

Methodology of the social LCA

Bernard MAZIJN, Chair Project Group on sLCA
(under the UNEP/SETAC Life Cycle Initiative)



Brussels, 7 October 2010

Content

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



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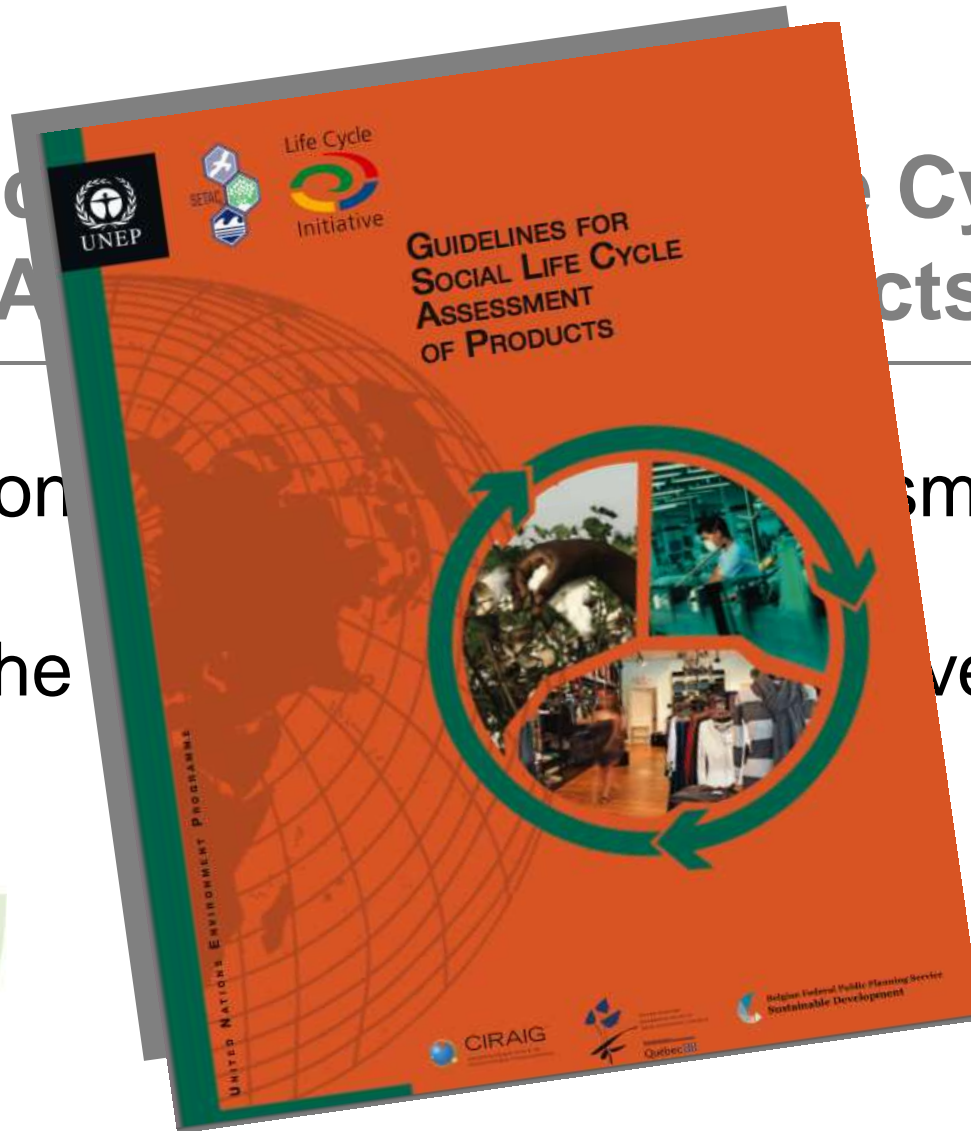


