NEWSLETTER #3 - APRIL 2020

DIRECTION 4.0

Promotion and Development of Industry 4.0 Related Skills

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

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Airbus was one of the companies that used its resources to produce 3D-printed hospital visors in the fight against Covid-19
credits: *www.airbus.com/newsroom/*

PROMOTING INDUSTRY4.0 DURING COVID-19 PERIOD

Welcome by Jonathan C. BORG (MECB Ltd)

Welcome to the third newsletter of DIRECTION 4.0. The project is fast moving ahead with generating results aimed at promoting training on the 4th Industrial Revolution. Whilst this newsletter is being edited to report on work performed in the last couple of months, the world is going through the challenging period of COVID-19 that has caused disruptions in various sectors including manufacturing. 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 Augmented Reality and 3D-Printing in times of requiring social distancing. Please read what we have been doing in these last months in spite of COVID-19 disruptions !

Project's Aim & Target Group

AIM

DIRECTION 4.0 aims at 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 is generating didactic material to support teachers in transferring knowledge ton industry 4.0.

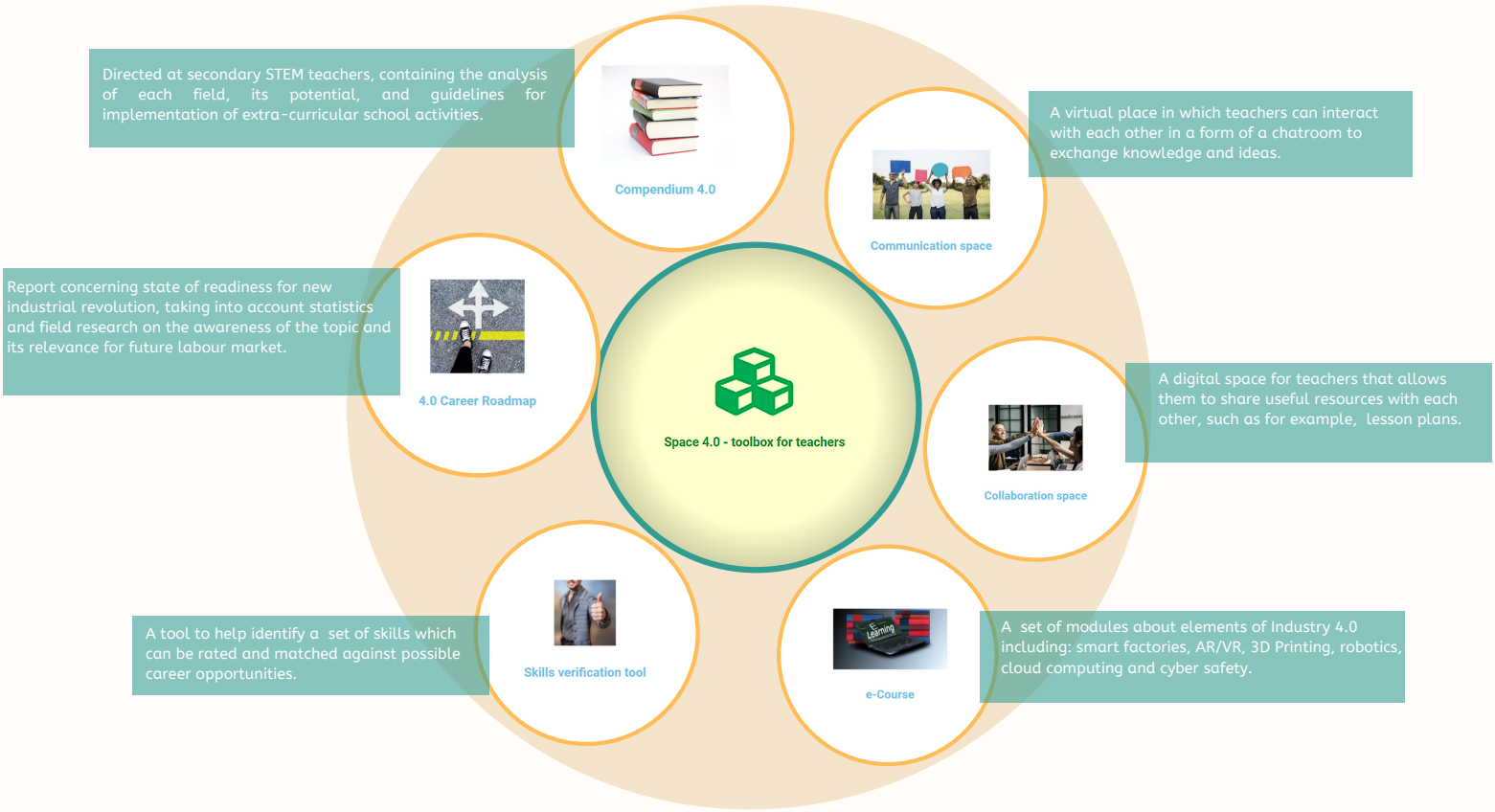
TARGET GROUP

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

Project Result: **Space 4.0**

After now the first 12 months of work on the project, the Direction 4.0 partners have a number of emerging results that are now available via result IO3 called '**Space 4.O**'. This is a digital toolbox that provides teachers with a number of resources outlined below. For details, visit :

