Digital Transformation Monitor - national initiatives on digitisation of industry

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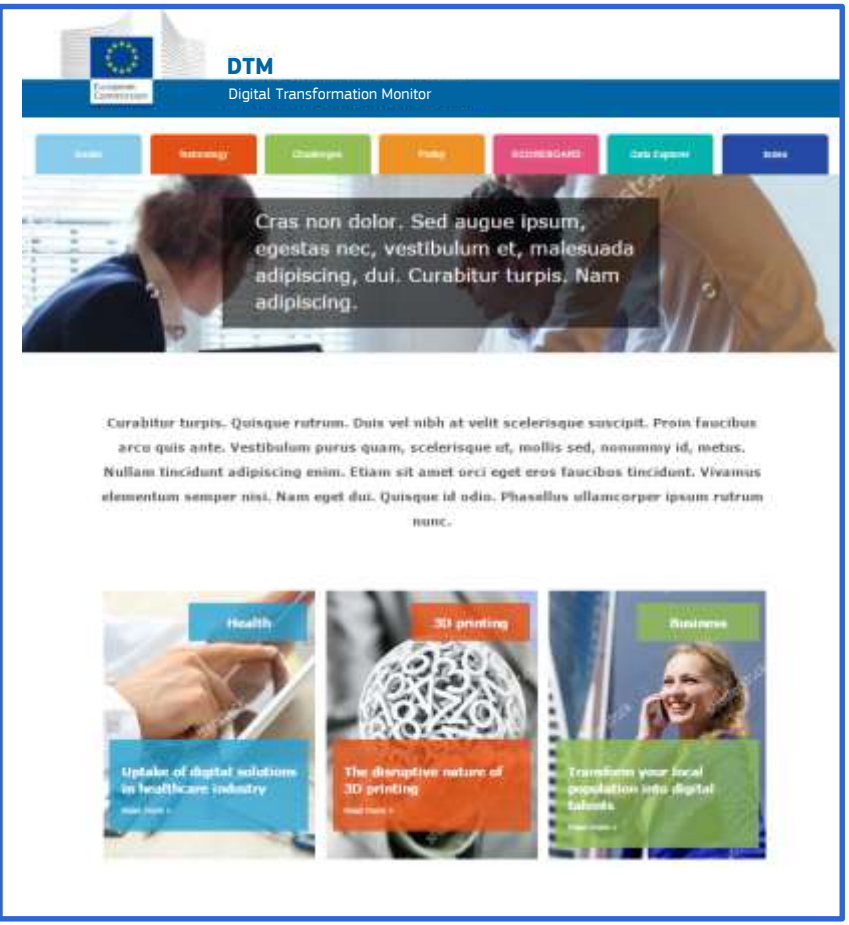
Digital Transformation Monitor

European Commission



Sector

Policy

Technology

SCOREBOARD

Challenges

Data Explorer

Digital Transformation Monitor

Pillars of scoreboard indicators

- Digital knowledge base and ICT Market
- Digital business environment
- Access to finance
- Digital transformation
- ICT Start-ups
- Entrepreneurial culture
- Digital skills and e-leadership

Survey categories

- Digital economy
- Digital technologies
- Digital strategy
- Digital adoption
- Digital Human Capital
- Digital investments
- Digital transformation
- Impact

Scoreboard

Objectives of the policy reports

- Provide concise information on national policy initiatives of EU countries for the digitalization of industries and enterprises covering:
  - ✓ policy objectives,
  - ✓ budget,
  - ✓ implementation,
  - ✓ drivers,
  - ✓ challenges,
  - ✓ lessons learnt, etc.
- Provide policy-makers with hints and priorities for future gaps that are likely to emerge
- Highlight synergies between national policies of EU countries to support the digitalization of industries and enterprises
- Provide information on the set of measures of the "Digitising European Industry initiative" (DEI)

Methodology for the creation of policy reports

- **Selection criteria**
  - Uptake/scope/scale
  - Transferable/Scalable
  - Innovative
  - Impact/Outputs
  - Number of beneficiaries
  - Availability of indicators
  - Implementation/Monitoring

