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ADDRESSING CHALLENGES AND ENHANCING PROSPERITY: THE OREN PROJECT'S INNOVATIVE APPROACH TO RURAL ENTREPRENEURIAL EDUCATION

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INTRODUCTION

- The role of rurality in the prosperity of the European Union (EU) is widely acknowledged; however, rural areas face challenges in an increasingly urbanizing world.
- Despite the diversity in socio-economic performances, natural characteristics, and cultural heritage, many rural areas exhibit intrinsic fragility in social, economic, and environmental aspects, leading to common challenges and underutilization of opportunities.
- Common structural vulnerabilities, including distance, lack of critical mass, and low population density, are exacerbated by the recession, the COVID pandemic and the consequences from the ongoing climate
- Maximizing the opportunities depends on a constellation of factors coming together.
- These discussions underscore the importance of exploiting future opportunities in a manner that addresses rural vulnerabilities and current state of the art calls for new strategies and models of rural development to be found and applied so to turn lagging rural areas into resilient rural communities.
- Thus, education emerges as a pivotal factor for enhancing rural business efficiency, yet few programs specifically target rural entrepreneurs' needs.

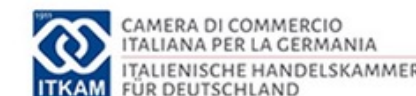




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INTRODUCTION

The objective of the current paper is to report on the OREN project (E+ 2021-1-IT02-KA220-ADU-000033510), an Erasmus+ initiative that aims to bridge this gap by developing an interactive learning platform offering sustainable rural business models, simulation tools, and managerial courses tailored to agricultural entrepreneurs. The platform seeks to equip participants with advanced managerial and business skills.

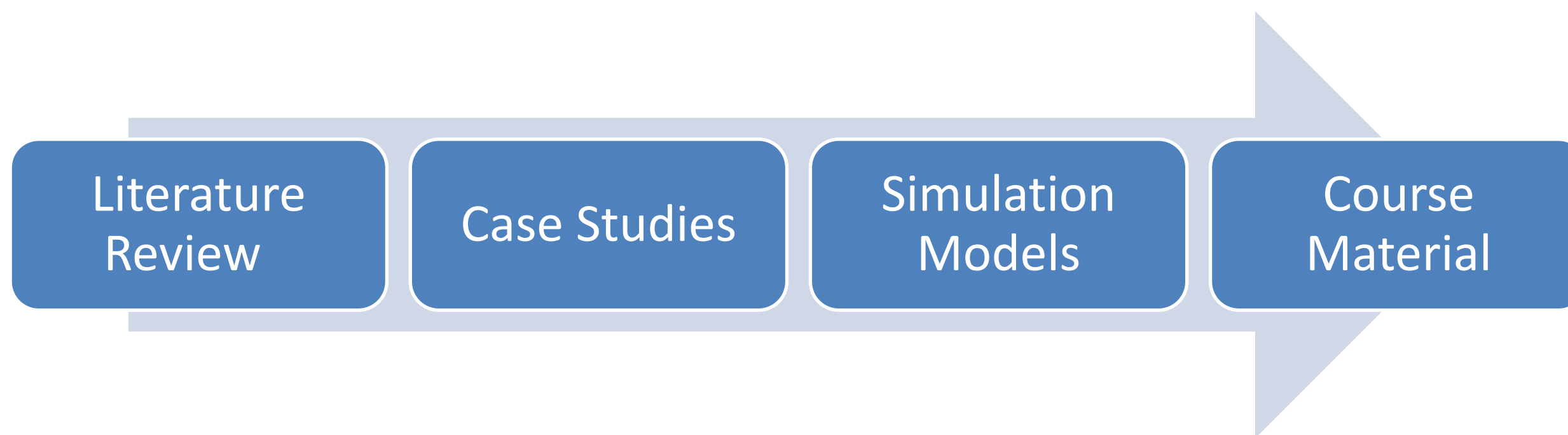




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METHODOLOGY

To achieve the objective of the OREN project, a multi-echelon approach was utilized



