Stakeholder Forum for the Digitising European Industry (DEI) initiative

Report from the workshops

Workshop A1 Skills for the digital age – Challenges, Best Practices and Initiatives	Workshop A2 Standards, reference architectures and testbeds for manufacturing industry	Workshop A3 Security and data Security for industry
Workshop B1 EU Working Group 1 session: Digital Innovation Hubs - Mainstreaming digital innovation across all sectors	Workshop B2 EU Working Group 2 session: Strengthening leadership in digital technologies and in digital industrial platforms.	Workshop B3 Regulatory challenges for digitizing industry

Zeche Zollverein
Essen (DE)
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Hosted by German Federal Ministry BMWi

Federal Ministry for Economic Affairs and Energy

European Commission

Stakeholder Forum: Objectives

- Wide consultation and involvement of **stakeholders from the full digital value chains** on DEI ("digitising European industry" initiative).

- To be held once per year as **key element of DEI governance** together with round-tables and EU Working Group (WG) activities.

Workshop A1 Skills for the digital age – Challenges, Best Practices and Initiatives	Workshop A2 Standards, reference architectures and testbeds for manufacturing industry	Workshop A3 Security and data Security for industry
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Stakeholder Forum: Workshop A1

Skills for the digital age – Challenges, Best Practices and Initiatives

Why?

- *Digital change and digitized industries need new **digital skills** and life-long learning*
- ***Inclusive industry 4.0**: Education of "new digital natives" and re/up-skilling the employed workers*

Key results from the workshop

- *Impact of digital tech on **jobs** will be strong (low-medium skilled disappear, high-skilled obsolete)*
- *EU cannot afford the **social cost** and the **economic impact** that goes with it*
- *Education system today was **designed for a different world**. It has to become more agile with involvement from all actors (academia, companies, unions).*
- ***Partnerships** in education are important. Digital Skills and Job Coalition is the EU initiative to help member states design coherent strategies and build partnerships.*

Stakeholder Forum: Workshop A2

Standards, reference architectures and testbeds for manufacturing industry

Why?

- *Need for large **cross-border test-beds***
- *Global standards are **enablers for investments***
- *SME need **easier access to standards***

Key results from the workshop

- ***Framework for common understanding** has been created (RAMI 4.0)*
- ***Standardization Council** to assess proposals and push for new standards exists*
- ***Network of test labs** established to enable experimentation and validation of new technologies and inspire new standards*
- *Don't re-invent the wheel; **involve market players***
- *Aligned with **priorities of EU for standards** in Cloud, IoT, 5G , Security, Data*

Stakeholder Forum: Workshop A3

Security and data Security for industry

Why?

- *No digitisation without security*.
- *Data is an asset* and has to be protected and trusted data exchange ensured.
- Cybersecurity in *industry 4.0 context*.

OT: Operational Technologies
CISO: Chief Industrial Security Officer
NIS: Network & Information Security

Key results from the workshop

- *Cybersecurity hits RAMI 4.0 at all levels* and key to muti-homed industrial data platforms operation.
- Cybersecurity in industry 4.0 for SMEs should *start from solid (digital) asset inventory* development.
- The factories need to be protected as *part of business strategy* (KPIs & new CISO role at OT level).
- *Secure identity management* the basis for secure value chains.
- *Product certification* could help to comply with NIS directive & raise confidence in the development.

Stakeholder Forum: Workshop B1

Working Group 1 session: Digital Innovation Hubs

Why?

- *Innovation Hubs to make digital technology available for any SMEs within "working distance"*
- *Best practices exchange for a strong and complementary European network of DIH.*
- *Stocktaking of results after the first meetings of WG*

Key results from the workshop

- A DIH is: **a one-stop shop** providing **services to companies in the region** through **a multi-partner cooperation**
- Variable approaches foreseen: sector-focused; technology-focused; application-focused, etc
- A successful DIH should offer **single point of entry** and provide **support** instead of funding
- Examples show importance of **staged services**, offering companies a clear path towards digitisation
- DIHs grow organically **based on regional strengths**: should be Hubs are SME facing & address industry needs
- **Regions** will be key to implementation – need **regional strategies** and joined up funding regional/national/EU
- Key outputs so far: **Catalogue of DIHs being compiled**; H2020 to reinforce networking and cross-border activities

Stakeholder Forum: Workshop B2

Working Group 2 session: Digital platforms for the industry of tomorrow

Why?

- *Stocktaking of results* after the first meetings of WG
- Articulation and *coordination of digital platforms* across EU member states and industry
- Transition towards large-scale initiatives on Digital Platforms

Key results from the workshop

- *Many initiatives in verticals*, e.g. Agri, Health and Manufacturing
- Extra *leverage by horizontal technologies*, e.g. Data platforms and IoT
- Much *fragmentation*; need for orchestration
- DEI to stimulate bottom-up *experimentation, federation and standardization*
- *Joint effort* of EU, national and regional initiatives necessary
- Provide *feedback to draft report* of WG 2 (see Futurium)

Stakeholder Forum: Workshop B3

Regulatory challenges for digitizing industry

Why?

