

# Final Conference Brussels – 17/06/2014





This research project has received funding from the European Union's Seventh Framework Programme (FP7/2007-2013) under the grant agreement n° 266992 (Global IQ)

### Project in brief

**Project Type** Collaborative project (small or medium size)

Funding scheme 7th Framework Programme – Socio-economic Science

and Humanities (SSH) - FP7-SSH-2010-2.1-3 (Analysis of

the Impacts of global changes)

**Start – End date** 01/08/2011 – 31/07/2014

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**Grant Agreement n°** 266992

**EU Contribution** 2 698 155 €

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#### 11 partners & 9 Countries



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Fondazione Eni Enrico Mattei (Italy) www.feem.it



Internationales Institut für Angewandte Systemanalyse (Austria) www.iiasa.ac.at



Potsdam-Institut für Klimafolgenforschung (Germany) www.pik-potsdam.de



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Istituto di Studi per l'Integrazione dei Sistemi (Italy) www.isis-it.com



London School of Economic (United Kingdom) www.lse.ac.uk



Graduate Institute of International Studies in Geneva (Switzerland) www.graduateinstitute.ch



The Vienna Institute for International Economic Studies (Austria) www.wiiw.ac.at



Centre for Economic Policy Research (United Kingdom) www.cepr.org



#### Aims and Objectives

- to provide significant advances in the estimation of socio-economic impacts of global challenges – at Global, European and regional scale;
- to identify optimal adaptation strategies;
- to evaluate total costs and the optimal mix of adaptation and mitigation against global changes.



#### Key features

- Economics oriented
- Quantitative oriented (modeling approach)
- Integration oriented
- Mix of applied and conceptual research
- Cross-Competencies building
- Prospective and dynamics oriented
- Policy advice capacity building



#### Project structure

#### WP 1 - Understanding global changes

This workpackage is intended to provide a strong conceptual basis to the more dedicated studies of global changes that will be done in the other workpackages. It will also provide an updated review of the state-of-the-art in global change analysis.

Dialogue on drivers and modelling developments

#### WP 2 - Non market impacts and behavioral analysis of key sectors

devoted behavioural issues split into different sector dedicated tasks. At first, it aims at monetary valuation of non-market effects, due to climate change and related to ancillary effect of mitigating policies. Health effects are also analyzed at large under population dynamics. Then, residential energy demand, properties of production functions preferences for adoption of and renewable microgeneration technologies are analyzed using some of the results in an empirical microsimulation model to examine tax incidence. Last, trade policy and climate policy is targeted.

WP 3 - Models to estimate socio-economic impacts of global changes

WP 4 - Scenarios of socio-economic impacts of global changes

WP 5 - Autonomous and planned adaptation: total impacts of global change

Global change such as technological progress, climate change and demographic and labor market developments clearly pervade all of the above-mentioned sectors and will need to be addressed with an appropriate set of models.

While WP1 and WP2 will define the global changes and corresponding storylines to be analyzed, WP3 seeks to adapt the models in a way that allows them to replicate the storylines and estimate the impacts in a harmonized way.

WP4 and WP5 build on this work to run the scenarios and eventually estimate the cost of adapting to these global changes.

Since the global changes themselves will be difficult to project and are furthermore contingent on choices made today, WP6 will support the modeling work under WP3-4-5 by exploring new ways to incorporate uncertainty into decision-making and trying to translate this into the large-scale models.

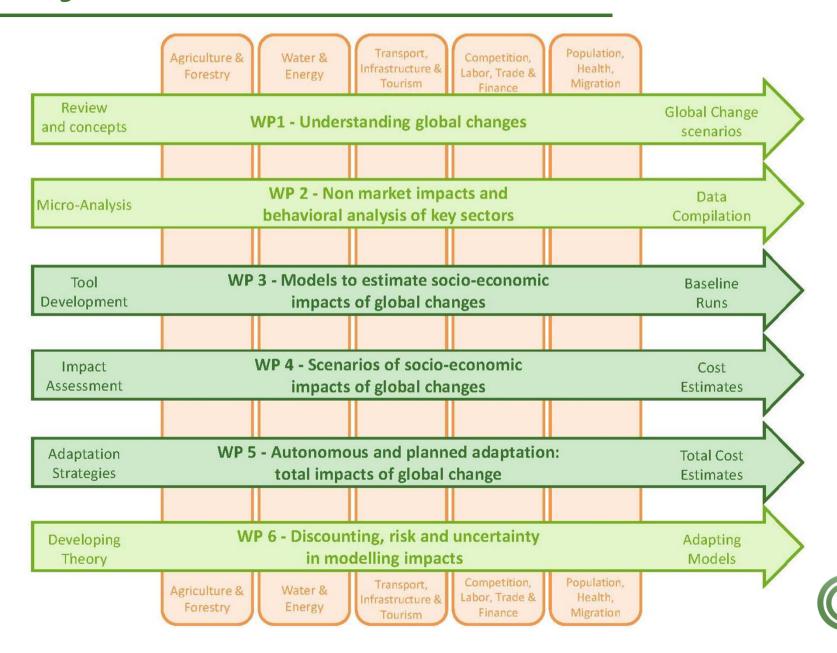
Feedback on drivers

#### WP 6 - Discounting, risk and uncertainty in modelling impacts

The debate that followed the publication of the Stern review has shown that uncertainty and discounting issues are worth a specific study when dealing with large-scale, long-term global changes. This is the objective of WP6. New theoretical insights will be developed and they will be tested, deriving further theoretical insights, using some of the models that are part of this study.



