



# RESIST

Grant Agreement Number: **101074204**

Project acronym: **RESIST**

Project full title: **REsilience through Sustainable processes and production for the European automotive InduSTry**

## D. 5.4

### Portfolio of RESIST Upskilling Services for SMEs

**Due delivery date: 28/02/2023**

**Actual delivery date: 31/05/2023**

Organisation name of lead participant for this deliverable: **Autoklastr**

Project funded by the European Commission within Horizon Europe programme		
Dissemination level		
<b>PU</b>	Public – fully open (automatically posted online on the Project Results platforms)	x
<b>SEN</b>	Sensitive – limited under the conditions of the Grant Agreement	
<b>EU classified</b>	EU-RESTRICTED, EU-CONFIDENTIAL, EU-SECRET under Decision 2015/444	



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European Union**

## Document Control Sheet

<b>Deliverable number:</b>	D5.4
<b>Deliverable responsible:</b>	Autoklastr
<b>Work package:</b>	WP5
<b>Editor:</b>	Adam Priechodský

Author(s) – in alphabetical order		
Name	Organisation	E-mail
Adam Priechodský	Autoklastr	a.priechodsky@autoklastr.cz
Libor Dobeš	Autoklastr	l.dobes@autoklastr.cz
Jana Nevřelová	Autoklastr	j.nevrelova@autoklastr.cz

Document Revision History			
Version	Date	Modifications Introduced	
		Modification Reason	Modified by
V.1	12/05/23	Draft version	Adam Priechodský
V. 2	12/05/23	Draft version	Adam Priechodský
V.3	26/05/2023	Draft Version	Auriane AGARD
V.4	31/05/2023	Final Version	Adam Priechodský

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## Table of acronyms and abbreviations

MTA	Mobility, Transport, Automotive
SME	Small and Medium-Sized Enterprises
MOOCs	Massive Open Online Courses
VSB	Very-Small Business
ASA	Automotive Skill Alliance
FSTP	Financial Support to Third Parties

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## Executive Summary

The RESIST Upskilling Services for SMEs, Start-ups and very small businesses (VSBs) portfolio aims to provide training programs that will help SMEs, Start-ups and VSBs navigate the rapidly changing economy, specifically towards green and digital transition. The portfolio is based on findings from desk research and a survey conducted within European SMEs, Start-ups and VSBs in the Mobility-Transport-Automotive (MTA) ecosystem, as documented in the deliverables D2.1 and D5.1.

The portfolio recognises the importance of developing skills and competencies that are relevant to the transition towards a green and digital economy. It seeks to bridge the gap between the current workforce and the requirements of the green and digital economy by providing accessible, practical, and relevant training programs.

The *Automotive Skill Alliance* will serve as a platform for offering the Massive Open Online Courses (MOOCs) that will be developed based on the RESIST Upskilling Services for SMEs, Start-ups and VSBs portfolio. This partnership will provide guidance and help in delivering the training programs to SMEs, Start-ups and VSBs.

Overall, the RESIST Upskilling Services for SMEs, Start-ups and VSBs portfolio is an important initiative that aims to provide SMEs, Start-ups and VSBs with the necessary skills and competencies to adapt to the changing economy. By providing practical and accessible training programs, SMEs, Start-ups and VSBs will be better prepared to transition towards a green and digital economy.

Succeeding predefined MOOC is a mandatory condition for getting access to advanced specific training vouchers which will be offered to SMEs, Start-ups and VSBs. MOOC finish with an online exam a simple questionnaire to evaluate the skills level of the participant, and a digital skills badge is awarded, if the evaluation is successful.

## **1. Introduction**

### **1.1 Purpose of Document**

In summary, developing portfolio of RESIST Upskilling Services for SMEs, Start-ups and VSBs is essential for awareness and importance of developing skill and competences which will help them in their green and digital transformation. By investing time in training, SMEs, Start-ups and VSBs can ensure that they will be prepared to succeed in the rapidly evolving economy and becoming leaders in MTA ecosystem.

### **1.2 Intended audience**

This deliverable is mainly addressed to the following audience:

- The consortium partners, so they can be ready for developing MOOCs which will be available on ASA platform.
- Clusters, relevant associations, companies and any other stakeholder working in our target ecosystem or with interest in the involved sectors, so they can access to the main conclusions of our report, send contributions or identify collaboration opportunities or synergies within the scope and objectives of the RESIST initiative.
- Our project officer in the European Commission, to review that this deliverable contains the main aspects to be covered and fulfils the objectives established in the RESIST proposal.

## 2. MTA ecosystem and twin transition training

The mobility ecosystem defined in the EU Industrial Strategy covers the entire industrial value chain for automotive, rail and waterborne industries as well as associated retail and water and land transport services. It employs 14.6 million people and represents 7.5% of EU value added (EUR 906 billion). It includes 1.8 million firms, 99.7% of which are SMEs.

### 2.1 Green transition

The transition towards a clean, circular, and climate neutral economy is crucial for the prosperity of the European industry and society. The European Union and its Member States have established the green transition as a significant priority. The European Green Deal was set as the new growth strategy for Europe and was confirmed and reinforced by the EU Recovery Plan

Europe should put in place adequate mechanisms to accelerate the transition towards a green economy. An integrated approach is needed to coordinate different stakeholders locally and across industrial ecosystems. Start-ups need to grow, and SMEs, Start-ups and VSBs scale up in to mid-caps and large companies. Clusters need to support this process. There is also a need for orchestrators of supply and demand for green solutions and smart tools for public administration to implement and adapt legislation effectively.

They can identify and support their members' access to green technologies, innovation, business solutions, dedicated funding and markets and thus facilitate the green transition. They build trustful relationships among their members, which is crucial to accelerate green innovation and massive uptake in the world.

