Erasmus+ for the immersion of 3D printing in VET centres (E3D+VET)

According to the results of the project E3D+, the 3D printing is aimed to play a critical role in Science, Technology, Engineering, Arts and Mathematics. Furthermore, 3D printing is transforming how users learn by offering a hands-on experience that inspires them to

- pay attention to details,
- get more creative
- and see the physical realization of their work.

According to the results of the project "3D printers in schools: uses in the curriculum" of the Department for Education from UK, the use of 3D printing in schools heightens the interest of pupils with poor concentration in different subjects like mathematics and improves their desire to learn. They see tangible results more quickly and as a result they keep interest in the lesson. Getting users to make a further step in 3D printing can ultimately inspire them to take the incremental steps that often lead them to become the one to invent the “next big thing”, since they are challenged to think more deeply and differently.

3D Printing’s Role in Shaping the Future is increasing very fast. More appropriate and adequate training of users is needed. Unfortunately, broad adoption at present time is often stifled due to 3D printers being too difficult to use without sufficient learning and training support. The situation is becoming slightly better as a community of different level educators, VET programmes etc. is rising. As new 3D printing technologies, materials and designing potentials rapidly arise there is also a need for a qualitative upgrade and keeping consistent and adequate level of educational support.

The main objective of the E3D+VET project is to train teachers in VET centres without computer design (CAD) skills with the aim of using 3D printing across almost all subjects. The use of this technology in VET schools will improve transversal skills of the students. Furthermore, it aims to enhance the concentration of students with Attention Deficit Disorder. At mid-term, it will feed an industry that is in high growth with future professionals - students who are natives of this fascinating technology.

Our project team is composed by 6 partners from different organizations and with different profiles from Germany, Spain, Italy and Slovenia: 3D printing experts close to the academic and business sector, an international network of VET centres, one expert authority in training teachers and one web developer.

To achieve the goals of the project, the consortium has defined the following intellectual outputs:

- methodology for defining 3D printing exercises suitable for transversal education,
- set of 3D printing exercises for VET school lessons in different subjects improving skills of students,
- networking community tool for teachers using 3D printing containing the set of 3D printing exercises,
- report and tools for immersion of 3D printing in European education and training,
- set of webinars about the use of 3D printing in VET.

The E3D+VET tool aims to be a sustainable open tool to support the teachers in educating students in 3D printing in different subjects. It will also provide the teachers with the necessary guides and tools to feed the software application in the future with own exercises. The project will also take advantage of different face to face workshops to improve the intellectual outputs of the project.