



Life Cycle Thinking in European Sustainability Policy

Supporting European Business and Public Administrations

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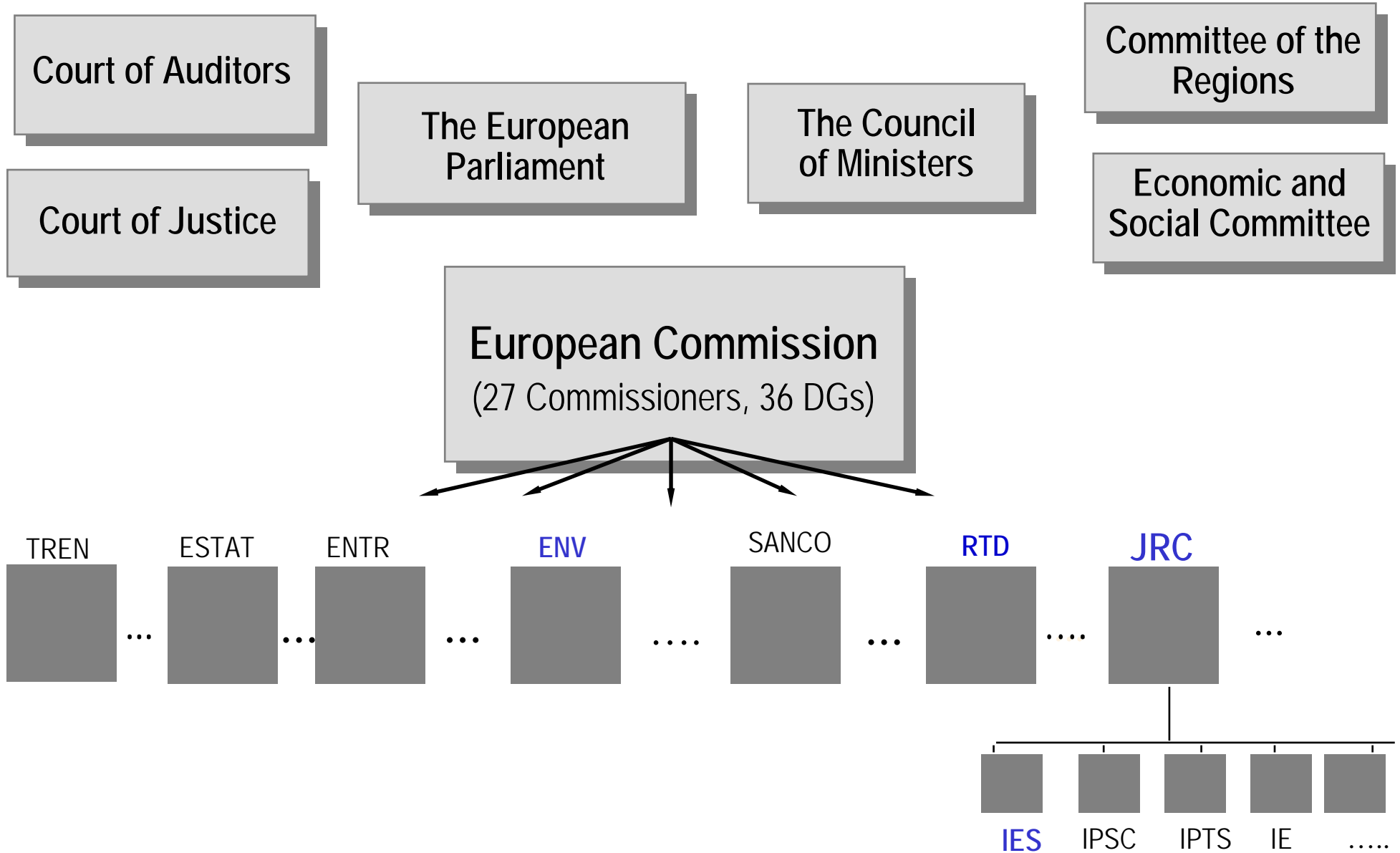
European Commission
Directorate-General Joint Research Centre (DG JRC)
Institute for Environment and Sustainability (IES)



Presentation Outline

- **European Commission's DG JRC inhouse R&D support**
- **Life Cycle Thinking**
- **(EC Sustainability Policies – previous speaker)**
- **Policy support example: European Platform on LCA**

EU Institutions





DG JRC: Mission Statement

... to provide customer-driven scientific and technical support for the conception, development, implementation and monitoring of EU policies ...



