

## **RESTART: Resilience and Training for SMEs**

# **RESTART Consolidated Findings**

**(Project Result 2 - Task 2.3)**

### Identification of the skills, competencies, and occupational profiles most needed in MSMEs in the post-pandemic economy

#### **Introduction**

This document, RESTART Consolidated Findings, a) identifies the potential and extrapolates the operational implications for MSMEs to proactively embrace the 4 mega-trends (1. Innovation & Servitization, 2. Digital Transformation, 3. Localization, and 4. Sustainability), b) describes the training needs based on the 4 mega-trends, c) defines the professional profiles of the "evolving nature of jobs" in MSMEs, d) benchmarks the professional profiles against ESCO and frame EQF levels of the RESTART training, and e) describes the training, its content, topics, and structure. It has been prepared within the RESTART Project Result 2, Task 2.3, "Mach Innovative Biz Models and MSME needs". The document's main aim is to crystallize the skills, competencies, and occupational profiles most needed for MSMEs in the post-pandemic economy. RESTART project partners will use the informed insight in this document to prepare PR3, which is the combination of training and operational tools that partners will develop for the benefit of MSMEs and their "staff" (both entrepreneurs, managers, and workers) to empower them with skills and competences and equip them with tools to embrace innovative business models and practices emerging from the 4 mega-trends.

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## A) The potential and operational implications for MSMEs to proactively embrace the 4 mega-trends

In this document's first section, a reader can find information about four mega-trends, including definitions and related operational implications.

### 1. Innovation & Servitization

New ideas, innovative approaches, and greater cooperation are needed to address the current and emerging economic, social, and environmental challenges. Innovation is playing an increasingly important role in all sectors and the daily lives of citizens around the world.

According to Oslo Manual (OECD/EUROPEAN UNION, 2018), innovation can mean both activity and the outcome of the activity. The general definitions of innovation activities and business innovation are following:

*“Innovation activities include all developmental, financial and commercial activities undertaken by a firm that are intended to result in an innovation for the firm.”*

*“A business innovation is a new or improved product or business process (or a combination thereof) that differs significantly from the firm's previous products or processes and that has been introduced on the market or brought into use by the firm.”*

Innovation is a highly diverse activity. Enterprises can innovate through product or business process innovation. Enterprises can adopt new technologies developed by other enterprises or engage in intensive in-house research and innovation activities. The capabilities needed by enterprises to innovate are very different in kind and size. (European Union, 2021)

Types of business process innovations are: a) Production of goods or services; b) distribution and logistics; c) Marketing and sales; d) Information and communication systems; e) Administration and management; f) Product and business process development. (OECD/EUROPEAN UNION, 2018)

Business model innovations are of great interest. They can vary from partial business model innovations that only affect a firm's products or business functions to comprehensive business model innovations that involve both products and business functions. Extensive business model innovations can substantially affect supply chains and economical production, transforming markets and creating new ones. They can influence how a firm develops utility for users (product innovation) and how products are produced, brought to market, or priced (business process innovations). (OECD/EUROPEAN UNION, 2018)

Operational implications/activities that MSMEs can undertake in pursuit of innovation:

1. research and experimental development (R&D) activities,
2. engineering, design, and other creative work activities,
3. marketing and brand equity activities,
4. IP-related activities,
5. employee training activities,
6. software development and database activities,
7. activities related to the acquisition or lease of tangible assets,
8. innovation management activities.

**Servitization** is a process in which a manufacturer offers services complementing its products. The phenomenon of servitization is recently a hot topic. However, adding services to manufacturing is not new. The rationale for adding services is that services generally provide more stable revenues as they are less affected by economic downturns. (Prester & Peleš, 2017)

**Servitisation** refers to *“the innovation of an organization's capabilities and processes so that it can better create mutual value through a shift from selling product to selling Product-Service Systems”* (Neely, 2008). This definition of servitization refers to changes in the capabilities and processes of manufacturers. However, a definition that considers clients' perspective is the following: *“**Servitising** describes a business strategy which defines and serves a market's needs for speed, convenience, flexibility, and other value-added attributes by changing how the function embodied in products is delivered.”* (White et al., 1999)

The second definition implies that services are a way of engaging with clients and providing them with an additional function. Servitisation delivers advantages to both organizations and clients, which concerns the use and maintenance of products, specification or co-design of the product, outsourcing the logistical activities, and outsourcing parts of their primary process. As such, services can be used to support the development and the client's actions. (European Commission, 2018).

Services can be broadly divided into three categories. 1.) **Digital services**, for example, remote monitoring, maintenance, upgrades, and remote operation of machines sold or leased out to clients. 2.) **Circular economy**, for example, when manufacturers collect real-time data about the performance of the machines and production lines of their clients, which is used to increase the material/energy efficiency of these machines and production lines. 3.) **Financial services** include leasing, insurance, other financial services, and any legal services (e.g., legal advice) linked to products. (European Commission, 2018)

According to the European Commission (2018) on the potential of servitization, there is a clear positive impact of servitization on MSMEs, yet there are both drivers and barriers for MSMEs.

Servitisation can positively impact MSMEs by increasing revenues, higher profit margins, diversification of risks, gaining additional clients, and building more intense relations with them, which results in higher client loyalty.

