

#### Horizon Europe Brokerage Event Cluster 6 Colls 2025

Warsaw, 27 May 2025

Designing and Modelling On-campus Vertical Farming (VF): economic and societal potentials of controlled environment agriculture.

Isil Erol Ozyegin University - Istanbul



This project has received funding from the European Union's Horizon Europe research and innovation programme, under Grant Agreement No 101059839



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## Topic(s) addressed:

- Innovation and digitalization in agriculture and food systems.
- Circular urban farming and sustainable agri-food systems.

## Other topics of interest:

- On-campus vertical farming and campus economy
- Food security, circular economy, repurposing urban areas and creating new landscapes.
- Innovation in education
- Urban agriculture and sustainable urban development.





# Project idea

- Develop conceptual designs for small-scale urban vertical farming (VF) prototypes and implement a pilot project at Ozyegin university premises.
- Evaluate the economic feasibility of different VF prototypes (e.g., aquaponic garden and greenhouse farming).
- Identify high-value crops that will be utilized in the hands-on courses within the University's Gastronomy and Culinary Arts BSc degree program and Le Cordon Bleu certificate program.
- Analyse societal impacts of on-campus VFs through promoting innovation in education.
- Identify obstacles and opportunities for new circular urban farming models.





# Main expertise offered / sought

- <u>Food scientists</u> in our Gastronomy and Restaurant Management department and instructors chefs in our on-campus L'Atelier Bleu Restaurant will be working on identifying and evaluating the alternative high-value crops potential for VF system production.
- Supply chain optimization for VF systems: <u>industrial engineers</u> will focus on supply chain optimization analysis to analyze the economic viability of alternative on-campus VF systems.
- Interior architects (expertised with permaculture and alternative building-attached landscape) for conceptual design of VF prototypes on university premises.
- Property (re)valuation: <u>property finance researchers</u> will work on the financial feasibility analysis and revaluation models for urban space (new landscape opportunities and vision, reuse and repurpose of urban space as a new commercial property usage type.





# Our research team – involved in the following funded projects:

- Neo-Farmers, Rural Transformation and Rural Gentrification in Turkey funded by TÜBİTAK 1001 Program for 3 years.
  - Agriculture, local food networks, rural development
  - Project coordinator.
- On-Campus Smart Urban Farming: Vertical Farm and Aquaponic Garden Prototype Design and Development funded by Seed Research Fund Programme.
  - Project coordinator.
- Financialization, Economy, Society and Sustainable Development Project funded by EU 7th Framework Programme for Research.
  - Project partner W P Task Coordinator





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- Academic institution Özyeğin University is a research university focused on global impact, student development, and academic excellence.
  - 25 bachelor's, 36 master's, and 10 doctoral programs across 7 faculties and 3 graduate
    schools.

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