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Transformation of education in a digital era – pathways of learning as the centre of higher education provision

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Photo under the auditorium at Mannheim Uni, Sept 2018. D. Orr CC BY.

Is this what being a student today feels like?

A closed and fully planned ecosystem as higher education: *Could be both the on-campus model and the online model*



Double challenge:

ensuring the right
skills are acquired
and ensuring **flexible**
pathways through
learning systems



Universities UK is reviewing the future requirements for higher education and has focussed on the idea of new pathways:

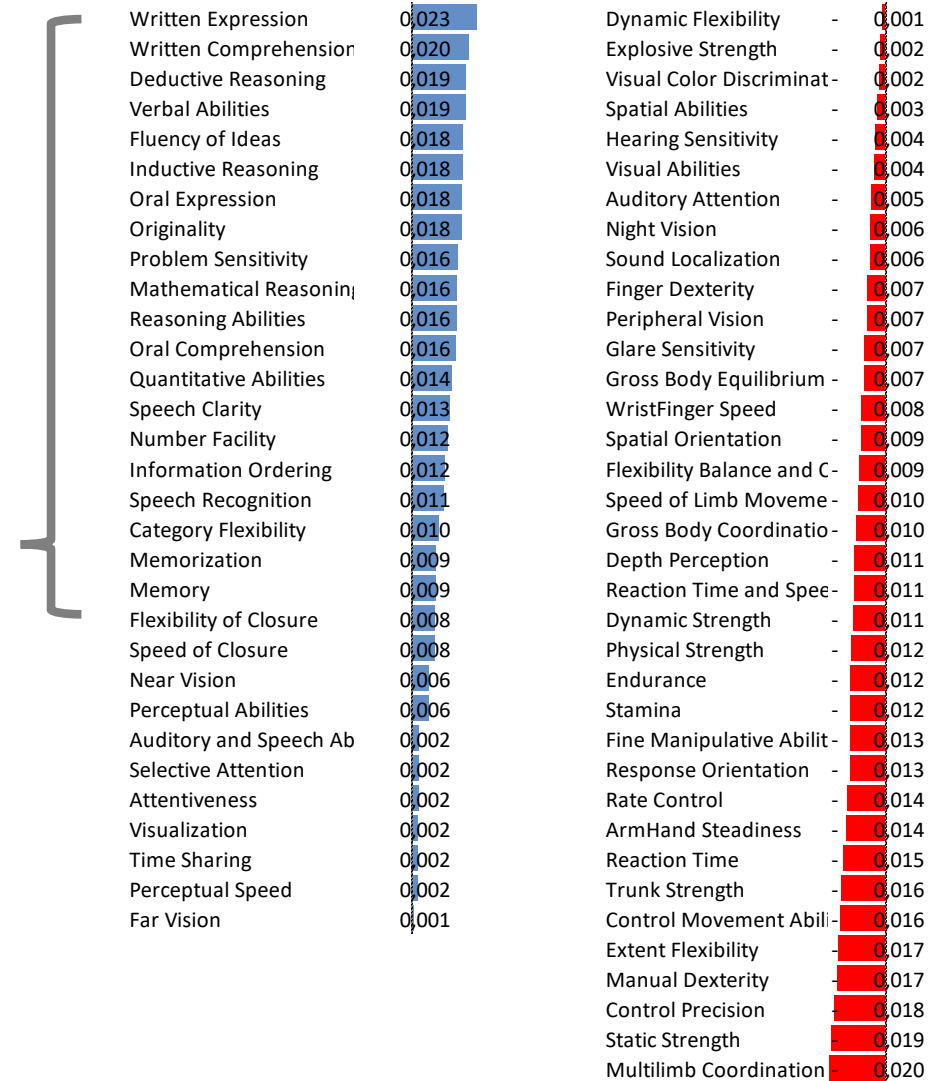
“The **linear model of education–employment–career will no longer be sufficient**. The pace of change is accelerating, necessitating more flexible partnerships, quicker responses, different modes of delivery and new combinations of skills and experience. Educators and employers need to collaborate more closely, and develop new and innovative partnerships and **flexible learning approaches**.”



