PROJECT NEWSLETTER

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BRACKET

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Boosting a novel and innovative tRAining approaCh of Key Enabling Technologies

BRACKET INFO

The BRACKET project is a study of the representation of new technologies (nanotechnology, biotechnology and advanced materials) in Vocational Education and Training (VET). In the scope of the project, the situation analysis in the project partner countries will be carried out, as well as the preparation and implementation of a new training program in the field of key advanced technologies and a joint platform for cooperation containing all educational content developed through the project.

November 1, 2018 - April 30, 2021

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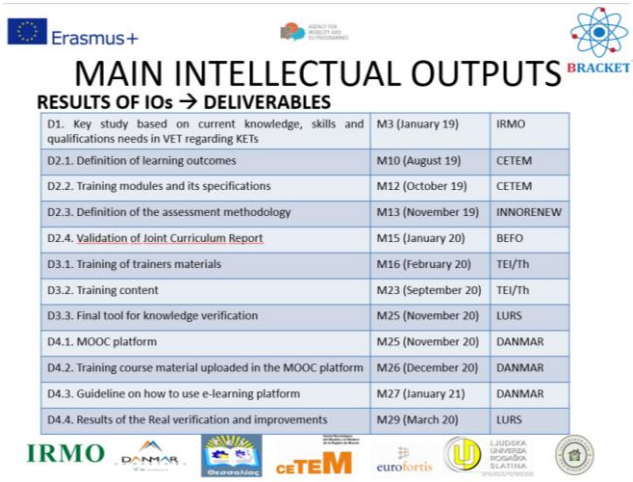
KICK-OFF MEETING

The First Transnational Project Meeting was held in Zagreb, Croatia, on 12th- 13th December 2018. The representatives of all project partners were present and they presented their respective organisations. The objective of the project and the different aspects that compile the project were presented: intellectual outputs, activities, transnational meetings and multiplier events. Also, the activities related to dissemination and quality assurance were discussed, and the tasks related to the first intellectual output were thoroughly studied and the deadlines for its deliverables agreed.



WHAT ARE KEY ENBLING TECHNOLOGIES?

Key Enabling Technologies (hereafter "KETs") are the technologies that enable process, goods and service innovation throughout the economy. KETs currently include Micro-/Nanoelectronics, Nanotechnology, Photonics, Advanced Materials, Industrial Biotechnology and Advanced Materials. All these technologies are knowledge-intensive and associated with high R&D intensity, rapid innovation cycles, high capital expenditure and highly skilled employment.

KETs have the potential for application in virtually all sectors and industries, including aeronautics, automotive, engineering, chemicals, textiles, space, construction, healthcare and agriculture. KETs are the "technology building blocks" behind a wide range of innovations, such as 3D printers, LED lighting, advanced robotics, bio-based products, smart phones, nanodrugs, smart textiles, etc.

KETs

KETs have become a priority in European industry policies in order to accelerate the exploitation processes of these technologies within the European Union (EU) and foster growth in the industrial and working fields. Thus, the Commission is working towards several initiatives as part of the **strategy** to increase the KETs deployment activities. The **interactive map** created by the European Commission shows that European countries and its technological centres helping SMEs innovate on KETs.

Concretely, BRACKET project encompasses three KETs detailed below:

- Industrial Biotechnology: including enzymes, micro-organisms, amino acids and fermentation processes, excluding biotechnology for healthcare and agriculture. Industrial biotechnology is used for products such as bio-fuels, detergents, materials including plastics, rubber, chemicals, etc.
- Nanotechnology: dealing with methods to manufacture structures on a molecular or atomic scale. Examples of applications include nanomedicine for improved healthcare, as well as carbon nanotubes for lighter materials and for lighter materials and for higher conductivity and improved energy management.
- Advanced materials: covering a broad area of innovation in materials such as lightweight materials, low-carbon material energy solutions and other, including polymers, macromolecular compounds, rubber, metals, glass, ceramics, etc.

"nanotechnology, biotechnology and advanced materials"

WHAT HAS BEEN DONE SO FAR

Desk-research analysis for demanded Key Enabling Technologies and their implementation in industry and VET education. The report will include National Policy Overview - the inclusion of KET in policy documents on national level: national strategies, sectoral strategies, education and science polices, operational programmes, funding possibilities.

Data collection by means of questionnaires aims to analyze the incoming trends regarding KETs and competences necessaire to foster its implementation in work. Findings will be input for a project activity of developing a new online course available for VET students who are interested in developing and fostering new skills on KET.

Based on the results obtained by each partner research, IRMO will prepare the first draft of the "Key Study on Vocational Education and Training towards Key Enabling Technologies". This study will provide a complete analysis of the current situation about how the concept of KETs, concretely focused in nanotechnology, biotechnology and advanced materials, is being implemented within VET. This activity has the objective of identifying the current knowledge in order to define the skills and competences needed by VET students (initial VET which are willing to work in these sectors and continued VET, already involved in technological industries).

ACTIVITIES IN THE NEXT PERIOD

- 2nd Transnational Project Meeting will be held in Yecla, Spain, on 6-7 May, 2019
- Review of achieved project results O1 (Study and Questionnaires)
- Development of Output 2

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