



Pact for Skills



WHAT?

**Upskilling and
reskilling of
people of
working age**

Apprenticeships

**All types of
skills**

Large scale partnerships

- Major players in industrial ecosystems
- Public authorities
- Concrete investments in upskilling opportunities for employees in the company and in a whole value or supply chain

National/regional/ local partnerships

- Employers
- Public authorities
- Stakeholders e.g. VET providers, PES, social partners
- Sectoral or regional focus on upskilling

Social Partners Arrangements

Tripartite agreements
focus on upskilling and
reskilling

Commitments

- Companies
- Stakeholders
- Commit to provide quality upskilling opportunities

PACT FOR SKILLS

Demand driven commitments



Support from the EU



Charter: up-/re-skilling for ALL

Large scale partnerships

- Industrial ecosystems for recovery
- Partnerships based on finalised or current Blueprints

Sector Skills Alliance and Blueprint

- Sectoral cooperation
- Design of VET
- In the new Erasmus+ open to all industrial ecosystems

National, regional or local partnerships

Building on the work of:

- Eurocities and Intelligence Cities Challenge,
- Centres of Vocational Excellence,
- Clusters

EaFA pledges

- New commitments for apprenticeships

DSJC pledges

- New commitments for digital skills

Individual commitments

Social Partners Arrangements

Networking Hub

Support in finding partners and first meetings

Link with existing EU tools e.g. Europass, Skills Panorama

Promotion of the activities of the Pact members

Knowledge Hub

Webinars, seminars, peer learning activities

Updates on the EU policies and instruments

Information on projects, tools, instruments and best practices

Guidance & Resources Hub

Access to information on relevant EU funding

Guidance to identify financial possibilities

Facilitation of exchange between the Pact and national/regional authorities

EU and national funding

Promoting a culture of lifelong learning for all

Working against discrimination, for gender equality and equal opportunities

Building strong skills partnerships

Monitoring skills supply/demand and anticipating skills needs

- Passenger transport and travel
- Hotels, short term accommodation
- Restaurants and catering
- Events, theme parks

- Social enterprises, associations and cooperatives aiming at generating a social impact, often proximity based

- Retail sales
- Wholesale connected to consumers

Proximity & Social Economy
RT
15/04

Tourism
RT

Creative & Cultural Industries
RT
12/04

- Newspapers, books and periodicals
- Motion picture, video and television
- Radio and music

Aerospace & Defense
RT
12/04

- Aircraft production
- Space manufacturing and services
- Defense products and technologies

- Production of textiles, wearing apparel, footwear, leather and, jewellery

Textiles
RT

- Raw starting materials (semiconductor wafers)
- Semiconductor manufacturing tools
- Design and manufacturing of semiconductor components

Electronics
RT

- Production of motor vehicles, ships and trains, and accessories
- Their repair and maintenance
- Transport

Mobility - Transport - Automotive
RT
07/06

Energy-Intensive Industries
RT
07/06

- Raw materials
- Manufacturing of products with high environmental impact: chemicals, iron and steel, forest-based products, plastics, refining, cement, rubber, non-ferrous metals, fertilisers, etc.

Renewable Energy
RT
11/05

- Electric motors, engines and turbines
- Electric power generation
- Manufacturing and distribution of gas

Agri-Food
RT

- Plant and animal production
- Processing of food

Health
RT

- Pharmaceuticals and other medical products
- Personal protective equipment
- Medical services, hospitals, nursing homes, residential care

Digital
RT
15/06

- Telecommunications
- Software publishing, computer programming and consultancy
- Data processing, hosting, web portals
- Manufacturing of computers, communication equipment and consumer electronics

Construction
RT

- Building of residential and non-residential estates
- Building of roads and railways,
- Building of utilities and civil engineering
- Associated activities

Industrial Ecosystems

✓ = Partnerships kickstarted
RT = Roundtable done
Blue = existing Blueprint



Blueprint for Sectoral Cooperation on Skills

European Skills Agenda (2021-2025)

- The Blueprint is the cornerstone of the European Commission's sectoral strategy for skills intelligence and development
 - Strategic cooperation between key stakeholders and social partners in few pilot sectors
 - Pilot implementation of four years with a budget at EU level over € 100 millions since 2018
 - Roll-out at national and regional levels
- Erasmus+ annual work programme, call and programme guide for 2021 have been adopted and published.
- See: https://ec.europa.eu/programmes/erasmus-plus/resources/programme-guide_en