Current labour market analysis of skills for jobs – shortages and surpluses

Abilities which are in shortage (+) or surplus (-) in the national labour market (average values across case study countries) based on OECD analysis

- **Digital and information literacy**
- **Creativity**
- **Collaborative skills**



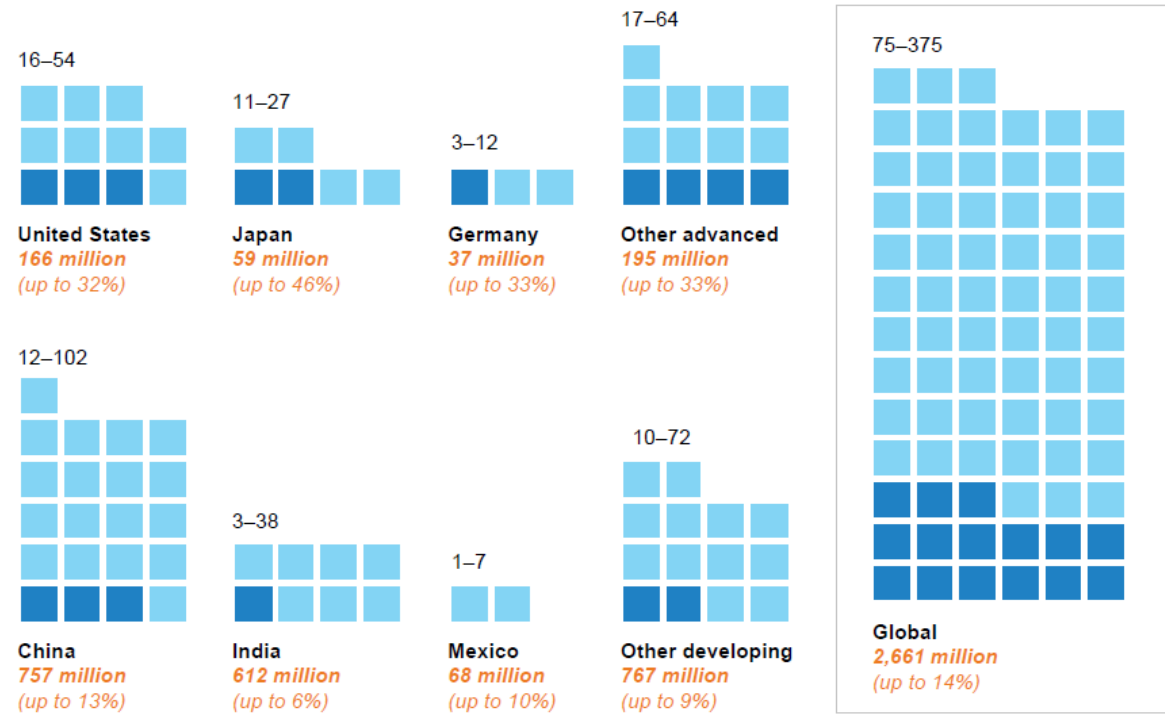
Need to switch occupations based on future scenarios

- In advanced economies, **one third of workers projected to need to change occupation by 2030**
- In emerging economies less due to differences in economies (less complexity and lower wages) and infrastructure; **one tenth of workers projected to need to change occupation by 2030**

Globally, up to 375 million workers may need to switch occupational categories

Number of workers needing to move out of current occupational categories to find work, 2016–30 (trendline scenario)¹
 Million (1 block = ~5 million)

■ Additional from earliest adoption scenario
 ■ Midpoint automation scenario
2030 workforce (% transitioning)



