

REAP Germany –

**Developing a Software Tool
for Informing Sustainable
Consumption and Production
Policies and its Application to
the Field of Energy**



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ERSCP 2008, Berlin, 23.-25.09.2008, www.sei.se/reap

The challenge

- climate change demands actions on all decision making levels
- Local Authorities have a key role in the transformation towards low carbon infrastructures

Global	e.g. International climate regime, global targets
EU	e.g. EU targets, trading & burden sharing mechanisms
National	e.g. National targets, fiscal & structural policies, procurement
Regional	e.g. Implementation, procurement
Local	e.g. Housing, Spatial Planning, procurement, Closest link to public



**Demand for consistent and integrated support tools
for policy analysis on all levels**

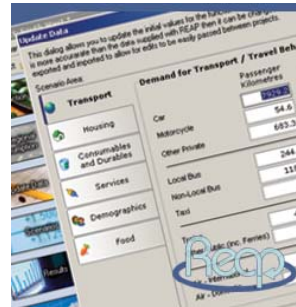


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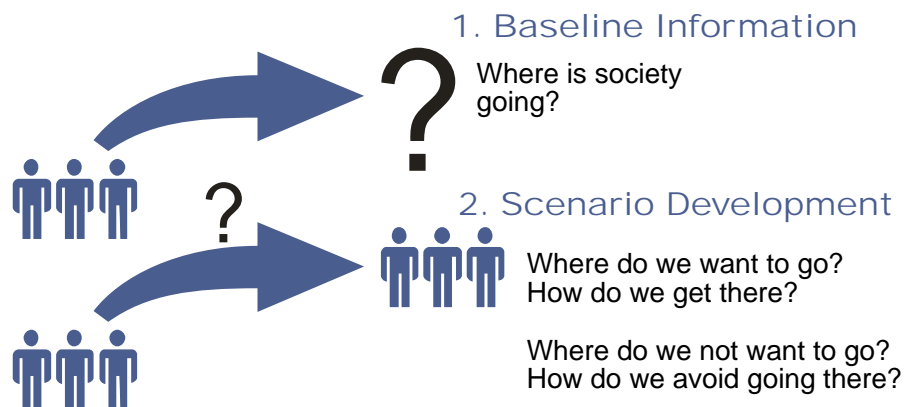
Building capacity for evidence based decision making

- First tool in the UK providing baseline data on a wide range of environmental impacts down to the local authority level with a systemic approach linking the production and the consumption side over the life cycle
- Advantages for decision makers:
 - Closes the carbon cycle
 - Estimates are comparable and non arbitrary
 - Allow meaningful comparison and attribution of policy at respective levels of action



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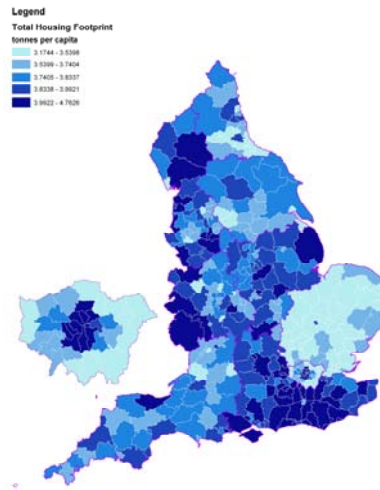
Building capacity for evidence based decision making - Two main Features



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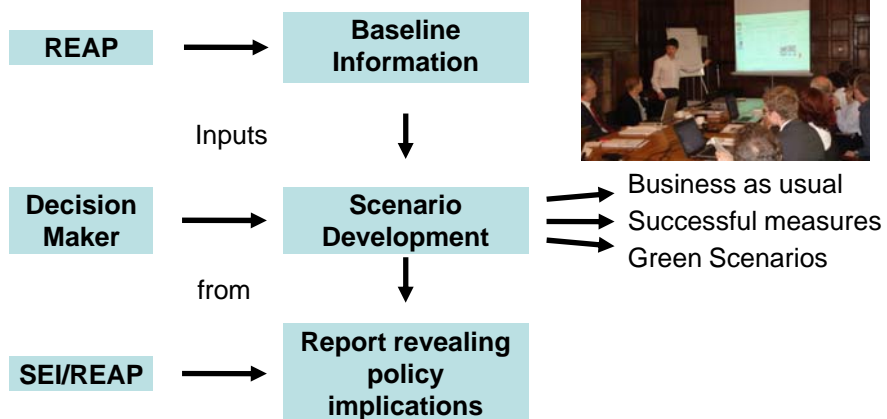
Building capacity for evidence based decision making - Baseline Information

