

# GRONINGEN DECLARATION NETWORK

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## Opening higher education to lifelong learning

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Groningen  
Declaration

# Outline

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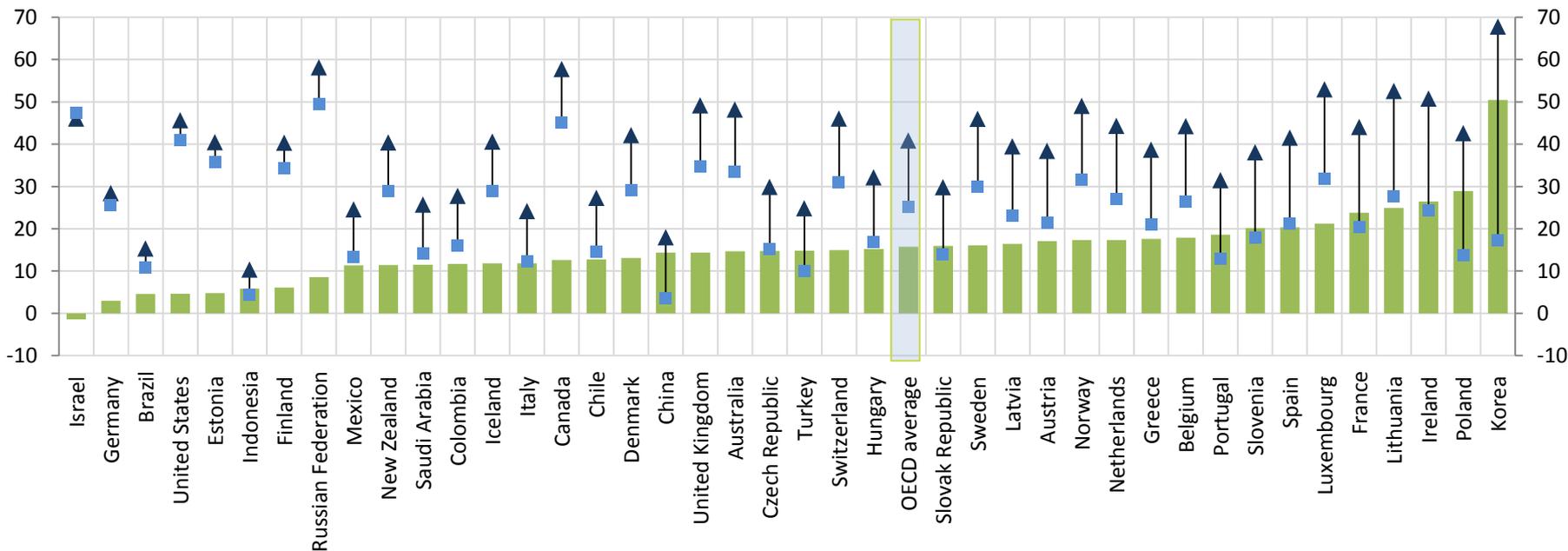
1. Setting the scene: some trends and issues related to higher education and skills
2. Open higher education: some innovations in the recognition and certification of skills
3. Implications for digital student data



# Some trends and issues related to higher education and skills

# Continuing expansion of higher education, driven mainly by the growing impact of education on labour market outcomes...

- Difference between the 25-34 and 55-64 year-old population with tertiary education (right axis)
- ▲ Proportion of the 25-34 year-old population with tertiary education (left axis)
- Proportion of the 55-64 year-old population with tertiary education (left axis)



## ... but challenges remain: unequal rates of participation by social background and increasing costs

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### More inclusiveness needed

