



Relief



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POLICY BRIEF 2

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How to support farmers to undertake sustainable transitions and integrate bioeconomy principles into their activities: the development of a comprehensive bioeconomy learning platform for farmers

What is the challenge?

The agricultural sector in the EU still relies, up to a large percent, on outdated farming methods that require significant human capital, inefficient practices, large quantities of non-renewable fuels and single-use materials. On top of that, it is confronted with the consequences of climate change, such as water scarcity, extreme temperatures and soil erosion.

The above mentioned factors, not only reduce the competitiveness of the European Union's agricultural products but also pose a threat to its capacity to provide for generations to come. On the other hand, the sector has made significant progress towards a greener and more circular way of conducting business.

To be more specific, agricultural equipment is becoming more and more efficient both in terms of crop yield and energy intensity. Also, farmers are deploying, to a smaller or larger extent, the principles of organic or even regenerative agriculture. The above are just a fraction of the new practices deployed in the field and have already left a positive footprint on the environment by reducing greenhouse gas emissions, pesticide usage and soil health. They lead by example towards a more circular and sustainable EU farming sector.

Nevertheless, there is still room for improvement to minimise the environmental footprint of agriculture by effectively integrating bioeconomy principles into the rural activities. It is vital for the EU to further expand its bioeconomy strategy to transform the sector and therefore achieve its climate goals for 2030 and 2050.



The agricultural sector requires assistance to deploy bioeconomy principles, innovative business models and best practices in the field. Supporting farmers in transitioning to sustainable practices and integrating bioeconomy principles into their activities is essential for achieving environmental, economic, and social goals in agriculture.

A comprehensive bioeconomy learning platform for farmers can be a key tool to facilitate this transition by offering education, resources, practical guidance, and community support. Relevant bioeconomy training can be the stepping stone for agricultural stakeholders to address challenges and seize the opportunities of the current and future business ecosystems.

The RELIEF project aims to fulfil that need by putting together rural stakeholders of different backgrounds (farmers, researchers, agricultural cooperatives etc.) and supporting the training process with dedicated curricula and mentoring.



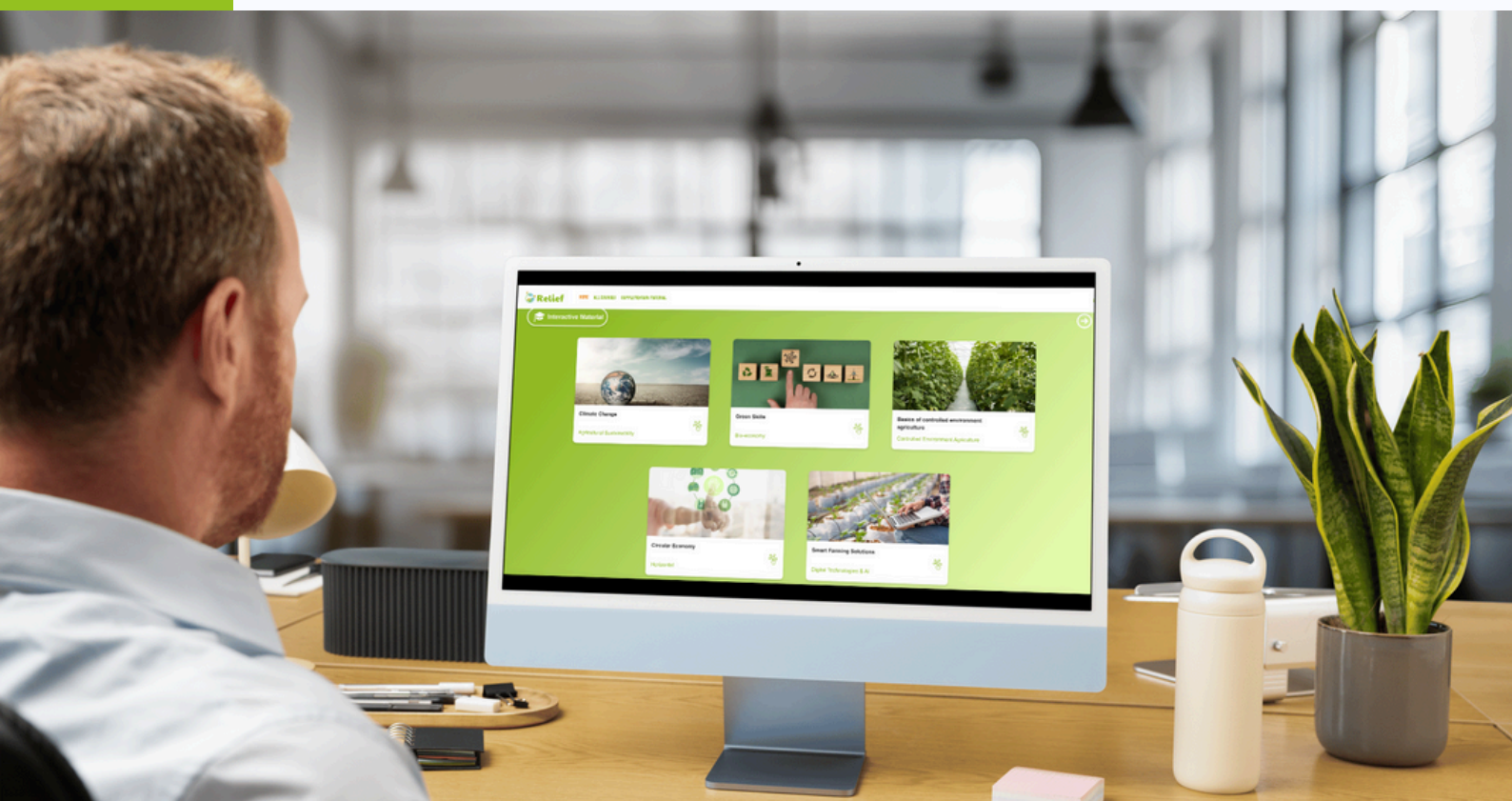
To achieve this, a comprehensive e-learning platform has already been launched, offering specialised courses and interactive learning for optimal learning experience.

