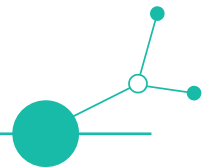


D.3.1.2 Selection Report

A.3.1. Screening and selecting GREENE solution seekers



Date of Report: 25.09.2024





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A. Executive summary

A.1 Project overview

The GREENE 4.0 project aims at facilitating and supporting small and medium-sized enterprises (SMEs) in the manufacturing sector in the adoption and use of green production methods and digital technologies. Creating a selection report for manufacturing solution seekers is crucial in generating, testing, and piloting smart and green manufacturing value chain models across seven sectoral clusters. It enables the identification of the most appropriate and innovative solutions tailored to each cluster's unique needs, fostering targeted co-creation between manufacturers and solution providers. By offering a structured evaluation of technologies and partners, the report ensures that the solutions deployed align with the goals of the three innovation programs, promoting seamless collaboration. It also enhances the efficiency of the pilot process by pre-selecting high-potential solutions for testing. Ultimately, the report supports the successful scaling of new value chain models by reducing implementation risks and encouraging sustainability-driven innovation.

D3.1.2 – Selection Report works closely with D3.1.1 (Methodology for screening and selecting solution seekers) and will have an impact on D3.1.3 (Sectorial TORs) Terms of References document which will define the requirements and conditions that must be accomplished by solution providers or developers in order to match the needs of each sectorial cluster.

A.2 Scope of the document

This document provides the results of the selection process for companies identified as seeking technological solutions for digital and green transformation within the GREENE 4.0 project, in line with Activity A3.1 in WP3. This report describes the selection process, identified challenges related to both digital and green transformation, as well as other difficulties faced by the companies. Additionally, the document includes a detailed analysis of companies from various regions involved in the project and conclusions that will influence further project actions, including the preparation of "Terms of Reference" (TOR) documents.

A.3 Audience

The audience of this document includes the partners of the GREENE 4.0 project, including all parties involved in the implementation of Work Package 3 (WP3) and Task A3.1. This is an internal document prepared to summarize the results of the company selection process and to prepare for further actions, such as the development of "Terms of Reference" (TOR). The document may also be used by the lead partner (LP) and supporting institutions to monitor progress and implement any necessary adjustments.

A.4 Change control

KPT/PP8 created this document, and it is subject to the standard project change control where PPs are requested to provide feedback on the stated definition or tools in writing to the deliverable responsible (in this case KPT/PP8) in a timely manner (within 8 working days after each edition).



B. Introduction

B.1 Project overall flow

The Central European manufacturing industry is facing significant disruptions. Global supply chains are increasingly unstable, and the green transition demands the development of more sustainable and smarter value chains. The GREENE 4.0 project aims to assist manufacturing companies in piloting innovative value chains. It also encourages the co-creation of new products and services through open innovation methods. To achieve this, the project connects businesses with educational institutions, research organizations, and policymakers.

GREENE 4.0 is divided into four work packages, each with a distinct goal:

WP1 focuses on identifying the needs and challenges of SMEs in adopting green technologies and mapping available enablers across different CE regions. The findings will inform the development of the UAM (Universal Adoption Model), which will guide companies in implementing new technologies and link them to tools identified in WP2.

WP2 works on creating solutions to address the identified challenges and connect them with existing innovations. The aim is to build a robust innovation ecosystem to help SMEs adopt sustainable practices. WP2 will also lay the foundation for the Transnational Open Knowledge Box, a repository of tools supporting innovation and capacity building.

WP3 consolidates data from WP1 and WP2 to develop three innovation programs that will test the Transnational Open Knowledge Box. The programs will ensure the results are transferable and will link seven sector-specific manufacturing clusters with solution providers to co-create sustainable supply chain models.

WP4 emphasizes policy learning and enhances the transferability of the project outcomes through a quadruple helix approach, engaging SMEs, solution providers (businesses and research organizations), and policymakers.

Figure 1: The project flow and the synergies and linkages between the WPs and their deliverables are shown in



B.2 Activity 3.1 and its place in WP3

Activity 3.1 (A3.1) within Work Package 3 (WP3) focuses on the identification and selection of companies seeking support in digital and green transformation, in line with the objectives of the GREENE 4.0 project. It is the first key phase of WP3, aimed at selecting companies in seven regions involved in the project. Under A3.1, project partners were tasked with identifying companies from various industrial sectors with specific needs for the development of innovative solutions in the context of digital and green transformation.

Each partner was required to identify at least 10 companies in their region, evaluating them based on defined criteria, such as company size, industry sector, readiness to implement innovations, and technological needs. These companies were then assigned to seven sectoral clusters, enabling further collaboration with technology providers within WP3. A3.1 forms the foundation upon which the subsequent stages of WP3, such as creating innovation programs (A3.3) and piloting new solutions (A3.4), are built.

C. Methodology

Process description

The company selection process under Activity A3.1 was developed in accordance with the methodology described in document D3.1.1, "Methodology for Selecting Manufacturing Technology Seekers." The aim of these actions was to identify and select industrial companies with clearly defined needs in terms of digital and green transformation, in line with the objectives of the GREENE 4.0 project.

The selection process began with a "screening" phase, during which the project partners (PPs) searched for potential companies in their regions. Each partner was required to identify at least 20 companies based on predefined criteria. During this phase, partners used various methods, including market research, personal contacts, and regional innovation workshops where companies could express their needs.

After completing the screening phase, partners conducted the evaluation and pre-selection process based on criteria such as:

- company size (SME or large enterprise),
- industry sector (chemical, energy, manufacturing, etc.),
- technological readiness level (TRL),
- needs related to digital and green transformation.

Each company that passed the pre-selection process was recorded on a company card, which contained key information about the company, its technological and green needs, and its ability to implement innovations. Project partners from each region were tasked with preparing 10 company cards (a total of 70 companies for the entire project).

Based on the company cards provided, the coordinating partner (PP8) prepared a draft selection report summarizing the results for all regions. These companies will be assigned to seven sectoral clusters,



enabling further actions, such as the development of the "Terms of Reference" (TOR) document, which will be used to match solution-seeking companies with appropriate technology providers.

The stages of the screening and selection process are shown in Figure 2.

THE STAGES OF THE SCREENING AND SELECTION PROCESS

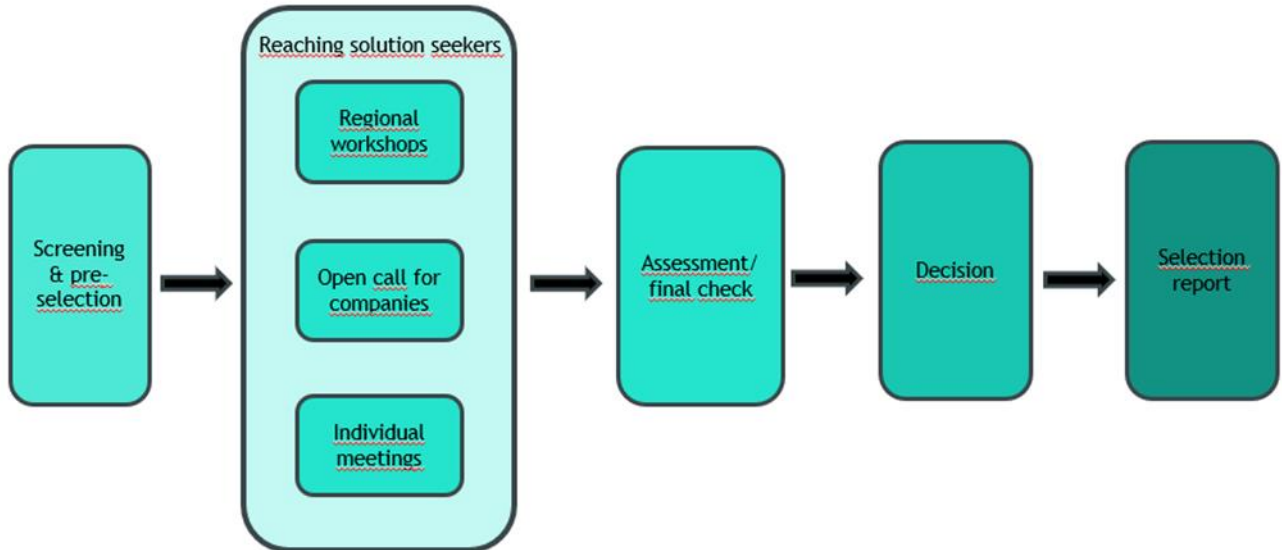


Figure 2: The stages of the screening and selection process (Source: Author Generated, 2024)

D. Analysis per country

This section provides a summary of the key insights gathered from the regional screening and selection process. It highlights the methods employed to engage solution seekers, presents a list of identified companies, including their sector and operational status, and concludes with a categorized overview of the identified needs and challenges, grouped into green and digital clusters.

D.1 Slovenia analysis – key findings

D1.1 Used methods

PTP team with support of UL implemented a comprehensive strategy targeting SMEs across seven sectors. The approach began with a detailed search and survey process to identify potential solution seekers who could benefit from the initiative.

The outreach efforts included a multi-channel approach: more than 400 targeted emails were sent, followed by direct phone calls to engage companies and discuss collaboration opportunities. Social media campaigns were also utilized. Additionally, industry event presentations, newsletters, and word-of-mouth recommendations further broadened the reach.

Engagement with potential solution seekers typically involved multiple steps. After the initial outreach, phone calls helped establish personal connections, leading to 2-3 meetings with each SME to better understand their needs. While most sessions were held online, in-person meetings often resulted in more productive discussions and deeper engagement.



Through this process, 10 companies were selected by PTP as those most aligned with the project's goals and likely to benefit from the support provided. The combination of diverse outreach methods and personalized follow-ups ensured both broad reach and a focus on the most promising solution seekers.

D1.2 Identified companies

The following list includes the companies identified by the partner along with the size and sector of operation:

Company's name	Size	Sector
N&N d.o.o.	SME	Building materials and furniture
Bio dan d.o.o.	SME	Food and Beverage
ELVEZ d.o.o.	SME	Machinery and equipment
Aluvar d.o.o.	SME	Metal
Lincox d.o.o.	SME	Metal
DUKIN d.o.o.	SME	Metal
Mb-95 podjetje za inženiring in trgovanje na debelo in drobno Krog d.o.o.	SME	Metal
Formateh d.o.o.	SME	Metal
Miniplast d.o.o.	SME	Plastics and rubber
CAP d.o.o.	SME	Plastics and rubber

Table 1: Identified companies from Slovenia

All companies belong to the group of small and medium-sized enterprises. Half of them (5) represent the metal sector; other sectors include plastics and rubber (2), building materials and furniture (1), food and beverage (1), machinery and equipment (1)

D1.3 Identified challenges

The following list includes green and digital challenges identified by solution seekers:

Digital challenges	Green challenges
<ul style="list-style-type: none"> • upgrading Excel sheet system • integrating AR/VR technologies • digitalizing quality control • preparing digital passport documentation for each product • integrating AI • integrating ERP system • integration of data from machinery • calculation of material, energy, time requirements • remote production control • integrating Manufacturing Execution System • providing customers with data about products in 	<ul style="list-style-type: none"> • tracking raw materials • monitoring of energy consumption



<p>stock</p> <ul style="list-style-type: none">• production planning• optimizing logistics• access to full information on resources, costs and production progress• error detection and correction system	
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Table 2: Identified challenges for Slovenian companies

D.2 Germany analysis – key findings

D2.1 Used methods

TGZ Bautzen contacted companies in its region through several different channels. These included a workshop held during a TEAM22 machine engineering and metalworking network meeting (six potential companies), personalized e-mails with follow-up phone calls (reaching thirty companies), and an industry association (VEMASinnovativ). Additionally, outreach was done via the in-house magazine “TGZ-Aktuell” (print and digital, reaching approximately 1,200 recipients, with around 100 companies fitting the B2GreenHub criteria) and the TGZ website, which was primarily used to direct companies to learn more about GREENE 4.0 and B2GreenHub. The associated partner, Mittelstand-Digital Zentrum Spreeland, also posted the call on their website, while LinkedIn was used for select social media outreach.



Photo 1. Open Innovation workshop held by TGZ Bautzen

Companies were chosen based on prior interactions with GREENE 4.0 (through surveys or user acceptance interviews), existing ties with TGZ Bautzen (e.g., tenants, TEAM22 members, or other project collaborations), or through recommendations. The “TGZ-Aktuell” subscriber base was not specifically filtered to target solution seekers. The workshop, held at TGZ Bautzen’s conference center,



attracted six potential companies, which was below average attendance, likely due to the summer vacation period coinciding with school holidays in Saxony.

D2.2 Identified companies

The following list includes the companies identified by the partner along with the size and sector of operation:

Company's name	Size	Sector
tucore GmbH	SME	Electronics
Lorenz Bahlsen Snack-World GmbH & Co KG Germany	SME	Food and Beverage
IDEEMA GmbH	SME	Machinery and equipment
PURTEC Engineering GmbH	SME	Machinery and equipment
ATN Hölzel GmbH	SME	Machinery and equipment
RELO GmbH	SME	Machinery and equipment
SIMU-Fertigungs GmbH	SME	Metal
FWH Federnfabrik Wilhelm Hesse GmbH	SME	Metal
ARNELL Arno Hentschel GmbH	SME	Metal
ARNIO GmbH	SME	Metal

Table 3: Identified companies from Germany

All companies belong to the group of small and medium-sized enterprises. 4 of them represent machinery and equipment sector, also 4 companies are in the metal industry. Other sectors include: electronics (1) and food and beverage (1).

D2.3 Identified challenges

The following list includes green and digital challenges identified by solution seekers:

Digital challenges	Green challenges
<ul style="list-style-type: none"> • integrating Excel files and ERP system • digital learning for employees • computer-aided production control and monitoring • tracking and delivery efficiency 	<ul style="list-style-type: none"> • integrating sustainable practices in logistic operations • optimization of energy consumption • material efficiency • verifying the origin of raw materials • reporting and compensating carbon footprint

Table 4: Identified challenges for German companies



D.3 Austria analysis – key findings

D3.1 Used methods

FH Kufstein Tirol - University of Applied Sciences implemented a multifaceted approach to identify and engage potential companies in Austria, utilizing various channels to maximize outreach.

Two targeted workshops were organized, bringing together key stakeholders such as banks, business authorities, regional manufacturers, and other relevant organizations. These workshops facilitated discussions on market needs, partner opportunities, and direct engagement with companies aligned with the project's objectives. The first workshop took place on May 23, with representatives from the Kitzbühel Innovation Network and the Tyrolean Chamber of Commerce in attendance. During the workshop, numerous discussions were held, emphasizing the necessity of integrating digital and sustainable practices for future success. The second workshop took place on July 16 – this workshop focused on creating smart strategies for sustainable futures, attracting businesses from Kitzbühel, Kufstein, and Bavaria.

Photo 2: Open innovation workshop held by FH Kufstein Tirol - University of Applied Sciences

Newsletters (FH Kufstein Tirol, Tyrolean Chamber of Commerce, clusters from Tyrolean location agency) were also used to promote GREENE 4.0 and B2GreenHub, raising awareness and attracting interest from companies that might not have been otherwise informed.