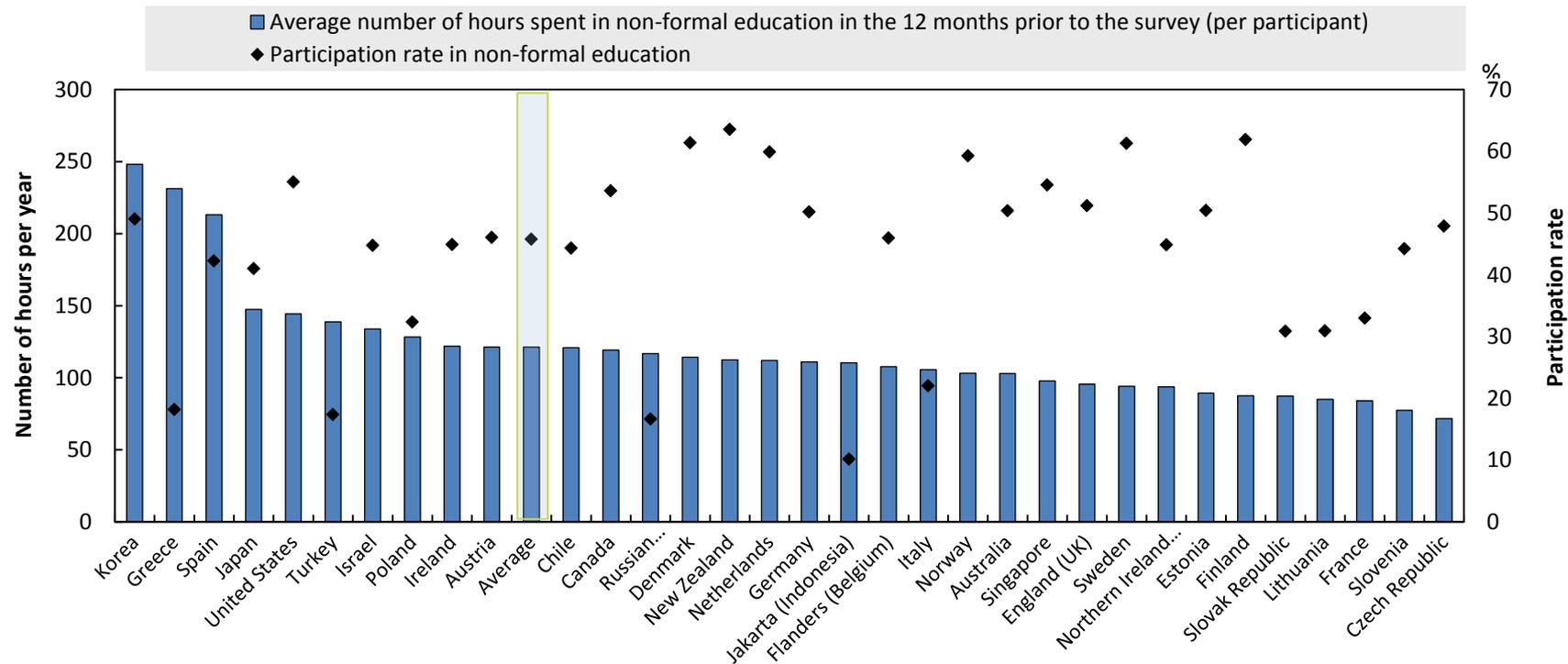
In 2012, the likelihood of attaining tertiary education among 20-34 year-olds was about 4 times higher for those with tertiary-educated parents than for those whose parents only completed lower secondary education, on average across OECD countries

