



Duurzame productie en consumptie: de mogelijkheden van 'n sLCA

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(UNEP/SETAC Life Cycle Initiative)

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*“Moreover, the views expressed do not necessarily represent the decision or the stated policy of the United Nations Environment Programme or any participants such as members of the **International Life Cycle Board ...**”*



US EPA Representative in the ILCB



“Further, it is my personal opinion that this document is outside the realm of SETAC activities and is not on strong scientific grounds.

Most of this document is political and value-laden and may be in conflict with the rights of various countries, societies, and cultures.

Finally, given the controversy and early stages of discussion, the term ‘Code of Practice’ is premature.”

- Introduction and context
- A sLCA
- Similarities and differences with eLCA
- Technical framework for a sLCA
- Future steps
- In conclusion

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Guidelines for social Life Cycle Assessment of Products

Contributing to the full assessment
of goods and services
within the context of sustainable development

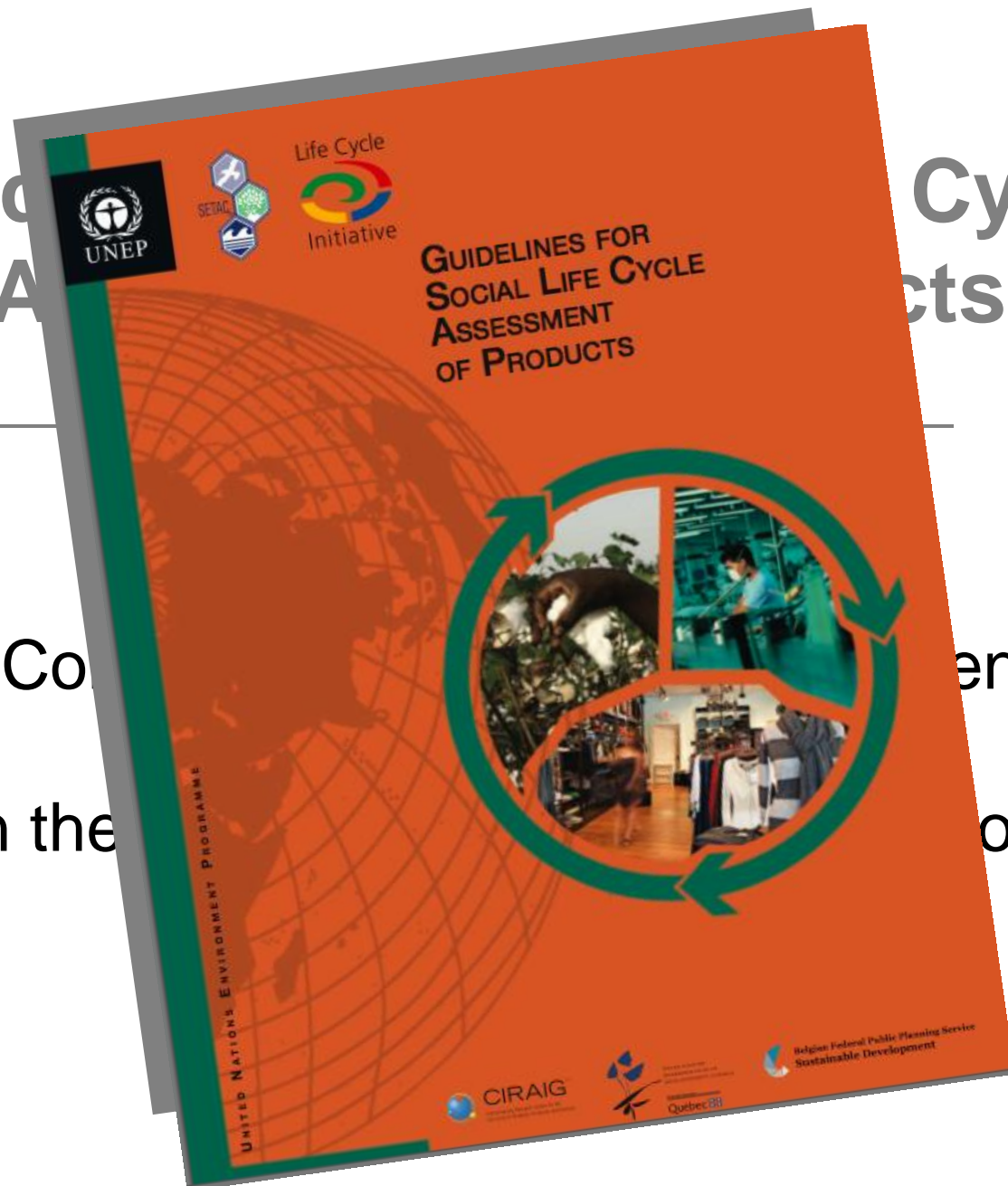


Guidelines for Social Life Cycle Assessment

Coherence within the development

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opment



CIRAIG



Belgian Federal Public Planning Service Sustainable Development



Project group members



Approximately 40 members

