



# Digital skills in healthcare

## EuroHealthNet seminar: Digital health literacy for Europe's digital future

7 December 2021

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# Policy context

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# European Pillar of Social Rights Action Plan (4 March 2021)



*At least 60% of all adults should participate in training every year*

In the context of recovery and of the twin transitions, increasing adult participation in training to 60% is paramount to improve employability, boost innovation, ensure social fairness and close the **digital skills** gap. Yet, by 2016 only 37% of adults were participating in learning activities each year. For the low-qualified adults this rate only reached 18%. A key factor of success to ensure that adults are able to engage in up- and reskilling later in life is a strong foundation of basic and transversal skills acquired in initial education and training, in particular among disadvantaged groups. In 2019, 10.2% of young people left education and training with maximum lower secondary education and were not anymore involved in education and training activities. These figures risk to worsen as a result of the current crisis. Efforts must therefore be strengthened to increase adult participation in training and to improve the levels of achievement in initial education and training. In particular:

- **at least 80% of those aged 16-74 should have basic **digital skills****, a precondition for inclusion and participation in the labour market and society in a digitally transformed Europe.
- **early school leaving should be further reduced** and participation in upper secondary education increased.

# Digital compass (Communication 9 March 2021) and a Path to a digital decade (proposal of 15 September 2012)



## Skills

**ICT Specialists:** 20 millions + Gender convergence  
**Basic Digital Skills:** min 80% of population



## Secure and sustainable digital infrastructures

**Connectivity:** Gigabit for everyone, 5G everywhere  
**Cutting edge Semiconductors:** double EU share in global production  
**Data - Edge & Cloud:** 10,000 climate neutral highly secure edge nodes  
**Computing:** first computer with quantum acceleration



## Digital transformation of businesses

**Tech up-take:** 75% of EU companies using Cloud/AI/Big Data  
**Innovators:** grow scale ups & finance to double EU Unicorns  
**Late adopters:** more than 90% of SMEs reach at least a basic level of digital intensity



## Digitalisation of public services

**Key Public Services:** 100% online  
**e-Health:** 100% of citizens having access to medical records  
**Digital Identity:** 80% citizens using digital ID



*Source: European Commission*



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# Challenges

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# Degree of technological skills obsolescence across occupations