- *Free flow of data* and *data economy* at the core of digitization
- *Regulation a key issue* of industry 4.0 and autonomous systems in general
- *Legal framework needed* for product liability e.g. autonomous systems.
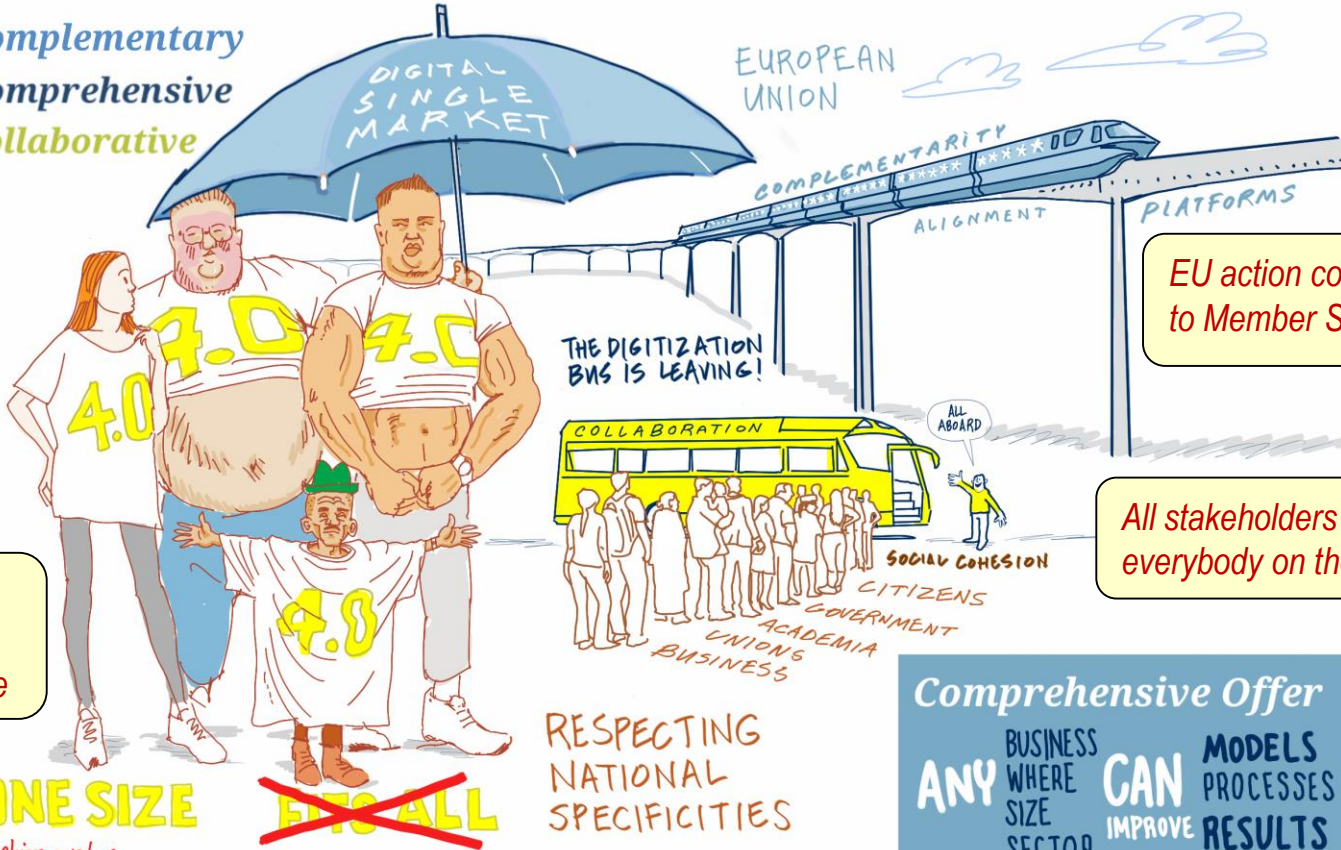
Key results from the workshop

- EU and national *regulations should not conflict* "Building European Data Economy". Consultation is open.
- Technical control of *EU Trade Secrets directive* is difficult and may conflict with free flow of data.
- *"Freedom of contract"* is key to innovative business models and could be used to resolve data ownership assignment for machine data.
- *Liability Defective Product (LDP) directive* is being evaluated to assess, among others, allocation of liability for digital servitised products based on IoT systems, embedded products & autonomous systems.

Stakeholder Forum

The report of this event will be available on
http://bit.ly/futuriumdei

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