- REAP combines macro economic input-output, environmental accounting data with geodemographic marketing information + information on local energy consumptions
- Allows local authorities to update data



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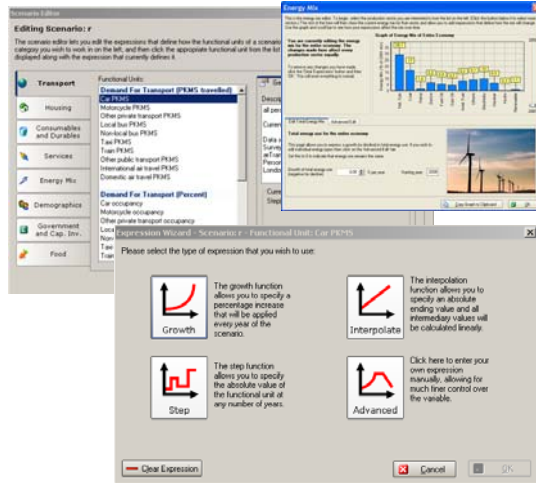
Building capacity for evidence based decision making – Scenario Development



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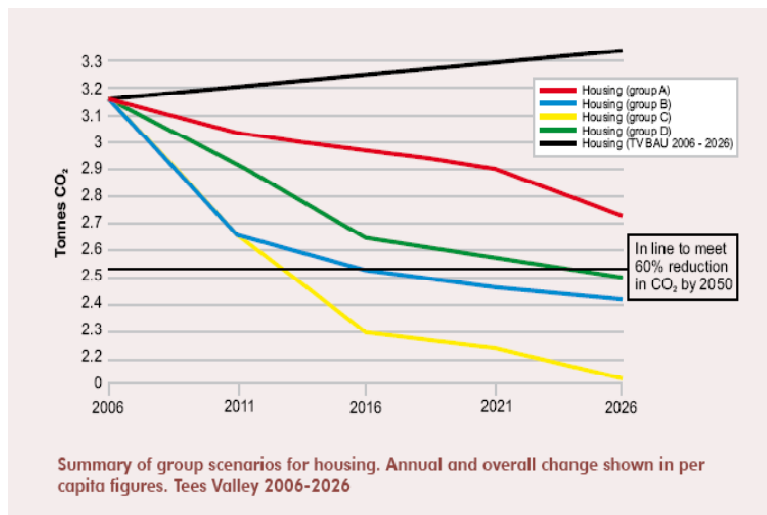
Building capacity for evidence based decision making – Scenario Development

- Variety of options to reach envisaged targets
- On the production and consumption side
 - On different policy levels and sectors



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Exemplary Scenario output



Summary of group scenarios for housing. Annual and overall change shown in per capita figures. Tees Valley 2006-2026

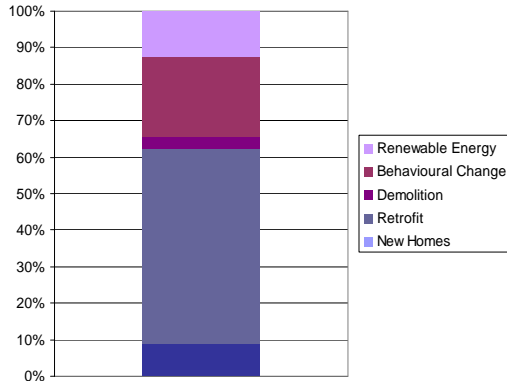


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Example Leeds City Region: Carbon Footprint of Housing

- **Goal:** Identify options to reduce direct CO₂ emissions in the housing sector in the Leeds City Region by 2026 to align with the 80% reduction target by 2050 = accumulated 38 million tonnes CO₂
- REAP used to analyse options
 - Building New Homes
 - Retrofitting Old Homes
 - Behavioural Change Programmes
 - Decentralised Energy Systems

How reductions can be reached?