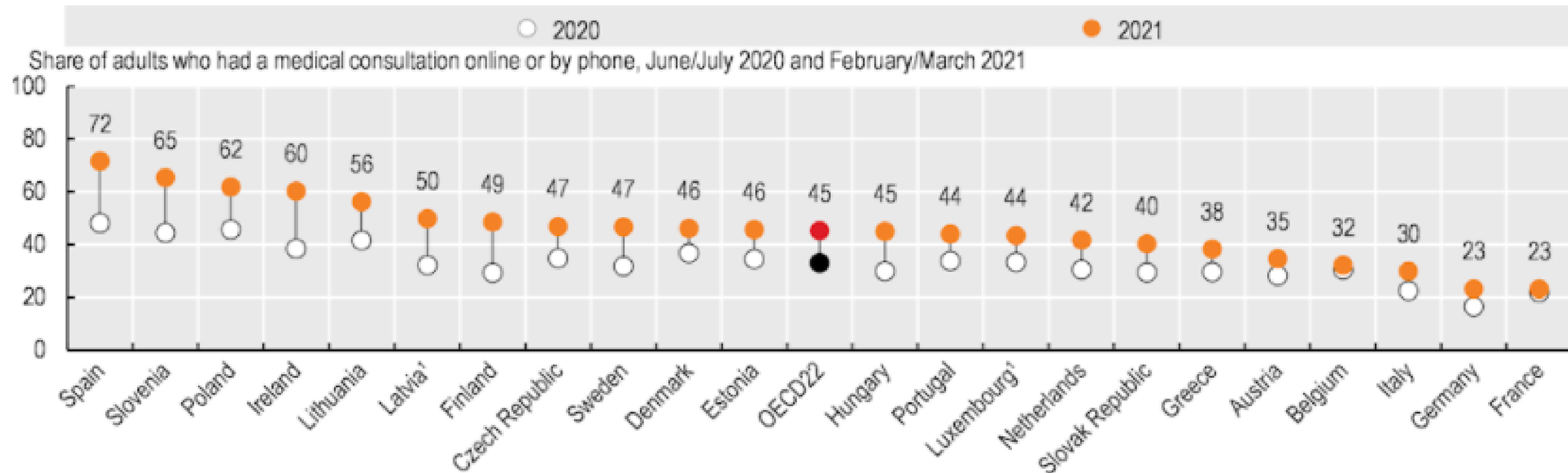


Top occupational groups with changing skills profiles	Top occupational groups with stable skills profiles
<ul style="list-style-type: none"><li>• ICT associate professionals</li><li>• ICT professionals</li><li>• Production or specialist services managers</li><li>• Electronic and electronic trades workers</li><li>• Teaching professionals</li><li>• Administrative or commercial managers</li><li>• Science and engineering professionals/associate professionals</li><li>• <b>Health professionals</b></li></ul>	<ul style="list-style-type: none"><li>• Subsistence farmers, fishers or hunters</li><li>• Cleaners or helpers</li><li>• Food preparation assistants</li><li>• Personal services workers</li><li>• Personal care workers</li><li>• Labourer in mining, construction, manufacturing</li><li>• Driver or mobile plant operator</li><li>• Agriculture, forestry and fishery labourer</li><li>• Protective services worker</li></ul>

NB: Ranking of occupations based on an index of skills stability, derived as the share of EU adult employees who experienced changes to the technologies (machinery, ICT systems) they used in the past five years and expect that their skills have a high likelihood of becoming outdated in the next five years.

Source: Cedefop European skills and jobs survey (ESJS): <http://www.cedefop.europa.eu/en/events-and-projects/projects/european-skills-and-jobs-esj-survey>

# Share of adults that had a medical consultation online or by phone, June/July 2020 and February/March 2021



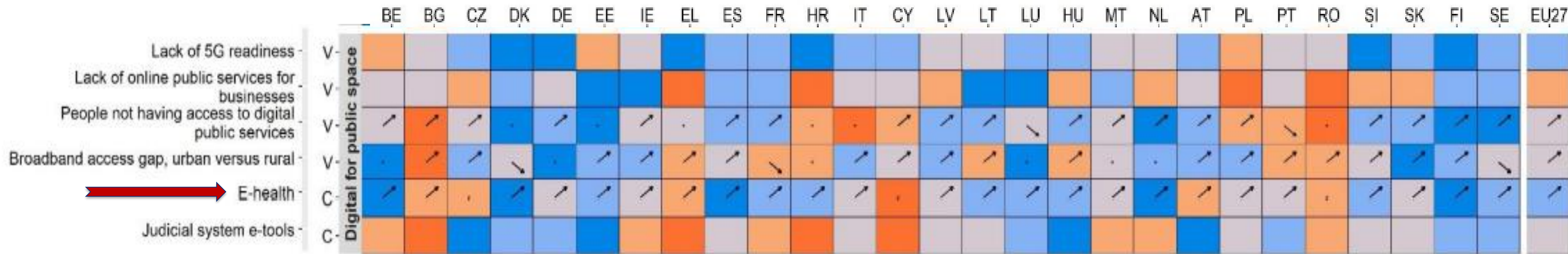
1. Low reliability in one or both rounds.

Source: Eurofound (2020), "Living, working and COVID-19", <http://eurofound.link/COVID-19data>.

# Resilience dashboard: ability to make progress towards policy objectives (27 November 2021)



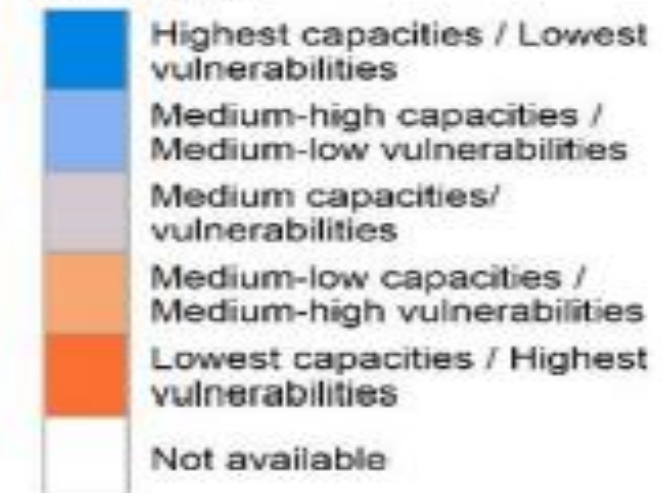
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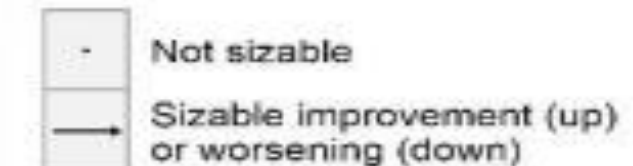
V = Vulnerabilities  
C = Capacities