Guidelines for Social Life Cycle Assessment of Products

Contribution to Sustainable Development

within the

development



Guidelines for S-LCA

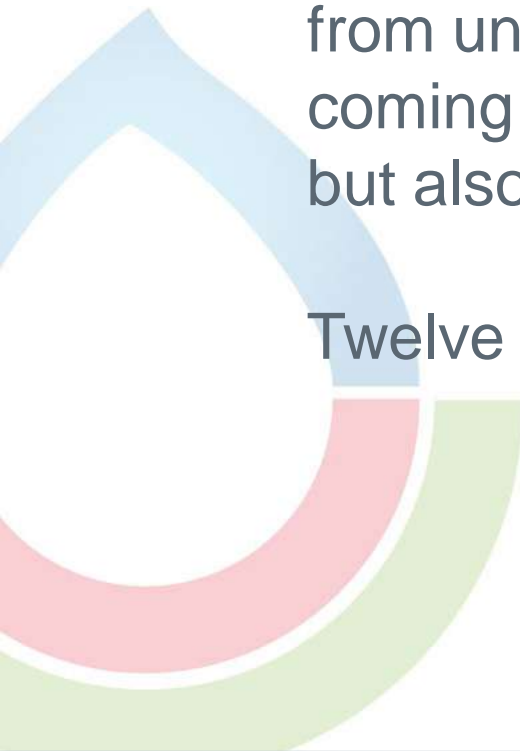
- Describes the context, the key concepts, the broader field in which tools and techniques are getting developed and their scope of application.
- Provides a general framework for the assessment of social and socio-economic impacts in product life cycle thus complementing ISO 14040 and 14044
- Propose a list of subcategories (theme of interest) to include in studies
- Identify key research needs

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