### Ways to contain costs needed

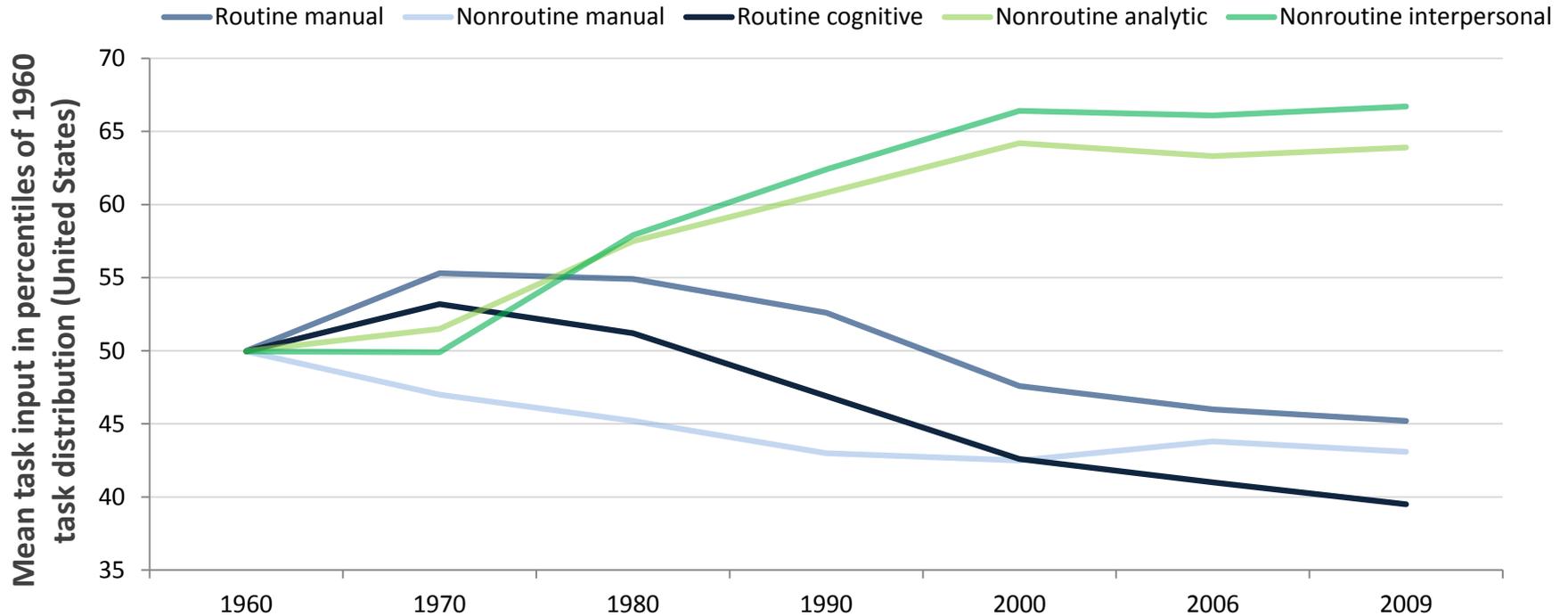
Between 2008 and 2013, total expenditure on tertiary educational institutions grew by 17%, while expenditure per student at tertiary level increased by 11%, on average across OECD countries

# Close to half of working-age adults participate in non-formal education, investing about 120 hours a year, on average across countries

Hours in non-formal education per participant and participation rate (2015), 25-64 year-olds



# The skill demands of jobs in advanced economies have shifted towards non-routine tasks that are complementary to automated activities



# Trends are uncertain looking forward, but upcoming technological developments are likely to increase the need for up- and re-skilling

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## Upper bound estimates

- 47% of jobs at risk of automation in the US, up to 69% in India and 77% in China
- 50% of today's work activities could be automated by 2055 globally

