





# **Art & Creative Craft Enterprises for Successful Streaming of 3D Printing**



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## **Project ID:**

Full name: Art & Creative Craft Enterprises

for

Successful Streaming of 3D Printing

Programme:

ERASMUS+ KA202 - Strategic Partnerships

vocational education and training

**Project duration:** 

October 1st, 2020 - March 31st, 2023

**Total Grant:** 346.963,00 EUR

#### Partnership:

- <u>Chambre de Métiers et de l'Artisanat</u> <u>Auvergne-Rhône-Alpes Lyon-RhôneCentro</u> <u>Tecnológico del Mueble y la Madera de la</u> <u>Región de Murcia</u>
- Centro Tecnológico do Calçado de Portugal
- <u>Štajerski tehnološki park</u>
- Technická univerzita v Košiciach

New technologies, new opportunities



Additive Manufacturing (or 3D printing) is one of the technologies the European Commission identified as a Key Enabling Technologies (KETs). Creative Industries in the craft sector are usually small businesses, but an important core elements of the EU economy. They work with clients in sectors that have been traditionally connected to creative industries for some time, using flexibility to add value to products by applying their ability to realize innovative ideas. Increasingly these capacities are becoming more relevant to the European Economy as new sectors find out that they need the skills provided by creative enterprises workers. At the same time new, often disruptive, technologies come to light and require highly skilled creative people to reach their full potential.

This also applies to other Advanced Manufacturing technologies, such as Advanced Industrial Robotics. **ACCESS-3DP** brings together an innovative consortium of 5 expert partners, and will:

- identify the mismatched skills between creative craft entrepreneurs already using AM and traditional ones potentially interesting in adopting such technology;
- develop VET curricula on 3D printing tailored on the needs of the craft sector, to diffusion of the technology as well as the mobility and employability of creative craft workers;
- improve competitiveness and efficiency of craft businesses through 3D printing
- better understand the 3D printing value chain;

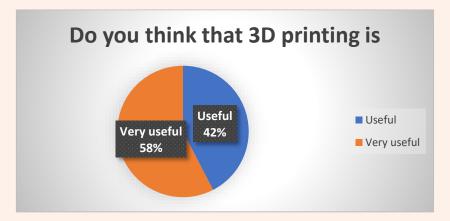
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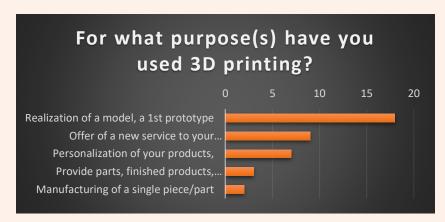
- evaluate the impact of tailored training;
- develop recommendations for certification of creative craft stakeholders trained to 3D printing.

### Achievements so far:

During the first phase of the project, the ACCESS-3DP's partnership conducted an analysis to understand how VET providers can innovate and interconnect creative and traditional craft entrepreneurs through 3D printing. This activity is essential to later design a training program that, by being tailored on the needs of traditional craft entrepreneurs, will attract new learners and foster the adoption of 3D printing in the sector.



The partners therefore carried out an analysis on 70 training programmes on 3D printing currently available in Europe and potentially addressing the craft sector. The results were later compared with the inputs gathered from 45 businesses, training providers and similar stakeholders, which either are already using this technology, or that are potentially interested in adopting it. Both surveys also collected information on the awareness and interest of entrepreneurs for robotics technologies applied to the craft sector.



