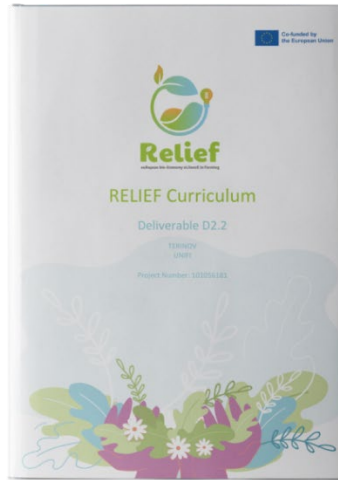


Promoting rural development through the bioeconomy: the commitment of the RELIEF project to requalify agricultural workforce



Agriculture plays a pivotal role in the European Union, serving not only as a cornerstone for food security but also as a driver of economic growth in rural regions. Yet, the agricultural sector grapples with numerous challenges, including resource scarcity and environmental concerns. Amidst these challenges, the bioeconomy emerges as a promising avenue.

To craft a successful bioeconomy strategy in agriculture, it's imperative to bolster support for the workforce, deepen understanding of the bioeconomy's impact and business models, and foster broader awareness and engagement among stakeholders.

Despite its potential, bioeconomy training remains deficient in many EU nations, compounded by a shortage of individuals with university-level education in agriculture. Navigating the transition to the bioeconomy demands professionals equipped with diverse, managerial, and cross-sectoral skills. Higher education and vocational training stand poised to play a pivotal role by integrating tailored study and training initiatives in this direction.

The [European project RELIEF](#) aims to develop and provide an innovative and multidisciplinary approach to teaching bioeconomy in agriculture, creating learning resources for university students, farmers, and agricultural professionals.

After an in-depth analysis of needs and current training offerings in Europe in the field of bioeconomy (see the recent scientific article published in the international journal [Sustainability](#)), RELIEF project partners have outlined the structure of training courses for experts in the field of bioeconomy within the agricultural sector.

These courses are detailed in the "[RELIEF Curriculum](#)" document, available in English. Two training paths will be established: one at the university level and the other in the context of vocational training. Both will provide participants with the essential knowledge and skills to navigate the dynamic world of bioeconomy in agriculture.

- The RELIEF course for Higher Education Institution consists of 5 Modules, 4 dedicated to the bioeconomy and one to horizontal skills development. Each module is made up of 4 Learning Units (LU), corresponding to 3 ECTS.
- The RELIEF VET course mirrors the university course structure, but adopts a VET approach. It is made up of 5 Modules, each consisting of 4 LU; 4 modules dedicated to topics related to the bioeconomy, 1 module dedicated to horizontal skills. Each LU is equivalent here to 1 ECTS.

Main structure of the RELIEF courses

Modules	RELIEF for Higher Education	RELIEF for VET
1 – Agricultural sustainability, management of natural resources and climate action	<ul style="list-style-type: none"> • Renewable energy and its application as green agricultural energy source • Climate change • Water, Energy, and Food (WEF) Nexus security, drip irrigation, and desalination • Agricultural reuse of organic residuals 	<ul style="list-style-type: none"> • Renewable energy solutions for agriculture • Understanding climate change • Water, Energy, and Food (WEF) Nexus security, drip irrigation, and desalination • Agricultural reuse of organic residuals
2 – Digital technologies and artificial intelligence	<ul style="list-style-type: none"> • Precision technology and big data • Remote sensing in farming • Integration of digital technologies for effective farm management • Automation Technologies 	<ul style="list-style-type: none"> • Data science and precision technologies • Exploring precision farming using remote sensing • Smart farming solutions • Automation Technologies
3 – Bioeconomy, circular economy and bio-based products	<ul style="list-style-type: none"> • Circular Economy • The concept of biorefinery • Bioenergy and energy crops • Innovation, economics and strategic management in the bioeconomy 	<ul style="list-style-type: none"> • Circular Economy • Discovering the potential of biorefineries • Bioenergy and energy crops • Introduction to bioeconomy – New value chains, Innovation and basic Economics in the Bioeconomy
4 – Controlled environment agriculture	<ul style="list-style-type: none"> • Controlled environment agriculture infrastructure • Soilless: hydroponics, substrates, aquaponics • Pest management in controlled environment • Crop selection for controlled agriculture 	<ul style="list-style-type: none"> • Basics of controlled environmental agriculture • Mastering vertical farming • The business of vertical farming: from plants to profit • Sustainable agriculture in controlled environments: Challenges, opportunities and solutions
5 – Horizontal	<ul style="list-style-type: none"> • Soft skills • Green skills • Entrepreneurial skills • Digital skills 	<ul style="list-style-type: none"> • Soft skills • Green skills • Entrepreneurial skills • Digital skills

RELIEF training will be piloted in 2024 in Italy, Greece, Portugal, Sweden, and Cyprus. This training, focused on the needs of industry operators and the use of innovative methodologies, will provide the necessary skills to address the new challenges of the agricultural sector and facilitate the transition to a sustainable and circular bioeconomy.

For further information, visit the website: relief.uop.gr and follow RELIEF on social media: [Facebook](#) and [LinkedIn](#). Or contact: relief@uop.gr.