[dashboard\\_report\\_20211129\\_en.pdf \(europa.eu\)](#)

### Resilience



### Change with respect to 2015





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# Actions at EU level

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# Pact for Skills Partnership in the health ecosystem (forthcoming)



## Pact for Skills

Upskilling and  
reskilling of  
people of  
working age

All types of skills  
Apprenticeships  
Digital skills

## Large scale public-private multi-stakeholder partnerships

- Major players in industrial ecosystems and public authorities
- Concrete actions and increased investments in upskilling opportunities for employees in a whole industrial ecosystems (including SMEs)

## National/regional/ local partnerships

- Employers and public authorities
- Stakeholders e.g. VET providers, PES, social partners
- Sectoral and/or regional focus on upskilling and reskilling

## Social Partners Arrangements

Tripartite agreements focus on  
upskilling and reskilling

## Individual commitments

- Companies
- Stakeholders
- Commit to provide quality upskilling and reskilling opportunities



- Co-chaired by Commissioners Kyriakides, Schmit and Breton on 16/02/2021
- Main goals of the meeting:
  - **Discuss views on the challenges of healthcare ecosystem.**
  - **Understand the needs of reskilling and upskilling.**
  - **Identify good practices and solutions.**
  - **To upskill and reskill the workforce – focus on potential for digital technologies and digital skills to strengthen health systems.**
- Next step: Stakeholders to establish alliances and partnerships.

# Pact for Skills Partnership in the health ecosystem (forthcoming)



Assessment of needs for training, including in relation to digital transition of health systems.



Comprehensive strategy to improve skills (specific objectives and targets; involvement of relevant actors).



Developing training: qualification matrix and certification; development of training programmes; quality assurance of curricula.



Mobilizing training initiatives.

Future Joint Action on forecasting of healthcare workforce; TSI flagship

Erasmus + : alliance for sectoral cooperation on skills/implementing the Blueprint (4 mio grant for 4 years); TSI flagship

National initiatives (possible use of EU Funds); Potential training initiative at EU level under the EU4Healthcare programme

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# New Joint Action: healthcare workforce planning (kick-off in 2022) – support policies to respond to the demand for skills



## HS-g-15.1.1 Health workforce to meet health challenges – forecasting and planning for workforce in the healthcare sector; **EU4Health** grant: EUR 7 million

### Scope & Activities:

- Build capacity in effective forecasting and planning for health workforce - close the divide between Member States;
- Develop knowledge on datasets needed for more comprehensive health workforce planning;
- Support MS and professional organisations to address common challenges, to use improved tools and methodologies;
- Twinning, mentoring or 'clustering', joint workshops, technical assistance, learning or training courses.

### Expected impact:

- Better use of tools for health workforce planning and its integration into financing models and organisation of health services, taking into account lessons learnt from the COVID-19.



## 2020 CSRs : e-health

CZ, DE, FR, CR, LU, NL, PL; recognised in recitals: BG, ES, CY, LV, LT, RO, SL

## 2020 CSRs: health workforce

Shortages in health professionals, uneven distribution: BG, CZ, DK, EE, FR, HR, LV, LT, LU, HU, NL, RO, SI, SK, SE; recognised in recitals: AT, BE, DE, IE, ES, CR, IT, CY, LU, MT, PL, FI  
Skills in recitals: IT, LU, RO, SL

## 2019 Country Reports Annex IV (priorities for future cohesion policy investments) : **skills of healthcare professionals**

BE, BG, EE, EL, IT, LV, LT, PL, PT, RO

# Recovery and Resilience Facility



RECOVERY AND RESILIENCE FACILITY

Financial support to public investments and reforms



#EUEconomyExplained #StrongerTogether



- Centrepiece of the Next Generation EU recovery instrument; total budget: € 723.8 billion.
- Entry into force: February 2021; operational until end of 2026.
- Access to the RRF based on national plans drawn up by Member States.
- Health resilience is among the 6 main pillars of the RRF.
- Recovery and Resilience Plans (RRPs) should allocate **at least 20% of their budget to the digital transition**: potential linkages to eHealth.
- RRPs should address the EU semester's country-specific recommendations (CSRs). In 2020 all 27 Member States received CSRs on health.