Project group work program

Phase I (2004-2006):

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

Phase II (2006-2009):

- ◆ Indicators (incl. draft 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?”

Detailing the full assessment

	People	Planet	Profit/Prosperity
Internalities (Costs and benefits)	E.g. health and safety expenditures.	E.g. ...	E.g. costs of raw materials, taxes, interest on capital.
Externalities (Costs and benefits)	E.g. improved well-being	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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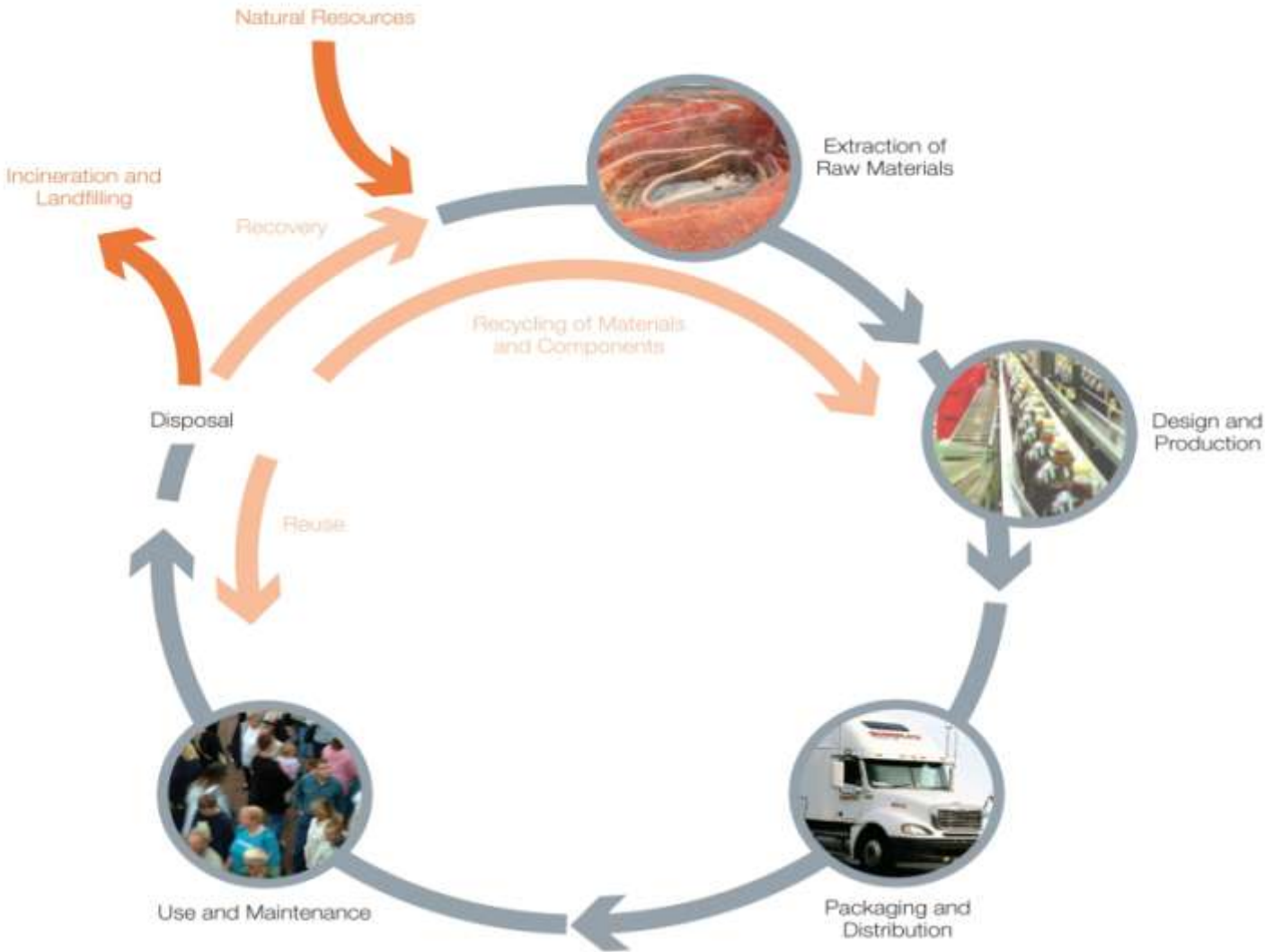
Social Life Cycle Assessment (S-LCA)