ALREADY WITH US

Automotive

- Upskilling 5% of the workforce each year to reach around 700 000 people
- An overall private and public investment of €7bn

Microelectronics

- Upskilling and reskilling opportunities for 250 000 people by 2025
- An overall public and private investment of €2bn

Aerospace and Defense

- Upskilling around 6% of the workforce each year reaching 200 000 people and reskilling 300 000 people to enter the ecosystem
- An overall public and private investment of €1bn

202 signatories of the Charter, including 48 with concrete commitments

Among them:



ELECTRICAL CONTRACTORS ASSOCIATION

SIEMENS



Nestlé



LIDERAZGO RESPONSABLE

Google



Automotive Skills Needs for Green and Digital Transformation



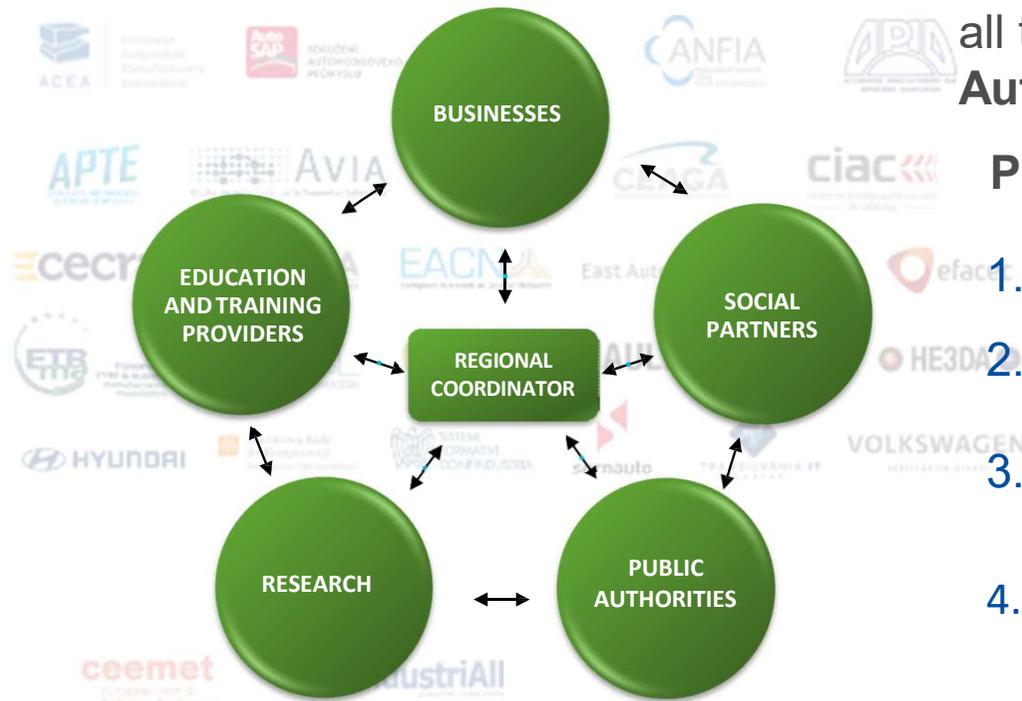
The ambition:

- Empowering 5% workforce/year
➡ 700.000 up/re-skilling
- € 7 bn private + public investment
- Streamlining blueprints strategic outcomes to Europe-wide ASA (Automotive Skills Alliance)

Turning Ambition into Reality



Pact for Skills in Automotive: Gearing Up To Massive Up- and Reskilling



Collaboration on skills strategy at **European** level, as well as at **national and regional** levels, between all the involved relevant stakeholders in the whole **Automotive ecosystem**

Priority: Regions for pilot implementation

1. Promote a culture of life-long-learning
2. Concerted effort: management & workers with career development support
3. Partnership between regional VET excellence: to deliver re/up- skilling courses and apprentices
4. Cross-fertilise trainings between SMEs and OEMs, including for soft-skills

Contact: info@skills-alliance.eu
www.automotive-skills-alliance.eu



Building on DRIVES and ALBATTs Blueprints



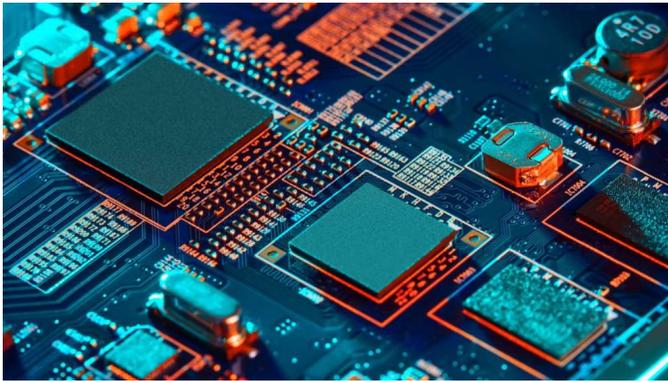
ASA builds upon the work carried out by the Blueprints for sectoral cooperation on skills: **DRIVES** and **ALBATTs**:

- **DRIVES** skills intelligence (analysis of skills demand and offer in automotive) and recommendations on apprenticeships; first EU-wide database of reference job roles and training courses across Europe; job roles and online courses.

www.project-drives.eu

- **ALBATTs** skills intelligence in the batteries for electro-mobility and work to be carried out on specific educational and training offer for the battery sector. www.project-albatts.eu

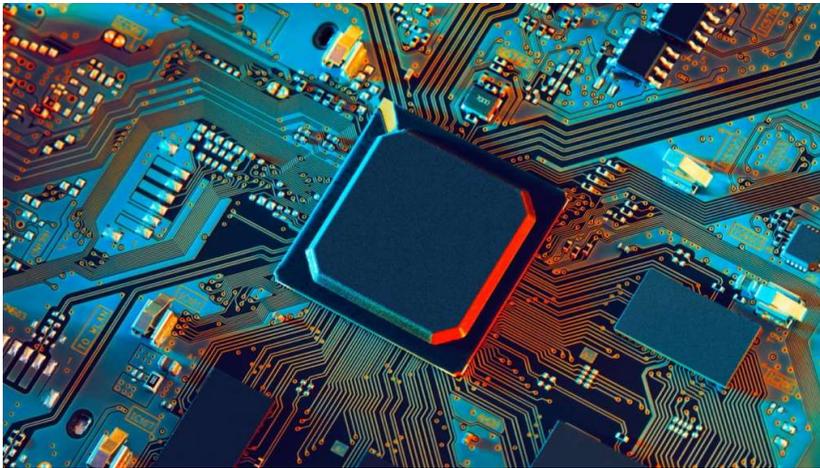
Microelectronics Skills Needs in Europe



- ❑ Microelectronics are key enablers in digital and green transition as well as Europe's technological sovereignty
- ❑ End-to-end electronics industry provides high-value jobs to over 2,5 million Europeans
- ❑ Unprecedented growth in demand for engineers and technicians: ~ 1.1 million job advertisements in the EU (between 2018 and 2019, CEDEFOP, 2020)
- ❑ Rapidly evolving skills in R&D, design, manufacturing, growing need in knowledge in software and data analytics required for various smart applications – e.g. AI ethics, cybersecurity and energy-efficiency
- ❑ Gender balance issues: low rate of women in electronics education and employment (~ 17.2 % of all ICT specialists employed in the EU)

Pact for Skills in Microelectronics: Areas of Investment and Estimates

- ❑ Estimated investment of €2b from public and private sources for 2021-2025 would be needed to significantly contribute to the workforce in Europe
- ❑ Activities foreseen under the Pact for Skills would provide new re/upskilling opportunities for over 250,000 people in five years



- ❑ **Upskilling** of workers in rapidly evolving areas e.g. design and manufacturing;
- ❑ **Reskilling** of low-qualified, unemployed and displaced adults
- ❑ **Training in new smart applications**, e.g. AI, machine learning, Edge AI
- ❑ **Investments in training facilities** and equipment upgraded across Europe with a particular focus on **regional clusters**

Building on METIS: The Blueprint for sectoral cooperation on skills in Microelectronics



Europe's Largest Microelectronics Skills Initiative

Example of required investment (Saxony Cluster)

Currently employed in Semiconductor in Saxony	25.000
~ 20% need reskilling & up skilling	5.000
~ 1000 will come from other industries	1.000
~ 1000 will move into Saxony from other regions	1.000
Yearly number of employees to be retrained	7.000
Annual budget: 5k€/year/employee	35M€
Budget 2021 – 2025	175M€

www.metis4skills.eu

- ❑ **European Large-Scale Skills Partnerships**
Industrial Alliances and Projects supported by EU programmes and RRF funds to ensure scalability and maximize impact
- ❑ **Regional clusters** leading-edge pilot projects and rapid adoption of best practices and high-quality standards throughout Europe
- ❑ **Attracting new comers in electronics education and work** with particular focus on increasing the participation of women
- ❑ **Associated SME/startup/Large company skills** collaborative programmes



