Map of initiatives supporting the implementation of Industry Digitalization in across the EU

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European Federation of
Building and Woodworkers

European Furniture
Manufacturers Federation

European Furniture
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1. Introduction

During the last years, the fourth industrial revolution, called also industry 4.0 or industry digitalization, has been happening and impacting the European society and all industrial sectors. It has been at the centre of many national and European analysis. The European Commission has been working in setting a path to digitise the European Industry and it has launched different initiative as part of the "Digital Single Market - DSM" strategy package, which represents one of the ten priorities for the European Commission.

This document aims to collect the information currently available on those initiatives implemented across Europe to **support the whole complex and challenging process of digitizing the European Furniture industry** and which can support the different and several stakeholders and actors involved or affected in different ways by this new industrial revolution. Several initiatives are taking place across Europe, but it is clear that industry digitization is an ongoing process that require continuous updating and innovation of the actions. More efforts and investments are required to reduce the gap in the Furniture sector among highly developed digital regions and companies and lower-performing ones and thus properly exploit all the opportunities of the industry digitization **to benefit all European furniture workers and companies**.

In spite of looking also into other sources, to compile this document we mainly used different reports and documents coming from the European Commission activities and initiatives, as they have demonstrated to be the most updated and rich of relevant information for all furniture sector stakeholders, to whom this report is addressed.

It is important to understand that only a holistic approach across the Furniture Sector and the proper **involvement of all sector stakeholders** according to their specific features and interests can really support the European Furniture Sector to exploit all the potentialities and opportunities and to tackle all the challenges and threats of this 4th Industrial Revolution. This is essential for the EU furniture sector **in order to maintain and strengthen its competitive advantages** in relation to other regions and countries competitive and growing furniture sectors. There is the clear need to involve both employers and employees and their respective regional, national and European representative at a large scale. Bringing together furniture sector social partners and facilitate them to work together based on sound and updated knowledge and understanding of the level of progress of the Furniture Sector industry digitization is key to really succeed.

But we have also to consider that there are other actors relevant for the furniture sector that can facilitate the implementation of this key transformation. VET providers, Higher Education entities, Research Centres and their researchers, academics and trainers, regional and national VET regulatory entities, professionals and entities dealing with Health and Safety at work, and obviously policy makers and civil servants dealing with industrial relations, research, innovation and industrial and economic policies in general.

In spite of being aware that this document shows just a limited picture at this precise moment, the DIGIT-FUR project, and specifically this document, strives to target all these relevant furniture sector actors and provide them with information about which initiatives and activities are taking place across Europe and which can provide them relevant and enriching information to improve their respective performances. We are aware that this document shows just a limited picture at this precise moment

2. The Digital Single Market

During the last years, the European Commission through many different initiatives, reports and communications has highlighted **the importance of the 4th Industrial Revolution for the European Economy** and how it can and should represent an opportunity for all European enterprises, especially for manufacturing companies and consequently also for the European Furniture Sector.

In this framework and as part of the **European Single Market**, the European commission **launched in 2015** the **Digital Single Market strategy** which aim is to tear down or at least **reduce the different online barriers** that citizens and companies face and hamper they **fully exploit the benefit of this new digital era**. In synthesis, to properly exploit all the opportunities offered by the new technologies. As first result, we can mention the abolition of roaming charges within the EU.

The Commission is working to **get the proper support by the other European institutions and by member states** to successful implement the strategy and make the Digital Single Market a European reality. The EC has **identified different lines of work** such as **creating a truly connected** continent through high speed networks, **limiting the barriers** of cross-border ecommerce, **protect people privacy** in the different communication channels, **ensuring new modes of access** to culture and information with a fair repayment of authors.

The digital world is evolving continuously and to avoid lagging behind the EC has **put forward new and further actions to support the success of this strategy** such as the prevention of cyberattacks and the support of new fields of innovation such the internet of things, taking into account that *data is the new Oil of economy*. In relation to business, EC points out the importance of how **ensuring small businesses can get fair deals** in the framework of this new economy and **how members states can ensure people develop the right skills** required by the new jobs and opportunities produced by the digital transformation.

All in all, Europe need to **properly invest in research, technology and infrastructure** to secure the proper exploitation of this 4th industrial revolution by the European Furniture Sector.