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



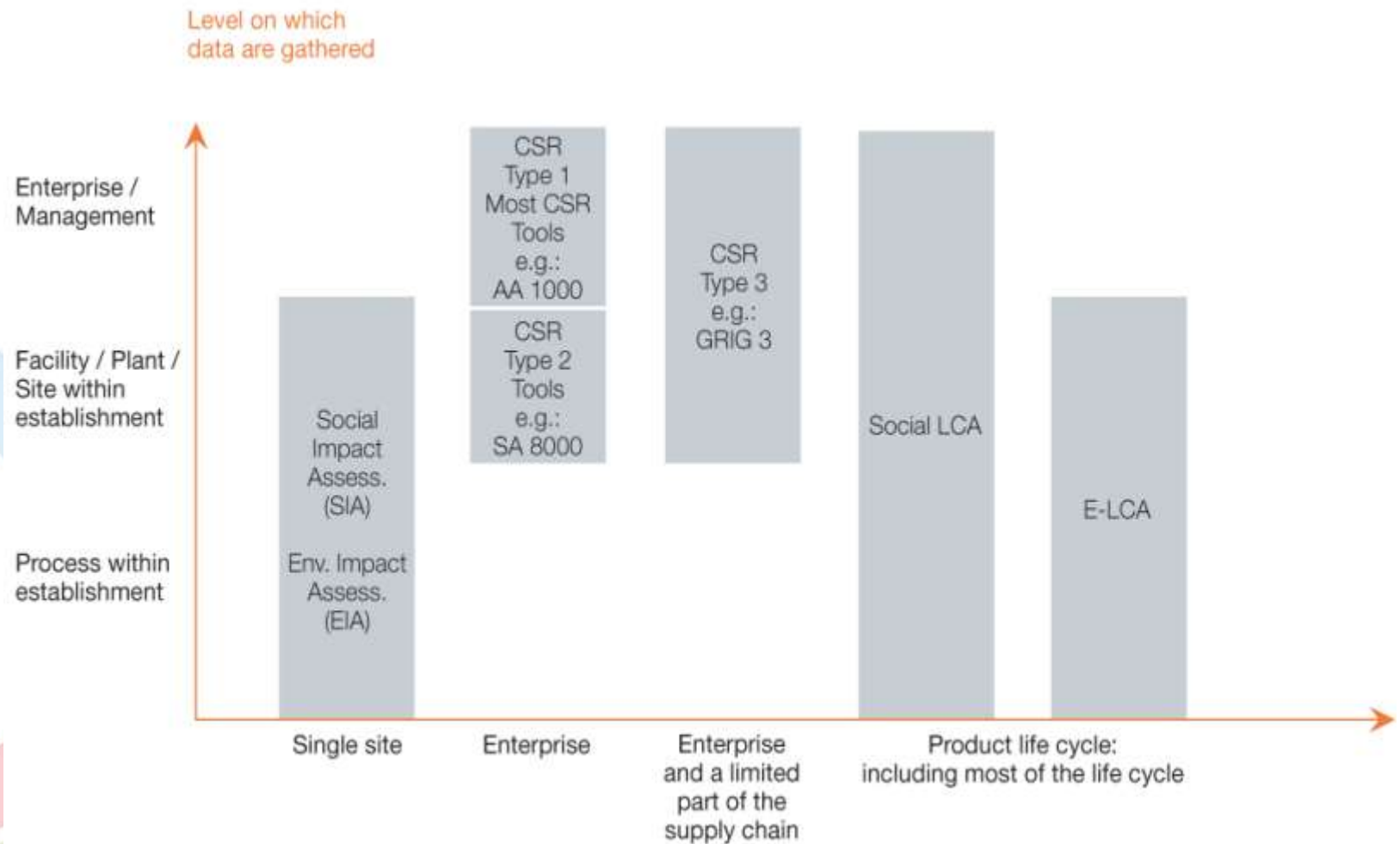
The world's first mainstream corporate accountability standard to be developed using a web-based wiki approach



“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
- ❖ ~~When and how 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.