...the JRC functions as a centre of science and technology reference for the EU, independent of commercial and national interests

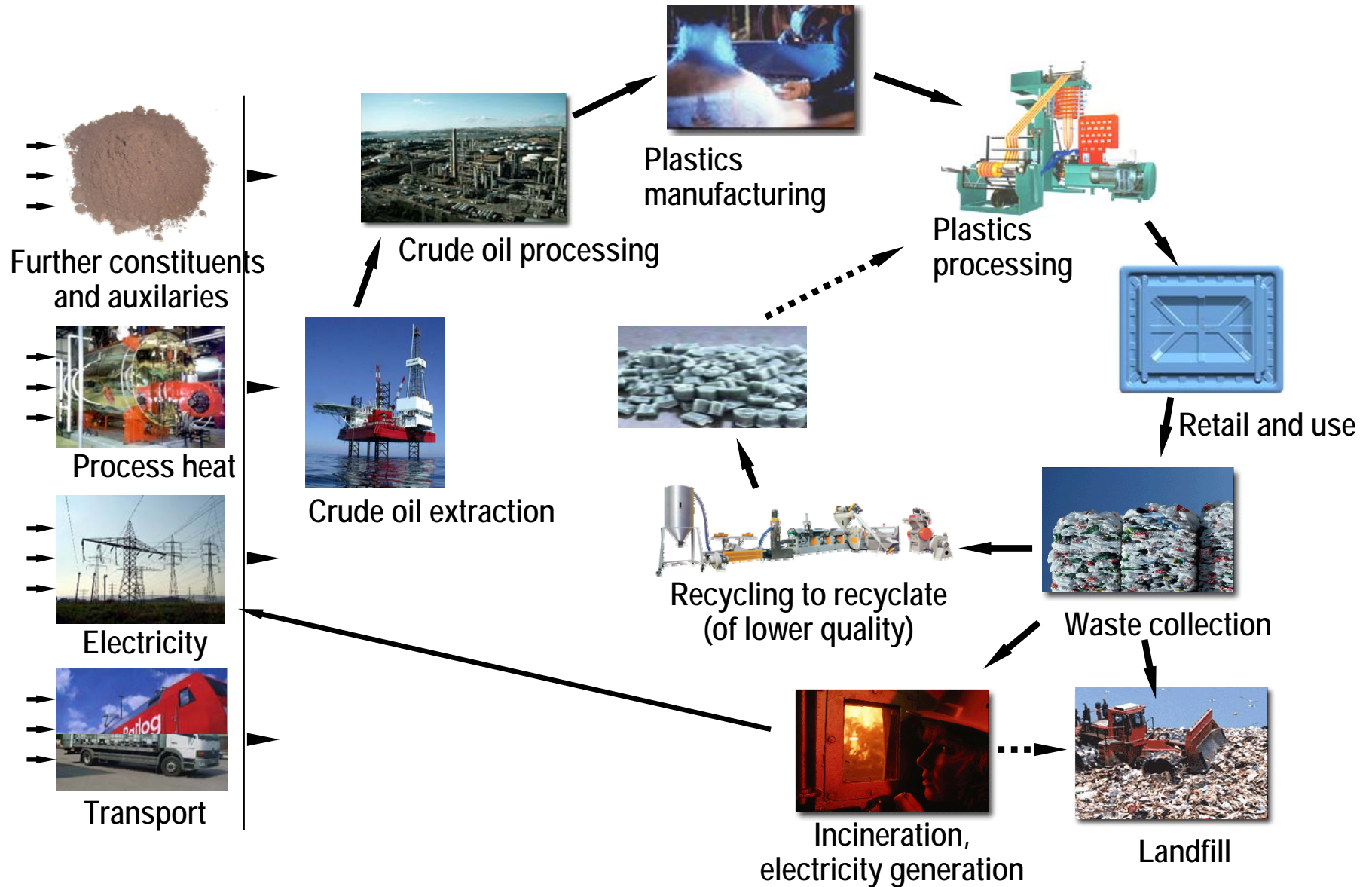
DG JRC: Life Cycle Policy Support Examples



