

RECIPE
Report on Energy and Climate Policies in Europe
Valentina Bosetti

**Research Institute:
CIRED, FEEM/CMCC, PIK
October 2007 until September 2009**

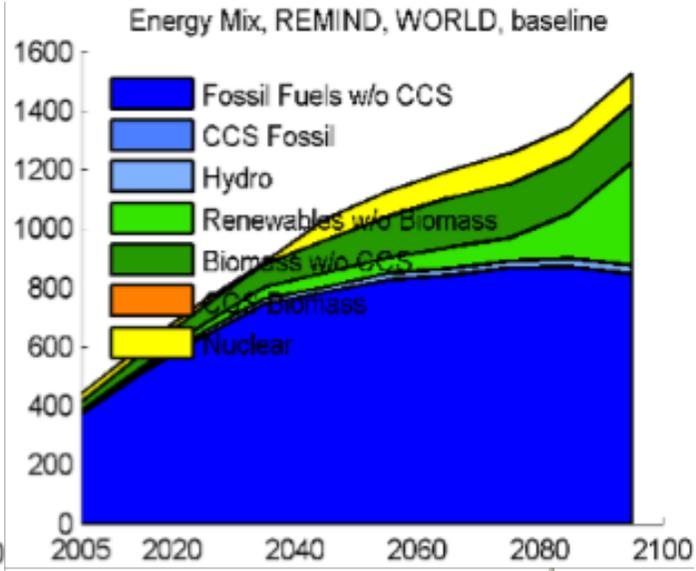
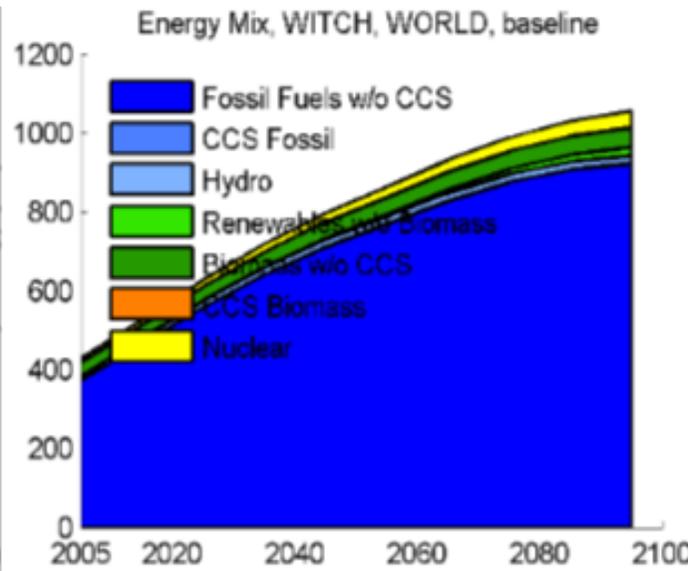
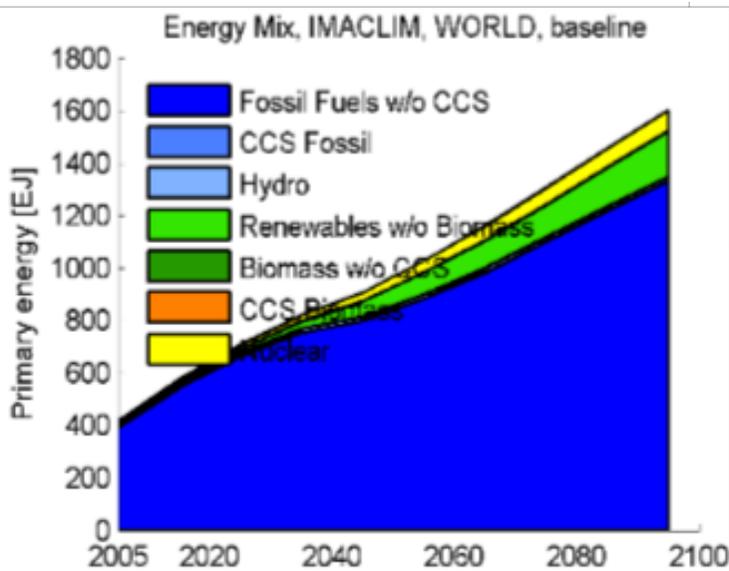
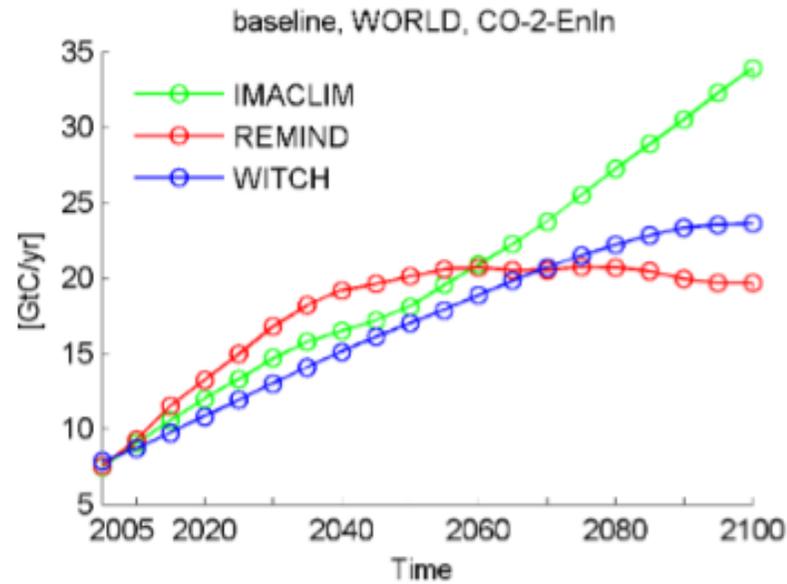
We acknowledge supporting from Allianz and WWF