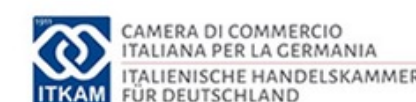


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RESULTS

Results from the Literature Review

- System Dynamics has a long tradition in modelling agricultural systems
- There are a lot of papers that focus on the production process of agricultural products, but not on how different business models could affect the development/income of rural entrepreneurs.
- During the last few years, researchers have started focusing on the diversification in rural entrepreneurship by studying, for example, the effects of agro-tourism, however, the same has not been observed with the interplay of energy-agriculture.
- Finally, there has not been a lot of research focusing on the technological aspect of rural entrepreneurship or the skill acquisition of rural entrepreneurs and their impacts.





RESULTS

Results from the Case Studies

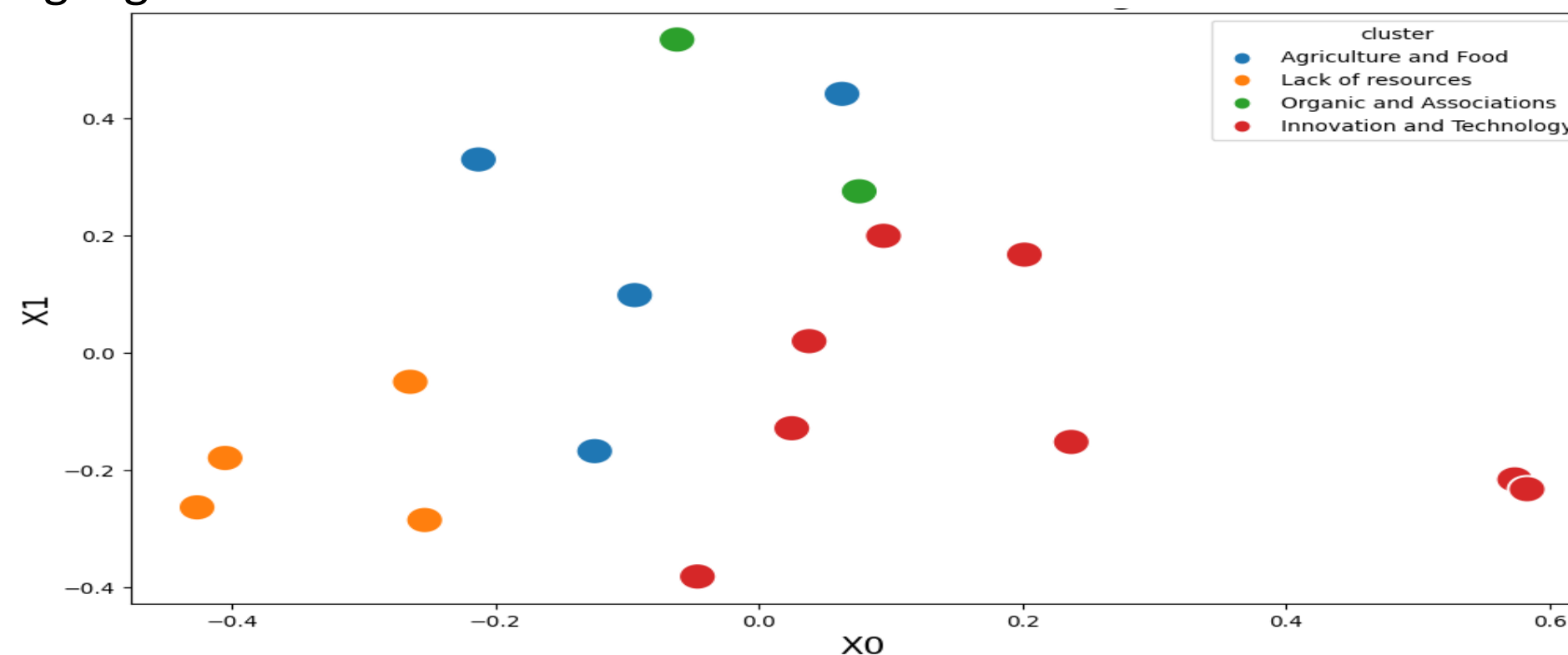
- case studies on successful business agricultural models were collected by the project partners
- Example

