

## IPCC's Catalytic Role: Coordinating Scenarios Jointly with IAMC

IAMC Meeting, Tsukuba, September 15<sup>th</sup>, 2009 Professor Dr. Ottmar Edenhofer





- Results from Expert Meeting in Oslo
- Catalytic Role of IPCC
- Scenario Philosophy
- Portfolio of Scenarios
- Upcoming Scenario Meetings
- AR5: Collaboration between IPCC Working Groups





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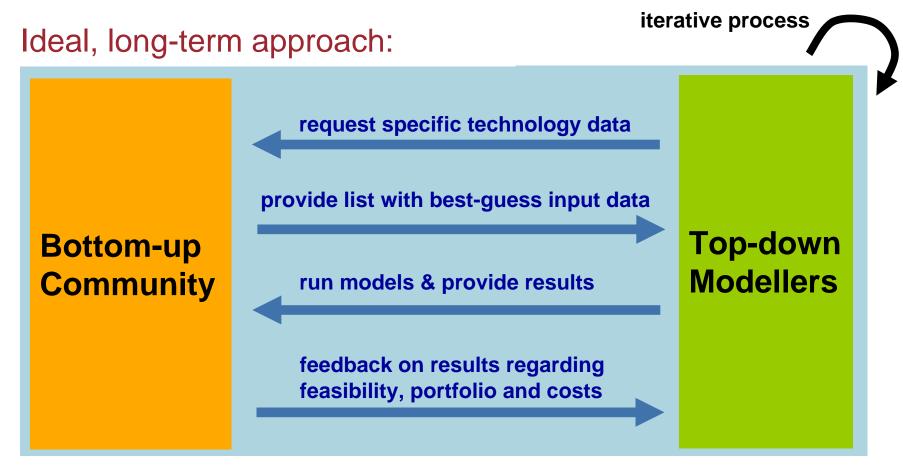




#### AR5 Run-up:

#### **Bottom-up – Top-down Interaction**

Based on the Memorandum of Common Understanding from Oslo: <a href="https://www.ipcc-wg3.de/scenario-memo">www.ipcc-wg3.de/scenario-memo</a>



Goal: More realistic representation of policy space.

#### fossil w/o CCS Realistic Portfolio of Mitigation fossil CCS renew Options? biomass w/o CCS biomass CCS **Models** nuclear **MERGE TIMER POLES REMIND** E3MG baseline 1200 1200 800 800 800 600 600 MERGE, 550ppm POLES, 550ppm TIMER, 550ppm REMIND, 550ppm E3MG, 550ppm 1400 1400 550 ppm 1200 1200 1000 1000 1000 800 800 800 800 600 600 600 TIMER, 400ppm POLES, 400ppm REMIND, 400ppm 400 ppm 800 800 800 600 400 400 200

- → with major role of renewables 400ppm can be achieved by all models
- → very different strategies to reach low stabilisation

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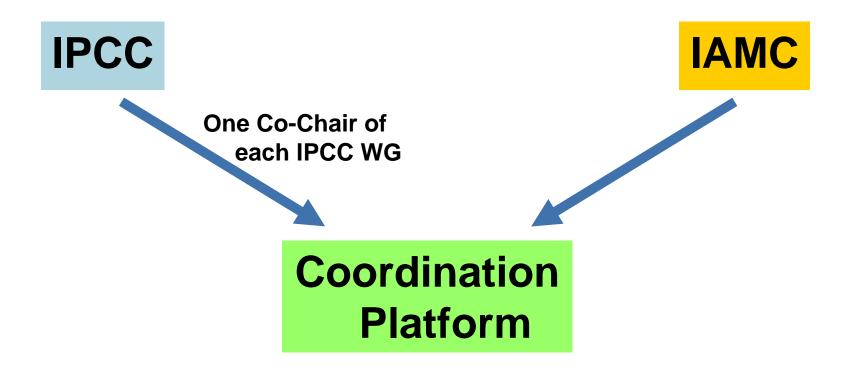
## Short- & Long-term Coordination of Scenarios

- "Ideal" iterative process between bottom-up & top-down is too late for SRREN
- A new coordination body is needed
- The catalytic role of the IPCC requires a continuous interaction between IAMC and IPCC
- At the SRREN Expert Meeting in Oslo a list of modelling topics were developed
- For AR5 more model comparison exercises are needed





## New Catalytic Role of IPCC







### Role of IAMC as seen from IPCC perspective

The IAMC is the professional scientific body for Integrated Assessment.