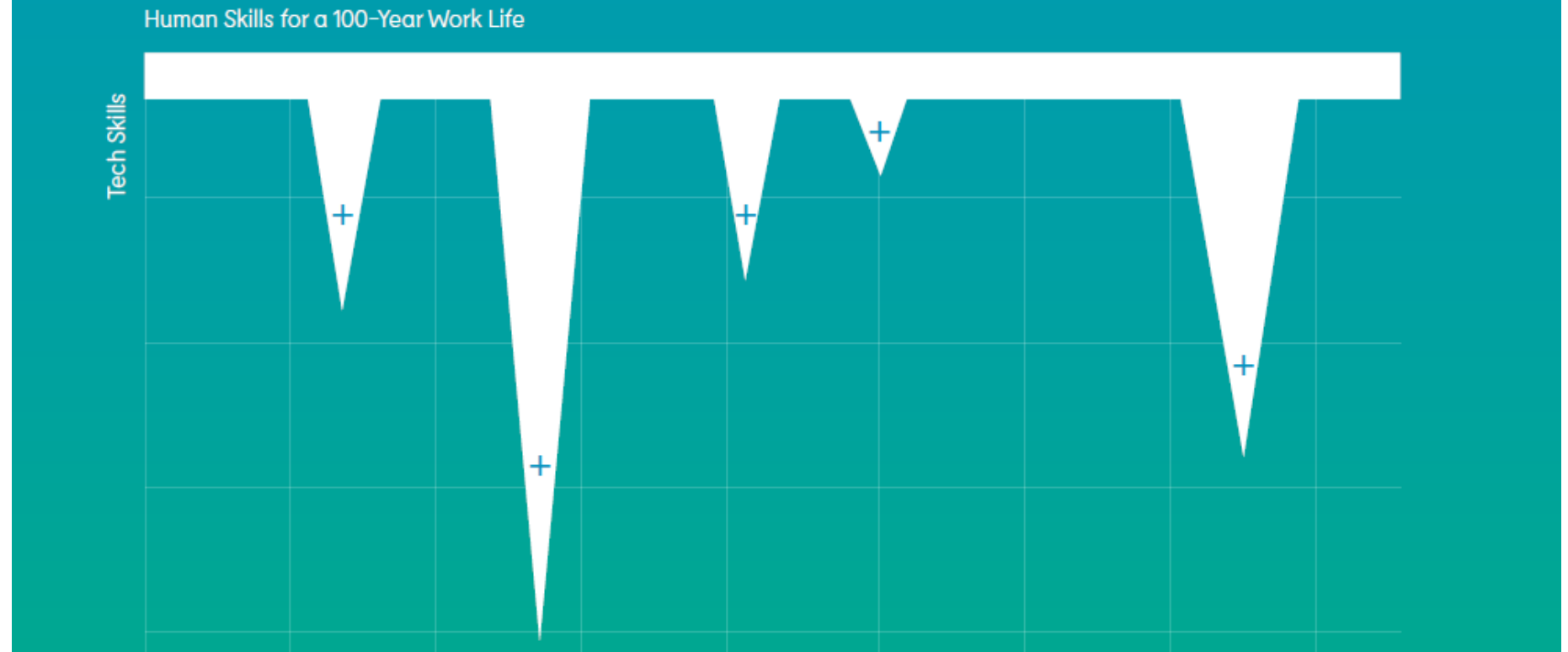
¹ Some occupational data projected into 2016 baseline from latest available 2014 data.

SOURCE: U.S. Bureau of Labor Statistics; McKinsey Global Institute analysis

New learning pathways – with skills connection and crossover

Figure 10.

In the future, workers will need to return to learning throughout a 100-year work life.



Weise, M. R., Hanson, A. R., Sentz, R., & Saleh, Y. (2018). *Human + Skills For The Future of Work*. Strada Institute for the Future of Work. Retrieved from https://www.economicmodeling.com/wp-content/uploads/2018/11/Robot-Ready_Report_Single.pdf

