

# FORE • SCENE

**Development of a Forecasting Framework and Scenarios  
to Support the EU Sustainable Development Strategy**



SIXTH FRAMEWORK PROGRAMME PRIORITY 8.1  
Policy-oriented research, Scientific support  
to policies, Integrating and Strengthening  
the European Research Area

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Science Centre  
North Rhine-Westphalia  
Institute of Work  
and Technology



Institute for Culture  
Studies  
Wuppertal Institute for  
Climate, Environment and  
Energy



The University of  
Nottingham

CEM  
Centre for Environmental  
Management

REGIONAL ENVIRONMENTAL CENTER

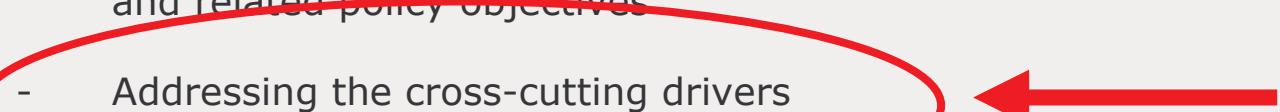
SERI  
Sustainable Europe  
Research Institute



## Initial points

- Need of a framework for creating sustainability scenarios integrating different environmental topics (water, soil, resource use etc.)
- Need for access to scenarios that can be used for strategic policy preparation in the context of the Sustainable Development Strategy.
- Need to understand the key driving forces and their cross-cutting linkages, which lead to increased pressure on the environment.

## 1st Step: WHAT IS THE PROBLEM?

- Selection of topic complexes to be covered, in exchange with the relevant DGs
  - For each topic complex: description of main environmental problems, economic and social implications, important drivers, and related policy objectives
  - Addressing the cross-cutting drivers
- 

# Questions being addressed



## 2nd Step: WHERE SHALL WE GO TO?

- Translation of the policy objectives of topic complexes to goals for major activity and policy fields
- For each activity field: description of Sustainability Scenario Elements (SSEs)
- Development of narratives of integrated Sustainability Scenarios (ISS)

# Questions being addressed



## 3rd Step: HOW TO GET THERE?

- For selected policy fields: Backcasting, addressing requirements and potential measures deemed promising to reach the defined ISS

# Questions being addressed



## 4th Step: HOW TO MEASURE THIS?

- Translate the narratives to quantitative and qualitative parameters using as far as possible available indicators

## Questions being addressed



### **5th Step: WHAT WILL HAPPEN UNDER BUSINESS AS USUAL (BAU)?**

- Development of a forecasting framework
- Description of available parameters
- Projections of selected indicators

## 6th Step: **WHICH ALTERNATIVE SCENARIOS ARE POSSIBLE?**

- Refining SSEs, selecting narratives for ISSs
- Checking required system parameters for assessment and available indicators
- Development of a framework of ISS comprising essential SSEs, allowing comparison with BAU and assessment of backcasting options



# Questions being addressed



## 7th Step: HOW CAN THIS BE MODELLED?

- Review of existing models which can provide relevant information
- Description of the potentials and deficiencies of selected models
- Checking possibilities for further development of models (incl. combination)

## 8th Step: **WHAT HAS BEEN LEARNED?**

- Conclusions for policy development, focus on SDS implementation
- Consequences for further development of EU information systems
- Recommendations for Extended Impact Assessment and further development of models