Important drivers of servitization are increased revenues, awareness and attitudes toward innovation, ambition to intensify relations with customers, availability of new ICT tools, demand from clients, initiatives taken by suppliers or partners, new data tools, price competition, policy support, environment, and regulations.

Barriers are represented by having an organizational structure and culture for manufacturing products and staff with a skill set that is not developed for providing services, access to funding, availability of suitable suppliers and partners (also for R&D), uncertainty about demand, limited in-house capacity and not being able to recruit skilled people.

The main success factors are establishing and using a network, quality and innovativeness of product/service, and proximity to customers. Depending on the sector or the MSME, some factors can be drivers and barriers. For instance, the availability of ICT tools and infrastructures and the availability and initiatives of business partners differs between MSMEs. MSMEs adapting effectively to the relevant factors may refer to them as success factors, e.g., having the right business network.

Operational implications/activities that MSMEs can undertake to foster servitization:

1. develop and use networks with the suppliers, partners, and initiatives (also for R&D),
2. maintain proximity and intensify relations with customers,
3. focus on quality and innovativeness of product/service,
4. increase awareness of innovation,
5. build a skill set for providing services,
6. foster adaptability and agility,
7. secure required ICT tools and infrastructure.

## 2. Digital Transformation

Digital transformation is one of the key recent trends in business organizations, entire business sectors, and whole economies. Therefore, the critical skills of MSMEs are influenced by digitalization and digital transformation.

Digitalization can be defined as: "... leveraging digital technology to replace former social (i.e., human interactions, relationships, norms) and/or technical (i.e., technology, tasks, routines) aspects of structures, e.g., products, services, user experiences, processes, etc." (Osmundsen et al., 2018). On the other hand, digital transformation means "disruptive implications of digital technologies" (Nambisan et al., 2019). In the case of MSMEs, it refers to applying digitalization to enable significant changes to how the business is conducted, leading to its significant transformation.

Generally, digitalization transforms entrepreneurship in two ways. First, it is the emergence of new entrepreneurial opportunities in the economy. Secondly, it is about changing business practices and how these opportunities are best realized. (Pilková et al., 2022)

The relevant drivers of digital transformation in the context of MSMEs are twofold. First, internal drivers such as digital skills and capabilities, digital awareness, innovation assets, organizational culture, etc. Secondly, external drivers, i.e., existing digital infrastructure, regulations, market conditions and competition, digital technologies, digital shifts in the industry, and others. (Pilková et al., 2022)

The benefits of digitalization and digital transformation are manifold but mainly revolve around four critical areas, according to Pilková et al. (2022).

The first area is **efficiency**. Efficiency typically relates to cutting costs in various ways, process improvements beyond cost-cutting resulting in improved quality, design, speed, environmental benefits, protection at work, etc., and growth of value-added, which creates a higher margin.

Another critical area revolves around **customers**, which typically includes a better understanding of customer preferences through the collection of big data, data analysis, immediate feedback, and easier and faster access to a large amount of information. A better understanding of customer preferences but also easy ways to communicate lead to higher customization of companies products and services.

The third key area of benefits relates to **flexibility**, manifested in broader use of remote working, the ease and versatility of marketing, and easier acquisition or involvement of customers and stakeholders.

The last area of benefits concerns **general management improvements** such as higher availability of information and documents, adjustments to management of the business itself as well as related processes, better awareness of current and future trends in business development, improved risk

management, professionalism, acceleration of decision-making processes, and higher production flexibility. It is also possible to enhance different aspects of a company based on big data analysis. Digitalization and digital transformation hence improve the general competitiveness of the company.

Digitalization is one of the key megatrends that significantly influence the world's economy. As for the particular benefits related to the digitalization of MSMEs, the most frequent positive effects include improved financial performance, improved communication and outreach towards customers through digital channels, and developed internationalization capabilities. (Rivza et al., 2019)

Operational implications/activities that MSMEs can undertake in pursuit of digital transformation:

1. develop required digital skills and capabilities,
2. build and foster digital awareness,
3. acquire innovation assets,
4. build a favorable organizational culture,
5. utilize existing digital infrastructure,
6. maintain an overview of market conditions and competition,
7. keep up with digital technologies,
8. follow digital shifts in the industry.

### 3. Localization

Digitalization allows MSMEs to reach more (also international) customers. However, during the pandemic, international business was disturbed, and consequently, MSMEs focused more on domestic markets, manufacturing, and supply chains. MSMEs tried to shift production processes to local markets instead of relying on international and overseas suppliers. Examples are manifold, i.e., local farmers' collaborations on logistics of their products, shifting production to home country, increasing revenues from local customers (decreasing the proximity from local customers), local customers delivery, local business support, etc. (Williamson et al., 2021)

Many entrepreneurs refocused on local concerns or issues during the pandemic, seeing that as an opportunity. According to KBS Covid-19 Research Impact Paper (Williamson et al., 2021), two operational implications were identified regarding how localization trends can lead to long-term advantages for the post-Covid economy.