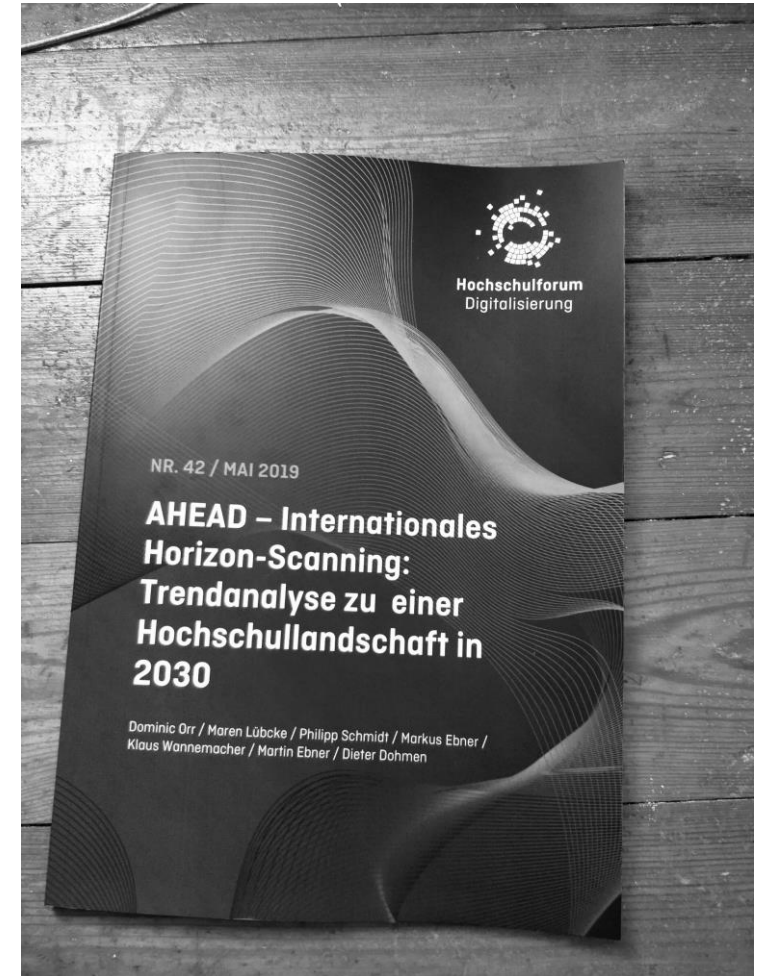
AHEAD Study – Higher education landscape in 2030

Other foresight studies focus on future scenarios examine the question of what this institution could look like in 2030.

However, this question is not only dependent on demand, but also on the scope for shaping and re-forming higher education, which is determined by governance regulations such as laws, financing methods and quality assurance.

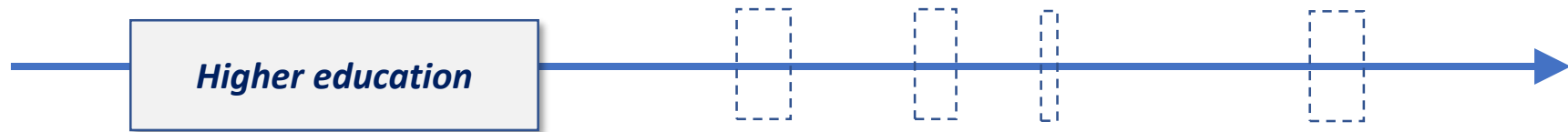
Therefore, the AHEAD study put **learners at the centre** of the concept.

-> download [here](#).



4 learning pathways through higher education

Model 1 - Tamagotchi (Status quo plus)



Model 2 - Jenga



Model 3 - Lego set



Model 4 - Transformers



Tamagotchi: *Higher ed for a good start in life*

- A closed ecosystem built around the student

Job market

Didactics

Technology

Organisation



Jenga: *Higher ed as a solid fundament for further development*

- Providers offer a foundation of knowledge and competence which is extended by learners through shorter study blocks in their further learning pathway.

Job market

Didactics

Technology

Organisation



Lego: *Higher ed as building blocks*

- The course of study is not completed as a compact, long unit, but consists of individually combined modules of different sizes.