Aerospace and Defense Skills Needs in Europe

- Europe is home to some of the largest companies in the global aerospace and defense industry. This ecosystem includes four sub-groups namely civil aeronautics, military aeronautics, space, land and naval.
- It is an indispensable element of Europe's strategic autonomy



- In 2019, the total turnover was over €250 billion.
 - An ecosystem with large industries and SMEs engaged in R&D projects, Design, Manufacturing and Services
 - It remains the employment of 600,000 highly-skilled employees in Europe
 - Unprecedented challenges: COVID crisis; Climate neutrality; Competitive environment (Fast digitalization, Industry 4.0); Demographic (aging staff).
- Action under the Pact for Skills is therefore essential to address the skills needs and preserve the EU's competitiveness in this sector full supply chain (incl. OEM & SMEs)

Pact for Skills: Areas of Investment and Estimates

- The Pact for Skills solutions would provide up- and reskilling opportunities for **600,000** workers with a **minimum of 200,000 employees in 5 years** and preparing **300,000 future employees in 10 years**.
- We will establish **scalable/ massive** up- and reskilling solutions for our industry full supply chain and its EU labour market. It should be applicable to large companies, to SMEs in all regional clusters
- Main areas of investment would include:



1. **Green transition skills** (energy, materials and process (circular economy))
2. **Artificial Intelligence** (Robotics for Operators, Autonomous systems)
3. **Data Analytics** (Global digital awareness, Data governance, Big Data, Data profiles, Data Analyst)
4. **Cybersecurity**
5. **Modelisation Based System Engineering**
6. **Soft skills** (Ethical and moral skills, Social skills, business related soft skills, Intercultural awareness)

Building on Industry and VET Partners Best Practices

Data Analytics and Artificial Intelligence innovative case ([European Digital Skills Award in 2018](#))

- The program is a mix of theoretical and practical skills building: Digital Nanodegree (300 hours of digital learning); An applied placement/individual project (85 hours tutored); Social learning means to further curate competences acquired.
- In 4 years, **1,000 employees** have been trained or enrolled to reach Data Analyst and AI missions with **93% success/ completion rate**.

Currently employed in Aerospace & Defence in EU	600,000
~ 5% need reskilling & up skilling	30,000 (6,000 per year)
~ 10% needs for 5% of newcomers	3,000 per year
Annual budget: 2.2 K€/ year/ employees	20 M€
Budget 2021-2025	100 M€

- **Blueprint** for sectoral cooperation on skills **Alliance** for strategic skills addressing emerging technologies in defence
- **Regional clusters** for rapid adoption of local innovations and high-quality standards throughout Europe
- **Attracting new talents in Aerospace and Defence ecosystem** with particular focus on increasing the participation of young talents and women
- **Associated SMEs/ Large companies** skills collaborative programmes

Europe's Digital Decade: Digital Targets for 2030

Press release | 9 March 2021 | Brussels

Europe's Digital Decade: Commission sets the course towards a digitally empowered Europe by 2030



ICT Specialists: 20 millions

Advanced digital skills require more than mastering coding or having a basis of computing sciences. Digital training and education should support a workforce in which people can acquire specialised digital skills to get quality jobs and rewarding careers. As of 2019, there were 7.8 million ICT specialists with a prior annual growth rate of 4.2%. If this trend continues, the EU will be far below the projected need of 20 million experts e.g. for key areas, such as cybersecurity or data analysis. More than 70% of businesses report a lack of staff with adequate digital skills as an obstacle to investment. There is also a severe gender imbalance with only one in six ICT specialists and one in three STEM graduates being women. This is compounded by a lack of capacity in terms of specialised education and training programs in areas such as Artificial Intelligence, quantum and cybersecurity and by a low integration of digital subjects and educational multimedia tools in other disciplines. Addressing this challenge requires massive investment to train future generations of workers and to up-skill and re-skill the workforce.



Skills

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



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% availability medical records
Digital Identity: 80% citizens using digital ID



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

The what, how and why guide to the e-CF



A common European framework for ICT Professionals in all industry sectors

Welcome to the e-CF

The European e-Competence Framework (e-CF) provides a reference of 40 competences as applied at the Information and Communication Technology (ICT) workplace, using a common language for competences, skills, knowledge and proficiency levels that can be understood across Europe.

