

## Project Partners

**Ludor Engineering**  
(Project Coordinator)

Iasi, Romania



**CAMIS Centre**

Bucharest, Romania



**MECB Ltd.**

Iklin, Malta



**Public institution**  
**Information Technologies**  
**Institute (ITI)**

Kaunas, Lithuania



**Centro de Formación**  
**Somorrostro**

Muskiz, Spain



**Danmar Computers**

Rzeszow, Poland



**Liceul Teoretic de**  
**Informatica „Grigore**  
**Moisil” Iasi**

Iasi Romania



**GoDesk**

Potenza, Italy



**Northern Lithuania College**

Siauliai, Lithuania



## Fostering Creativity and Innovation

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### Welcome

Welcome to the fourth edition of the 3DP project newsletter. This issue will disclose an update concerning the project outcomes, following the fourth and last meeting which was hosted in Bucharest. Furthermore this edition of the newsletter introduces another three partners participating in the project. Furthermore, a summary of the intellectual outputs generated through this project is provided. Finally, an account of the multiplier events, held by the project partners, to disseminate the project results is also provided in this last edition of the 3DP project newsletter.

### Project Objectives

The project aims to give people the opportunity to develop their skills in 3D printing and to acquire the knowledge that allows them to activate in this field, like employee, entrepreneur, trainer, intermediary, etc. This is especially so in Vocational Education Training which needs to be strengthened with 3D printing related learning material. The project is therefore addressed to organizations, companies and persons interested to use or to support others to use the 3D printing revolution, in various domains: industry, art, entrepreneurship, intermediation, law, politics, finance, etc. The partners will develop a 3D printing curricula and courseware, a trainer guideline and an e-learning platform. They will be available in 6 languages (English, Spanish, Italian, Polish, Romanian and Lithuanian), free and open to all.

### Keep in Touch



@3dprintingeu



www.3d-p.eu



www.facebook.com/3DP.EU/



https://issuu.com/3dpproject



## Meet the 3DP Partners

The 3DP project involves 9 partners from the Romania, Italy, Malta, Lithuania, Poland and Spain. This issue introduces three partners from Spain, Romania and Lithuania

### Centro de Formación Somorrostro

*Muskiz, Spain*



Centro de Formación Somorrostro is an integrated education centre created in 1947 that provides secondary education, 3 levels of Vocational Education and Training -initial, intermediate, and higher VET-, and Continuous VET. The centre offers a wide range of vocational qualifications in the following fields: Social services-care; Machining; Mechanical manufacturing; Industrial maintenance, repair and operations; Automotive maintenance; Electricity and Electronics; Information Technology; Safety and environment; Construction and civil engineering; Management and Marketing. Nowadays, Somorrostro trains around 4,000 students and employs 183 professionals being the second largest VET organisation in the Region of the Basque Country.

### Northern Lithuania College

*Siauliai, Lithuania*



Northern Lithuania College (NLC) is a Higher Education Institution in Lithuania, which is actively involved in the provision of higher education and professional qualification services that are relevant to labour market needs, science and new technologies level. NLC has more than 30 social business partners, is a member of Chamber of commerce since 2001 and has been involved in Chamber of Commerce and Business Incubation activities since more than 15 years. NLC has experience in EU project preparation and implementation in various sectors such as business and entrepreneurship sector, educational programme development and Life Long Learning programmes implementation.

### Liceul Teoretic de Informatica „Grigore Moisil”

*Iasi, Romania*



Liceul teoretic de informatica „Grigore Moisil” is a computer high school in Iasi, North East Romania, that has been preparing workforce for the IT professions for over 40 years. LIIS offers VET training corresponding to occupational standard of PC operator, web designer, web programmer, PC graphic designer. In high school years students acquire skills enlisted in the educational system including programming, web design, OS, basic database administration and C++ programming. LIIS is experienced in implementing EU projects, it participated in numerous international partnerships and has received the certificate of European School 4 times consecutively.