3. Digitising European Industry strategy (DEI)

In the framework of the Digital Single Market package, in April 2016 the EC launched the **first industry-related initiative**: the Digitising European Industry strategy. The idea of this strategy lays on building on and complementing the existing national initiatives supporting the industry digitization to **reinforce the EU's industry competitiveness and ensure that it is able to benefit from this big change of paradigm**. It is important to notice that in spite of the fact that the **European Furniture Industry** is strong and highly competitive in some sectors, it **suffer strong and continuous competitiveness threats** from other regions across the world. Moreover, European regions clearly show v**ery different levels of technological development** in the Furniture and other sectors.

The **DEI** infographic: A scheme presenting DIGITISING EU INDUSTRY - Source EC (2016)
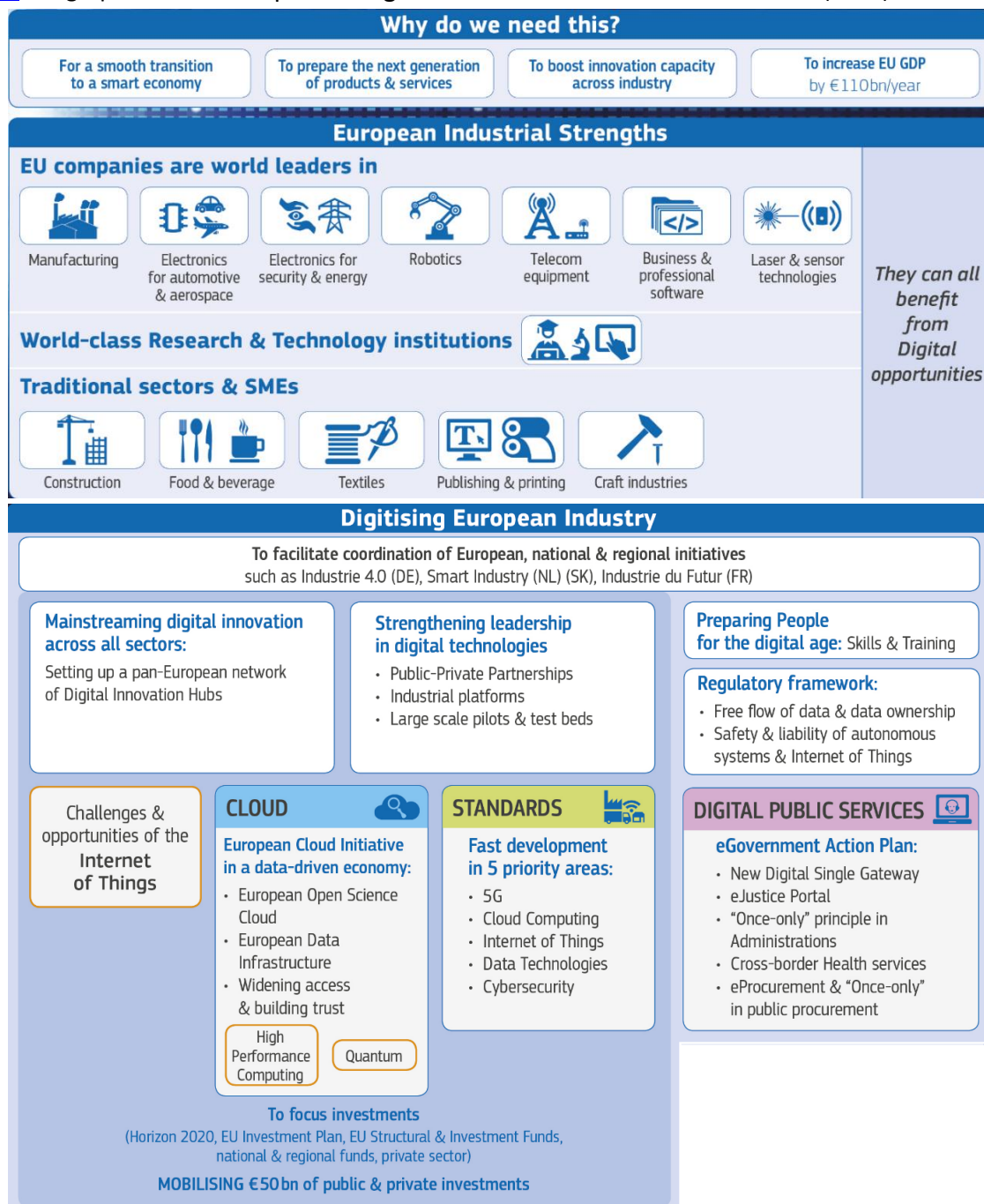
Additional information about the DEI can be found at the following link.