The first operational implication is **strengthening local supply chains**. The reason for that is the pandemic raising awareness about the precariousness of global trade due to the disruption of global supply chains. This has led to increased support for local manufacturing and local procurement. The advantages are more reliable supply chains, creating local employment, reducing the carbon footprint related to transportation, and, e.g., increasing control over labor conditions. Entrepreneurs producing locally before the pandemic could flexibly adjust to the situation, suggesting the potential to build resilient capabilities of MSMEs.

The second operational implication is adopting **circular economy models**. The opportunity lies in the maximized use of resources while waste is minimized and recycled. MSMEs should create partnerships with local suppliers, strengthen their networks among businesses within the same supply chain, and promote "Made locally", "Buy local", or other aspirational and quality labels.

Localization also provides several benefits to MSMEs. A better understanding of local customers who understand what they are buying and why they should buy it improves customer experience. It results from higher knowledge and creation of the product that better fits the local market, higher local market saturation, and thus higher market presence and increased customer loyalty as they stick to local brands.

Operational implications/activities that MSMEs can undertake to foster localization:

1. create and maintain partnerships with local suppliers,
2. intensify networks within the supply chain,
3. adopt circular economy models.

#### **4. Sustainability**

In business, sustainability refers to “*doing business without negatively impacting the environment, community, or society as a whole. Sustainability in business generally addresses two main categories: the effect business has on the environment, and the effect business has on society.*” (Spiliakos, 2018).

A sustainable business is an enterprise with minimal negative or potentially positive effects on the global or local environment, community, society, or economy. Sustainable companies consider various environmental, economic, and social factors when making business decisions.

Sustainability in business might mean different things for each MSME, as the sustainability strategy has to be aligned with business goals. It might mean using sustainable materials in the manufacturing process, optimizing supply chains to reduce greenhouse gas emissions, relying on renewable energy sources to power facilities, sponsoring education funds for youth in the local community, and putting more emphasis on waste production, circular economy, and CSR.

Sustainability has become a business approach that considers how a given organization operates in the ecological, social, and economic environments. It is built on the assumption that sustainable strategies foster business competitiveness. The reasons are both ethical and financial: (IBM, 2021)

- It is increasingly important for employees to look for responsible, mission-driven, purpose-led employers that are environmentally sustainable.
- Consumers are willing to pay a premium for goods from brands that are environmentally responsible. 80% of consumers indicate that sustainability is important to them.
- Governments, investors, employees, and customers are demanding new levels of enterprise accountability, including action to address climate change.
- Many of the world's top economies are developing corporate disclosure requirements around environmental impact, driving businesses to curb GHG emissions.
- The rise of environmental, social, and governance (ESG) investment criteria and sustainable investing means that a sustainable business is inherently more attractive to the rising numbers of responsible investors.

Operational implications of sustainability in business include building a competitive advantage, as environmental responsibility is very important for customers when choosing a brand and might also improve brand awareness, appeal to investors, comply with regulatory requirements, build a more agile organization, acquire talent, and consequently grow revenues.

Challenges with business sustainability might lie in customer readiness as the mindset around sustainability is still shifting, costs, because the implementation of sustainable business practices requires relatively high upfront investments, and lack of tools and expertise, as MSMEs may lack the ability to implement sustainable solutions while undertaking high uncertainty and risks. (IBM, n.d.)

Sustainability in business is a megatrend that will continue to profoundly affect companies' competitiveness and even survival in the market. Entrepreneurs are looking to harness the power of data, AI, and blockchain to manage climate and environmental risk, optimize asset performance and resource utilization, drive decarbonization and build more sustainable supply chains.

Operational implications/activities that MSMEs can undertake to intensify the focus on sustainability:

1. focus on environmental responsibility as a source of competitive advantage,
2. develop brand awareness around sustainability,
3. comply with regulations and requirements,
4. develop agility and agile organization,
5. develop sustainability-related skills and acquire sustainability expertise,
6. emphasize sustainability when recruiting talents,
7. sustainable supply chains.

## B) Training needs based on the 4 mega-trends

In the second section, this document summarises findings from individual partners' country mapping inputs on the training needs related to 4 mega-trends.

- Hard skills acquisition and development
- Soft skills acquisition and development
- Raising awareness of new entrepreneurship trends
- Support and funding system
- Acquisition of cybersecurity capabilities

The RESTART project partners have identified the ***acquisition and development of hard skills*** related to 4 mega-trends as the most pressing training need. As evident from the first section of this document, the 4 mega-trends are associated with many hard skills. If we talk about innovation, these can be, for example, skills related to 3D printing, data analytics, digital and technical skills, creative competencies in the sense of knowing and using different graphic and specialized software, etc. Servitisation is mainly associated with the manager's abilities to manage their business and employees and build networks of contacts (also in a virtual setting). Employees must know how to use different software related to the nature of the service they provide, sales skills beyond technical knowledge, and the ability to work in virtual space, online and remotely, as this is the new standard in business. Digital transformation touches many aspects of business and organizations. Analog systems and processes are gradually being replaced by digital ones. Therefore, owner-managers and employees must be equipped with advanced digital skills. These include digital platforms, cloud computing, AI, Big data, blockchain, FinTech trends, and various autonomous systems or IoT. Project management, Google Analytics, Digital and social media marketing, design, editing, market research, and logistics are important hard skills for localization. Finally, sustainability also touches many business areas; therefore, the hard skills required are diverse, ranging from waste management, strategic management, knowledge of modern and sustainable materials, legal requirements, and financing to reporting (e.g., ESG reporting).