#### For IAMC it is important to:

- have clear rules of participation
- be transparent
- be representative of scientific community





#### Tasks of Coordination Platform

- Discuss new challenges for AR 5
- Decide what scenarios are required for AR5
  - IAMC communicates this to the scientific community
- Sharing information



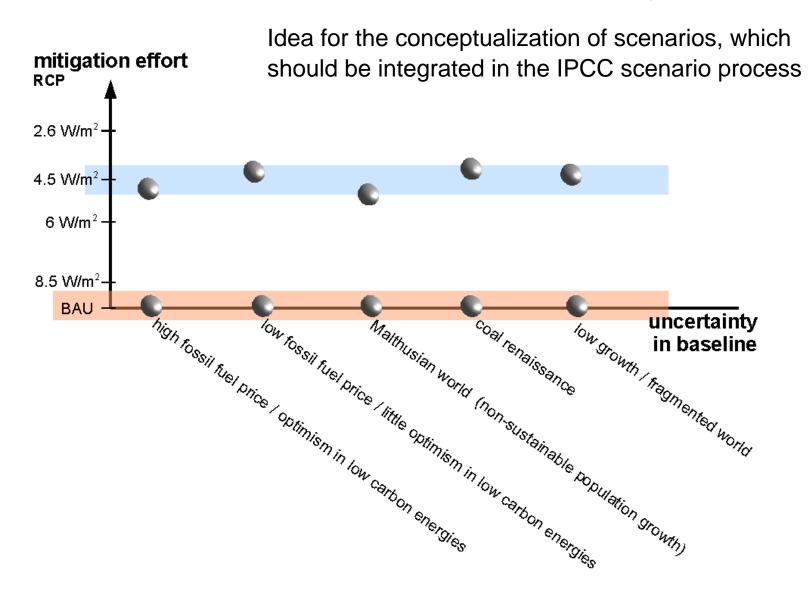


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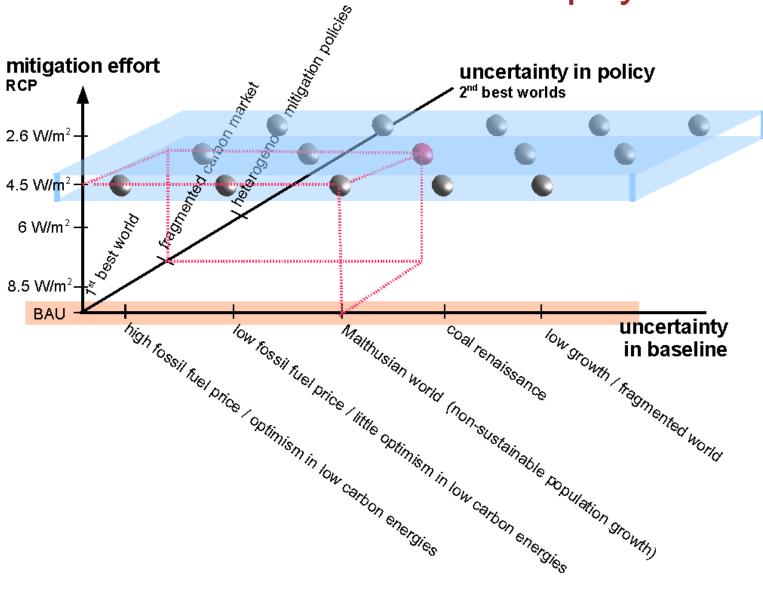


