



## FOSTERING UNIVERSITY NETWORKS AND ENTREPRENEURSHIP EDUCATION PROGRAMS: THE CASE OF THE ENTRENEW PROJECT AT IDEAS UPV

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## ABSTRACT

A pan-European network of universities connected with a common goal and involving both students and professors can be a strong catalyst for the professional, economic and social development of the university environment that positively affects not only the university itself but also the other agents or actors in its ecosystem. It is also widely recognized that training and education in entrepreneurship constitutes a solid strategic tool for regional development in which both public and private institutions around the world have made large investments over the past years.

The European Project EntRenew in which the Universitat Politècnica de València - Spain (UPV) participates from 2019 is working in facilitating the exchange, flow and co-creation of new knowledge, enabling professors to teach transdisciplinary studies through innovative methods and stimulate synergies between universities and entrepreneurial support systems throughout Europe.

Ideas-UPV, the entrepreneurial service at UPV has a large experience of 30 years promoting entrepreneurship among students and professors. It also participates in different European projects establishing networks and future collaboration opportunities. The design of entrepreneurship education programs aimed at higher education students is also a core area of the service, not only addressing business plans but also the development of entrepreneurial skills.

This work analyses the current results of the EntRenew program and how this and other initiatives of Ideas-UPV have had an impact on the creation of student entrepreneurial ecosystems, fostering cooperation between the actors and establishing connections to the university environments.

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## 1 INTRODUCTION

Training and education in entrepreneurship are elements of vital importance for local development. For this reason, institutions have focused their efforts and investments on this area and in most cases they define themselves as entrepreneurial institutions.

One of the ways to promote this regional development and foster entrepreneurship is by working on European projects, creating networks of universities that collaborate in achieving a common goal, and taking advantage of the talent of their students and teachers. This will have a positive impact on the development of the university itself, as well as on the other agents of its local ecosystem.

Ideas-UPV, the service that has been in charge of the entrepreneurship activities of the UPV for 30 years, participates in different European projects establishing networks and future opportunities for collaboration.

An example of these projects is EntRENEW in which 5 European universities (Pôle Universitaire Léonard de Vinci, France. Halmstad University, Sweden. University of Vaasa, Finland. Leiden University, Netherlands and Universitat Politècnica de València, Spain) have been working since 2019.

## 2 THE ENTRENEW PROJECT

### 2.1 Overview

The EntRENEW Project and the sharing of their good practices and the co-creation of new knowledge, aims at promoting a dynamic interdisciplinary perspective that articulates the corporate, scientific, and pedagogical skills and knowledge in renewable energy and entrepreneurship. The project contributes to increasing the capacity of European students in their way to becoming effective entrepreneurs and leaders, enabling them to address the challenges of Europe's future sustainable prosperity and the transition of energy sectors towards decarbonisation (as part of the European Green Deal) [1].

The project answers three major needs:

- The need to train new skills and competences in future MA graduates in business and environmental/energy studies, bridging the knowledge gap in the current HE curricula to answer the demand by new energy businesses.
- The need to increase the use of new and innovative pedagogies in HE to enhance students' motivation.
- The need to enhance the collaboration between European students and the entrepreneurial community

### 2.2 Methodology

In order to achieve the ultimate goal of creating a blended-learning course on entrepreneurship in renewable energies an exhaustive analysis of the needs of each university was carried out. This work included interviewing students to build a proposal of the most appropriate pedagogical methodology that meet their expectations, while also adapting it to the academic requirements of every partner university.

After this, all the contents of the blended course were developed collaboratively among all the partner universities, sharing knowledge, available academic content, etc. The developed contents consist of videos, presentations for face-to-face classes, gamification, tasks and exercises. At the same time, the contents that the trainers will need to teach the course optimally in each of the universities have been prepared as well as the teacher's guide.

For the online part of the course and for all the gamification that has been created for it, a platform is being developed on which all the necessary content will be uploaded and from which the students will be able to enrol and take the course.

The next steps will be to conduct a pilot test of the course with a series of selected students in each of the universities, to obtain feedback on the content, the materials and the methodology of the course. After the appropriate improvements and the final validation, the EntRENEW course will be officially launched, integrating it into the study plans of all the universities participating in the project, and carrying out the appropriate dissemination actions to attract students to enrol in this course.