- Fuels Well-to-wheel Energy & GHG study (IES)
- LCA and Renewable Energy (IES)
- Identification of products with highest Environmental Impacts and improvement options (IPTS)
- LCT Waste Management Technical Guidelines (IES)
- LCT-based Sustainability Indicators (IES)
- European Platform on Life Cycle Assessment (IES)

Life-Cycle Thinking - Include whole life cycle of product (goods and services)

Avoid shifting-of-burdens, consistent basis for comparison, ...



Life Cycle Thinking in e.g. Waste Management

avoid shifting burdens among impact categories, resources consumed, countries, ...

Recycling: e.g. replace virgin materials

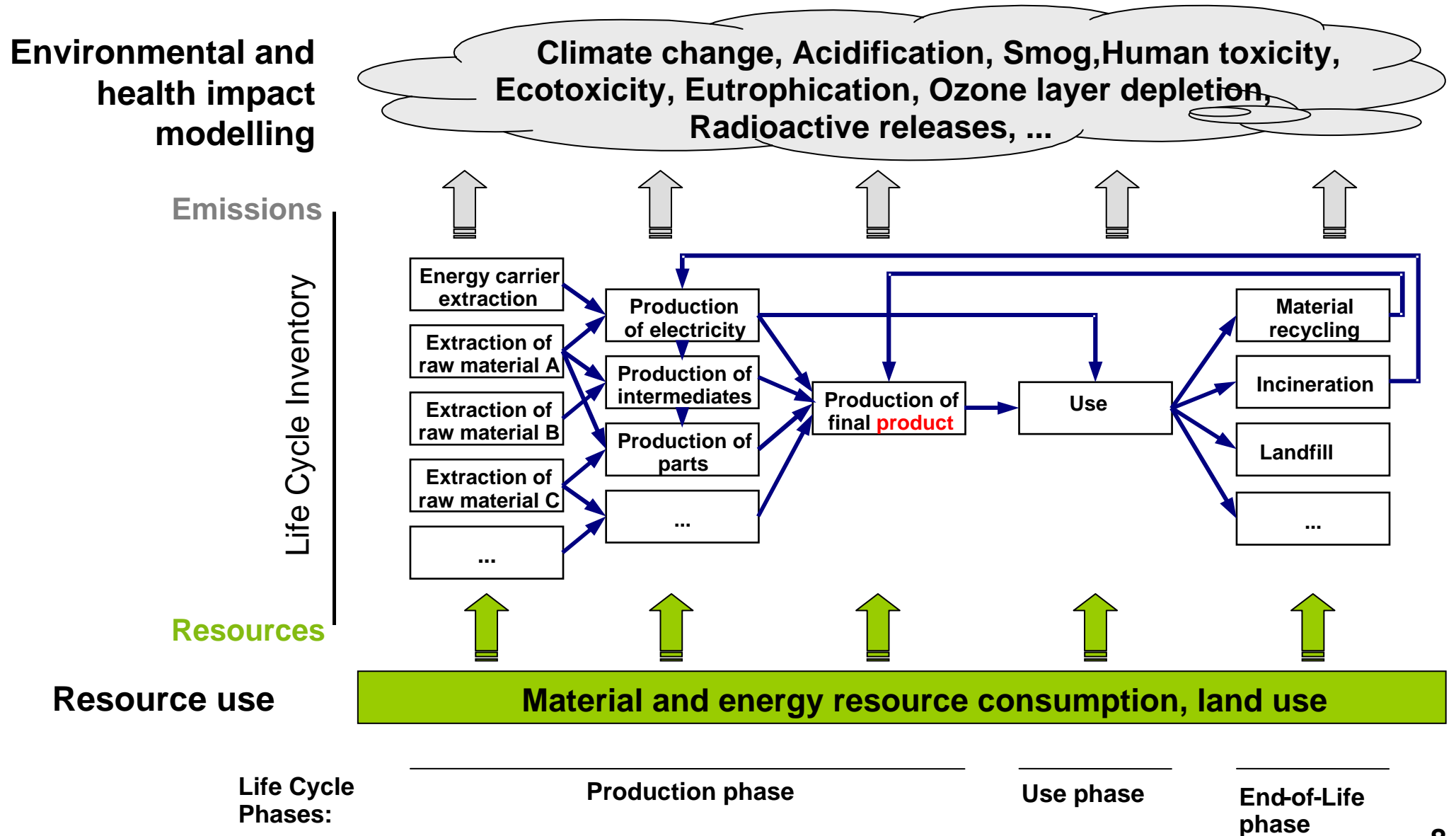
- reduce resource consumption and emissions from extraction & processing of virgin materials
- BUT, creates pressures by e.g. emissions and energy consumption in recycling processes