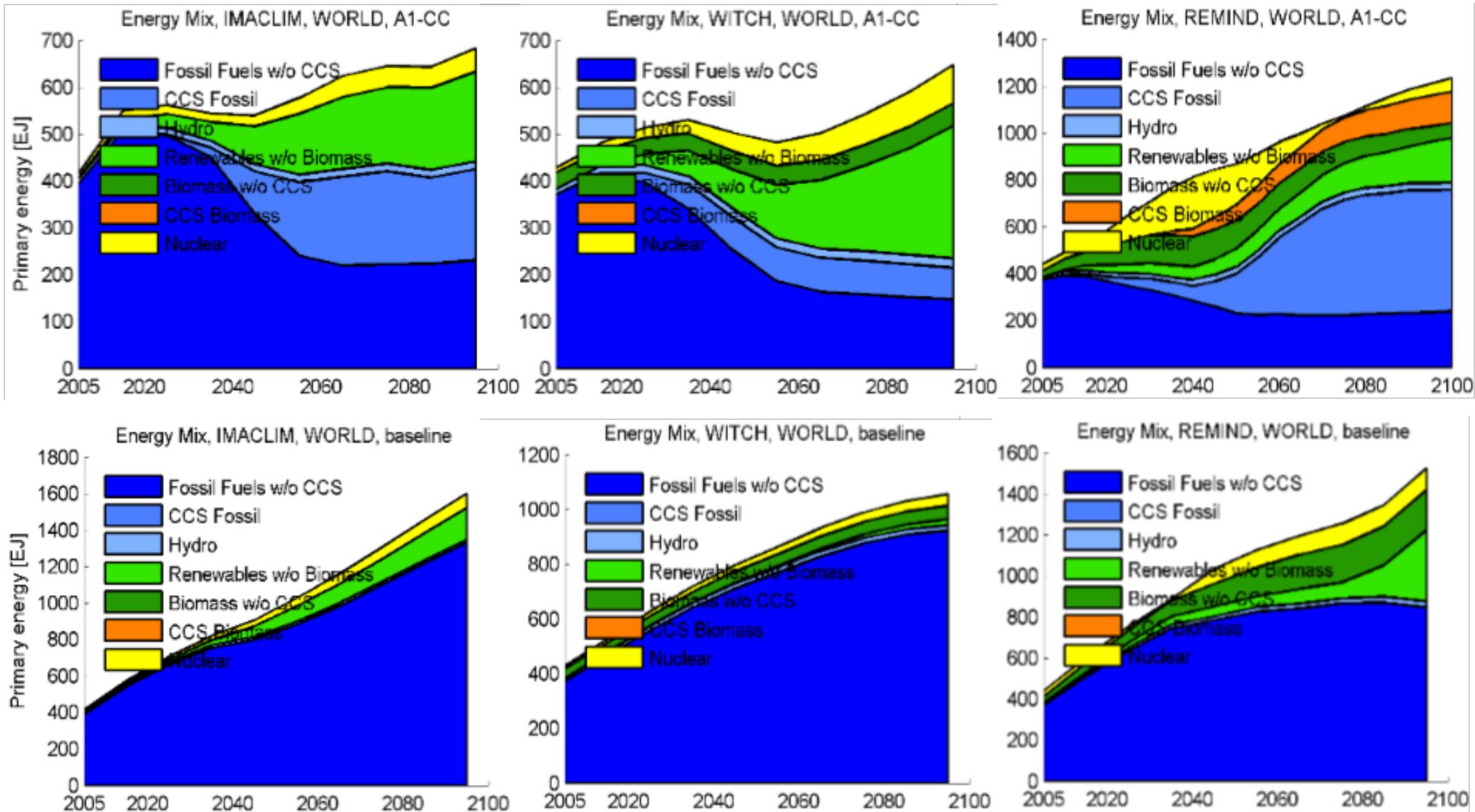
What is the RECIPE project

- **A model comparison exercise using IMACLIM, REMIND, WITCH**
- **Based on harmonization of key economic drivers: population, economic growth, fuel prices.**
- **Analysis of a 3.5 radiative forcing scenario**
- **Analysis of a “imperfect” world scenarios (delayed action, fragmented action, limited technological option**

