Skills for the Twin Transition

Lina Nardone, European DIGITAL SME Alliance

European
DIGITAL SME
Alliance

45.000 SMEs in the ICT sector

24 National and regional associations from EU member states and neighbouring countries

12 Active Working Groups

150 Project proposals in which we have been involved

450 Experts involved in our Working Groups

THE PRIORITIES

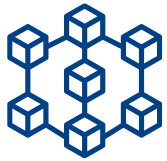
European DIGITAL SME Alliance

ARTIFICIAL INTELLIGENCE

CYBERSECURITY & PRIVACY

DIGITAL SKILLS

SUSTAINABILITY



BLOCKCHAIN

DIGITALISATION

STANDARDS

COMPETITIVE DIGITAL MARKETS

INTELLECTUAL PROPERTY

SMART COMMUNITIES

TECH SOVEREIGNTY

SOME NUMBERS

45K SMEs in the ICT sector

600K People working in the sector

€5bln Annual revenues from the sector

DIGITAL SKILLS

European DIGITAL SME Alliance

DIGITAL SME WG skills Working Group Skills

Digital Skills & Jobs Platform

EUROPEAN YEAR OF SKILLS

digital LARGE SCALE PARTNERSHIP

European Commission

PACT FOR SKILLS

digital
LARGE
SCALE
PARTNERSHIP

digital LARGE SCALE PARTNERSHIP

WHAT IS THE DIGITAL-LSP?

The **Pact for Skills initiative** bringing together all stakeholders interested in and committed to equipping the European workforce with the digital skills required by the EU Digital Decade Targets

More than **150 stakeholders** including European and national associations, clusters and digital innovation hubs, universities, research centres, companies and VET providers

- Full list of members on the Pact for skills website https://pact-for-skills.ec.europa.eu/about/industrial-ecosystems-and-partnerships/digital_en
- More info: read our Programme Document https://www.digitalsme.eu/digital/uploads/Digital-LSP-Registration-Membership-Guidance.pdf

digital LARGE SCALE PARTNERSHIP

WHAT ARE THE OBJECTIVES?

- Contribution to EU digital decade targets
- Equip 80% of people with basic digital skills
- Achieve gender convergence in the digital sector
- Have 20 million ICT specialists employed by 2030

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WHO CAN JOIN?

SINGLE ENTITIES

- Businesses of all sizes
- Chambers of Commerce
- Higher Education Institutions
- VET providers
- Academia
- Employment agencies
- Social Partners
- Public Authorities
- And all those stakeholders active in the up- and re-skilling of the European workforce.

UMBRELLA ORGANIZATIONS AND ALLIANCES

- **Alliances for skills established under E+ Blueprints or other EU-funded projects**
- Membership Organizations
- Other Large-Scale Partnerships (LSP)