## 4<sup>th</sup> Project Meeting

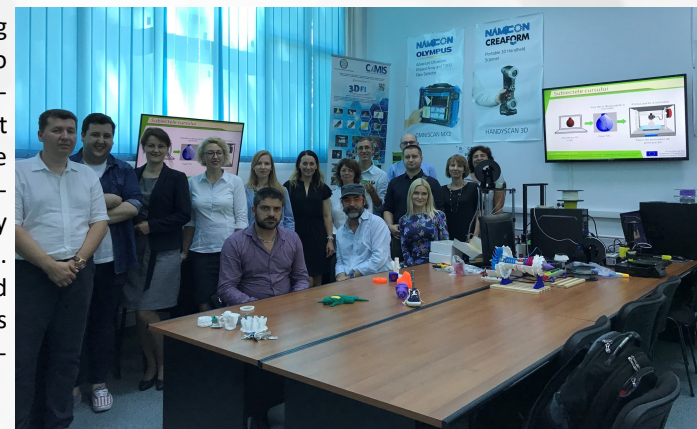
The fourth 3DP Transnational Project Meeting of the 3DP project was held in Bucharest, Romania on the 2<sup>nd</sup> July 2018. This meeting was hosted by the project partner CAMIS Centre. Throughout out meeting the partners presented the tasks carried out since the last meeting which was held in October 2017 in Rzeszów, Poland.

A project outcome that was discussed during the project meeting concerned the dissemination of the project results in multiplier events held by different partners. Later on this newsletter, further details on these events are provided.



Besides the multiplier events, the project partners discussed a number of issues such as ways to improve the enrolment numbers of relevant stakeholders in the learning management system, the input required to finalise and evaluate the project learning outcomes, project sustainability, ECDL certification, and copyrights associated with the relevant intellectual outputs.

After the meeting, the meeting attendees had the opportunity to visit the various technologies available at the 3D Printing lab at CAMIS Centre. The attendees were exposed to different 3DP technologies, including Stereolithography and Fused Deposition Modelling. Furthermore, the attendees could appreciate how 3DP technology is being used by undergraduate students in their projects.





## Multiplier Events

### Centro de Formación Somorrostro

Muskiz, Spain



On the 9th of July Somorrostro carried out 3DP project's multiplier event at TKNIKA, the Basque Centre of Research and Applied Innovation in VET. The attendants had the opportunity to get to know what the partners have done during the two years that the Project has lasted and we presented them all the materials and intellectual outputs developed.



### Damcar Computers

Rzeszów, Poland



Danmar organised its multiplier event on the 7th June 2018,. 46 participants have been introduced to the project and its results. The participants represented various educational institutions and professions (teachers, lecturers, educators, entrepreneurs, learners, NGOs). From the academia, there were lecturers from the University of Rzeszow and Technical University of Rzeszow.



### GoDesk

Potenza, Italy



GoDesk held the multiplier event on the 26th June 2018. The project results were presented to 81 persons, after which, a workshop was organised to discuss possible evolutions for the innovation sector using the tools created in the project. During the activity, RAI3 Television recorded a video for a broadcast on our Multiplier Event. Click [here](#) for further details (minutes 7:34 - 8:12).



### MECB

Iklin, Malta



MECB organised two sessions of the multiplier event at the *Malta College for Applied Sciences & Technology* (MCAST); on the 20<sup>th</sup> April and 1<sup>st</sup> June 2018. The first session was mainly intended for VET Students, whereas the target audience in the second session was VET trainers. A total of 52 participants attended the sessions.



### UPB-CAMIS Centre

Bucharest, Romania



On July 7th 2018, a multiplier event was organised by UPB-CAMIS for disseminating the final project intellectual outputs, including guidelines, case studies, 3D printing curricula, courseware and e-learning platform. The event gathered more than 70 participants: VET students, VET trainers, as well as representatives of several Romanian companies interested in 3DP education.



### Ludor Engineering & LIIS

Iasi, Romania



Ludor Engineering and Liceul de Informatica "Grigore Moisil" organised a multiplier event on May, 14th 2018, in Iasi, Romania. All the project intellectual inputs have been presented to 84 participants. Also, presentations on 3D printing job market, 3DP application in business development and in VET education were delivered. Participants were also given life demos on 3DP technologies.