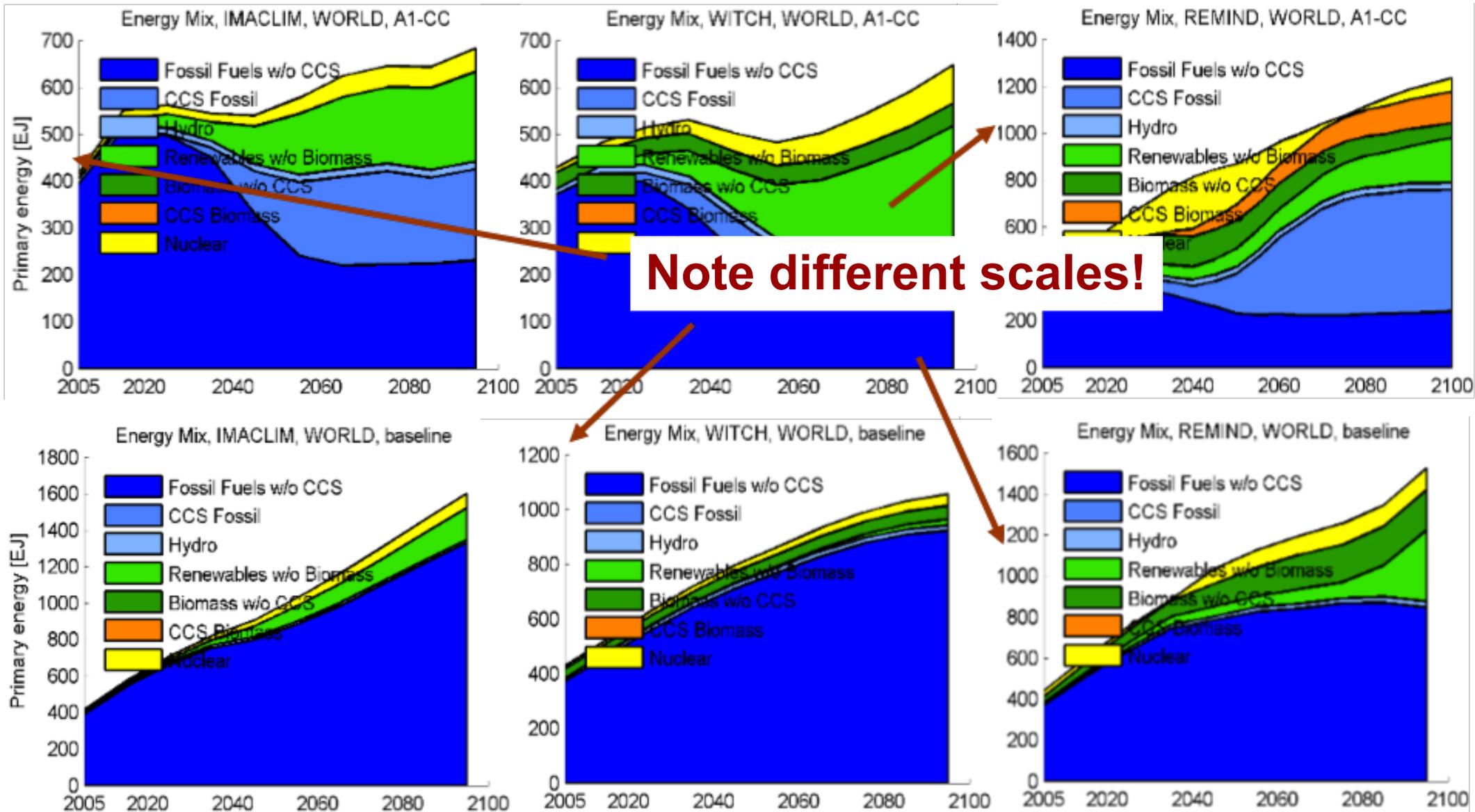
Baseline



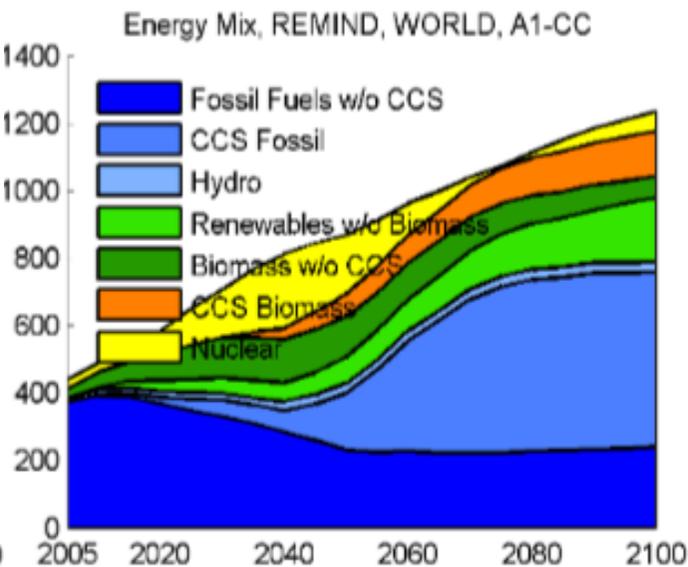
