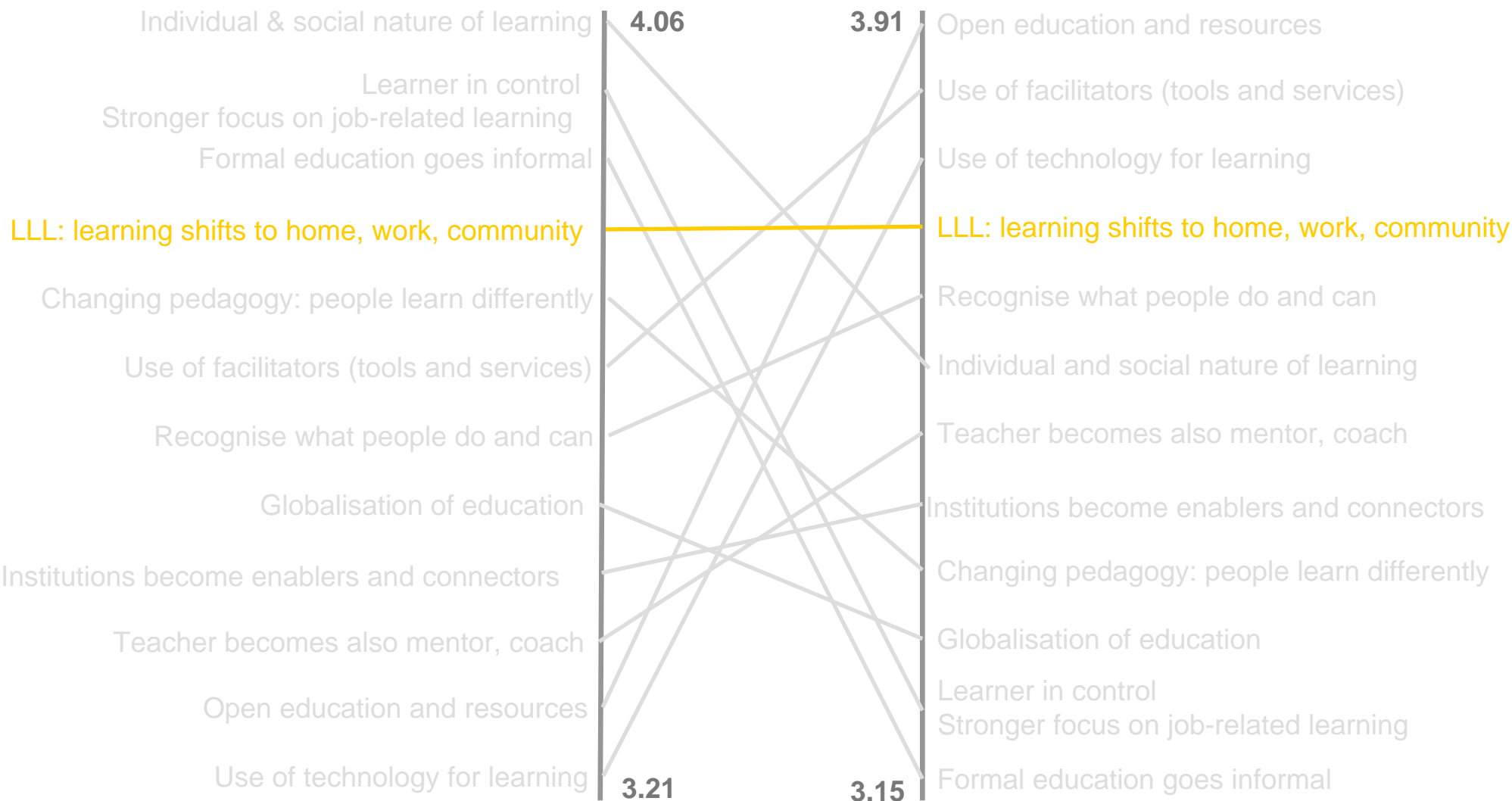
### Feasibility



## Expert ratings on....

### Importance

### Feasibility

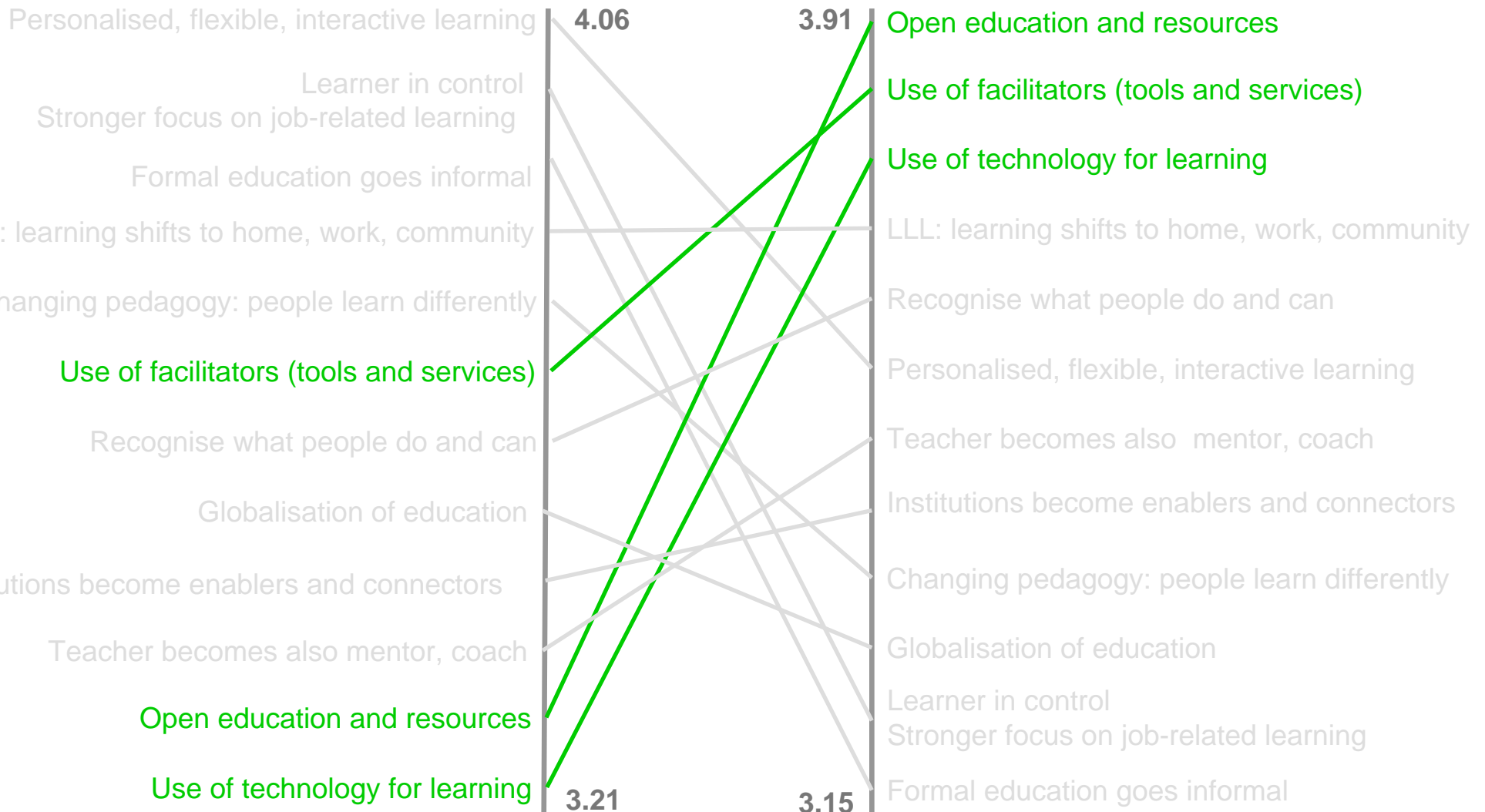




## Expert ratings on....

### Importance

### Feasibility



- **Changes in learning & teaching processes (learner-centred, informal and job-related) are most important but more difficult to realise**
- **“Lifelong Learning” (Lifewide Learning) and personalisation important “and” difficult to realise**
- **Technology-oriented changes are most feasible**

## Formal Education and Training

- **No radical change for schools and its assessment practices**
- **Shift towards more personalisation, learner-centred learning, self-responsibility and competence based learning**
- **Changing role of teacher, emphasis on pedagogical guide**

## Skilling and workplace learning

- **Lifelong learning and on the job training**
- **Flexibility, change and self-responsibility for learning & career paths**
- **Certification/validation of informally acquired skills**

**All strongly enabled by various and versatile ICT**

## How will E&T meet future learning needs?

- No radical change for schools and its assessment practices
- Shift towards more personalisation, learner-centred learning, self-responsibility and competence based learning
- Changing role of teacher, emphasis on pedagogical guide

## How can demand & supply of skills be matched?

- Lifelong learning and on the job training
- Flexibility, change and self-responsibility for learning & career paths
- Certification/validation of informally acquired skills

**All strongly enabled by various and versatile ICT**

## Multi-dimensional nature of “educational change”

- Different ways of learning and of teaching (**pedagogical change**)
- Changing roles of actors and institutions, shifting responsibilities (**organisational change**)
- Enabling role of technologies (**technological change**)
- Changing skills needs and competences (including digital competence) in society and economy (**societal change**)

*To make learning more efficient, equitable, innovative and meaningful than it ever was*

# Thank you

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<http://is.jrc.ec.europa.eu/pages/EAP/eLearning.html>