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



Technology Corner: 3-D Printing

Start getting familiar with Industry 4.0 Technology

3D-Printing technology allows virtual 3D models generated on a Computer Aided Design (CAD) system to be physically produced in a range of materials including plastic, steel and even titanium**.** Unlike traditional fabrication processes such as milling that subtract (remove) material, 3D-Printing is an **additive process** i.e. it builds physical models by adding layers of material on each other.

Why use 3D-Printing?

Unlike for example plastic injection moulding, 3D-Printing technology can produce different physical objects without creating specific tooling such as mould tools. Thus when time is of utmost importance, 3D-Printing offers a big advantage as one does not have to wait for expensive tooling to be first produced. This benefit has for example been exploited during the COVID-19 pandemic to quickly produce face shields for healthcare workers. The range of materials that can now be 3D-printed is growing meaning this technology will be used in more applications in the near future. Materials that can be 3D-printed include wood, ABS plastic, titanium and stainless steel. Applications where 3D printing has been used include biomedical applications, aerospace, toy industry and customized gifts.

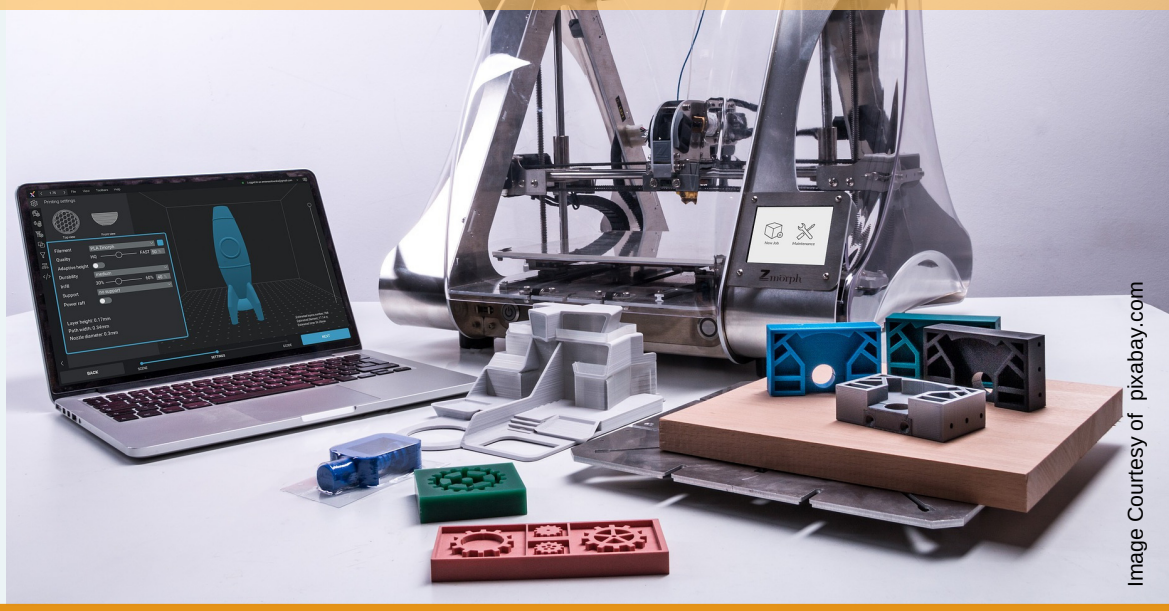
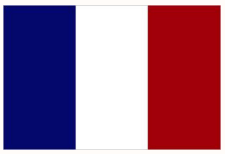


Image Courtesy of pixabay.com

3rd Partners Meeting: **Malta**

The third partners meeting of the Direction 4.0 project was hosted by MECB in the island of Malta on 21st November 2019. During this meeting, the partners monitored progress following completion of the first twelve months and agreed on a set of actions and deliverables for the next six months.



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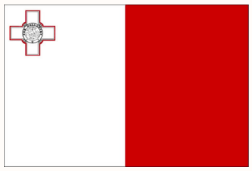

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