A multidisciplinary team with experts from universities, businesses, public authorities, coming mostly from Europe, but also from America, Asia and Africa.

Twelve meetings between april 2004 and april 2009

Phase I (2004-2006):

- ◆ Literature study
- ◆ Case Studies
- ◆ Feasibility study

Phase II (2006-2009):

- ◆ Indicators (incl. methodological sheets)
- ◆ Case studies
- ◆ Guidelines

The aim for a social LCA of products

“Consumers are asking themselves questions about the social and economic circumstances under which a product is made. Enterprises do not want to be linked to ‘child labor’ or ‘corruption’, neither within their organization, nor in their supply chain. Trade unions want to show solidarity with their fellow workers. Public authorities need to apply the integrated product policy in place, for example for their public procurement, etc. How can these stakeholders know that the particular goods and services are produced in a sustainable way?”

Benoît, C. and Mazijn, B. (2009), Guidelines for a social Life Cycle Assessment of Products, UNEP-DTIE, Paris.

Detailing the full assessment



	People	Plan	Profit/Prosperity
Internalities (Costs and benefits)	E.g. health and safety expenditures.		E.g. costs of raw materials, taxes, interest on capital.
Externalities (Costs and benefits)	E.g.	E.g. biodiversity or human health impacts from pollution	E.g. reduction in crop yields due to pollution

sLCA: Social and economic effects
 LCC: Microeconomic costs and benefits
 (e)LCA: Environmental impacts

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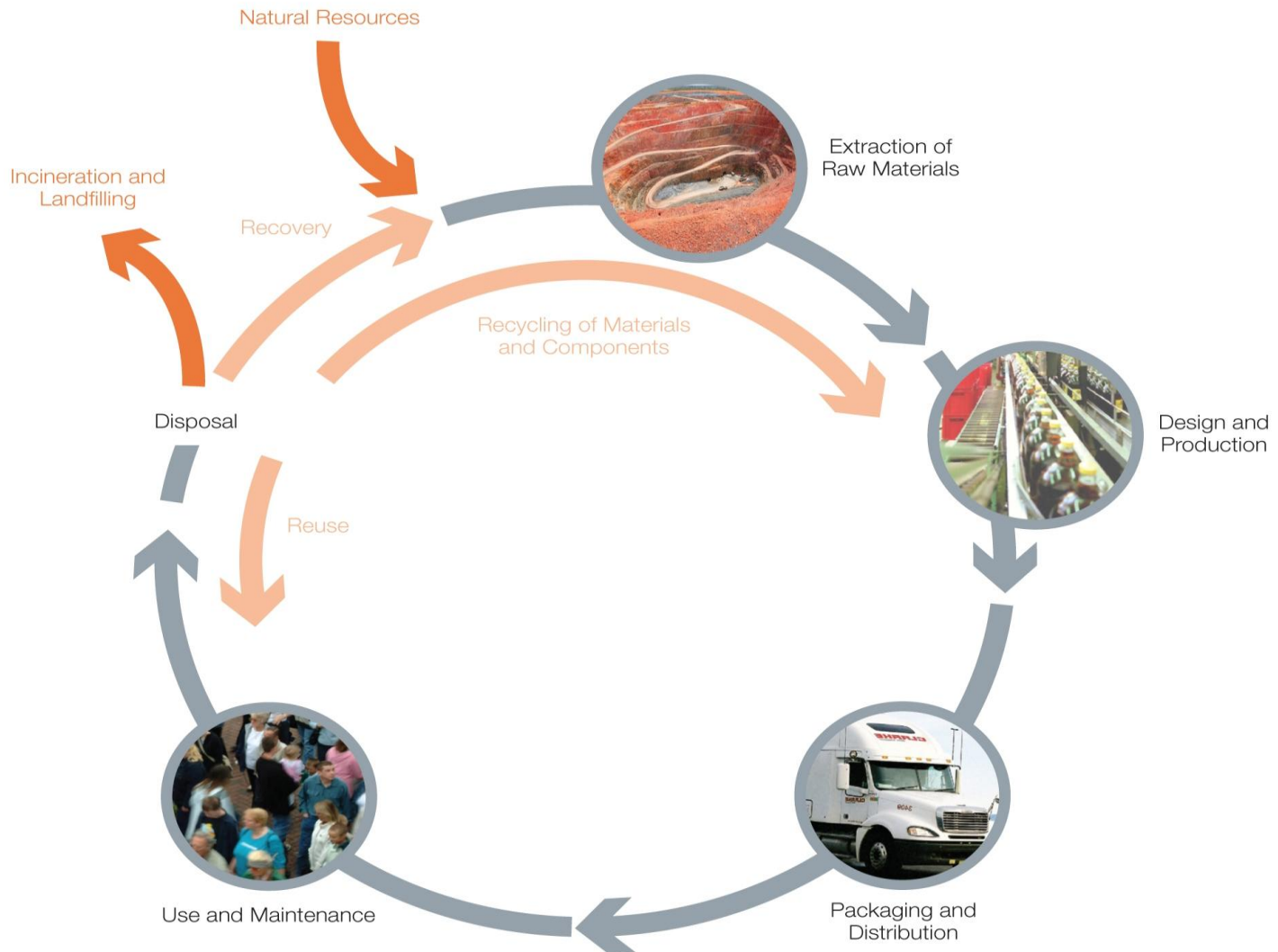
Social Life cycle analysis (S-LCA)