The DEI strategy is structured around five main pillars, which aim is to have differentiated and effective approaches to make the strategy implementation successful. They represent different initiatives, actions, line of works that in an integrated way strive to approach all relevant factors of the Digitising European Industry strategy and secure its success.

The DEI five main pillars can be seen in the following figure:
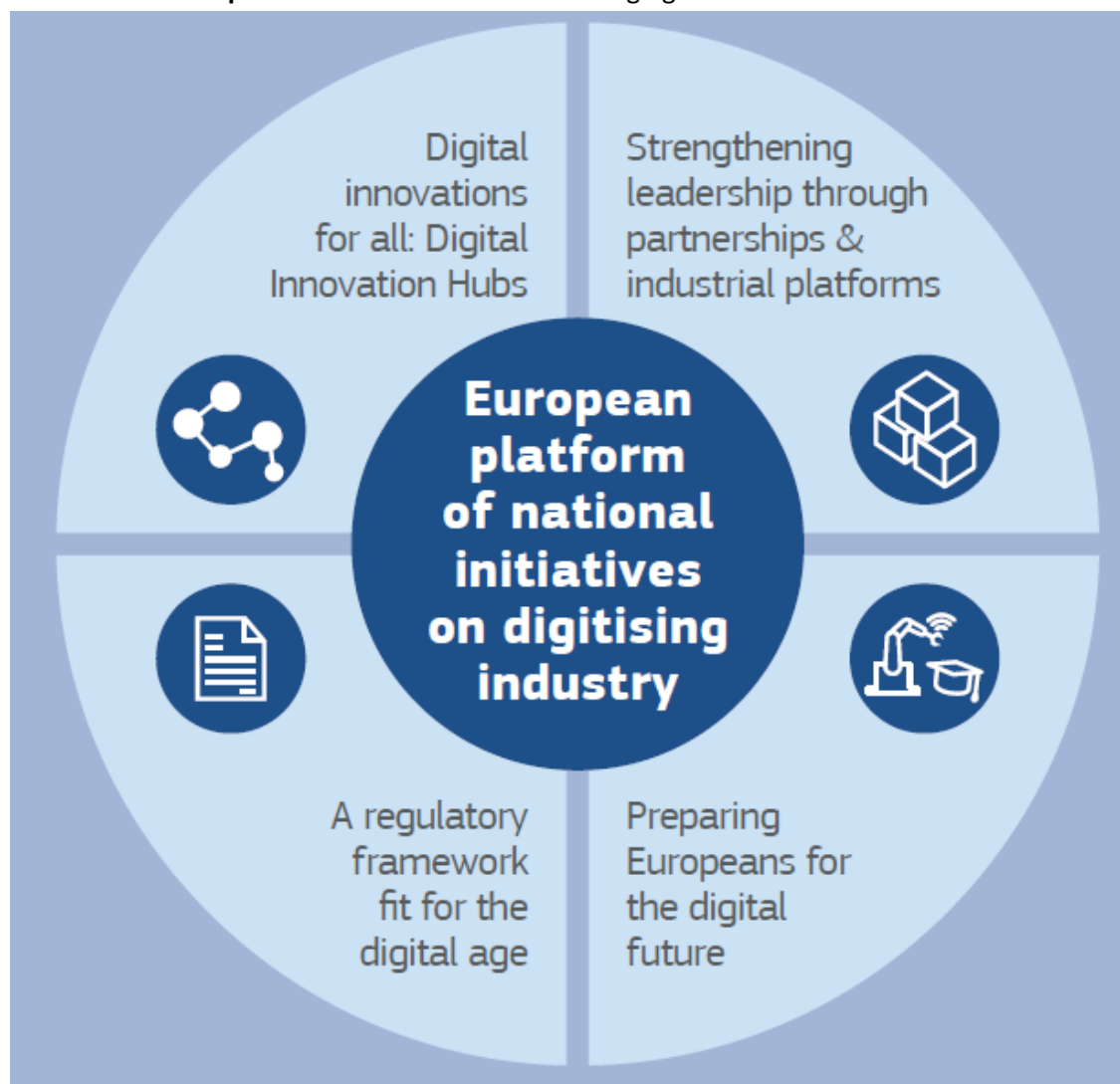

Fig. 1: Pillars of the Digitising European Industry initiative. Source EC website ([10](#))

3.1 Coordination of European, national & regional initiatives

Since the 2016, the European Commission joined efforts and forces with Member States and the industries and set up "*a governance framework to mobilise stakeholders, exchange best practices, and support the coordination of EU and national initiatives*" (6). This coordinating initiative is part of the policies identified within the Digital Single Market and the aim is that it **supports the coordination of the different initiatives** and thus **increase their effectiveness by focusing on common challenges and avoid duplication** of the same actions. It will contribute to make the industry digitization stronger, more effective and efficient.

