PARIS
REINFORCE

Enhancing climate policy through co-creation

www.paris-reinforce.eu

Co-designing the open-access, data-exchange I2AM PARIS platform

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During this session, on co-designing the open-access, data-exchange **I²AM Paris Platform** we will cover:

1. The importance of co-creation and positive experiences for the co-design of the I²AM Paris Platform.
2. The novelties of the I²AM Paris Platform.
3. Mock-ups to co-design with sli.do
4. Feedback & Q&A: "What do you - as the Stakeholders co-designing the platform with us - want to see displayed on I2AM Paris Platform?"

The PARIS REINFORCE project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement No 820846.

Energy Transition, Climate Policy & Stakeholder Involvement

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To deal with complex challenges, the scientific community needs to **go beyond conventional scientific methods** by **incorporating non-academic actors perspectives** in the research process.

Research not focused on scientific "intrinsic" discussions, but on **solving "extrinsic" societal problems**

IPCC's claims to consider **various communities of knowledge,** including local and indigenous knowledge

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Stakeholder Involvement and Co-creation: Why is it important?

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LEGITIMACY

CREDIBILITY

RELEVANCE

OWNERSHIP

ACCOUNTABILITY

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INCLUDING STAKEHOLDERS PERSPECTIVES TO LEGITIMATE THE SCIENTIFIC RESULTS

National Energy and Climate Plans (NECPs)

Citizens assemblies

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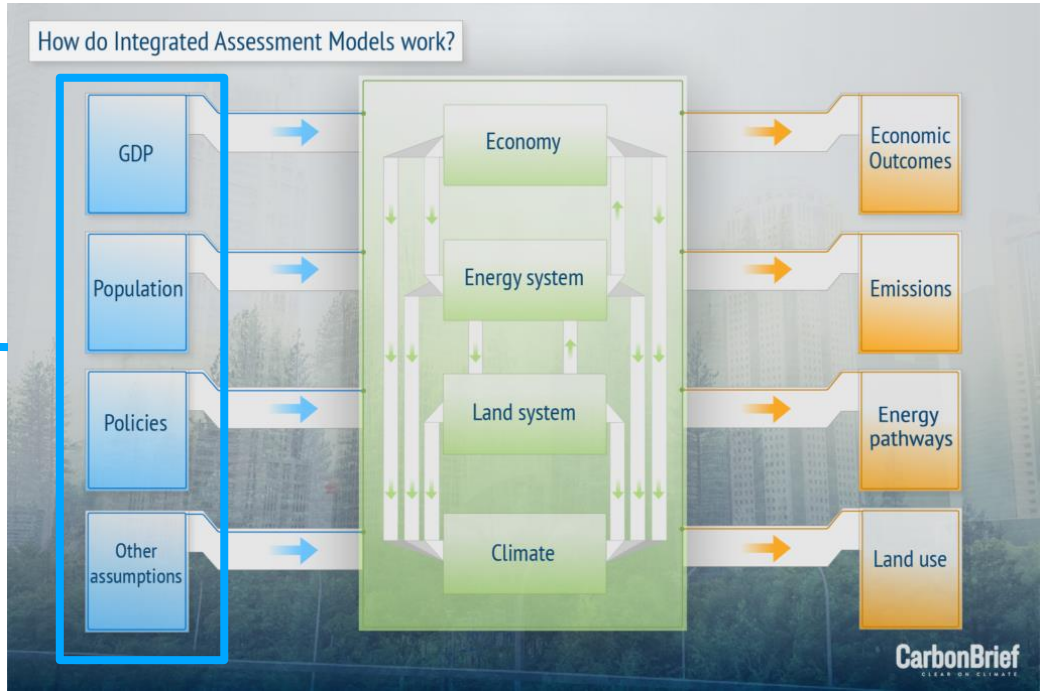
INCREASING TRUST IN THE SCIENTIFIC RESULTS

Transparent assumptions and scenario building processes



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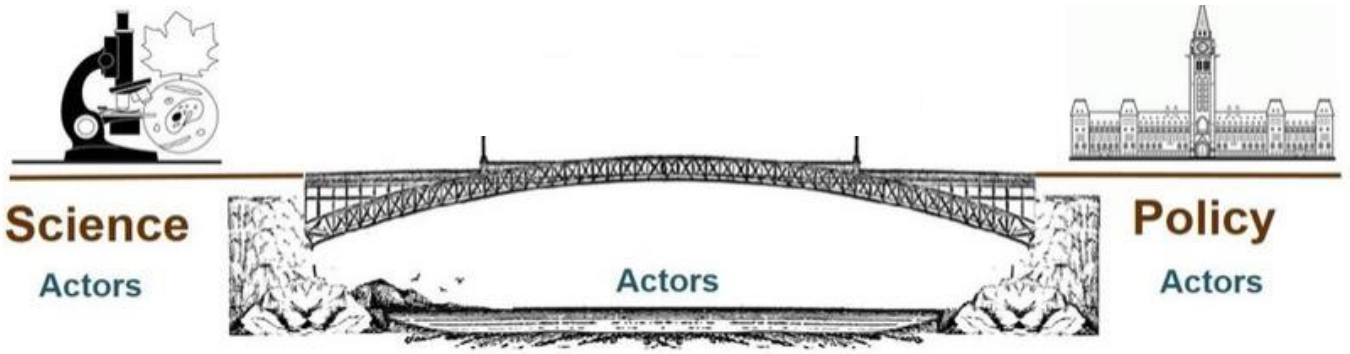
INCREASING THE USEFULNESS OF THE SCIENTIFIC RESULTS AS THEY REFLECT A WIDE VARIETY OF VIEWS

Stakeholder dialogues serve to improve the science-policy interface, improving scientists recommendations and making them more relevant since they reflect a wider variety of interests and perceptions (Cornell et al., 2013).