In addition, FHK tapped into its student network during the annual career fair to engage family-run businesses, as many students are closely connected to such companies, providing a unique outreach channel.

D3.2 Identified companies

The following list includes the companies identified by the partner along with the size and sector of operation:

Company's name	Size	Sector
Bachmann Schlafsysteme GmbH	SME	Building materials and furntiure
Haslinger Spielplatz	SME	Building materials and furntiure
FRITZ EGGER GmbH & Co. OG	Large	Building materials and furntiure
Freisinger Fensterbau GmbH	SME	Building materials and furntiure
Vöcklakäserei eGen	SME	Food and Beverage
Grissemann Maschinenbau GmbH	SME	Machinery and equipment
enrope GmbH	SME	Machinery and equipment
Zimmer Austria GmbH	SME	Machinery and Equipment
Heliotherm	Large	Metal
Faissner Petermeier Fahrzeugtechnik AG	SME	Metal

Table 5: Identified companies from Austria

8 companies belong to the group of small and medium-sized enterprises; 2 companies were classified as large. Represented sectors include: building materials and furniture (4), machinery and equipment (3), metal (2) and food and beverage (1).

D3.3 Identified challenges

The following list includes green, digital and other challenges identified by solution seekers

Digital challenges	Green challenges	Other
<ul style="list-style-type: none"> Optimizing document management Analyzing large amounts of data from production in real-time to optimize processes Implementing predictive maintenance to minimize downtimes and extend the service life of machines Integrating AI in production planning and control for flexible and efficient production Simplified digital production planning tools 	<ul style="list-style-type: none"> Sustainable energy production Optimization of heating energy system Using raw materials and increasing recycling efforts Conducting ecological footprint analysis 	<ul style="list-style-type: none"> Keeping up with legal and social requirements Facilitating exchange of knowledge between science and practice Lack of experience in sales, brand building, and marketing



<ul style="list-style-type: none"> • Audiovisual training programs on digitalization and sustainability for employees • Addressing non-standardized resource management systems and fragmented communication with authorities by integrating automated solutions • Implementing VR technologies • Fully digitizing production processes and integrating automation technologies to increase efficiency 		
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Table 6: Identified challenges for Austrian companies

D.4 Czech Republic analysis – key findings

D4.1 Used methods

ICUK with support of UJEP identified and selected solution seekers through direct, personal meetings, which facilitated in-depth discussions to understand each company’s needs and how they aligned with the objectives of GREENE 4.0. By organizing one-on-one meetings, ICUK was able to have tailored conversations that addressed specific challenges and highlighted the benefits of participating in the project. These meetings were instrumental in building trust and providing detailed explanations of how GREENE 4.0 could support the companies' goals.

In addition, ICUK leveraged its existing business networks to identify and reach out to companies most likely to benefit from the project. This approach allowed ICUK to engage with companies that already had a baseline understanding of the project’s value, making the interaction process more efficient.

As a result of these targeted efforts,ICUK engaged 20 companies and ultimately selected 10 that demonstrated the strongest alignment with the project’s objectives. This selective approach ensured that the chosen companies were well-positioned to benefit from and contribute to the goals of GREENE 4.0.

D4.2 Identified companies

The following list includes the companies identified by the partner along with the size and sector of operation:

Company's name	Size	Sector
DAMA net	SME	Building materials and furniture
Kermen Lobri	SME	Building materials and furniture
Zichovecká	SME	Food and Beverage
Dorant	SME	Food and Beverage
Rowingo	SME	Machinery and equipment



KOVO Děčín spol. s r.o.	SME	Metal
Latislav	SME	Other
Jabor pro, s.r.o.	SME	Plastics and rubber
Posedla s.r.o.	SME	Plastics and rubber
Virgin Grip	SME	Plastics and rubber

Table 7: Identified companies from Czech Republic

All companies belong to the group of small and medium-sized enterprises. There is no dominating sector among solution-seekers from Czech Republic – there are 3 companies from plastics and rubber sector, 2 from building materials and furniture sector, also 2 represent food and beverage. Remaining sectors include metal (1) and machinery and equipment (1). One company does not operate in any of the 7 highlighted sectors.

D4.3 Identified challenges

The following list includes green, digital and other challenges identified by solution seekers:

Digital challenges	Green challenges	Other
<ul style="list-style-type: none"> Integrating data analytics Integrating IoT Integrating machine learning Implementing robotics and automated system Optimizing production process 	<ul style="list-style-type: none"> reducing energy consumption reducing carbon footprint integrating sustainable and recycled materials 	<ul style="list-style-type: none"> efficient project management expanding market reach in residential and commercial sectors scaling production while maintaining quality expanding distribution intellectual property protection and patent processes

Table 8: Identified challenges for Czech companies

D.5 Italy analysis – key findings

D5.1 Used methods

INTELLIMECH employed various channels to identify and engage potential solution seekers. One key approach was leveraging its regular event, “Pomeriggio Intellimech,” where industrial players—both SMEs and large enterprises—are invited to discuss upcoming innovation activities and challenges. During the session focused on “Advanced Materials,” IMECH highlighted both the green and digital aspects embedded in advanced materials, such as sustainability challenges, recyclable materials, digital tools to enhance material properties, and the application of sensors. Additionally, IMECH introduced the GREENE 4.0 project as an opportunity for participants to engage further in innovation efforts.

This event enabled IMECH to preliminarily identify 20 companies in the Lombardy region as potential solution seekers. Following this, IMECH narrowed the list to 10 of the most promising and interested companies by leveraging one-on-one interviews conducted in recent months. As a research consortium serving its industrial associates, IMECH maintains regular contact with companies to understand their



specific needs and challenges, which helps pinpoint potential innovation areas for both individual and collaborative projects.

Additionally, IMECH conducted a series of interviews and organized meetings as part of WP1 and WP2 of the GREENE 4.0 project. These interactions provided another valuable channel for gathering information, as companies expressed their interest in participating in project activities, further enriching the pool of potential solution seekers.

D5.2 Identified companies

The following list includes the companies identified by the partner along with the size and sector of operation:

Company's name	Size	Sector
SALF SPA	SME	Pharmaceutical & Chemical
SANGALLI SPA	SME	Building materials and furntiure
Vinservice Micro Matic S.r.l.	Large	Food and Beverage
BALANCE SYSTEMS SRL	SME	Machinery and equipment
COSBERG SPA	SME	Machinery and equipment
RULLI RULMECA	Large	Machinery and equipment
SCAMM SRL	SME	Machinery and equipment
TESMEC SPA	Large	Machinery and equipment
GENESI SRL	Large	Metal
GUALINI LAMIERE INTERNATIONAL SPA	SME	Metal

Table 9: Identified companies from Italy

Dominating sector is machinery and equipment (5 companies); other sectors include metal (2 companies), pharmaceutical and chemical (1), building materials and furniture (1), food and beverage (1).

D5.3 Identified challenges

The following list includes green and digital challenges identified by solution seekers:

Digital challenges	Green challenges
<ul style="list-style-type: none"> • automation of manufacturing process to increase productivity and reduce human errors • VR/AR for training purposes and product management • Data collection and analysis for the optimization of production lines • Implementation of digital technologies for supporting employees in maintenance activities and offering maintenance on-demand services 	<ul style="list-style-type: none"> • Increasing the use of sustainable materials • Reducing waste materials and components during manufacturing • Development of technologies and processes for the reuse, remanufacturing, and recycling of products, components, and materials, with current limitations in the machinery sector • Reducing the environmental impact of



<ul style="list-style-type: none"> • AI and digital technologies for the company's knowledge management • Generative AI for data analytics to increase customer satisfaction based on market trends • Hierarchical models for production line analysis to be applied to products • Automatic knowledge system to preserve company competences and experiences 	<p>products by introducing waste and emissions reduction technologies, enhancing recycling, energy saving, and consumption optimization</p>
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Table 10: Identified challenges for Italian companies

D.6 Poland analysis – key findings

D6.1 Used methods

The KTP team focused on organizing workshops for representatives of manufacturing companies. The process began with identifying the right companies within the KTP ecosystem, considering factors such as previous collaboration within the project, sector affiliation, willingness to share challenges, and openness to innovation. The recruitment process involved sending emails and making phone calls. Assistance from other departments focusing on innovation, pilot programs, and startup acceleration was also utilized, allowing them to reach a broader group of companies that met the criteria.

Photo 3: Open innovation workshop held by Krakow Technology Park

The workshops took place on March 22 at the institution's headquarters, with 16 participants representing 10 companies from the region, including businesses from the metal, chemical, and construction industries. During the workshops, the companies were guided through a multi-step process to identify key challenges, both digital and green. First, they were asked to point out sources of business inspiration, then to identify their problems and reformulate them into challenges that contained a call to action. The next task was for the companies to select the most critical challenges. The final stage introduced them to sources of information about solution providers (databases of startups and young



tech companies) that could potentially address the identified challenges. The companies were also invited to a second workshop, where they would meet with startup representatives.

The workshop format facilitated the process of defining challenges and encouraged greater openness from the companies.

The following list includes the companies identified by the partner along with the size and sector of operation:

Company's name	Size	Sector
Grupa Azoty	Large	Pharmaceutical & Chemical
Elektrotermia	SME	Building materials and furniture
FAKRO	Large	Building materials and furniture
Vitroform	SME	Building materials and furniture
Marian Dudzik Lody	SME	Food and Beverage
Woodward	Large	Machinery and equipment
Arkan	SME	Metal
Lavaster	SME	Metal
Protech	Large	Metal
Werner Kenkel	Large	Other

Table 11: Identified companies from Poland

3 identified companies were classified as large, remaining 7 are SMEs.

Two most popular sectors are Building materials and furniture and metal (3 companies per each). Other represented sectors are pharmaceutical and chemical (1), food and beverage (1), machinery and equipment

D6.2 Identified challenges

The following list includes green, digital and other challenges identified by solution seekers

Digital challenges	Green challenges	Other challenges
<ul style="list-style-type: none"> digitalisation of documents quantifying production output with CNC machines effective management of post-production waste, planning and optimization of logistics digitizing processes 	<ul style="list-style-type: none"> Compliance with ESG regulations Reducing energy consumption Implementing renewable energy Minimizing waste production Improving recycling process Shifting to electric cars Contaminated water and poor sewage systems Calculating and reducing carbon 	<ul style="list-style-type: none"> Limited access to financial resources scaling production while maintaining quality increasing employee awareness of waste segregation and occupational safety. employee training solutions that promote the careful and efficient use of materials,



	<p>footprint</p> <ul style="list-style-type: none"> • Water circulation monitoring • innovative solutions in the field of ecological packaging of pallets without the use of stretch foil and automation of waste records in the BDO system • installing solar panels, • optimizing energy efficiency • methods of calculating and reducing the carbon footprint through product life cycle analysis. • reducing the consumption of production materials • ESG reporting tools • solutions enabling the reuse of wood and paper waste in production processes 	<p>minimizing consumption and waste generation.</p>
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Table 12: Identified challenges for Polish companies

D.7 Hungary analysis – key findings

D7.1 Used methods

MGFU approach to identifying and selecting solution seekers was thorough and strategic, utilizing a combination of direct engagement and established networks. The team reached out to both well-established companies and newly identified ones, ensuring a broad and diverse range of participants.

The selection process began with in-person meetings and phone interviews. In-person meetings facilitated deeper engagement, allowing the team to gain a more comprehensive understanding of each company's specific needs and challenges. For those unable to meet face-to-face, phone interviews were conducted to maintain flexibility while still capturing all the necessary information.

In addition, the MGFU team leveraged its extensive network of business contacts to identify companies already familiar with digital transformation and sustainability initiatives, as well as newer companies eager to explore innovative solutions. This blended approach allowed them to engage companies with varying levels of readiness for change, ensuring a diverse and representative group of solution seekers.

The selection criteria targeted companies across a range of industries, including manufacturing, food production, and chemicals, resulting in a diverse group of participants with diverse challenges and opportunities.

Identified companies



The following list includes the companies identified by the partner along with the size and sector of operation:

Company's name	Size	Sector
Gellei Hajvilág Ltd.	SME	Pharmaceutical & Chemical
Urban Dandy Ltd.	SME	Pharmaceutical & Chemical
Galaxy Distribution Ltd.	SME	Pharmaceutical & Chemical
KKVJ Cement Ltd.	SME	Building materials and furniture
DTG Cement Ltd.	SME	Building materials and furniture
Wicha Teszta	SME	Food and Beverage
Seamaster Products Ltd.	SME	Food and Beverage
Naturtex Ltd.	SME	Other
PolymerOn Ltd.	SME	Plastics and rubber
UgrinPack-Erdősi Kft.	SME	Plastics and rubber

Table 13: Identified companies from Hungary

All companies belong to the group of small and medium-sized enterprises. There is no dominating sector among solution-seekers from Hungary – there are 3 companies from pharmaceutical & chemical, 2 from building materials and furniture sector; food and beverage and plastics and rubber sectors are also represented by 2 companies each. One company does not operate in any of the 7 highlighted sectors.

D7.2 Identified challenges

The following list includes green and digital challenges identified by solution seekers

Digital challenges	Green challenges	Other challenges
<ul style="list-style-type: none"> Enhancing online sales channels Enhancing digital infrastructure for better tracking and delivery efficiency Improving inventory management and reducing packaging costs Ensuring continuous staff training Maintaining production efficiency while scaling operations AI integration to enhance process optimization 	<ul style="list-style-type: none"> Integrating sustainable practices within logistics operations Modernizing facilities to comply with environmental regulations Optimizing resource usage to align with renewable energy availability Integrating green energy and waste reduction practices Improving supply chain management and expanding green packaging solutions 	<ul style="list-style-type: none"> Lack of grants Securing new loans and grants to further improve the green transition

Table 14: Identified challenges for Hungarian companies



E. Summary

Based on the information delivered by 70 manufacturing companies from 7 Central European countries within activity A.3.1. the document ensures that companies are really interested in the topic of green and digital transition. The companies highlight the complexities of these transitions, but also point to significant opportunities for them that can effectively navigate these challenges. By understanding these insights and their implications, Greene 4.0 partners can develop more effective strategies for their digital and green initiatives. Our key findings are similar to the User Acceptance Model testing report that are:

- **Varied Maturity Levels Across Sectors.** Companies in electronics, software, and machinery scored high in digital maturity but lagged in green practices. Traditional sectors like metal products and food & beverages scored lower overall. Regardless of the sector, there's room for improvement. Less digitized sectors can gain an edge through digital transformation, while advanced sectors must keep pushing innovation.
- **Challenges for Small SMEs.** Smaller SMEs often feel disadvantaged in adopting new technologies due to limited financial and human resources. However, some small companies (10-49 employees) achieved high digital maturity, even outperforming larger firms, proving size isn't always a barrier.
- **Digital and Green Synergies;** There is a strong correlation between digital and green maturity. Companies scoring high in digital were also more likely to excel in green practices. This suggests that digital and green transitions are mutually reinforcing, and companies should seek opportunities where digital tools drive sustainability, and vice versa.
- **Skills and Expertise Gap.** A major barrier to digital and green transitions is the lack of skilled employees, especially in traditional manufacturing sectors. Even well-funded companies struggle without the right technical and sustainability expertise, slowing their transformation efforts.
- **Measurable Goals and Continuous Improvement.** Companies that set clear, measurable goals for their digital and green initiatives, and regularly monitored KPIs, showed greater progress. Data-driven approaches to track energy efficiency, waste reduction, and process optimization help SMEs prioritize efforts, justify investments, and demonstrate results to stakeholders.