The Commission aim to exploit its policy instruments, its capacities for financial support, coordination and legislative powers to **generate larger investments in all industrial sectors**, including the Furniture Sector. These, all together, should **facilitate public-private partnerships** able to provide those resources to further develop digital technologies and digital industrial platforms such as high quality infrastructures able to **support the industries development and innovation**. It is pretty clear that **such actions can succeed only if implemented at European Level** due to the amount of public resources able to attract private sector investment and commitment, to generate harmonized regulations and to facilitate actors share good practices in key lines of work such the one for **creating the skills and knowledge needed by the industry**, needs especially relevant for the future of our Furniture sector.

It is important to highlight that the **state of art of the industry digitization differ from country to country**, from region to region and in relation to the dimension of the companies. Large companies have a relevant advantage related to investment capacity in comparison to SMEs.

In this framework, since middle of 2016, the EC has started to implement a set of different actions and one of these is the European platform of National Initiatives.

3.1.1 The European platform of national initiatives on digitising industry

The European platform of national initiatives on digitising industry was launched in March 2017 and through this instrument the EC key aim is **to collect an important number of practical experiences and facilitate the interchange of information** about the different initiatives planned and implemented by the different countries, regions and companies.

This platform will collect information about a critical number of initiatives and investments aiming to facilitate and support the industry digitization. Overall, it should ensure the engagement of EU's countries, regions and private companies to reach the DEI objectives and facilitate their work by providing relevant example of good practices to be included in their own strategies.

The platform is still in progress and at the moment is not very reach of initiatives. At the moment, it contains presentations of preliminary analysis of those initiatives already prepared by fifteen EU countries. They are not exhaustive, but they provide relevant information about their aims, progress and means. Currently, other seven member states are working on their own initiative.

Coordinating their work will allow:

- *Identify challenges that need to be addressed at EU level*
- *Share experiences and best practices*
- *Trigger collaboration and boost co-investments*
- *Explore common approaches to regulation, skills and jobs*

3.1.1.a The 19 national initiatives on digitising industry

The following Map show the 19 national initiatives already prepared.

National Industrial Policy Guidelines 2014 -2020. Latvia
⊕ bit.ly/2B2Dpve 🗎 bit.ly/2zJI05N
🗎 bit.ly/2QjnTFG

Smart Industry. Sweden
⊕ bit.ly/2B3lpAR 🗎 bit.ly/2RLSEA1
🗎 bit.ly/2Uw244u 🗎 bit.ly/2RRRNdQ9

Manufacturing Academy of Denmark
⊕ made.dk 🗎 bit.ly/2SCIVs2i
🗎 bit.ly/2BYNR8D 🗎 bit.ly/2BYBppA

Smart Industry. Netherlands
⊕ smartindustry.nl 🗎 bit.ly/2BZSvOr
🗎 bit.ly/2B44gap 🗎 bit.ly/2GkoCIj

Made different – Factories of the future. Belgium
⊕ madedifferent.be 🗎 bit.ly/2C1jb73
🗎 bit.ly/2rstOo8 🗎 bit.ly/2PtQCIR

HVM Catapult. UK
⊕ hvm.catapult.org.uk 🗎 bit.ly/2B2MWCw
🗎 bit.ly/2SCA0u9

Digital For Industry. Luxembourg
⊕ digital4industry.lu 🗎 bit.ly/2GBMSXP
🗎 bit.ly/2RRDFog 🗎 bit.ly/2zOQ3hs

Alliance pour l'Industrie du Futur. France
⊕ industrie-dufutur.org 🗎 bit.ly/2G5zvrj
🗎 bit.ly/2G7UnOG 🗎 bit.ly/2BdVORd

Indústria 4.0. Portugal
⊕ industria4-0.cotec.pt 🗎 bit.ly/2G7XpIQ
🗎 bit.ly/2C0BadF 🗎 bit.ly/2EknpZz

