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EIC

WG2 ""Strengthening leadership in digital technologies and in digital industrial platforms across value chains in all sectors of the economy"

Expert Contribution: Manufacturing

ZVEI - German Electrical and Electronic Manufacturers' Association

About ZVEI

The "ZVEI-German Electrical and Electronic Manufacturers' Association" promotes the industry's joint economic, technological and environmental policy interests on a national, European and global level. The ZVEI represents more than 1,600 companies, mostly SMEs. The sector has round about 850,000 employees in Germany plus almost 680,000employees all over the world. In 2015 the turnover was Euro179 billion. The electrical and electronics industry is the most innovative industry sector in Germany. One-third of the industries sales are based on new products. Every third innovation in Germany´s manufacturing sector stems from solutions of this sector. More than 20 per cent of all industrial R+D spending comes from this industry.

Do you consider the 6 topics the right ones? Is there any topic missing? If so, which one?

Connected Smart Factory

- To develop platforms that connect manufacturing assets and IT systems, within a factory and with its network of suppliers and customers, discloses data from various sources, and enables third-parties to develop value-added applications. These platforms could be piloted in different manufacturing areas, which have different characteristics, e.g. in terms of sectors or challenges addressed.
- Similar to the above (discrete) manufacturing sector, platforms could be developed for the process industry, with emphasis on particular aspects for continuous production.
- Various discussions during the workshop on October 21 suggested that the building and construction might be a relevant sector for platform development and piloting as well. In particular, issues such as energy efficiency could be addressed here.

In general support for pilot lines is likely to be welcomed by industry. However the actual development of platforms will be done by industry companies or consortia out of their own competencies and interests. This can happen via PPP's but it surely can't be "pushed" or even

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enforced by administration. Furthermore it is to be highly recommended not to mix up platforms that might emerge in different sectors just for being platforms as such. Platforms which succeed on their respective markets will do so for being the “right” solution for the specific market. Most significantly it will not be possible to identify the successful platform ex ante. It thus does not make sense to force various platform developers (the one that will succeed together with those who wont and additionally all from different sectors with different needs) to sit down and talk for talks sake. It is likely that such artificial alignment efforts will rather impede progress of the various stakeholders.

Digital transformation of health and care

- To accelerate the introduction of robotics, IoT, Big Data and AI as cost-effective technologies into the healthcare system by establishing large pilot projects demonstrating added value in diagnostics, surgical procedures, clinical services, prosthetics, rehabilitative care, smart hospitals, healthy living and active ageing or age-friendly housing.
- Much more urgent is the creation of the right regulatory and infrastructural framework conditions. It is there where EC can create most benefit. If conditions are right, industry will proceed towards introduction of the aforementioned solutions. Again support of pilots might help, but it is not where EC should focus on in the first place.

Smart agriculture

- To contribute to the development of smart solutions (e.g. decreasing use of water, lowering ecological footprints, reducing costs, increasing traceability and food security) for precision agriculture through large scale pilots and demonstration projects integrating robots, sensor networks, data management technologies and other IoT technologies in different agricultural sub-sectors.
- This is rather unclear. What is meant by large scale pilots in European agriculture sector context? The aforementioned examples or no smart solutions but benefits that might be achieved using smart solutions. Most significantly there are IoT platform solutions for farming already.

Connected Autonomous Driving (no subgroup meeting was held on October 21 for this topic)

- To support the move to more secure, more efficient and cleaner transportation systems by setting-up a cross-border testing facility pooling investments across Europe and connecting various stakeholders from AI-experts to automotive OEMs and communication service providers.
- Here large scale European pilots might actually create significant benefit. However still first and foremost it is the framework conditions EC should be working on. Furthermore companies (esp. automotive OEMs) do have significant capabilities in connecting themselves to experts and appropriate partners on their own. EC should avoid handing out unnecessary aids.

Horizontal topics

Industrial Data Platforms

- To support the development of virtual environments facilitating the connection and exchange of data between different companies and organisations through a shared reference architecture, common governance rules and within a secure business ecosystem. Key aspects include legal and technical conditions to help businesses to make safe and secure exchange, transfer, access and reuse of data.
- Indeed EC should focus on framework conditions. Mind that again it is very hard to tell which solutions will be successful ex ante. Thus it is by no means clear how such platforms will look like, which connections, interfaces und data structures they will make accessible, how business models will look like etc. Supporting developments is not a bad idea, but only competition in the respective will show, which solution will succeed. Pushing specific solution out of political consideration will not lead to succeed.

General Notes

PPPs were formed to introduce deep knowledge from and about their respective industrial or application sector to EC funding policies. The PPPs have proven to be very useful. Introducing requirements of alignment between different PPPs (and whatever other players on might think of) will most likely impede their efforts significantly. The PPPs are not to be mistaken as tools for the transmission of centralized industrial policy nor are they able to provide “on-demand” solutions one can simply order. Any attempt to use PPPs in such a way will reduce their efficiency in facilitating innovation. PPPs should focus in what they do best, namely facilitating innovation in their respective sector and downstream technology and knowledge transfer. If there is any kind of platform created that is successful it is fine. Artificially pushing platforms to relocate their resources into creation of platforms for the sake of creating platforms will lead nowhere, especially since digital platforms will have to face global competition and solutions which were not created genuinely from industry to fit industry needs usually face a hard time.