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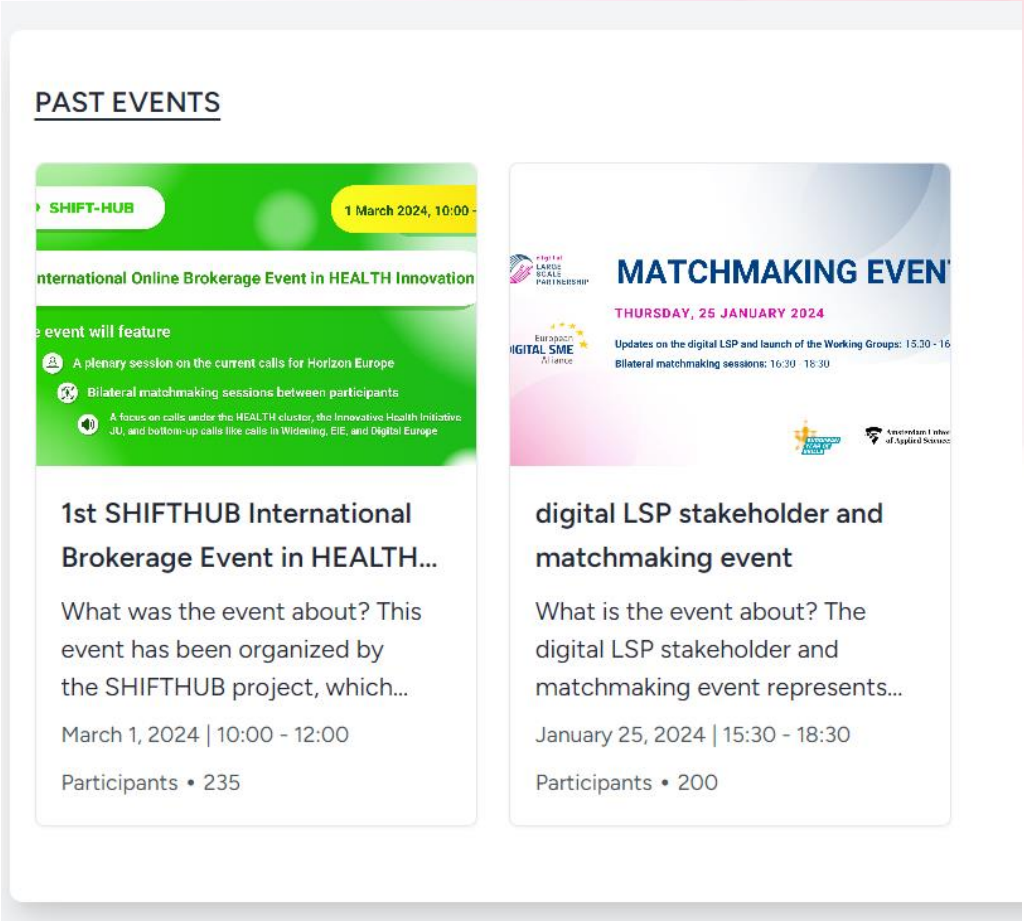
WHY BECOME A MEMBER?

- Timely updates on funding opportunities
- Networking and Matchmaking sessions for relevant open calls
- Eligibility for blue-print projects
- Provisions of trainings and tools to upskill and reskill
- Skills needs analysis
- Dissemination of project results and exchange of best practices
- Technology outlook
- Connection with other industrial ecosystems (LSPs)

MATCHMAKING PLATFORM

- The platform functions as an **online networking tool** that connects organisations with potential partners.

- Additionally, it serves as a **hub** for SMEs, universities, research centers, business organizations, clusters, digital innovation hubs, and public administrations, facilitating collaboration among them.



For more info check the Platform website

ICT Sustainability

European DIGITAL SME Alliance

DIGITAL SME FGS
Focus Group ICT Sustainability

Digital 4 Sustainability
Skills for Europe's Twin Transition

EUROPEAN GREEN DIGITAL COALITION

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Skills for Europe's Twin Transition

Digital4Sustainability

Empowering the European Workforce
for the Sustainable Digital Transition

Funded under the Erasmus+ programme as an Alliance
for Sectoral Cooperation on Skills

Co-funded by
the European Union

Shaping a Sustainable Digital Future

Digital 4 Sustainability
Skills for Europe's Twin Transition

Driving innovation in digital & sustainability practices to boost Europe's skills for a sustainable digital transition

4-year EU funded project (2024-2028)

29 members of the Digital Large-Scale Partnership under The Pact for Skills from 13 EU countries

Co-funded by the European Union

Why this project?

Green and digital transitions, also referred to as ***Twin Transition*** (as they are closely linked and have the capacity to reinforce each other), are **top priorities of the EU agenda**.

The Twin Transition will transform the EU labour market and accelerate changes in **skills demand** as it is estimated to have the potential to **create around 1 million jobs by 2030.**[1]

Digital4Sustainability will contribute to the **EU Digital Decade goal** of having **20 million employed ICT specialists by 2030** by training more than 1000 new ICT & Sustainability professionals.

Digital4Sustainability is fully aligned with the vision of **the European Education Area** and contributes to its objectives, especially the ones regarding the **development of digital skills**.