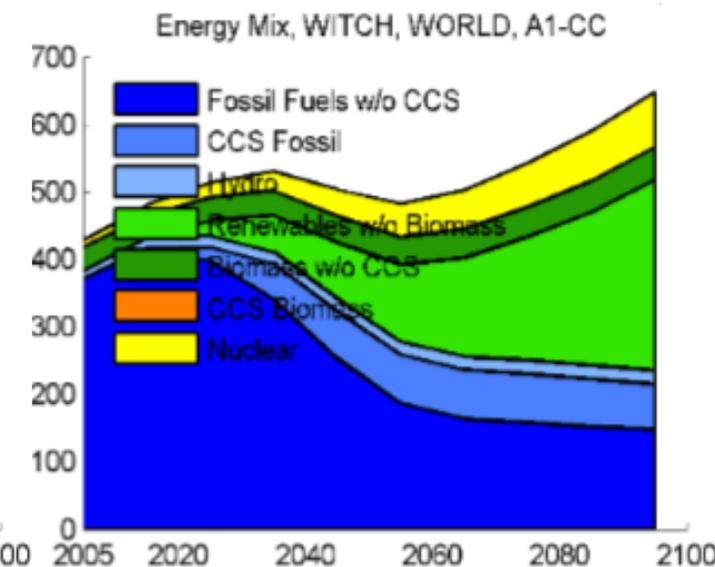
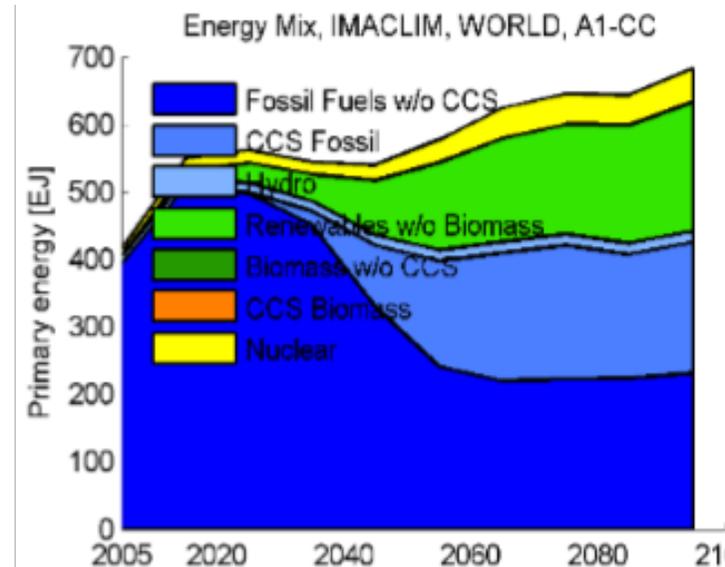
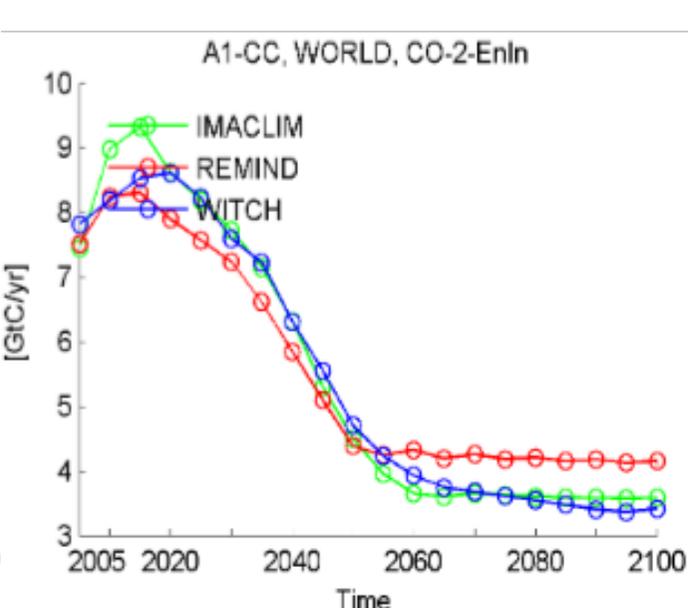