E.1 Sectorial clusters

The challenges identified by the surveyed companies have been categorized into seven sectoral clusters, reflecting the key areas of focus for green and digital transformation. This structured approach helps uncover patterns and generalizations, enabling the B2GreenHub platform to better address the specific needs of individual users. The clusters, divided into green and digital categories, showcase the diverse challenges faced by companies in transitioning towards more sustainable and digitally advanced practices. These findings lay the foundation for targeted solutions that drive both innovation and sustainability.

1. Green sectorial clusters:

- a. Green & sustainable materials:
 - i. increasing the use of sustainable materials (Italy)
 - ii. integrating sustainable and recycled materials (Austria)



- b. Waste reduction & recycling technologies:
 - i. effective management of post-production waste (Poland)
 - ii. development of technologies and processes for the reuse, remanufacturing, and recycling of products, components, and materials (Italy)
 - iii. solutions enabling the reuse of wood and paper waste in production processes (Poland)
- c. Energy efficient technologies:
 - i. optimization of energy consumption (Germany, Italy)
 - ii. optimizing energy efficiency (Poland)
 - iii. optimizing heating energy systems (Italy)
- d. Renewable energy technologies:
 - i. implementing renewable energy (Poland)
 - ii. integrating green energy and waste reduction practices (Hungary)
 - iii. sustainable energy production (Italy)

2. Digital clusters:

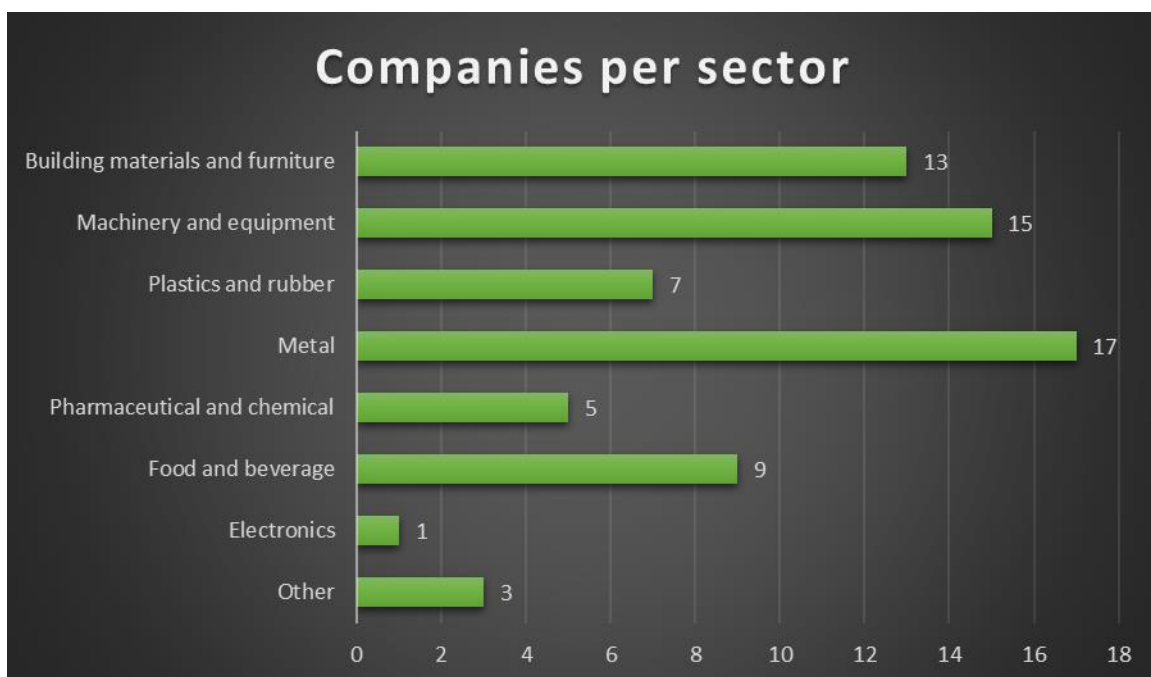
- a. Data analytics & artificial intelligence:
 - i. integrating AI (Slovenia, Italy)
 - ii. data collection and analysis for the optimization of production lines (Italy)
 - iii. generative AI for data analytics to increase customer satisfaction based on market trends (Italy)
- b. Automation & robotics:
 - i. automation of manufacturing processes to increase productivity and reduce human errors (Italy)
 - ii. implementing robotics and automated systems (Austria)
 - iii. fully digitizing production processes and integrating automation technologies (Austria)
- c. Digitalisation & connectivity:
 - i. upgrading Excel-based systems (Slovenia)
 - ii. integrating AR/VR technologies (Slovenia)
 - iii. digitalizing quality control (Slovenia)
 - iv. digital passport documentation for products (Slovenia)
 - v. integrating ERP systems (Slovenia)
 - vi. integration of data from machinery (Slovenia)
 - vii. remote production control (Slovenia)
 - viii. integrating Manufacturing Execution Systems (Slovenia)
 - ix. digital learning for employees (Germany)
 - x. computer-aided production control and monitoring (Germany)
 - xi. optimizing document management (Austria)
 - xii. integrating data analytics, IoT, and machine learning (Austria)
 - xiii. AI and digital technologies for the company's knowledge management (Italy)
 - xiv. hierarchical models for production line analysis (Italy)
 - xv. automatic knowledge systems to preserve company competences (Italy)
 - xvi. digitalisation of documents (Poland)
 - xvii. enhancing digital infrastructure for better tracking and delivery efficiency (Hungary)

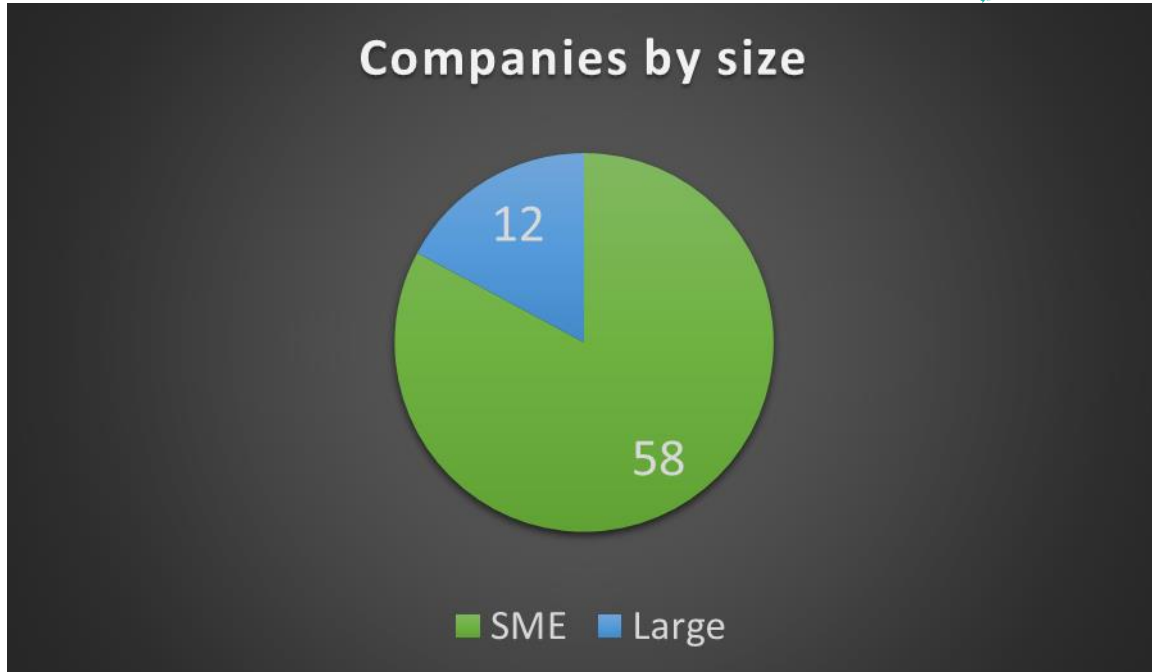


The analysis of challenges highlights the varying degrees of readiness and focus across different sectors. Green clusters emphasize waste reduction, energy efficiency, and the integration of renewable energy, while digital clusters focus on enhancing connectivity, automation, and data analytics. Particularly significant are the extensive needs identified in the area of digitalisation and connectivity (Digitalisation & Connectivity cluster), ranging from upgrading outdated systems to integrating advanced solutions such as AR/VR, ERP systems, and real-time production control. This underscores the critical role digital transformation plays in improving operational efficiency and supporting green initiatives. The findings reveal strong synergies between digital and green transformations, suggesting that advancements in one area often support progress in the other.

E.2 Aggregate statistics

Below are the aggregate statistics reflecting the size of each sector and the ratio of small and medium-sized enterprises to large companies.





As can be observed, the most represented sectors are metal (17 companies), machinery and equipment (15 companies), and building materials and furniture (13 companies). On the opposite end, the chemical and pharmaceutical sectors have 5 companies, while the electronics sector is represented by only one company. The notably low representation of the electronics sector is particularly striking – it can be assumed that companies operating in this high-entry-barrier industry are quicker to adopt innovative solutions, especially digital ones, and thus currently have fewer needs in this regard. The nature of their business forces them to adapt to the latest trends. The most represented sectors are traditionally energy-intensive and resource-consuming. Three companies that do not belong to any of the listed sectors represent the packaging, publishing, and textile industries.

E.3 Next steps

In the next stage of the project, partner PP3 will be responsible for developing the "Terms of Reference" (TOR) for each sectoral group. The TORs will specify the detailed requirements that technology solution providers must meet to address the needs of the companies selected under A3.1. This document will be used to match solution-seeking companies with appropriate technology providers.

The next step will be to organize an online conference where all project partners will be able to review the developed TORs and provide any feedback or suggestions. After the consultation, PP3, together with PP2, PP7, and PP9, will finalize the TOR documents, which will be used to implement the next stages of the project, including pilot innovation programs under WP3. The Innovation Program will then be launched, inviting all solution seekers to participate and identify solutions that address their specific problems and needs.



F. Appendix

F.1 Company cards

This section compiles 70 company profiles collected by the project partners, organized by country.

F1.1 Company cards from Slovenia (LP)

Company's name	Aluvar d.o.o.
Company's size (SME/Large)	20 - 49 employees



Contact person (name and last name, e-mail, telephone number, website)	Uroš Tratnjek uros.tratnjek@aluvar.si https://aluvar.si
Country	Slovenia
Sector	C25.110 - Manufacture of metal structures and their parts
Brief description of business/main product/TRL level etc. (max 500 characters)	Specialized producer of metal construction parts and assembled articles, also parts of the tools. They are known for small series production for caravanning industry and customized products. Majority of their market represents Slovenia, however partly they do business with customers in Austria and Croatia. Most standardized product is/are metal racks (aluminum). They also cooperate in construction of specialized upgrades for special vehicles (fire brigade cars, police, pick-up trucks).
Identified issues/defining technological/business problems for solution seekers	<p>The company challenges: management/planning of the production (information flows, following the material flows) – open to start with at least 3 machines as a testing model. Traceability through the production till the warehousing to be set/improved. Kind or ERP system is in vision – multiple customized products would need quick calculation tool (upon e-version of plan, to make a list of parts, components, time & energy usage per operation so one could quickly calculate costs – tool also for marketing/sales department.</p> <p>Real time monitoring of energy consumption – so they could do real energy costs calculations and integration to pricing policy. They have however installed big solar plant, to reduce the costs of manufacturing. They are open for proposals how to optimize inner logistics (ground floor), also purchasing and inbound deliveries (improved tracking of stocks). They already use some waste to produce small parts for their needs (savings & capacity occupation in times with less workload).</p>



Company's name	DUKIN d.o.o.
Company's size (SME/Large)	10 - 19 employees
Contact person (name and last name, e-mail, telephone number, website)	Miha Horvat miha.horvat@dukin.eu https://dukin.eu
Country	Slovenia
Sector	C25.110 - Manufacture of metal structures and their parts
Brief description of business/main product/TRL level etc. (max 500 characters)	Specialized producer of high-quality waste container enclosures, outdoor kitchens and bicycle sheds/storage units. They are a typical modern company by production where network of multiple cooperants provide individual production stages and return them into assembly lines at DUKIN. Naturally all orders and materials are previously prepared/ produced by DUKIN. From that specific type of organization, planning of production is most essential, its accuracy, for both, own capacity kept occupied as well as being able to estimate delivery dates to mainly foreign customers (Scandinavian market). The company is connecting the dots with Kocka SW to become more production usable (not only for bookkeeping and accounting), so they approached us in the past to help them with integrations and modern LEAN approaches. Currently additional SW is in development to connect their current system of planning and monitoring production with other functionalities of accounting. Despite of the fact, they are aware of a need to both transitions, they strive to plan processes to be green; their in-&out-logistics are optimized, yet not done with EVs. They for sure use combined transport options where possible to reduce empty trucks/vans to go around. So, planning of production is currently the biggest focus, naturally supported by digital tools. They could change from excel to some more user-friendly ones.
Identified issues/defining technological/business problems for solution seekers	Improving management/planning of the production by introducing digital tools to upgrade current excel sheet system, to take out multiple typing in posts by every phase of production – one time entry and just incremental updates on traceability (introduction of signals on start & stop of a phase, centrally collected), so through remote access one could, upon his rights could see the status of the order (good for monitoring the realization of production, to mitigate possible delays or informing customers in time). Naturally this means slightly changed information flows (new roles-tasks, reporting, readings, planning, storing and communicating). They would appreciate user-friendlier calculation tools to speed up the process of offers and at the same time to be more precise and in control of actual costs. For them it would be perfect to have information on stocks and upon new orders to see availability of raw materials, free capacities of production (also of cooperation), to plan production, to play outbound logistics, to control the costs-achieve higher margins). They have started on digital strategy but still many improvements are possible and are in mid-term plans of the company to be solved/improved, at the same time monitoring the green agenda and legislation in market countries. For sure they will need help in preparing digital passport documentation for each product.