### 2.2 Digital transition

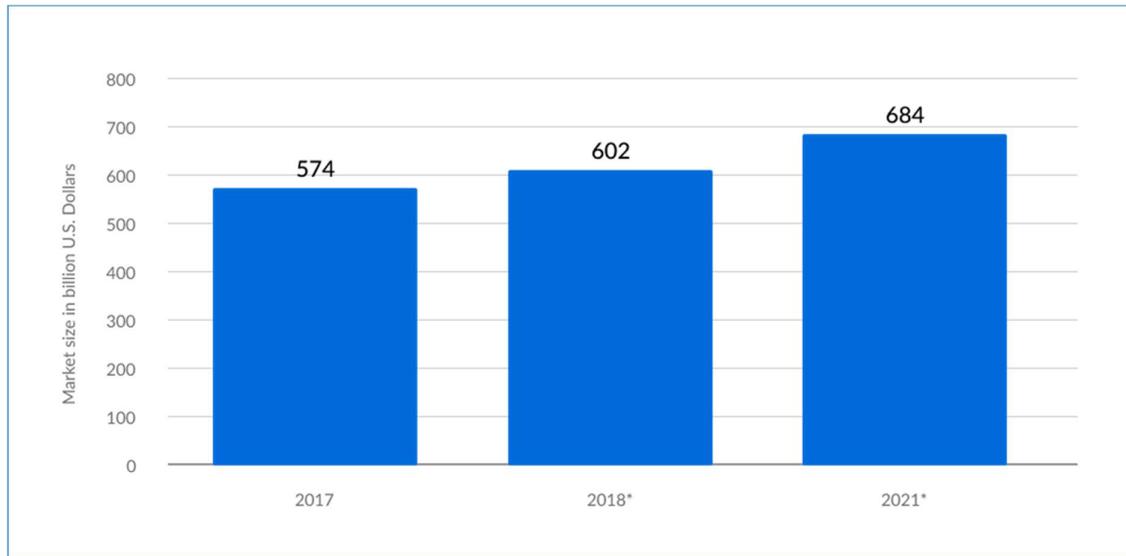
Digital transformation is the process of redefining the entire business strategy by adopting the latest and emerging digital technology in driving the business through strategic plans and organisational change to augment the revenue and provide substantial value.

Digital transformation has a growing impact on Small to Medium-sized Enterprises (SME) business and IT ecosystems and offers new and prolific opportunities to participate in the global economy. Enterprise Applications Providers, Technology and Infrastructure vendors have realised and capitalised on the power of innovative technologies like Cloud, Big Data, Mobile, Social, Sensors, etc., considering next-gen solutions are being developed with the nexus of these forces.

Expanding internet access and growing smartphone users are bound to change the future of the world economy. Yes, Digital transformation has brought a paramount shift to the traditional ways of manufacturing, handling, storing and transporting things.

Digital transformation lies in leveraging new technologies to ensure scalability and elasticity demanded by customers.

The below stats show the estimated IT expenditure of small-to-medium-sized enterprises (SMEs) worldwide in 2017, 2018 and 2021. In 2021, SMEs are expected to spend 684 billion US dollars on IT hardware, software, and services, including business services, worldwide.



**Figure 1: IT expenditure from small-to-medium-sized businesses (SMB) worldwide in 2017, 2018 and 2021 (in billion U.S. dollars)**

## 2.3 Agents of change

Policymakers at all levels need to recognise the value of clusters as effective intermediaries for accelerating the green transition. Clusters must act as agents of change in favor of the green economy. Cluster organisations facilitate interactions in the local environment. They analyse and articulate the needs and ambitions for change and constitute an ideal forum to influence the creation and the implementation of relevant policies.

On the one hand, policymakers need to assign to cluster organisations a relevant role in the design, development and implementation of environmental policies. On the other hand, cluster support programmes should have a stronger focus on encouraging and enabling clusters to consult their members and represent their views on issues related to the green transition.

## 2.4 Twin transition

The twin transition refers to the simultaneous transition towards a green and digital economy. The European Union recognises the importance of both transitions and has identified them as major priorities in its policies and strategies. The twin transition is expected to generate significant economic growth, job creation and competitiveness, while contributing to the reduction of greenhouse gas emissions and the achievement of climate objectives.

Clusters can play a critical role in supporting the twin transition. Cluster organisations can promote the development and adoption of digital and green technologies, solutions and business models. They can facilitate collaboration and partnerships among different actors in the ecosystem, including start-ups, SMEs, large companies, research and innovation centers, public authorities and civil society organisations.

Clusters can also provide their members with access to funding, markets and international networks, as well as training and skills development opportunities. They can leverage their

expertise and knowledge to identify opportunities and address challenges related to the twin transition.

## **2.5 Methodology of gathering training needs**

During the monthly call meeting, the RESIST partners agreed that the MOOCs should be primarily short and serve as an introduction to raise awareness of the topics related to the green and digital transition. The courses should not be longer than 20-30 minutes per presentation, including questions in the end. The courses will be made available on the ASA platform to ensure accessibility to all RESIST partners and interested parties in the MTA ecosystem, mainly SMEs, Start-ups and VSBs. Succeeding predefined MOOC is a mandatory condition for getting access to advanced specific training FSTP which will be offered to SMEs, Start-ups and VSBs. MOOCs end with an online exam a simple questionnaire to evaluate the skills level of the participant, and a digital skills badge is awarded, if the evaluation is successful.

The decision to make the MOOCs short is based on the fact that participants may have limited time and attention span. A shorter course is more likely to be completed and absorbed by the participants, thus increasing the effectiveness of the training. By keeping the courses concise, the RESIST partners can cover multiple topics efficiently and provide an overview of the most critical aspects of each topic.

The topics has been identified, including the Deliverable 2.1 RESIST trends analysis, One-stop-shop survey, meeting with ASA and the RESIST partners, suggest that the RESIST project aims to provide training and awareness-raising on relevant topics related to the project's objectives. These topics may have been selected based on their importance to the RESIST project partners experience and their relevance to the target SMEs, Start-ups and VSBs, and the current trends and challenges in the MTA ecosystem.

