COMMITTEE FOR EUROPEAN
CONSTRUCTION EQUIPMENT

Digitalización de las máquinas para construcción
Una contribución de CECE

ConstruYes - Zaragoza

Our Spanish member

ANMOPYC
ASOCIACIÓN ESPAÑOLA DE FABRICANTES DE MAQUINARIA DE CONSTRUCCIÓN, OBRAS PÚBLICAS Y MINERÍA

Committee for European Construction Equipment

CECE 60 years

REPRESENTATIVE ASSOCIATION OF MANUFACTURERS

ESTABLISHED IN LONDON = 1959

PERMANENT ESTABLISHMENT IN BRUSSELS =2004

MEMBERS ARE NATIONAL TRADE ASSOCIATIONS

SECRETARIAT 8 STAFF

COMMITTEE FOR EUROPEAN
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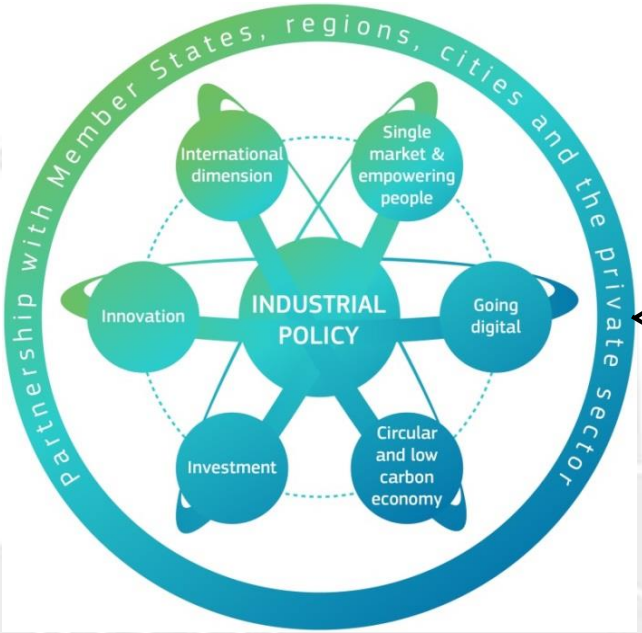
The EU Policy to Support Digital Transformation of Industry

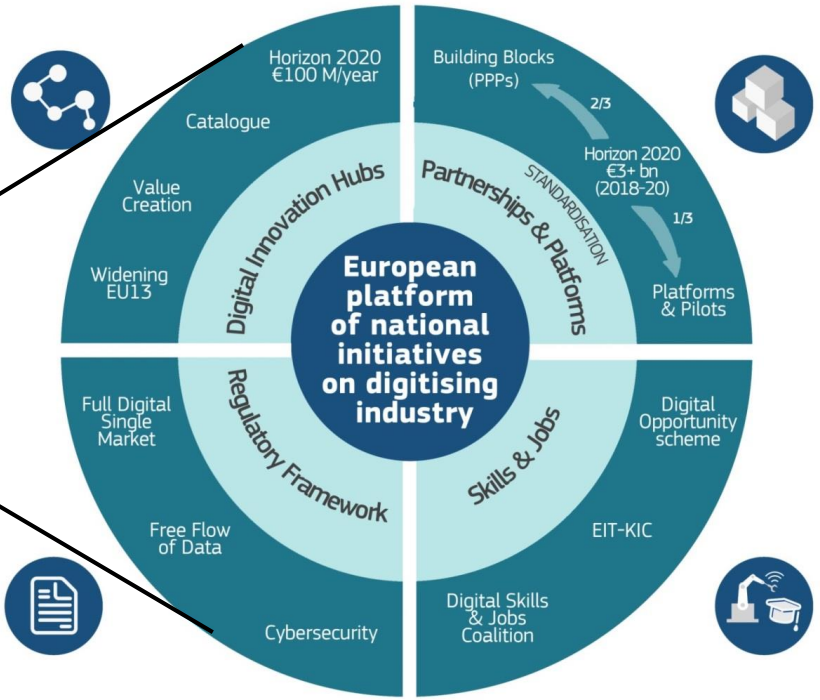
Digitising European Industry

Industrial Strategy for Europe



September 2017

Digitising European Industry Part of the Digital Single Market Policy



DEI – Digitising European Industry

"Europe needs to join forces under a common strategy that takes digitalisation of the EU's economy forward in order to unlock the full potential of the 4th industrial revolution."

