



ABOUT THE PROJECT

Expected results

The SDG Labs project will lead to the following main results:

- Research study - Green skills in the field of Social Economy ,
- The SDG Labs Digital Gallery,
- The SDG Labs capacity building programme,
- The SDG Labs business simulation models,
- The SDG Labs students' upskilling programme.

We invite you to get acquainted with the fourth newsletter presenting the activities undertaken within the framework of the project ***Harnessing the potential of the social economy towards a green transformation through the establishment of Socially Driven Green Labs within Universities*** (project is implemented under the program Erasmus+, KA220-HED - Cooperation partnerships in higher education, no. 2021-1-PL01-KA220-HED-000032077). Project duration: 01-11-2021 - 01-05-2024 (30 Months).

The project is implemented by a consortium, which consists of the following partners:

- Project Coordinator – Pedagogical University of Cracow (Poland);
- STIMMULI for Social Change (Greece);
- VYSOKA SKOLA EKONOMICKA V PRAZE (Czech Republic);
- University of Macedonia (Greece);
- The Square Dot team (Belgium);
- Association for Social Cooperatives (Poland).

Project goals:

SDG Labs project introduces an innovative, transdisciplinary and future-oriented educational programme for Higher Education Institutions in Social Economy related study fields that aspires to bring real and measurable results on upscaling the role of SE as central actor of the green transformation.



SDG LABS SIMULATION MODELS

The purpose of the SDGLabs models is to introduce students to mathematical and computational methods that will be part of their green skills and allow them to analyze problems, design policies and observe the behavior of systems over time. For that reason, a gallery of models is available for free at: <https://sdglabs.uom.edu.gr/sdglabs-model-gallery/>

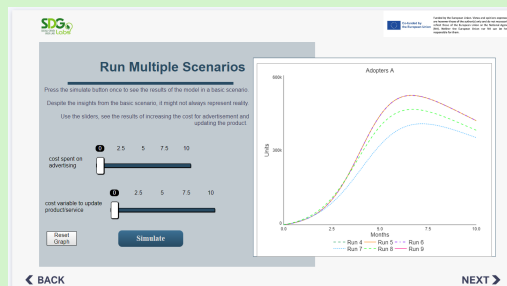
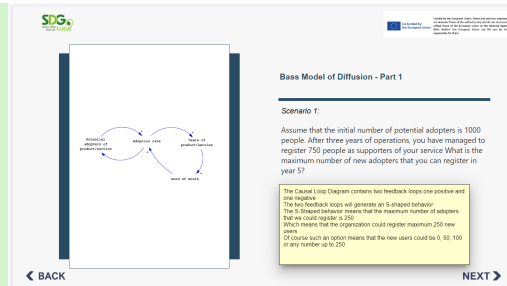
The models cover a wide variety of issues and can be experimented for free and without software requirements. The areas of study are:

Models 1-5 are focused on repeating core concepts of System Dynamics (like Causal Loop Diagrams) and developing small quantitative models that will help the students to familiarize themselves with how the models work, how they can be simulated, how to experiment with different policy levers etc.

Models 6-11 are relatively more complex models that focus on specific social enterprises that were analyzed with the Business Canvasses. These models introduces economic terms like profitability, price mechanisms, market forces etc. and illustrate to the students how they can affect the sustainability of a social enterprise.

Models 12-17 focus on the housing sector. This models' cycle begins with a Causal Loop Diagram and each consecutive model builds and expands the previous one (adding more and more elements, thus adding more complexity) until the last model of the cycle which introduces a simulated city where spatial zones are also present and there is interactions among population, businesses, road networks etc.

Models 18-21 focus on the energy sector. Similar to the previous cycles, each consecutive model builds upon the previous one. The models cover different areas of the energy sector: from renewable panels to homes, to insulation and energy consumption reaching all the way to country level with energy transitions and the effects of geopolitical events (like the war in Ukraine) on the processes of energy transition.



Important Definitions:

Causal Loop Diagram (CLD): It is a mapping Diagram that visualizes how the elements of the system interact with each other

Causal Link Positive: The two variables change in the same direction

Causal Link Negative: The two variables change in opposite directions

Feedback Loops: Closed cycles of interconnected variables

Simulation Model: A representation of part of reality as seen and understood by stakeholders who attempt to manage this specific part of reality

System: An interconnected set of elements that is coherently organized in order to achieve a purpose

Systemic Archetypes: Basic systemic structures for which the dynamic behavior is known

System Dynamics: A computer-based methodology that facilitates the representation of a system in mathematical terms and allows the understanding of its behavior over time

Systems Thinking: An intellectual approach that assists in looking a system from holistic (top-down) approach

SDG Labs CONTACT DETAILS

Please follow the project's website and social media:



<https://sdglabs.uom.edu.gr/>



<https://www.facebook.com/sociallydrivengreenlabs>



https://twitter.com/SDGLabs_Erasmus



<https://www.instagram.com/sdglabs0/>



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