Job market

Didactics

Technology

Organisation



Transformer: *Higher ed as chance for transformation*

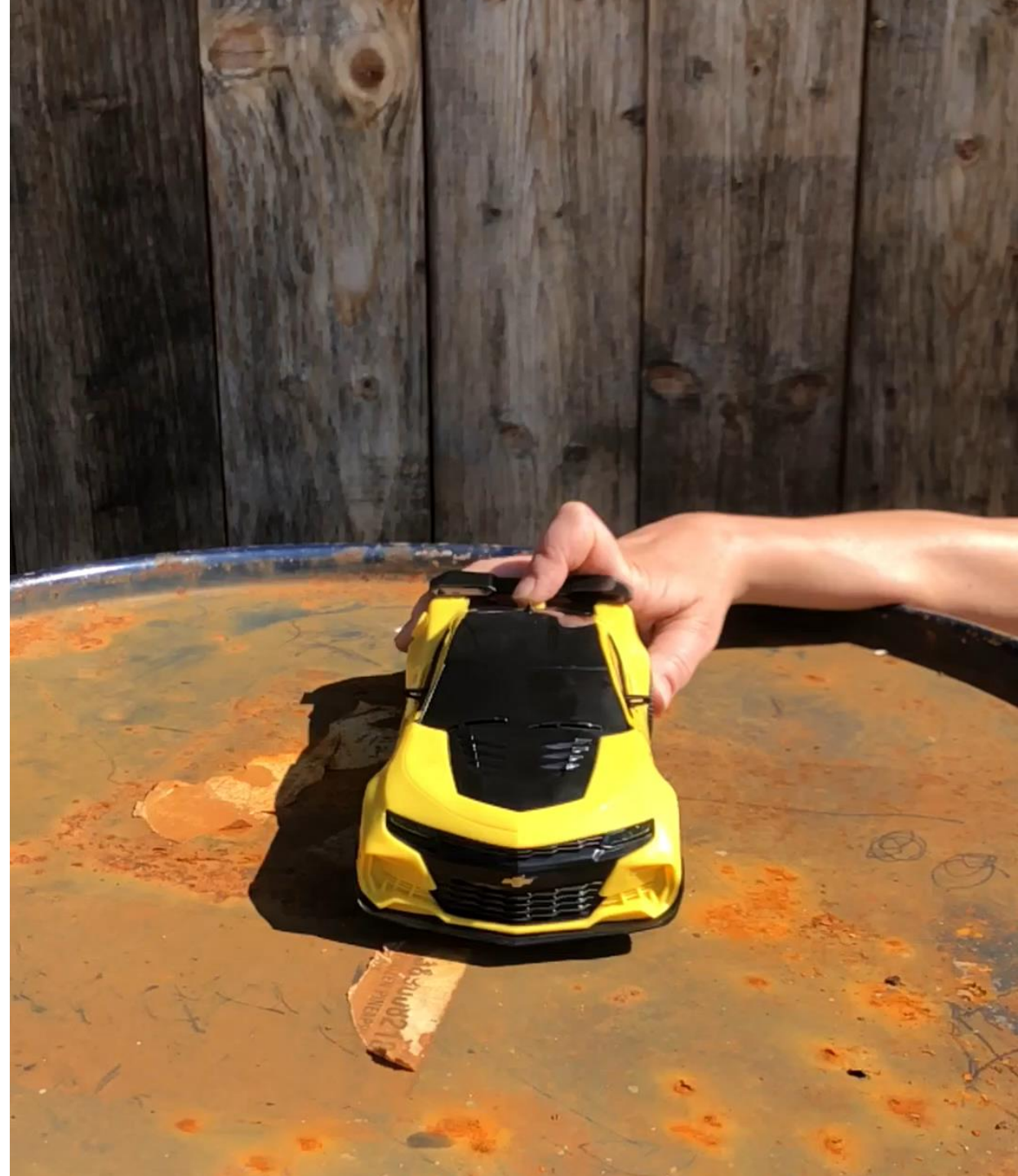
- The students in this model do not transfer directly to higher ed as school leavers, but have already acquired their own professional identity and life experience, which contribute to their studies.