Another broad dimension is the ***acquisition and development of soft skills*** related to 4 mega-trends. Based on the partner's mapping inputs, owner-managers and employees' most important soft skills are leadership and interpersonal skills, emotional intelligence, communication, change adaptability and flexibility. Teamwork is likewise essential and has gained a new dimension through virtual collaboration. Critical thinking, problem solving, creativity, and innovation are increasingly essential in the post-pandemic era.

***Raising awareness of new entrepreneurship trends*** emerged as another training need. In general, MSMEs lack sufficient knowledge of new trends in entrepreneurship, as reflected by relatively low innovation, digitization, servitization, localization, and sustainability practices in MSMEs across RESTART project partner countries. However, there are other trends, such as green entrepreneurship, social entrepreneurship, the gig economy, etc. MSMEs should be at least equipped with the necessary knowledge about these trends and be able to exploit them in various contexts.

***The support and funding system*** was a frequently mentioned impetus for the training needs of MSMEs based on the RESTART partner's mapping inputs. Relatively low levels of innovation, digitization, servitization, localization, and sustainable activities are often accompanied by either a lack of or insufficient awareness of support initiatives and funding opportunities. The consequence is that MSMEs are not taking full advantage of some available support opportunities (in innovation and digitalization). These opportunities must be better communicated and presented to MSMEs to enable them to take advantage of them and increase the adoption of these business trends.



RESTART project partner's mapping highlighted a separate dimension of training needs: the *acquisition of cybersecurity capabilities*. The implementation and adoption of the 4 mega-trends are accompanied by major cybersecurity risks, whom MSMEs are often unaware of and hence do not pay much attention to. Therefore, according to the RESTART project partners, it is crucial to equip MSMEs with advanced knowledge in this area so that MSME employees are trained to operate safely to maintain the confidentiality and integrity of MSME information, and defend against the risks of cyberattacks.

### C) Professional profiles of the “evolving nature of jobs” in MSMEs

In this section, we review European and international documents and reports that provide insight into future skill sets, competencies, and qualifications that are becoming relevant in the changing business environment.

First, we focused on the *European Skills Agenda for sustainable competitiveness, social fairness, and resilience* (EC, 2021), a key European document to drive Europe's competitiveness and innovation. This document emphasizes that Europe is transforming, considering the digital transformation, covid-19, and the commitments arising from the climate agreements. It is generally agreed that the EU needs a paradigm shift on skills that will drive the transitions and recovery after the pandemic. Hence, it is increasingly important to: a) *strengthen sustainable competitiveness*, b) *ensure social fairness*, and c) *build resilience*. The Skill's Agenda is anchored in the European Green Deal, Digital Strategy, Industrial and SME Strategies, Circular Economy Action Plan, and the EU Biodiversity Strategy for 2030, as skills are crucial to their success. The Skill's Agenda does not identify specific skills to focus on but is a policy document with realistic objectives and concrete steps to achieve them.

Next, we examined McKinsey's report *The post-pandemic economy: The future of work after COVID-19* (2021). Interestingly, in the post-COVID-19 scenario (exploring the changes until 2030), almost all labor demand growth could be in high-wage occupations. This means that there will be job growth in high-wage occupations and a decline in low-wage occupations, while the nature of workforce transition required in the following years will be challenging. According to the report, workers will need to learn more *technological, social, and emotional skills* and have higher *cognitive skills* to move into occupations in higher wage brackets. Women, young, less-educated workers, ethnic minorities, and immigrants may need to make more occupation transitions after COVID-19.

The third document reviewed was *The Future of Jobs Report 2020* (World Economic Forum, 2020). It elaborates on the outlook for technology adoption jobs and skills in the next five years (until 2025). The report uses a combination of qualitative and quantitative intelligence to expand the knowledge base about the future of jobs and skills. The main findings of the report were:

- The pace of technology adoption is unabated and may even accelerate in some areas. The adoption of *cloud computing, big data, and e-commerce* remains high. However, there has also been a significant interest in *IoT, encryption, non-humanoid robots, and artificial intelligence*.
- Automation and technological adoption by companies will transform tasks, jobs, and skills by 2025. Globally, companies indicate the reduction of their workforce due to technology integration.
- The number of jobs destroyed will surpass the number of jobs created. However, job creation is slowing while job destruction accelerates.
- Skills gaps continue to be high. The top skills and skill groups employers see as rising in demand leading up to 2025 include *critical thinking and analysis, problem-solving*, and skills in *self-management*, such as *active learning, resilience, stress tolerance, and flexibility*.
- The future of work includes *remote working*. Employers are set to rapidly digitalize working processes, including a significant expansion of remote work.
- *Online learning and training* are on the rise. Those in employment are placing a larger emphasis on personal development courses. The unemployed emphasize learning *digital skills* such as *data analysis, computer science, and information technology*.
- Specialized skills of the future will be *product marketing, digital marketing, software development life cycle, business management, advertising, human-computer interaction, development tools, data storage technologies, web development, AI*, etc.