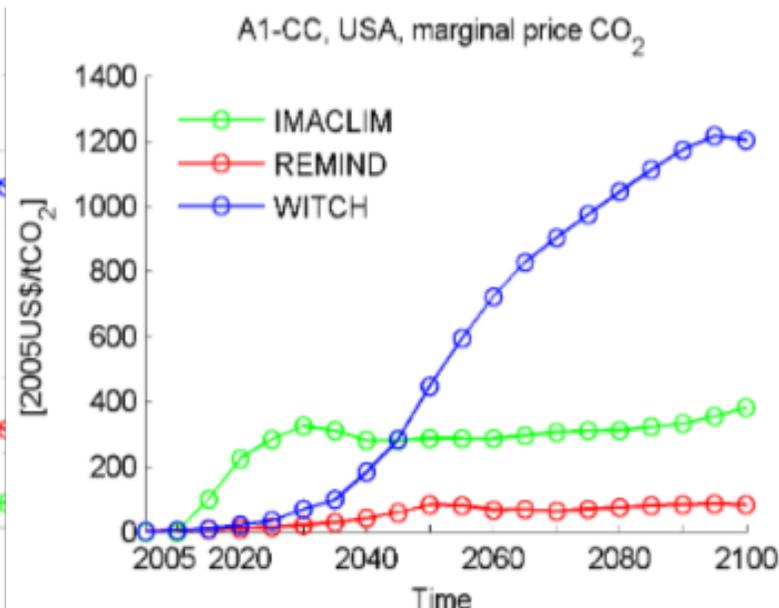
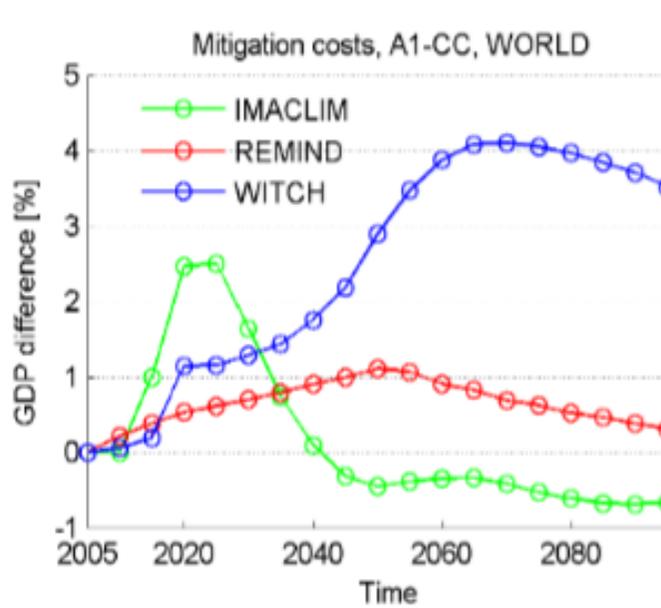
A1 – contraction and convergence



