


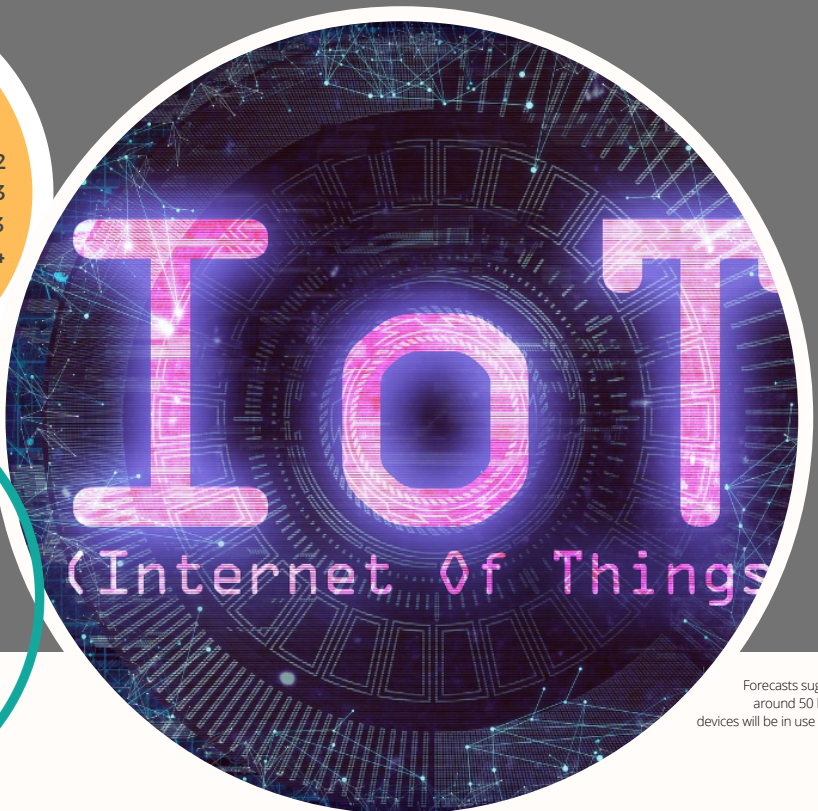
DIRECTION 4.0

Promotion and Development of Industry 4.0 Related Skills

 Erasmus+ Project N°: 2018-1-FR01-KA201-047889

IN THIS ISSUE :

Welcome.....	Pg 1
Skills Verification Tool..	Pg 2
Technology Corner.....	Pg 3
Seminars	Pg 3
Meet The Partners.....	Pg 4



Forecasts suggest that by 2030 around 50 billion of these IoT devices will be in use around the world,

Source: Statista

FOSTERING INDUSTRY4.0 SKILLS & COMPETENCES

Welcome by Jonathan C. BORG (MECB Ltd)

Welcome to the fourth and final newsletter of DIRECTION 4.0. The project has reached the end of its journey, with a number of relevant outputs that help foster Industry 4.0 Skills and Competences now available for use by all those interested. Whilst the world is still facing challenges arising from the COVID-19 pandemic, various case-studies have emerged that highlight the benefits of digitisation in industry and thus the need of both learners and trainers to catchup with related technologies. In this respect, the DIRECTION 4.0 project results are very important as they can help prepare a future workforce much more able to exploit digital technologies such Robotics, Virtual Reality and 3D-Printing in times. Please explore what we have achieved to do and make sure to login into our Space4.0 toolbox !



dir40.erasmus.site



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Project's Aim & Target Group

AIM

DIRECTION 4.0's main aim was that of promoting the concept of **Industry 4.0** and related technologies such as robotics, virtual reality and 3D Printing among secondary school students and encouraging them to choose technical careers. To do so, the project has generated didactic material to support teachers in transferring knowledge on industry 4.0.