Company's name	Miniplast d.o.o.
Company's size (SME/Large)	5 - 9 employees
Contact person (name and last name, e-mail, telephone number, website)	Boštjan Poredoš info@miniplast.si https://miniplast.si
Country	Slovenia
Sector	C22.220 - Production of plastic packaging
Brief description of business/main product/TRL level (max 500 characters) etc.	<p>Specialized producer of small to mid-sized series of packaging for food, chemical and cosmetic industry, selling directly to customers (B2C, actually, these are, smaller companies filling own products so in real B2B), but also to some huge (B2B) companies whole-/retailers (Würth). The company is over 20 years on the market with fierce competition, so it tries to restore some competitive margin in modernization of production, by introducing newer extruders/blowing machines (lower energy consumption, more precise, faster) on one side on the other they try to use tools to make their work safer, more precise (with less fault products), and among factors of reducing human errors are automation, cobots, introduction of novel technologies. Interestingly, in their business new green components are not yet required by customers, as these would be very expensive and their market is not willing (yet) to pay for eco-friendly packaging (truth, these are small doses and the price here is playing an important role).</p> <p>Digital strategy needs some definition of further steps – definition of most rational introduction of technology (ROI issue). However, they are quite aware on sustainability, especially costs of electricity force them to follow these costs and react with changing old machines with new ones. They did set up a 250kW solar plant to reduce these costs of energy.</p>
Identified issues/defining technological/business problems for solution seekers	<p>Challenges – remote production control (especially in cases of emergency like machine down or fault parts coming out – AR/VR specs to be introduced, with more cases store in data bases an AI tutor system could be introduced later), partly automation-cobots used for manipulation of pieces to be assembled (multi parts), also quality control checks – could be done by introduction of machine view control. They are lucky in reuse of faulty products as they can simply grind them down in their mills are reuse as granulate for next extrusion. To the green side we could count also installed 250kW solar plant reducing the cost of electricity from a grid. Digital strategy is needed, but also some aspects of sustainable are possible (despite of reuse of plastics and solar panels)!</p>



Company's name	N&N d.o.o.
Company's size (SME/Large)	50 - 99 employees
Contact person (name and last name, e-mail, telephone number, website)	Bojan Črešnar bojan@nnsaunas.com https://nnsaunas.com/
Country	Slovenia
Sector	31.090 (Manufacture of other furniture)
Brief description of business/main product/TRL level etc. (max 500 characters)	Hi quality saunas, mainly for Austrian and Swiss hotels, but also individual customers. Hi quality materials, red dot awarded design, modern production, company employs also handicapper workers, some for easier labour work, some for-computer design and planning jobs. Aside they have a store to sell pools and jacuzzies, but these are just complementary products of their main production activity. They produce standardized (typical) saunas as well as customized ones. In both cases we talk mid to high price level products, with warranty and maintenance services of high-class producers. They are investing in technologies to reduce the work-load of physical workers, to enable them safer and more worker friendly environment on one side and being aware of needed high end quality, to assure no mistakes occur – high quality materials are expensive and mistakes cost dearly, therefore their production tends to be monitored from order to cutting, assembly and final decorations (instalment of inner components).
Identified issues/defining technological/business problems for solution seekers	<p>Challenges: production process to optimize as close as possible to digital twin, where more and more operations are done automatically or in safe collaboration between human & robot (cobots), to have improved quality control by stages in production (already QR coding on parts coming into production), wish is to have an “holistic” ERP from buyers order to warehouse stocks, production capacity availability, calculations (just for customized products), perhaps some tools for ROI calculation on investments, they are open for novel tech testing, especially if funded through public funding. They believe that there is also a space for MES, so the employees can follow their tasks, to see which machines are involved, for how long, for which customers (add-ons) and also for management to be able to plan better (information flows, material flows).</p> <p>For them it was starting issue enough energy (electricity) so they did monitor their energy needs from start – immediately they saw a problem, also on high costs of another power line supply by grid supplier, but rather decided on optimizations – own solar panels and own storage units (tesla)+ additionally 2 company vehicles Tesla, that as well can be connected to internal grid to provide enough energy in case. So, very intelligent planning from start.</p> <p>Wastes: wooden rests are used for multiple purposes – some for small parts needed in production as supporting materials (although they do optimization in cutting by special SW, some grinded parts for pellets to be burned and some for panel production (dust, sawing); interested in sustainable transition, however priority is digital transition and savings to be reached.</p>



Company's name	CAP d.o.o.
Company's size (SME/Large)	5 - 9 employees
Contact person (name and last name, e-mail, telephone number, website)	Boštjan Žagar info@polymer.si https://polymer.si/
Country	Slovenia
Sector	72.190 R & D activity in other subfields of natural science technologies
Brief description of business/main product/TRL level etc. (max 500 characters)	<p>Small business that resulted from a researcher's entrepreneurial skills (he has also patented a globally sold scooter with backpack/schoolbag or business suitcase – among first Slovenes to win Kickstarter funding). His passion for sailing and seeing potential in new materials resulted in company firstly to focus on marine supplements (improved lighter more quality carbon-based materials), which he later spread towards caravaning industry where also lighter and more compact materials are needed (limited space and weight issue). Since he specializes for trimmings/cuttings of 3D plate with robot knives and became specialist and external partner of famous Adria mobiles (caravaning cars and trailers) as well as for Carthago (another German producer but located in Pomurje – own company unit).</p> <p>His focus is modernizing the special production, so a lot of innovations in tools development are present, just to be competitive to mother producers (his biggest clients), so quality and speed are his trademarks. Small company is controllable but digital tools are needed, especially in production – from 3d digital pics to calibration of cutting robot in real time for adjustments. No mistake here and component materials are expensive to be produced. And here comes his current biggest problem/challenge-see below.</p>
Identified issues/defining technological/business problems for solution seekers	<p>They have managed to quite modernize/invent their production introducing cutting robots-kind of cells, and for known producers supplier of specialized caravaning parts (panels) his biggest challenge are cut-off wastes of these panels– reuse/recycling of this component rests to be grinded (mills are still needed) and integrated in other products (currently they have to export that waste to Austria, where it is burned) and this represents a huge cost for them, so decision has been made to invest in development of new acoustic walls where this “waste” would be main raw material). Twin strategy is needed and some R&D funding for testing new applications.</p>



Company's name	Mb-95 podjetje za inženiring in trgovanje na debelo in drobno Krog d.o.o.
Company's size (SME/Large)	5 - 9 employees
Contact person (name and last name, e-mail, telephone number, website)	Franjo Lavrenčič mb95@siol.net
Country	Slovenia
Sector	C24.530 - Casting of light metals
Brief description of business/main product/TRL level (max 500 characters)	Main production: aluminium castings & alloys; one of few still working casting companies in Slovenia; this one "survived" due to its connections to Austrian market and ownership, where the owner has companies in multiple states. Issue: kind of craftsmen organization of the work; no real digital tools used, perhaps correspondence and bookkeeping/accounting, the rest is on paper. On TRL level they are very low in both topics (issue of awareness), the biggest issues are lack of time, knowledge, need to change (at the moment), trainings required for novel production approaches, but very easy to see improvements if just invested some time in all above stated categories, but first owner needs to approve it.
Identified issues/defining technological/business problems for solution seekers	Huge potential on simple digital tools introduced, from inbound to outbound warehousing, also information flows, tools for calculations would be great, since they are huge energy consumer, they (owner) decided to invest in solar plant on the roof (obvious ROI calculation since the owner owns multiple similar factories), raw materials arrive directly with each order (they are kind of CM-cost of manufacturing production), all waste are either re-melted or dusts and other parts are collected by specialist for collection of metal waste (by law obligatory), but mainly it is recollected by supplier from Austria. Huge challenge are/will be both transitions, however already small steps towards transition could bring huge benefits/profits. Already integration of other businesses of the same owner would help, since now all is done in excel sheets. Also, poor control over costs, but obviously good margin on products allows them old fashion way of doing the business now. Worth trying to help.



Company's name	Bio dan d.o.o.
Company's size (SME/Large)	5 - 9 employees
Contact person (name and last name, e-mail, telephone number, website)	Janez Trstenjak info@naravnisok.si http://www.trstenjak.eu/o-nas/sadjarska-kmetija-trstenjak
Country	Slovenia
Sector	G47.210 - Retail trade in fruit and vegetables in specialized stores A01.240 - cultivation of ripe and stone fruits
Brief description of business/main product/TRL level (max 500 characters)	Main production: processing vegetables and fruits in order to produce own branded juices, marmalades, and vinegar for brand Mercator (retailer) and juices for retailer Hofer. Currently in product development of new cider production from own apples. Production is being modernized (2 nd pasteurization line) to increase quantities and quality of products. They grow own fruits and vegetables and buy some of cooperating farmers. They have special program eco, where they stand behind standards (label Eko Grünt), they are aside interested in modernization and main reason is well being of employees for the pleasure of customers.
Identified issues/defining technological/business problems for solution seekers	Challenges: Modernization of production line (introducing second pasteurization line); also tracking from inbound raw materials, through production and final warehousing – a lot of small order conflicting with own big production of juices, marmalades, vinegar and new cider program. They strive to get improved information system for easier monitoring and communication to clients on their products in warehouse. Having own distribution and online store, they would like to have a systemic access for bigger clients to see direct stock/availability of goods (new SW connected to warehousing). With organic growth of the company, twin transformation strategy is in progress, however they do it step by step and are open to consulting services and looking for public funding initiatives (just recently won one HIFIVE project with intention of digitizing product (traceability).



Company's name	ELVEZ d.o.o.
Company's size (SME/Large)	149 - 249 employees
Contact person (name and last name, e-mail, telephone number, website)	Dr. Žiga Gosar info@naravnisok.si http://www.trstenjak.eu/o-nas/sadjarska-kmetija-trstenjak
Country	Slovenia
Sector	C32.990 - Manufacturing activities not elsewhere classified
Brief description of business/main product/TRL level (max 500 characters)	Mid-sized car suppling producer, moving towards digital twin; the importance to coop with buyers standards force them t invent/introduce novel technologies and processes, just to assure their competitiveness, through quality, quantity and agility. They see their inner capacity to find savings as crucial for the success of the company, aside of providing co-design of specific parts for car manufacturers (higher valu added and portfolio changes of revenues generated). In order to achive that, they are covering multiple challenges by applying to public funded tenders (joining project partnerships – an ongoing case: Application in Interreg Alpine Space called Circular 4.0! where digitech is tested as enabler to foster ELVEZ being more towards circular economy.
Identified issues/defining technological/business problems for solution seekers	Challenges: They see in all 9 topics (questionnaire) potential to improve, but for sure they play around with the idea to introduce AI where possible (one case is upgrading to machine view control) in case of quality control and quicker responsive times, not to produce faulty parts. Next, this could become an input information while launching new production orders to implementation while all information on potential faults are already listed and counter measures listed for concrete machine operations and employee to be aware – prevention is cheaper then correction – however, also in “correction” they introduced one practice where reduction of faulty pieces by recovering some wire harnesses with longer cables (cutting off wrongly put connectors and still being able to put a new one – not losing usability) proved to be still profitable (the cables usage is slightly bigger but end calculations show savings on annual level up to 50.000€). So, their efforts, aside investing in novel, more economic machinery, automation (to diminish human errors), are towards development of new business models, technologies, processes, and even to share that knowledge as solution developer. Yet, they are open for new ideas (with time rapidly changing-to be checked with them on future not current challenges) and testing in various fields of production (cross-fertilization). They have ISO 14001 standard.



Company's name	Formateh d.o.o.
Company's size (SME/Large)	20 - 49 employees
Contact person (name and last name, e-mail, telephone number, website)	Blaž Kranjec info@formateh.si https://formateh.si
Country	Slovenia
Sector	C25.620 - Mechanical processing of metals
Brief description of business/main product/TRL level (max 500 characters)	A family company with more than 50 years of tradition in the field of welding and machining of metals and custom products. Main activities: CNC turning, CNC milling, gearing, milling, welding, development and engineering. Specialized producer of metal products, construction, tooling parts and multiple assembled products, but usually for precision tools (moulding). They are known for customized products, rarely small series batches. Very difficult to work on digital solutions for iterative production (bigger series) but some general processes can be the same by principles and here potential for development (see below). Main markets are Slovenia, partly Austria, Croatia and Hungary. The administration is quite small (3 persons) which makes it very responsible and every missing person is an issue, so solution would be more digitized processes and remote access to data in real time.
Identified issues/defining technological/business problems for solution seekers	Definitely ready for digital strategy development – despite of quality in production, reliability, processes are still not connected or visible in one spot / dashboard, no readings from machinery is directly collected automatically (but stays on local machines), so firstly connectivity to backbone structure, data interpretation would be very welcome upgrade and could have positive impacts on less burden to administration people, less time in search and interpretation of data, better decisions. This process should involve traceability from order to delivery; unique/customized products' producer needs agility in production also in making calculations (a systemic tool with predefined operations on various machines with time calculations, tools energy usage, time of employees' work on that operation just to be in a system and just click away? That 85% of such operations can be predefined (LEAN?); aside of speed also more accurate calculation can be a result, of course traceability refers to inbound and outbound, both enabling better communication with clients (delivery dates). This way it would be easy to define the energy costs per unit. BTW: they have own solar plant installed. Digital strategy is needed, due to customized production limited possibilities in sustainable transition but they see importance to be guided to sustainable transition with easy steps first and then more and more complex till new regulation will be met (currently none obligatory).



Company's name	Linux d.o.o.
Company's size (SME/Large)	10 - 19 employees
Contact person (name and last name, e-mail, telephone number, website)	Branka Bensa info@formateh.si https://formateh.si
Country	Slovenia
Sector	C25.290 - Manufacture of other metal tanks and cisterns
Brief description of business/main product/TRL level etc. (max 500 characters)	<p>A company connected to original mother company Artex d.o.o., but with versified production, specialized to stainless steel tanks, reservoirs and cistern.</p> <p>Their typical size of orders are again very small series (up 5 pieces) or even unique/customized products; mainly orders are received in digital forms, analysed to smallest parts for easier planning of production processes (with time more practice is made, and it becomes easier to write production orders for direct application at specific stages in production. Digitally entered as coding for machinery to automatically perform some processes still need physical uploads as machinery is not online connected (a must to be introduced), otherwise orders in paper form are following produced pieces throughout the production till final reception in warehouse. Here potential QR coding and code readers could be introduced for quicker overview of the production status, also readings from machines could display availability, which again could help management to plan the production in more optimized way, shortening delivery times (as no or less bottlenecks appear. Currently, due to limitation in old production hall, they plan a new, bigger hall where ground floor can be made more based on LEAN principles, with shorter yet logical internal logistics, follow up operation and structure that will enable data collection, quality control per stage and other important data transfer and processing as well as data presentation (usable information for management however still planning could be improved – therefore they are investing in new production hall, where LEAN principles will be applied, however, they are very much interested in green tech and steps to be taken in order to be able to qualify/certificate for being green in the future. Concrete expert in sustainable strategy development needed.</p> <p>with more than 50 years of tradition in the field of welding and machining of metals and custom products. Main activities: CNC turning, CNC milling, gearing, milling, welding, development and engineering. Specialized producer of metal products, construction, tooling parts and multiple assembled products, but usually for precision tools (moulding). They are known for customized products, rarely small series batches. Very difficult to work on digital solutions for iterative production (bigger series) but some general processes can be the same by principles and here potential for development (see below). Main markets are Slovenia, partly Austria, Croatia and Hungary. The administration is quite small (3 persons) which makes is very responsible and every missing person is an issue, so solution would be more digitized processes and remote access to data in real time.</p>
Identified issues/defining technological/business problems for solution seekers	<p>Interestingly, while investing in new hall, aside of novel machinery, and LEAN structured positioning of machinery, they are considering to have it sustainable as much as possible – they are open for concrete sustainable strategy with defined steps to be taken in order to lead them not only to meet obligatory regulation in years to come, but to really be green in all possible contexts and as such recognized by environment, by customers and by employees, for whom the invest in this new production hall is made (improving working conditions, less environmental impact, providing some time to adapt to new conditions but on a structured way – selection of best experts over last minute “experts” of poor quality. According to 9 processes analyzed there are multiple improvements possible also in digital transition (digital information flows, calculation of ROI and concrete product pricing tools, stock evidences and material flows through production, quality inspection between phases, where possible introduction of technology to do the quality check, traceability of outbound logistics, optimization (in case not picked end product by customers alone), inbound logistics optimization (buffer quantities definition and real time monitoring), so current “digital strategy” could be accordingly adapted to new circumstances.</p>



F1.2 Company cards from Germany (PP2)

Company's name	IDEEMA GmbH
Company's size (SME/Large)	SME
Contact person (name and last name, e-mail, telephone number, website)	Dirk Panitzke, info@ideema.de, +49 3578 7859807, www.ideema.de
Country	Germany
Sector	Machinery and equipment
Brief description of business/main product/TRL level (max 500 characters)	By closely combining construction, industrial design and production, IDEEMA offers their customers not just "simple" constructions, but innovative, optimally designed solutions. With their existing technical equipment, they are able to turn your products into reality. "We specialise in the development of high-precision precision mechanical systems, automation solutions, devices of all kinds, as well as sheet metal and stainless steel constructions. We take on every task, realise a comprehensive range of customer-specific detail and system solutions and also integrate ourselves into existing development structures. Our team uses high-performance PC workstations and the latest 3D CAD software from Dassault Systèmes and Autodesk."
Identified issues/defining technological/business problems for solution seekers	IDEEMA uses Dolibarr, an open source web-based ERP system which they are generally very pleased with. They also use an elaborate custom Excel template to execute component cost planning, which is specifically tailored to their needs and has grown out of years of experience. The issue is that the ERP system and the Excel template are in no way integrated with each other, leading to additional effort as considerable amounts of data need to be input into both interfaces separately. Given the open source nature of the ERP system, Mr. Panitzke believes that the solution could be as simple as creating another Dolibarr addon (for which there are an established marketplace), but he does not have the capacity in-house to make this a reality.