A social and socio-economic Life Cycle Assessment (S-LCA) is a social impact (and potential impact) assessment technique that aims to assess the **social and socio-economic aspects** of products and their potential **positive and negative impacts** along their life cycle

- encompassing extraction and processing of raw materials, manufacturing, use, re-use, maintenance, recycling and final disposal.

A methodology to assess the entire product life cycle



Goal of an S-LCA

The intended application of a S-LCA range from:

- ❖ Learning about and identifying social 'hotspots'
- ❖ Establishment of purchasing procedures
- ❖ Reporting and labeling
- ❖ Strategic planning
- ❖ Development of public policies.

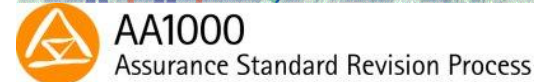
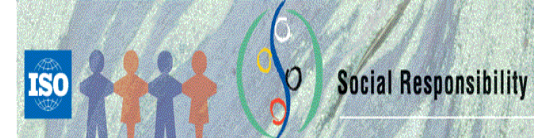
The intended audience may include the organization carrying out the study, trade unions and workers' representatives, consumers, governments, ngo's, IGO's, shareholders, product designers, etc.

Intermezzo

Linkages with other environmental and
social impact assessment tools



CSR Landscape

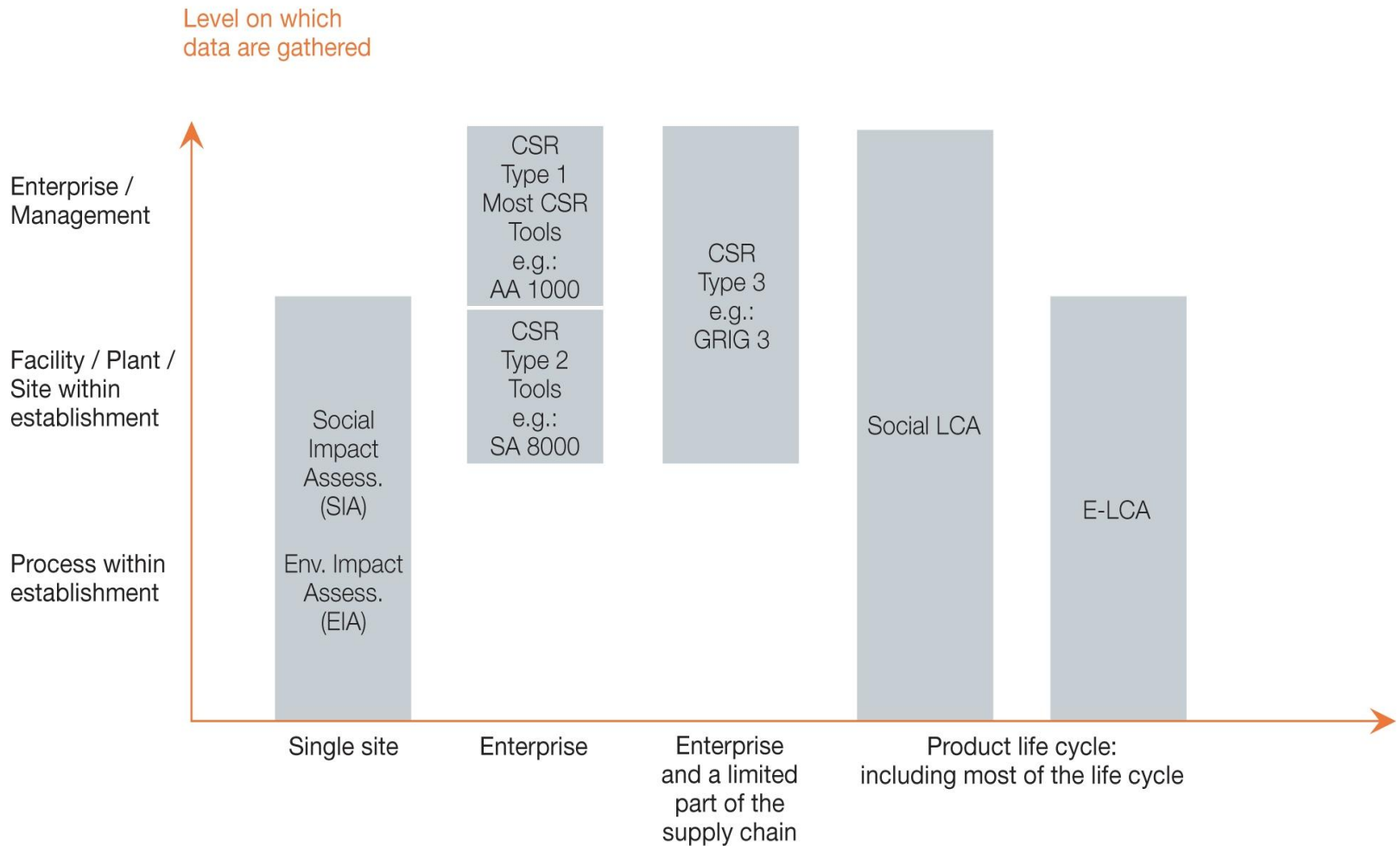


The world's first mainstream corporate accountability standard to be developed using a web-based wiki approach

“We need business to give practical meaning and reach to the values and principles that connect cultures and people everywhere.” *Ban Ki-moon | Secretary-General of the United Nations*



Level and scope of assessment



Scope of system over which results are gathered and reported in an assessment, possibly with aggregation