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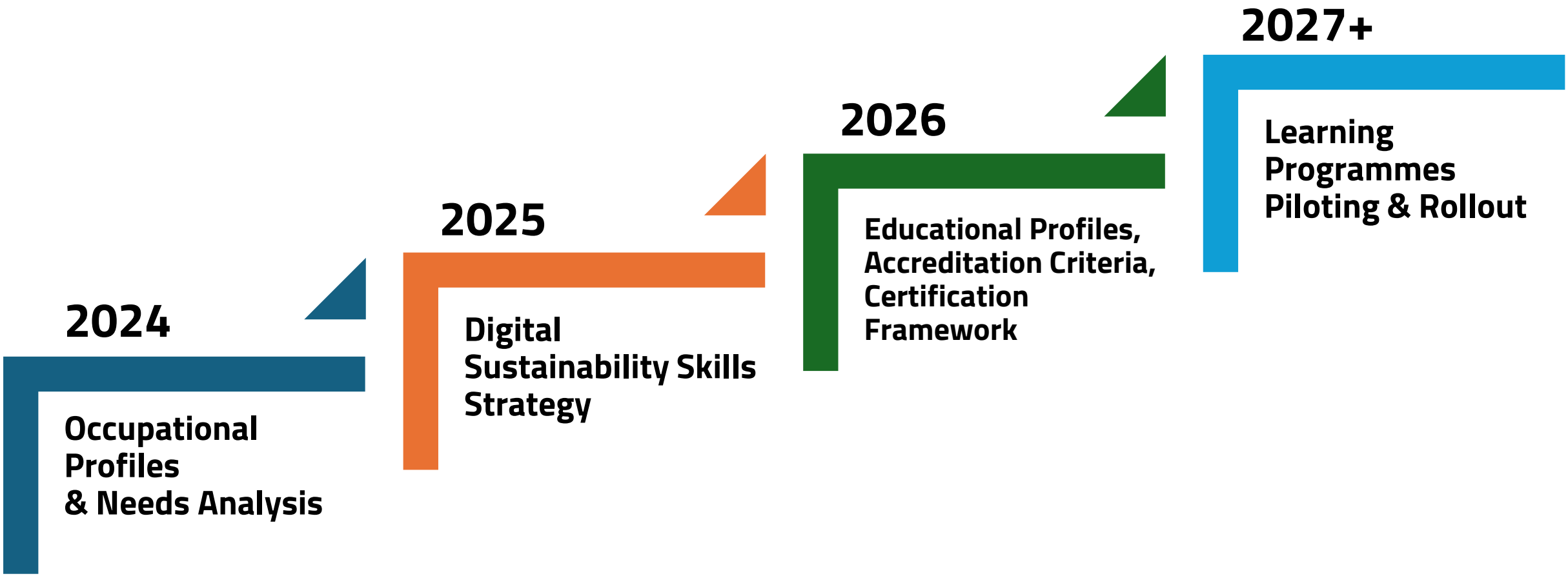
1. Source: European Commission, Proposal for a Council Recommendation on ensuring a fair transition towards climate neutrality

Project Roadmap



Overview of the collected data

Method	Data collected
Literature review	70 scientific articles analysed (+ 6 articles on frameworks)
Labour market reports	42 reports analysed in detail (of 98 initial sources)
Questionnaire	181 responses in dataset (of total of 242 respondents)
Job vacancies	117 vacancies analysed in detail (of 164 initial vacancies)
Supply of education & training	157 learning programmes analysed
Expert panels	90 experts in 12 national expert panels + 15 experts EU panel

Main findings from literature

- The twin transition will fundamentally change institutions, companies and labour markets.
- Companies are already experiencing skills shortages in the field of digital and sustainability transformation
- There is a clear overlap with digital transformation and sustainability skills. Hence, companies can build on an existing set of skills.
- Transversal and soft skills, and ecosystem cooperation skills are necessary. Basic digital skills are essential in any role.
- There cannot be a “one-size-fits-all” approach for reskilling and upskilling, as differences between regions, sectors, and companies must be considered.