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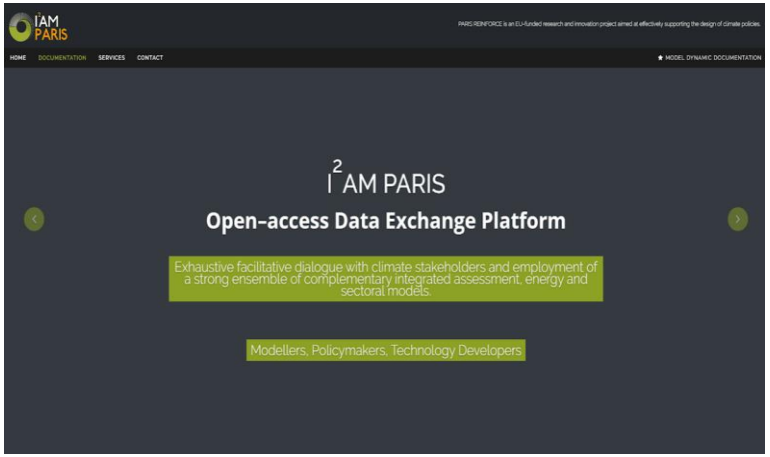
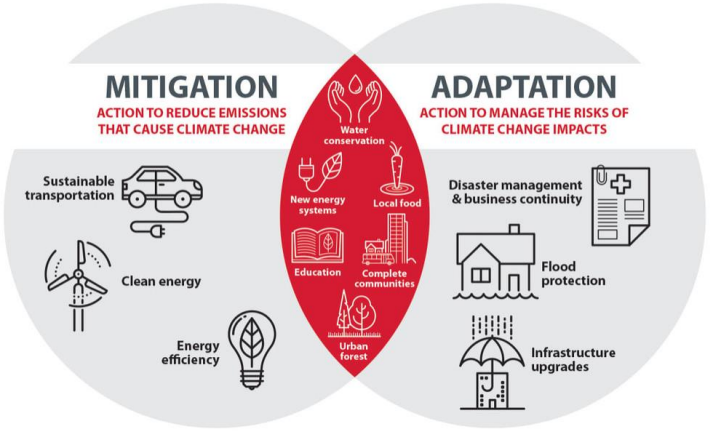
MAKING STAKEHOLDERS FEEL PART OF THE RESEARCH PROCESS

CO-DESIGN of the platform



CO-CREATION of the policy concerns



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RELATING RESEARCH TO REALITY: REALITY CHECK

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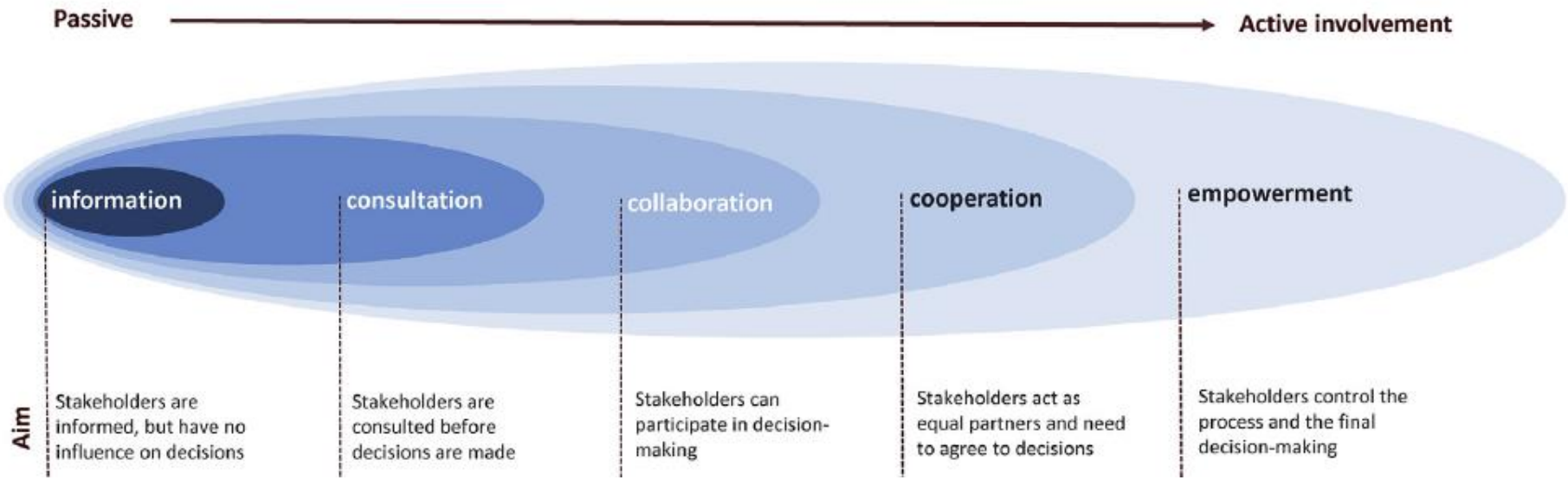
The Spectrum of Participation for the Co-design



Increasing Impact on the Co-design & Outcome

Different Intensities of Stakeholder Involvement

From Grygoruk, M., Rannow, S., Mind the gap! Lessons from science-based stakeholder dialogue in climate-adapted management of wetlands, Journal of Environmental Management (2016), http://dx.doi.org/10.1016/j.jenvman.2016.10.066 (adapted from Carter et al., 2007; Muro el al., 2006)

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How is the I²AM Paris Platform different?

Embrace complexity and diversity and embark on this **plurality of models** in Paris Reinforce Consortium presented through the **I²AM Paris platform**

- 22 Integrated Assessment Models, Energy System and Sectoral Models
- Interlinkages between them (where possible) for complementary, multi-scale vision
- Different granularities of analysis (not just Mitigation but also SDGs, Emissions beyond CO2, Policy Instruments) categorized by theme
- Corresponding portfolio of tools (multi criteria, stress tests) for Stakeholders to use for informed decision making communicated via the platform

Open Access, Data Exchange - building on the data commons and research community

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How is the I²AM Paris Platform different?

Two core dimensions: DOCUMENTATION and ANALYSIS

- The platform we present now is just the documentation

  → Documenting the capabilities of the models we have

  The modelling runs have not been undertaken yet.

- We would like your input to co-create what relevant scenarios you would like to see in the analysis based on topics elicited from your side to be included in the ANALYSIS section
- We would like to get your feedback on the utility of the Platform itself
  → Co-constructed understanding of the value of the Platform

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Transparency and User Friendliness: Highlighting documentations, assumptions behind models, what they can and CANNOT deliver

Visually easy, Intuitive and Informative

Ownership: Demand driven →

ongoing conversations… for PLAUSIBLE & DESIRABLE climate policy formulations

- Establish regular communication via the platform serving as window to public
- Validity check for scientific rigor and social relevance