TARGET GROUP

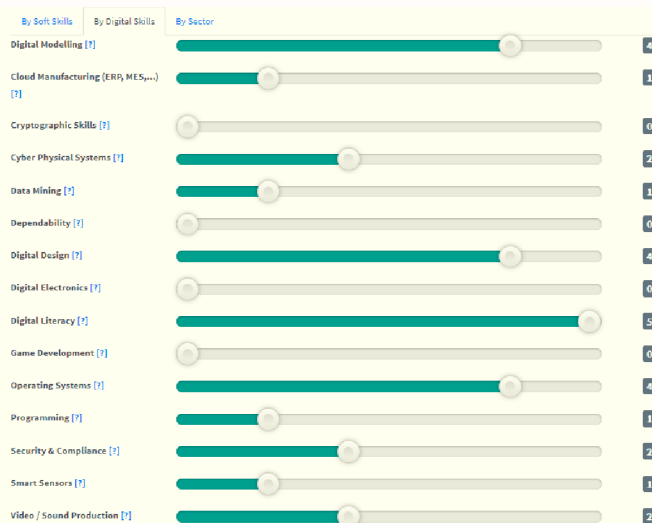
The results of the Erasmus+ DIRECTION 4.0 project are directed mainly at STEM secondary level teachers and their students as well as other stakeholders keen on learning about Industry 4.0.

Project Result: Skills Verification Tool

You may be wondering if you have sufficient skills to help you propel your career in an Industry 4.0 working environment. Wonder no more as one of the outputs developed by the Direction 4.0 partners is a Skills Verification Tool outlined below. Visit the project space4.0 portal to explore this tool !

dir40.erasmus.site/space-4-0/

User specifies his/her skills in various digital technologies



Areas matching your profile



User compares his/her skills with areas of interest to understand what further training is required



Smart Factories

They are the new generation of factories that incorporate Industry 4.0 technologies to create an interconnected factory in which employees, machines and products interact with each other and their ecosystem.

Show requirements

Soft Skills	
Skill	Level
Critical Thinking	1
Problem Solving	3
Creativity	1
Communication Abilities	4
Flexibility / Agility	2
Digital Skills	
Skill	Level
Digital Modelling	4
Digital Literacy	4
Cloud Manufacturing (ERP, MES,...)	3
Cyber Physical Systems	2
Smart Sensors	1

Start getting familiar with Industry 4.0 Technology

Advances in networking and the availability of more smart devices such as CNC machines, industrial robots, automated guided vehicles, smart phones etc. are allowing these man made 'things' to be connected via the internet, resulting on what has been termed the 'Internet of Things'. This connectivity is allowing various manufacturing stakeholders such as shop floor managers and operators to get access to real time data for better decision making.

IOT for Industrial Asset Management


Using smart sensors and the networking capability provided by internet, industrial machines can be now be connected with each other. Not only can the machines be connected but they can also exchange data about themselves, as if they are speaking to each other. This machine-to-machine exchange of data is also making it easier to monitor assets in a manufacturing environment. For example sensors within smart bearings of say an industrial robot can transmit data on its temperature to an intelligent maintenance system (IMS). When the bearing starts repeatedly reaching high temperatures, the IMS will automatically trigger a maintenance plan to ensure that the specific bearing is replaced as soon as possible before damage to the industrial robot's performance and accuracy is made. The IMS will also check if a spare bearing (a sub-asset) is available in the store inventory and if not, it will automatically inform the purchase order system to raise an order from the correct supplier, all this being done efficiently and in little time across the internet. This is just one example of how IOT is being exploited in manufacturing organisations exploiting Industry 4.0 principles.



Image Courtesy of pixabay.com

Seminars & Events


In spite of different COVID-19 restrictions in the different partner countries, the partners disseminated information and demonstrations of the project results via a number of ways: some managed to run physical face to face events, others fully on-line and others through a hybrid. The compendium and the Space4.0 toolbox were very well received by the participants. Below are some events reported at the time of going to press.

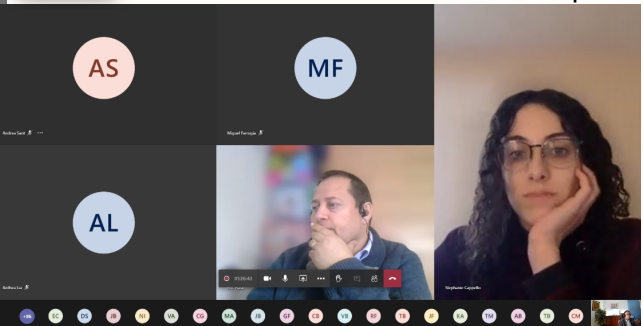
 18.09.2020: Physical Participation



18.02.2021: Hybrid Participation 

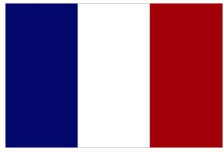


 24.02.2021: 96 Online Participants



23.10.2020: 30 Participants 





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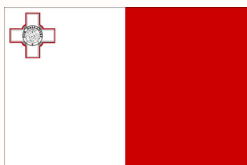
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