



**Round Table**

**The project "CIRECON" program Erasmus+  
Development of circular economy  
in European Union**

# Circular economy as a model of development that forms a new identity of the Republic of Serbia

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# Main project goal

The main goal of the project is **to estimate the capacity of the Serbian economy for redirection towards a circular economy**, thus enabling the empowerment of its new economic identity based on reaching maximum self-sufficiency (efficient use of natural resources and energy, improving agriculture and rural development) with an emphasis on creating opportunities for youth engagement and imposing the role of women.

## Project novelty

- Novelty is based on the scope (rural areas) and approach (qualitative and quantitative analysis)
- Use of artificial intelligence techniques for addressing circular economy
- Creating a new identity framework for a youth and women in rural regions
- Creating a strategic framework for development strategies and new public management actions

# EU Context

- Decarbonization of Europe by 2050
- Republic of Serbia's commitment to its sustainable economic development and its European Union integrations as well as circular economy new and smart solutions for bettering the ways of incorporate digital technology use in its social and economic practices for establishing strategic framework for new identity of Serbian economy in the future.

## Problem statement

- Finding a new economic identity of Serbian economy in conditions of complex geopolitical challenges that impose the necessity for lowering energy consumption, use of smart and digital technology solutions and innovative practices for empowerment of self-sufficiency of Republic of Serbia.
- Strengthening of rural development through central role of its women by introducing new solutions in the traditional rural economy, which is aimed to help implement new practices and establish new tradition of Serbian rural economy development that will represent the backbone of the Serbian economy resilience and social security.

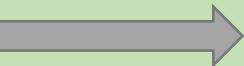
# Scientific impact of the project

- Acquisition of new knowledge: qualitative and quantitative data, results of data processing, information and features of capacity of Serbian economy for circularity
- Probabilistic modelling: assessment of interrelationship among numerous variables and predictions
- Input information needed for development of new and novel curricula on circular economy

# Social impact of the project

- Sustainable use of natural resources and energy
- Improvement of economic self-sufficiency
- Improvement of social security in rural areas
- Promoting a central role for women and youth in the social and economic performance in the rural regions
- Use of digital technology for improving social and economic practices towards a new economic identity of Republic of Serbia.

# Implementation plan

**WP1:** Global challenges and national economies (desk research, M1-M12): availability of natural resources, energy use, problems in chain of supply, financial instability  **Global environment**

**WP2:** Circular economy, rural development and perspective for youth (desk research, M6-M19)  **Circular economy in Serbia**

**WP3:** Defining Serbia's capacity for circularity (M8-M23):

a) Data collection (from open sources and field work)  **Data set**

b) Data processing  calculating **Index of circularity**

c) Selection of key variables for policy makers

- *Multiple Regression Analysis*, to determine the contribution of each selected predictor to the variance of the total Index (*Index of circularity*)

- *Multicollinearity test*, to determine whether and to what extent the independent variables under observation are correlated
- *Multicollinearity test with Variance Inflation Factors*, in addition to *Multicollinearity test*, with the aim of establishing whether there is a real possibility to reduce multicollinearity to a satisfactory framework
- *PCA*, reduction and analysis of the linear relationship of mutually correlated variables, in order to obtain fewer variables mutually non-correlated, with minimal loss of information
- *Direct Oblimin Method*, to assess overlapping between indicators

➡ **Set of variables for planning and monitoring of circular economy development and its effectiveness**

d) Development of probabilistic model (*Bayesian networks, Fuzzy logic*)

➡ **Decision and policy making support tool**

**WP4:** Dissemination and exploitation of research results (continuously): the emphasis is on establishing network with rural communities, maintaining two-way communication, with the aim of connecting scientific knowledge and practice. Thus, creating digital knowledge hub as a data base that is available for stronger and broader reachout and use of gathered information and collected data.

**WP5:** Project management (continuously).

# Risk for project implementation

- The nature of project activities is such that no special risks are expected during implementation
- The project does not include the participation of collaborators from other institutions
- Three major potential risks can be expected:
  - a) Delays in implementation of activities: to be solved by timely risk identification and risk management plan.
  - b) Changes in project team: to be solved by suitable replacement, from internal sources.
  - c) Responsiveness and time lag of the institutions in rural regions.

# Main project deliverables

- D1:** Monograph: *Challenges at the global economic stage: post-Covid and Ukraine world economics*
- D2:** Report: *Circular Economy in EU Development Strategies*
- D3:** Monograph: *Circular Economy as a Trigger for Empowering Youth in Rural Areas*
- D4:** Database: *Database of circular economy related indicators (input data)*
- D5:** Report: *Data processing (aggregated index, key variables)*
- D6:** Model: *Probabilistic model for decision making, as policy making support tool*
- D7:** Monograph: *Circular economy as a driver for creation of new economic identity of the Republic of Serbia: attitudes, implementation, challenges and perspectives*
- D8:** *Guidelines in circular economy for youth in rural areas*
- D9:** Elaborate: *Digital Knowledge Center for Circular Economy*
- D10:** Publishing at least 4 manuscripts in journals from Science Citation Index list



# The main strengths of the project team

- Principal investigator: h-index 18, with knowledge and experience in the field, and in the projects` coordination and implementation
- Specific knowledge of each member of the project team to perform a specific activity
- Experience in applying an interdisciplinary approach to research
- Majority of the project team have experience in working together in the realization of previous projects and publishing
- Newly included members of the project team were selected through an assessment of knowledge, skills and readiness for teamwork

# Project budget

<b>Budget category</b>	<b>(EUR)</b>
Personnel cost	76.421,59
Equimpment	14.993,63
Services and subcontracting	3.100,00
Conferences and publications	8.379,94
Dissemination and visibility	7.318,32
Travel cost	5.099,87
External audit	5.549,94
Other cost	934,98
SRO overhead	10.029,75
<b>Total:</b>	<b>131.828,01</b>