Country	Name	Sector	Aim	Challenges	Good practices
Bulgaria	Biofish Trading Ltd	Agriculture	1) Connect producers to customers 2) Small food supply chain 3) Maximum benefit from waste	N/A	1) Preservation and teaching of know-how to next generation 2) Pay attention to the behavior of animals 3) Digitization
Belgium	Linked.Farm	Agriculture	Sales and distribution digital platform for local Farm2Fork products	1) Limited access to public tenders 2) Every farmer can invest only money they have	1) Shortening the food chain 2) Diverse stakeholders-resilience
Germany	Innovative Landwirtschaft Reber	Agriculture	Family-run farm	Lack of funds and economic incentives	Regenerative farming and carbon farming
Greece	ThesGi	Agriculture	Promote the cooperation among its members to achieve economic, social and cultural development	1) Increasing cost of energy and supplies 2)Scaling up is difficult 3) Limited access to R&D 4) Political and financial context	Organizational structure, focus on local community, involvement in all aspects of agricultural production
Spain	Bodegas José Pariente	Agriculture	wine production family company	1) Local and National Competition 2) International markets and competitions	1) The investments in R&D and innovation 2) integrated corporate social responsibility 3) quality 4) commitment to preserve the environment

RESULTS

Results from the Case Studies

- case studies on successful business agricultural models were collected by the project partners
- Natural Language Processing Algorithms





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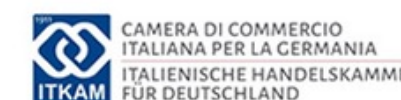
RESULTS

Results from the Case Studies

- case studies on successful business agricultural models were collected by the project partners
- Natural Language Processing Algorithms

The analysis illustrated several interesting facts:

- (1) Mediterranean countries with a long tradition in rural entrepreneurship pay attention to innovation and technology as means to boost development
- (2) Countries from the north focus on the organic aspect of agriculture and how the whole food chain is affected. In addition, associations of rural enterprises take center stage in these countries
- (3) Finally, the lack of resources as an obstacle for rural enterprises appears in both the north and southern countries and irrespective of their level of economic development.





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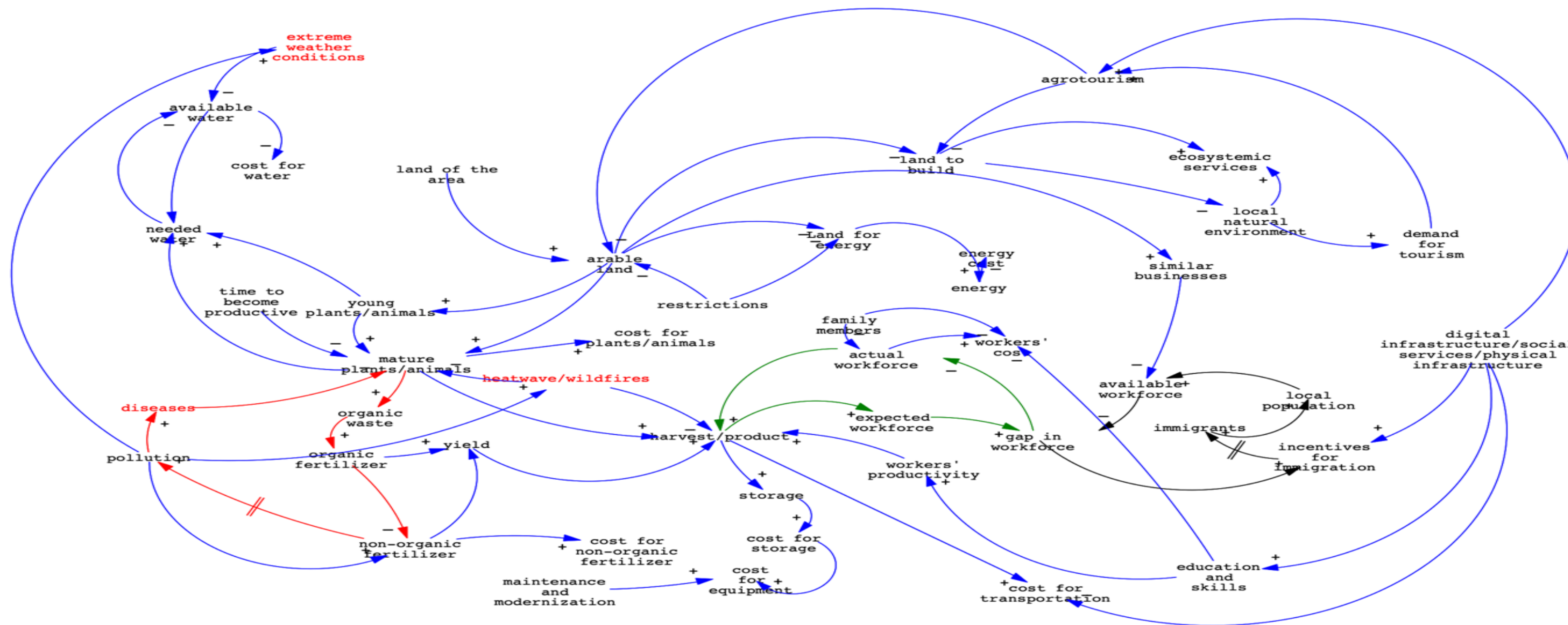
RESULTS