# Objectives

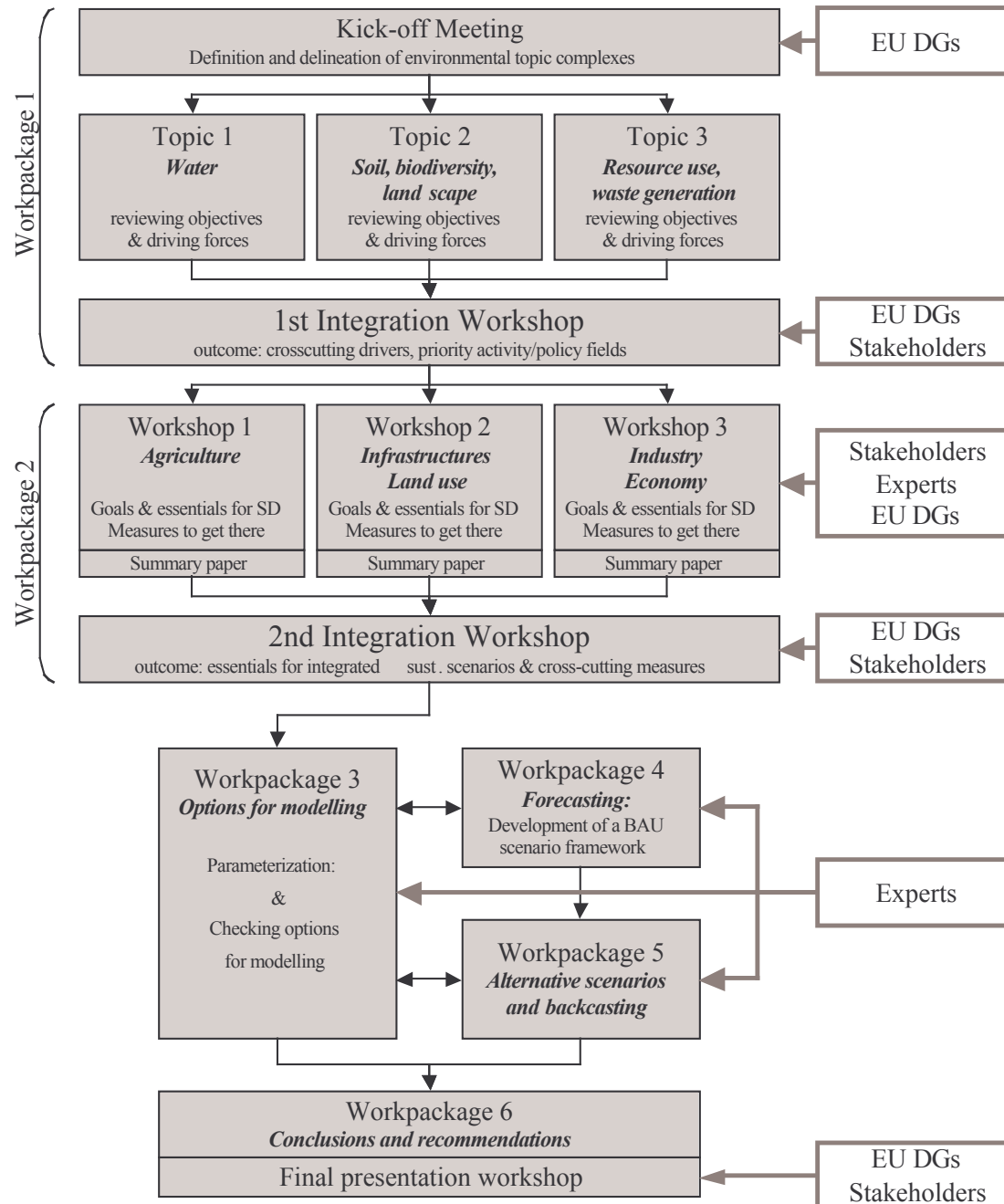


- FORESCENE will develop an analytical framework for consistent environmental sustainability scenario building (forecasting, backcasting, simulation) in areas such as water, soil, biodiversity, waste and natural resources.
- There will be a focus on backcasting, to identify different scenarios leading to the achievement of future targets.