Industria Conectada 4.0. Spain
⊕ industriaconectada40.gob.es 🗎 bit.ly/2QIeSff
🗎 bit.ly/2G7U5ay 🗎 bit.ly/2FgjkX7

Industria 4.0. Italy
⊕ bit.ly/2kaTrsx 🗎 bit.ly/2PtSg7h
🗎 bit.ly/2B2QOyi 🗎 bit.ly/2GalcBG

Pramonė 4.0. Lithuania
⊕ industrie40.lt 🗎 bit.ly/2E9BVm1
🗎 bit.ly/2EBftdc 🗎 bit.ly/2QN6vja

Initiative and Platform Industry 4.0. Poland
⊕ miir.gov.pl 🗎 bit.ly/2L6jbW9
🗎 bit.ly/2L4ZhdV 🗎 bit.ly/2UoBPwy

Industrie 4.0. Germany
⊕ plattform-i40.de 🗎 bit.ly/2RHLhcJ
🗎 bit.ly/2jtwF1e ⊕ bit.ly/2Gou9Tf

Průmysl 4.0. Czech Republic
⊕ bit.ly/2EoM1QQ 🗎 bit.ly/2ElWQTN
🗎 bit.ly/2COPsLi 🗎 bit.ly/2EBhkyG

Slovakia Smart Industry
⊕ bit.ly/2SAifvB 🗎 bit.ly/2QnIVQow
🗎 bit.ly/2Ptd1Qu

Industrie 4.0 Oesterreich. Austria
⊕ plattformindustrie40.at 🗎 bit.ly/2B6GIBs
🗎 bit.ly/2PnY4iB 🗎 bit.ly/2rsaTic

IPAR4.0 National Technology. Hungary
⊕ i40platform.hu 🗎 bit.ly/2L72RI2
🗎 bit.ly/2L7XogK 🗎 bit.ly/2COlx5K

Slovenian Digital Coalition
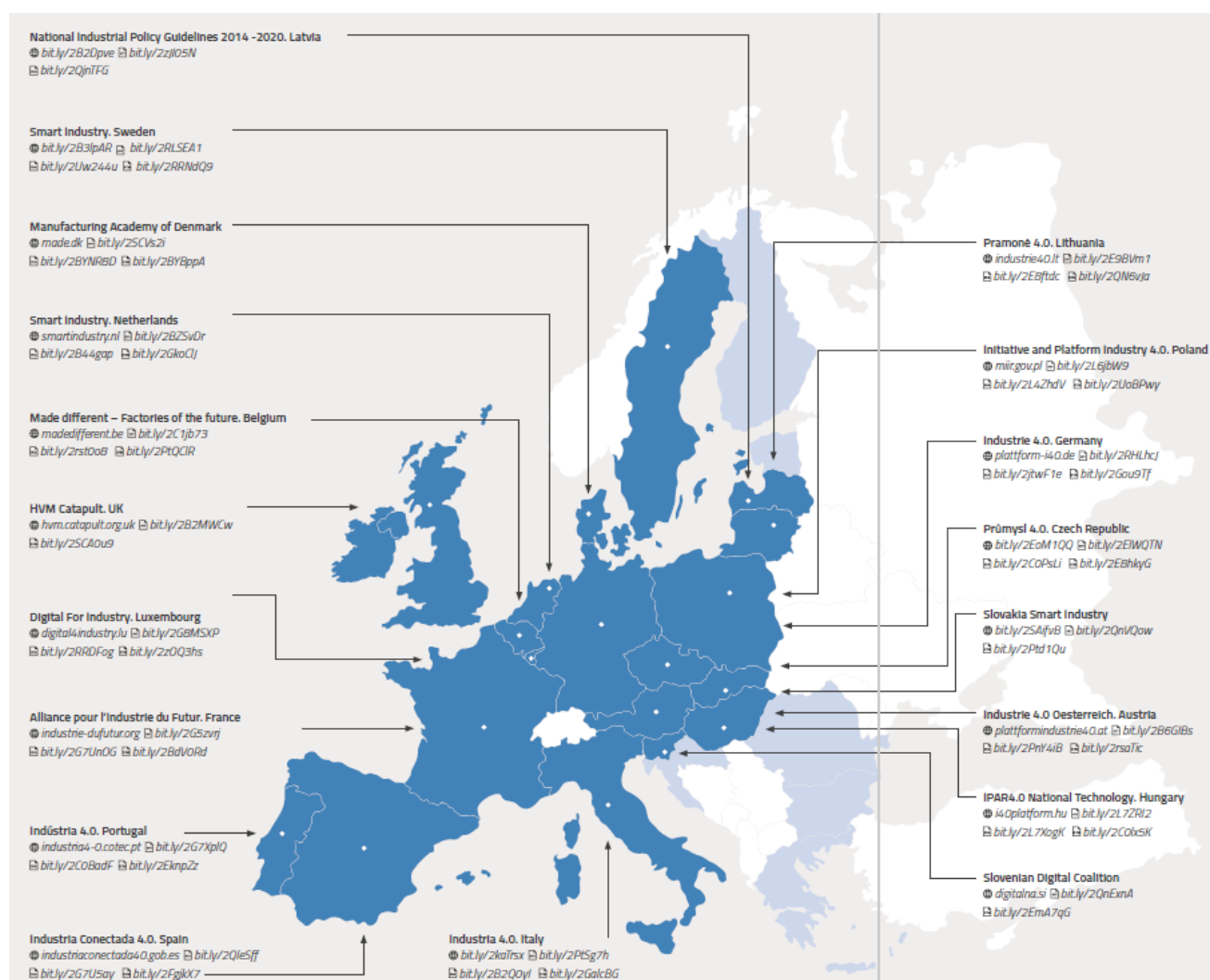⊕ digitalna.si 🗎 bit.ly/2QnExnA
🗎 bit.ly/2EmA7qG