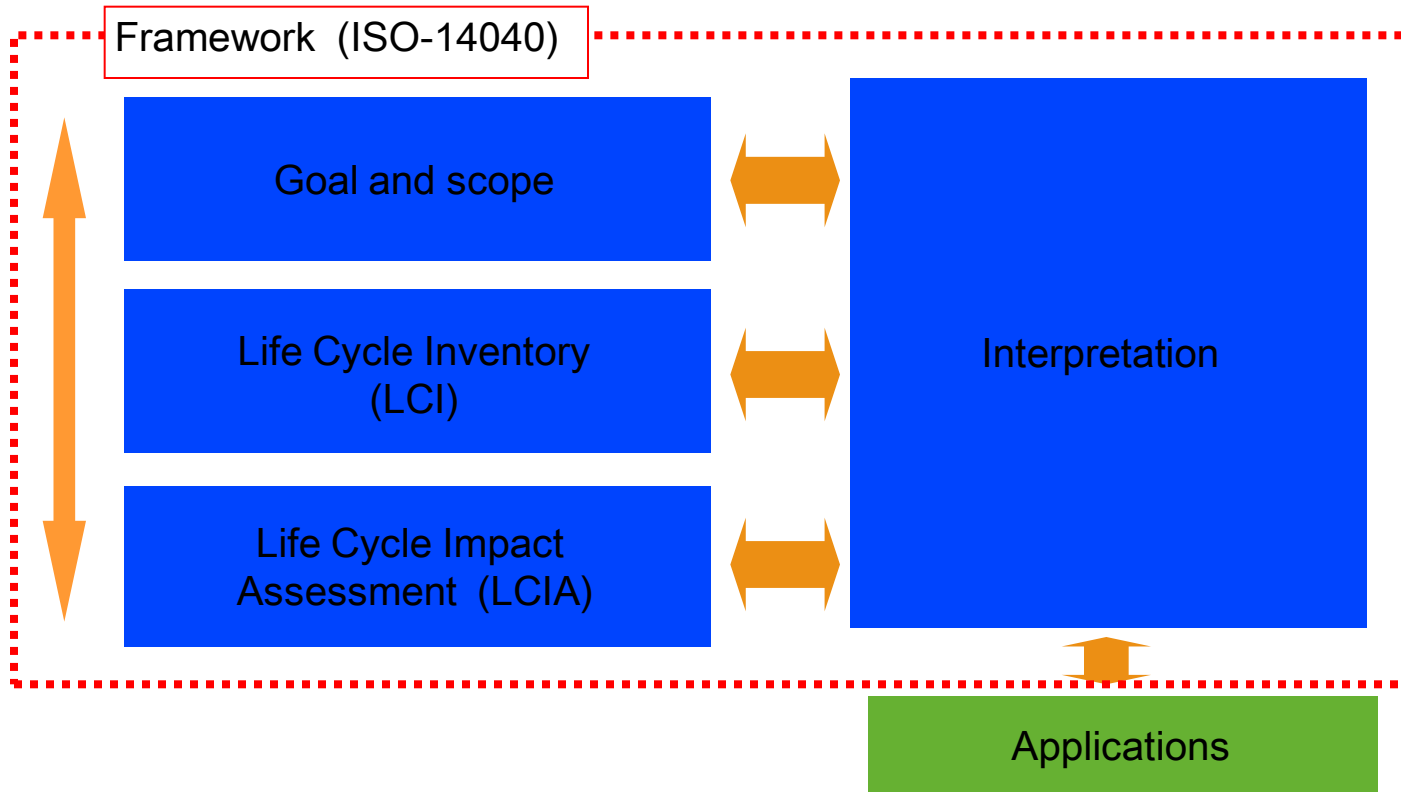
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Similarities between e-LCA and s-LCA

- ❖ Share a common trunk: the ISO framework
- ❖ Have a huge need for data
- ❖ Work as iterative procedures
- ❖ Encourage and request peer review if appropriate
- ❖ Provide useful information for decision-making
- ❖ ~~Whether or not a product should be produced~~
- ❖ Conduct 'hotspot' assessments
- ❖ Conduct data quality assessment
- ❖ Do not generally express impacts by functional unit, if semi-quantitative or qualitative data are used.

- ❖ More focus on organisational aspects (e.g. management behaviour)
- ❖ More focus on use phase impacts
- ❖ If impact subcategory is not included: justification
- ❖ Site-specific data more important
- ❖ Subjective data is sometimes the most appropriate information to use
- ❖ Benefits (negative damage) are often of importance
- ❖ Indicators are classified according to stakeholders

