Digital Europe Programme

19 March 2020
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European Commission

Evidence-based policy-making approach

1.000.000 open vacancies for digital technology experts

53% Of EU companies experiencing difficulties in recruiting ICT specialists

Shortages of ICT and STEM professionals in almost all Member States

ICT specialists **3.7% of** total employment

Women ICT specialists **1.4% of** female employment

ICT Graduates **3.5% of total** graduates

European Commission

EU Digital Strategy

1 **Technology that works for people**

➤ Invest in digital competences for all Europeans;

➤ Protect people from cyber threats (hacking, ransomware, identity theft);

➤ Ensure Artificial Intelligence is developed in ways that respect people's rights and earn their trust;

➤ Accelerate the roll-out of ultra-fast broadband for homes, schools and hospitals throughout the EU;

➤ Expand Europe's super-computing capacity to develop innovative solutions for medicine, transport and the environment.

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AI Coordinated Action Plan

Train, retain and attract AI talents in the EU

Member States will include the skills dimension in the national AI strategies (by mid-2019) and map the national education offer, the skills needs

The European Commission will explore avenues to support the inclusion of AI modules in multi-disciplinary Master programmes (e.g. in e-health, fintech, e-government) and in adult training programmes with the focus on people with higher education and work experience.

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Digital in EU budget 2021-2027

Objective: *ensure that **Europe drives the digital transformation** of society and economy, bringing **benefits to all citizens and businesses***
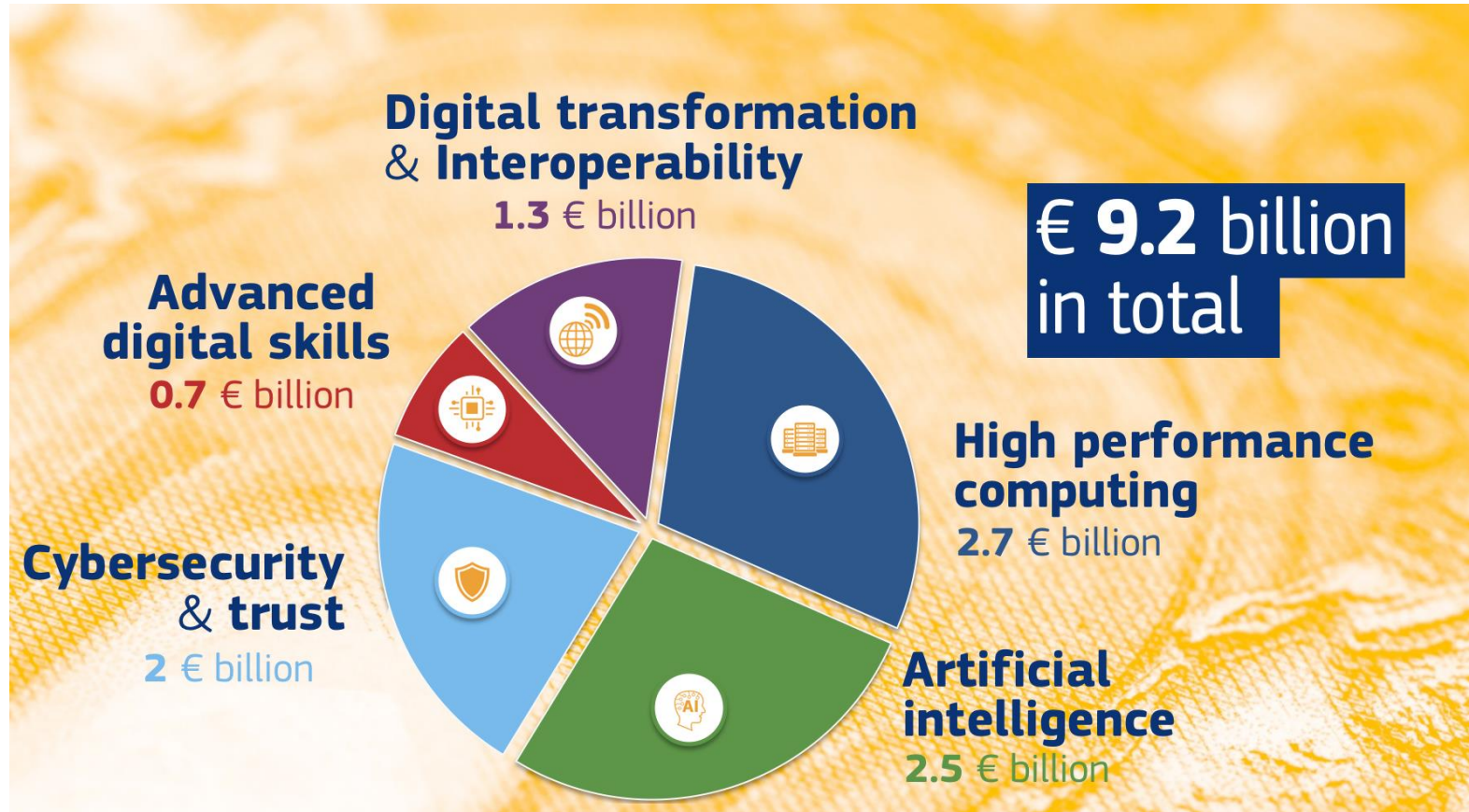
HOW?

