

Life Cycle knowledge-base for raw materials policy support

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SNAP-SEE Final Conference

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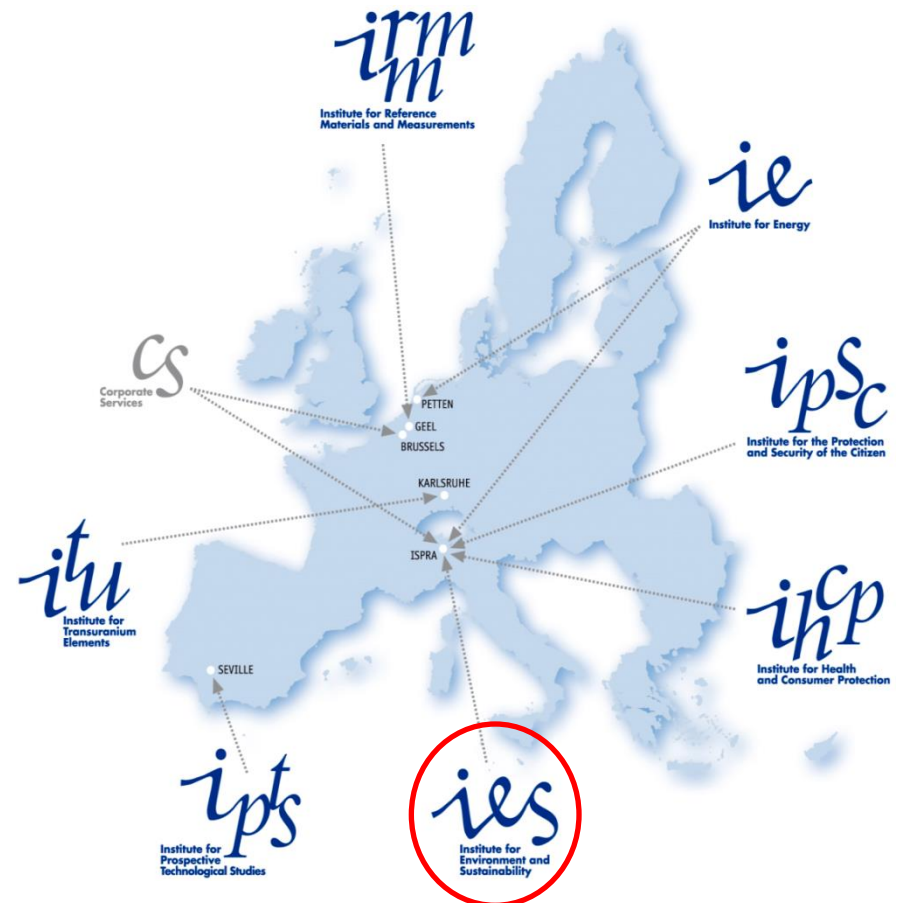
The JRC inside the European Commission

Joint Research Centre (JRC)

is the European Commission's in-house science service and the only DG executing direct research

Institute for Environment and Sustainability (IES)

"The mission of the IES is to provide scientific-technical support to the European Union's policies for the protection and sustainable development of the European and global environment"



Life Cycle Thinking to enhance knowledge base on Raw Materials

- **Life Cycle Assessment (LCA)** and **Material Flow Analysis (MFA)** systematically compile inventories of resources attributable to supply of goods and services,
- allow a **more comprehensive** understanding of the **environmental implications** associated to **raw materials production** and **use**,
- with a **supply chain** perspective,
- including the **end-of-life** waste management.