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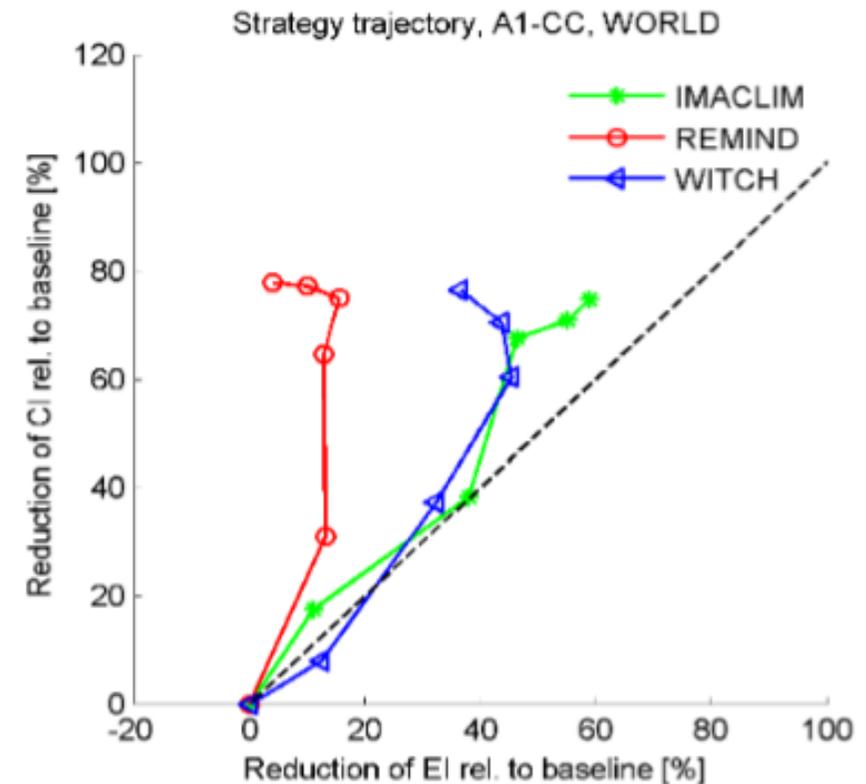
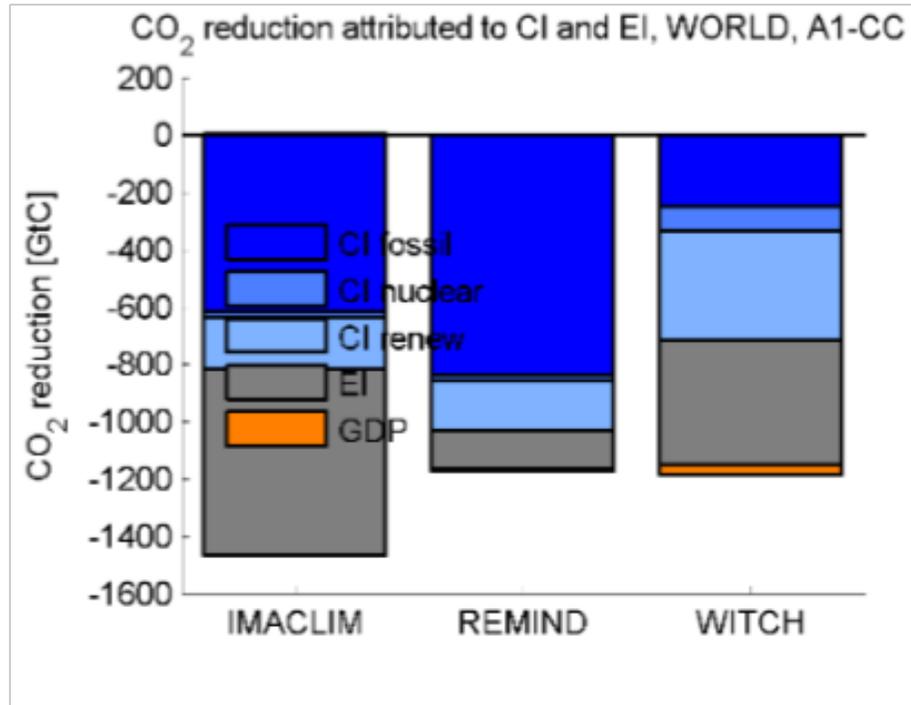