- Reinforce the EU's digital capacities
    - (computing, data, cybersecurity, AI,..)
- Ensure their widest possible roll out and maximise their benefits
- Boost EU's digital talent pool
- Prepare for and lead the development of next generation technologies
- Build a world-leading connectivity infrastructure
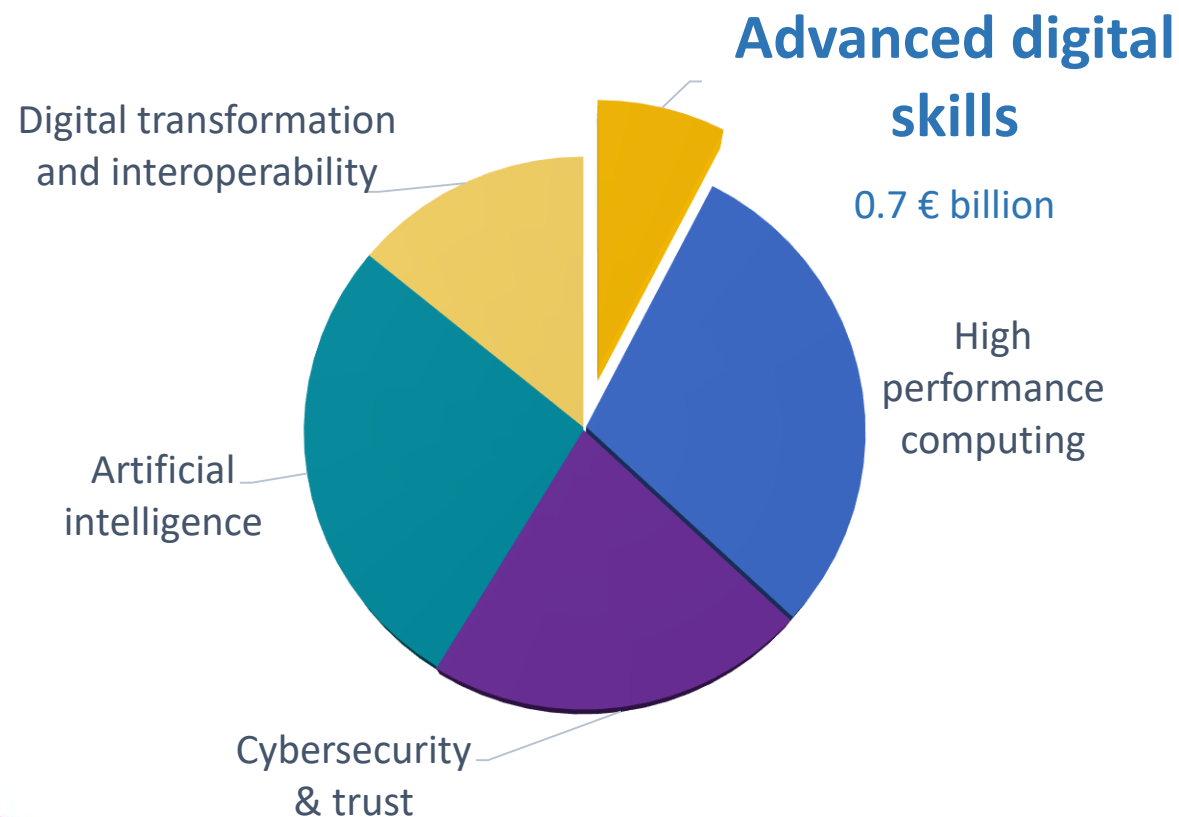- Support creators and ensure the widespread distribution of their works.

Digital Europe programme

Reinforcing digital capacities. Ensuring their best use.

Digital transformation & Interoperability
1.3 € billion

€ 9.2 billion in total

Advanced digital skills
0.7 € billion

High performance computing
2.7 € billion

Cybersecurity & trust
2 € billion

Artificial intelligence
2.5 € billion

European Commission

Advanced digital skills in the Digital Europe Programme

WHY?

