European Industry Digitalisation: the challenges ahead

Smart Industrial Remoting: remote working in non-digitalised industries – Pilot Project

Main Presentation

Contract No LC-01796763

28 June 2022

Agenda

01 Welcome

Egidijus Barcevičius, PPMI

02 A glimpse into the new EDIH network

Heidi Cigan, European Commission

03 European Industry Digitalisation - common challenges

Prof. Julian Müller, Kufstein University

04 Digitalisation challenges across 5 industries in Europe

Rūta Gabalina, PPMI

05 The industry view – panel discussion

Representatives of five innovation hubs

06 Concluding remarks

Egidijus Barcevičius, PPMI

Workshop objectives

1. Discuss the preliminary findings of our gap analysis of European industry digitalisation

2. Examine the latest trends and key barriers to digitalisation that are specific to the five industries

3. Validate and gather additional inputs concerning challenges facing industry digitalisation in Europe

Your Mentimeter results

Which type of organisation best describes you?
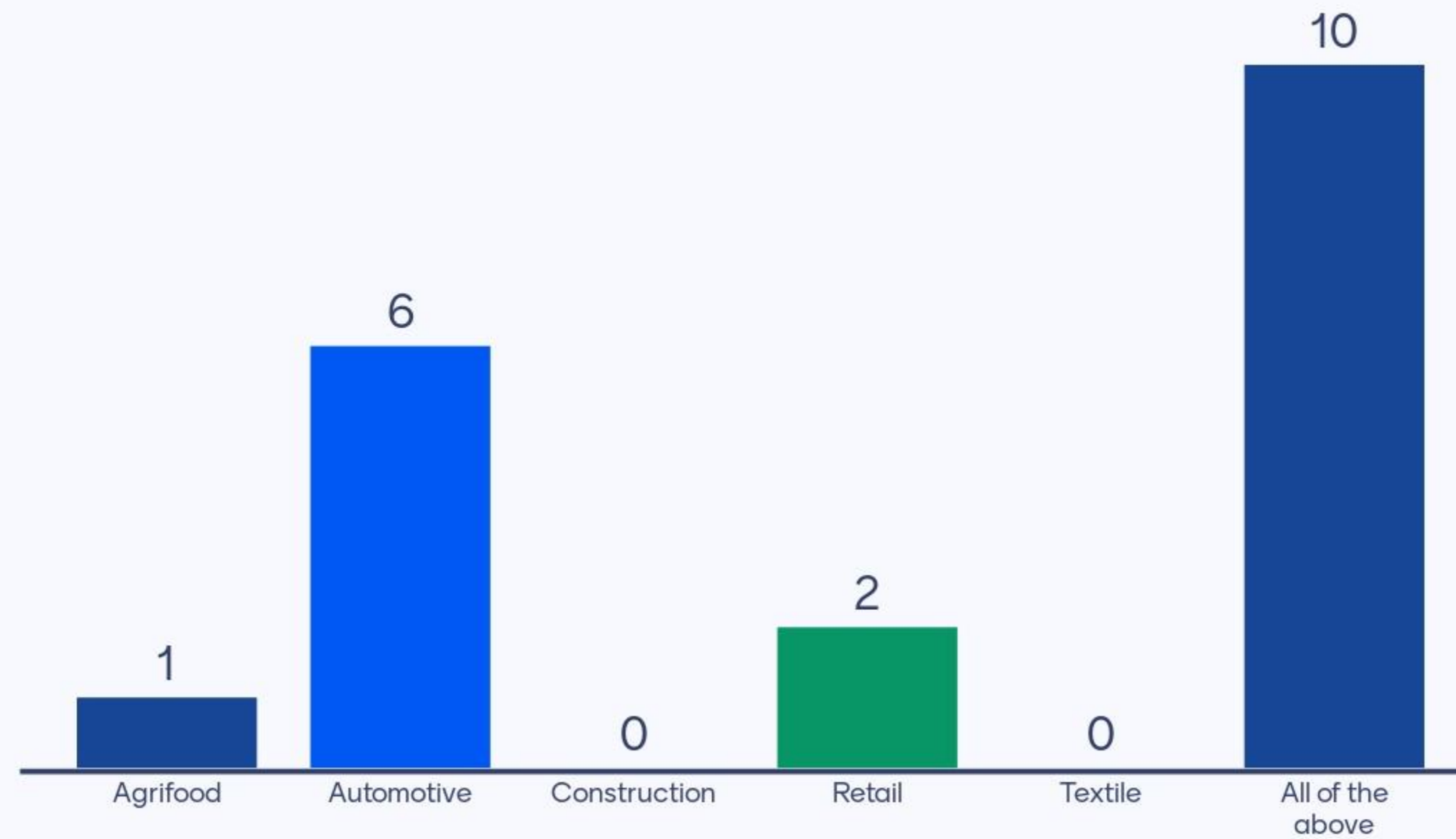
Mentimeter

