



# LOCOMOTION: Interactive use of data for people and planet

Society has to make hard choices about how to develop this world into a place where collective needs are met and the planet's boundaries are respected. What instruments are available to guide decisions on how to transform to a low carbon society?

Scientists and economists have created a set of tools known as "integrated assessment models" (IAMs). IAMs can support answering questions ranging from how to keep global warming below 1.5°C to how Europe's COVID-19 recovery should be designed. They help to analyse how human progress and societal choices interact with the natural world.

## An ambitious new model

Existing IAMs have been criticized for their limitations. Common criticism includes a too simplistic representation of economic and societal processes, and a lack of transparency of model assumptions. Model projections are also subject to large uncertainties. However, IAMs are still useful for comparing and understanding the effects of different policy options, for example, the trade-offs and consequences they will have on the economy, society and the environment.

## Tools to assess different sustainability options

1. *Public decision-makers will benefit from the easy-to-use **Model Analyzer** tool to assess various policy options.*
2. *Educators will be able to use a simulation game called the **Global Sustainability Crossroad II** to increase student awareness of climate change.*
3. *Civil society will be able to use the user-friendly web-based **Model Explorer** to actively participate in evidence-based public debates on achieving human and planetary wellbeing.*



Start: 2019

End: 2023

Number of partners: 13

Lead partner:

University of Valladolid

Funding: Horizon 2020 programme, grant agreement no: 821105

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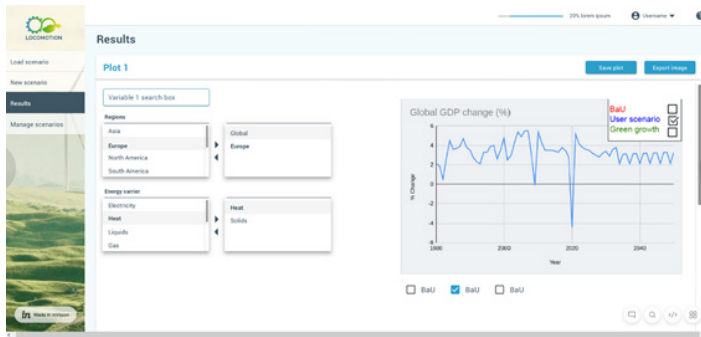
✉ [info@locomotion-h2020.eu](mailto:info@locomotion-h2020.eu)

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The LOCOMOTION ("Low-carbon society: an enhanced modelling tool for the transition to sustainability") project, funded by the EU's Horizon 2020 program, brings together innovative, ambitious and holistic features to develop a new IAM called WILIAM. WILIAM will be an open access tool allowing users to study the feasibility, effectiveness, costs, and consequences of different scenarios to move to a low-carbon society.



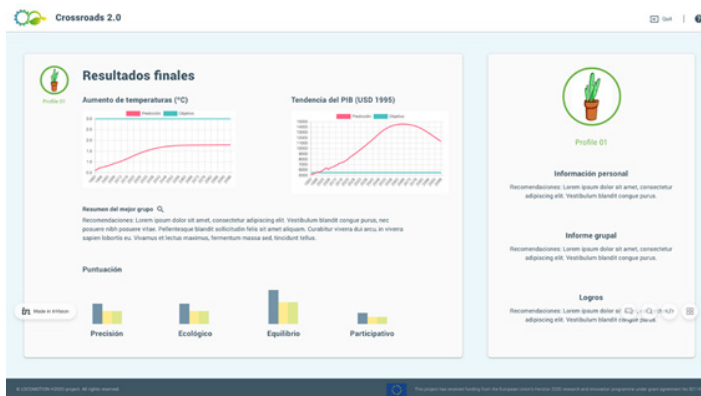
## Decarbonization policies with the Model Analyzer



### Targeted at: Policymakers and policy advisors

The Model Analyzer enables users to take advantage of LOCOMOTION's model without the need for programming skills. The software assists policymakers, in particular, in making decisions about how to reduce carbon emissions. It enables users to evaluate the environmental, social, and economic consequences of various decarbonization strategies.

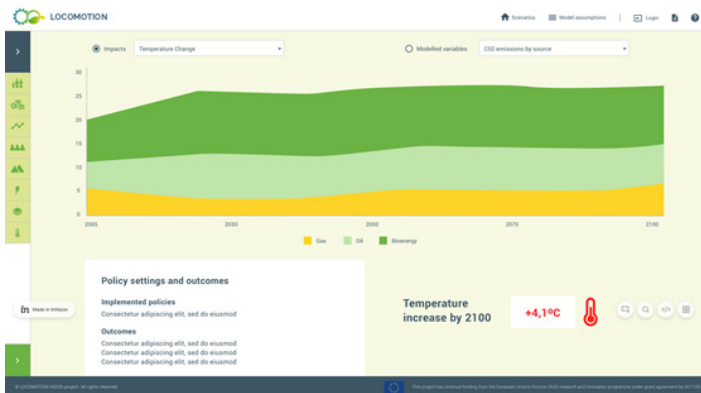
## Future scenarios for impactful education through the Global Sustainability Crossroad II



### Targeted at: Educators and students

With the Global Sustainability Crossroads II, a participatory simulation game, students can learn about how different variables such as economic growth, climate change and social behavior, interact. Users can play the roles of ecologists, economists, or engineers to understand how different climate mitigation strategies work.

## Making carbon footprints visible with the Model Explorer



### Targeted at: Civil society

The Model Explorer is an easy-to-use tool that allows non-modelling experts to explore different low-carbon scenarios. The application allows users to create their own scenarios to examine how different factors such as energy production and consumption, climate change, the economy, and other social factors affect our socio-economic and natural systems.

For more information: <https://www.locomotion-h2020.eu/>