Advanced digital skills

0.7 € billion

High performance computing

Cybersecurity & trust

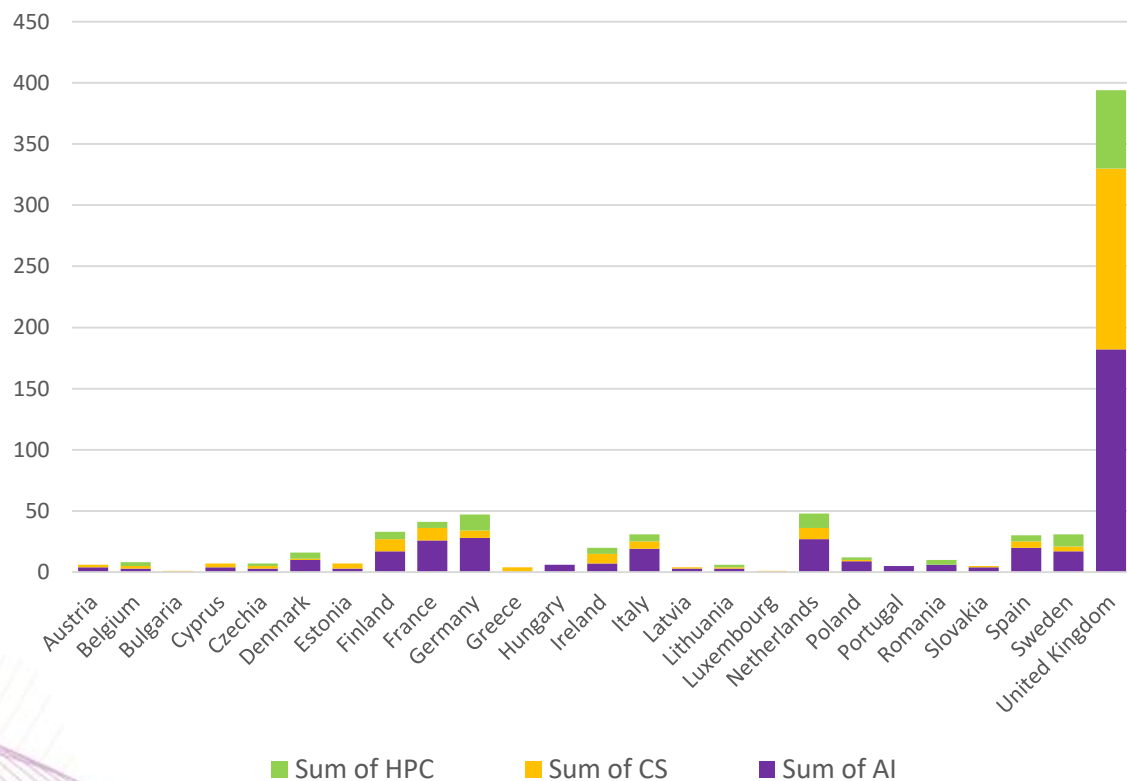Artificial intelligence

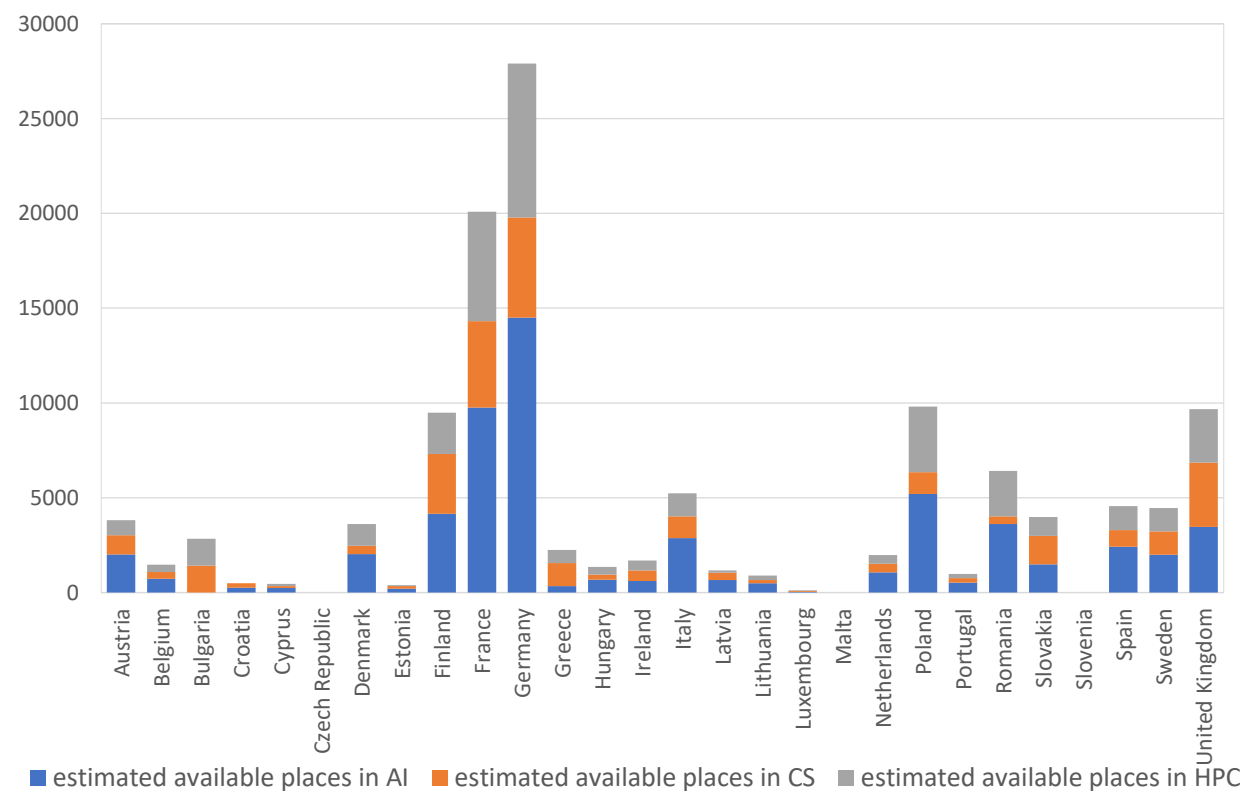Digital transformation and interoperability

Gains from common EU investments in digital technologies will only materialise if there is a sufficient number of skilled people to develop, roll-out and use these new technologies. Substantial investment to boost the number of digital specialists in the EU is therefore necessary and must go hand-in-hand with investments in technologies.

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Where the EU stands in terms of specialised digital education offer?

#of MSc programmes specialised in AI, HPC and Cyber Security (JRC 2019)

Legend: Sum of HPC, Sum of CS, Sum of AI

Estimated Capacity in terms of available places (JRC 2019)

Legend: estimated available places in AI, estimated available places in CS, estimated available places in HPC

Networking and Scaling up Europe's strengths

WHAT IS ALREADY BEING DONE?

Artificial Intelligence Excellence Centres

Ongoing Horizon call for EUR 48 million to strengthen EU excellence centres in AI and support the development of networks.

High-Performance Computing

EuroHPC will support to 8 High Performance Computing systems in the EU through a collective effort involving 19 Member States.

Cybersecurity Skills

A total investment of EUR 63 million to support for the development of ecosystem of excellence centres in cybersecurity composed of 160 EU partners.

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Possible actions to be supported

Master's programmes

Highly specialized programmes and courses to equip students with the advanced digital skills needed to deploy the latest technologies in all sectors of the economy

