Integrated Assessment Models with Circular Economy and Material Balance

Fact Sheet

Project Information

IAM-Circ

Grant agreement ID: 101106168

DOI
10.3030/101106168

Funded under
Marie Skłodowska-Curie Actions (MSCA)

Total cost
€ 0,00

EU contribution
€ 187 624,32

Coordinated by
TILBURG UNIVERSITY-UNIVERSITEIT VAN TILBURG
Netherlands

Objective

"For most of history, economic growth has gone hand in hand with increased material use. For a sustainable future we need to break this relationship. We can reduce the material impact of the economy through less intensive use of materials, longer use of materials over time and develop a circular economy where material loops to reduce losses. The circular economy implements a more sustainable economic paradigm, as opposed to the current linear economic model, which is based on the "extract/consume/discard" trptic. The European Union (EU) and member states also promote the circular economy as a political and economic target. To inform policy makers on how to address sustainability issues, researchers develop models, such as integrated assessment models, considering long-term growth and linking economic variables to biophysical features such as climate change. However, these
models rarely include full material consistency and thus have limited say for circular economy innovations. The objective of this project is to bridge the existing scientific gap between economic modelling and material flows. To this end, IAM-Circ will develop an integrated assessment model that combines macroeconomic characteristics with growth and circular economy features through material use constraints. Building economic theory and running calibrated scenarios with the model will allow to contribute to scientific research on circular economy and identify policy measures that combine socio-economic objectives, circularity, and environmental strategies, to be implemented at national and EU levels."

Fields of science

humanities > history and archaeology > history
natural sciences > earth and related environmental sciences > atmospheric sciences > climatology > climatic changes
social sciences > economics and business > economics > sustainable economy

Keywords

Integrated assessment models  Policy  Material flow analysis  Recycling

Programme(s)

HORIZON.1.2 - Marie Skłodowska-Curie Actions (MSCA)  

Topic(s)

HORIZON-MSCA-2022-PF-01-01 - MSCA Postdoctoral Fellowships 2022

Call for proposal

HORIZON-MSCA-2022-PF-01

See other projects for this call

Funding Scheme
Coordinator

TILBURG UNIVERSITY - UNIVERSITEIT VAN TILBURG

Net EU contribution
€ 187,624,32

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Warandelaan 2
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Region
Zuid-Nederland > Noord-Brabant > Midden-Noord-Brabant

Activity type
Higher or Secondary Education Establishments

Links
Contact the organisation
Website
Participation in EU R&I programmes
HORIZON collaboration network

Other funding
€ 0,00

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Last update: 29 June 2023

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European Union, 2023