The first step in developing a bioeconomy learning platform was the understanding of the needs of farmers and the specific bioeconomy principles they need to integrate.

The key objectives among others are: educating farmers, agricultural consultants and HE students on sustainable agricultural practices and bioeconomy principles, providing guidance on transitioning to bio-based inputs, circular agriculture, and sustainable energy use and offering real-world examples and case studies that show the economic and environmental benefits of adopting bioeconomy practices.

Additionally, the goal of the project is to help the trainees integrate the training received and lessons learned into their everyday activities. To maximise the efficiency and continuity of the training, four regional hubs will be developed.

The goal is to showcase the latest developments in the field and create an active network of agricultural stakeholders to promote networking and share the lessons learned.



Below we are providing some of the main subjects developed by the online training platform:

- **Below we are prAgricultural Sustainability:** Covers organic farming, regenerative agriculture, agroecology, and precision farming techniques that help conserve resources and increase yields.
- **Digital Technologies and Artificial Intelligence:** Demonstrates the importance of data science and precision technology, the applications of remote sensing in farming, smart farming solutions, and automation technologies.
- **Bioeconomy, Circular Economy and Bio-based Products:** Educates on the circular economy model, the technology of biorefineries, bioenergy, energy crops, and waste-to-resource strategies.
- **Controlled Environment Agriculture:** Introduces the concept of controlled environment agriculture, vertical farming methods and technologies, entrepreneurial skills in vertical farming, and the level of sustainability of agriculture in controlled environments.
- **Horizontal Skills:** Shows the skills required in the agricultural sector such as soft and green skills, entrepreneurial, digital skills and sustainable supply chains and markets.

Widespread use by agricultural stakeholders and further development of this learning platform, or a similar platform, is necessary and will support sustainable transitions across the agricultural sector. Since interested parties can update their skillset at their own pace, follow the latest practices in the industry and discover new markets to promote innovative products.