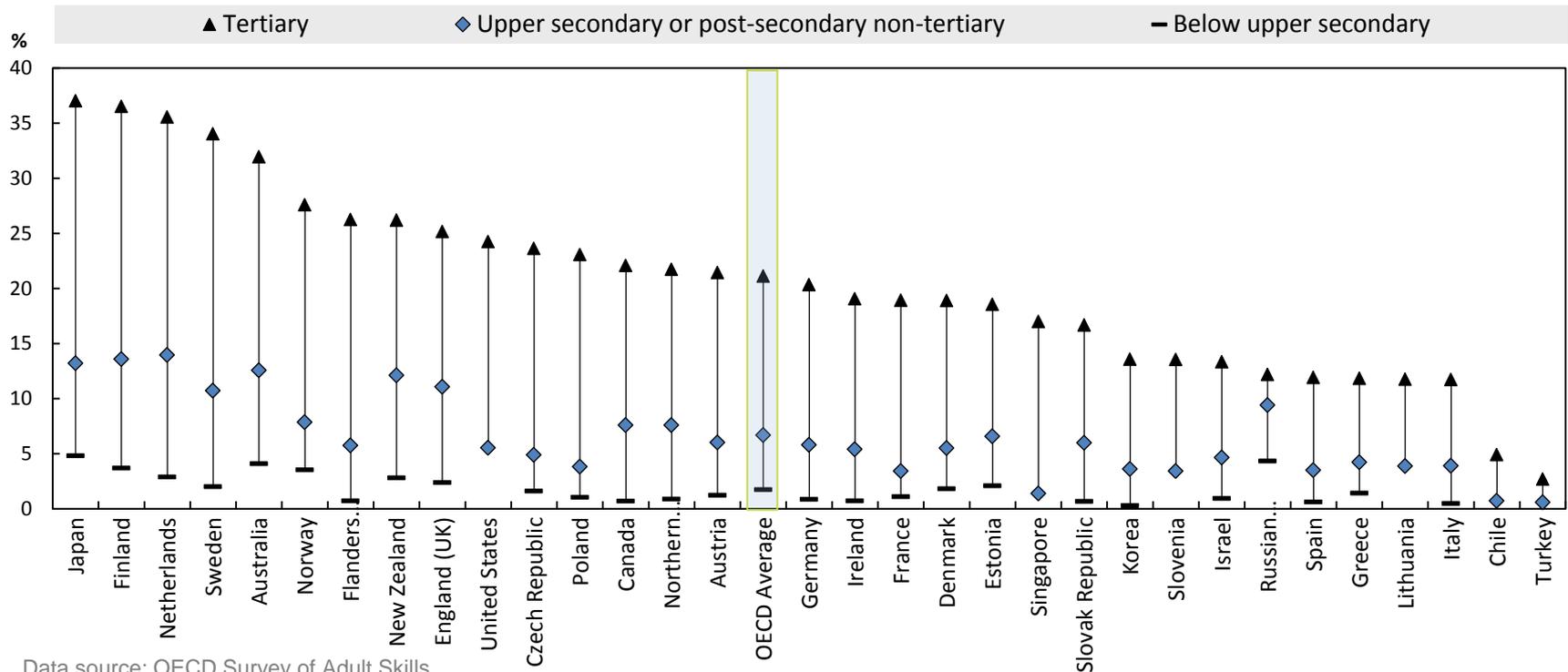
## Lower bound estimates (OECD)

- Less than 10% of workers across OECD in jobs at risk of replacement by machines
- But 25% in jobs where a high percentage of tasks (50-70%) could be automated

Underlines the **need for skills** that allow workers to shift to new tasks that are difficult to automate. Think about **complementarities**, not only substitution

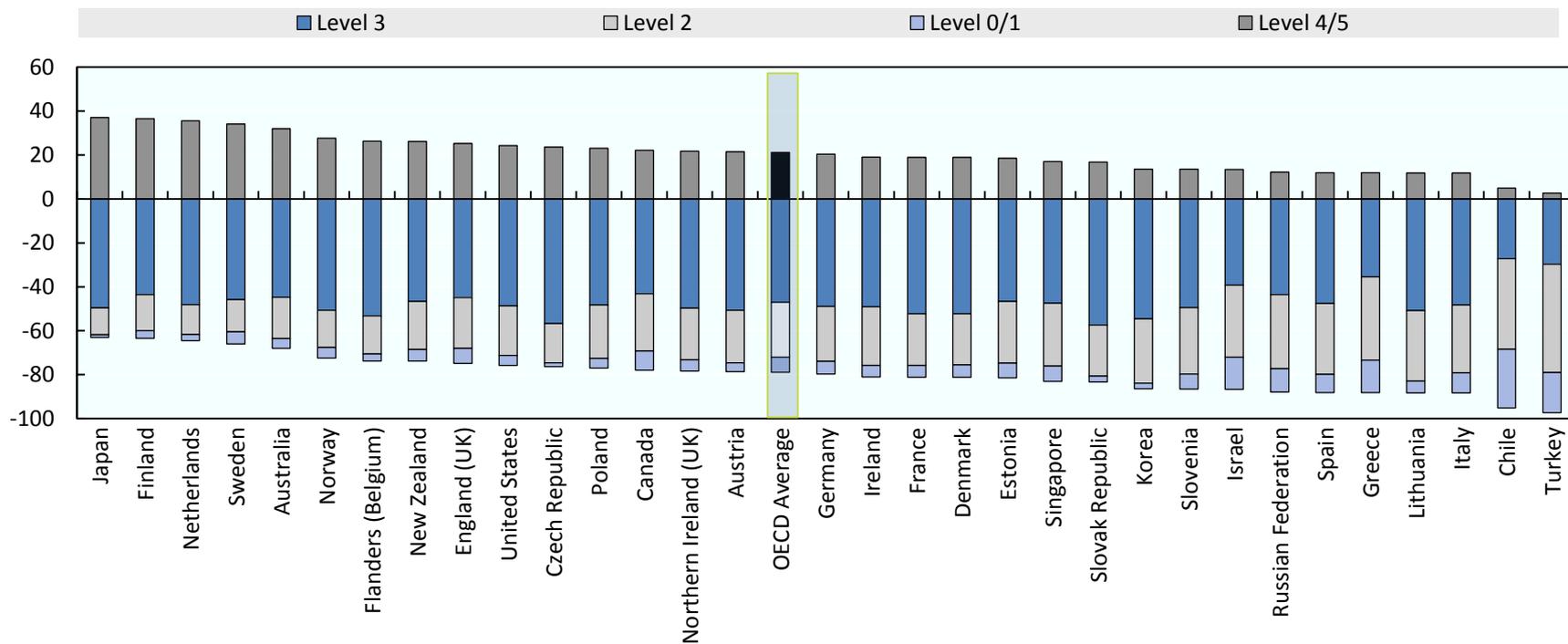
# A greater share of individuals with tertiary-level qualifications have the level of skills that will be more difficult to automate...