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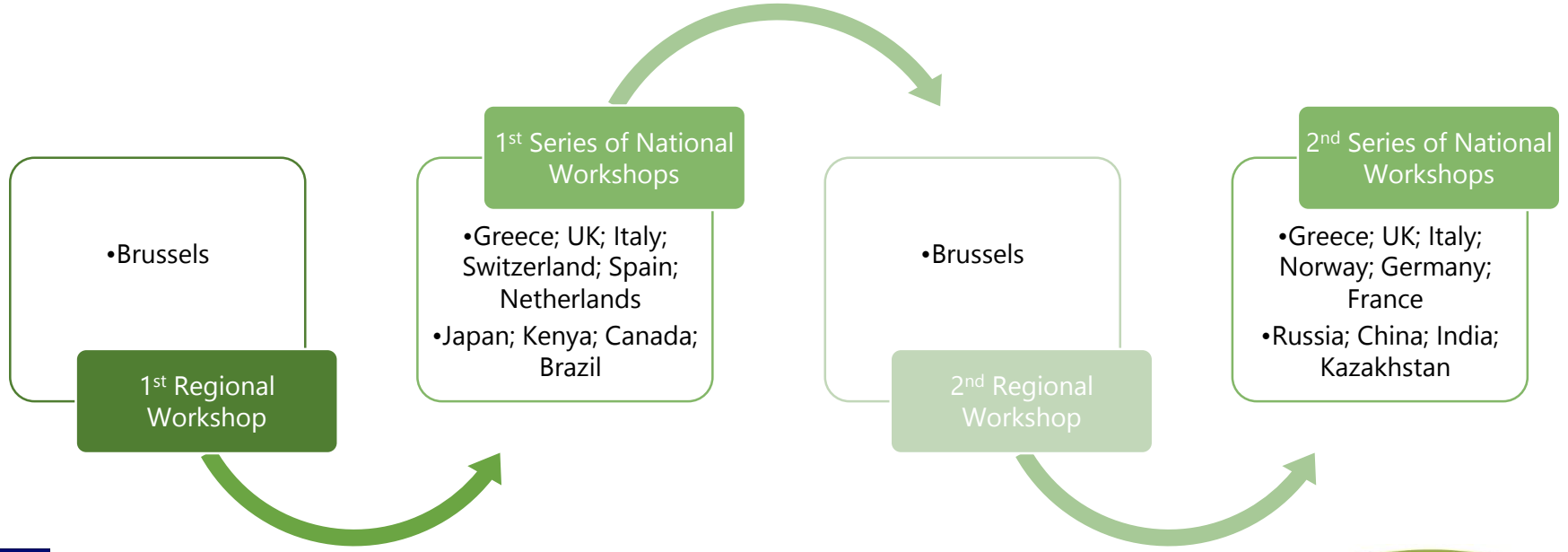
Iterative process:
Policy Relevant Workshops pre-modelling attempts both on the macro and national scale adding robustness to the results presented on the Platform

Social Learning:
- Share values, challenges, reflection, editing taking ideas and conversations forward
- Long term, active involvement



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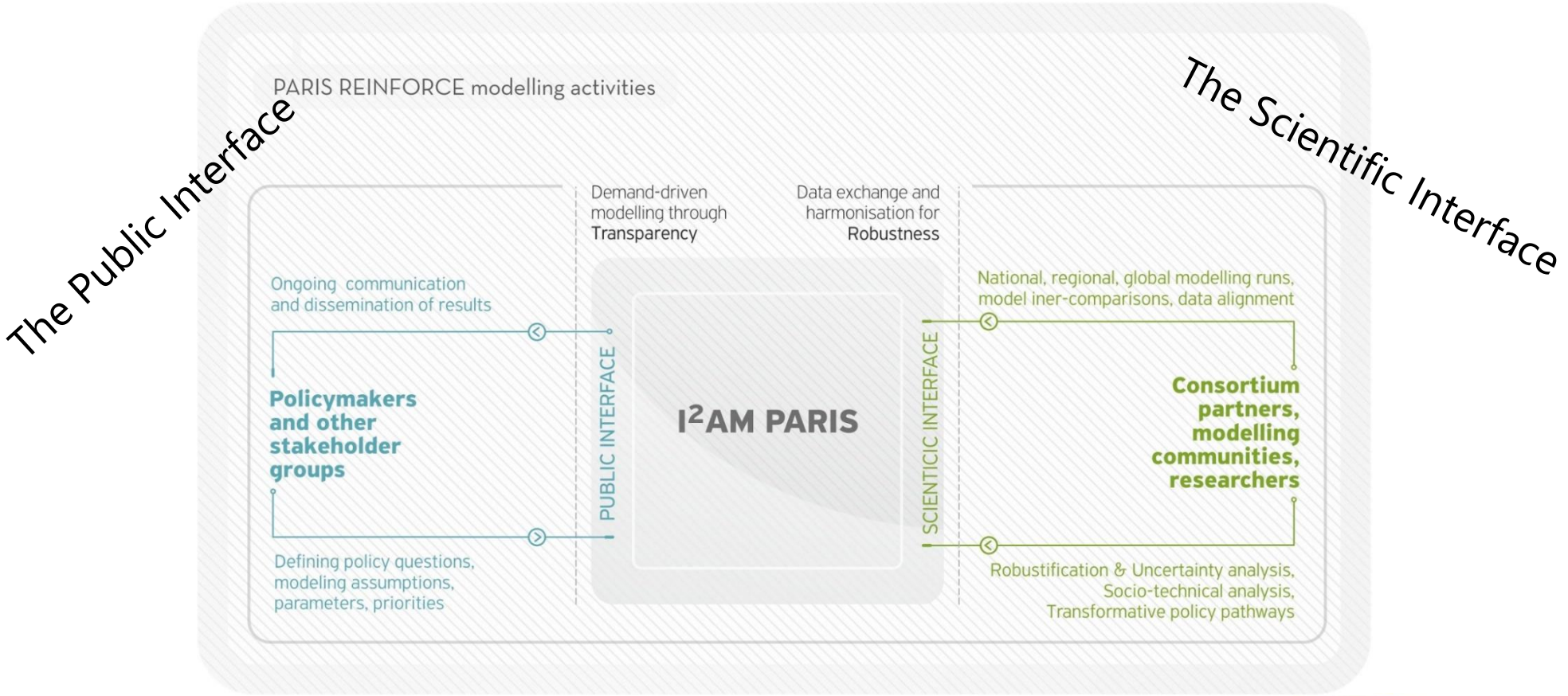
All **modelling activities**, including scenario inputs and assumptions, datasets, modelling outputs, and visualization will be streamlined in an **open-access data exchange platform**