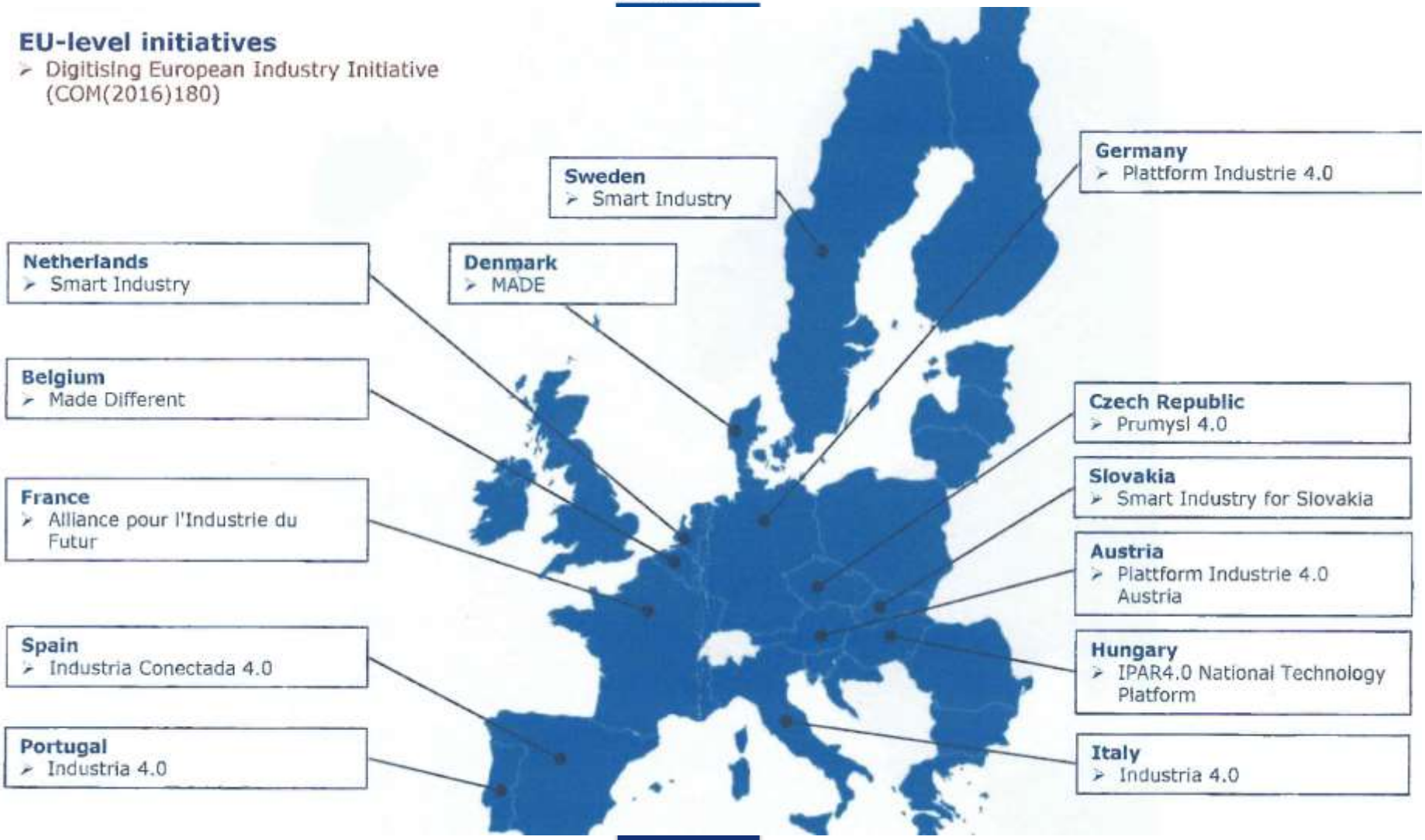
- **Data collection methodology**
  - Desk research
  - Consultations/interviews
  - Follow-up enquiries with implementing authority
  - Validation by interviewee

- **Topics of the questionnaire**
  - Story behind the conceptual design
  - Implementation process
  - Main drivers/enablers
  - Implications for digital transformation of industry
  - Funding/financing
  - Replication or scale-up
  - Policy lessons learned
  - Success factors

European Commission

EU-level initiatives

- Digitising European Industry Initiative (COM(2016)180)