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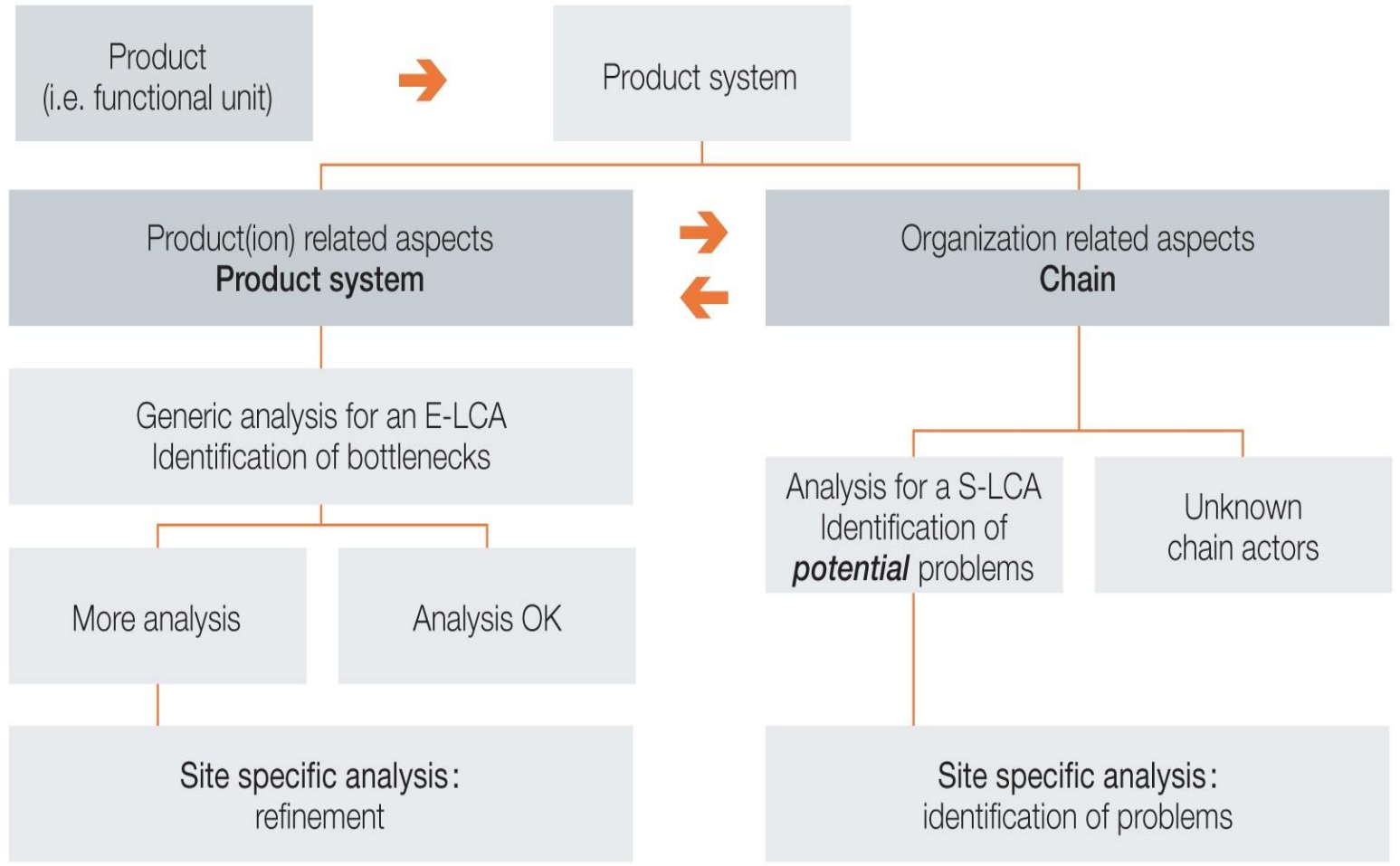