The results of our analysis highlight the necessity to give more visibility to concrete and varied examples of uses and applications issued by companies that are already using 3D printing, with a special attention from the ones already existing in the craft sector. The offer of free, digital courses on the use of this technology also needs to be improved and coupled with practical workshops, which allow to test and apply directly the theoretical knowledge received online. In addition, there is a need to increase the awareness and skills related to the digitalization and modelling software for 3DP, as well as on the potentials and limits of the different types of materials and existing 3DP technologies. Those are all topics which are deemed to be essential to help traditional crafts entrepreneurs to have a better understanding of the opportunities and value added offered by the use of this technology. Finally, to unleash the potential of 3DP applied to the craft sector, trainings should allow for the development of

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creatives approaches to product design and for strengthening less technical knowledge, such as collaborative project management skills or the multifactorial/entrepreneurial approach to a 3DP project (in terms of market-uses, technical and financial issues, etc).

# **Upcoming activities:**

The partnership will continue its work, based on the analysis made so far. Therefore ACCESS-3DP will define and analyse the necessary areas of knowledge and the pedagogical methodologies to provide the specific needs of certain job profiles from Creative Industries and Traditional Craft Industries for applying innovative 3D Printing practices.

This will be achieved in the following 5 steps:

Training Paths

• The first step is to break ACCESS-3DP into small and manageable training units. The granularity of the units will allow each target group to satisfy its needs and fill skill gaps by selecting a combination of units.

Definition of Learnin Modules and Units • Each partner will define the Modules, Units (the content will be developed in IO3) and Learning Outcomes closely related to each partner's expertise, as well as the analysis of the best training methodology for every unit (online, slides, video, etc. or a mixture).

Harmonization to the European

• Differences and requirements between the partner countries will be considered to develop a common VET Curriculum, valid in each of the countries.

Development of the guidelines for trainers

• By analysing the training needs and establishing the goals and priorities of education the partnership will suggest methods and tools for the trainers to implement the VET Curriculum in practice.

Ensure open license OER for Training materials •Open Licenses such as Creative Commons will be analysed and the level of protection will be agreed among the partners. Materials must have a license.



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# Presenting the partner:

In each of the Newsletters we will present one of the project partners. We will begin with the lead partner - Chamber of Craft Auvergne-Rhône-Alpes Lyon-Rhône

Located in Lyon, France, the Chamber of Craft Auvergne-Rhône-Alpes Lyon-Rhône is a public organization in charge of representing the craft sector in the Rhône department. It represents more than 40,000 crafts companies in its department from the services' sector (38%), construction (37%), production of goods (16%) and food industry (9%). The main mission of the Chamber of Crafts in France is to support craft businesses throughout their lifetime by offering a full range of effective services for craft stakeholders and by ensuring that the interest of craft SMEs is duly represented towards national and European institutions.

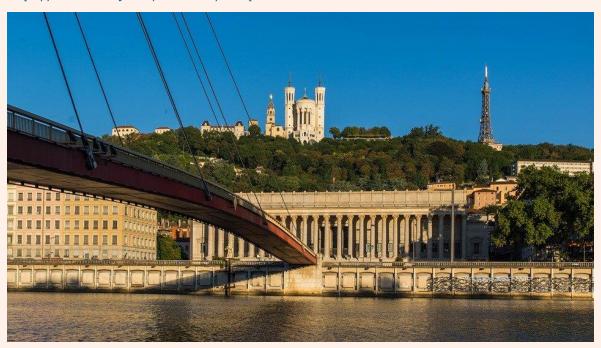
Our Chamber is the lead partner of ACCESS-3DP and coordinates its project implementation. The project team is composed by 3 fixed members with extensive experiences and skills in innovation, training and European project management. Additional experts are mobilised regularly from the innovative, training or communication departments, whenever the needs of the project demand specific expertise in these fields.

The Chamber in the Lyon-Rhône department has an extensive and longstanding experience both as coordinator and project partner of collaborative projects co-funded by the European Union. It is one of the few Chambers of Crafts in France with a department specifically dedicated to this activity. We combine our practices and know-how with the ones of our European partners to develop operational tools and innovative methods for the craft sector, to promote the French craft sector in Europe, to exchange good practices with partners and develop new skills.

More info:

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https://www.cma-lyon.fr/se-former/europe



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