IT Professionalism

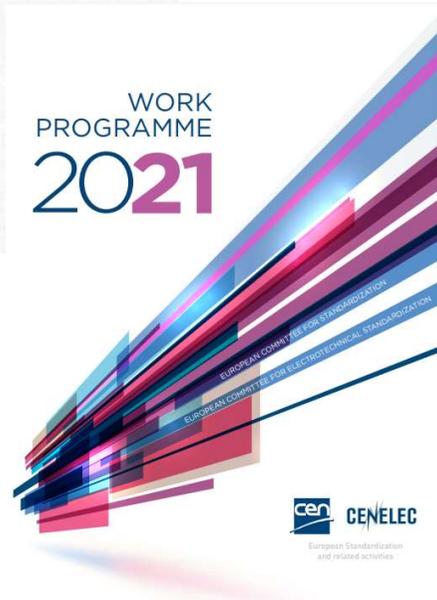
Bodies of Knowledge

Professional Ethics

Education and Training

Competences

WORK PROGRAMME
2021



DigComp

Digital Competence Framework for citizens



The Digital Competence Framework 2.0

DigComp 2.0 identifies the key components of digital competence in 5 areas which can be summarised as below:

- 1) Information and data literacy:** To articulate information needs, to locate and retrieve digital data, information and content. To judge the relevance of the source and its content. To store, manage, and organise digital data, information and content.
- 2) Communication and collaboration:** To interact, communicate and collaborate through digital technologies while being aware of cultural and generational diversity. To participate in society through public and private digital services and participatory citizenship. To manage one's digital identity and reputation.
- 3) Digital content creation:** To create and edit digital content. To improve and integrate information and content into an existing body of knowledge while understanding how copyright and licences are to be applied. To know how to give understandable instructions for a computer system.
- 4) Safety:** To protect devices, content, personal data and privacy in digital environments. To protect physical and psychological health, and to be aware of digital technologies for social well-being and social inclusion. To be aware of the environmental impact of digital technologies and their use.
- 5) Problem solving:** To identify needs and problems, and to resolve conceptual problems and problem situations in digital environments. To use digital tools to innovate processes and products. To keep up-to-date with the digital evolution.

Related Publications

DigComp into Action: Get inspired, make it happen. A user guide to the European Digital Competence Framework

DigComp 2.1: The Digital Competence Framework for Citizens with eight proficiency levels and examples of use

Background Review for Developing the Digital Competence Framework for Consumers: A snapshot of hot-button issues and recent literature

The Digital Competence Framework for Consumers

DigComp 2.0: The Digital Competence Framework for Citizens. Update Phase 1: the Conceptual Reference Model.

More >

Related Content

ICT skills - In an economy increasingly dependent on digital technology, the challenge for Europe is to support its citizens in developing sufficient and appropriate ICT skills and competences in all sectors and levels. In this context, closing the gap between the number of job seekers and the number of vacant digital jobs is among the main priorities for the European economy. CEN/TC 428 'ICT professionalism and Digital competences' is responsible for all aspects of standardization related to developing ICT skills in all sectors, public and private. In 2021, the Technical Committee will finalise the elaboration of some European Standards related to the four major building blocks of ICT professionalism: competences, education and certification, code of ethics, body of knowledge. These activities will take place in support of the revised version of EN 18234-1 'e-Competence Framework (e-CF) - a common European Framework for ICT professionals in all industry sectors'.

IT Professionalism Europe
 Competent and careful. Recognised and respected.

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<https://itprofessionalism.org>