- A business: 6
- Academia: 2
- Public sector: 4
- Digital Innovation Hub: 6
- Association: 1
- Other: 1
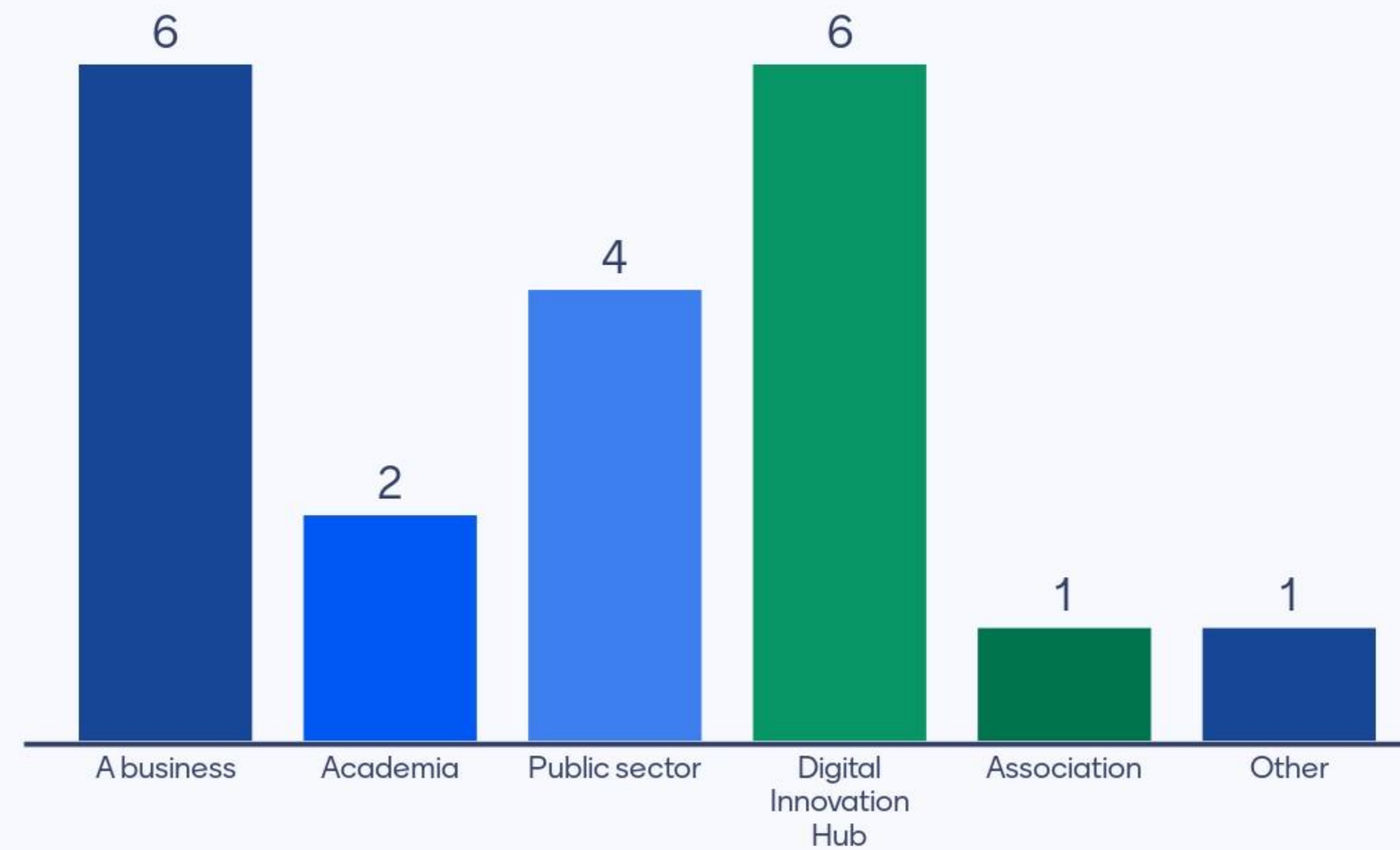
20

Your Mentimeter results

Which industry are you most interested in exploring today?

