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In the frame of I-ESA 2020

***Special Event***

**Digitising European Industry & Health**

**Thursday 19<sup>th</sup> - November**

10<sup>th</sup> INTERNATIONAL CONFERENCE ON  
INTEROPERABILITY FOR ENTERPRISE  
SYSTEMS AND APPLICATIONS

"INTEROPERABILITY IN THE ERA OF ARTIFICIAL INTELLIGENCE"

**Special Event, November 19th**

ORGANIZED BY

InterOP - VLab



InterOP - VLab  
Pôle GSO



## Digitising European Industry & Health

The goal of this special event organised in the frame of I-ESA 2020, is to draw the attention of the participants to the development of the **Digitising European Industry & Health** and the fundamental **role of ICT (Information Computing Technology)**.

**Dr. Arian Zwegers** will introduce the subject by a presentation: **“Building ICT capacities in Europe”**. **Arian** is working at the European Commission, DG Connect, on Digitising European Industry initiative (DEI).

The European Commission launched DEI in April 2016. As part of the Digital Single Market strategy in order to reinforce the EU's competitiveness in digital technologies and ensure that every business in Europe - **whichever the sector, wherever the location, whatever the size** - can draw the full benefits from digital innovation<sup>1</sup>.

DEI will help companies, researchers and public authorities to maximize the profit of the use of new technologies. DEI will develop links up national and regional initiatives and boost investment through strategic partnerships and networks<sup>2</sup>.

DEI fosters the 4th industrial revolution which is expanding rapidly worldwide, opening up new horizons, driven by new-generation digital technologies such as the Internet of Things, High Performance Computing, cloud computing, big data, robotics, artificial intelligence and 3D printing. This change of paradigm has a profound impact on products, processes and business models in every industry, from construction, manufacturing, health and agri-food to the tourism and audio-visual sector<sup>4</sup>.

These technologies could be used by SMEs and Mid-Caps. In such case it is very important to facilitate the implementation by using efficient methods well adopted by end-users.

To pursue the DEI, the European Commission has proposed the creation of the first-ever Digital Europe Programme, which would invest €9.2 billion to align the next long-term EU budget 2021-2027 with increasing digital challenges<sup>5</sup>.

Two sessions will follow and present recent development in the domains of DEI for Industry and Health:

- The morning one describes a new project in the domain of **Cyber Physical and Embedded System (CPES)**,
- The afternoon one, will present three important recent EC projects in **the domain of e-health**.


The final session will allow the participants to exchange ideas on the subject: **“How to introduce Digitising European Industry and Health on Technical, Economic and Social aspects”** by using adapted methods particularly for SMEs and MID-CAPS

Please register for the event on [www.i-esa.org](http://www.i-esa.org)

50€ per day

## Programme of the event: 19<sup>th</sup> of November 2020

### Digitalisation of European Industry & Health

09:00 - 10:00	<p>Keynote speech - <b>Building ICT capacities in Europe</b>  <b>By Dr. Arian Zwegers –</b>  Programme Officer, European Commission,  DG Communications Networks, Content &amp; Technology  Session Chair: Prof. Bernard Archimede, Prof. Guy Doumeingts</p>
10:00 - 10:30	Coffee break
10:30 - 12:30	<p><b>Chairs: Prof. Ricardo Gonçalves (UNINOVA) &amp; Prof. Guy Doumeingts (INTEROP-VLAB)</b></p> <p><b>Presentation DIH4CPS Project:</b></p>  <p>The project “<b>Fostering DIHs for Embedding Interoperability in Cyber-Physical Systems SMEs</b>” (called <b>DIH4CPS</b>, <a href="http://www.dih4cps.eu">www.dih4cps.eu</a>), is an <b>Innovation Action (IA)</b> supporting by the European Commission’s Horizon 2020 programme, the project started at January 1<sup>st</sup> 2020.</p> <p>DIH4CPS aims to create an embracing, interdisciplinary network of DIHs (Digital Innovation Hub), and Solutions Providers, focused on Cyber Physical and Embedded Systems (CPES) interweaving knowledge and technologies from different domains, and connecting regional clusters with the pan-European expert pool of DIHs. A <b>DIH</b> is an organisation including several components, acting as a one-stop-shop, providing their stakeholders with several assets, i.e. test before invest, support to find investments, innovation ecosystem and networking skills and training. <b>The DIH4CPS Network will become a sustainable network, instantiated within INTEROP-VLab association, remaining active well beyond the duration of the DIH4CPS project.</b> A customized business model will be developed, combined with a professional exploitation and sustainability support, to ensure a smooth integration and, therefore, the overall sustainability of the network.</p> <p><b>DIH4CPS will validate</b> its ecosystem with <b>13 DIHs members</b>, providing the European industry with unprecedented ease of access to world class domain expertise in the development of CPES, and with <b>11 initial Application Experimentations across multiple key sectors: Sustainable aquaculture farming, Services upgrading in Home Healthcare, Track and trace scheduled products, Increasing capacity utilization and optimize production in machinery, Smart and greener Mobility,.....</b></p> <p>Open Calls will be launched with special emphasis on integration of DIHs complementary to the DIH4CPS network, thus extending the overall network.</p> <p>During this session the following topics will be presented:</p> <ul style="list-style-type: none"> <li>• <b>Introduction to DIH4CPS project by Ricardo Goncalves</b>, UNINOVA, Coordinator</li> <li>• <b>Network Setup &amp; Management by Claudio Sassanelli</b>, POLIMI (Milano),</li> <li>• <b>Network Ontology Modelling &amp; Networking by Jen-Frederik Uhlenkamp</b>, BIBA(Bremen),</li> <li>• <b>Application Experiments by José Ferreira</b> (UNINOVA),</li> <li>• <b>Expanding Network &amp; Experimentation by Sylvia de la Maza</b> (Innovalia),</li> <li>• <b>Dissemination by Gash Bhullar</b> (Control 2K),</li> <li>• <b>Exploitation &amp; Sustainability by Fabien Durand</b> (MEWS)</li> </ul>
12:30 - 13:30	Lunch