Company's name	SIMU-Fertigungs GmbH
Company's size (SME/Large)	SME
Contact person (name and last name, e-mail, telephone number, website)	Jens Lukaß, jens.lukass@simu-fertigung.de, +49 3591 380 1301, www.simu-fertigung.de
Country	Germany
Sector	Metal
Brief description of business/main product/TRL level etc. (max 500 characters)	<p>As a manufacturing company with core expertise in mechanical processing (milling, from 3-axis to 5-axis simultaneous and turning), we offer high-quality products and services.</p> <p>We currently have 9 machining centers and an automated production cell consisting of a robot system cell with two 5-axis machining centers. We already have relevant experience in the machining of high-strength fine-grain steels, safety steels and duplex steels.</p> <p>In recent years, we have developed into a reliable partner in various areas of mechanical engineering and equipment technology as well as rail vehicle construction.</p> <p>In addition to the production of individual parts in small and medium series, we are also able to machine complex assemblies up to a size of approx. 3,600 x 1,200 mm.</p> <p>At the same time, we have established a QM system and successfully achieved ISO9001:2015 certification for the first time in 2021.</p>
Identified issues/defining technological/business problems for solution seekers	<p>In view of current market requirements and the economic and political framework conditions, it is necessary to increase the efficiency and sustainability of production processes.</p> <p>A computer-aided production control and monitoring system is therefore being introduced. This system is intended to increase the efficiency of processes, bring about a significant improvement in terms of sustainability and thus contribute to the more economical use of resources.</p>



Company's name	PURTEC Engineering GmbH
Company's size (SME/Large)	SME
Contact person (name and last name, e-mail, telephone number, website)	Stefan Scheithauer, stefan.scheithauer@purtec.bz, +49 35931 1669536, www.purtec.bz
Country	Germany
Sector	Machinery & Equipment
Brief description of business/main product/TRL level etc. (max 500 characters)	<p>By using our manipulators and devices, we reduce the monotonous physical overload on your workers. As a result, we minimise downtimes that are difficult to calculate for your company.</p> <p>Our service profile includes the design and manufacture of: Balancers, balancer systems, conveyor systems, grippers, gripping devices, handling devices, handling aids, handling cranes, handling manipulators, lifting equipment, lifting technology, lifting axles, lifting devices, lifting trolleys, lifting aids, articulated arm manipulators, articulated arm jibs, cranes, pneumatic manipulators, assembly aids, rail systems, rope balancers, steel gantries, forklift modifications, transport frames, devices, as well as the manufacture of complete, customised handling systems in the field of special machine construction.</p>
Identified issues/defining technological/business problems for solution seekers	<p>Company has expressed interest in the following technological areas and would be interested in exploring options with the B2GreenHub platform:</p> <ul style="list-style-type: none"> - Sustainable Sourcing: Ensure that all raw materials, especially metals and plastics, are sourced from suppliers who follow sustainable and ethical practices. - Green Certifications: Utilize certifications like ISO 14001 to demonstrate commitment to sustainability. - Smart Technology Integration: Incorporate IoT and smart technologies into devices to monitor energy use and optimize operations in real-time, reducing unnecessary energy consumption.



Company's name	tucore GmbH
Company's size (SME/Large)	SME
Contact person (name and last name, e-mail, telephone number, website)	Henning Donath, henning.donath@2core.de, +49 172 3836 204, www.2core.de
Country	Germany
Sector	Electronics
Brief description of business/main product/TRL level etc. (max 500 characters)	<p>We are all about entrepreneurship in the best sense of the word. We create a place where everyone can do exactly what they do best and thus advance the company.</p> <p>Of course, this also means economically measurable success. Productivity is increased, staff turnover is reduced and the highly sought-after specialists are happy to come and stay.</p> <p>We know that for many companies, economic improvements are paramount and must be clearly secured. That's why we ensure consistent process tracking, contribute our economic and entrepreneurial expertise and do everything we can to ensure your success, measurably.</p> <p>However, our passion remains to enable people to work and live better. That's why we love to create processes and systems that work well because everyone is behind them and feels comfortable and right in their place.</p>
Identified issues/defining technological/business problems for solution seekers	<p>Company has already gone through some effort in documenting and compensating their carbon footprint, but would like external input to develop this further. Company is also interested in the WHO's Sustainable Development Goals and how to achieve them in their concrete case.</p>



Company's name	FWH Federnfabrik Wilhelm Hesse GmbH
Company's size (SME/Large)	SME
Contact person (name and last name, e-mail, telephone number, website)	Denise Waßmann, wassmann@wilhelm-hesse.de, +49 3586 783328, www.wilhelm-hesse.de
Country	Germany
Sector	Metal
Brief description of business/main product/TRL level (max 500 characters)	<p>Since 1990 we have been constantly modernising and expanding our production facilities in order to keep them up to date.</p> <p>For consulting, spring development, calculation and production, our customers have an experienced and competent specialist staff at their disposal, as well as special software.</p> <p>Our efficient quality assurance system guarantees a consistently high quality of our products.</p> <p>Due to our active membership in the Association of the German Spring Industry, we have access to all important and up-to-date information concerning spring production and development.</p>
Identified issues/defining technological/business problems for solution seekers	Company wants to become ISO 14001 certified. They have already realized numerous digitization and sustainability increasing measures over the years, but wish external support for tackling some specific requirements of the certification.

Company's name	ATN Hölzel GmbH
Company's size (SME/Large)	SME
Contact person (name and last name, e-mail, telephone number, website)	Ronny Gutte, gutte@atngmbh.de, +49 35936 335 1220, www.atngmbh.com
Country	Germany
Sector	Machinery & Equipment
Brief description of business/main product/TRL level (max 500 characters)	<p>ATN has been a global supplier of application technology components, automation systems for application and assembly processes and engineering consulting solutions across all industries since 1999. Our customers rely not only on the quality and reliability of our products, but also on our great flexibility in the individual realisation of their requirements.</p>



<p>Identified issues/defining technological/business problems for solution seekers</p>	<p>The company is fundamentally interested in many measures that could be realized by B2GreenHub partners (two more specific examples: digital learning for employees and more local suppliers including from Czech and Polish border regions), but would like to see platform first before going through a more concerted effort in identifying an issue to tackle.</p>
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<p>Company's name</p>	<p>ARNELL Arno Hentschel GmbH</p>
<p>Company's size (SME/Large)</p>	<p>SME</p>
<p>Contact person (name and last name, e-mail, telephone number, website)</p>	<p>Rico Fahr, rico.fahr@arnio.de, +49 3583 8638 182, www.arnell.de</p>
<p>Country</p>	<p>Germany</p>
<p>Sector</p>	<p>Metal</p>
<p>Brief description of business/main product/TRL level etc. (max 500 characters)</p>	<p>With modern machinery and an impressive range of technologies, we realise components and assemblies for outdoor and indoor applications. In accordance with our DIN EN ISO 9001:2015 certification, we consistently ensure that our customers receive all products in high quality. Thanks to optimised processes, modern machines and trained specialist staff, we ensure efficient production and on-time delivery. We never stand still, actively participate in research and consistently develop ourselves further. We are already thinking about tomorrow for our customers today.</p>
<p>Identified issues/defining technological/business problems for solution seekers</p>	<p>The company is already quite advanced, particularly in terms of digitization, and therefore is also interested in bringing their sustainability to a higher level. They don't really have a concrete project idea yet and are therefore also open to exchanges with either solution providers or independent advisory organisations, which could then lead to something material.</p>



Company's name	RELO GmbH
Company's size (SME/Large)	SME
Contact person (name and last name, e-mail, telephone number, website)	Piotr Skibinski, p.skibinski@relo-verdichter.de, +49 03591 594 4145, www.relo-verdichter.de (site currently under construction)
Country	Germany
Sector	Machinery & Equipment
Brief description of business/main product/TRL level etc. (max 500 characters)	We offer you various ways of generating high-quality compressed air using oil-injected and water-injected (oil-free) screw compressor systems. Our product range also includes a large number of specialised machines and systems. It includes gas compressors and boosters from 25 to 40 bar, containerised systems, mining compressors and explosion-proof compressors (ATEX). We also offer test benches, test bench conversions and enclosures.
Identified issues/defining technological/business problems for solution seekers	Company's CEO is interested, but hasn't settled on a concrete issue to tackle / will want to see "what platform has to offer" first. Has very little time at the moment, but we will meet up in September to discuss areas of interest in a more specific way.

Company's name	Lorenz Bahlsen Snack-World GmbH & Co KG Germany
Company's size (SME/Large)	SME
Contact person (name and last name, e-mail, telephone number, website)	Thomas Winkler, thomas.winkler@lbsnack.com, +49 035893 82 194, www.lorenz-snacks.de
Country	Germany
Sector	Food and beverage
Brief description of business/main product/TRL level etc. (max 500 characters)	- Medium-sized manufacturer of snack products with focus on Germany, Austria and Poland, export to over 100 countries - Production in Germany at 3 production sites with headquarters in Neu-Isenburg - Since 1991 at Kreba-Neudorf site, since 1996 exclusively nut production in Kreba
Identified issues/defining technological/business problems for solution seekers	The company is currently in the process of implementing a high-temperature heat pump system, as part of an ongoing effort to reduce their CO2 emissions. They are also quite far ahead in tapping other, more or less conventional new energy sources, from PV to using the waste heat vapours from their deep fryers. They are interested in exploring B2GreenHub and discovering new ways to accelerate their transition to a net-zero (and eventually carbon-negative) company.



Company's name	ARNIO GmbH
Company's size (SME/Large)	SME
Contact person (name and last name, e-mail, telephone number, website)	Rico Fahr, rico.fahr@arnio.de, +49 3583 8638 182, www.arnio.de
Country	Germany
Sector	Metal
Brief description of business/main product/TRL level etc. (max 500 characters)	<p>We are working to ensure that new and existing metal products can be manufactured using less energy and materials. This includes lightweight construction, the use of sustainable materials and process optimization through digitalization.</p> <p>Our mission is to contribute to the circular economy through innovative approaches and the use of environmentally friendly materials. We promote an open and creative corporate culture in which every voice counts and sustainable action takes center stage.</p>
Identified issues/defining technological/business problems for solution seekers	The company is a fairly advanced example of a company, especially so for its sector and our region. They are particularly interested in enhancing and expanding their IoT-based smart manufacturing capabilities, and also (relatedly) process optimization for more efficient material and energy use during manufacturing.



F1.3 Company cards from Austria (PP3)

Company's name	Bachmann Schlafsysteme GmbH
Company's size (SME/Large)	130 employees
Contact person (name and last name, e-mail, telephone number, website)	Wolfgang Bachmann wb@bachmann-schlafsysteme.de www.bachmann-schlafsysteme.de
Country	Germany
Sector	Building Materials & Furntiure
Brief description of business/main product/TRL level etc. (max 500 characters)	Bachmann Schlafsysteme is a company with around 130 employees that specializes in the production of bed slatted frames. Their products are primarily known in German-speaking countries, although export activities to other European markets such as Benelux, Scandinavia and England are more difficult. They supply individualized solutions for well-known mattress manufacturers and do not operate their own brand marketing. A separate e-commerce company called Cube Sleep was founded to sell directly to end customers. Every day, 1000-1200 slatted frames are produced at a single location. The focus is on a strong production site rather than expansion into Eastern Europe.
Identified issues/defining technological/business problems for solution seekers	Our company has not identified any specific technological or business problems that require solutions. We are particularly interested in sustainable energy production and the optimization of our heating energy system. Despite successful digitalization and green production, the economic efficiency of fuel technology and the use of process heat remain challenging. Potential challenges also relate to the use of raw materials and recycling, particularly in the case of long-fiber wood.



Company's name	Haslinger Spielplatz
Company's size (SME/Large)	under 10 employees
Contact person (name and last name, e-mail, telephone number, website)	Michael Haslinger, 2310382442@stud.fh-kufstein.ac.at , www.spielplatz-haslinger.at
Country	Austria
Sector	Building Materials & Furniture
Brief description of business/main product/TRL level etc. (max 500 characters)	Spielplatz Haslinger is a company that specializes in the assembly and production of playgrounds and garden furniture. In terms of digitalization, we are probably comparable to other similar companies.
Identified issues/defining technological/business problems for solution seekers	There are no specific problems. More digitalization would be something worth striving for in the future.

Company's name	FRITZ EGGER GmbH & Co. OG
Company's size (SME/Large)	Large (11 000 employees worldwide)
Contact person (name and last name, e-mail, telephone number, website)	Reinberger Martin, Martin.reinberger@egger.com , www.egger.com/de/?country=AT
Country	Austria
Sector	Building Materials & Furniture
Brief description of business/main product/TRL level etc. (max 500 characters)	The EGGER Group, headquartered in St. Johann in Tirol, is one of the leading international manufacturers of wood-based materials. The family-owned company, which was founded in 1961, today produces at 22 locations in 11 countries worldwide with over 11,000 employees. Its customers are the furniture industry, specialist wood retailers, DIY stores, and DIY stores. Sustainable management lies at the heart of EGGER's corporate DNA. And this has been the case ever since the company was founded, because even back then Fritz Egger Sr. considered wood far too valuable to simply throw it away. Egger produces with the most modern equipment and is at the cutting edge of technology.
Identified issues/defining technological/business problems for solution seekers	We have not identified any specific technological or business problems. There is fundamental interest in the topic of sustainability and AI.