	<b>RRPs : reforms and investments in e-health, including <u>training</u> measures</b>
<b>Belgium</b>	E-health services and data: innovative digital systems; ensuring the administrative and technical means and availability of well anonymised and secure health data; extension of the e-prescription capabilities, improvement of the quality of prescriptions and cost reductions achieved for instance through clinical decision support systems or the operationalisation of tele-consultancy.
<b>Cyprus</b>	Reform: National Centre for Clinical Evidence and Quality Improvement; Investment: public health ICT system- the Influenza Sentinel Surveillance module (upskilling of health workers and Ministry of Health personnel to use the system for data collection and information extraction).
<b>Czechia</b>	Reforms: improvement of education of healthcare professionals; establishment of eGovernment competence centres; system supporting eHealth; Investments: cybersecurity of public administration and healthcare: modernisation and expansion of police forces' capacity in Czechia to detect, identify and respond to security and ICT incidents and increased cybersecurity of at least ten information systems.
<b>Germany</b>	Reform: strengthening digital and technical resources of the Public Health Service; Investments: future-proof hospitals (establishing a fund, from which hospitals may receive financial support for modernisation projects, eg. to improve their digital infrastructure, emergency capacities, tele-medicine, robotics, or IT and cyber security).
<b>Spain</b>	Reforms: reform of primary care; reform of the education system for health professionals; Investments: training to improve digital skills in the public sector, including in healthcare.
<b>Finland</b>	Improve access to long-term care services: innovative and remote health services.



## **RRPs : reforms and investments in e-health, including training measures**

<b>France</b>	Digital health: shared medical record, digital health platform, one-stop shop for all digital services for healthcare professionals, electronic identification cards for healthcare professionals (incl. deployment of software and support to users); national suicide prevention hotline.
<b>Croatia</b>	Reform: strengthening eHealth. Investments: national network for the oncological database; digitalisation of cardiology services to improve access to specialist care in rural areas; monitoring system of chronic patients' outcomes in pharmacies; digital integration of operating theatres and robotic surgery.
<b>Latvia</b>	Support for the implementation of the human resources development system (develop a common approach for continuous education in health, and introduce a simulation approach in the health education system).
<b>Malta</b>	Digitalisation of healthcare: digitalisation of outpatient and operations management processes, by using machine learning, AI and automation; transforming the tissue analysis histopathology workflow and reporting into an easily accessible advanced digital platform; improving radiotherapy delivery by acquiring a modern Magnetic Resonance Linear Accelerator machine which shall provide superior imaging quality combined with improved therapy delivery.
<b>Portugal</b>	Digital hospital of Azores: creating an electronic health record for each citizen, increasing the interoperability of information systems to enable clinical information to be shared among health professionals, enhancing the accessibility of health care in the most isolated islands without a hospital by conducting telemedicine consultations, and providing for the necessary hardware, software, and information systems.

# Technical Support Instrument: Flagship initiative Digital Skills for Digital Transformation of Health and Care Systems



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✓ Supporting Member States in structural reforms linked to **the Digital Transformation of Health and Care Systems**

✓ Contributing to **closing the digital skills gap** in health and care sectors

✓ Improving overall **access, resilience, effectiveness and sustainability** of health systems.

Assessment of state of play of supply and demand for digital health workforce skills in view of related RRP reforms and investments

Standards for quality assurance and capacity building

Benchmarking and review of actions based on mapping of state of the art in digital skills training, governance, policy and legislation

This flagship presents indicatively a series of technical support measures which could facilitate the Digital Transformation of Health and Care Systems

Designing of e-Government tools

Piloting and action planning

Establishing coordination mechanisms for synergies with other union funding instruments and national programmes

# Horizon Europe: Healthy citizens 2.0: supporting digital empowerment and health literacy of citizens



**Call closed on 21 September 2021**

- Map **health literacy research** in the EU (and beyond).
- Develop a **European strategy in improving (digital) health literacy** for the benefit of all citizens focusing on health promotion, disease prevention, treatment and (self-)care as well as on monitoring its impact on the quality of life, wellbeing, productivity and the economy, taking into account geographic, social and economic determinants of inequities in digital health literacy.
- **Help patients** navigate the health care systems, interact with their doctors and carers as well as better manage their own health at home, in the community and at work.
  - Create a **network of champions in digital health literacy** across the EU (and beyond) to foster exchange and uptake of best practices.
- **Set targets on health literacy** across Europe and develop monitoring mechanisms and indicators.
- **Include stakeholders from all relevant sectors** (including but not limited to education, innovation, health care, Medtech, media) and involve also citizens in the co-creation, design, planning, implementation and evaluation of the strategy, including through social innovation tools and approaches.