## AR5 Scenario Philosophy



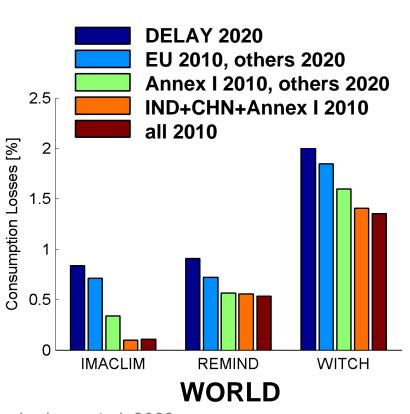
Baselines should be self-consistent

## AR5 Scenario Philosophy

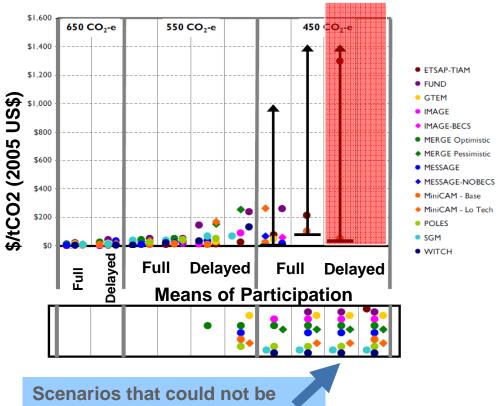


infeasible for most models

#### **Costs & Other Problems of Delay**



Luderer et al. 2009



EMF (2009) Overview of EMF 22 International Scenarios

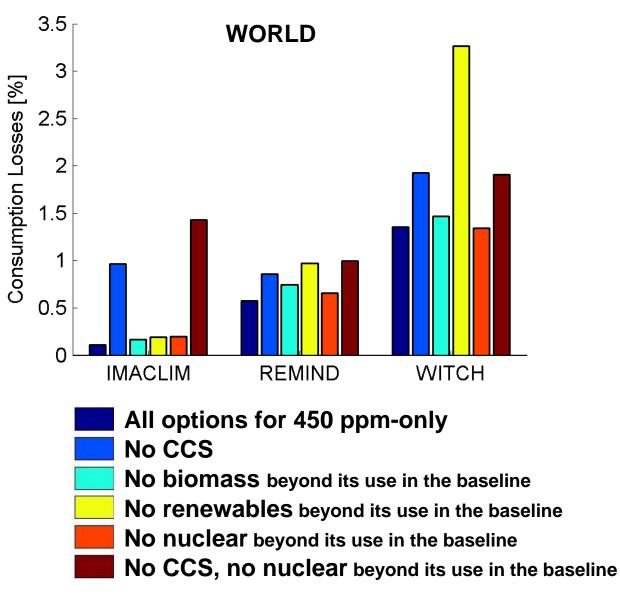


modelled under criteria of study



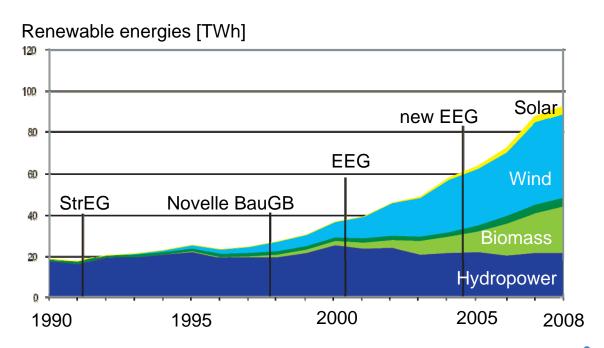


### Limited Availability of Technologies



# Are Feed-in-Tariffs the most efficient way to increase Renewable Capacities?

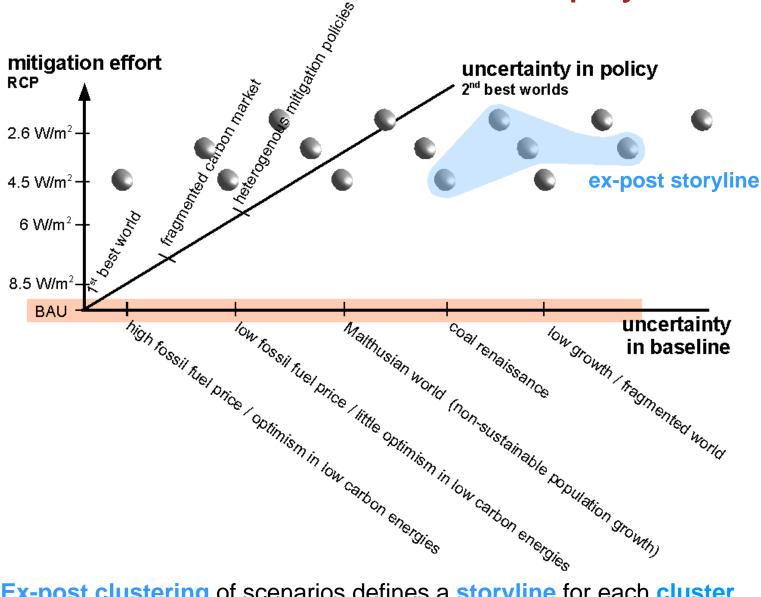
In Germany the Renewable Energy Law (Erneuerbare-Energien-Gesetz, EEG) greatly increased capacities. What is the interaction with Emission Trading?







## AR5 Scenario Philosophy



**Ex-post clustering** of scenarios defines a **storyline** for each **cluster**. Clustering is essential to derive policy relevant messages.