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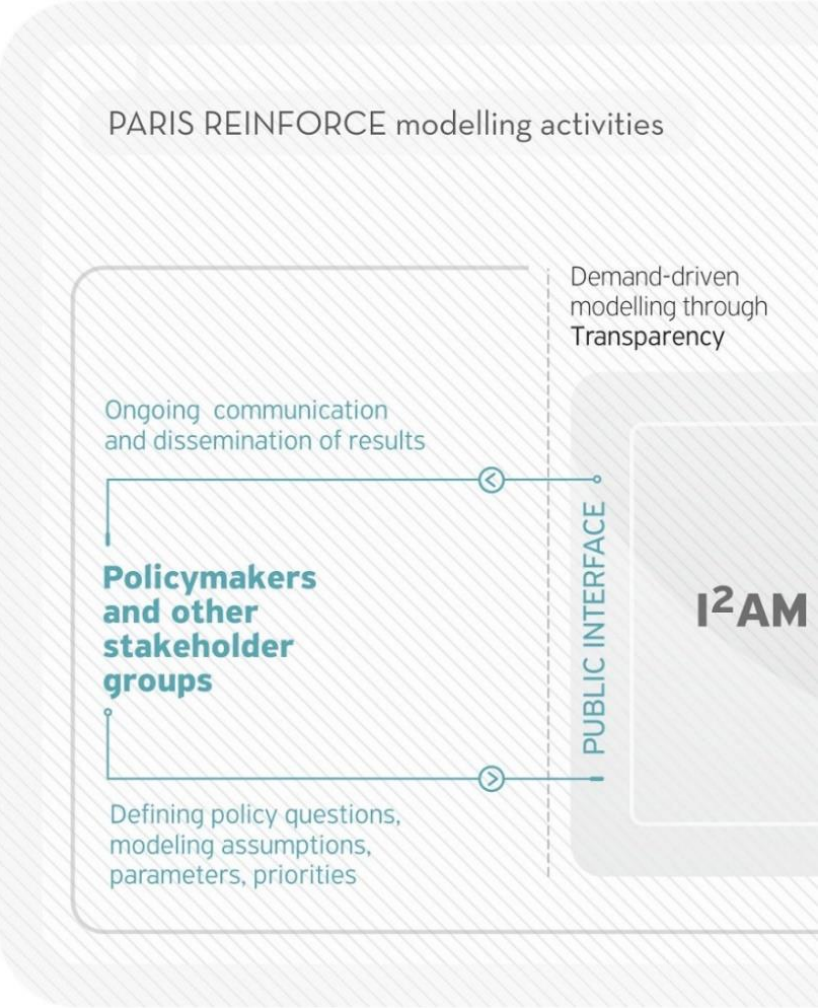

Regarding the public interface:

- So far, we have worked on transparency of the models and presented a detailed documentation of the PARIS REINFORCE models.
- As modelling analyses are carried out, the second component of the platform will be implemented, including user-friendly presentation and visualisation of policy-relevant results and policy prescriptions, in response to co-created policy/research questions.

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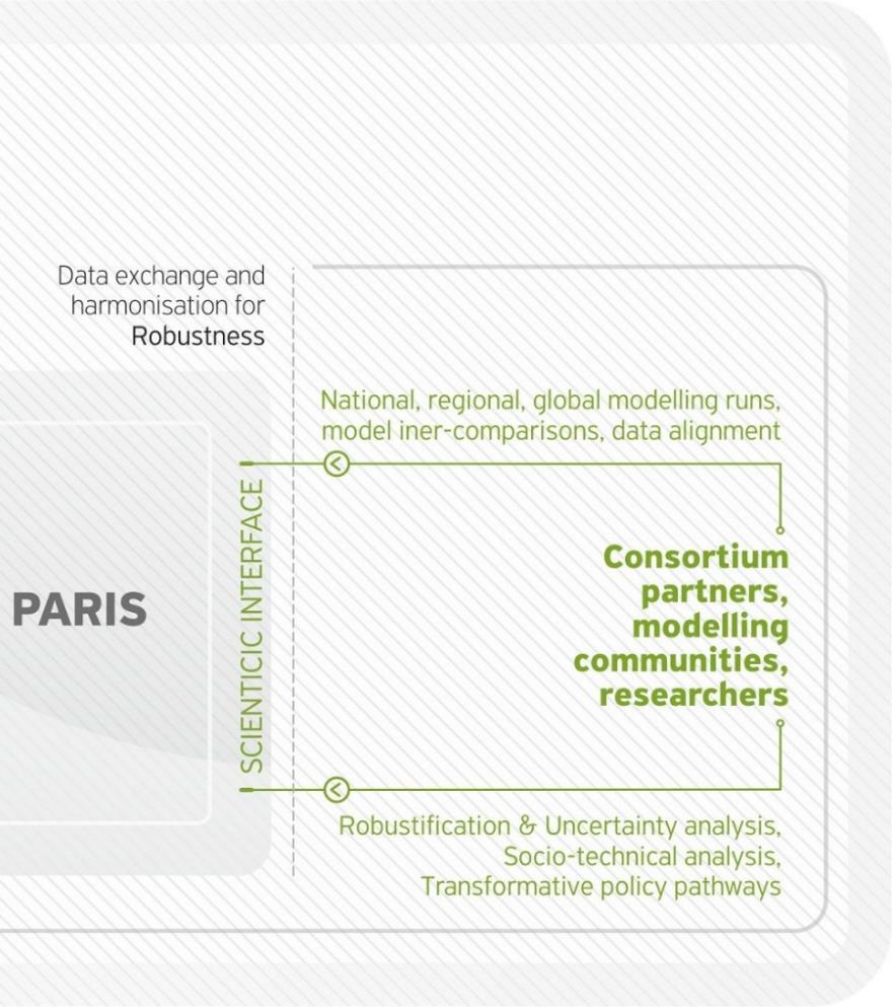
Regarding the scientific interface:

- We will create a template for all climate-economy modellers to provide us with detailed documentation of their model(s), so that we can include it in our database, detailed and dynamic documentation. **[OPEN CALL]**
- Scientists will also have access to similar templates to provide us with the topics (research questions) they have addressed, as well as their modelling inputs and results to host in I²AM PARIS.