Short-term training

Short-term training courses open also to people already in employment to specialise in cutting-edge digital technologies

Job Placements

Job placements in companies or research centres specialised in Artificial Intelligence, HPC or cybersecurity to acquire advanced digital skills on-the-job.

European Commission

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How can the Master's programme be implemented?

➢ EU Consortia of tertiary education institutions, with digital excellence centres and relevant industry

➢ Develop & deliver Master's programmes and courses in cutting-edge digital technologies

➢ Cooperation with Competence centres and Digital Innovation Hubs

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Pilot Call – Connect Europe Facility

This call aims at developing quality learning opportunities, in line with EU policy objectives, to be showcased on the Digital Skills and Jobs Platform

Two objectives

Master programme in Artificial Intelligence

Master programme on the use of Artificial Intelligence in a specific sector

- Total budget: EUR 6,5 Million
- Co-financing: 75%
- Duration: 24 to 36 months
- Indicative budget per project: around EUR 3 million

Support in the next EU Budget

Digital Europe Programme ➡ *Advanced digital skills for new technologies*

European Social Fund+ ➡ *Reskilling & Upskilling at local level*

ERASMUS Programme ➡ European Universities and *learning mobility for all*

Horizon Europe ➡ *Researchers and PhDs and EIT*

Other instruments

European Globalisation Adjustment Fund (EGF) ➡ *re-training for dismissed workers*

Invest EU ➡ *financial Instrument*

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