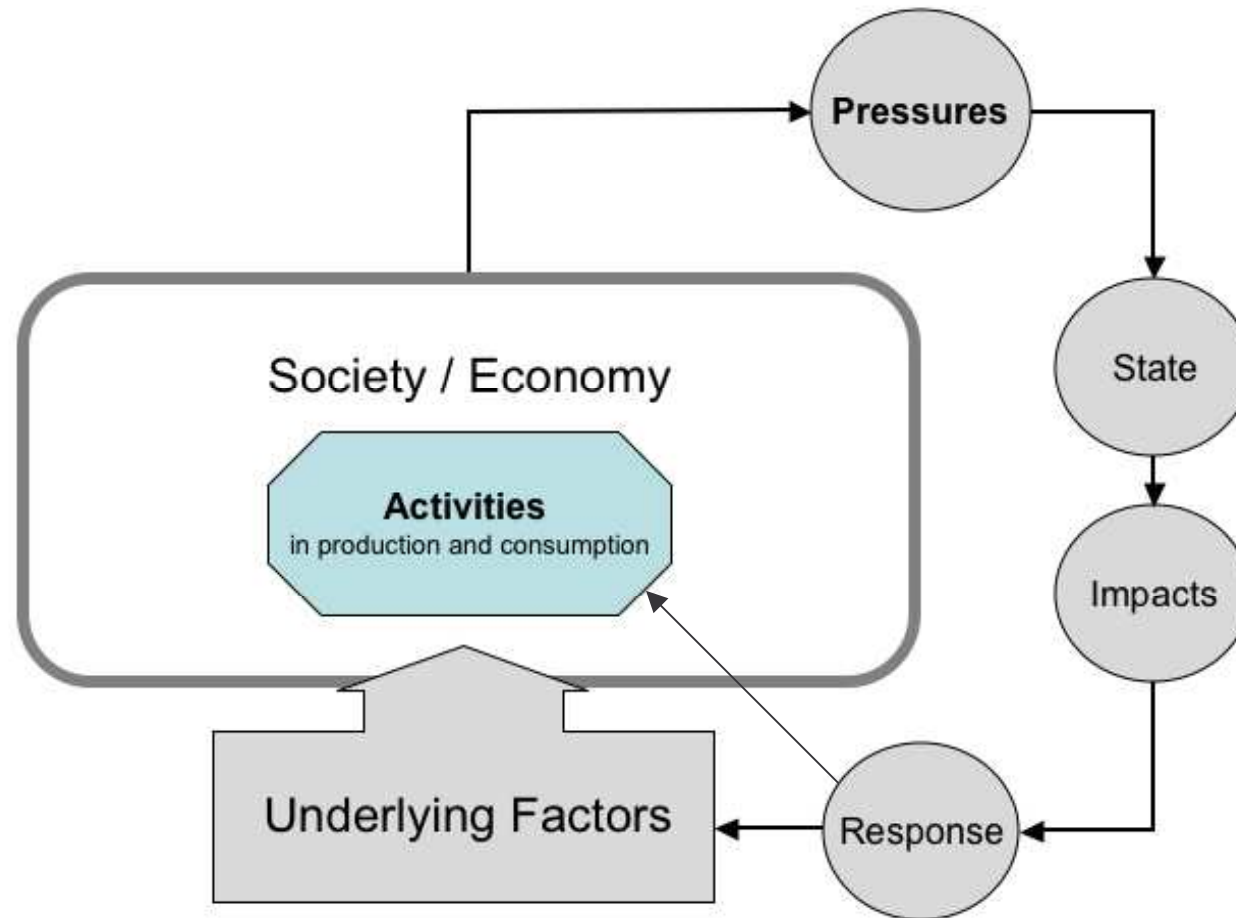
# Objectives

- FORESCENE will organize and conduct a series of workshops in order to involve DGs and stakeholders, to integrate knowledge on
  - ➔ cross-cutting drivers of various environmental problems and priority policy fields where these drivers should be controlled, and
  - to define essentials for integrated sustainability scenarios in terms of goals and cross-cutting policy measures.

# Workpackages



# Driving forces, pressures, state, impact, response



# The Consortium



Wuppertal Institute for Climate,  
Environment and Energy, Wuppertal (WI)



Lund University Centre for Sustainability  
Studies (LUCSUS)



Centre for Environmental Management  
(CEM), School of Geography, University of  
Nottingham



REGIONAL ENVIRONMENTAL CENTER

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