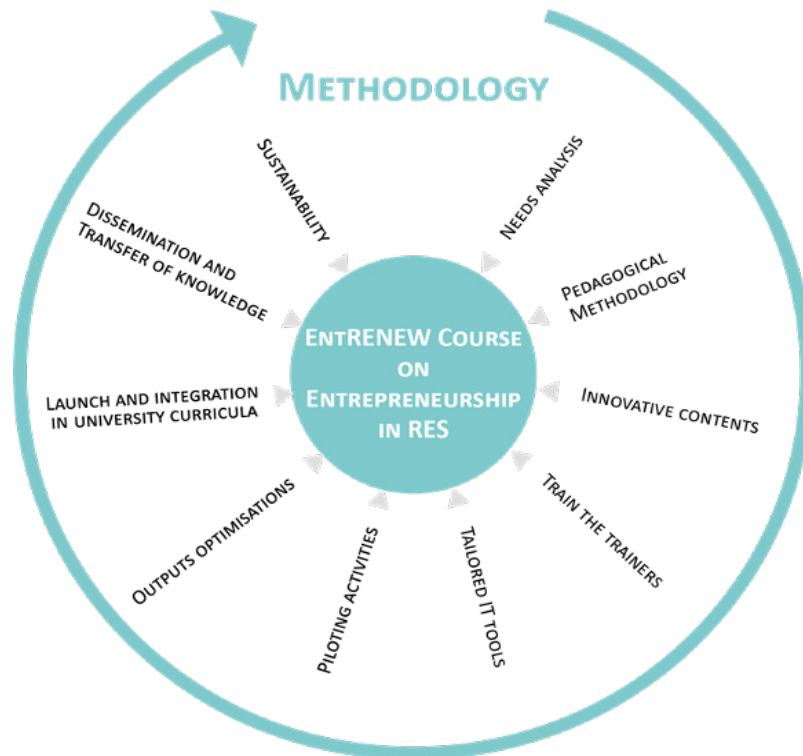


Figure 1. Phases of the implementation

### 3 RESULTS

As a result of the work carried out by the universities participating in the project, sharing good practices and the co-creation of new knowledge, a blended-learning course on renewable energies entrepreneurship has been generated as a short term result. This course is divided in different modules and topics:

<b>MODULE 1: Renewable Energy Systems</b>
<ol style="list-style-type: none"> <li>1. Introduction: Sustainability and the 2030 Agenda</li> <li>2. The Basics of Energy</li> </ol>
<b>MODULE 2: Entrepreneurial ecosystem</b>
<ol style="list-style-type: none"> <li>1. Background Open Innovation</li> <li>2. Vibrancy Of An Entrepreneurial Ecosystem</li> <li>3. The Life Cycle Of The Small Firm</li> <li>4. Local Entrepreneurial Ecosystems</li> </ol>
<b>MODULE 3: Business model innovation and ecosystems in renewable energy</b>

<ul style="list-style-type: none"><li><b>1. Business Modelling</b> (based on [2])<ul style="list-style-type: none"><li>1.1 Traditional business models Vs Sustainable Business Models</li><li>1.2 Card game for Sustainable Business Model (SBM)</li><li>1.3 Customer Segments</li><li>1.4 Value Proposition (based on [3])</li><li>1.5 Revenue Streams + Cost Structure (cash flow analysis)</li><li>1.6 Channels</li><li>1.7 Competitive Advantage</li><li>1.8 Key Activities + Partnerships</li><li>1.9 Business model as source of innovation</li><li>1.10 Barriers for developing business models</li></ul></li><li><b>2. Climate Impact</b><ul style="list-style-type: none"><li>2.1 Life Cycle Assessment &amp; Measure reduction in carbon emissions</li></ul></li><li><b>3. Validation</b><ul style="list-style-type: none"><li>3.1 Validation Plan</li><li>3.2 Minimum Valuable Product</li><li>3.3 Prototyping</li><li>3.4 Talking to humans</li></ul></li><li><b>4. Talking to investors &amp; stakeholders</b><ul style="list-style-type: none"><li>4.1 One Page</li><li>4.2 Elevator Pitch</li></ul></li><li><b>5. Marketing</b><ul style="list-style-type: none"><li>5.1 Designing a marketing strategy</li></ul></li></ul>
<b>MODULE 4: Business model innovation and ecosystems in renewable energy</b>
Assignment: EntRENEW Project

*Table 1. Modules of the course developed in the project.*

The long-term impact of the EntRENEW project will be to create a new generation of decision makers who will explore concrete entrepreneurial solutions in support of EU countries facing the important challenge of maintaining their social and economic performance and being more eco-responsible, especially in the energy sector.

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