Next, *Future Skills League Table 2022*, elaborated by Kingston University London (2022), was examined. It is a survey in cooperation with YouGo, which comprises of more than 2000 senior decision-makers in a representative sample of firms across the UK. Identified future skills by companies were: (1) *Problem solving/process skills*, (2) *Critical thinking*, (3) *Communication skills*, (4) *Digital skills*, (5) *Analytical skills*, (6) *Adaptability*, (7) *Resilience*, (8) *Creativity*, (9) *Ability to build relationships*, and (10) *Initiative*.

Another reviewed report was *Future skills for the 2020s: A New Hope* by Global Education Futures (2020). This report points out to 4 types of skills to thrive until 2030:

1. Cognitive and Foundational – Internal skills that help an individual to adapt and thrive in the complex and uncertain world, such as *critical and creative thinking, learning, flexibility and openness, system thinking, and understanding complexity*.
2. Socio-Economic and Cultural – Relational skills are essential in teams, across communities, networks, and social cohesion, such as *cooperation, facilitation, co-creation, social and emotional skills, and empathy*.
3. Technical and Digital – Skills that help realize the full potential of tech reality and digitalization, such as *digital literacy, Big Data, Cybersecurity, logical thinking, AI skills, data mining, and analysis*.
4. Green and Universal Well-Being – Skills ensuring a thriving future, including future generations, such as *regenerative, sustainable, and well-being (mental, physical, and digital) skills, understanding climate change and interventions, environmental management theory and technologies*.

Mercer, in the report *Future Skills: Survey Report* (2022), highlights the skills related to technological fluency and innovation as the most important for business over the next three years, followed by desirable personality traits and collaborative skills, which is in line with the critical role of upskilling and reskilling for business success. According to the report, the three most important individual skills are: a) *Growth mindset and adaptability*, b) Skills related to *people development*, and c) *Resilience, stress tolerance, and flexibility*. The skills identified as the most difficult to recruit were: a) *Digital*, b) *IT*, and c) *Emotional intelligence*.

According to the *State of Upskilling Report 2022* (Pluralsight, 2022), companies continue to be frustrated with the ever-increasing skill gaps and the struggle to close them. According to the report, the most significant areas of concern are *Cybersecurity, cloud computing, data storage, network infrastructure, telecommunication, social network tech, automation of business processes, and business continuity planning*.

LinkedIn Economic Graph published *Global Green Skills Report 2022 (2022)* as achieving the collective global climate targets is an increasingly important task that requires the transformation in the skills and jobs people have. *Green skills* and jobs are urgently needed to power the green transition. According to the report, employers' top in-demand green skills are *sustainability, remediation, climate, renewable energy, environmental awareness, CSR, and recycling*.

According to Forbes (2020), the job skills likely to be in high demand in a post-covid world are, namely 1) *Adaptability and flexibility*, 2) *Tech savviness*, 3) *Creativity and innovation*, 4) *Data literacy*, 5) *Critical thinking*, 6) *Digital and coding skills*, 7) *Leadership*, and 8) *Emotional intelligence*.

Based on the information above, we can conclude that there is a skills gap in Europe. This gap will prospectively widen, mainly due to the impact of a very turbulent business environment influenced by pandemics, digital transformation, persistent orientation towards green solutions that are not harmful to the environment and potentially have a positive impact on society, as well as the latest energy crisis and war conflict. It is, therefore, essential to prepare for these changes. The skills, competencies, and knowledge mentioned above are related to the future skillset of both employees and owner-managers. Before presenting the professional profiles of the RESTART project's employees and owner-managers, we will focus more on the owner-managers and skills that are specifically important for them in the post-pandemic era.

According to *OECD SME and Entrepreneurship Outlook 2021* (OECD, 2021), the identified essential skills for the resilience of MSMEs are *computer and electronics skills, adaptability and flexibility skills, complex problem solving, and practical intelligence for innovation*. Future more, knowledge about *e-commerce* and *cloud computing* is increasingly important nowadays.

Zahra (2021) identified opportunities for entrepreneurs in the post-Covid world. Among them, the most prominent are *building networks and reshaping supply chains, e-commerce, and online business, innovation* including *business model innovation, digital and technology innovation, and R&D, agility, resilience, taking calculated risks, proactiveness* in making strategic moves, integration of the *social and commercial missions*.

Also, the GEM report *Diagnosing COVID-19 Impacts on Entrepreneurship* (2020) states that reskilling and upskilling will present new entrepreneurial opportunities. The essential skills for entrepreneurs in the post-COVID-19 world are *adaptability, digital and technology skills, data literacy, critical thinking, creativity, innovation, and openness* to new solutions.

The referenced documents, reports, and information contained in them were used to create professional profiles of the "evolving nature of jobs" for employees and owner-managers of MSMEs, including skills, competencies, and knowledge frequently mentioned as the most relevant in the post-pandemic era.