Differences with an e-LCA

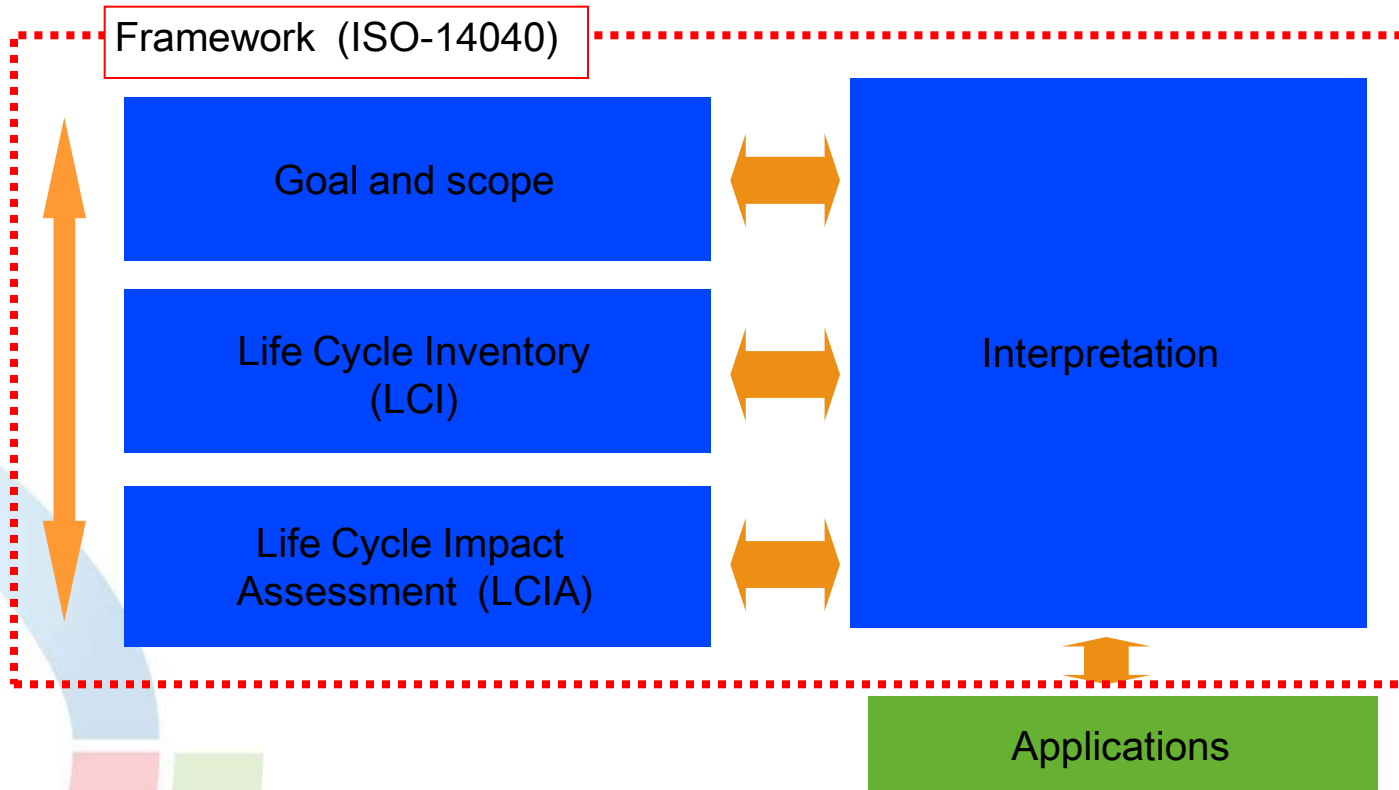
- ❖ More focus on organisational aspects (e.g. management behaviour)
- ❖ More focus on use phase impacts
- ❖ If impact subcategory is not included: justification
- ❖ Site-specific data more important
- ❖ Subjective data is sometimes the most appropriate information to use
- ❖ Benefits (negative damage)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