Key points

DIH: a structure serving the SMEs with a cluster of services to support/assist them in their move toward digitalisation – reference architectures and (standard) models, online digital catalogues, business & funding models, etc..

Platforms, partnerships: exhaustive partnerships should allow to exchange about DIH/platforms to be promoted – the DEI initiative providing a workplace for discussing terms & conditions for coordination between PPP, JU, EC & MS.

Standards for the industry: following workshops on 17/10/2017 and roundtable on 21/11/2017, identifying a need for European synchronisation among standardisation works → devoted to a DEI/MSP joint group (decision on 14/03/2018).

Manifesto on Digitalisation

- With associations from the entire value chain
- European Union should take **political lead** on **digital construction**.
- Need of an appropriate **regulatory framework** on **data policy.**
- **EU budget** must focus on **digital skills**, R&D and deployment of IT infrastructure.

EU policy and EU funding

DigiPlace – 1st Digital Industrial Platform for construction

First chance of Horizon2020 funding for Digital Construction

- Bid by industry-led consortium
- Architecture definition of platform
- Strong academic partnership
- 1st ever call in Horizon 2020
- Successful evaluation

Digital Industrial Platform

Successful proposal – DigiPlace will start

- Beginning of activities 1st September 2019
- Proposed duration 18 months
- Consortium of 19 partners; 11 countries;
  - EU Industry associations
  - Academia & research centres
  - IT companies
  - National public administrations from Germany, Italy, France

1 million € budget from DG CONNECT
First experience of the whole construction value-chain

Digital Industrial Platform

Calendar & milestones

- Website online by December 2019
- Launch event in Brussels by November 2019
- To be presented at CECE Summit 2019
- Outreach seminars around Europe in 2020
- Conclusion by March 2021

Main deliverable – reference framework architecture & roadmap

Interaction with next programming period Horizon Europe

CECE's Digitalisation Project

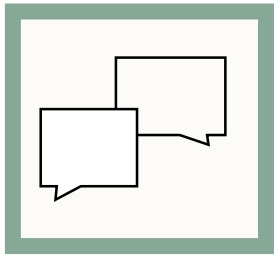
Contents

1. Methodology

SOURCES

DESK RESEARCH

ONLINE SURVEY

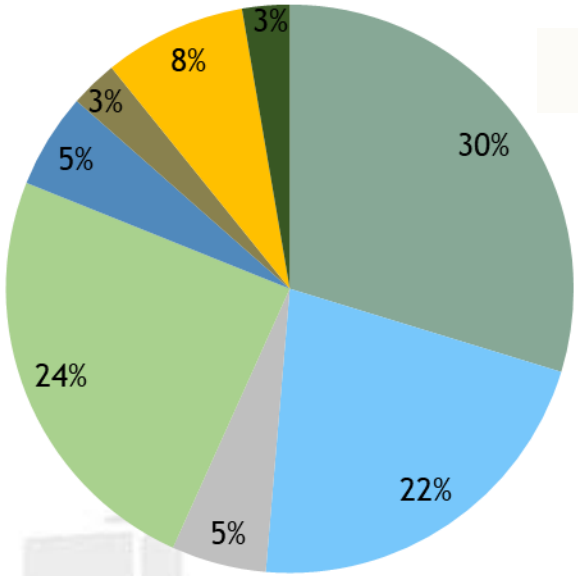


IN-PERSON INTERVIEWS

PRACTICAL CASE STUDIES

1. Methodology

47 representatives from 37 companies



INTERVIEWS

2. What is Digitalisation?

MEANING

"*Digitalisation is the use of digital technologies to change a business model and provide new revenue and value-producing opportunities*" (Gartner Glossary)