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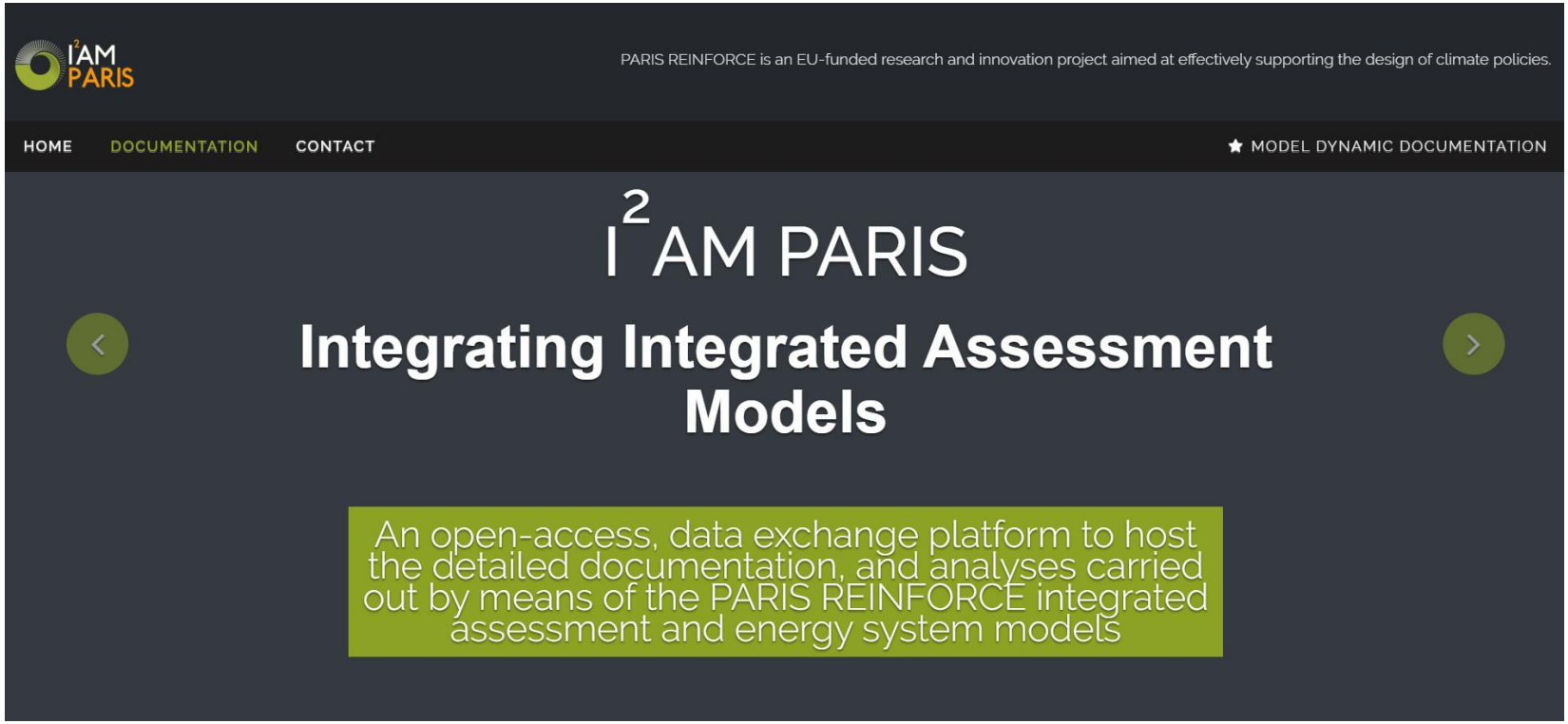
http://paris-reinforce.epu.ntua.gr/main



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Implementation

Django 2.2.5 framework

Python | HTML | Javascript | JQuery

Database

SQLite3 | PostgreSQL

Map Visualisation Library

AmCharts4

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Interactive map of models and tools

I²AM PARIS platform

Month 9 – February 2020

Month 12 – May 2020

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I²AM PARIS – Structure (1/4)

DOCUMENTATION

Every available model is documented and dynamically presented.

Model Dynamic Documentation

An interactive library of the models , in the form of a responsive "infographic", for all models, with regard to their features.

Overview and Comparative Assessment

- Global Models
- National/ Regional Models for Europe
- National/ Regional Models for countries outside Europe

Detailed Model Documentation

A detailed documentation of each one of the global, regional and national models of the PARIS REINFORCE modelling ensemble

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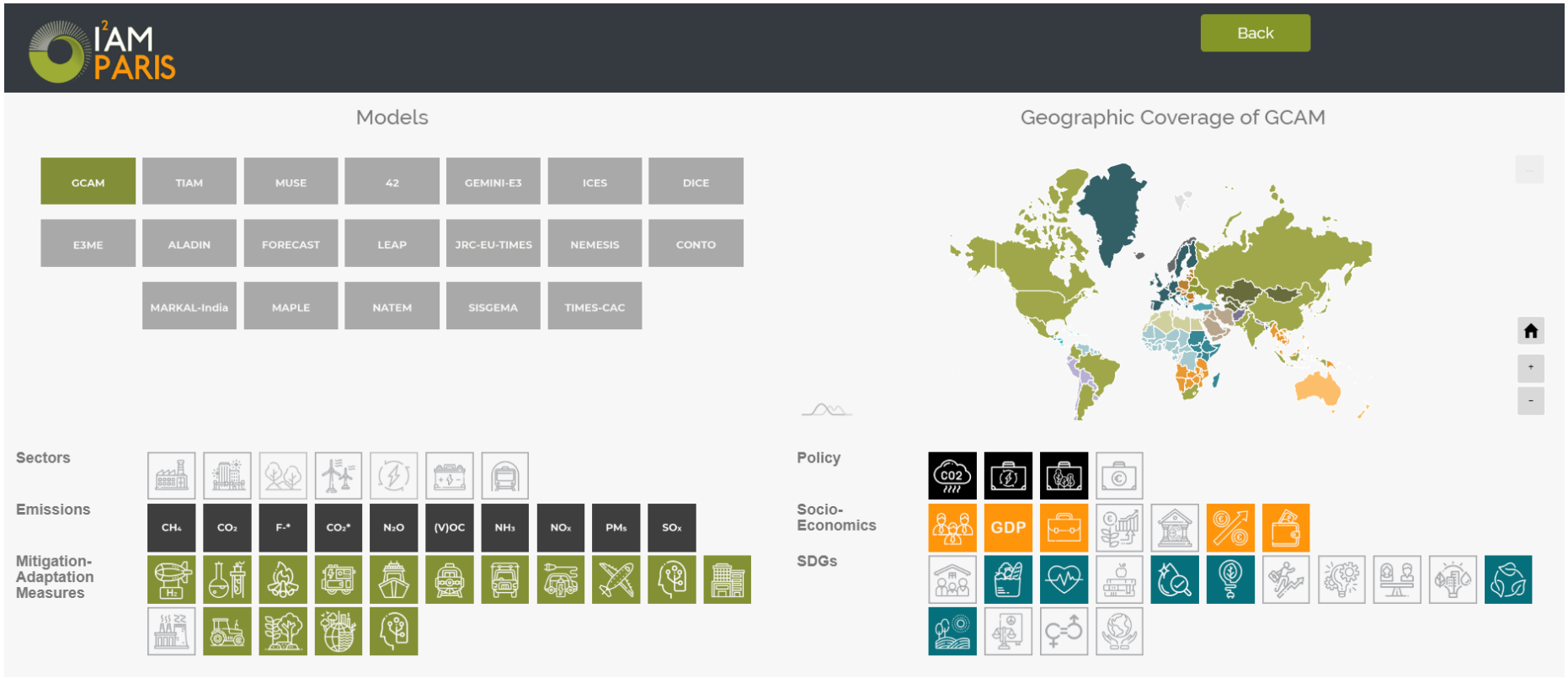

Model Dynamic Documentation

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I²AM PARIS

The overview and comparative assessment section includes:

Global Models

National / Regional Models for Europe

National / Regional Models for Countries Outside Europe

Overview and Comparative Assessment

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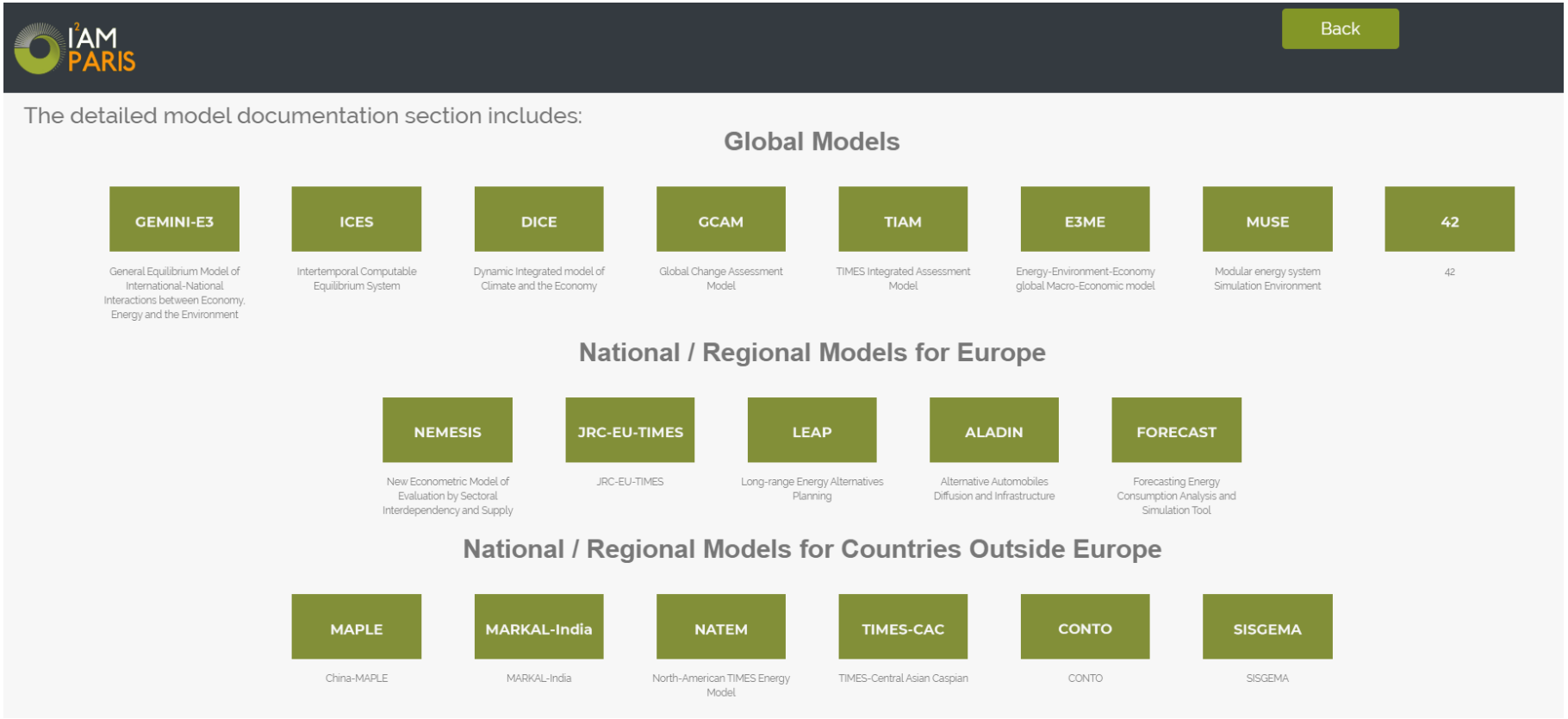

Detailed Model Documentation

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- Please open the **sli.do** website and enter the code: **PR19**.
- **A multiple-choice question** will allow you to select among one of the available options/ alternatives.
- The question is on the **overall layout**, and one on the **map design**.
- Select your **preferred option**.
- The dynamic documentation part of the platform will be designed based on your preferences.

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Question: Designing the overall layout

Please answer the following multiple-choice question on sli.do:

What overall layout do you prefer for the dynamic documentation component of I²AM PARIS?

a. Single-page layout (**less is better**)
b. Separate input from single-page output (**keep it simple**)
c. Separate input from single-page output (**IAM legend**)
d. Multi-page layout (**detailed information**)