IT PROFESSIONALISM CONFERENCE 2021 TO BE HELD 20-22 APRIL



<https://digital-strategy.ec.europa.eu/en/policies/digital-skills-coalition>

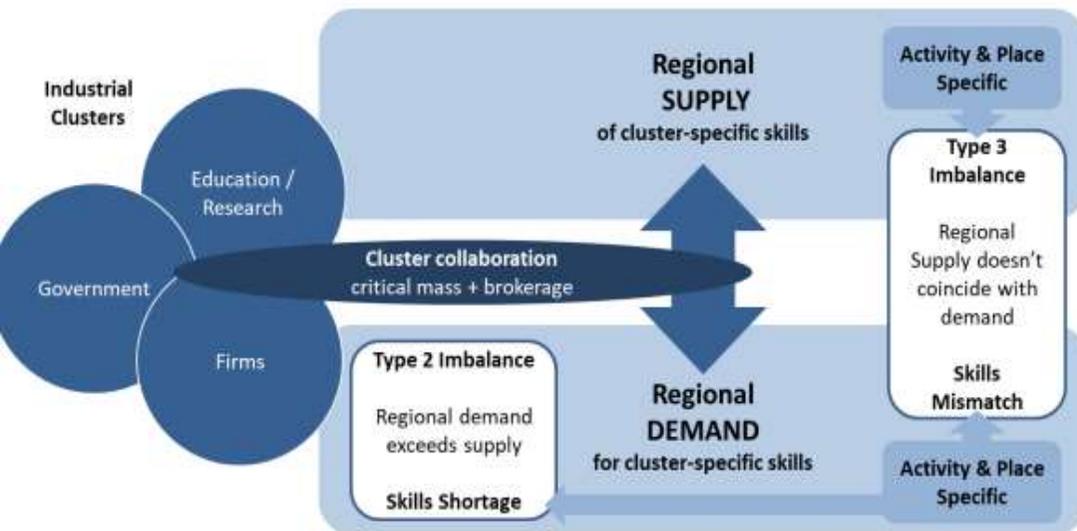
Strengthening IT Professionalism in Europe

A European framework for IT professionalism to support and further mature the IT profession, and increase Europe's digital talent pool



Skills and Industrial Clusters: Recommendations

European Expert Group on Clusters and Sub-group on Clusters and Skills



Three main recommendations in the 2020 report:

- Develop an active role of clusters in local labour markets through building their capacities for up- and reskilling and participating in the Pact for Skills.
- Mobilise clusters to participate in digital and green skills initiatives, embedding them to local education and training structures while promoting STEM.
- Develop capacity-building programmes to help clusters provide sustainable advisory services and convince business about the importance of the green transition.

Building on Leading Industrial Clusters in Europe

Clusters are already established actors which have been dealing with skilling of the workforce in many Member States and within ALL industrial ecosystems

Clusters

- Easily reach out to SMEs
- Connect different type of actors
- Link regional/national/EU levels
- Experienced in providing support on skills



350 companies
55 projects
Upskilling digital transformation
5000+ people trained digitalisation, decarbonized VC, etc.



Tailor made training programme for companies to promote industry jobs + setting-up job & skills campus



Up & reskilling programmes developed by clusters + international vocational trainings



400 professionals from 44 companies in the automotive industry trained Programme to train unemployed for the ICT sector



Programmes to increase digital skills of SME employees + women leadership in industry



14 training courses to SMEs
➔ Up & reskilling 600+ people



IT leadership skills development programme



Programme to develop skills & competences in view of Smart Specialisation Strategies



Multi-country model EU-local cross-sectoral reskilling4work programme at scale

Objective:

- ❑ Equip the EU cities and regions with the skills required for successful **structural and cross-sectoral mobility of the workforce**, e.g. towards green, healthcare, or tech jobs, which has been accelerated by Covid-19. These require **new skills locally**.
- ❑ An **end-to-end model local cross-sectoral reskilling program** to be co-designed and rolled-out massively across EU cities and regions. It should :
 - Cover all steps from: **Assessment** of the skills needs currently and in the future; **Enlisting** of the new jobs and skills; **Matching** skills demand and supply; **Reskilling & placement** in new jobs.
 - **Multi-country** but with **city-level data, vacancies and training providers**
 - Focus on **reskilling into new occupations**, 3-16 weeks duration on in-demand occupations across sectors (e.g., software developers, digital marketers, elderly caregivers, etc.)
 - **Technology-powered**, across cities to capture data, aggregate training needs and providers, forecast future needs, optimize matchmaking and job placement.

The Pact for Skills at Cities level

- ❑ A EU cross-city network on “**Cities of excellence for Reskilling**” to bring state-of-the-art knowhow on global jobs and skills trends, EU policy priorities, as well as a **blueprint of best city practices on reskilling** to build upon, co-design, adapt and replicate thus saving valuable resources.
- ❑ Effective funding for reskilling could **repay governments seven times over** (ERT - European Roundtable of Industrialists):
 - **Reskilling benefits in Europe** are substantial: ~ € 440 Bn annual net cost savings could be generated by reskilling 20 Mn people in Europe (based on an average public benefit estimation of ~ € 22.000 for each reskilled unemployed that stays 12 months less in unemployment)
 - **And far out weight the costs:** ~ € 65 Bn cost to reskill 20 Mn people (based on an average cost of ~ € 3.300 per trainee)

Employment, Social Affairs & Inclusion

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EU funding instruments for upskilling and reskilling

<https://ec.europa.eu/social/main.jsp?catId=1530&langId=en>

Thank you



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