Mentimeter

| Agrifood	Automotive	Construction	Retail	Textile	All of the above
1	6	0	2	0	10

19

Smart Industrial Remoting study: our objectives

Deliver **user-friendly and targeted advice** on digitalisation/smart industrial remoting for 5 industrial ecosystems, in 5 EU countries:

– Construction in Romania

– Textile in Portugal

– Retail in Poland

– Automotive in Hungary

– Agrifood in Lithuania
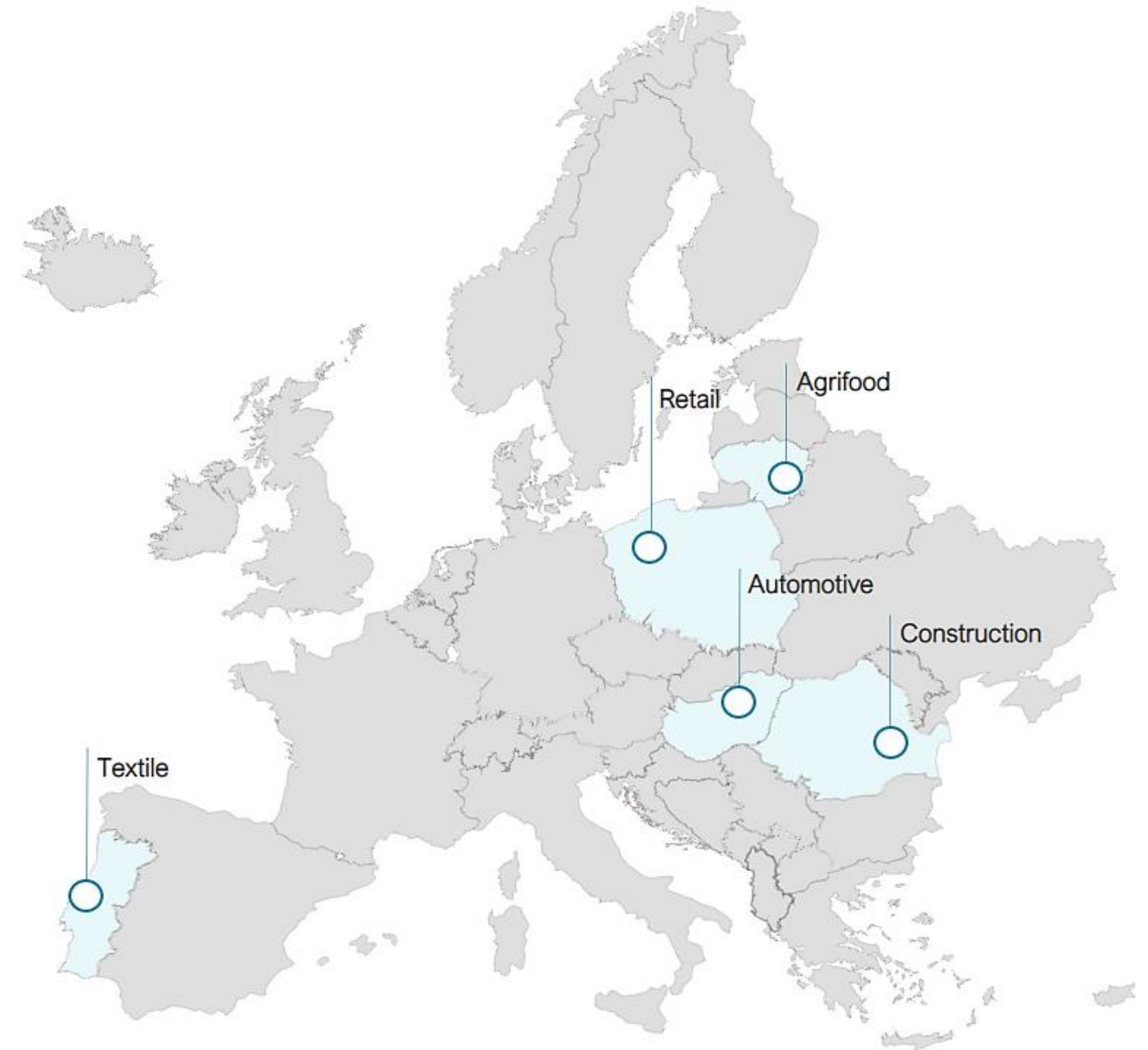
Smart Industrial Remoting study: tasks
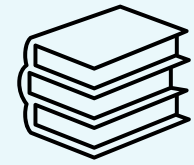
1. Gap Analysis