Visualisation on next slides

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1(a) Less is better

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Models

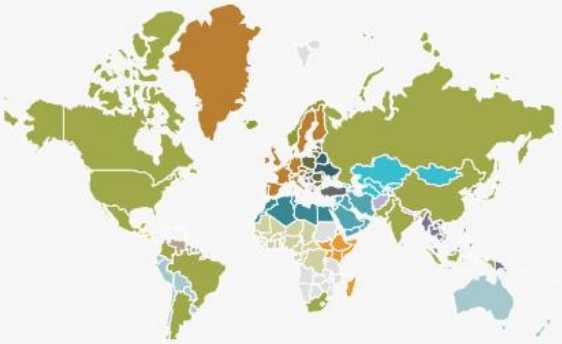
GEMINI-E3 | ICES | DICE | GCAM | TIAM | E3ME

NEMESIS | JET | MUSE | LEAP | MAPLE | MARKAL-India

NATEM | 42 | TIMES-CAC | ALADIN | FORECAST | CONTO

SISGEMA

Geographic Coverage of GCAM



Sectors

Emissions

CO_2 | CH_4 | N_2O | F-* | CO_2* | PM_s | SO_x | NO_x | NH_3 | (V)OC

Mitigation-Adaptation Measures

Policy

Socio-Economics

GDP

SDGs

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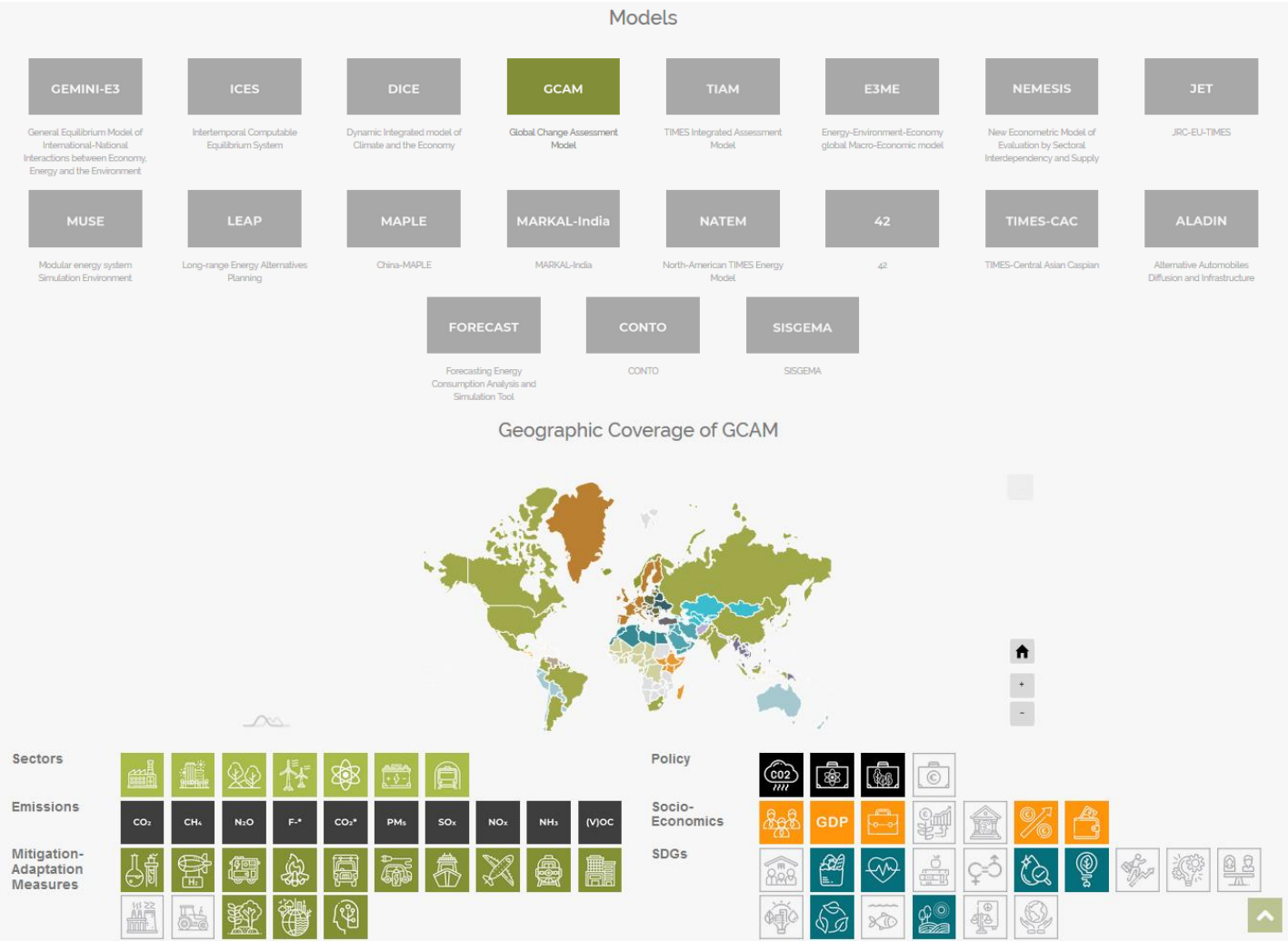
1(b) Keep it simple



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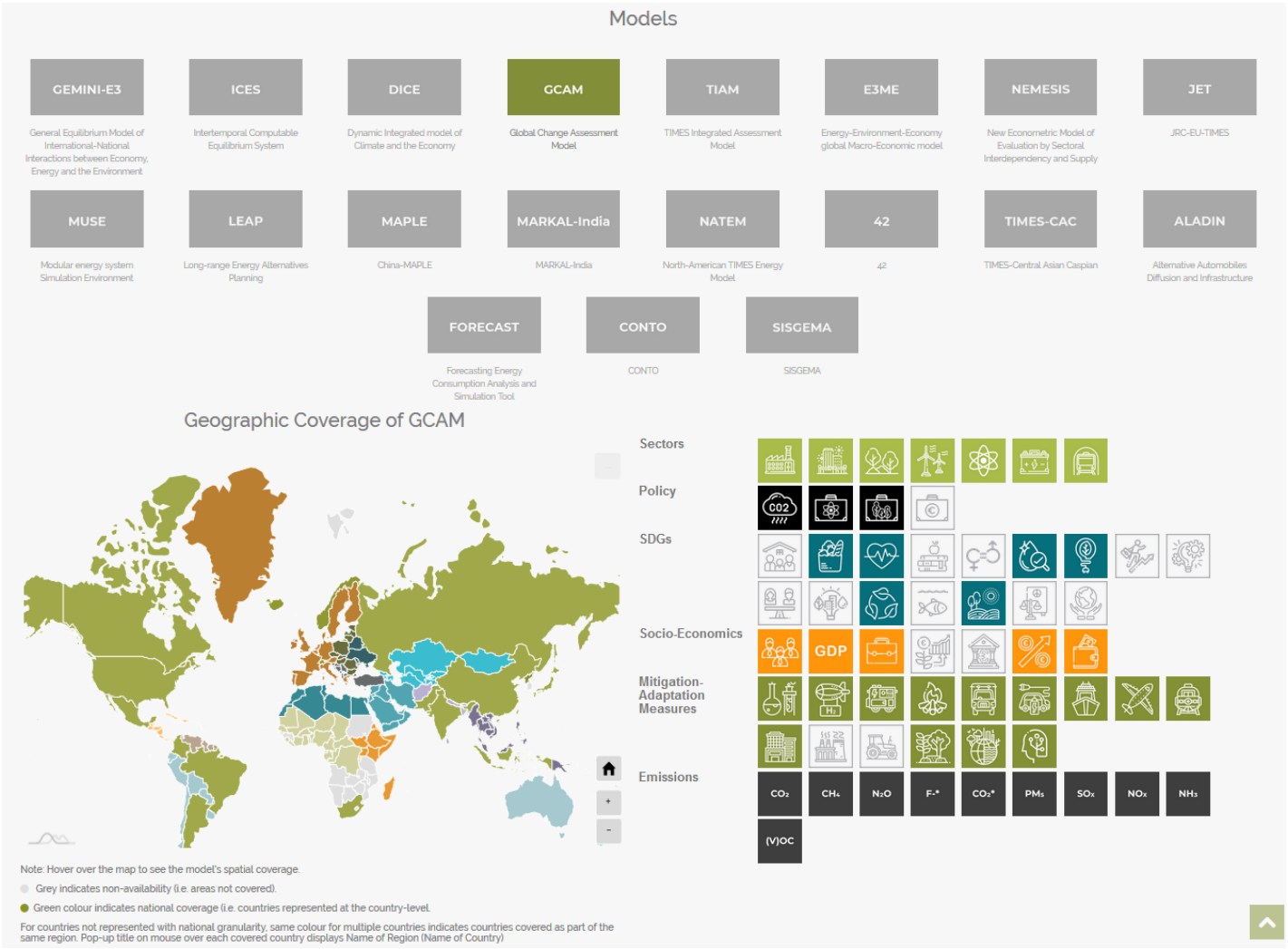
1(c) IAM legend