Percentage of adults scoring at literacy proficiency Level 4 or 5, by educational attainment, 25-64 year-olds.



... however, substantial variation in terms of skills even among those with tertiary education. Degrees and skills are related but not synonyms

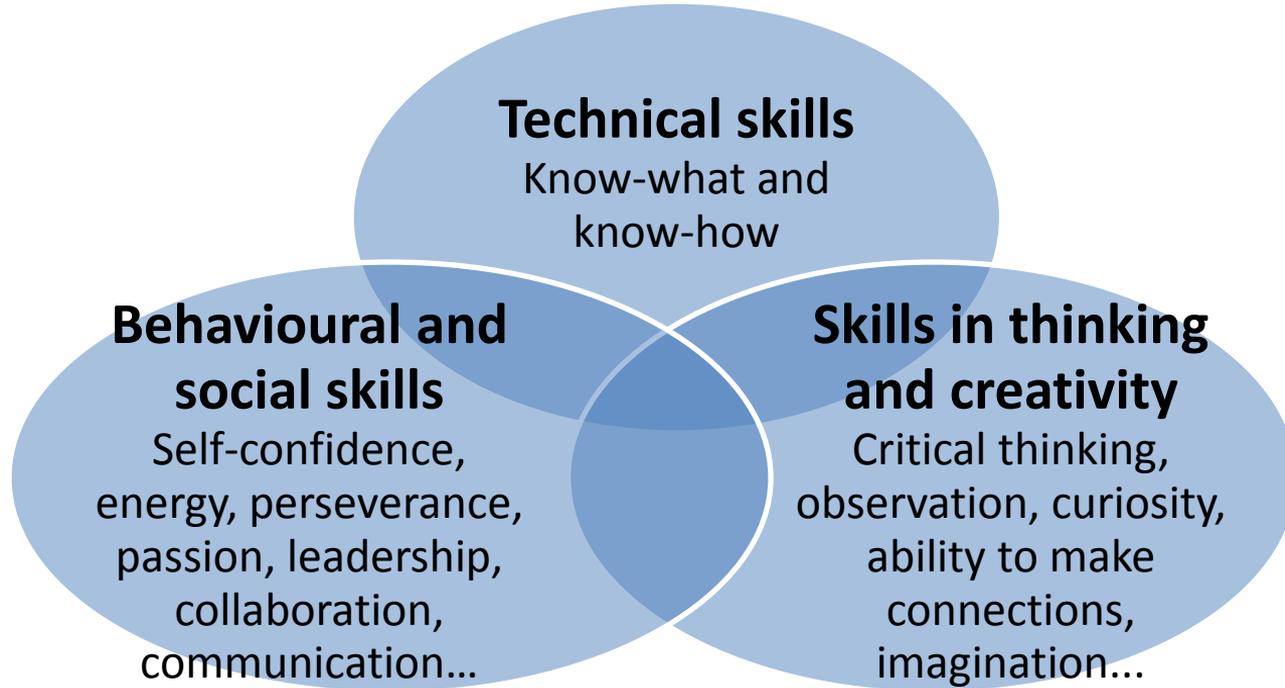
Distribution of literacy proficiency levels among adults with tertiary qualifications, 25-64 year-olds.