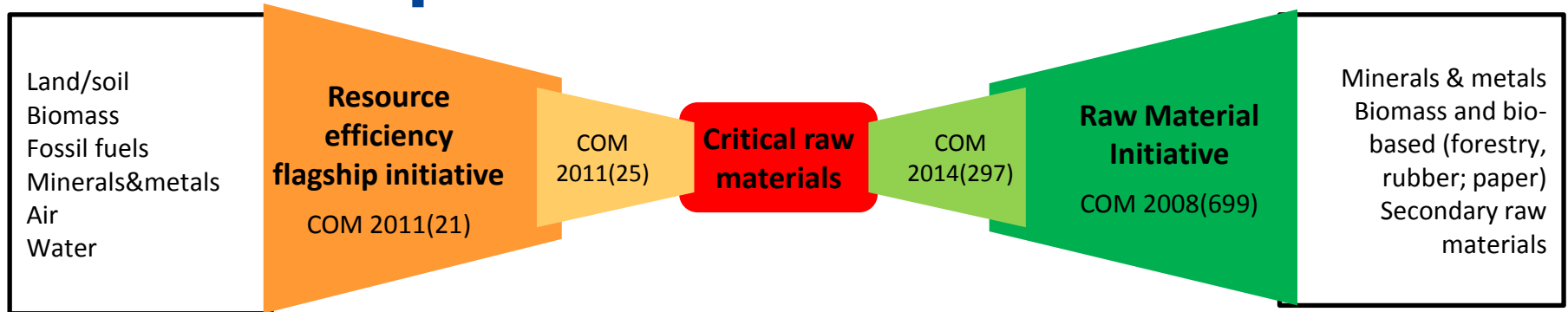


Life Cycle Thinking to enhance knowledge base on Raw Materials

- **LCA** and **MFA** contribute to the creation of the **knowledge-base** necessary for the **strategic management** of resources,
- identify where raw materials are used in supply chains and how they are managed at end-of-life
- avoids shifting of burdens between different geographic areas and life cycle stages



Role in EC policies and related indicators:



Resource efficiency indicators and targets

Lead indicator:

Resource productivity

(GDP/Domestic Material Consumpt)

+

Dashboard indicators
(Water, Carbon, Land)

Targets for resources (under discussion):

- Based on mass
- Based on **environmental impacts**
- Based on **resource criticality**

Raw Materials Scoreboard

(Under development)

Monitor the EU's raw materials sector competitiveness and systemic change:

- full potential of primary and secondary materials
- pan-EU raw materials knowledge-base
- innovative technological solutions
- production-friendly legal framework
- economically attractive environment
- environmental and social aspects

EC Policy mandate to develop LC data, methods, studies (+10Yr)

- **Integrated Product Policy Communication (IPP), 2003**

Commitments to provide **Platform** and **Handbook**, to improve coherence and quality, with associated **increased data availability**

- **Sustainable Consumption and Production / Sustainable Industrial Policy Action Plan, 2008**

- Development and piloting of the **Product and Organization Environmental Footprint (PEF/OEF)** methods



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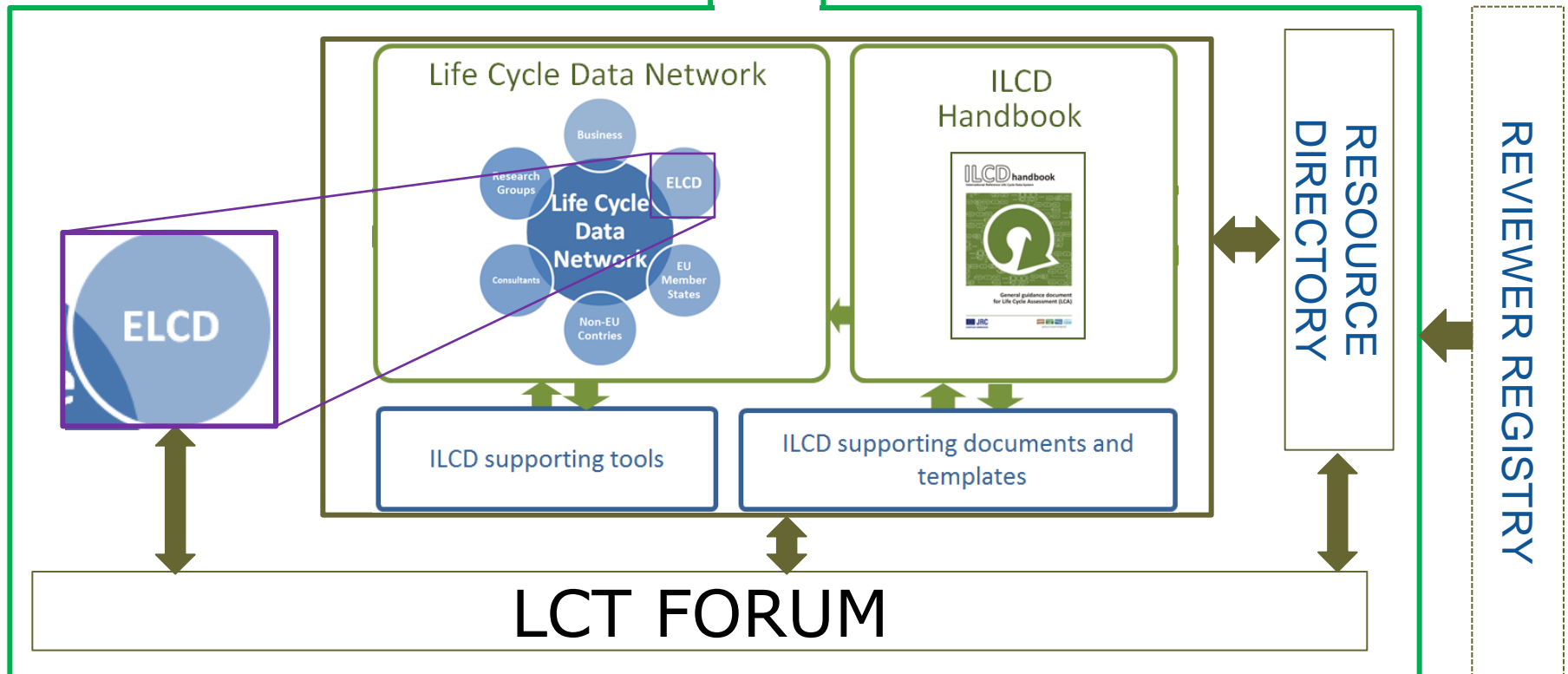
WELCOME TO THE EUROPEAN PLATFORM ON LIFE CYCLE ASSESSMENT