### **Professional profile of the "evolving nature of jobs" for MSME EMPLOYEES:**

- Transversal skills and competences
  - Social and emotional skills
  - Critical thinking
  - Analytical thinking
  - Problem-solving
  - Self-management
  - Adaptability
  - Resilience
  - Creativity
  - Networking
  - Initiative
  - Flexibility
  - Openness
  - Understanding complexity
  - Cooperation
  - Empathy
  - Innovation
- Skills
  - Technological skills
  - Product marketing
  - Digital marketing
  - Digital skills
  - Communication
  - Cooperation
  - Emotional intelligence
- Knowledge
  - Online learning and training
  - Advertising
  - Cloud computing
  - Big data
  - E-commerce
  - Artificial intelligence
  - IoT
  - Digital literacy
  - Cybersecurity
  - Data mining and analysis

- Sustainability
- Well-being



- Climate change
- Social media management

***Professional profile of the "evolving nature of jobs" for MSME OWNER-MANAGERS:***

- Transversal skills and competences
  - Social and emotional skills
  - Critical thinking
  - Problem-solving
  - Self-management
  - Business management
  - Resilience
  - Networking
  - Understanding complexity
  - Innovation
  - Leadership
- Skills
  - Communication
  - Cooperation
  - Emotional intelligence
- Knowledge
  - Business management
  - Cloud computing
  - Big data
  - E-commerce
  - Artificial intelligence
  - IoT
  - Digital literacy
  - Cybersecurity
  - Sustainability
  - Well-being

## D) Benchmarking the professional profiles against ESCO and frame EQF levels of the RESTART training

This section focuses on benchmarking the created professional profiles of employees and owner-managers against ESCO, adjusting them accordingly, and framing the RESTART training within EQF.

*The professional profile of the "evolving nature of jobs" for MSMEs' EMPLOYEES* after comparing them with ESCO consists of the following skills, competencies, and knowledge. These are furthermore defined in line with ESCO for clear understanding.

- *Transversal skills and competencies* - Transversal skills and competencies can be used in various situations in life and work. The term 'transversal' refers to the way these skills cut across different tasks and job roles.
  - *Social and communication skills and competencies* - Skills and competencies relating to the ability to interact positively and productively with others. This is demonstrated by communicating ideas effectively and empathetically, coordinating one's own objectives and actions with those of others and acting in ways that are structured according to values, ensuring the well-being and progress of others, and offering leadership.
  - *Think critically* - Make and defend judgments based on internal evidence and external criteria. Critically evaluate the credibility and reliability of information before using or passing it on to others. Develop independent and critical thinking.
  - *Think analytically* - Produce thoughts using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems.
  - *Solve problems* - Find solutions to practical, operational, or conceptual issues in various contexts.
  - *Manage personal progression* - Take charge of and market your own skills and competencies to advance in work and private life.
  - *Assume responsibility for the management of a business* - Adopt and assume the responsibility that entails running a business, prioritizing the interest of its owners, societal expectation, and the welfare of employees.
  - *Adapt to change* - Alter one's attitude or behavior to accommodate modifications in the workplace.
  - *Cope with stress* - Handle challenges, disruption and change and recover from setbacks and adversity.
  - *Think creatively* - Generate or combine new ideas to develop innovative, novel solutions.
  - *Build networks* - Demonstrate the ability to build effective relationships, develop and maintain alliances, contacts, or partnerships, and exchange information with others.
  - *Show initiative* - Be proactive and take the first step in action without waiting for what others say or do.
  - *Keep an open mind* – Be interested and open to the problems of others.
  - *Think holistically* - Consider indirect and long-term consequences when planning and making decisions. Consider the effects on other people, processes, and the environment, and include these in your planning.
  - *Collaborating in teams and networks* - Support or develop a group to work towards a common goal in a way that shows understanding and respect for others' roles and competencies.

- [Assess others](#) - Assess, estimate and understand the feelings or temperament of others; show empathy.
- [Think innovatively](#) - Develop ideas or conclusions that lead to the creation and implementation of innovations or changes.
- [Lead others](#) - Guide and direct others towards a common goal, often in a group or team.
- [Engage others in environment-friendly behaviors](#) - Inform about and promote environmentally friendly behaviors in social networks and work.
- [Follow environmentally-sustainable work practices](#) - Apply principles, policies, and regulations aimed at environmental sustainability, including reducing waste, energy, and water consumption, the reuse and recycling of products, and engagement in the sharing economy.
- [Skills](#)
  - [Perform technically demanding tasks](#) - Perform duties that require particular technical skills such as testing new measuring instruments, developing a program for numerically controlled machines, or realizing delicate manual work.
  - [Plan marketing strategy](#) - Determine the objective of the marketing strategy, whether it is for establishing an image, implementing a pricing strategy, or raising awareness of the product. Establish approaches to marketing actions to ensure that goals are achieved efficiently and over the long term.
  - [Implement marketing strategies](#) - Implement strategies that aim to promote a specific product or service using the developed marketing strategies.
  - [Have computer literacy](#) - Utilize computers, IT equipment, and modern-day technology in an efficient way.
  - [Use communication techniques](#) - Apply techniques of communication that allow interlocutors to better understand each other and communicate accurately in the transmission of messages.
  - [Cooperate with colleagues](#) - Cooperate with colleagues in order to ensure that operations run effectively.
  - [Develop creative ideas](#) - Develop new artistic concepts and creative ideas.
  - [Have emotional intelligence](#) - Recognize one's own and other people's emotions, distinguish correctly between them, and observe how they can influence one's environment and social interaction and what can be done about it.
  - [Work with virtual learning environments](#) - Incorporate the use of online learning environments and platforms into the process of instruction.
- [Knowledge](#)
  - [Digital marketing techniques](#) - The marketing techniques used on the web to reach and engage with stakeholders, customers, and clients.
  - [Advertising techniques](#) - The communication strategies intended to persuade or encourage an audience and the different media which are used to achieve this goal.
  - [Cloud technologies](#) - The technologies which enable access to hardware, software, data, and services through remote servers and software networks irrespective of their location and architecture.
  - [Data analytics](#) - The science of analyzing and making decisions based on raw data collected from various sources. Includes knowledge of techniques using algorithms that derive insights or trends from that data to support decision-making processes.
  - [E-commerce systems](#) - Basic digital architecture and commercial transactions for trading products or services conducted via the Internet, e-mail, mobile devices, social media, etc.
  - [Emergent technologies](#) - The recent trends, developments, and innovations in modern technologies such as biotechnology, artificial intelligence, and robotics.