Industrie 4.0 – Germany

Policy Lever(s)	Publicly-backed and steered initiative that is implemented through stakeholder dialogue
Funding Model / Private financing	Mixing public funding with private financial and in-kind contributions; offering between a two to one or five to one ratio between private to public investment
Targeted audience(s)	Manufacturers/producers, SMEs and policy-makers
Impact & Focus Areas	Digital innovation and ICT market; transformation of business models and product/service delivery
Key drivers	Idea development by research actors, reform experience in production and pro-active unions
Key barriers	Competition among leading ICT players and shop-floor-level involvement
Implementation strategy	Comprehensive research agenda and I40 platform as a network foundation for digital transformation
Results achieved	Reducing industry segregation, transforming research agenda into practice, developing reference architecture and launch of platform with 150 members
Budget (EUR)	EUR 200 million from BMBF and BMWI that is complemented by financial and in-kind contributions from industry

Industrie 4.0 – Germany

- Uniqueness factor:
  - Rapid transformation from research agenda into mainstream practice and platform constitute the largest and most diverse I40 network globally
- Value-added for policy-makers:
  - A strategic initiative for consolidating technological leadership in mechanical engineering and for helping policy-makers to push forward I40 at all levels
- Expected Impact:
  - Provide a consistent and reliable framework for developing Germany's competitive position in manufacturing

Industria Conectada – Spain

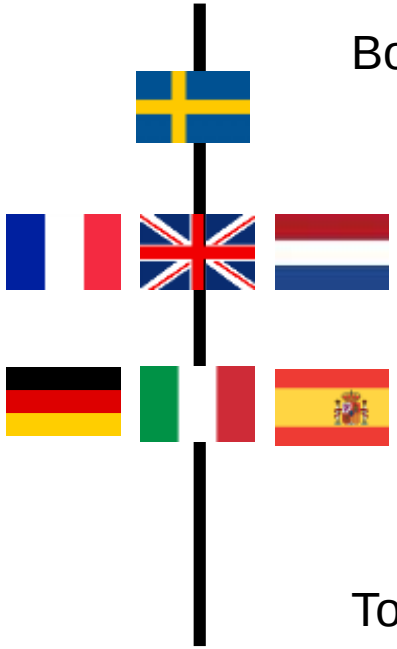
Policy Lever(s)	Mainly publicly funded with plans to increase industry share, skills-focused and top-down directed, with bottom-up incentives
Funding Model / Private financing	Public-private partnerships. Loan and direct aid based system to ensure participation of the private sector with expected leverage effect of 1:2
Targeted audience(s)	Enterprises with industrial activity, in particular SMEs and micro-enterprises
Impact & Focus Areas	Focus on digital enablers, in particular intra and inter-enterprise enablers, with impact areas in employment and competitiveness settings
Key drivers	Spanish Industry 4.0 model and awareness and dissemination working as enabler
Key barriers	Ensuring the involvement of all stakeholders from different backgrounds and sectors
Implementation strategy	Multi-stakeholder consultations with core implementation group of three leaders from business
Results achieved	Set-up of innovation and research programme in June 2016 and pilot of enterprise support programme
Budget (EUR)	€97.5 million connected industry project calls for 2016; related programmes provide additional €68 million (loans and direct aid) for ICT companies and €10 million for innovative clusters

Industria Conectada – Spain

- Uniqueness factor:
  - Strong SME and micro-enterprise and digital transformation focus through specific project calls giving loans to industrial enterprises and mentoring programme for industrial enterprises
- Value-added for policy-makers:
  - Public-private-partnership to develop a Spanish model with a group of three leaders from business
- Expected Impact:
  - Development of local supply of digital solutions and elaboration of differential competitive levers to boost industry and exports

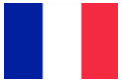
National initiatives on industry digitalization

Governance models



Uniqueness

Bottom-up-based and heavily industry driven with emphasis on skills



Wide coverage of financial instruments and regional involvement

Rapid transformation from research agenda into mainstream practice and platform

Hands-on approach by offering industrial scale technology

Combining triple helix, bottom-up approach with network-centric production

Centralising manufacturing actors to create a common vision and roadmap

Applied SME focus with regard to digital transformation

Further reading & contact:

Digital transformation of industry and enterprises:

http://ec.europa.eu/growth/sectors/digital-economy/index_en.htm

Reports of the Strategic Policy Forum on Digital Entrepreneurship:

http://ec.europa.eu/growth/sectors/digital-economy/entrepreneurship/strategic-policy-forum/index_en.htm

Blueprint for cities and regions as launch-pads for digital transformation

http://www.digitallytransformyourregion.eu/

Thank you !

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