## **2.6 Survey**

To gather information on the training needs of small and medium-sized enterprises (SMEs) Start-ups and VSBs, the RESIST project prepared a survey and shared it among its members, social media platforms, and other relevant networks like EACN. The goal of the survey was to identify the knowledge gaps and skill requirements of SMEs, Start-ups and VSBs regarding the topics covered by the RESIST project.

The survey was designed to be comprehensive and cover a range of topics, however, it was implemented in the common survey of the One-stop-shop to avoid sharing many different surveys. We understood that time is valuable, and we wanted to save time and money from our target audience. The companies were answering that they are willing to receive training, but they don't specify it in the detailed survey.

## SUPPORT IN THE FRAMEWORK OF THE RESIST INITIATIVE

\* Which of the following technologies/topics are of stronger interest for your company?

*at most 5 choice(s)*

- Applied artificial intelligence
- Machine learning
- Cloud and edge computing
- Immersive reality and digital twin
- Advanced connectivity
- Internet of things and industrial internet of things
- Cybersecurity
- 3D printing
- Robotics
- Connected and autonomous mobility
- Electric and zero-emission vehicles (including hydrogen)
- Decarbonisation and circular economy
- Energy
- Other

\* In which of the following areas you would like to receive our support? (Multiple choices allowed)

- Networking activities in the EU to make more resilient value chains
- Innovation projects to mitigate the impact of the crisis and future market evolution
- Adaptation of technologies and processes to foster sustainability and digitalisation
- Training programmes for the upskilling and reskilling of workforce
- Internationalisation outside the EU (trade, investment and partnering opportunities)

Figure 2: Checkbox for offering training in RESIST project

The RESIST project recognised that the time and resources of small and medium-sized enterprises (SMEs), Start-ups and VSBs are limited and valuable, and as such, it was important to minimise the burden on them when collecting information on their training needs. In light of this, the RESIST partners decided to implement the survey for gathering training needs as part of the common survey of the One stop shop. The aim was to reduce the number of surveys that SMEs, Start-ups and VSBs would have to complete and make the process more streamlined and efficient.

## TRAINING PROGRAMMES FOR THE UPSKILLING AND RESKILLING OF WORKFORCE

What is most important for your company in the area of staff development?



recruitment and selection of new staff	★ ★ ★ ★ ★
onboarding process of newcomers	★ ★ ★ ★ ★
stabilisation and motivation of existing staff	★ ★ ★ ★ ★
strengthen firm's position and competitiveness in the labour market	★ ★ ★ ★ ★
improvement of HR management	★ ★ ★ ★ ★
implementation of change processes	★ ★ ★ ★ ★
preparation for generational replacement of staff and sustainable knowledge assurance	★ ★ ★ ★ ★
implementation of Talent Management	★ ★ ★ ★ ★

If other, please specify

Which target group would you need to train in the next two years?



top management	★ ★ ★ ★ ★
division management (production, engineering,...)	★ ★ ★ ★ ★
team leaders and high potentials	★ ★ ★ ★ ★
production staff	★ ★ ★ ★ ★
specialists/technicians	★ ★ ★ ★ ★
administrative & financial staff	★ ★ ★ ★ ★
sales & marketing & purchasing staff	★ ★ ★ ★ ★

If other, please specify

Figure 3: Training needs survey\_1

In which skills do you need to develop your staff in the next two years?



soft management and communication skills	☆☆☆☆☆
general IT	☆☆☆☆☆
basic business skills	☆☆☆☆☆
advanced business skills and legal aspects (for managers)	☆☆☆☆☆
language skills	☆☆☆☆☆
HR management/development skills	☆☆☆☆☆
technical skills (e.g. engineering, ...)	☆☆☆☆☆
skills and tools for production and process optimisation (e.g. lean production)	☆☆☆☆☆
product quality assurance tools and methods (audits/certifications)	☆☆☆☆☆
marketing and sales	☆☆☆☆☆

If other, please specify

In addition to staff training, for which organisational development topics would you appreciate the support (e.g. info event, consultancy)?



strategy for staff development	☆☆☆☆☆
leadership strategies	☆☆☆☆☆
change process	☆☆☆☆☆
culture and mindset	☆☆☆☆☆
(additional) sources of financing for vocational education and trainings	☆☆☆☆☆

If other, please specify

Figure 4: Training needs survey\_2

While the One stop shop survey covered a range of topics, even not all those relevant to the RESIST project, it was not specifically designed to elicit detailed information on the training needs of SMEs, Start-ups and VSBs which will let us know their specific needs toward green and digital transition. As a result, some respondents may have indicated their willingness to receive training but did not provide specific information on their training needs.

This outcome highlights a potential limitation of using a common survey to collect information on the training needs of SMEs, Start-ups and VSBs. While it can help to reduce the burden on respondents, it may not be as effective in eliciting detailed information on specific topics. In future, it may be necessary to consider alternative approaches to collecting information on training needs, such as targeted surveys or focus groups.

Despite this limitation, the One stop shop survey provided valuable insights into the willingness of SMEs to receive training and their overall sustainability priorities. These insights will help the RESIST partners to develop and deliver training services that are aligned with the needs of the target audience, enabling them to enhance their sustainability performance and competitiveness.

The RESIST project partners recognise the importance of collaboration with its partners in developing effective training programs for small and medium-sized enterprises (SMEs). One key partner in this effort is the Automotive Skill Alliance (ASA), which provided valuable inputs and discussions that led to the identification of the topics for preparing services for training like the MOOCs, which will be available on ASA platform.

### 3. Findings

Our study for portfolio of RESIST Upskilling Services for SMEs, Start-ups and VSBs considers mostly and fundamentally the results of the following research, reports and discussions:

- Cluster4Smart research report, the study „Cluster Management Abilities, Capacities, Skills and Competences Towards A Smart Industry” (2020)
- The European Expert Group on Clusters (2022)
- Study on key competences State of the Art of project PASS (2023)
- Skills for smart industrial specialisation and digital transformation (2019)
- AUTOMOTIVE SKILLS AGENDA STRATEGY & ROADMAP (2020)

#### 3.1 Important of unified structure and design

A unified structure and design provide a consistent learning experience for all learners, regardless of which RESIST MOOC they are taking. Consistency makes it easier for learners to navigate through the course content and understand the flow of the course. This helps learners to focus on learning the content rather than figuring out how to use the provided ASA platform or where to find specific information.