Findings from Labour market research

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Great demand for digital sustainability skills is expected in the following sectors:

- Circular economy
- Utilities
- Logistics
- Agriculture
- Construction
- Energy
- Transport
- Manufacturing

In the service sector, only some areas will be affected:

- ICT
- Law
- Science
- Finance
- Engineering
- Architecture

Findings from labour market research

A greater demand is expected in the ICT field, concerning

- Developing environmentally sustainable solutions
- Refining existing systems for greater sustainability and efficiency

Emerging Professions

- **Responsible digital educators**
- **Carbon Auditors**
- **Environmental Consultants**
- **Responsible digital managers**

Main findings from questionnaire

Roles already present in organisations

- **Digital sustainability lead** is the role most present in organisations
- More **technical roles are less present at the moment** (e.g. sustainable technical specialist)
- **Sustainability data roles are the least present** (e.g. sustainability data analysis, engineers and scientists)

Main findings from questionnaire

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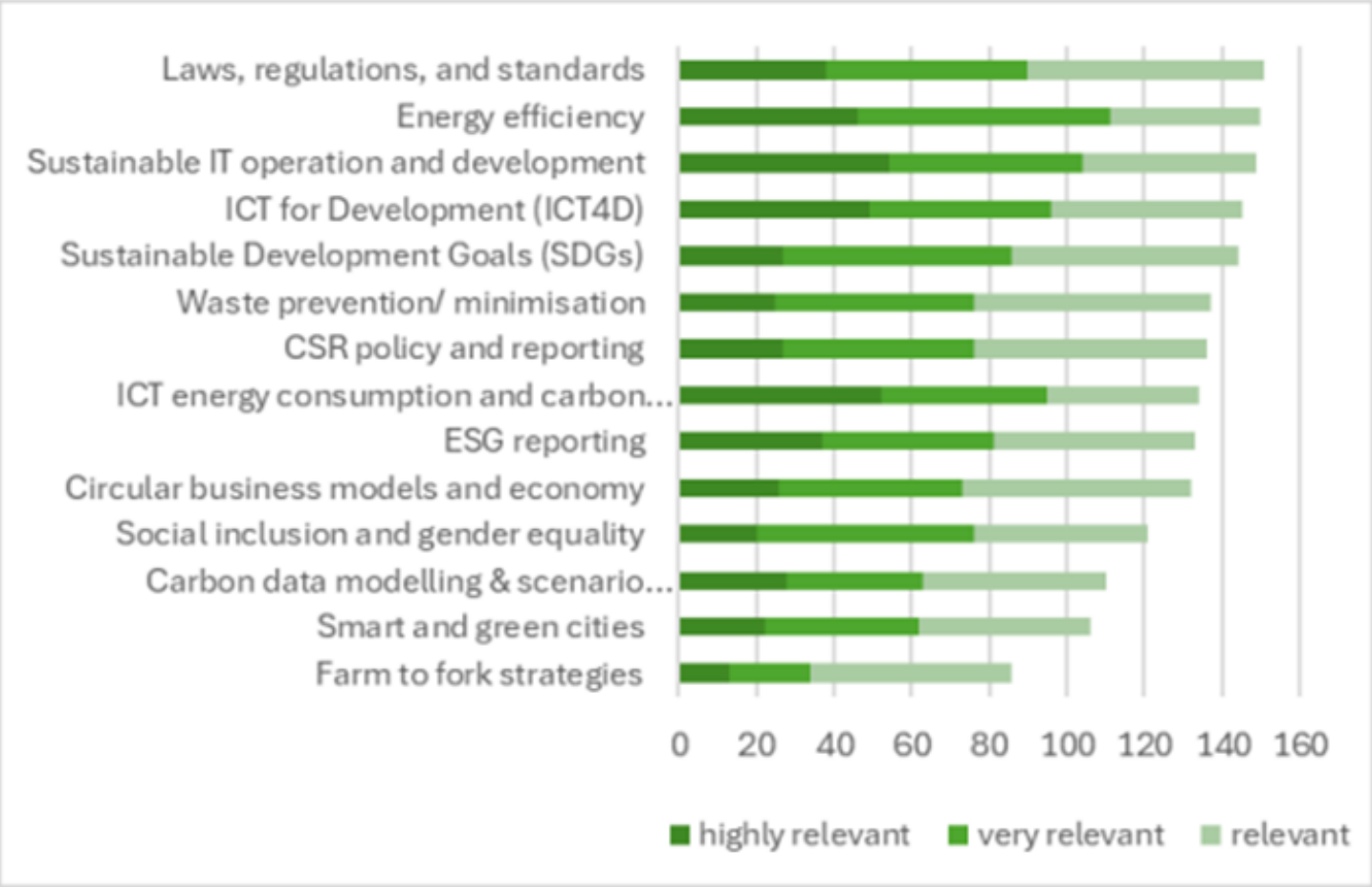
Relevant sustainability-related skills and knowledge