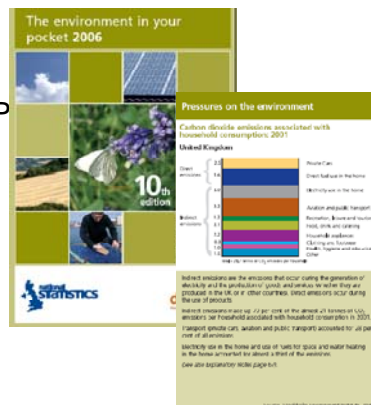


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The story so far

Since start in August 2006:

- 75% of the 411 local authorities have downloaded baseline Data from REAP
- REAP licensed to all Regions and devolved countries
- More than 40 REAP Projects
- Over 300 policy makers trained
- Licences to environmental consulting companies
- Part of key statistics in UK
- Carbon footprint studies for government procurement



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Perspectives REAP Germany

- Produce REAP Germany within next year
- SEI project office settled in Berlin
- Concrete discussions with PIK for collaboration
- Currently identification of Funding Opportunities



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- make your region more sustainable!

**Thank you very much
for your attention**

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Methodology - What are we measuring?

Life Cycle perspective calculating the Environmental Impacts of Every Consumer Good and Service along the supply chain

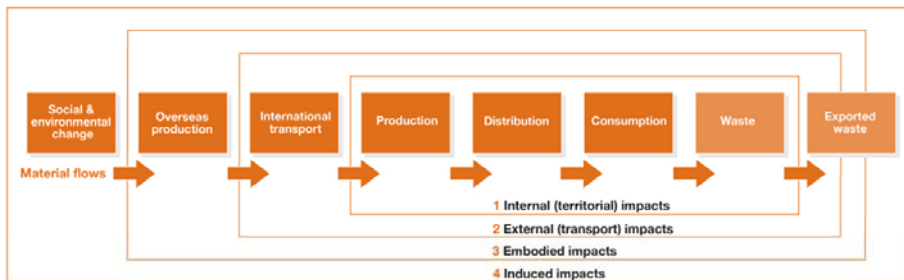


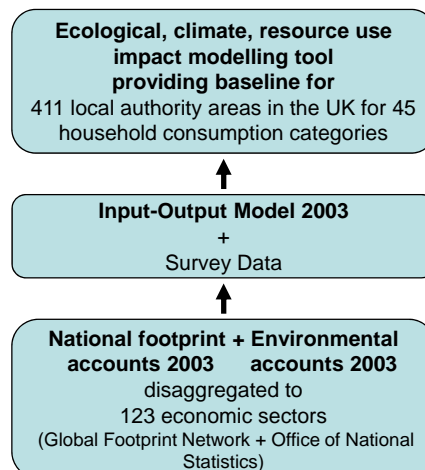
Fig 1 Measuring the external impacts of regions



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Methodology – Data sources

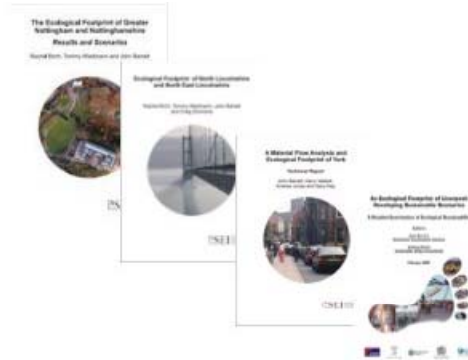
- REAP combines robust input-output modelling with a range of environmental indicators to understand the material flows, carbon dioxide emissions and Ecological Footprint of the UK, regions and local authorities
- Using COICOP and commercial consumption data to map household consumption activities to product groups



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Example applications

- **Evaluation of Regional Strategies**
 - Yorkshire and Humber - All
 - West Midlands - RSS
- **Collaborative working between local authorities:**
 - Tees Valley City Region
 - Greater Nottingham - Transport
- **Local policy evaluation:**
 - Aberdeen City – Compact Cities
 - North Lanarkshire
- **Community engagement:**
 - Dyfi Valley
 - Aberdeenshire



What is **Reap** ?

- Policy Analysis and Scenario Tool for the Environmental Assessment of policy
- Explores individual policy measures and merge these into integrated scenarios
- Combines robust input-output modelling with a range of environmental indicators