RESIST Branding: A unified structure and design can help establish a recognisable brand for the MOOC provider. By using consistent design elements and branding, learners will be able to recognise the MOOC provider and associate it with a particular style or quality of education. This is important for building trust and reputation in the educational market.

A unified structure and design can make it easier to create and launch new MOOCs quickly. By having a **standardised template**, content can be created and added more efficiently, allowing the provider to create new MOOCs on a larger scale.

At the end the evaluation of the effectiveness of MOOCs is an ongoing area of research and discussion. However, having a standardized format can indeed facilitate the comparison of different MOOCs and help assess which elements are most effective for learners.. Overall, a unified structure and design for MOOCs providing several benefits for learners as well as for RESIST partners. It can make learning more efficient, effective, and accessible.

### **3.1.1 Common template structure**

**Introduction...**

**What is....**

**Benefits of...**

**Key components of...**

**Common challenges...**

**Key considerations for SMEs when...**

**Conclusion and Q&A (quiz and feedback)**

Autoklastr will provide a template for RESIST partners. This template would be designed to provide a consistent and professional look for all our partner. The template will include a range of graphic elements, such as icons, images, and charts, that can be easily customised to suit specific needs of each topic. With this template, RESIST partners can create high-quality materials quickly and efficiently, while also maintaining a consistent RESIST image.

### **3.1.2 ASA Platform for training content**

ASA is a Large-Scale Partnership for collaboration on the skills agenda in the Mobility-Automotive Ecosystem Partnership. ASA was created in November 2020 under the Pact for Skills, the first flagship action of the European Skills Agenda, firmly anchored in the principles of the European Pillar of Social Rights. The pact aims to mobilise and incentivise private and public stakeholders to invest and take concrete action for the upskilling and reskilling of people.

The Automotive Skills Alliance (ASA) is focused on the re-skilling and up-skilling of workers in the Mobility-Transport-Automotive ecosystem, developing intelligence and fostering dialogue among all relevant partners and stakeholders in the ecosystem, and supporting the elaboration of specific plans for re-skilling, up-skilling and training of workers in the EU Mobility-Transport-Automotive ecosystem. The ASA supports collaboration and sharing the best practices in order to ensure continuous, pragmatic and sustainable cooperation on the skills agenda in the ecosystem.

The Skills Framework is a one-stop-shop for trainings in Mobility-Transport-Automotive ecosystem with integrated framework for definition and recognition of job roles and skills / competence concepts using microbadges. The training courses linked and advertised by providers according to coherent structure and mapping exercise – more than 120 courses linked through the platform are covering topics in the following areas:



Figure 5: ASA Skills Framework

Online platform containing more than 30 online courses now and growing. The first set of training courses were developed by the ERASMUS+ co-funded project DRIVES. The Eurocluster RESIST will be the pilot content provider for ASA platform.

Skills Framework – the platform is available on website: [skills-framework.eu](https://skills-framework.eu), for more features, such as learning account or course creation, register as a user or training provider on the website.

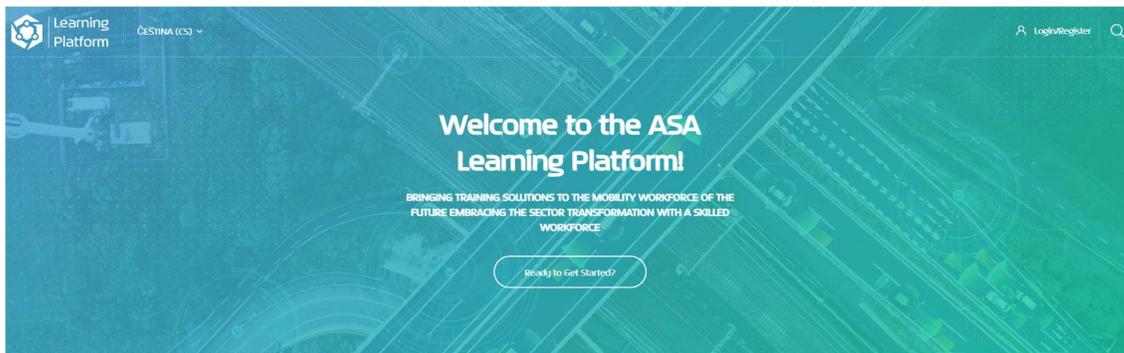


Figure 6: Learn platform landing page

## COURSES

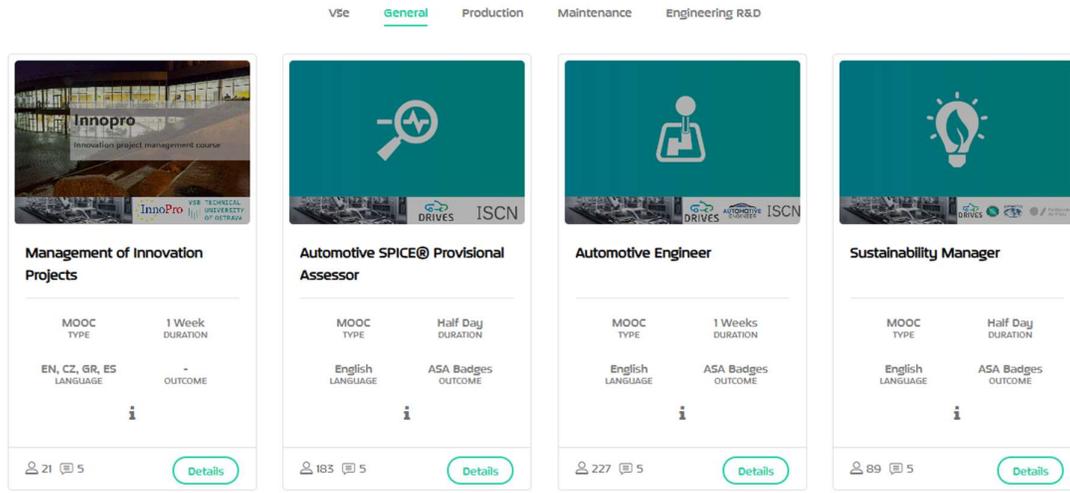


Figure 7: Courses example

### 3.2 An overview of selected topics

We will in RESIST project develop MOOC courses for green and digital transition, which we are developing with a help and guidance of ASA.