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1(d) Detailed information

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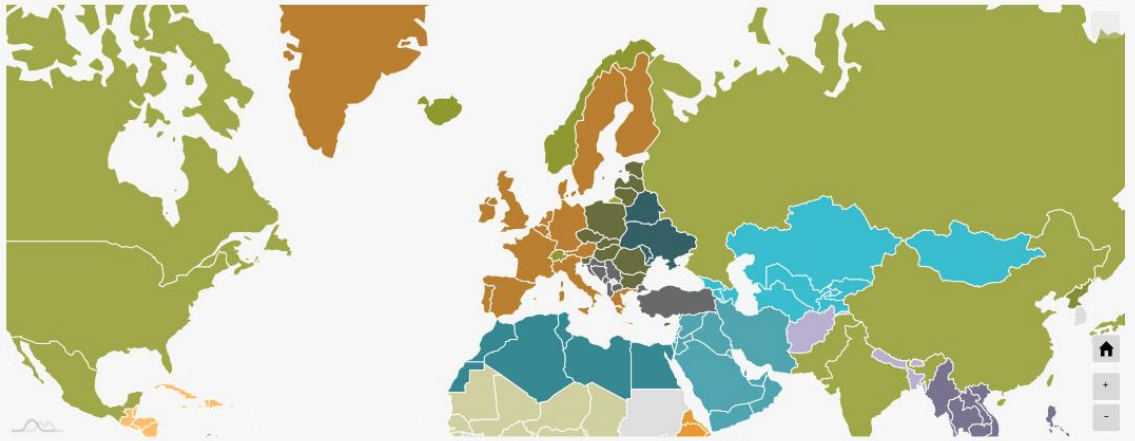
Models

GEMINI-E3	**ICES**	**DICE**	**GCAM**	**TIAM**	**E3ME**	**NEMESIS**	**JET**
General Equilibrium Model of International-National Interactions between Economy, Energy and the Environment	Intertemporal Computable Equilibrium System	Dynamic Integrated model of Climate and the Economy	Global Change Assessment Model	TIMES Integrated Assessment Model	Energy-Environment-Economy global Macro-Economic model	New Econometric Model of Evaluation by Sectoral Interdependency and Supply	JRC-EU-TIMES
MUSE	**LEAP**	**MAPLE**	**MARKAL-India**	**NATEM**	**42**	**TIMES-CAC**	**ALADIN**
Modular energy system Simulation Environment	Long-range Energy Alternatives Planning	China-MAPLE	MARKAL-India	North-American TIMES Energy Model	42	TIMES-Central Asian Caspian	Alternative Automobiles Diffusion and Infrastructure

FORECAST	**CONTO**	**SISGEMA**
Forecasting Energy Consumption Analysis and Simulation Tool	CONTO	SISGEMA

Geographic Coverage of GCAM



Note: Hover over the map to see the model's spatial coverage.

Grey indicates non-availability (i.e. areas not covered).

Green colour indicates national coverage (i.e. countries represented at the country-level.

For countries not represented with national granularity, same colour for multiple countries indicates countries covered as part of the same region. Pop-up title on mouse over each covered country displays Name of Region (Name of Country)

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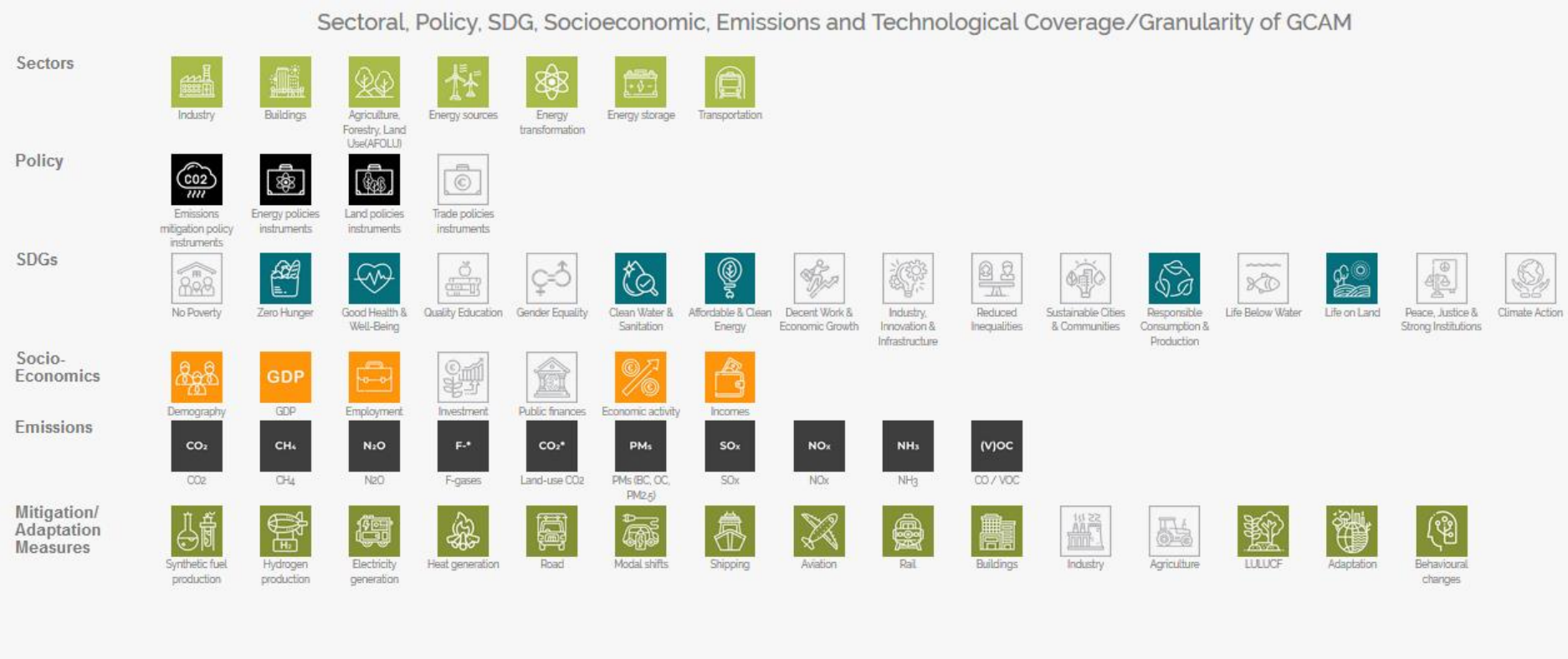
1(d) Detailed information



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Q&A for Co-design

What would you – as the co-designers of the platform - want to see in a displayed via the platform?

Is the documentation phase, so far, useful?

Are there any modelling dimensions, you would like clarification on?

- Documentation on Input variables?
- Hypothesis and assumptions behind Models?

What kind of support would you like to see?

- Webinars? Feedback on the website?

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Thank you!

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