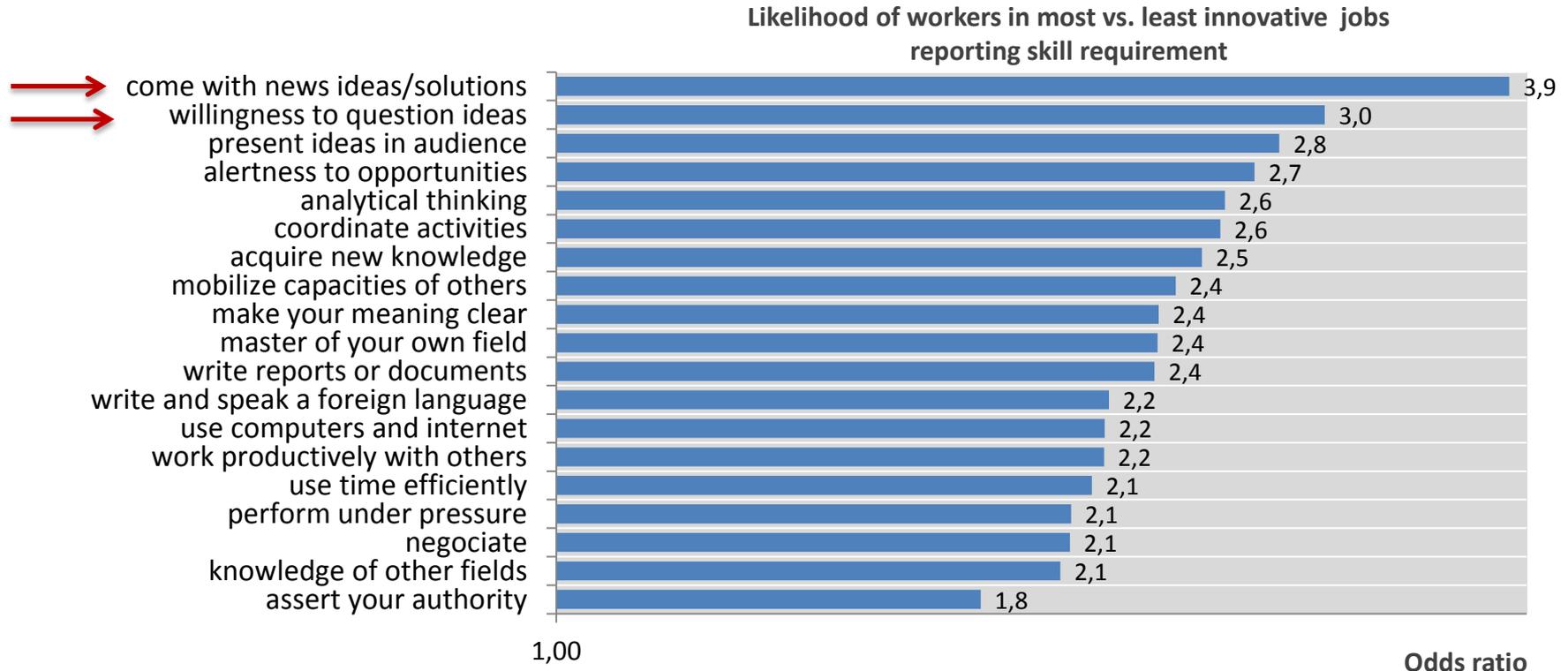
# What individual skills should education systems foster?

## Skills for innovation – “21<sup>st</sup> century skills”

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# Creativity and critical thinking top the list of skills required for the most innovative jobs according to tertiary-educated workers



# The industrial model of education needs to react to greater demand for higher education and evolving skills requirements

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How to support the **expansion of the system**, secure **equitable access and opportunities**, and **contain costs** (while ensuring **quality**)?