**Developing MOOC courses on green and digital transition itself can help cluster employees to upskill and reskill in the areas of circular economy and digitalisation.**

Selected topic for MOOC

Topic:	Assigned RESIST partner 1 <sup>St</sup> Batch of MOOC (30.6.2023)	Assigned RESIST partner 2 <sup>Nd</sup> Batch of MOOC (30.9.2023)
Digital transformation of SME companies	CEAGA	
Infrastructure for the digital transformation		
Data and information management		
Digital strategy and competencies		
Use of AI in manufacturing	IDiA	
Cyber-attacks, cybersecurity and NIS II	PVF	
Energy savings		
Decarbonisation and ESG reporting		
Euro 7 and its impacts	Autoklastr	
Circular economy and recycled materials	Biz-up	

The topics for MOOCs organised for the end of September will be selected by partners later in the project. New topics can be added in the table.

### **3.2.1 Digital transformation of SME, Start-ups and VSBs companies**

The digital transformation of small and medium-sized enterprises (SMEs), Start-ups and VSBs involves the adoption and integration of digital technologies in their business processes to enhance their competitiveness, customer experience, and profitability. This includes areas such as digitisation of operations, e-commerce, online marketing, and data analytics.

#### **1. Introduction (3 minutes)**

- Welcome and thank participants for attending
- Provide a brief overview of what the presentation will cover
- Explain why digital transformation is important for SMEs, Start-ups and VSBs

#### **2. What is digital transformation? (5 minutes)**

- Define digital transformation and its impact on businesses
- Provide examples of digital transformation in action in SMEs, Start-ups and VSBs

#### **3. Benefits of digital transformation for SMEs, Start-ups and VSBs (7 minutes)**

- Describe the advantages of digital transformation, such as increased efficiency, cost savings, improved customer experience, and access to new markets
- Share case studies of SMEs, Start-ups and VSBs that have successfully transformed their businesses through digital means

#### **4. Common challenges in digital transformation for SMEs (7 minutes)**

- Outline some of the typical hurdles that SMEs, Start-ups and VSBs face when attempting to digitally transform, such as lack of resources, limited expertise, and cultural resistance to change
- Suggest strategies for overcoming these challenges, such as partnering with a digital expert or investing in employee training

#### **5. Key considerations for SMEs, Start-ups and VSBs when implementing digital transformation (5 minutes)**

- Discuss important factors that SMEs, Start-ups and VSBs need to consider when planning and implementing digital transformation, such as choosing the right technology solutions, prioritising data security, and ensuring that the company culture supports digital initiatives
- Provide tips for SMEs, Start-ups and VSBs to stay current with the latest trends and best practices in digital transformation

#### **6. Conclusion and Q&A (3 minutes)**

- Summarise the main points covered in the presentation
- Encourage participants to ask final quiz questions
- Thank participants for their time and attention

### **3.2.2 Infrastructure for digital transformation**

To enable successful digital transformation, companies need a reliable and secure IT infrastructure that supports their business operations. This includes high-speed internet connectivity, cloud computing, cybersecurity measures, and advanced communication tools.

#### **1. Introduction (3 minutes)**

- Welcome and thank participants for attending
- Provide a brief overview of what the presentation will cover
- Explain why having the right infrastructure is critical for successful digital transformation

#### **2. What is digital infrastructure? (5 minutes)**

- Define digital infrastructure and its role in supporting digital transformation initiatives
- Provide examples of digital infrastructure components, such as cloud computing, data centers, and networks

#### **3. Benefits of digital infrastructure for digital transformation (7 minutes)**

- Describe the advantages of having a robust and scalable digital infrastructure, such as increased flexibility, cost savings, improved security, and better customer experience
- Share case studies of companies that have successfully leveraged digital infrastructure to support their digital transformation efforts

#### **4. Key components of a digital infrastructure (7 minutes)**

- Outline the different components that make up a modern digital infrastructure, such as hardware, software, storage, and connectivity
- Discuss the importance of each component and how they work together to support digital transformation

#### **5. Common challenges in building digital infrastructure for digital transformation (5 minutes)**

- Outline some of the typical challenges that organisations face when building a digital infrastructure, such as complexity, cost, and the need for specialised skills and expertise

- Suggest strategies for overcoming these challenges, such as partnering with a digital infrastructure provider or leveraging open-source solutions

#### **6. Key considerations when building digital infrastructure for digital transformation (3 minutes)**

- Describe important factors that organisations need to consider when planning and building a digital infrastructure, such as scalability, security, and compliance with relevant regulations and standards
- Provide tips for organisations to stay current with the latest trends and best practices in digital infrastructure for digital transformation

#### **7. Conclusion and Q&A (3 minutes)**

- Summarise the main points covered in the presentation
- Encourage participants to ask final quiz questions
- Thank participants for their time and attention

### **3.2.3 Data and information management**

Data and information are crucial assets for companies in the digital age. Effective management of data, including storage, processing, and analysis, is essential for companies to make informed decisions and gain a competitive edge.