Results from the development of the simulation models

- for the development of the simulation models, a group of experts was gathered in Rome on July of 2023 and their expertise and knowledge was used to develop a Causal Loop Diagram of an agricultural business model and a subsequent quantitative model.



RESULTS





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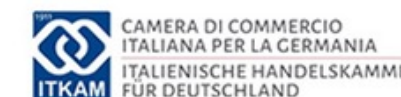
RESULTS

Results from the development of the simulation models

- for the development of the simulation models, a group of experts was gathered in Rome on July of 2023 and their expertise and knowledge was used to develop a Causal Loop Diagram of an agricultural business model and a subsequent quantitative model.
- The focus is on the operational aspect of rural entrepreneurship and the interaction among agriculture, energy and agro-tourism
- pollution is explicitly introduced in the model along with its potential effects (variables in red) and the interactions with the main variables
- the focus in this CLD is on costs and not income in general.
- In addition, there is a very detailed sub-structure related to workforce and how it could affect agriculture.
- Finally, the experts paid attention to the notion of infrastructure of the area under study (either digital, social and/or physical) and how this infrastructure could increase productivity, reduce costs and act as incentive for immigration in the area that could increase the available workforce



symplexis





RESULTS

Course Material



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Modules	Classes
MODULE 1: European and national rural policies framework	European Framework, National Legislative Background
MODULE 2: Business management Skills	Business model, Collection of rural business models, How to fund a business model
MODULE 3: Sustainable innovation skills	Sustainability for innovation in rural context, Open Innovation Framework, Sustainable innovative solutions in rural areas
MODULE 4: Modeling and Simulation	What is Systems Thinking, System Dynamics and Simulation, How to use the OREN platform, Modeling and simulation through System Dynamics
MODULE 5: Communication and Soft skills	Communication of a business model, Communication of a sustainable practice, Systems thinking, Networking skills, Equality and inclusion in a business





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CONCLUSIONS

The objective of the current paper is to report on the OREN project (E+ 2021-1-IT02-KA220-ADU-000033510), an Erasmus+ initiative, aims to bridge this gap by developing an interactive learning platform offering sustainable rural business models, simulation tools, and managerial courses tailored to agricultural entrepreneurs. The platform seeks to equip participants with advanced managerial and business skills.

To achieve the objective the OREN partnership relies on a multi-echelon approach

The culmination of the project is the development of a course that would assist rural entrepreneurs to develop and/or improve their managerial skills and hence make their enterprises more successful and sustainable.

The potential impact of the OREN project extends to two categories. Firstly, for rural entrepreneurs, acquiring these skills is expected to enhance their expertise in analyzing successful business scenarios and understanding potential good practices. Secondly, the OREN educational program serves as an illustration of non-traditional vocational training, combining advanced modeling and simulation techniques with traditional business management lectures, providing a holistic and experiential learning approach beyond the limits of traditional education styles.