- Specific **sustainability topics and transversal skills** were both identified.
- More **general topics** are relevant for a large number of organisations. However, they are **not considered highly relevant.**

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Main findings from questionnaire

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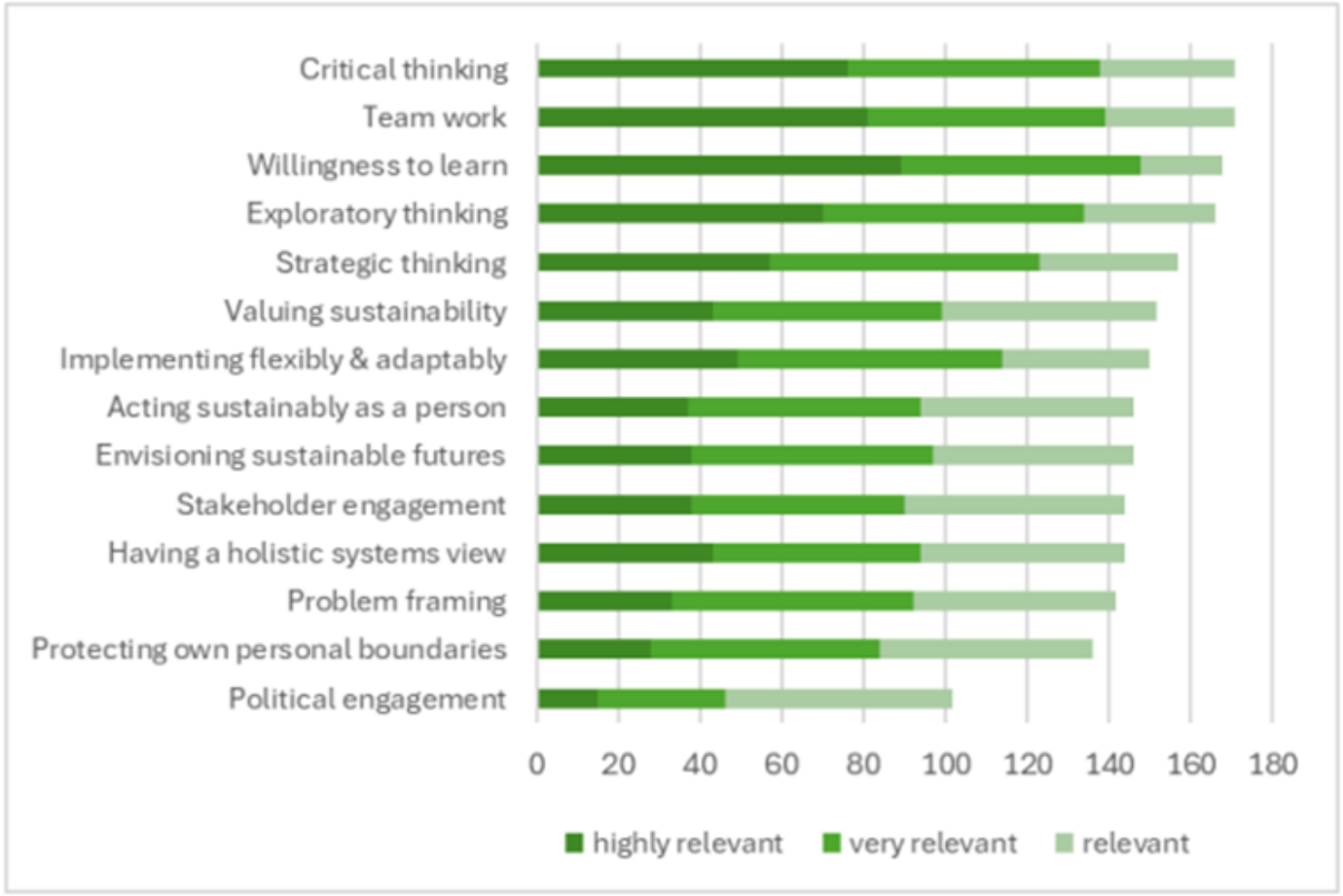
Transversal skills needed in the area of digital for sustainability