High numbers participating in **non-formal education** over the **life course**

Changes in the world of work and innovation more generally will require **more up-skilling and re-skilling** - and maybe also **new types of skills**

- the things that are easy to teach (and test) are becoming easier to automate, digitize or outsource

Is increasing “**openness**” in higher education (part of) the answer?



# Open higher education: innovations in the recognition and certification of skills

# Openness in higher education is multifaceted. Some of its embodiments call for new forms of recognising and certifying skills

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Openness in HE - encompasses many related concepts

Basic idea: removal or weakening of barriers for students to enrol, acquire a credential, or just to learn higher education content

Recently, it has taken at least three forms:

- **Open enrolments** (widening of access to HE)
- **Open learning** (via OER, incl. MOOCs, or f2f provision)
- **Open degrees and open learning processes** (co-design of study paths and new forms of competency-based assessment)

# Open learning: learning that does not lead to a higher education degree but is structured around smaller units of knowledge (1/2)

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Not structured around degrees - either granting sub-degrees (e.g. certificates) or not leading (at least yet) to any credential

## MOOCs

- Remain largely a non-degree granting activity, with exceptions
- Free of charge, except when learners seek some form of certification

## Open web-based learning

- Courseware publicly available to anyone (*MIT, Stanford*)
- No credit or support given

# Open learning: learning that does not lead to a higher education degree but is structured around smaller units of knowledge (2/2)

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## Other forms of OER

- Less structured and more modular learning objects
- Open licenses: possibility to reuse and adapt
- Do not lead to any credit unless officially used by a degree-granting HEI

## Bricks-and-mortar institutions of open learning

- Train students without necessarily delivering a degree
- Provide qualifications recognised by employers
- Mainly in IT (*École 42*) or niche fields



# Open degrees and open learning processes: flexible study paths and modular credit systems

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## Open degrees and qualifications

- Open degrees, diplomas, certificates (*Open University, UK*)
- *Diplômes blancs (Université Paris Descartes, France)*

## Open learning within institutions

- Adaptive instruction modules with LA (*Carnegie Mellon University, US*)
- Digital portfolios and documentation of thinking process: new opportunities for competency-based assessment complementing those based on final exams (*iCentre of Tsinghua University, China*)

# HEIs are increasingly requested to recognise and certificate prior competences and informal learning (1/2)

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The recognition of knowledge and competences acquired through work experience is an institutional practice in some countries (e.g. Denmark, France, Netherlands)

Yet system tends to be costly for both applicants & HEIs and affect small numbers

## Formal recognition of informal learning

- HEIs filling the gap where no such systems exists (*WGU*)
- Prior competencies recognised through exams
- No seat-time or credit-hour requirements; flexible pace towards a degree



# HEIs are increasingly requested to recognise and certificate prior competences and informal learning (2/2)

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## Formal recognition of open learning

- Credits for completion of MOOCs by students enrolled in producing HEI
- MOOCs as entry gate to and/or supplementary to f2f experience (*non-accredited MicroMasters*: 13 universities in 7 countries recognising EdEx MOOCs)
- Mutual recognition of credits earned for MOOCs in other HEIs within partnership
- India's SWAYAM MOOC platform: recognition of MOOCs across all Indian HEIs

## Informal recognition of open and informal learning

- Self- or peer-report of competences: e-portfolios, open badges, endorsements





# Potential implications for digital student data

## Concluding remarks and some (open) questions for discussion

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The future will require **more recognition of prior learning and skills** and **more agile flows of information** on people's credentials

How can people can **make their skills more visible** to their employers in a reliable way? **Portable and richer student data** is a key piece of the puzzle

Innovative models of openness: still at a small scale, but do they point to **possible futures of higher education**?

**Mobilise the expertise** of institutions promoting the recognition of **foreign qualifications** (e.g. ENIC-NARIC) to promote the recognition of open learning?

# Thank you for your attention

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A background graphic consisting of a network of interconnected nodes and lines, resembling a molecular or data network. The nodes are represented by small dark circles, and the lines are thin, light-colored lines connecting them. The overall color scheme is a gradient from red on the left to blue on the right.

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Extending our Engagement