#### **1. Introduction (3 minutes)**

- Welcome and thank participants for attending
- Provide a brief overview of what the presentation will cover
- Explain why effective data and information management is critical for digital transformation

#### **2. What is data and information management? (5 minutes)**

- Define data and information management and its role in supporting digital transformation initiatives
- Provide examples of data and information management components, such as data governance, data architecture, and data quality

#### **3. Benefits of effective data and information management for digital transformation (7 minutes)**

- Describe the advantages of having a comprehensive and well-managed data and information environment, such as improved decision-making, enhanced customer experience, and increased efficiency

- Share case studies of organisations that have successfully leveraged data and information management to support their digital transformation efforts

#### **4. Key components of data and information management (7 minutes)**

- Outline the different components that make up a modern data and information management framework, such as data modeling, data integration, and master data management
- Discuss the importance of each component and how they work together to support data and information management

#### **5. Common challenges in data and information management for digital transformation (5 minutes)**

- Outline some of the typical challenges that organisations face when implementing effective data and information management, such as siloed data, lack of data governance, and data quality issues
- Suggest strategies for overcoming these challenges, such as establishing a data governance framework or investing in data quality tools and technologies

#### **6. Key considerations when implementing data and information management for digital transformation (3 minutes)**

- Describe important factors that organisations need to consider when planning and implementing data and information management initiatives, such as data privacy regulations, data security, and data ownership
- Provide tips for organisations to stay current with the latest trends and best practices in data and information management for digital transformation

#### **7. Conclusion and Q&A (3 minutes)**

- Summarise the main points covered in the presentation
- Encourage participants to ask final quiz questions
- Thank participants for their time and attention

### **3.2.4 Digital strategy and competencies**

Companies need a well-defined digital strategy that aligns with their overall business goals and objectives. This involves developing digital competencies, building a skilled workforce, and creating a culture of innovation and continuous improvement.

#### **1. Introduction (3 minutes)**

- Welcome and thank participants for attending
- Provide a brief overview of what the presentation will cover

- Explain why having a strong digital strategy and competencies is critical for successful digital transformation

## **2. What is digital strategy and competencies? (5 minutes)**

- Define digital strategy and competencies and their role in supporting digital transformation initiatives
- Provide examples of digital strategy components, such as digital marketing, digital customer experience, and digital operations, as well as digital competencies, such as data analytics, cloud computing, and artificial intelligence

## **3. Benefits of strong digital strategy and competencies for digital transformation (7 minutes)**

- Describe the advantages of having a well-designed digital strategy and strong digital competencies, such as improved customer engagement, better decision-making, and increased agility
- Share case studies of companies that have successfully leveraged digital strategy and competencies to support their digital transformation efforts

## **4. Key components of a digital strategy and competencies (7 minutes)**

- Outline the different components that make up a comprehensive digital strategy, such as digital vision, digital roadmap, and digital governance, as well as the key digital competencies required for successful digital transformation
- Describe the importance of each component and how they work together to support digital strategy and competencies

## **5. Common challenges in developing digital strategy and competencies for digital transformation (5 minutes)**

- Outline some of the typical challenges that organisations face when developing their digital strategy and competencies, such as lack of executive buy-in, limited resources, and resistance to change
- Suggest strategies for overcoming these challenges, such as building a business case for digital transformation or investing in employee training and development

## **6. Key considerations when developing digital strategy and competencies for digital transformation (3 minutes)**

- Discuss important factors that organisations need to consider when planning and developing their digital strategy and competencies, such as digital talent acquisition, cybersecurity, and alignment with business goals
- Provide tips for organisations to stay current with the latest trends and best practices in digital strategy and competencies for digital transformation

## **7. Conclusion and Q&A (3 minutes)**

- Summarise the main points covered in the presentation
- Encourage participants to ask final quiz questions

- Thank participants for their time and attention

### **3.2.5 Use of AI in manufacturing companies**

Artificial intelligence (AI) has the potential to transform manufacturing by improving efficiency, reducing costs, and enhancing product quality. This includes applications such as predictive maintenance, quality control, and supply chain optimisation.

#### **1. Introduction (3 minutes)**

- Welcome and thank participants for attending
- Provide a brief overview of what the presentation will cover
- Explain why the use of AI in manufacturing companies is critical for digital transformation

#### **2. What is AI in manufacturing? (5 minutes)**

- Define AI and its role in supporting digital transformation initiatives in manufacturing companies
- Provide examples of AI applications in manufacturing, such as predictive maintenance, quality control, and supply chain optimisation

#### **3. Benefits of AI in manufacturing (7 minutes)**

- Describe the advantages of using AI in manufacturing, such as increased efficiency, improved quality, and reduced downtime
- Share case studies of manufacturing companies that have successfully leveraged AI to support their digital transformation efforts

#### **4. Key components of AI in manufacturing (7 minutes)**

- Outline the different components that make up a comprehensive AI solution for manufacturing, such as data acquisition, data processing, and machine learning
- Discuss the importance of each component and how they work together to support AI in manufacturing

#### **5. Common challenges in implementing AI in manufacturing (5 minutes)**

- Outline some of the typical challenges that manufacturing companies face when implementing AI, such as lack of data standardisation, lack of skilled resources, and difficulty in integrating with existing systems
- Suggest strategies for overcoming these challenges, such as establishing data governance practices, investing in employee training and development, and partnering with technology vendors

## 6. Key considerations when implementing AI in manufacturing (3 minutes)

- Describe important factors that manufacturing companies need to consider when planning and implementing AI solutions, such as data security, privacy regulations, and ethical considerations
- Provide tips for organisations to stay current with the latest trends and best practices in AI for manufacturing

## 7. Conclusion and Q&A (3 minutes)

- Summarise the main points covered in the presentation
- Encourage participants to ask final quiz questions
- Thank participants for their time and attention

### 3.2.6 Cyber-attacks and cybersecurity and NIS II

As companies become more reliant on digital technologies, the risk of cyber-attacks and data breaches increases. The Network and Information Systems Directive (NIS II) is a regulatory framework that aims to strengthen cybersecurity measures and enhance the resilience of critical infrastructure.

#### 1. Introduction (3 minutes)

- Welcome and thank participants for attending
- Provide a brief overview of what the presentation will cover
- Explain why cybersecurity is critical in the digital age, and why NIS II is important for protecting critical infrastructure and digital services.

