

ACHIEVE



Milestone 3

Agreement with modelling teams on data requirements (WP2)

Month 10

Milestone 3 outlines the data requirements from WP2 for integrated assessment modelling in WP4. The primary aim of the modelling is to assess the impact of voluntary climate initiatives on greenhouse gas emissions, energy- and land use, and illustrating possible transition pathways for groups of different actors such as cities, regions, and companies. This modelling effort is focused on mitigation and will proceed in two phases:

- 1) **Developing normative scenarios** in which countries and non-state actors collectively implement their pledged targets within set timelines.
- 2) **Exploring different transition pathways** through scenarios that examine different governance levels for national and sub-national climate action, the effectiveness of carbon credits, and potential co-benefits from non-state actors' biodiversity actions.

Collaboration between WP2 and WP4 will primarily involve exchanging data and methods from WP2 to WP4. For the normative scenarios in WP4's first phase, the following data on climate initiatives is required:

- Overall goals of climate initiatives, emphasizing quantitative targets that can be translated into greenhouse gas emissions impacts.
- Membership of each initiative, including information on participating countries, cities, regions, companies, and financial institutions.
- Individual actor targets, plans and status of implementation, if available.
- Inventory of GHG emissions and other emission-related data such as energy use, renewable energy uptake.

For the explorative scenarios, the exact data and methods requirements are not yet fully defined, as these will depend on ongoing research and further collaboration between WP2, WP4, but also together with WP1 and WP3. The design of these scenarios will evolve based on current research findings and extensive discussions on converting insights into model inputs. However, the *Workplan integrated assessment of voluntary climate initiatives* outlines likely directions for transition pathways, including the effectiveness of carbon credits, levels of governance in voluntary commitments, and the potential co-benefits (or trade-offs) of integrating biodiversity and climate initiatives. For this purpose, we envision the following data and methods for modelling input

- Carbon credits
 - Coverage of global, and country-level emissions affected by current and future traded carbon credits.
 - Effectiveness in achieving committed emissions reductions based on the quality of credits and institutional capacity to enforce compliance.

- Governance options
 - Levels of integrity in initiatives to ensure effective implementation and expected growth in membership.
 - Potential for achieving goals in specific sectors.
 - Possible pathways which voluntary initiatives could lead to state climate policies with stronger enforcement capabilities.
- Biodiversity
 - List of climate initiatives that also address biodiversity.
 - Goals that contribute to biodiversity improvement.

In summary, the collaboration between WP2 and WP4 is essential for generating robust data inputs that will drive integrated assessment modelling of voluntary climate initiatives. By leveraging WP2's data and methods, WP4 aims to create scenarios that not only quantify the mitigation potential of these initiatives, but also explore diverse pathways for effective and sustainable climate actions across multiple governance levels.