Fig. 2: Existing National Initiatives for digitising industry across the European Union

The **following Table** shows which are the 19 initiatives and provide details and information about each of them. **The PDF files "EU analysis of the Initiative"** - Source (7) - provide, for each country, an overview of the economic situation and of the digitization level, an overview and a detailed description of the National Digitalization Strategy based on four of the DEI pillars, a presentation of Specific National Measures, and a table with information about the country investments to support the industry digitization. **Countries DTM (Digital Transformation Monitor)** - Source (5) - provides an overview of the national initiatives aims to analyse the framework conditions at national level and, more specifically, the rollout of digital policies. The DTM reports provide an overview of the key national and regional public support measures, outlining the policy trends and implementation of processes and strategies, outputs and outcomes, and key policy lessons learned, including possibilities to scale-up and transfer to other countries and regions. The **Individual presentation with information relevant for digitising industry** - Source (4) - provide, in addition to information about different actions/initiatives within the country, it presents the Digital Scoreboard 2016 and provide other relevant information facilitating decisions related to Digital Innovation Hubs .

Country	Initiative Name and webpage	Short Description	EU analysis of the Initiative (PDF format) (7)	Countries DTM (Digital Transformation Monitor) (5)	Individual presentation with information relevant for digitising industry (4)
Austria	Industrie 4.0 Oesterreich	*It is an initiative of the Austrian Ministry of Transport, Innovation and Technology and it was launched in 2014. This platform function as an observatory, network and strategic advisory body through specilized working groups, strategies, thematic areas and case studies related to industry 4.0 issues.*	AT_country_analysis	DTM_AUSTRIA.pdf	Austria
Belgium	Made different – Factories of the future	*It is mainly an industry-driven initiative. It has a bottom-up approach with a very flexible structure and which main activities include organising awareness-raising events, provision of coaching services to companies aiming to implement a digital transformation of their production processes.*	BE_country_analysis	DTM_BELGIUM.pdf	Belgium
Czech Republic	Průmysl 4.0	*This initiative mainly aims to maintain and increase the country companies competitiveness. It was launched at the International Engineering Fair in Brno in September 2015.*	CZ_country_analysis	DTM_CZ.pdf	Czech Republic
Denmark	Manufacturing Academy of Denmark (MADE)	*MADE was launched in 2013 as an innovation initiative aiming to increase the competitiveness different manufacturing industries. It mainly focus in applying research, stimulating and guiding innovation and reinforcing education.*	DE_country_analysis	DTM_DENMARK.pdf	Denmark
France	Alliance pour l'Industrie du Futur	*Launched in 2012, it was the response of French politicians to the alert by different stakeholders that country industry was suffering from very limited and not adequate investments.*	FR_country_analysis	DTM_FRANCE.pdf	France
Germany	Industrie 4.0	*Industrie 4.0 has become one of the biggest networks for the industry digitalisation at world level.*	DK_country_analysis	DTM_GERMANY.pdf	Germany
Hungary	IPAR4.0 National Technology	*This initiative aims to facilitate and speed-up the digital transformation required by the 4th Industrial Revolution of the Hungarian manufacturing and industries.*	HU_country_analysis	DTM_HUNGARY.pdf	Hungary