Assessing gaps and strengths associated with digitalisation in the targeted industries.

2. Problem Identification

Identifying the main problems faced by SMEs in each country-industry pair in their attempts to digitalise, based on the findings of the gap analysis and an SME survey.
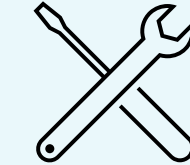
3. Best Practices Identification

Identifying examples of good practices that have been applied by companies across Europe to address the problems outlined in Step 2.

4. Experiments

Running five interventions with SMEs based on their specific digitalisation needs and capabilities, which will be monitored over a six-month period.

5. Toolbox Development

Based on the findings of the four previous tasks, developing five digitalisation toolboxes that will contain key recommendations aimed to foster industry digitalisation.
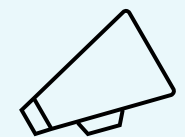
6. Dissemination & Promotion

We are organising a series of workshops at each stage of the study to gather stakeholder feedback and raise awareness about our findings. Keep an eye on our future events!

The study team

PPMi

&

Digital Innovation Hubs

AgriFood DIH Lithuania

innomine

citeve TEXTILE TECHNOLOGY

dih4.eu digital innovation & hubs for Europe

FIT | DIGITAL INNOVATION HUB

What you told us

In our opinion, what are the main challenges facing European industry digitalisation at the moment?

What you told us

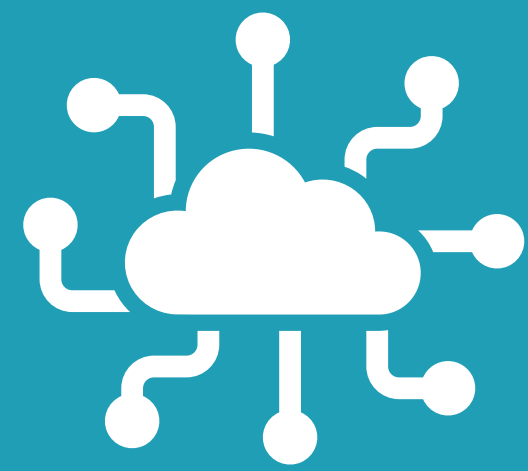What factors are the most important in facilitating industry digitalisation?

Scene setting by the Commission
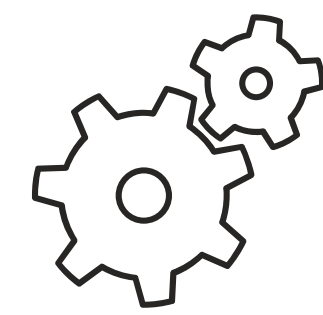
* Published as a separate file

European industry digitalisation – common challenges across Europe

* Published as a separate file

Digitalisation challenges across 5 industries in Europe

Gap analysis methodology

| FACTORS INFLUENCING INDUSTRY DIGITALISATION			
Industry-level factors			External shocks (for example, COVID-19, War in Ukraine)
Policy factors	Social factors	Economic factors	
• Policy and regulatory environment • Governance • Education, support, and knowledge transfer	• Human capital • Consumers	• Digital infrastructure • Financing • Innovation ecosystem	• Supply chain effects • Labour force effects • Economic and consumer demand effects

■ Types   ■ Dimensions   ⸬ Factors/effects
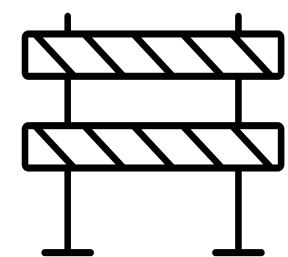
Construction in Romania: digitalisation gaps

State of play overview

- Relative resilience shown to external shocks i.e., COVID-19 pandemic and Russian attack on Ukraine.