Incineration: e.g. reduce use of fossil fuel

- reduce resource consumption and emissions from extraction & processing of fuels
- BUT, creates pressures by e.g. emissions from incineration

Life-Cycle Assessment – ISO 14040 series

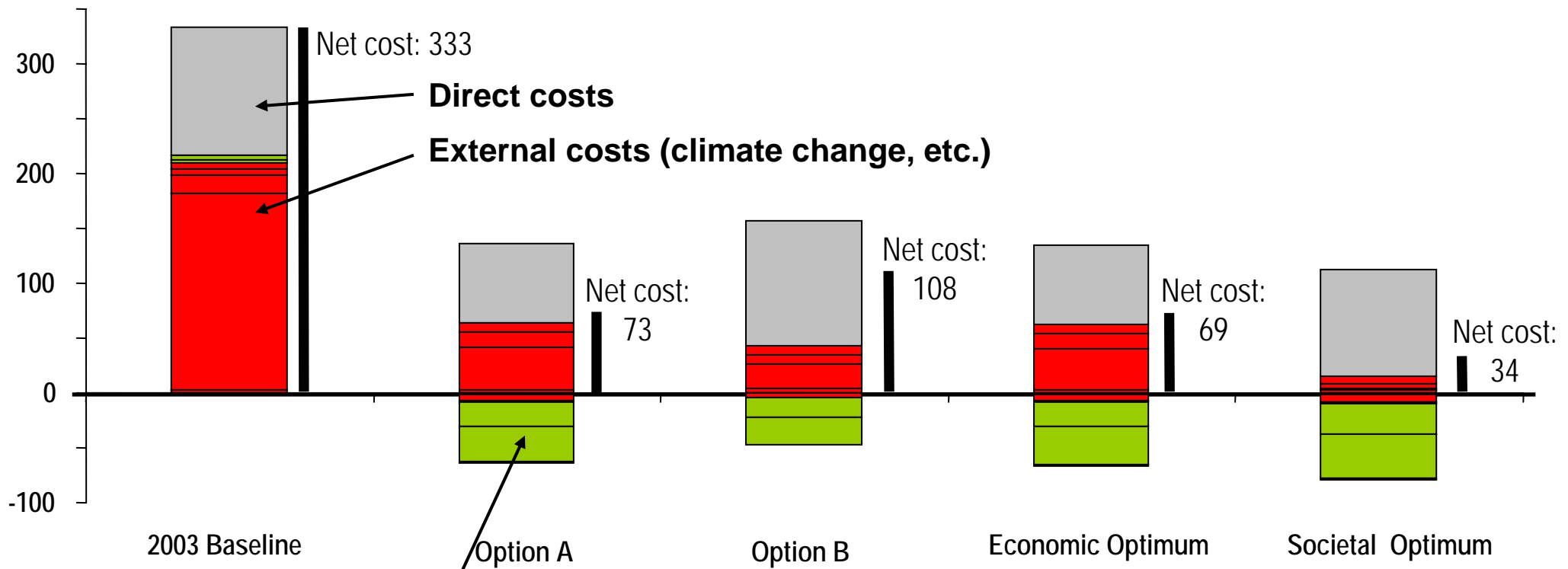
Quantify emissions, pressures on environment, human health, and resource use