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#### **IPCC Wish List**

#### Emerged from SRREN Expert Meeting on Scenarios

#### Issues to be covered by modellers:

- Limited availability of technologies
- Uncertainty
- Delayed participation
- Bottom-up & top-down integration
- Hindcasting
- Timing of policy instruments
- Multiple policy instruments for multiple market failures ("price-only-crowd" vs. "technology policy is needed")





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## **Upcoming Scenario Meetings**

#### **IAMC Scenario Meeting**

February 2010 @ Washington D.C

## IPCC SRREN 2nd Scenario Expert Meeting

Spring 2010

Possibly back-to-back to 3rd SRREN LA Meeting Early March 2010 @ Oxford, UK

#### **IPCC AR5 Scenario Workshop**

2010

Joint WG II – WG III

TBC at next IPCC plenary in Bali





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#### AR5 Run-up:

#### WG II - WG III Interaction

WG III / WG II Scenario Workshop: Discuss details of scenarios space WG III: Assess scenarios (e.g. 2nd best) provide emission scenarios WG II: **Analyse impact** WG III / WG II: **Describe ex-post storylines** 





## AR5 Run-up: **Vulnerability – Adaptation Interaction**

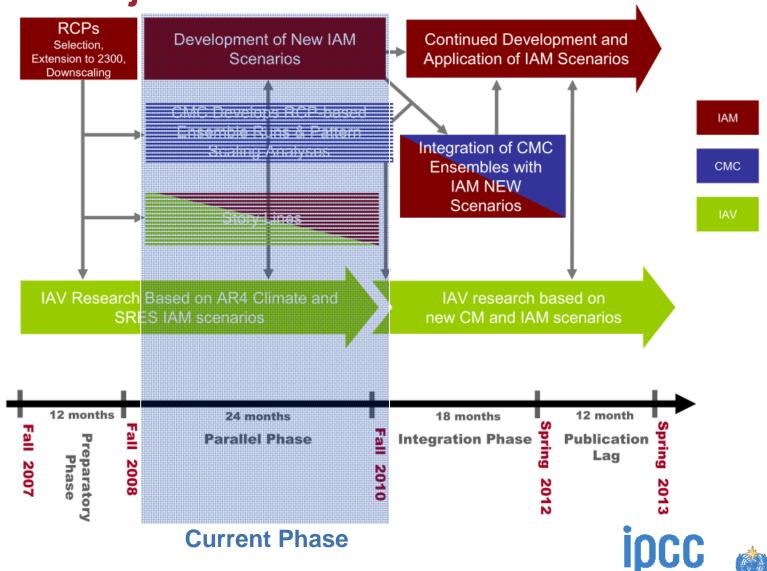
... organized by **TGICA** (Task Group on Data and Scenario Support for Impact and Climate Analysis) in collaboration with **IAV** (Impacts, Adaptation and Vulnerability) community.





#### AR5 Run-up:

### **Noordwijkerhout Timeline**

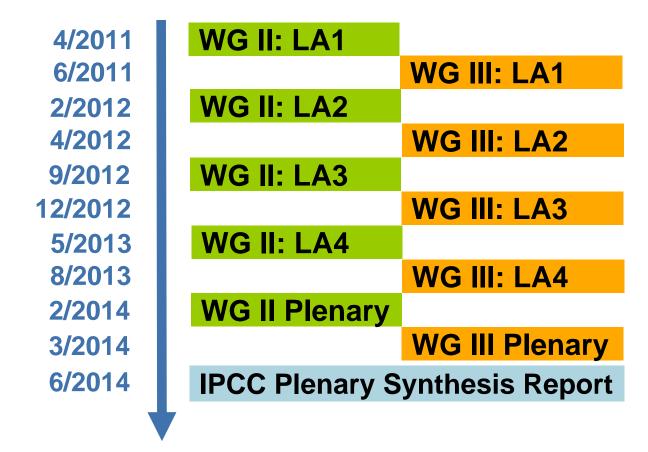


INTERGOVERNMENTAL PANEL ON Climate change



#### AR5 Run-up:

#### Preliminary AR5 Timeline TBC at Next IPCC Plenary (Bali)



Papers should be accepted for publication before 5/2013 (WG II) and 8/2013 (WG III) to be included in AR5 TOD (Third Order Draft).





#### **Almost Final Remark**

The IPCC is the honest broker between experts and decision makers in business, politics and civil society.

The IPCC should be policy relevant without being policy prescriptive.