- Biggest challenge is overcoming labour shortages driven by low wages, migration to Western Europe, and absence of vocational education.

- Upcoming structural changes to the industry (i.e., the green transition) will manifest in increased focus on energy efficiency, digitalisation of road and rail transport, and the deployment of electric charging infrastructures.

99%
of companies have very low and low digital intensity scores. 90% have a very low DII score (EU average is 62%).

27th
in the EU according to the DESI 2021, scoring low in 'human capital' (26th). Ranks last in 'digital public services'.

Challenges

- Lack of digital and ICT skills, further complicated by changing demographics of the industry.

- Labour shortages resulting in hiring of workers with lack of digital or specialist skills.

- Bureaucracy related to authorisation of construction projects and public procurement policies do not support digitalisation.

- Lack of awareness of digital technologies, high associated costs, and staff training.

Industry strengths

- Growing industry with continued growth forecast.

- Legislative and tax support improve prospects for investment in costlier technologies.

- COVID-19 pushed digitalisation to the top of the political agenda.

- Bottom-up initiatives driving uptake of digital technologies.
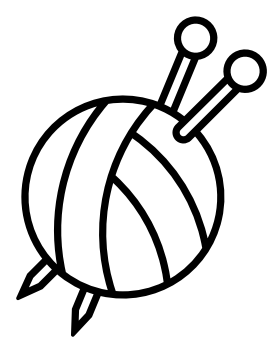
Textile in Portugal: digitalisation gaps

State of play overview

- Represents a complete value chain of textile products with relatively high resilience to supply chain disruptions.

- Increasing environmental and ethical requirements.

- 99.2% of enterprises are SMEs.

97% of companies have very low and low digital intensity scores. 74% have a very low DII score (EU average is 59%).

**10%** employ ICT personnel (EU average is 12%). Only 11% provide ICT training to staff.

Challenges to industry digitalisation

- Several trends will require rapid digitalisation (supply chain due diligence, response to environmental concerns, customisation).
- Shortage of digital and managerial skills.
- Certain operations (e.g., sewing) are difficult to digitalise.
- SMEs find it difficult to devote time and resources to digitalise.

Industry strengths

- A developed support ecosystem for SME digitalisation.

- Presence of highly digitalised companies and numerous digital start-ups.

- Very high uptake of AI, higher uptake of ERP, 3D printing and robotics than in EU27.
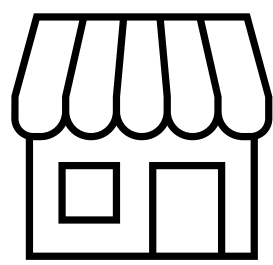
Retail in Poland: digitalisation gaps

State of play overview

- Vulnerable to COVID-19-related social distancing measures and demand shocks.

- High proportion of small stores, almost all enterprises (99.91%) are SMEs.

- Ongoing market consolidation with big chains acquiring or pushing smaller players out of the market.

86%
of companies have very low and low digital intensity scores. 64% have a very low DII score (EU average is 45%).

21%
enterprises with e-commerce sales at least 1% of turnover (EU average is 29%). 13% increased online sales due to COVID-19.

Challenges to industry digitalisation

- SMEs find it difficult to remain competitive, while large chains benefit from digital.

- Lack of support mechanisms that target the retail industry.

- SMEs lack skills and awareness to implement digital solutions.

- Crises can lead to deprioritising of investment in digital.

Industry strengths

- Availability of services (fulfillment, intermediary marketplaces, digital marketing) helps SMEs digitalise.

- Funding and tax relief schemes targeted at SME digitalisation, reduced regulatory barriers for online and contactless payment.