Life Cycle Assessment (LCA): Weighting

Example: "external costs" (non-ISO compliant research)
(JRC Pilot Research Studies: Waste management options)

Euro / tonne of waste



Avoided external costs due to recycling, energy recovery, etc

Example of EU Policy Support

European Platform on Life Cycle Assessment

Integrated Product Policy Communication (IPP), 2003:

*LCA is the **best framework** for assessing the potential env. impacts of products
but **debate ongoing about good practice***

→ ***The European Commission will develop ...***

→ ***Handbook** on best practice; best attainable consensus among stakeholders*

→ ***Co-ordination** to make data more accessible and systematically collected*

→ ***Directory** of LCA databases to be updated at regular intervals*

→ ***Platform** to facilitate communication and exchanges*



Supporting Business and Government in Europe: European Platform on Life Cycle Assessment

Coordination: Commission - DG JRC-IES / DG Environment

Initial phase: 2005 to 2008

Key customers: EC services - Member states - European Business

Deliverables:

- **European Reference Life Cycle Data System (ELCD)** with Life Cycle Inventory (LCI) data and recommended Life Cycle Impact Assessment (LCIA) factors
- **Handbook of recommended LCA methodological guidelines**
- **LCA information hub and communication platform** (<http://lca.jrc.ec.europa.eu>)
- **Guidelines for life cycle thinking in policy making and for specific policy support**

Example Benefits

- Increased consistency and quality of life-cycle data & studies
- Greater agreement and acceptance among policy and business stakeholders
- Reduced costs, e.g. reduction in consultation/review costs
- Clearer research & development focus (e.g. 7th FP)
- Improved environmental performance, increased competitiveness, more business

LCI data sets from partner industry associations:



First version online:
<http://lca.jrc.ec.europa.eu>



Summary

- **Life cycle thinking is a core element of sustainable development**
- **Life cycle thinking is of growing importance in EU public administrations and business**
- **Needs for consistency and quality assurance being addressed e.g. by Commission's European Reference Life-Cycle Database and Recommended Technical Guidance Documents**
- **On-going research essential**

Thank you very much for your interest and time.

Further information:

European Platform on LCA

E-mail: LCA@jrc.it



The screenshot shows the homepage of the European Platform on Life Cycle Assessment. At the top left is the ELCD logo (European Reference Life Cycle Data System) and at the top right is the EPLCA logo (European Platform on Life Cycle Assessment). The main heading is "European Platform on Life Cycle Assessment". Below this, the text reads: "Supporting business and policy making in Europe with reference data and recommended methods on Life Cycle Assessment (LCA) for better practice in LCA use and interpretation." There are two main links: "LCA Info Hub" and "Project homepage". At the bottom left, there is a section for "Copyright and license conditions for ELCD core data sets" and "ELCD format and editor". At the bottom right, there is a section for "Documentation requirements and quality requirements for research projects' data sets" and "draft quality requirements for ELCD core data sets". The footer includes the "Important Legal Notice", "© European Communities, 1995-2006", the European Commission logo, and the text "EUROPEAN COMMISSION DIRECTORATE GENERAL Joint Research Centre". The name of the webmaster, "Marco Bianchi", is also listed.

Platform project , ELCD data, LCA Directory: <http://lca.jrc.ec.europa.eu>