Country	Initiative Name and webpage	Short Description	EU analysis of the Initiative (PDF format) (7)	Countries DTM (Digital Transformation Monitor) (5)	Individual presentation with information relevant for digitising industry (4)
Italy	Industria 4.0	*It was launched by the Italian Ministry of Economic Development in 2017 to enforce the competitiveness of Italian companies by facilitating and boosting the investments in new technologies, research and development through different horizontal measures accessible for all enterprises.*	IT_country_analysis	DTM_ITALY.pdf	Italy
Latvia	National Industrial Policy Guidelines 2014 - 2020	*These Guidelines are the answer of the Latvian Government to the economic crisis faced by the country, due to the fact that its economy was mainly based on the internal demand. The aim was to start a transformation toward a more open and sustainable economy. The two key pillars are supporting the country exports and to increase the attraction of foreigner capitals to stimulate the innovation and development of the national industry.*	N/A	DTM_LATVIA.pdf	Latvia
Lithuania	Pramonė 4.0	*It was launched in May 2016 by the Government and it aims to reinforce and increase the Lithuanian industry competitiveness and productivity by promoting the integration of digital solutions and new technologies.*	LT_country_analysis	DTM_LITHUANIA.pdf	Lithuania
Luxem-bourg	Digital For Industry Luxembourg	*This strategy was the result of a large consultation process involving over 300 actors among country key stakeholders, from the industry to the civil society and it include several proposals for actions and initiatives.*	LU_country_analysis	DTM_LUXEMBOURG.pdf	Luxembourg
Nether-lands	Smart Industry	*It aims to reinforce the competitiveness of the country manufacturing industry position and increase its productivity.*	NL_country_analysis	DTM_NETHERLANDS.pdf	Netherlands
Poland	Initiative and Platform Industry 4.0	*It was launched by the Ministry of Finance and Development in 2016. It provide financing over 25 years to the country industry. It includes different type of actions and initiatives for the country reindustrialisation with wider scope then its digitalization, such as new partnerships, measures facilitating companies export and comprehensive regional development.*	PL_country_analysis	DTM_POLAND.pdf	Poland
Portugal	Indústria 4.0	*It strive to stimulate and facilitate the digitization process by the country industry. It was launched in January 2017 and it aims to put Portugal industry at the forefront of the 4th Industrial Revolution targeting three areas: digitalisation, innovation and training.*	PT_country_analysis	DTM_PORTUGAL.pdf	Portugal

Slovakia	Slovakia Smart Industry	*The Slovakian Smart Industry strategy was presented in March 2016 by the Ministry of Economy and it is based on similar initiatives, mainly German and Dutch ones. It was adopted in October 2016 with the aim of boost the development of the Slovakia smart industry. The Smart Industry Platform was established as a central authority to coordinate the different efforts, and it involves multidisciplinary experts from industry, academic and government.*	N/A	DTM_SLOVAKIA.pdf	Slovakia
Slovenia	Slovenian Digital Coalition	*This Coalition was established in November 2016 to speed up the Slovenian industry digital transformation. It involves several key stakeholders from trade, industry, research and development, civil society and public sector. It is an open forum, aiming to facilitate and possibly to coordinate the development of the digital economy within the country, to create new digital jobs and to facilitate the exploitation of emerging opportunities related to the Industry 4.0 technologies.*	N/A	DTM_SLOVENIA.pdf	Slovenia
Spain	Industria Conectada 4.0	*It is the response to the challenges posed by the global markets. It focus the attention on eight core challenges and competitive requirements of the 4.0 Industry. Digital enablers play a key role in its development.*	ES_country_analysis	DTM_SPAIN.pdf	Spain
Sweden	Smart Industry	*It was launched in 2013 and it is a programme targeting the country industry supporting strategic research and innovation.*	SE_country_analysis	DTM_SWEDEN.pdf	Sweden
UK	HVM Catapult	*Catapult was established by Innovate UK in line with UK government agenda to strengthen industry innovation and to bring closer UK business and academia. It helps to turn great and innovative ideas into reality by providing access to 7 centres offering world-class research and development equipment, facilities, expertise and collaborative opportunities, which would otherwise be out of reach for many businesses in the UK.*	N/A	DTM_UK.pdf	United Kingdom

