# MethodEx

Sixth Framework Programme
Priority : 6.3
Global Change and Ecosystems Sub-Priority,
Contract no.: GOCE-CT-2003-505368

## Methods and data on environmental and health externalities: harmonising and sharing of operational estimates



## Research Area: Crosscutting Issues for Sustainable Development: Methods and Tools.

***Topic VIII.1.a**. Harmonising and sharing of methods and data in environmental and health externalities evaluation; extraction of operational estimates from existing studies (excluding energy and transport).*

### Problem and Objective to be Solved

In order for economic activity to be sustainable, it is essential that environmental and social externalities[1] are taken into account. Indeed 'getting the prices right' is one of the key indicators of EC sustainability strategy.

Major advances have been made in recent years in the analysis of externalities, particularly through DG Research's **ExternE** Project. This project has involved a large and multi-disciplinary team of experts. The project has advanced a methodology combining life cycle analysis (LCA) and the 'impact pathway approach' for assessing externalities in the energy and transport sectors. The approach evaluates environmental or social effects in terms of physical impacts and then goes on to quantify these impacts in economic costs. The ExternE approach and results have seen very widespread use across Europe in policy making. The methodology has been widely used by DG Environment in looking at cost-benefit analysis of proposed EU legislation. Finally, the environmental costs have started to be used in internalisation strategies, i.e. to correct prices to account for externalities, through the design of taxes, charges or subsidies.

This project will make a major contribution to the development and wider use of externalities in sectors other than transport and energy. This responds to an increasing recognition that externalities in other sectors (agriculture, industry and waste) have received little attention to date and are important. The study also deliberately looks at the extension and transferability of externalities to the enlarged EU. Finally, it has a focus to improve socio-economic policy tools for sustainable impact assessment, to help to increase the consistency and robustness of decision-making. The project has two key aims.

- Firstly, to extend a consistent externalities approach into agricultural, industrial, waste and other sectors, based on the 'best practice' used in the transport and energy areas.
- Secondly, to provide a 'toolbox' to allow policy makers to use a consistent and harmonised approach for externality numbers in all areas, ensuring transferability and uncertainty are taken into account.

[1] Most activities, such as electricity generation, transport, agriculture, etc. have environmental and social burdens. These include air pollution, greenhouse gas emissions, waste / water emissions and noise. These burdens lead to economic impacts that are typically not paid for by providers or users, known as external costs or externalities.

## Study Objectives

- Provide an inventory and critical review of existing externality studies in the sectors of agriculture, industry, waste and other non-transport and energy applications.
- Harmonise the methodologies in these sectors, ensuring consistency with existing best practice approaches and methodologies in the transport and energy sectors, and for the first time providing an integrated and common methodology for all areas of economic activity.
- Undertake additional analysis to improve the methodologies for new sectors and demonstrate applicability with case studies.
- Identify major gaps in current knowledge that limit application of high quality externality studies for these new sectors and put forward research recommendations to fill these gaps.
- Assess the transferability of the results and data, including application to the new member states.
- Engage policy makers to maximise the usefulness of the study output (data and tools for externality assessment).
- Make the key information in the new sectors available in RED (Review of Externalities Data) database (www.red-externalities.net), developed for DG Research.
- Develop a 'toolbox' for policy analysis using externalities, with key areas of development in areas of uncertainty and global warming. Provide guidelines for presenting the results of particular studies in standardised format.
- Disseminate the results to stakeholders by electronic communication and by workshops.

The project commenced in January 2004, and will run for 36 months.

## Project partners

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| AEA Technology Environment, UK (Co-ordinator) | Institute of Occupational Medicine, Edinburgh, UK |
| Association pour la recherche et le développement des méthodes et processus industriels, France | Istituto di Studi per l'Integrazione dei Sistemi (ISIS), Italy |
| E-CO Tech, Norway | University of Bath, UK |
| EMRC, UK | University of Hamburg, Germany |
| The Clean Air Action Group, Hungary | University of Warsaw, Poland |
| Institut fuer Energiewirtschaft und Rationelle Energieanwendung (IER), University of Stuttgart, Germany | Charles University Environment Center (CUEC), Prague, Czech Republic |

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