- **Transversal skills** that don't have necessarily a direct connection to sustainability are the most relevant.
- Among the sustainability-related skills, **valuing sustainability** takes the lead.

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Skills & Roles analysis

- **Upskilling digital professionals with sustainability knowledge and skills** is the quickest way to fulfil the need for digital for sustainability professionals. Same could be done with sustainability professionals, but it will take more effort, as **digital skills** are more dominantly important in these roles.
- The **current need for skills is primarily focused on ESG reporting and carbon footprint**. This narrows the scope excessively, undervaluing important SDGs.
- **Legislation-related** skills remain important, as well as **data-related** skills for analysis and reporting on sustainability.
- Working in teams and communication are key **transversal skills identified**
- Need to integrate sustainability in the education of digital professionals with trainings that are **modular and short.**

Skills & Roles analysis

- **Ten emerging professional roles** have been identified across the fields of Management and Consultancy, Data Processing and Analysis, and Development and Operations
- **Digital sustainability leads** and **managers** are the roles already present in numerous organisations needed, while others are planning on upskilling their workforce to have this roles within their staff.
- In the long term, **data-related roles** will also **increase in importance** as data analysis is key to determine factors like environmental impact and evaluate the efficiency of sustainability initiatives within business processes.
- The study shows that to master the twin transition we should not have **I-shaped professionals** , experts in a single field with limited cross-disciplinary insight, or just **T-shaped professiona**l which are able to collaborate across domains, but we would rather need **M-shaped professionals**, with deep expertise in three critical areas: digital, sustainability, and their specific sector of application.

Roles -Management and Consultancy

Digital Sustainability Lead
Defines and implements a digital sustainability strategy, policy and governance across the organisations. Provides leadership for the implementation and development of sustainability by the organisations' architecture and applications.

Digital Sustainability Consultant
Advises organisations on their digital sustainability strategy and its implementation of applying digital technologies to reach sustainability goals and add value to a business in the most effective and
efficient manner.

Digital Sustainability Manager
Proposes, plans and manages the functional development of the information system, focusing upon sustainability

Roles -Data Processing and Analysis

Sustainability Business Analyst
Analyses an organisation's processes and systems and optimises business performance with regard to sustainability through technology application. Provides possible ICT solutions compliant with the digital sustainability strategy.

Sustainability Data Scientist
Delivers insights from data by optimising the analytics process focusing on sustainability. Creates, identifies, selects and optimises the mathematical models, the algorithms and predictive models to deliver insights in sustainability aspects, applying advanced programming techniques

Sustainability Data Analyst
Imports, inspects, cleans, transforms, validates, models and analyses collections of data with regard to sustainability. Ensures that the data sources and repositories provide consistent and reliable data. Prepares sustainability dashboards and management reports.

Sustainability Data Engineer
Builds and maintains systems that collect, manage, and convert raw data into usable information regarding sustainability for data scientists and analysts to interpret.

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Roles –Development and operations

Sustainability Solution Designer
Proposes and designs solutions that support sustainability in line with technical architecture, which fit business requirements and support change.

Software Developer for Sustainability
Designs and/ or codes components to meet sustainability specifications. Builds and implements ICT applications and components that support sustainability.

Sustainability Technical Specialist
Installs, maintains and repairs hardware, software and service applications that support sustainability.

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Skills for Europe's Twin Transition

Thank you

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