A1 – contraction and convergence



Carbon intensity (CI) vs. Energy efficiency (EI)

A1-C&C vs baseline



Comparision with CCSP study (CCSP, July 2007) and ADAM

		2020	2040	2060	2080	2100
RECIPE (450ppm CO2)	WITCH	1.1%	1.7%	3.8%	4.0%	3.2%
	REMIND	0.5%	0.9%	0.9%	0.6%	0.4%
	IMACLIM	2.5%	0.2%	-0.4%	-0.6%	-0.7%
CCSP (450ppm CO2)	IGSM (EPPA)	2.1%	4.1%	6.7%	10.1%	16.1%
	MERGE	0.6%	1.4%	2.2%	1.8%	1.4%
	MiniCAM	0.2%	1.2%	1.9%	1.9%	1.4%

Percentage reduction in Gross World Product in the stabilisation scenario - undiscounted

Additional Relevant Project

www.feem-web.it/witch

WITCH - Other Comparison Projects

- **TOCSIN:** Technology-Oriented Cooperation and Strategies in India and China: Reinforcing the EU dialogue with Developing Countries on Climate Change Mitigation
 - EU Funded (ends in fall 2009); partners from China and India
 - Three models: MARKAL/TIMES, GEMINI-E3, WITCH
 - Analysis of a stabilization scenarios 4.5 (rad. forcing), given different assumption on technology transfer and spillovers
- **Harvard Project on International Climate Agreements**
 - Quantitative comparison of the main post 2012 architectures for an agreement on climate policy
- **EMF22 – International Scenarios**
- **Forestry Modelling Forum**