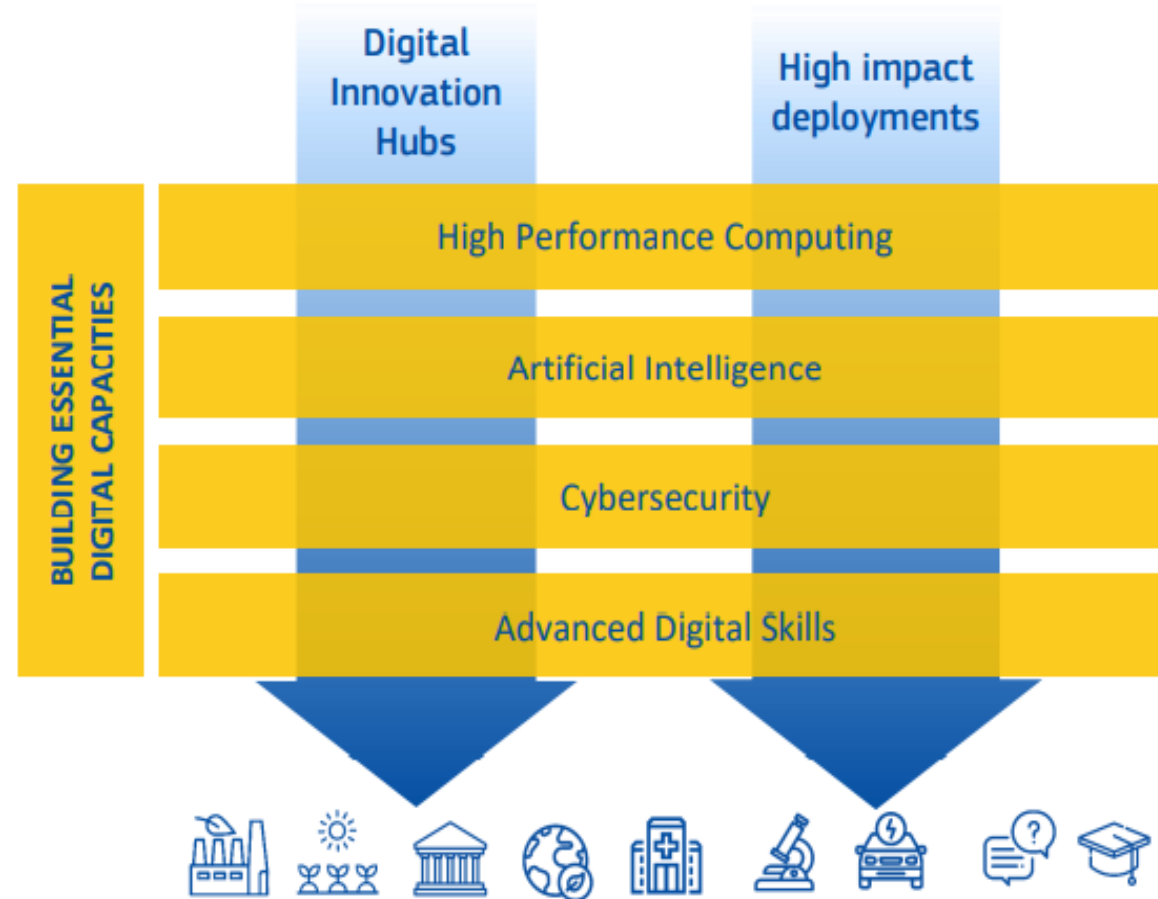
# Digital Europe Programme: digital skills