#### 2. What are cyber-attacks? (5 minutes)

- Define cyber-attacks and their various types, such as phishing, malware, ransomware, and denial of service attacks
- Explain how cyber-attacks work and why they are a growing threat to organisations and individuals alike

#### 3. The Importance of Cybersecurity (7 minutes)

- Describe the critical role that cybersecurity plays in protecting digital assets, such as personal data, financial information, and intellectual property
- Explain the potential consequences of a cyber-attack, such as financial losses, damage to reputation, and legal consequences
- Provide examples of high-profile cyber-attacks, and discuss the lessons learned from these incidents.

#### 4. NIS II (5 minutes)

- Provide an overview of NIS II (the Network and Information Systems Directive), including its objectives and scope
- Explain how NIS II supports cybersecurity and protects critical infrastructure and digital services
- Outline the key requirements of NIS II, such as risk management, incident reporting, and cooperation between Member States.

#### **5. Common cybersecurity threats and vulnerabilities (7 minutes)**

- Outline some of the common cybersecurity threats and vulnerabilities that organisations face, such as phishing emails, insecure passwords, unpatched software, and insider threats
- Provide tips and best practices for mitigating these risks, such as implementing multifactor authentication, regularly updating software and systems, and conducting employee training.

#### **6. Key considerations for cybersecurity and NIS II (3 minutes)**

- Describe important factors that organisations need to consider when developing their cybersecurity and NIS II compliance strategies, such as data protection regulations, incident response plans, and the role of third-party vendors
- Provide tips for organisations to stay current with the latest trends and best practices in cybersecurity and NIS II compliance.

#### **7. Conclusion and Q&A (3 minutes)**

- Summarise the main points covered in the presentation
- Encourage participants to ask final quiz questions
- Thank participants for their time and attention.

### **3.2.7 Energy savings**

Energy efficiency is an important aspect of sustainability for companies. By adopting energy-saving measures and investing in renewable energy sources, companies can reduce their environmental impact and lower their operating costs.

#### **1. Introduction (3 minutes)**

- Welcome and thank participants for attending
- Provide a brief overview of what the presentation will cover
- Explain why energy savings is important in the context of climate change and sustainability.

#### **2. Understanding energy consumption (5 minutes)**

- Define energy consumption and explain how it relates to the use of energy resources, such as electricity, gas, and fuel
- Provide examples of energy-consuming activities, such as heating and cooling, lighting, and transportation.

### **3. Benefits of energy savings (7 minutes)**

- Describe the advantages of reducing energy consumption, such as cost savings, environmental benefits, and improved comfort and health
- Share case studies of organisations that have successfully implemented energy-saving initiatives, and the benefits they have achieved.

### **4. Key strategies for energy savings (7 minutes)**

- Outline the different strategies that organisations and individuals can use to reduce their energy consumption, such as improving energy efficiency, using renewable energy sources, and changing behavior and habits.
- Describe the importance of each strategy and how they can work together to achieve energy savings.

### **5. Common challenges in implementing energy savings (5 minutes)**

- Outline some of the typical challenges that organisations and individuals face when implementing energy-saving initiatives, such as lack of awareness, high upfront costs, and difficulty in changing habits and behaviors.
- Suggest strategies for overcoming these challenges, such as education and awareness campaigns, financial incentives, and collaboration with stakeholders.

### **6. Key considerations when implementing energy savings (3 minutes)**

- Describe important factors that organisations and individuals need to consider when planning and implementing energy-saving initiatives, such as energy regulations, data management, and stakeholder engagement.
- Provide tips for staying current with the latest trends and best practices in energy savings.

### **7. Conclusion and Q&A (3 minutes)**

- Summarise the main points covered in the presentation
- Encourage participants to ask final quiz questions
- Thank participants for their time and attention.

### **3.2.8 Decarbonisation and ESG reporting**

Decarbonisation is the process of reducing greenhouse gas emissions to mitigate climate change. Environmental, social, and governance (ESG) reporting enables companies to disclose their sustainability performance and progress towards decarbonisation goals.

#### **1. Introduction (3 minutes)**

- Welcome and thank participants for attending
- Provide a brief overview of what the presentation will cover
- Explain why decarbonisation and ESG reporting are important in the context of climate change and sustainability.

#### **2. Understanding decarbonisation (5 minutes)**

- Define decarbonisation and explain how it relates to reducing carbon emissions and transitioning to a low-carbon economy
- Provide examples of decarbonisation initiatives, such as renewable energy projects and energy efficiency improvements.

#### **3. Benefits of decarbonisation (7 minutes)**

- Describe the advantages of reducing carbon emissions, such as mitigating climate change impacts, improving public health, and creating economic opportunities.
- Share case studies of organisations that have successfully implemented decarbonisation initiatives, and the benefits they have achieved.

#### **4. ESG reporting (7 minutes)**

- Define ESG (Environmental, Social, and Governance) reporting and explain why it is important for organisations to report on their sustainability performance.
- Outline the key elements of ESG reporting, such as greenhouse gas emissions, water usage, labor practices, and community engagement.
- Describe the different frameworks and standards for ESG reporting, such as GRI (Global Reporting Initiative) and SASB (Sustainability Accounting Standards Board).

#### **5. Key strategies for decarbonisation and ESG reporting (5 minutes)**

- Outline the different strategies that organisations can use to reduce their carbon emissions and report on their sustainability performance, such as setting ambitious targets, engaging with stakeholders, and collaborating with partners.
- Discuss the importance of each strategy and how they can work together to achieve decarbonisation and ESG reporting.

#### **6. Common challenges in implementing decarbonisation and ESG reporting (5 minutes)**

- Outline some of the typical challenges that organisations face when implementing decarbonisation and ESG reporting initiatives, such as lack of data, high upfront costs, and stakeholder engagement.
- Suggest strategies for overcoming these challenges, such as data management, financial incentives, and stakeholder engagement.