- [ICT security standards](#) - The standards regarding ICT security, such as ISO, and the techniques required to ensure compliance of the organization with them.
- [Climate change impact](#) - The impact of climate change on biodiversity and living conditions for plants and animals.

**Professional profile of the "evolving nature of jobs" for MSMEs' OWNER-MANAGERS according to ESCO:**

- *Transversal skills and competences*
  - [Social and communication skills and competencies](#) - Skills and competencies relating to the ability to interact positively and productively with others. This is demonstrated by communicating ideas effectively and empathetically, coordinating one's own objectives and actions with those of others and acting in ways that are structured according to values, ensuring the well-being and progress of others, and offering leadership.
  - [Think critically](#) - Make and defend judgments based on internal evidence and external criteria. Critically evaluate the credibility and reliability of information before using or passing it on to others. Develop independent and critical thinking.
  - [Think analytically](#) - Produce thoughts using logic and reasoning in order to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems.
  - [Solve problems](#) - Find solutions to practical, operational, or conceptual problems in a wide range of contexts.
  - [Assume responsibility for the management of a business](#) - Adopt and assume the responsibility that entails running a business, prioritizing the interest of its owners, societal expectation, and the welfare of employees.
  - [Adapt to change](#) - Alter one's attitude or behavior to accommodate modifications in the workplace.
  - [Cope with stress](#) - Handle challenges, disruption and change and recover from setbacks and adversity.
  - [Think creatively](#) - Generate new ideas or combine existing ones to develop innovative, novel solutions.
  - [Build networks](#) - Demonstrate the ability to build effective relationships, develop and maintain alliances, contacts, or partnerships, and exchange information with others.
  - [Keep an open mind](#) – Be interested and open to the problems of others.
  - [Think holistically](#) - Take into account indirect and long-term consequences when planning and making decisions. Consider the effects on other people, processes, and the environment, and include these in your planning.
  - [Collaborating in teams and networks](#) - Support or develop a group to work towards a common goal in a way that shows understanding and respect for others' roles and competencies.
  - [Assess others](#) - Assess, estimate and understand the feelings or temperament of others; show empathy.
  - [Think innovatively](#) - Develop ideas or conclusions that lead to the creation and implementation of innovations or changes.
  - [Lead others](#) - Guide and direct others towards a common goal, often in a group or team.
  - [Engage others in environment-friendly behaviors](#) - Inform about and promote environmentally friendly behaviors in social networks and at work.



- *Follow environmentally-sustainable work practices* - Apply principles, policies, and regulations aimed at environmental sustainability, including the reduction of waste, energy, and water consumption, the reuse and recycling of products, and the engagement in the sharing economy.
- *Skills*
  - *Have computer literacy* - Utilize computers, IT equipment, and modern-day technology in an efficient way.
  - *Use communication techniques* - Apply techniques of communication that allow interlocutors to better understand each other and communicate accurately in the transmission of messages.
  - *Cooperate with colleagues* - Cooperate with colleagues in order to ensure that operations run effectively.
  - *Develop creative ideas* - Develop new artistic concepts and creative ideas.
  - *Have emotional intelligence* - Recognize one's own and other people's emotions, distinguish correctly between them, and observe how they can influence one's environment and social interaction and what can be done about it.
  - *Work with virtual learning environments* - Incorporate the use of online learning environments and platforms into the process of instruction.
  - *Promote sustainability* - Promote the concept of sustainability to the public, colleagues, and fellow professionals through speeches, guided tours, displays, and workshops.
  - *Assist in developing practices for the well-being of employees* - Help in policies development, practices, and cultures that promote and maintain the physical, mental and social well-being of all workers in order to prevent sick leave.
  - *Implement strategic management* - Implement a strategy for the development and transformation of the company. Strategic management involves the formulation and implementation of the major objectives and initiatives of a company by senior management on behalf of the owners, based on consideration of available resources and an assessment of the internal and external environments in which the organization operates.
- *Knowledge*
  - *Emergent technologies* - The recent trends, developments, and innovations in modern technologies such as biotechnology, artificial intelligence, and robotics.
  - *ICT security standards* - The standards regarding ICT security, such as ISO, and the techniques required to ensure compliance of the organization with them.
  - *Climate change impact* - The impact of climate change on biodiversity and living conditions for plants and animals.
  - *Business management principles* - Principles governing business management methods such as strategy planning, methods of efficient production, and people and resources coordination.
  - *Strategic planning* - The elements defining the foundation and core of an organization, such as its mission, vision, values, and objectives.
  - *Social innovation* - Innovative models, products, or services that meet a social need and have, as a consequence, the creation of new collaborations in the social field.