Job market

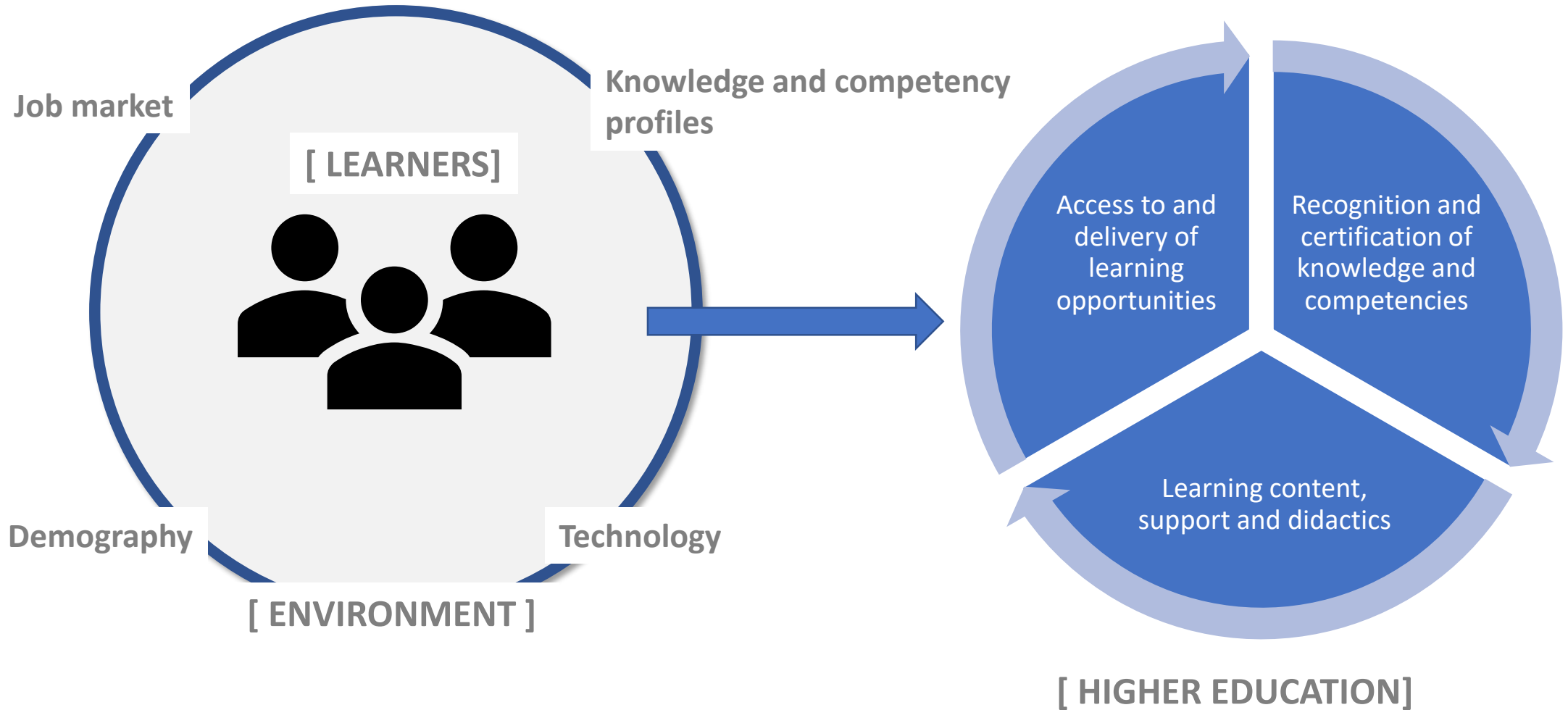
Didactics

Technology

Organisation



Higher education for learners – but how?



Major **goals** for any reforms in higher education



1. Learners need to acquire ***new skills and competences***, which enable them to fully benefit from the ‘digital dividends’ of technology
2. Study programmes need to ***reflect on and react to*** the developments in society and the labour market
3. Higher education institutions should be a place to consider and even ***practice future social reform***, which can truly harness the benefits of digitalisation for all
4. The opportunities of digitalisation for creating ***new learning spaces*** should be harnessed to improve the accessibility and quality of educational provision