- Higher rate of ICT employment and training than in EU27.
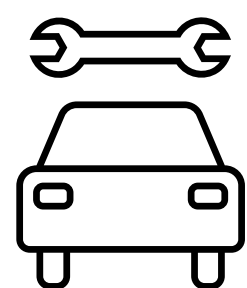
# Automotive in Hungary: digitalisation gaps

State of play overview

- One of the most dominant sectors in Hungary, contributing 4.1% of GDP.

- 5 major car manufacturers, 3 major engineering service providers, 8 OEMs, 66 TIER1 suppliers.

- Specialised in mid-stream production activities, is pursuing functional upgrading.

83%
of companies have very low and low digital intensity scores. 53% have a very low DII score (EU average is 39%).
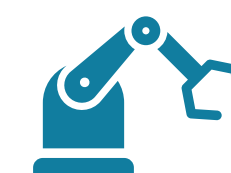
43%
use robots (EU average is 35%), e-commerce adoption is higher than in EU27.

Challenges to industry digitalisation

- SMEs struggle with digitalisation.

- High uncertainty due to changes in OEM business models.

- Vulnerability to demand and supply chain shocks.

- Low awareness of digitalisation opportunities & implementation examples.

Industry strengths

- Robotics and e-commerce uptake higher than in EU27.

- Large multinationals drive industry digitalisation.

- High proportion of enterprises employ personnel with ICT/ advanced manufacturing skills.

- Many EU funded initiatives targeted at SMEs, automotive is a high-priority industry.
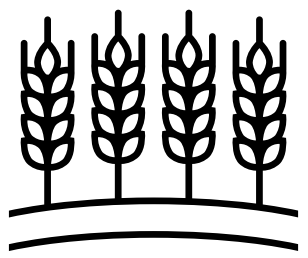
Agrifood in Lithuania: digitalisation gaps

State of play overview

- Plays an important economic (7.1% of GDP) and social (33% of the population still living in rural areas) role.

- The sector is less efficient than that of the EU.

- Agriculture and food production (processing) are often treated as separate sectors in Lithuania.

82% of companies have very low and low digital intensity scores. 46% have a very low DII score (EU average is 55%).

50% Of companies in the manufacturing of food, beverages, tobacco have an ERP, well above the EU average.

Challenges to industry digitalisation

- Limited funding programmes available for players in the industry.

- Up until recently, few political initiatives and leadership focused on digitalisation of agrifood.

- Fragmented value chain leading to lack of collaboration among players.

- Demographic shift toward an ageing workforce, further complicating the uptake of digital skills.

Industry strengths

- Technology uptake is higher than the EU average in the industry.

- Agrifood clusters are increasingly collaborating with the public sector, raising awareness about the industry's potential for digitalisation.

- Strong potential for the country to become testing ground for Agrifood Tech.

Main takeaways from gap analysis

Value chain
Larger and customer facing companies often are more digital than smaller and non-customer facing companies. Trickle-down effects can incentivise technology uptake.

Business transformation
A high degree of uncertainty due to changes in business models requiring large scale transformation.

COVID-19 & digitalisation
While large companies have accelerated digitalisation during the pandemic, some companies, especially SMEs, saw it as a barrier instead.

Digital skills
Industries are facing an ageing workforce and shortages of skills, including advanced digital and hybrid skills.

Financing and support
Support instruments present opportunities for digitalisation, however, lack of targeted instruments for some industries, low capacity to absorb funds and awareness remain challenges.

Awareness & prioritisation
Industry experts cite lack of awareness and know-how as challenges. Some SMEs do not consider digitalization as a priority.

Panel discussion

The industry view – today's speakers

Barbora Kudzmanaitė
Senior Researcher,
PPMI

Przemyslaw Kowalski
President,
dih4.eu

Kristina Šermukšnytė-Alešiūnienė
Managing director,
AgriFood Lithuania

Ionuț Tata
CEO,
Iceberg Plus

Gabor Vicze
CEO,
innomine

Pedro Machado
Projects Manager,
CITEVE

Q&A

Your Mentimeter results

Closing & next steps

➤ Sharing workshop presentations and take-aways

➤ Integrating today's findings into the Gap Analysis report

➤ Researching company-specific digitalisation problems facing the five industries

➤ Organising a follow-up workshop on digitalisation best practices in October 2022

Thank you