<p>13:30-15:30</p>	<p><b>Presentation of e-HEALTH</b>  <b>Chairs: Prof. Ricardo Gonçalves &amp; Guy Doumeingts</b></p> <p><b>Smart4Health: Citizen-centred EU-EHR exchange for personalised health</b> </p> <p><i>Dr. Maria Marques, UNINOVA, Senior Researcher</i></p> <p>Smart4Health interoperable and exchangeable European Electronic Health Record allows EU citizens to be active participants in managing their own health placing the citizen in the centre of the decision in what regards health and care. The possibility of collecting health and wellbeing data from several sources and sharing it with different clinicians, medical centres, local and international societal and for research activities as well as to cooperate directly with healthcare providers, entails a diversity of interoperability problems that need to be tackled. On the top of that the technological elements are to be developed in a co-creation process using eight Citizen Use Cases. In this presentation we will discuss how co-creation and interoperability challenges are being addressed in the context of Smart4Health use cases.</p> <p><b>Cross-border person-centred health information exchange: the InteropEHRate approach</b> </p> <p><i>Tino Martin, eHealth Project Manager EHETEL (European Health Telematics Association)</i></p> <p>This project aims to provide a solution to enable patients to be in full control of the usage and the routes of their health data. Through three use case scenarios, InteropEHRate addresses cross-border health information exchange, patient empowerment and health research data sharing, making use of device-to-device and remote-to-device protocols that connects <b>patients' Smart Electronic Health Records</b> with healthcare providers applications. InteropEHRate is a Research and Innovation Action project funded by the European Commission.</p> <p><b>Smart Bear - An Elderly-driven approach for Personalised Support, Healthy and Independent Living at Home</b> </p> <p><i>Dr. Carlos Agostinho, UNINOVA, senior researchers</i></p> <p>It is a fact that the European population growth is slowing down, while the population ageing accelerates. Within Europe's ageing population, Hearing Loss, Cardio Vascular Diseases, Cognitive Impairments, Mental Health Issues and Balance Disorders, as well as Frailty, are prevalent conditions, with tremendous social and financial impact. Preventing, slowing the development of or dealing effectively with effects of such impairments can have a significant impact on the quality of life and lead to significant savings in the cost of healthcare services. Digital tools hold the promise for many health benefits that can enhance the independent living and well-being of the elderly. This presentation addresses the Smart Bear project approach, highlighting a number of interoperability challenges present in most of the project use cases, namely the integration of heterogeneous sensors, assistive medical and mobile devices, not to mention hospital and other health care service systems.</p>
<p>15:30-16:00</p>	<p>Coffee break</p>
<p>16:00 - 17:00</p>	<p><b>PANEL Discussion Session</b></p> <p>Chairs persons: Arian Zwegers, Ricardo Gonçalves, Maria Marques, Guy Doumeingts</p> <p>How to introduce <b>Digitalisation in Industry and Health</b></p> <p><b>Technical, Economic and Social aspects</b> particularly for SMEs and Mid-Caps</p>

## References

1. Digitising European Industry, URL: <https://ec.europa.eu/digital-single-market/en/policies/digitising-european-industry> Last accessed: 2020-02-28
2. DIH4CPS project “Fostering DIHs for Embedding Interoperability in Cyber-Physical Systems SMEs” (872548), ( [www.dih4cps.eu](http://www.dih4cps.eu) )
3. Pillars of the Digitising European Industry initiative, URL: <https://ec.europa.eu/digital-single-market/en/pillars-digitising-european-industry-initiative> Last accessed: 2020-02-28
4. Digitising European Industry Brochure, URL: <https://ec.europa.eu/futurium/en/implementing-digitising-european-industry-actions/digitising-european-industry-taking-stock-18> Last accessed: 2020-02-28
5. <https://ec.europa.eu/digital-single-market/en/european-digital-innovation-hubs-digital-europe-programme-0>