Company's name	Vöcklakäserei eGen
Company's size (SME/Large)	25 employees
Contact person (name and last name, e-mail, telephone number, website)	DDI Sylvia Maria Schindecker schindecker@voecklakaeserei.at +43 7684 7108 13 www.voecklakaeserei.at
Country	Austria
Sector	Food & Beverage
Brief description of business/main product/TRL level etc. (max 500 characters)	Vöcklakäserei eGen is a small cheese dairy and was founded in 1931. We are a cooperative with 25 employees and produce high-quality cheese from milk from our family farms. Our 200 farmers own our cooperative and we process the high-quality raw material at our single site in Pöndorf in Upper Austria. Our specialties range from mountain cheese, Emmental, semi-hard cheese to Gouda in different variations in organic and conventional quality.
Identified issues/defining technological/business problems for solution seekers	As a small company, it is a challenge to keep up with legal and social requirements. We also see the exchange of knowledge between science and practice as a challenge, because as a small company, how are we supposed to access the latest findings from science and research? We seek exchange within the B2GreenHub in order to remain or become fit for the future.



Company's name	Faissner Petermeier Fahrzeugtechnik AG
Company's size (SME/Large)	SME
Contact person (name and last name, e-mail, telephone number, website)	Lucas Petermeier 2210382879@stud.fh-kufstein.ac.at https://fp-fahrzeugtechnik.de/
Country	Germany
Sector	Metal and Metal Products
Brief description of business/main product/TRL level etc. (max 500 characters)	FP is primarily a service provider in the automotive sector. This means, for example, that we have an engineering office where we do all kinds of designs, but mostly in the motorcycle segment. In addition, we do series production (mostly for small series, doors, underbody, hood,...) and then we also have prototype construction and electrification. All of these areas have now been bundled together for a separate internal project, from which a light motorcycle with an electric drive and a low-cost heavy-duty bike for B2B customers have been developed. These are due to go into series production soon. The technology behind them should therefore be ready for series production, but it will certainly not be fully exploited yet.
Identified issues/defining technological/business problems for solution seekers	The biggest challenge is not technological, but much more on the business side or a mix. On the one hand, we want to go for Made in Europe for our own products, which is particularly difficult for batteries. But that's just a side issue, the much bigger problem is that one of the biggest rising stars (Cake) filed for bankruptcy at the beginning of this year, which has shaken the entire e-motorcycle sector and scared off investors. On the other hand, we currently lack experience in terms of sales, how to build a brand and marketing, as we were previously only a service provider and didn't actually sell any products directly to B2B, let alone B2C. This will be the biggest challenge for us to build a suitable team from scratch or to find a partner that we can trust 100%.



Company's name	Grissemann Maschinenbau GmbH
Company's size (SME/Large)	SME
Contact person (name and last name, e-mail, telephone number, website)	Felix Grisseemann 2310382854@stud.fh-kufstein.ac.at https://maschinenbau-grisseemann.at/
Country	Austria
Sector	Machinery and Equipment
Brief description of business/main product/TRL level etc. (max 500 characters)	<p>Grissemann Maschinenbau is a mechanical engineering company that focuses on the manufacture of specialized machines, systems and components. The company's main product is customized manufacturing solutions for the automotive, aerospace and general industry. These machines include precision processing machines, assembly systems and automation solutions.</p> <p>Main product: Customized manufacturing solutions, including precision machining centers and automation systems.</p> <p>Current state of technological development: Grisseemann Maschinenbau attaches great importance to innovation and technological development. Grisseemann machines are known for their precision, reliability and high adaptability to customer-specific requirements.</p> <p>Continuous investment in research and development enables Grisseemann to stay at the forefront of technological advances and constantly improve its products. This includes the integration of modern control systems, sensor technology and data analysis to optimize the production process and enable predictive maintenance.</p>
Identified issues/defining technological/business problems for solution seekers	<p>We want to drive forward the transition to Industry 4.0. Industry 4.0 stands for the digitalization and networking of production using modern information and communication technologies. AI plays a central role here, as it enables us to analyze large amounts of data from production in real time and thus optimize processes. With the help of AI, for example, we can implement predictive maintenance to minimize downtimes and extend the service life of our machines. AI can also be used in production planning and control to ensure flexible and efficient production. Our aim is to find innovative approaches that help us to make our production and business processes even more efficient and sustainable.</p>



Company's name	enrope GmbH
Company's size (SME/Large)	12 employees
Contact person (name and last name, e-mail, telephone number, website)	Peter Glasl info@enrope.com +49 8041 4421133 www.enrope.de
Country	Germany
Sector	Machinery and Equipment
Brief description of business/main product/TRL level etc. (max 500 characters)	enrope GmbH is a small craftsman's business, which produces (small) lift systems, manufactures special spare parts for existing systems, and provides customer service and modernization for (existing) systems. At enrope, we have specialist tools and workshops to offer professional repair services. We also provide maintenance and supply spare parts for ropeways. One of our specialties is the high-quality reproduction of parts that are no longer available on the market and the provision of the required documentation.
Identified issues/defining technological/business problems for solution seekers	The company faces several challenges, like labor-intensive manual inspection for production errors, the need for paper-based data documentation, and a lack of AI in quality control. These issues necessitate the implementation of automated inspection and AI-based quality control systems. Simplified digital production planning tools are needed due to past difficulties stemming from complexity and low employee acceptance. Non-standardized resource management systems and fragmented communication with authorities further highlight the need for integrated, automated solutions. Additionally, audiovisual training programs on digitalization and sustainability for employees are essential to support these transitions.



Company's name	Freisinger Fensterbau GmbH
Company's size (SME/Large)	SME
Contact person (name and last name, e-mail, telephone number, website)	Jakob Astner j.astner@freisinger.at +43 664 88 75 21 20 www.freisinger.at
Country	Austria
Sector	Building Materials and Furniture
Brief description of business/main product/TRL level (max 500 characters)	Freisinger Fensterbau GmbH is an Austrian company in the ancillary building trade, specializing in the production of wood-aluminium windows as well as PVC and aluminium windows. The current state of development of technologies in the company shows that digitalization is seen as the basis, but there is still a lot of catching up to do, especially in the implementation of efficient software solutions and document management. The company recognizes the importance of saving materials and increasing efficiency through digital technologies but is not yet fully advanced in terms of implementation.
Identified issues/defining technological/business problems for solution seekers	Freisinger Fensterbau is facing challenges that mainly revolve around the selection and integration of suitable software solutions. There is currently a lack of a suitable software partner, which makes digitization and automation more difficult. The ideal software could bring significant savings and efficiency gains, particularly in document management and compliance with standards. Support from B2GreenHub or GREENE 4.0 would be useful to identify suitable solutions and accelerate the transformation towards more sustainable and efficient processes.



Company's name	Zimmer Austria GmbH
Company's size (SME/Large)	SME
Contact person (name and last name, e-mail, telephone number, website)	Thomas Mentler t.mentler@zimmer-austria.com +43 5372 64893-163 www.zimmer-austria.com
Country	Austria
Sector	Machinery and Equipment / Metal and Metal Products
Brief description of business/main product/TRL level etc. (max 500 characters)	Zimmer Austria GmbH is a company in the metal technology industry, specializing in special machine construction. The main product range includes innovative machines and systems that are used in various industrial processes. The company is currently focusing on the integration of advanced digital technologies and environmentally friendly solutions, and has already made significant progress in the energy efficiency of its products.
Identified issues/defining technological/business problems for solution seekers	Zimmer Austria is facing the challenge of driving forward the digital transformation, particularly in the area of VR technologies and ecological footprint analysis. Support from the B2GreenHub or GREENE 4.0 would be useful to further develop these technologies and integrate them into business processes, as well as to implement ecological and sustainable practices more effectively.

Company's name	Heliotherm
Company's size (SME/Large)	Large
Contact person (name and last name, e-mail, telephone number, website)	Maximilian Margreiter Maximilian.margreiter@heliotherm.com www.heliotherm.com
Country	Austria
Sector	Metal and Metal Products
Brief description of business/main product/TRL level etc. (max 500 characters)	Heliotherm is an Austrian company in the field of heating solutions and heating systems that specializes in the production and distribution of energy-efficient technologies. The main product range comprises innovative heating systems that are suitable for both single-family homes and industrial applications. The level of development of the technologies is advanced, but there is still room for improvement in some areas, particularly in the digitalization of production processes and data analysis.
Identified issues/defining technological/business problems for solution seekers	Heliotherm faces the challenge of fully digitizing its production processes and integrating automation technologies to increase efficiency. The introduction of digital and green technologies requires considerable resources and costs, and there is a lack of suitable providers for specific solutions. Support from the B2GreenHub or GREENE 4.0 could help Heliotherm to identify suitable digital technologies and cost-benefit analysis to drive digitalization forward.



F1.4 Company cards from Czech Republic (PP6)

Company's name	DAMA net
Company's size (SME/Large)	SME
Contact person (name and last name, e-mail, telephone number, website)	Drahomir Bilek bilek@dama-net.cz +420 602 261 278 http://www.damanet.cz/
Country	Czech Republic
Sector	Furniture Production
Brief description of business/main product/TRL level etc. (max 500 characters)	DAMA NET s.r.o. specializes in manufacturing furniture, including kitchen units, built-in wardrobes, and office furniture. The company also engages in renovations and remodeling of residential interiors.
Identified issues/defining technological/business problems for solution seekers	Optimization of production processes for custom furniture - Expanding market reach in residential and commercial sectors - Securing sustainable materials for furniture manufacturing

Company's name	Dorant
Company's size (SME/Large)	SME
Contact person (name and last name, e-mail, telephone number, website)	Zuzana Dorant +420 737 261 969 dorant@vyrobalahudek.cz https://www.vyrobalahudek.cz/
Country	Czech Republic
Sector	Food Production
Brief description of business/main product/TRL level etc. (max 500 characters)	Výroba lahůdek DORANT specializes in producing a wide range of deli products including sandwiches, spreads, salads, cold platters, and artisan ice cream. The company, which started operations in 1991, prides itself on modern facilities that comply with EU standards, utilizing advanced machinery to ensure consistent quality. Their products are distributed across the Czech Republic, with a strong focus on freshness and traditional Czech recipes.
Identified issues/defining technological/business problems for solution seekers	Maintaining product freshness and quality during distribution across a wide region - Expanding the product range while ensuring adherence to traditional recipes and high-quality standards - Scaling production to meet increasing demand without compromising on the artisanal quality of products.



Company's name	Jabor pro, s.r.o.
Company's size (SME/Large)	SME
Contact person (name and last name, e-mail, telephone number, website)	Lukáš Jabor ljabor@jabor.cz +420 605 797 777 https://www.jabor.cz
Country	Czech republic
Sector	Industrial Technologies / Liquid Storage Solutions
Brief description of business/main product/TRL level etc. (max 500 characters)	We offer flexible tanks, bags, and reservoirs for ecological and economical storage of various liquids. These products are designed to combat drought, safely store hazardous liquids and fuels used in firefighting systems. They are distinguished by their resistance to mechanical damage, UV radiation, and environmental influences.
Identified issues/defining technological/business problems for solution seekers	Scalability: How to efficiently scale the production of flexible tanks and reservoirs to meet increasing market demand without compromising quality. Customization: Developing methods to easily customize products for different liquid storage needs across various industries. Sustainability: Enhancing the environmental sustainability of materials used in production to meet growing ecological standards. Cost Reduction: Finding ways to reduce production costs while maintaining product durability and performance. Market Penetration: Strategies for penetrating new markets, particularly in regions facing severe water scarcity.

Company's name	Kermen Lobri
Company's size (SME/Large)	SME
Contact person (name and last name, e-mail, telephone number, website)	Kateřina Tůmová info@kermenlobri.cz https://www.kermenlobri.cz/
Country	Czech Republic
Sector	Metal Production
Brief description of business/main product/TRL level etc. (max 500 characters)	Kermen Lobri s.r.o. is a construction company from Chabařovice, Czech Republic, focusing on residential building, renovations, and roofing.
Identified issues/defining technological/business problems for solution seekers	Efficient project management - Expanding services while ensuring quality - Competing in regional and metropolitan markets



Company's name	KOVO Děčín spol. s r.o.
Company's size (SME/Large)	Ca. 60 - 80
Contact person (name and last name, e-mail, telephone number, website)	Eva Doležalová, edolezalova@kovodecin.cz , +420 604 261 350 https://kovodecin.cz/
Country	Czech republic
Sector	metalworking and manufacturing sector
Brief description of business/main product/TRL level etc. (max 500 characters)	Specializes in precision metalworking and manufacturing, offering services such as CNC machining, welding, and metal assembly. They produce customized metal components for various industries, including construction, automotive, and machinery. The company is equipped with advanced machining technologies and focuses on high-quality, tailored solutions to meet client needs. Their technology readiness level (TRL) is typically around 7-9, reflecting mature production processes and near-market readiness for their innovations.
Identified issues/defining technological/business problems for solution seekers	<p>Digital Transformation:</p> <ul style="list-style-type: none">• Kovo Děčín faces challenges in modernizing its production processes to align with Industry 4.0 standards. This includes integrating digital technologies such as IoT, machine learning, and advanced data analytics to improve production efficiency and reduce downtime. <p>Sustainability and Energy Efficiency:</p> <ul style="list-style-type: none">• The company needs to address the growing demand for sustainable practices by reducing energy consumption, managing waste more effectively, and adopting greener materials and processes. This aligns with the global push towards reducing the carbon footprint in manufacturing. <p>Automation and Process Optimization:</p> <ul style="list-style-type: none">• There is a need to enhance automation within the production line to mitigate the impact of labor shortages and improve precision and efficiency. Implementing advanced robotics and automated systems could help streamline operations and reduce manual errors. <p>Competitiveness in International Markets:</p> <ul style="list-style-type: none">• To remain competitive, Kovo Děčín must continuously innovate and improve its product offerings while reducing costs. This includes exploring new markets and adopting cutting-edge technologies to offer unique solutions that stand out in the global market.