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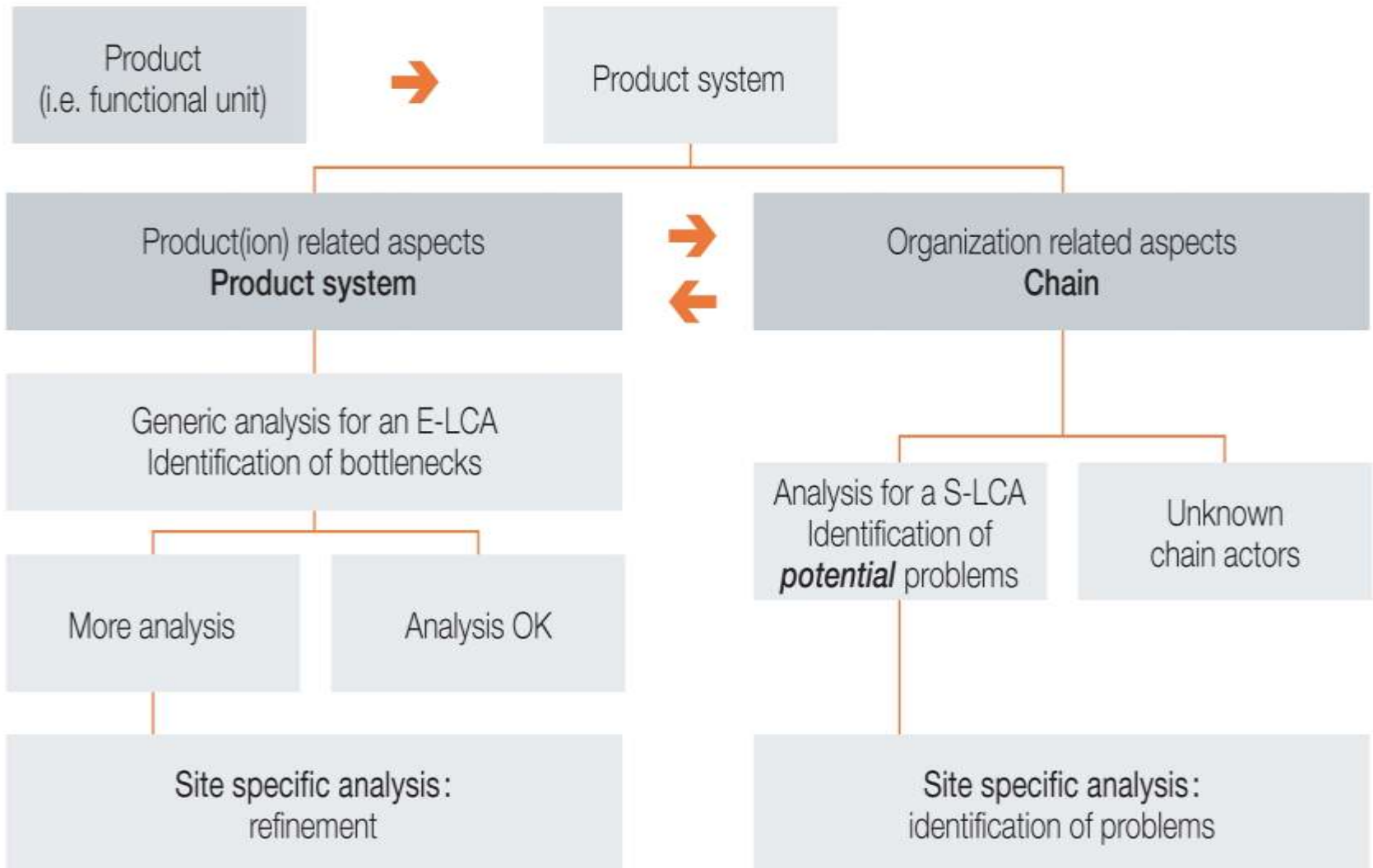
Framework



