



DYNAMIX

Decoupling growth from resource use
and its environmental impacts

DYNAMIX policy assessment

Tomas Ekvall, IVL



DYNAMIX is a project funded
under the European Union
Seventh Framework Programme



QUALITATIVE AND QUANTITATIVE

- WP5: Qualitative assessments
- WP6: Ex-ante analysis of selected policy mixes

ECONOMIC MODELS

- ICES (Intertemporal Computable Equilibrium System)
 - Sectors & countries
- MEMO II (Macroeconomic Mitigation Option Model)
 - Dynamics
 - Market imperfections

TOOLBOX FOR PHYSICAL FLOWS

- Life cycle assessment
- Material/substance flow analysis
- Material pinch analysis
- Water footprinting
- Dynamic carbon footprinting

QUALITATIVE ENVIRONMENTAL ASSESSMENTS

- Cause-effect relationships
- Biodiversity
- Toxicity
- Noise
- etc.

QUALITATIVE ECONOMIC ANALYSIS

- Allocation of burdens and revenues
- Market power
- Transition cost
- Impacts of asymmetric information
- etc.

SOCIAL IMPACTS

- Labour market
- Social welfare
- Inequality

GOVERNANCE

- Legal barriers
- Public acceptability and behaviour

QUESTIONS FOR GROUP WORK

- 1. On what impacts should the assessment focus?**
- 2. What do we need to consider in the assessment of the specific impacts?**

EXAMPLE 1

1. **On what impacts should the policy assessment focus?**

Climate change

2. **What do we need to consider in the assessment of the specific impacts?**

Land-use change => change in albedo => climate change

EXAMPLE 2

1. **On what impacts should the policy assessment focus?**

Competitiveness of European industry

2. **What do we need to consider in the assessment of the specific impacts?**

**Technological innovation => increased competitiveness
(less if industry is multinational)**

THANK YOU!

- Tomas Ekvall
 - tomas.ekvall@ivl.se
 - +46 31 725 62 81