Company's name	Latislav
Company's size (SME/Large)	SME
Contact person (name and last name, e-mail, telephone number, website)	Jaromir Latislav https://latislav.cz/ +420 608 545 867 tiskarna@latislav.cz
Country	Czech Republic
Sector	Printing and Advertising Materials Production
Brief description of business/main product/TRL level etc. (max 500 characters)	Latislav s.r.o. is a Czech company based in Sulejovice, operating in the publishing sector. Established in 2020, the company is involved in various publishing activities and has seen significant growth in assets, reflecting its expanding operations.
Identified issues/defining technological/business problems for solution seekers	Scaling operations in a competitive publishing industry - Managing the rapid growth in assets while maintaining operational efficiency - Expanding market reach and adapting to the evolving digital landscape in publishing

Company's name	Posedla s.r.o.
Company's size (SME/Large)	SME
Contact person (name and last name, e-mail, telephone number, website)	Jiří Dužár, jiri@posedla.com , +420 775 746 817, www.posedla.com
Country	Czech republic
Sector	Cycling Equipment / Sports Technology
Brief description of business/main product/TRL level etc. (max 500 characters)	Posedla s.r.o. specializes in the design and manufacturing of custom cycling saddles. Their main product leverages 3D printing technology to create personalized saddles tailored to individual riders' needs, ensuring optimal comfort and performance. The company is currently at TRL 7, with prototypes demonstrated in operational environments and products available on the market.
Identified issues/defining technological/business problems for solution seekers	The primary challenge for Posedla is enhancing the customization process to accommodate a broader range of customer needs while maintaining efficiency and cost-effectiveness in production. They also seek to improve the integration of their products with advanced cycling analytics for better user feedback and product development.
Company's name	Rowingo



Company's size (SME/Large)	SME
Contact person (name and last name, e-mail, telephone number, website)	Matous Kostomlatsky https://rowingo.cz/ matous@rowingo.cz
Country	Czech Republic
Sector	Sport Equipment
Brief description of business/main product/TRL level etc. (max 500 characters)	Rowingo s.r.o. specializes in creating innovative rowing machines that simulate the experience of rowing on water, including rowing oars. The company focuses on enhancing the training experience for rowers, especially during winter months.
Identified issues/defining technological/business problems for solution seekers	Optimization of production and design of rowing machines - Intellectual property protection and patent processes - Increasing awareness and expanding into foreign markets - Securing funding for further development and growth

Company's name	Virgin Grip
Company's size (SME/Large)	SME
Contact person (name and last name, e-mail, telephone number, website)	Tomas Reise grip@virgingrip.com +420 775 961 968 https://www.virgingrip.com/cs/
Country	Czech Republic
Sector	Climbing Grip Production
Brief description of business/main product/TRL level etc. (max 500 characters)	Virgin Grip is a Czech company that specializes in producing high-quality climbing holds, wooden volumes, and fiberglass macros. The company is focused on creating eco-friendly products, with their polyurethane holds containing 40% renewable materials.
Identified issues/defining technological/business problems for solution seekers	Developing and scaling sustainable materials for climbing hold production - Maintaining product quality while integrating more renewable materials - Expanding market presence internationally and increasing brand recognition in the competitive climbing industry



Company's name	Zichovecká
Company's size (SME/Large)	SME
Contact person (name and last name, e-mail, telephone number, website)	Ondrej Husak, ondra.husak@pivovarzichovec.cz , https://pivovarzichovec.cz/
Country	Czech Republic
Sector	Brewery
Brief description of business/main product/TRL level etc. (max 500 characters)	Pivovar Zichovec is a family-run craft brewery from Zichovec, Czech Republic, producing around 60 types of beer annually, including lagers, IPAs, and stouts. They are known for quality ingredients and innovative brewing.
Identified issues/defining technological/business problems for solution seekers	Scaling production while maintaining craft quality - Expanding distribution locally and internationally - Balancing tradition with innovation and sustainability



F1.5 Company cards from Italy (PP7)

Company's name	BALANCE SYSTEMS SRL
Company's size (SME/Large)	SME
Contact person (name and last name, e-mail, telephone number, website)	Andrea Guidotti guidotti@balancesystems.it
Country	Italy
Sector	Machinery & Equipment
Brief description of business/main product/TRL level etc. (max 500 characters)	Implementation of cutting-edge technological solutions for Manual, semi-automatic, automatic and highly customized balancing machines, as well as process control systems for machine tools with specific functions suitable for grinding machines. Balance System invests 12% of its turnover annually in R&D activities to provide innovative solutions to its customers.
Identified issues/defining technological/business problems for solution seekers	AI and digital technologies for the company's knowledge management. Reduction of wasted materials and components during manufacturing processes.

Company's name	COSBERG SPA
Company's size (SME/Large)	SME
Contact person (name and last name, e-mail, telephone number, website)	Mauro Viscardi ma.viscardi@cosberg.com
Country	Italy
Sector	Machinery & Equipment
Brief description of business/main product/TRL level etc. (max 500 characters)	Cosberg is a point of reference in the field of mechatronics, robotics and in designing and creating machines and modules for the automation of assembling processes. Since 1983 it has been studying, designing and building fast, reliable and flexible solutions for both complex devices as well as small units: rotary tables, linear machines with a free pallet system, robotic systems and a wide range of standardized modules. Solutions designed for a variety of sectors: automotive, furniture accessories, electrics, electronics, cosmetics, household appliances, audios, videos as well as eyewear, jewelleryes, watchmaking and fashion accessories.
Identified issues/defining technological/business problems for solution seekers	Development of remote-control technologies and processes, in particular for maintenance services to be offered to the customers. Development of technologies and processes for the reuse, remanufacturing and recycling of products, components and materials, at the moment strongly limited in machinery sector. Use of Augmented and Virtual reality for products management.



Company's name	GENESI SRL
Company's size (SME/Large)	Large Enterprise
Contact person (name and last name, e-mail, telephone number, website)	Barbara Ventura b.ventura@generiprotection.com
Country	Italy
Sector	Building Safety
Brief description of business/main product/TRL level etc. (max 500 characters)	GENESI accompanies the process of securing the establishments: from the site inspection with risk assessment to the supply of material and product certificates, up to maintenance and employees' training. Genesi guarantees the safety of workers in high altitude and confined environments in buildings, residential and productive, and the operation and maintenance after installation of the systems.
Identified issues/defining technological/business problems for solution seekers	Automatic knowledge system to preserve the company competences and experiences, also to increase customers' services. Substitution and/or integration of more sustainable materials in their products.

Company's name	GUALINI LAMIERE INTERNATIONAL SPA
Company's size (SME/Large)	SME
Contact person (name and last name, e-mail, telephone number, website)	Marco Travella mtravella@gualini.it
Country	Italy
Sector	Metal
Brief description of business/main product/TRL level etc. (max 500 characters)	Gualini Lamiere International has a rich experience in the development, design and construction of metal carpentry, becoming the global partner for sheet metal. Advanced design and production technologies, highly qualified personnel, quality of the workmanship are the distinctive elements of Gualini Lamiere that, in the modern plant of about 20,000 m2, carries out research & development, experimentation, design, manufacture, assembly, testing, installation and maintenance. International clients project the Gualini Lamiere in various sectors, including production and transmission energy, oil & gas, naval, infrastructure, telecommunications, lighting, operating machines, lifting machines.
Identified issues/defining technological/business problems for solution seekers	Integration of AI systems (e.g., machine vision) with structured interpretation rules based on the experience of operators to automate the information extraction process. Development of Augmented/Virtual reality for the training of operators and knowledge management.



Company's name	RULLI RULMECA
Company's size (SME/Large)	Large Enterprise
Contact person (name and last name, e-mail, telephone number, website)	Ivan Cocci icocci@rulmecca.com
Country	Italy
Sector	Machinery & Equipment
Brief description of business/main product/TRL level etc. (max 500 characters)	Rulmecca Group is a leading global company in the supply of rollers, stations, drums, motor drums for heavy load conveyor belts and rollers, and motorization systems for intralogistics.
Identified issues/defining technological/business problems for solution seekers	Generative AI for data analytics to increase customers' satisfaction according to market trends, also related to sustainability issues. Digital Technologies for process optimization, such as machine learning for scenarios prediction starting from available data on the current situation.

Company's name	SALF SPA
Company's size (SME/Large)	SME
Contact person (name and last name, e-mail, telephone number, website)	Jacopo Ghisleni jacopo.ghisleni@salfspa.it;
Country	Italy
Sector	Pharmaceutical & Chemical
Brief description of business/main product/TRL level etc. (max 500 characters)	S.A.L.F. specializes in the production of generic and niche injectable products for the pharmaceutical sector. The fundamental raw material to produce S.A.L.F. solutions is water, used for the production of medicines in the form of glass vials, glass and polypropylene bottles, Polyvinylchloride, polypropylene and PVC free bags. The products are divided into human drugs, veterinary drugs, medical devices and contract manufacturing products. All solutions are developed and produced in-house with state-of-the-art machinery and processes and tested and controlled in our own laboratories.
Identified issues/defining technological/business problems for solution seekers	Automation of some steps of the manufacturing process to increase productivity and reduce human errors. Increase the use of sustainable materials for polymeric bags and films. Augmented and Virtual reality for the training of employees, particularly in sterile environments. Data collection and analysis for the optimization of production lines.



Company's name	SANGALLI SPA
Company's size (SME/Large)	SME
Contact person (name and last name, e-mail, telephone number, website)	Raffaella Donghi raffaella.donghi@sangallispa.it
Country	Italy
Sector	Building and furniture sector
Brief description of business/main product/TRL level etc. (max 500 characters)	Since 1979 Sangalli have been involved in road construction, the production of asphalt and concrete conglomerates, urban development and infrastructure development. The solid experience gained over the years has also allowed to specialize in the application of sustainable urban drainage techniques.
Identified issues/defining technological/business problems for solution seekers	Introduction of digital technologies for the optimization of maintenance process in terms of control and interconnection of machinery. This should allow the optimization of costs and the planning of tasks towards a more sustainable process. Equipment and signage traceability in the construction sites to reduce costs, avoid waste and optimize the management and purchase phase.

Company's name	SCAMM SRL
Company's size (SME/Large)	SME
Contact person (name and last name, e-mail, telephone number, website)	Fabrizio Mazzoleni, Fabrizio.Mazzoleni@scamm.it
Country	Italy
Sector	Machinery and Equipment
Brief description of business/main product/TRL level etc. (max 500 characters)	Since 1946, the SCAMM Group has been providing special solutions for deforming and assembling sheet metal products for various applications in large appliances, power distribution, lighting, packaging, fans, plate exchangers, furniture and furnishings.
Identified issues/defining technological/business problems for solution seekers	Application of digital technologies, such as Artificial Intelligence, for process optimization and reduction of anomalies.



Company's name	TESMEC SPA
Company's size (SME/Large)	Large Enterprise
Contact person (name and last name, e-mail, telephone number, website)	Simone Tremolada simone.tremolada@tesmec.com
Country	Italy
Sector	Machinery and Equipment
Brief description of business/main product/TRL level etc. (max 500 characters)	Tesmec Group is active in the design, production and marketing of systems and integrated solutions for the construction, maintenance and diagnostics of infrastructures (air, underground and rail networks) for the transport of electricity, data and materials as well as technologies for surface quarrying and surface mining. The research in Tesmec focuses on automation and electrification of products.
Identified issues/defining technological/business problems for solution seekers	Hierarchical models for the analysis of production lines to be applied to their products. Reduction of environmental impact of the products, introducing technologies for waste and emissions reduction, for recycling, for energy saving and consumptions optimization.

Company's name	Vinservice Micro Matic S.r.l.
Company's size (SME/Large)	Large Enterprise
Contact person (name and last name, e-mail, telephone number, website)	Giulio Guadalupi Giulio.Guadalupi@micro-matic.com
Country	Italy
Sector	Food and Beverage
Brief description of business/main product/TRL level etc. (max 500 characters)	Vinservice Micro Matic S.r.l., founded in 1976, develops, engineers, and manufactures integrated dispense systems for a better beverage experience to deliver, on a global scale, finished products and components combinable with each other's, offering integrated solutions. In 2016, Vin Service joined the Aalberts Group, an industrial reality with a focus on technology and innovation, sustainable solutions and customer support.
Identified issues/defining technological/business problems for solution seekers	Implementation of Digital Technologies for supporting employees in maintenance activities and implementation of maintenance on demand services, Integration of advanced sustainable materials in products' components to reduce the environmental impact maintaining the quality and performances.



F1.6 Company cards from Poland (PP8)

Company's name	Arkan
Company's size (SME/Large)	SME
Contact person (name and last name, e-mail, telephone number, website)	Artur Wiszniewski, a.wiszniewski@fimaarkan.pl
Country	Poland
Sector	Metal & Metal Products
Brief description of business/main product/TRL level etc. (max 500 characters)	Arkan specializes in industrial solutions including CNC machining, powder storage systems, and renewable energy integration such as photovoltaic installations. They work towards optimizing energy consumption and material handling processes.
Identified issues/defining technological/business problems for solution seekers	<ul style="list-style-type: none"> • High gas consumption for the new powder storage line. • Challenges in quantifying production output with CNC machines. • Implementation and scaling of photovoltaic systems up to 49 KWH. • How do you protect yourself in your contract with your supplier against an increase in gas consumption per m2 • How to find source of financing for investment in photovoltaics • the company is looking for startups offering employee training solutions that promote the careful and effective use of materials, minimizing their consumption and waste generation.

Company's name	Elektrotermia
Company's size (SME/Large)	SME
Contact person (name and last name, e-mail, telephone number, website)	Marcin Noskowicz, mnoskowicz@elektrotermia.com.pl ; Katarzyna Kupiec, kkupiec@elektrotermia.com.pl
Country	Poland
Sector	Building Materials & Furniture
Brief description of business/main product/TRL level etc. (max 500 characters)	Elektrotermia specializes in the design, production, and installation of industrial and commercial heating devices, including electric heaters, heating systems, and temperature control solutions. Their products are used in various sectors including industrial processes, HVAC systems, and renewable energy applications. The company emphasizes energy efficiency and advanced control systems to optimize heating processes.
Identified issues/defining technological/business problems for solution seekers	<ul style="list-style-type: none"> • Integration of advanced control systems to enhance energy efficiency. • Developing customized heating solutions for specific industrial applications. • Scaling up production while maintaining high-quality standards in heating equipment.



Company's name	FAKRO
Company's size (SME/Large)	Large
Contact person (name and last name, e-mail, telephone number, website)	Iwona Majoch, iwona.majoch@faktor.pl
Country	Poland
Sector	Building Materials & Furniture
Brief description of business/main product/TRL level etc. (max 500 characters)	FAKRO is a leading manufacturer of roof windows, skylights, and related products. The company emphasizes innovation, sustainability, and quality in its product offerings. FAKRO products are widely used in the construction industry, providing energy-efficient and environmentally friendly solutions for residential and commercial buildings.
Identified issues/defining technological/business problems for solution seekers	<ul style="list-style-type: none">• Lack of Skilled Workforce• Bureaucracy in ESG Compliance• Waste Reduction: Need to minimize waste production and improve recycling processes• Transition to Electric Mobility: Challenges in shifting the company's fleet and operations towards electric vehicles.• Outdated Machinery: Issues related to the inefficiency and environmental impact of aging machinery.• Achieving Zero Emissions: Developing strategies to reach net-zero carbon emissions• Reducing Natural Resource Consumption: Need to minimize the use of raw materials and enhance sustainability.• the company is looking for startups offering support in the transition to electromobility, achieving zero emissions and calculating the scope of the carbon footprint in order to minimize the impact on the environment.