Policy Recommendations

- Create a comprehensive and accurate bioeconomy training platform for EU agriculture Focused on sustainable agricultural practices, innovative business models, and best practices policies should encourage the development of user-friendly, interactive platforms that offer localised content and courses specific to different regions' needs.
- Expand existing bioeconomy training programs by investing in expanding bioeconomy training programs to ensure that agricultural stakeholders are well-equipped to adopt sustainable practices.
- Develop regional bioeconomy hubs to showcase the latest developments in the sector and promote networking opportunities. These hubs should focus on networking, mentoring, and showcasing the latest technological advancements in the agricultural sector. Funding mechanisms and incentives for the creation of such hubs would ensure long-term impact and wider participation.
- Share best practices, lessons learned and transfer knowledge on regional and EU level.
- Foster Research, Innovation, and Technology Development by investing in research and innovation which is critical for driving the bioeconomy. Governments should promote new technologies that optimize the use of biological resources, improve productivity, and reduce environmental impacts. Promote innovative business ideas/models per bioeconomy product/service type and share them across the EU.
- Create financial incentives (e.g. reduced VAT) to support the promotion of organic and regenerative products.
- Promote networking and knowledge sharing by emphasising the importance of networking among agricultural stakeholders to share knowledge and best practices. National and regional programs should be developed to create active networks of bioeconomy actors to foster collaboration and the rapid dissemination of lessons learned from pilot projects like RELIEF.

- Establish long-term monitoring and support mechanisms to track the progress of bioeconomy adoption in agriculture, as well as the effectiveness of training programs and hubs.
- Create Markets for Bio-based Products by expanding the demand for bio-based products, such as biofuels, bioplastics, and bio-based chemicals. It is essential for scaling up the bioeconomy and governments should create favorable market conditions for these products.

These policy recommendations for the bioeconomy aim to create a supportive framework for innovation, sustainable resource use, and economic growth. By fostering research and development, supporting sustainable agriculture, creating markets for bio-based products, and investing in capacity-building, governments can ensure a successful transition to a bio-based economy that benefits both the environment and society.



Expected impact

- Increase knowledge exchange within the region as well as the lessons learned throughout the Union.
- Active involvement of the stakeholders in the bioeconomy hubs and raise of public awareness of the bio-based products.
- Enhance knowledge and skills available thereby ensuring the competitiveness of the EU agricultural sector.
- Increase cooperation in rural areas to create innovative products with high added value.
- Improve farm incomes and contribute towards the growth of the agricultural sector in the EU.
- Increase the adoption of sustainable and bioeconomy-based agricultural practices, reducing dependency on unsustainable methods and non-renewable materials.
- Enhance biodiversity and soil health through sustainable farming to preserve the ecosystem for generations to come.
- Contribute towards the achievement of EU sustainability goals for 2030 and 2050 by facilitating a transformative approach in the agricultural sector.
- Introduce farmers to the concepts of energy efficiency and waste management to help reach the goals set as part of the European Green Deal.
- Increase rural resilience with more adequately informed agricultural stakeholders, enabling them to address complex modern challenges in the sector.
- Improve resource management and therefore increase food security within the Union.
- Increase the recognition of small farmers and regions by promoting their success stories and innovations through the bioeconomy network hubs.
- Achieve alignment with regulations, policies and financing tools by keeping relevant stakeholders up to date at EU, national or local level.

Key Features of the RELIEF E-Learning Platform

- Extensive course offerings: access to 20 specialized courses with supplementary materials.
- Interactive learning: engage with gamified resources for optimal learning experiences.
- Multilingual support: courses available in English, Greek, Italian, Portuguese, and Swedish.
- Diverse educational levels: tailored for university students, agronomists, and farmers.
- Cost: completely free of charge.



Resources

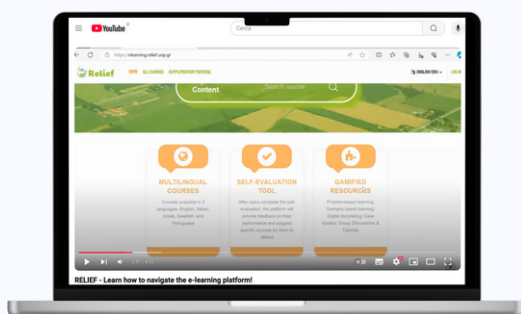
Interested individuals can register and access the courses online for free at:

RELIEF E-Learning Platform



Guides and tutorials:
access detailed guides and a YouTube tutorial to navigate the platform effectively:

How to Use the Platform



Trainer support materials:
including PowerPoints and activity instructions for each module



MULTILINGUAL
COURSES



SELF-EVALUATION
TOOL



GAMIFIED
RESOURCES

For more information, visit RELIEF E-Learning Platform or contact:



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Relief



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