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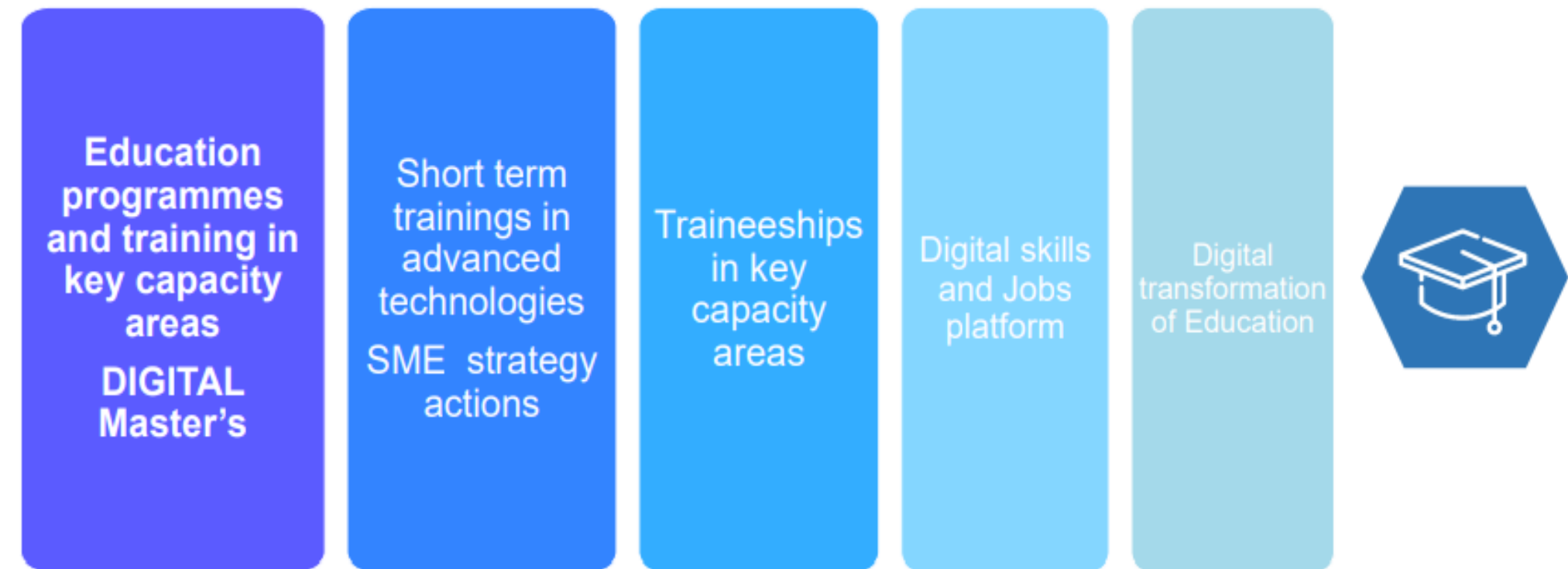
## Digital Europe programme (DIGITAL) structure

ACCELERATING THE BEST USE OF DIGITAL TECHNOLOGIES



Total budget  
EUR 7.6 billion

## What is planned under DIGITAL advanced skills?



Total budget for Skills EUR 580 Million over 7 years

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# Digital Europe Programme: digital skills



## Specialised education programmes in key capacity areas



The action will contribute to expand the education offer across Europe, by increasing the number of courses, jointly designed by universities from different Member States and associated countries together with excellence centres and businesses active in the domain. The impact will be twofold: an increase of courses offer all over the EU and the development of dynamic digital ecosystems where academic excellence, research and innovative industries work together to attract and retain the best talents worldwide.

The application deadline is **22 February 2022 17:00, Brussels time**.



## Advanced digital skills analysis

The objective of the action in the field of **Advanced Digital Skills** is to support the rollout of initiatives to allow advanced ICT skills development, by gathering inputs on the existing education offers in digital areas and the related needs of the labour market. The actions should contribute to support excellence in education institutions, the development of a dynamic digital ecosystems and the collaboration between the different consortia established within the call "[Specialised education programmes in key capacity areas](#)".

The application deadline is **22 February 2022 17:00:00, Brussels time**.

## Preparatory actions for the data space for skills



The objective of the call is to deploy a secure and trusted data space to support sharing and accessing skills data for various purposes, from analytical and statistical purposes to policy development or re-use in innovative applications. The data space will provide easy, cross-border access to key datasets, deploying trust mechanisms (security and privacy by design) and develop data services matching European values, in particular of ethics, diversity and privacy.

The application deadline is **22 February 2022 17:00:00 Brussels time**.



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**Thank you for your attention**

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