The Integrated Product Policy (COM (2003)302) identified Life Cycle Assessment (LCA) as the "best framework for assessing the potential environmental impacts of products". It highlighted the necessity for a Platform on LCA and to increase the availability of quality-assured life-cycle data. The JRC responded to these needs by establishing the European Platform on Life Cycle Assessment

EPLCA – European Platform on LCA

Policy applications (sustainability), LCA data/studies development and sharing etc.



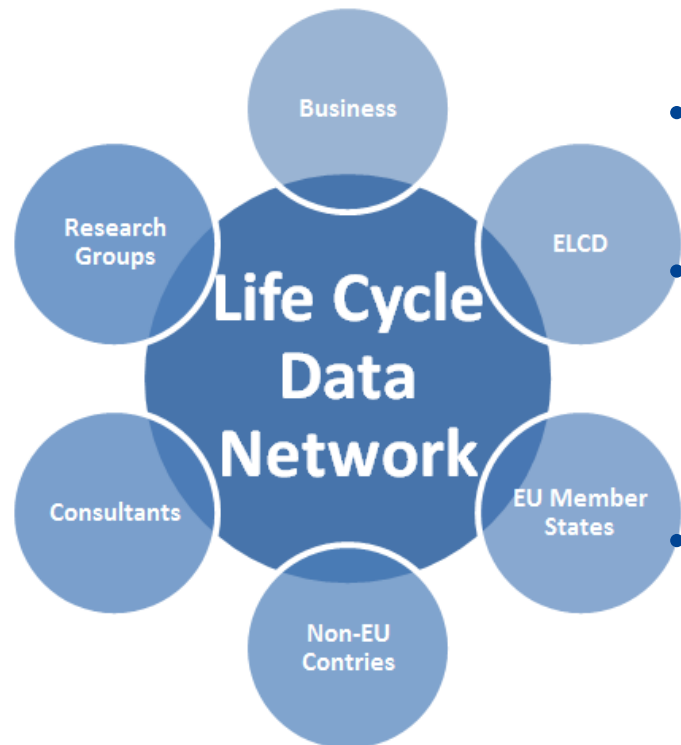
Life Cycle Data Network:

an organised repository to host quality-assured life cycle data on raw materials and critical raw materials



Officially launched the 6th of February 2014 by Vladímír Šucha, Director General, DG JRC, European Commission and the Deputy Director General of DG Environment Alan Seatter

What are advantages for organisations willing to share their LC data



- **Small data** developers and providers can benefit a shared data infrastructure
- **Major data** developers and providers can expand their business
- **Public / non-business data**
 - to publish national LCI databases
 - to support policy implementation
- **Industrial organisations** can create a direct links with LCA practitioners and communicate their achievements

Upcoming activities to expand LC data availability on mineral raw materials:

- **COM(2014) 297 final and annexed SWD(2014) 171 final**

On the review of the list of critical raw materials for the EU and the implementation of the Raw Materials Initiative (26MAY2014)

3.2.3. Lifecycle data network on raw materials and critical raw materials

The Commission continued to **develop lifecycle data**, methods and studies in order to improve the knowledge base **on (critical) raw materials**. Life cycle data outline the resources consumed, emissions, and social pressures associated with the supply chains of raw materials. They equally identify where raw materials are used in supply chains and how they are managed at the end-of-their life for products and services. The **Life Cycle Data Network**, officially launched in February 2014, is expected to host quality-assured life cycle data **from European and non-European public and private organisations**.



Thank you!

*Gian Andrea Blengini,
European Commission*

European Platform on Life Cycle Assessment (EPLCA):
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Sustainability Assessment (H08):
<http://sa.jrc.ec.europa.eu/>

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