RESTART training should be based on established professional profiles and reflect the topics that we have identified as relevant in the post covid era and are resonating in the business world. RESTART training should be at EQF level 4-6, as defined below.

RESTART training in terms of knowledge should provide its beneficiaries with either:

- a) Factual and theoretical knowledge in broad contexts within a field of work or study (EQF level 4)
- b) Comprehensive, specialized, factual, and theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge (EQF level 5)
- c) Advanced knowledge of a field of work or study, involving a critical understanding of theories and principles (EQF level 6)

Considering skills, RESTART training should equip the beneficiaries with either:

- a) A range of cognitive and practical skills required to generate solutions to specific problems in a field of work or study (EQF level 4)
- b) A comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems (EQF level 5)
- c) Advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialized field of work or study (EQF level 6)

Regarding responsibility and autonomy, RESTART training should prepare the beneficiaries to either:

- a) Exercise self-management within the guidelines of work or study contexts that are usually predictable but are subject to change; supervise the routine work of others, taking some responsibility for the evaluation and improvement of work or study activities (EQF level 4)
- b) Exercise management and supervision in contexts of work or study activities where there is unpredictable change; review and develop the performance of self and others (EQF level 5)
- c) Manage complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts; take responsibility for managing professional development of individuals and groups (EQF level 6)

## E) Description of the training, its content, topics, and structure

In the last section, this document identifies and characterizes the training topics resulting from the RESTART partners' mapping of the training needs and the professional profiles identified in the previous sections of this document. The resulting themes are as follows:

- |   |                       |
|---|-----------------------|
| <p><b>1. Digitalization &amp; Online learning</b></p> <ul style="list-style-type: none"> <li>• New technologies and their application in MSMEs (pros, cons)</li> <li>• Digital communication channels</li> <li>• Remote working and virtual collaboration (tools, tips, hints, rules)</li> <li>• E-commerce, digital marketing, and online sales</li> <li>• Online learning</li> </ul>                            | <p><b>UNIBA</b></p>   |
| <p><b>2. Innovation and exploiting opportunities</b></p> <ul style="list-style-type: none"> <li>• VUCA world as a source of opportunities</li> <li>• Social innovation and green innovation</li> <li>• Boosting creativity – individual and organizational level</li> <li>• Opportunity identification/creation techniques</li> <li>• Rules for critical thinking</li> </ul>                                      | <p><b>IHF</b></p>     |
| <p><b>3. Cybersecurity</b></p> <ul style="list-style-type: none"> <li>• Main rules and principles</li> <li>• Cybersecurity tools and solutions for MSMEs</li> </ul>   | <p><b>IWS</b></p>     |
| <p><b>4. Business model innovation, localization and resilience</b></p> <ul style="list-style-type: none"> <li>• Business models and business strategy</li> <li>• Business model innovation – typology, process, etc.</li> <li>• Building, maintaining and exploiting local networks</li> <li>• Developing local supply chains</li> <li>• Resilient business organizations &amp; Resilient individuals</li> </ul> | <p><b>HÉTFA</b></p>   |
| <p><b>5. Green, sustainable, and social entrepreneurship</b></p> <ul style="list-style-type: none"> <li>• What is social entrepreneurship?</li> <li>• What is sustainability?</li> <li>• Environmental-sustainable business practices for MSMEs (e.g., circular economy, sustainable business models, etc.)</li> <li>• Environmental-sustainable work practices for individuals</li> </ul>                        | <p><b>SBA</b></p>     |
| <p><b>6. Servitization</b></p> <ul style="list-style-type: none"> <li>• What is servitization?</li> <li>• Developing servitization capabilities</li> <li>• Tools for implementation of service innovation</li> <li>• Product servitization and commercialisation</li> </ul>   | <p><b>STEP RI</b></p> |

## 7. Emotional intelligence, well-being, online learning

**IDP**

- Emotional intelligence and its importance for individuals and teams/businesses (MSMEs)
- How to develop emotional intelligence
- Individual paths to well-being - balancing work with mental and physical well-being
- Creating the organizational culture and atmosphere that favors the well-being

Framework implications for the training structure:

- Different versions of training modules will be adjusted to learners' roles in MSMEs– employees vs. owner-managers. Adapting the curriculum to their roles in MSMEs and EQF levels (employees – closer to the EQF level 4 / owner-managers – closer to the EQF level 6 or vice versa according to particular knowledge and skills) or baseline training for all, plus additional topics for owner-managers/employees.
- The training modules shall contain the learning outcomes formulated in line with EQF and other relevant EU standards (incl. indication of EQF levels), as well as an explicit reference to particular skills and competencies addressed, according to ESCO, listed above.
- The training modules should offer flexible training and education options for people in the workforce. Part-time, adaptive, flexible skills development training modules should also serve lifelong learners.

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