This table is mainly based on the following documents (4), (5), (12)

3.1.1.b Other National, Regional initiatives on digitising industry

Several EU countries are working on the finalization of their National strategies and/or on additional initiatives aiming to support the digitalization of their industries. For some of them there is no or limited information available. The table below presents the information available related to those different programs and initiatives that have been designed and/or implemented at national or regional level that support and facilitate the implementation of the Industry digitalization in EU countries.

Country	Other National/Regional initiatives
Austria	Digital Roadmap Austria
Belgium	Flemish initiative on Industrie 4.0
	Digital Wallonia
Croatia	E-Schools Pilot Project
Denmark	Strategiske indsatsområder for Danmarks digitale vækst
Germany	Autonomik for Industrie 4.0
	Mittelstand 4.0
Spain	Red.es
	Basque Industry 4.0 - Bask Country
	SmartCat - Catalonia
	CENTR@TEC - Castilla y Leon
Finland	DIMECH
France	Programme des Investissements d'Avenir
	La French Tech
	Transition Numerique
Hungary	Digital Success Programme
Ireland	DRAFT National Digital Strategy (NDS)
	Irish Digital Skills & Jobs Coalition
Italy	INVITALIA
Lithuania	Startup Visa programme
Luxembourg	Fit 4 Digital
	Hello-Future initiative
Malta	Digital Malta Strategy 2014-2020
	Mobile Government Strategy 2017-2018
Netherlands	TekDelta
	Digitaal 2017
Poland	ScaleUP Pilot Programme
Portugal	PRODUTECH – Production Technologies Cluster
	Programa QUALIFICA
Romania	Manifesto for Digital Romania
Sweden	Produktion 2030
	Digital Strategy for a Sustainable Digital Transformation
UK	Digital Strategy
	Manufacturing Catapult
	Innovate UK
	EPSRC Manufacturing the Future

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(2) Digitising European Industry (DEI) https://ec.europa.eu/digital-single-market/en/policies/digitising-european-industry

(3) Digitising European Industry Progress So Far, 18 Months After The Launch, Draft 21 November 2017 https://ec.europa.eu/futurium/en/system/files/ged/15_11_2017_digitising_european_industry_brochure_ec_final_web3.pdf

(4) Digitising European Industry - catalogue of initiatives https://ec.europa.eu/futurium/en/content/digitising-european-industry-catalogue-initiatives

(5) Digital transformation monitor - https://ec.europa.eu/growth/tools-databases/dem/monitor – National Initiatives https://ec.europa.eu/growth/tools-databases/dem/monitor/category/national-initiatives

(6) Coordination of European, national & regional initiatives - https://ec.europa.eu/digital-single-market/en/cordination-european-national-regional-initiatives

(7) Analysis of National Initiatives on Digitising Industry https://ec.europa.eu/futurium/en/implementing-digitising-european-industry-actions/national-initiatives-digitising-industry

(8) Daniel Buhr and Thomas Stehnken - INDUSTRY 4.0 AND EUROPEAN INNOVATION POLICY - Big plans, small steps http://library.fes.de/pdf-files/wiso/14455.pdf

(9) https://ec.europa.eu/futurium/en/system/files/ged/catalognationalinitiatives-research-2016-12-08.pdf

(10) Pillars of the Digitising European Industry initiative https://ec.europa.eu/digital-single-market/en/pillars-digitising-european-industry-initiative

(11) DEI infographic http://ec.europa.eu/information_society/newsroom/image/document/2016-17/digitising_european_industry_infographics_v5_15260.jpg

(12) FUTURIUM - Analysis of National Initiatives on Digitising Industry https://ec.europa.eu/futurium/en/implementing-digitising-european-industry-actions/national-initiatives-digitising-industry

(13) Digital Transformation Scoreboard - https://ec.europa.eu/growth/tools-databases/dem/monitor/sites/default/files/Digital%20Transformation%20Scoreboard%202018_0.pdf

(14) Estrategias para el fomento de la Industria 4.0 en ESPAÑA http://www.industriaconectada40.gob.es/Documents/Catalogo-I40-CCAAAGE.pdf