#### Project structure



### Focus on modelling (WP3, 4 & 5)

#### **Bottom-up modeling approaches:**

- Sectoral entries
- Supply-side and demand-side
- Integration of natural processes and dynamics
- Spatial and regional disaggregation

#### **Top-down modeling approaches:**

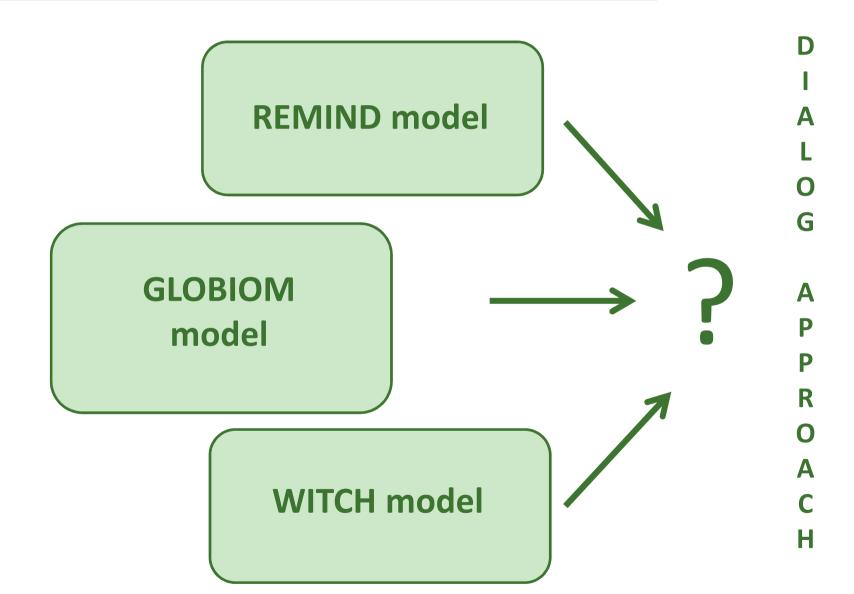
- General equilibrium approaches
- Main drivers of global change
- Integration of economic processes at different scales







## Focus on modelling (WP3, 4 & 5)





#### Key Deliverables

- D 1.1 Conceptual issues and review of global change assessment and analysis to identify optimal adaptation strategies
- D 2.1 Analysis of key determinants of costs and benefits of mitigation policy
- D 2.2 Estimation of energy demand and demand for environmental quality at household level
- D 2.3 Analysis of key factors that affect European competitiveness
- D 3.1 Report on models development and results of sensitivity analysis
- D 4.1 The socio-economic costs of global challenges, without adaptation
- D 5.1 Optimal adaptation and mitigation scenarios to global challenges
- D 6.1 Managing the uncertainties associated to global challenges



#### Dissemination

- www.global-iq.eu
- Annual E-newsletter send to sent to scientific organisations and interested parties/stakeholders/policy makers
- Working papers
- Policy Briefs & Recommendations
- Publication in scientific and policy journals
- Presentation of the results during international conferences



### Timeline

		2011					2012											2013											2014							
	aug	se	pt oct	no	v dec	jar	feb	mai	apr	may	jun	jul	aug	sept	oct	nov	dec	jan	feb	mar	apr	may	jun	jul	aug	sept	oct	nov	dec	jan	feb	mar	apr	may	jun	jul
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WP 6 - Discounting, risk and uncertainty in modelling impacts																																				
WP 7 - Dissemination																																				
WP 8 - Management																																				





### Agenda

Keynote: The Global IQ scenarios Europe in a changing world (E. Massetti)

Modelling the socio-economic impacts of global changes (Joseph Francois, Francesco Bosello, Ramiro Parrado, Marian Leimbach, Miodrag Stevanović and David Leclere)

Keynote: Managing global changes with national and subnational policies and institutions: examples from the IPCC (Thomas Sterner)

Non market impacts and behavioural analysis of key sectors (Milan Ščasný and Kateřina Kaprová)

Keynote: Uncertainties in global changes: An excuse to do nothing? (Christian Gollier)

Discounting, risk and uncertainty in modelling impacts (Olof Johansson-Stenman, Nicolas Treich and Simon Dietz)





# Thank you!





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