ISO 14040 applies to social issues

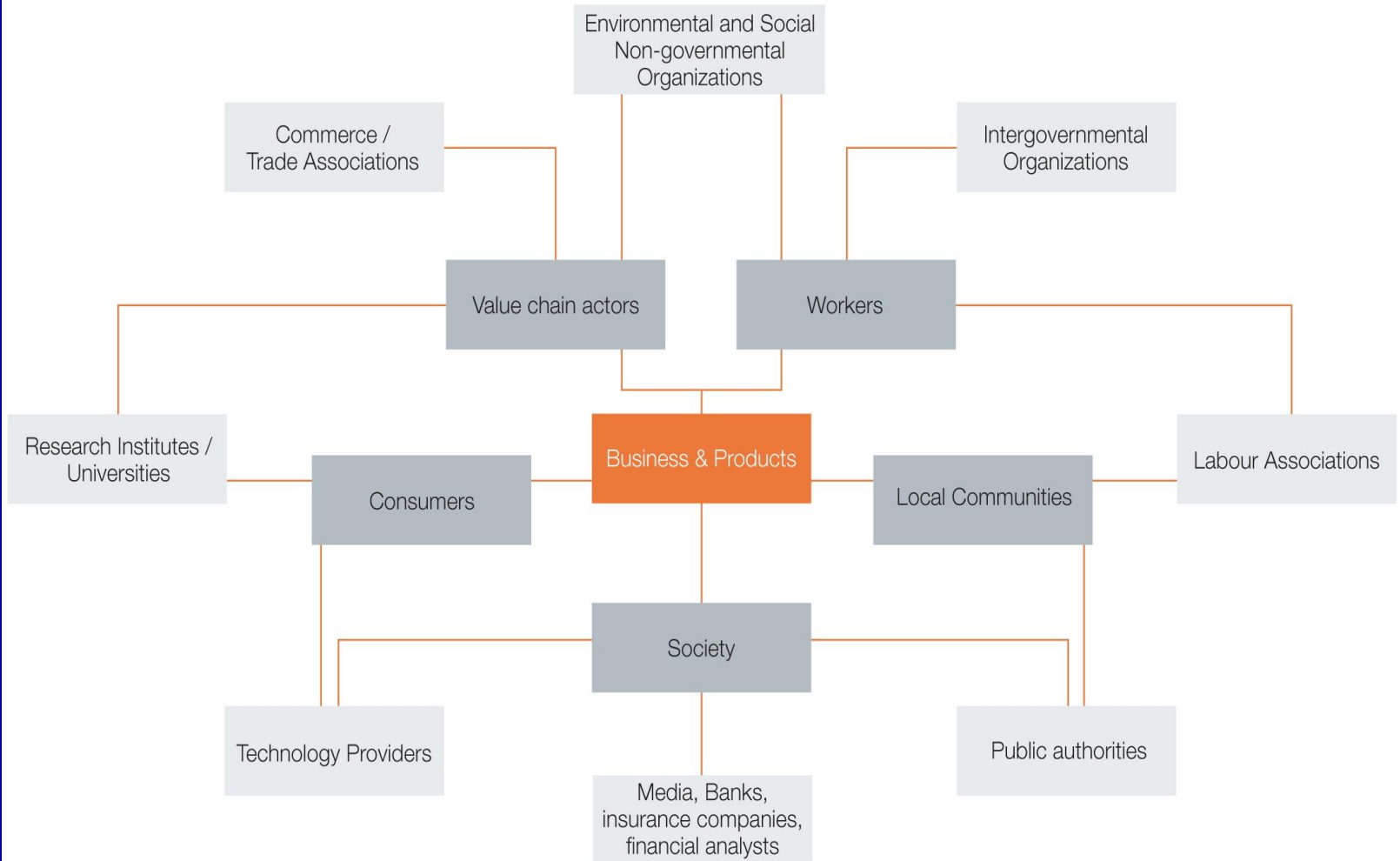


Phase of the study	Characteristics
<p>Goal and scope</p>	<p>The product utility is required to be described in functional terms, both in E-LCA and S-LCA. S-LCA goes further by also requiring that practitioners consider the social impacts of the product use phase and function.</p> <p>Whereas E-LCA encourages involvement of stakeholders (beyond the commissioners) in the peer review of the study, S-LCA encourages that such "external" stakeholders be involved in providing input on impacts, within the assessment itself.</p> <p>In S-LCA, justification needs to be presented when a subcategory is not included in the study. In E-LCA this is not a requirement.</p> <p>The subcategories are classified both by stakeholder categories and by impact categories in S-LCA. In E-LCA they are classified only by impacts categories.</p> <p>Whereas both E-LCA and S-LCA impact assessment methods may be sensitive to location, no E-LCA LCIA methods are site-specific, and E-LCA methods often define and use categories of location types that depend on physical factors such as geography type or population density. S-LCA may require site-specific LCIA in some cases, and may also need information about "political" attributes, such as the country and its laws.</p>
<p>Life Cycle Inventory</p>	<p>The activity variables²⁹ data is collected and used more often in S-LCA than in E-LCA (e.g. number of working hours for estimating the share of each unit process in the product system). In E-LCA, activity variables are used when data about impacts is not available.</p> <p>The subjective data is sometimes in S-LCA the most appropriate information to use. Bypassing subjective data in favor of more "objective" data would introduce greater uncertainty in the results, not less.</p> <p>The balance between quantitative, qualitative and semi-quantitative data will generally be different.</p> <p>The data sources will differ (coming from stakeholders).</p> <p>The data collection steps and methods vary (e.g. the irrelevance of mass balances).</p>
<p>Life Cycle Impact</p>	<p>The characterization models are different.</p> <p>The use of performance reference points is specific to S-LCA, e.g. thresholds.</p> <p>S-LCA encounters both positive and negative impacts of the product life cycle, beneficial impacts in E-LCA seldom occur.</p>
<p>Interpretation</p>	<p>The significant issues will differ.</p> <p>The addition of information on the level of engagement of stakeholders in S-LCA.</p>