#### **7. Conclusion and Q&A (3 minutes)**

- Summarise the main points covered in the presentation
- Encourage participants to ask final quiz questions
- Thank participants for their time and attention.

### **3.2.9 Euro 7 and its impacts**

Euro 7 is the upcoming emissions standard for cars and light commercial vehicles in the European Union. It aims to reduce air pollution and improve air quality. The implementation of Euro 7 will have significant impacts on the automotive industry and related sectors.

#### **1. Introduction (3 minutes)**

- Welcome and thank participants for attending
- Provide a brief overview of what the presentation will cover
- Explain what Euro 7 is and why it is important.

#### **2. Understanding Euro 7 (5 minutes)**

- Define Euro 7 and explain how it differs from previous emissions standards, such as Euro 6
- Provide examples of how Euro 7 sets more stringent limits on pollutant emissions from vehicles.

#### **3. Impacts of Euro 7 on the automotive industry (7 minutes)**

- Describe how Euro 7 will affect the automotive industry, such as increased costs for research and development, changes to vehicle design and manufacturing, and potential impacts on consumer demand.
- Share case studies of how previous emissions standards have impacted the automotive industry, and how they have adapted to comply with the standards.

#### **4. Impacts of Euro 7 on the environment and public health (7 minutes)**

- Discuss the potential benefits of Euro 7 for the environment and public health, such as reduced air pollution and improved air quality in urban areas.
- Share case studies of how emissions standards have contributed to improvements in public health and the environment.

### **5. Impacts of Euro 7 on consumers (5 minutes)**

- Describe how Euro 7 will impact consumers, such as potentially higher prices for vehicles, changes in vehicle performance, and potential impacts on fuel efficiency.
- Share case studies of how emissions standards have impacted consumer behavior, and how consumers have adapted to new vehicle technologies.

### **6. Key considerations for the implementation of Euro 7 (5 minutes)**

- Describe important factors that need to be considered when implementing Euro 7, such as technological feasibility, regulatory compliance, and stakeholder engagement.
- Provide tips for staying current with the latest developments and best practices related to Euro 7.

### **7. Conclusion and Q&A (3 minutes)**

- Summarise the main points covered in the presentation
- Encourage participants to ask final quiz questions
- Thank participants for their time and attention.

## **3.2.10 Circular economy and recycled materials**

The circular economy is an economic model that aims to minimise waste and maximise the use of resources. This includes the use of recycled materials and the adoption of circular business models that promote product reuse, repair, and recycling.

### **1. Introduction (3 minutes)**

- Welcome and thank participants for attending
- Provide a brief overview of what the presentation will cover
- Explain why the circular economy and recycled materials are important in the context of sustainability and resource efficiency.

### **2. Understanding the circular economy (5 minutes)**

- Define the circular economy and explain how it differs from the traditional linear economy.
- Provide examples of circular economy principles, such as reducing waste, reusing products, and recycling materials.

### **3. The importance of recycled materials (7 minutes)**

- Describe the value of recycled materials, such as reducing the need for virgin materials, reducing waste, and creating economic opportunities.

- Share case studies of organisations that have successfully implemented recycled materials initiatives, and the benefits they have achieved.

#### **4. Circular business models (7 minutes)**

- Outline different circular business models that organisations can use to implement circular economy principles, such as product-as-a-service, closed-loop systems, and waste-to-value.
- Discuss the benefits and challenges of each model, and provide examples of successful implementations.

#### **5. Key strategies for implementing circular economy and recycled materials initiatives (5 minutes)**

- Outline the different strategies that organisations can use to implement circular economy and recycled materials initiatives, such as engaging with stakeholders, using technology to track and manage resources, and collaborating with partners.
- Describe the importance of each strategy and how they can work together to achieve a circular economy.

#### **6. Common challenges in implementing circular economy and recycled materials initiatives (5 minutes)**

- Outline some of the typical challenges that organisations face when implementing circular economy and recycled materials initiatives, such as lack of data, high upfront costs, and stakeholder engagement.
- Suggest strategies for overcoming these challenges, such as data management, financial incentives, and stakeholder engagement.

#### **7. Conclusion and Q&A (3 minutes)**

- Summarise the main points covered in the presentation
- Encourage participants to ask final quiz questions
- Thank participants for their time and attention.

## • **Conclusions and next steps**

In conclusion, digital transformation, infrastructure, data and information management, digital strategy and competencies, AI in manufacturing companies, cybersecurity, energy savings, decarbonisation and ESG reporting, Euro 7, and circular economy and recycled materials are all crucial topics for SMEs, Start-ups and VSBs looking to thrive in the modern economy. To successfully implement these initiatives and make the transition to a more sustainable and digitally-driven business model, training is needed.

Training can help SMEs, Start-ups and VSBs understand the importance of these topics and how to effectively implement them in their business operations. It can also help SMEs, Start-ups and VSBs stay up-to-date with the latest trends and best practices in their industry, allowing them to remain competitive and responsive to changes in the market. With a succeeding predefined MOOC is a mandatory condition for getting access to advanced specific training vouchers which will be offered to SMEs, Start-ups and VSBs. MOOC finish with an online exam a simple questionnaire to evaluate the skills level of the participant, and a digital skills badge is awarded, if the evaluation is successful.

Furthermore, training can help SMEs, Start-ups and VSBs develop the necessary skills and competencies to embrace new technologies and business models. This can be particularly important for smaller companies that may not have the resources to invest in expensive technology or hire specialised staff. On the other hand, developing MOOC courses on green and digital transition itself by cluster employees can help to upskill and reskill in the areas of twin transition topics which we have described in D5.1

Overall, training is a critical component of enabling SMEs, Start-ups and VSBs to successfully navigate the transition towards a more sustainable and digitally-driven business model. By investing in training and education, SMEs, Start-ups and VSBs can improve their competitiveness, increase their resilience, and contribute to the growth and success of the broader economy.

## Bibliographic references

Listed below are all the studies, research documents, reports and other publications consulted to carry out this report:

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