CONFRONTATIONS EUROPE

DIGITALIZING THE EUROPEAN INDUSTRY: REAPING THE FULL BENEFITS OF THE DIGITAL SINGLE MARKET

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Industry is one of the pillars of the European economy – the manufacturing sector in the European Union represents 2 million enterprises and 33 million jobs. Recent studies estimate that digitisation of products and services will add more than €110 billion of revenue for industry per year in Europe in the next five years.
Delivering on its Strategy to create a Digital Single Market, the European Commission launched on 19 April 2016 its first industry-related initiative. The aim is to mobilise around €50 billion of public and private investments by 2021 to help manufacturers catch up in the global race for the fourth industrial revolution.

The "DigitiseEU" package

The "DigitiseEU" package is composed of 4 Communications that outline measures. The Digitising European Industry initiative is the "chapeau" initiative which puts forward a set of measures at EU level to support and link up national initiatives for the digitalisation of industry. Other initiatives also form part of this package, namely: the European cloud initiative aiming to develop cloud-based services and a world-class data infrastructure to ensure science, business and public services reap benefits of big data revolution–; concrete measures to speed up the standard setting processes to boost digital innovation and an egovernment Action Plan 2016-2020, to boost the public sector's role in stimulating demand for digital solutions.

What is at stake with digital innovation?

Digital value chains are critical for the competitiveness of all sectors. Three dimensions of value creation from digitisation can be highlighted: there are innovations in products of all types (new products, or more efficient products), there is digital transformation of processes and there are radical/disruptive changes in business models, blurring boundaries between products and services. All these effects are profoundly reshaping value chains all around the world. That is why it is crucial to think digital when you design new product, new process, new business plans.

Technologies are driving the change: Internet of Things (embedded software, sensors, connectivity…) Big data (analytics, storage, Cloud …) and artificial intelligence (robotics, automation, machine learning, self-driving,..) are at the centre of this revolution.

Where does Europe stand?

Europe has strong digital strengths and notably solid professional and vertical markets in automotive, industrial, medical, aerospace and defence, etc. as well as leading companies in these fields. Not all sectors are concerned however.
Europe faces also many challenges. Despite the strong digitisation in high tech industries in some Member states, we face slowness and disparities in adopting digital solutions in SMEs and non-tech sectors. Less than 2% of SMEs use advanced digital technologies. Moreover, they still do not use digital to innovate on their own products. There is therefore a gap between high tech companies moving forward, and many other firms are still lagging behind. We need the whole economy to move forward. Europe does also face new competition from non-EU internet/web industry, while it is quite weak on the web. A fragmented landscape of standards and lack of interoperability (there are around 30 national initiatives on" Industry 4.0"); a strong need for digital skills and re-skilling of the work force as well as legislative and regulatory issues are also challenges that the EU has to tackle. Europe still encounters strong disparities in terms of digitisation readiness: while Germany an Ireland are frontrunners, Spain or Portugal are hesitant.

**RB Industry 4.0
Readiness Index¹⁾²⁾**
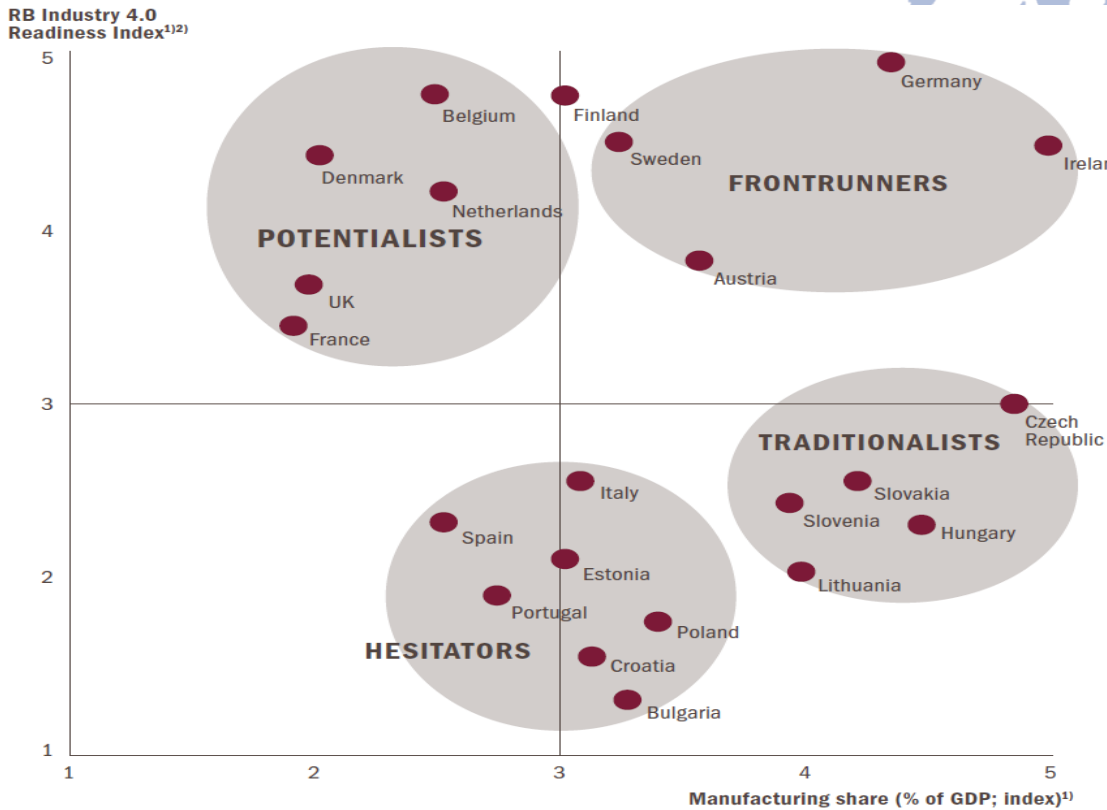
Roland Berger

What to do about it?

There are 3 fundamental prerequisites to put forward: an effective Digital Single market – the Commission has launched its Strategy in May 2015, dealing with platforms, copyright issues, e-commerce - world-class digital infrastructures (not only telecom ones, but also cloud and data infrastructures) and easy access to finance.

We need to step up our digital innovation capacity. The main objective should be to ensure that any industry in Europe, big or small, wherever located and in any sector can fully benefit from digital innovations to upgrade its products, improve its processes and adapt its business models to the digital change. Member States are active on Industry 4.0, but we need a framework of coordination to avoid fragmentation and to allow for efficient articulation and scaling-up of those initiatives.

A comprehensive policy initiative would foster the combination of various policy instruments (financing, legislation, coordination) and steer bottom up innovation as well as support for focused actions. Addressing the whole value chains spreading across Europe and opening up new opportunities for start-ups and SMEs in a true DSM is key. To that end, fostering public-private partnerships for leadership in digital value chains is an important tool. Furthermore, prioritize and accelerate industry-driven standardization is a central point of such a comprehensive strategy. Legislation needs sometimes to be adapted to the digital age: we should indeed closely analyse what should be done in terms of data ownership, security and liability. All Europeans are not yet ready for the digital age: a strong focus on preparing them, through education, training and re-skilling is of tremendous importance. (April 2016)