Twofold analysis


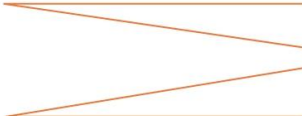





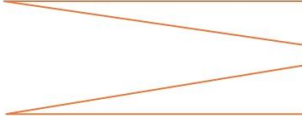








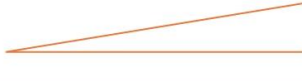



Stakeholder diagram



Assessment system




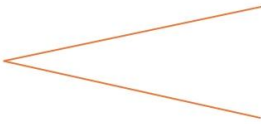
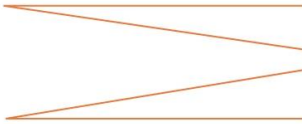



















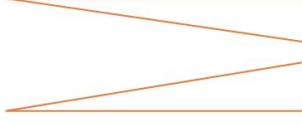

Stakeholder categories		Subcategories	Inv. indicators	Inventory data
Workers				
Local community				
Society				
Consumers				
Value chain actors				
				



Stakeholder categories	Subcategories
Stakeholder "worker"	<ul style="list-style-type: none"> Freedom of Association and Collective Bargaining Child Labour Fair Salary Working Hours Forced Labour Equal opportunities/Discrimination Health and Safety Social Benefits/Social Security
Stakeholder "consumer"	<ul style="list-style-type: none"> Health & Safety Feedback Mechanism Consumer Privacy Transparency End of life responsibility
Stakeholder "local community"	<ul style="list-style-type: none"> Access to material resources Access to immaterial resources Delocalization and Migration Cultural Heritage Safe & healthy living conditions Respect of indigenous rights Community engagement Local employment Secure living conditions
Stakeholder "society"	<ul style="list-style-type: none"> Public commitments to sustainability issues Contribution to economic development Prevention & mitigation of armed conflicts Technology development Corruption
Value chain actors* not including consumers	<ul style="list-style-type: none"> Fair competition Promoting social responsibility Supplier relationships Respect of intellectual property rights

Assessment system



	Impact categories	Subcategories	Inv. indicators	Inventory data
	Human rights	 		
	Working conditions	 		
	Health and safety	 		
	Cultural heritage	 		
	Governance	 		
	Socio-economic repercussions	 		

Impact categories



Aggregation/ characterization

Subcategories



Aggregation/ characterization

Inventory indicators
























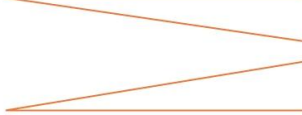




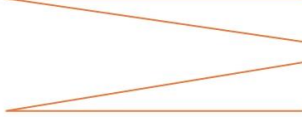



Life Cycle Inventory data



Assessment system



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Methodological sheets

- Name
- Brief definition
- Unit of measurement
- Monitoring (at company level, geographical level, industry level)
- Purpose
- Relevance to (un)sustainable development
- International conventions and agreements
- International targets/Recommended standards
- Linkages to other indicators
- Underlying definitions and concepts
- Measurement methods
- Limitations of the indicator
- Status of the methodology
- Alternative definitions/indicators
- Data needed to compile the indicator
- National and international data availability and sources
- Literature references
- Internet sites

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Future steps

- Conducting case studies
- Producing educational material
- Developing tools (software and database)
- Developing characterization models
- Practicing peer review
- Developing meaningful ways to communicate results to key audiences

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**In conclusion,
quoting from the event launching the ‘Guidelines’
(Québec, May 18, 2009)**

“When you are working with social and economic criteria, in fact you have the same intention as Adam Smith, the economist of the 18th Century, who explained so eloquently how to arrive at ‘The Wealth of Nations’. One of his well-known statements is related to the ‘invisible hand’ and I quote from the theory:

‘If each consumer is allowed to choose freely what to buy and each producer is allowed to choose freely what to sell and how to produce it, the market will settle on a product distribution and prices that are beneficial to all the individual members of a community, and hence to the community as a whole.’”

**In conclusion,
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“Almost 250 years after the publication of his so-called *magnum opus*, at present we know from practice, and more cruel since the economical crisis, that this ‘invisible hand’ has not allowed sustainable production and consumption at all. Our Task Force suggested more than 30 indicators divided in 5 big categories ... With this publication ... we are offering a pair of glasses contributing to render this invisible hand visible. To long it has left discrimination, corruption, child exploitation and all these injustices, which are unacceptable for the construction of a real ‘Wealth of Nations’.”



For more information



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