Company's name	Grupa Azoty
Company's size (SME/Large)	Large
Contact person (name and last name, e-mail, telephone number, website)	Izabela Karwala, izabela.karwala@grupazoty.com; Jakub Kajmowicz, jakub.kajmowicz@grupazoty.com
Country	Poland
Sector	Pharmaceutical & Chemical
Brief description of business/main product/TRL level etc. (max 500 characters)	Grupa Azoty is one of the leading chemical companies in Europe, with a diverse portfolio that includes fertilizers, chemicals, and plastics. The company plays a crucial role in supporting the agricultural industry and various industrial sectors through its innovative products and solutions. Grupa Azoty is committed to sustainable development, focusing on reducing its environmental impact and promoting circular economy practices.
Identified issues/defining technological/business problems for solution seekers	<ul style="list-style-type: none"> • Technical Availability: Difficulty in accessing and implementing advanced technologies. • Availability of Funds: Limited access to financial resources, particularly for large enterprises. • Logistical Barriers: Issues related to the transportation and distribution of products. • Regulatory Challenges at the EU and National Levels: Compliance with the evolving regulations concerning Environmental, Social, and Governance (ESG) standards and other EU directives. • Need for Product Portfolio Diversification: Necessity to expand and diversify the range of products to stay competitive. • Limited Access to External Financing for Large Enterprises: Challenges in securing funding from external sources due to the size of the company. • Consolidation of Grupa Azoty: Efforts to streamline and integrate operations across various subsidiaries. • Energy and Raw Material Sources Based on Fossil Fuels: Dependence on non-renewable energy sources for production processes.



Company's name	Lavaster
Company's size (SME/Large)	SME
Contact person (name and last name, e-mail, telephone number, website)	Ilona Wach, olona.wach@lavaster.pl ; Marcin Wach, marcin.wach@lavaster.pl
Country	Poland
Sector	Metal
Brief description of business/main product/TRL level etc. (max 500 characters)	Lavaster designs, manufactures, and installs freestanding, double-skin steel industrial chimneys. With extensive project experience, Lavaster has become a leader in the chimney industry. Their chimneys feature an outer protective layer and internal technological ducts, designed to withstand external elements and structural loads, ensuring reliability and efficiency.
Identified issues/defining technological/business problems for solution seekers	<ul style="list-style-type: none">• Energy loss due to inefficiencies and leaks in infrastructure• Waste management and recycling of production by-products• Ineffective logistics and procurement planning• Lack of effective communication and engagement with production staff• Suboptimal tool management and quality control processes• Insufficient digitalization and process optimization• Limited employee training on sustainability and operational improvements• the company is looking for startups offering innovative solutions in the field of optimization of energy and heat consumption, effective management of post-production waste, logistics planning and optimization, improvement of warehouse management, reduction of consumption of production materials, digitization of processes and increasing employee awareness of waste segregation and occupational safety.



Company's name	Marian Dudzik Lody
Company's size (SME/Large)	SME
Contact person (name and last name, e-mail, telephone number, website)	Marian Dudzik, email: kontakt@lodydudzik.pl
Country	Poland
Sector	Food & Beverages
Brief description of business/main product/TRL level etc. (max 500 characters)	Lody Dudzik specializes in the production of high-quality ice creams. Known for their traditional recipes and commitment to quality, they offer a wide range of flavors made from premium ingredients. The company focuses on maintaining high standards of product excellence while also addressing sustainability in their production processes.
Identified issues/defining technological/business problems for solution seekers	<ul style="list-style-type: none"> • Optimizing energy costs associated with production processes • Accessing funding for upgrading to more energy-efficient and environmentally friendly equipment • the company is looking for startups offering innovative solutions in the field of energy cost optimization.

Company's name	Protech
Company's size (SME/Large)	Large
Contact person (name and last name, e-mail, telephone number, website)	Rafał Burzyca, rafal.burzyca@protech.pl
Country	Poland
Sector	Metal & Metal Products
Brief description of business/main product/TRL level etc. (max 500 characters)	Protech has 29 years of experience in steel processing, offering high-quality services with a focus on precision and automation. The company is committed to development through advancing team skills, modernizing equipment, and expanding service capabilities. They support various industries with steel processing services, leveraging the latest technology to enhance service delivery.
Identified issues/defining technological/business problems for solution seekers	<ul style="list-style-type: none"> • Reducing energy consumption through modernization and advanced energy management systems • Implementing renewable energy solutions such as solar panel installations • Improving energy efficiency by optimizing equipment and technology • Calculating and reducing carbon footprint through lifecycle analysis of products • the company is looking for startups offering solutions in the field of reducing energy consumption, installing solar panels, optimizing energy efficiency and methods of calculating and reducing the carbon footprint through product life cycle analysis.



Company's name	Vitroform
Company's size (SME/Large)	SME
Contact person (name and last name, e-mail, telephone number, website)	Tobiasz Strzelecki, ts@vitroform.pl
Country	Poland
Sector	Building Materials & Furniture
Brief description of business/main product/TRL level etc. (max 500 characters)	Vitroform is a leader in the bent glass industry, specializing in safety glass solutions. They offer a range of products, including both flat and bent glass, with advanced processing techniques such as tempering and laminating. Their services also include custom printing on glass. Vitroform combines cutting-edge machinery with a highly skilled team to handle complex projects and meet high safety standards.
Identified issues/defining technological/business problems for solution seekers	<ul style="list-style-type: none"> • High energy costs and unstable energy supply with network issues • Contaminated water and poor sewage systems • Improving communication between production, orders, and machinery language • Enhancing local administrative communication to improve energy supply reliability • Packaging issues with wood and material diversity • Utilizing heat from machines for efficient heating • Reducing costs associated with glass waste and other materials • Ensuring a steady supply of affordable and stable electricity to avoid energy losses • Streamlining communication systems to speed up material processing and transport • Minimizing costs related to glass waste, plastic, water, and wood



Company's name	Werner Kenkel
Company's size (SME/Large)	Large
Contact person (name and last name, e-mail, telephone number, website)	Kornelia Pytko, e-mail: kornelia.pytko@wernerkenkel.com.pl ;
Country	Poland
Sector	Other
Brief description of business/main product/TRL level etc. (max 500 characters)	Werner Kenkel specializes in the production of corrugated cardboard and innovative packaging solutions. The company is a leader in the packaging industry, providing high-quality, sustainable, and customized packaging solutions to a wide range of industries. Werner Kenkel places a strong emphasis on innovation, quality, and environmental responsibility, utilizing advanced technologies to meet the evolving needs of its customers.
Identified issues/defining technological/business problems for solution seekers	<ul style="list-style-type: none">• Inability to manage the main production waste.• Low utilization of renewable energy sources.• Lack of precise water circulation monitoring within the company.• High volume of paper documents with no complete digital version.• Difficulty in replacing packaging materials like foil and tapes.• Increasing employee awareness about environmental practices, safety, and product quality.• Eliminating waste and achieving 100% heat recovery from technological processes.• Finding sustainable alternatives to PP and PE in packaging.• Reducing energy consumption and increasing the use of renewable energy sources.• the company is looking for startups offering innovative solutions in the field of ecological packaging of pallets without the use of stretch foil and automation of waste records in the BDO system.



Company's name	Woodward
Company's size (SME/Large)	Large
Contact person (name and last name, e-mail, telephone number, website)	Agnieszka Maciaszek, Agnieszka.maciaszek@woodward.com
Country	USA/ Poland
Sector	Machinery & Equipment
Brief description of business/main product/TRL level etc. (max 500 characters)	Woodward is a leading designer, manufacturer, and service provider of energy control and optimization solutions for aerospace and industrial markets. With 150 years of expertise, Woodward delivers systems that enhance performance and efficiency, addressing global challenges such as reducing emissions, increasing energy efficiency, and integrating alternative energy sources. Their solutions are designed to meet demanding operational requirements.
Identified issues/defining technological/business problems for solution seekers	<ul style="list-style-type: none"> The company is looking for startups offering ESG reporting tools and solutions enabling the reuse of wood and paper waste in production processes

F1.7 Company cards from Hungary (PP9)

Company's name	Gellei Hajvilág Ltd.
Company's size (SME/Large)	SME
Contact person (name and last name, e-mail, telephone number, website)	Gellei András, Website: www.gelleihajvilag.hu
Country	Hungary
Sector	Chemicals & Cosmetics & Distribution
Brief description of business/main product/TRL level etc. (max 500 characters)	Gellei Hajvilág Ltd. specializes in hair care products, using innovative formulations and natural ingredients. The company focuses on high quality and sustainability. Making new environmentally friendly packaging and formulas to lower the carbon footprint.
Identified issues/defining technological/business problems for solution seekers	Challenges include expanding digital solutions, enhancing online sales channels, and optimizing supply chain operations for greater efficiency. They lack solutions in green manufacturing, they would to improve in that field.



Company's name	PolymerOn Ltd.
Company's size (SME/Large)	SME
Contact person (name and last name, e-mail, telephone number, website)	Ákos Kmetty, Website: www.polymeron.com
Country	Hungary
Sector	Manufacturing
Brief description of business/main product/TRL level etc. (max 500 characters)	PolymerOn Ltd. is a leader in advanced polymer solutions, focusing on innovative products and sustainability. They cater to various industries with customized polymer products.
Identified issues/defining technological/business problems for solution seekers	Scaling up production while maintaining high quality and environmental standards is a challenge. They are also exploring AI integration to enhance process optimization.

Company's name	Wicha Teszta
Company's size (SME/Large)	SME
Contact person (name and last name, e-mail, telephone number, website)	Wicha Gergő, Website: https://wichateszta.hu/
Country	Hungary
Sector	Food Production
Brief description of business/main product/TRL level etc. (max 500 characters)	Wicha Teszta produces high-quality pasta using semi-automatic methods. They are committed to sustainability by using eco-friendly materials and minimizing waste.
Identified issues/defining technological/business problems for solution seekers	Key challenges include improving inventory management and reducing packaging costs while meeting customer demands for high-quality products. Further they also lack of grants which would enable them to implement more green standards. Their first priority is to set up solar panels to reduce energy costs and be more green.



Company's name	Naturtex Ltd.
Company's size (SME/Large)	Large
Contact person (name and last name, e-mail, telephone number, website)	Gellért Balázs, Website: www.naturtex.hu
Country	Hungary
Sector	Textile Manufacturing
Brief description of business/main product/TRL level etc. (max 500 characters)	Naturtex Ltd. is renowned for its high-quality bedding products, using sustainable materials and innovative manufacturing techniques. The company is a market leader in environmentally friendly textile solutions.
Identified issues/defining technological/business problems for solution seekers	Challenges include maintaining production efficiency while scaling operations, and further integrating green energy and waste reduction practices. Challenges also include getting new loans and grants for further improving the green transition.

Company's name	UgrinPack-Erdősi Kft.
Company's size (SME/Large)	SME
Contact person (name and last name, e-mail, telephone number, website)	Ugrin András, Website: https://www.ugrinpack.eu/
Country	Hungary
Sector	Plastics & Rubber
Brief description of business/main product/TRL level etc. (max 500 characters)	UgrinPack-Erdősi Kft. offers innovative packaging solutions with a strong focus on sustainability. They provide eco-friendly packaging options that meet various industry needs.
Identified issues/defining technological/business problems for solution seekers	Optimizing production efficiency while maintaining sustainability commitments is a challenge, along with improving supply chain management and expanding green packaging solutions.



Company's name	Seamaster Products Ltd.
Company's size (SME/Large)	SME
Contact person (name and last name, e-mail, telephone number, website)	Sedlák Gergő, Website: http://seamaster-products.eu/
Country	Hungary
Sector	Food Production
Brief description of business/main product/TRL level etc. (max 500 characters)	Seamaster Products Ltd. has been operating since 2008 and specializes in producing high-quality pizzas. The company uses advanced technologies for efficient production and adheres to high standards of food safety and sustainability.
Identified issues/defining technological/business problems for solution seekers	Challenges include managing complex production systems, ensuring continuous staff training, and optimizing resource usage to align with renewable energy availability.

Company's name	KKJV Cement Ltd.
Company's size (SME/Large)	SME
Contact person (name and last name, e-mail, telephone number, website)	Dala Soma, https://kkjvcement.hu/index.html
Country	Hungary
Sector	Building materials & furniture
Brief description of business/main product/TRL level etc. (max 500 characters)	KKJV Cement Ltd. is a medium-sized cement producer in Hungary, known for its commitment to quality and customer satisfaction. The company specializes in providing high-grade cement products tailored to the needs of various construction projects, from residential buildings to large infrastructure developments. KKJV Cement Ltd. focuses on leveraging sustainable raw materials and optimizing its production processes to deliver consistent quality while minimizing environmental impact.
Identified issues/defining technological/business problems for solution seekers	KKJV Cement Ltd. is focused on enhancing its operational efficiency to lower production costs and reduce energy consumption. The company is also prioritizing the modernization of its facilities to comply with environmental regulations and improve its overall production capacity to better serve the growing market demand.



Company's name	DTG Cement Ltd.
Company's size (SME/Large)	SME
Contact person (name and last name, e-mail, telephone number, website)	Dala Soma https://dtgcement.hu/en/supplier/
Country	Hungary
Sector	Building materials & furniture
Brief description of business/main product/TRL level etc. (max 500 characters)	DTG Cement Ltd. is a prominent cement manufacturer in Hungary, known for its high-capacity production facilities and dedication to sustainable manufacturing. The company utilizes cutting-edge technology to produce a wide range of cement products, ensuring quality and consistency. DTG Cement Ltd. places a strong emphasis on environmental stewardship, actively reducing its carbon footprint and adopting innovative solutions to enhance energy efficiency across its operations.
Identified issues/defining technological/business problems for solution seekers	DTG Cement Ltd. faces challenges in integrating advanced technologies to further minimize environmental impact and improve energy efficiency. The company is also working to expand its production capabilities to meet increasing domestic and international demand while adhering to stringent quality control standards.

Company's name	Galaxy Distribution Ltd.
Company's size (SME/Large)	SME
Contact person (name and last name, e-mail, telephone number, website)	Kovács Tamás, Website: https://galaxy-cosmetics.com/
Country	Hungary
Sector	Chemical (Cosmetics) & Distribution
Brief description of business/main product/TRL level etc. (max 500 characters)	Galaxy Distribution Ltd. provides logistics and supply chain management solutions, optimizing distribution routes and employing digital technologies for efficient operations. Galaxy produces hair and beauty products in Hungary, such as hair care and hairdresser professional products.
Identified issues/defining technological/business problems for solution seekers	Main challenges include enhancing digital infrastructure for better tracking and delivery efficiency, and integrating sustainable practices within logistics operations. Transition to green and digital manufacturing is a challenge for Galaxy.



Company's name	Urban Dandy Ltd.
Company's size (SME/Large)	SME
Contact person (name and last name, e-mail, telephone number, website)	Honos Dalma, Website: www.urbandady.hu
Country	Hungary
Sector	Chemical
Brief description of business/main product/TRL level (max 500 characters)	Urban Dandy known for its hair and cosmetics line of products, including cleansing foams and saltwater sprays, shampoos. The company's products are designed to offer quality and style, catering to modern lifestyle needs with formulations that emphasize effectiveness and user experience.
Identified issues/defining technological/business problems for solution seekers	Urban Dandy faces significant challenges due to the lack of digital and green tools in its production processes. The company is looking to modernize its operations by integrating digital solutions for improved efficiency and traceability. Additionally keen to adopt environmentally friendly practices to reduce its ecological footprint, aligning with growing consumer demand for sustainable cosmetic products.