## Multiplier Event & Intellectual Outputs

**Public institution Information Technologies Institute**

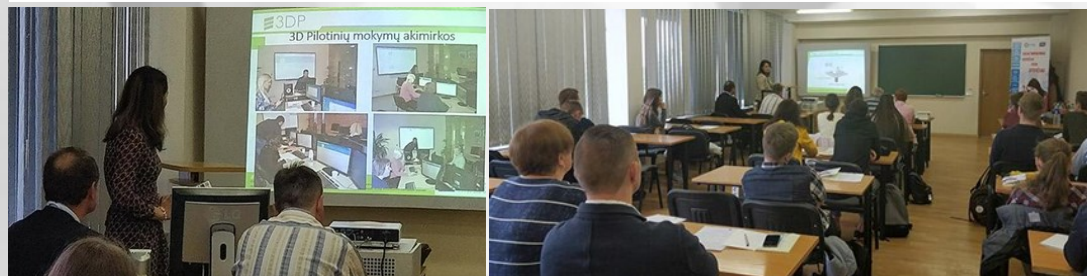
*Kaunas, Lithuania*

**Northern Lithuania College**

*Siauliai, Lithuania*



The Information Technologies Institute (ITI), in collaboration with another partner from Lithuania Northern Lithuania College, organised their multiplier event at Kaunas University of Technology on 17th of May 2018. The main participants of event were students and teachers. In addition representatives from business participated in the event. During the event participants were introduced to the purpose, main idea and achieved results of 3DP project.



**Guidelines and case-studies on the use of 3D printing in VET education (IO1)**

The document provides a formal set of guidelines for vocational students and trainers, together with a set of case-studies which can be exploited to educate and make students aware of the potential of 3D-P technology in a range of application sectors. "Guidelines and case-studies on the use of 3D printing in vocational education and training (VET)" is freely available for download [here](#), in English.

**Curricula of 3DP course (IO2)**

The document contains a 3D printing curricula designed for VET and embedding the most relevant topics for the 3D printing labour market. It includes, for each section, the learning outcomes and the pre-requisites as well as recommendations regarding sub-topics to be covered and the number of hours needed. The curricula is developed for 3 difficulty levels: beginners, intermediate and advanced curriculum Curricula of the 3D Printing course is freely available [here](#).

## Intellectual Outputs

**3D Printing Courseware (IO3)**

The Output includes 13 chapters on topics relevant to various 3D printing related fields, such as: available 3D printing technologies and equipment, 3D CAD modelling software applications, 3D CAD modelling using Autodesk 360 Fusion, handling of STL files, obtaining physical models offered by 3D Printing providers, 3DP and entrepreneurship and design with 3D printing in mind.. The 3D Printing courseware is available [here](#) in 6 languages (English, Spanish, Italian, Polish, Romanian and Lithuanian), free and open to all.

**3D Printing Trainer Guidelines (IO4)**

"3DP trainer guidelines" intends to help teachers and trainers to train students using the materials developed in the frame of 3DP project, especially the Learning Management System. It includes general recommendations (planning, creating conditions for learning, what the trainer must do, the conditions of learning, evaluating the trainee's progress) and specific requirements regarding all 13 chapters of 3DP courseware. The "3DP trainer guidelines" is freely available [here](#).

**3D Printing learning management system (e-learning) (IO7)**

It is an electronic platform, hosting the 3DP course and evaluation tools, that allows anyone to train in the field of 3D printing. The 3D Printing learning management system (e-learning) is available in 6 languages (English, Spanish, Italian, Polish, Romanian and Lithuanian) and is tailored to suit the training needs of beginners, intermediate and advanced 3DP technology users. It can be freely accessed [here](#).



GUIDELINES AND  
CASE-STUDIES



CURRICULA OF THE 3D  
PRINTING COURSE



3D PRINTING  
COURSEWARE



TRAINER GUIDELINES



E-LEARNING  
PLATFORM