Intelligent design and planning

Fleet management

Predictive maintenance

Innovative fabrication methods

Monitoring and evaluation of resilience

Autonomous equipment and driverless vehicles

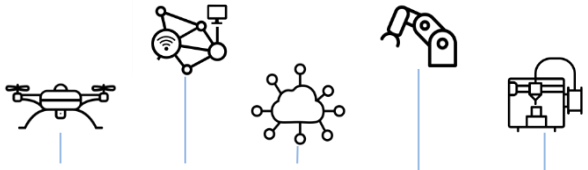
Digitalisation means accessing information to gain insights and leverage the "power of information" through data collection, analysis and management to provide new solutions with a higher value added

2. What is Digitalisation?

BARRIERS

- Large companies tend to be slow in taking decisions but they become trend-setters;
- Cost of digitalisation is relatively high for SMEs;
- SMEs fear potential drawbacks coming from the adoption of digital equipment;
- There is a different level of maturity between large companies and SMEs;
- Lack of skills and difficulties in recruiting/attracting young people and digital talents;
- Lack of commonly defined standards and low interoperability.

3. New Business Models



Digital technologies

DATA COLLECTION AND DATA ANALYSIS

New and improved products and services

Customisation

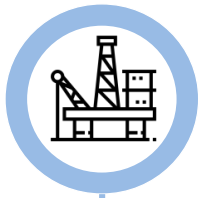
Highly digitalised processes

3. New Business Models

Business models are expected to change and new forms of collaboration will emerge as a consequence of the adoption of digital technologies.

Servitisation
will lead to major changes in the company structure and processes

Business case
Finding the business case is the most important trigger for digital transformation



Extracting value from data
Data analysis can investigate potential problems and needs and to provide highly customized solutions to customers

New forms of collaboration and management systems
Because of digitalisation, boundaries between the different players blur, leading to new forms of business management

3. New Business Models

Data sharing: benefits and challenges

The potential (and the risk) of data lies in the ability to analyse it

Partnerships may emerge to design new products and services

Models for data sharing are emerging

B2B collaboration and Digital Industrial Platform Concrete Implementation - DigiPlace

Code of Conduct on data sharing in agriculture

Example from the sector: the “Banking” Model

4. Relationship with Public Authorities

Public procurement

Regulation and standardisation

Public funding

Investment in education

5. Skills and Competences

The digitalisation wave will gradually alter the labour market in the years to come.

Managerial/Executive skills

Need to create a new class of executives capable of leading organisations in the new digital scenario.

Technical skills

Need for digital skills to use tablets, smart devices and manage data.

Because of digital technologies the gap between high-level and low level jobs will increase.

Awareness on the potential and impacts of digital technologies

Before having data scientists in the company you must make people aware of the potential of data

Digitalisation is an important element of attractiveness for younger generations in the sector.

6. Case Studies

Practical case studies have been deeply investigated by adopting an ecosystem approach in order to better understand the level of digitalisation accomplished, as well as the dynamics of the digital transformation in the context of the construction value chain.

The challenge

The solution

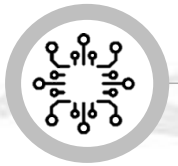
Lessons learned

Barriers to innovation

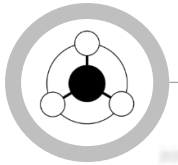
Key success factors

7. Conclusions

Identify a business case through a multi-step iterative approach



Use digital (data) technologies to identify needs and problems



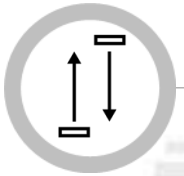
Adopt an ecosystem approach to look for outcome-based solutions

Focus on data sharing agreements

7. Conclusions

Increase collaboration

Stimulate new forms of public support to digitalisation



Find the right balance between the “pull and push” approach

Strengthen training and education through partnerships

Muchas gracias por su atención!

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