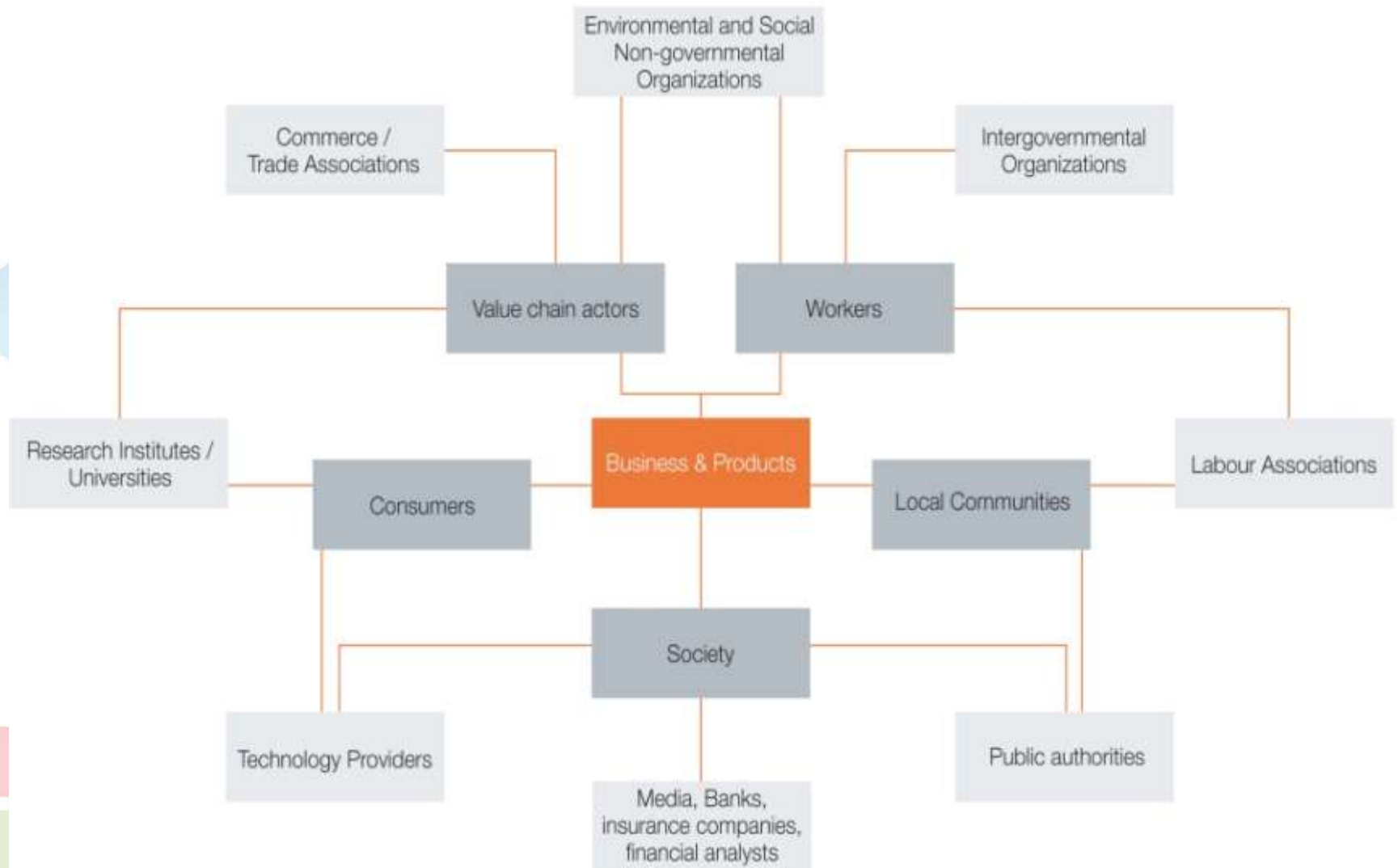
ISO 14040 applies to social issues

Phase of the study	Characteristics
Goal and scope	<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>
Life Cycle Inventory	<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>
Life Cycle Impact	<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>
Interpretation	<p>The significant issues will differ.</p> <p>The addition of information on the level of engagement of stakeholders in S-LCA.</p>



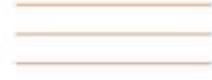


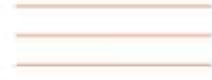












Twofold analysis



Stakeholder diagram






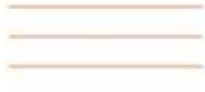


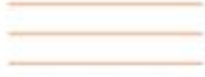











Assessment system

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

Stakeholder categories	Subcategories
Stakeholder "worker"	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"	Health & Safety Feedback Mechanism Consumer Privacy Transparency End of life responsibility
Stakeholder "local community"	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"	Public commitments to sustainability issues Contribution to economic development Prevention & mitigation of armed conflicts Technology development Corruption
Value chain actors* not including consumers	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			

Framework



Assessment system

Stakeholder categories	Impact categories	Subcategories	Inv. indicators	Inventory data
Workers	Human rights	■		
Local community	Working conditions	■		
Society	Health and safety	■		
Consumers	Cultural heritage	■		
Value chain actors	Governance	■		
	Socio-economic repercussions	■		

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Structure of the Methodological Sheets

- DEFINITION:
- POLICY RELEVANCE:
 - Relevance to Sustainable Development
 - International Conventions and Agreements
 - International Targets/Recommended Standards
- ASSESSMENT OF DATA
 - Data Needed to Compile the Subcategory
 - National and International Data Availability and Sources:
 - GENERIC DATA SOURCE EXAMPLES
 - SITE-SPECIFIC DATA SOURCE EXAMPLES
- REFERENCES

Example : Freedom of association (1)

STAKEHOLDER: Worker

Freedom of Association and Collective Bargaining



Methodological sheet:

SUBCATEGORY - Freedom of Association and Collective Bargaining -

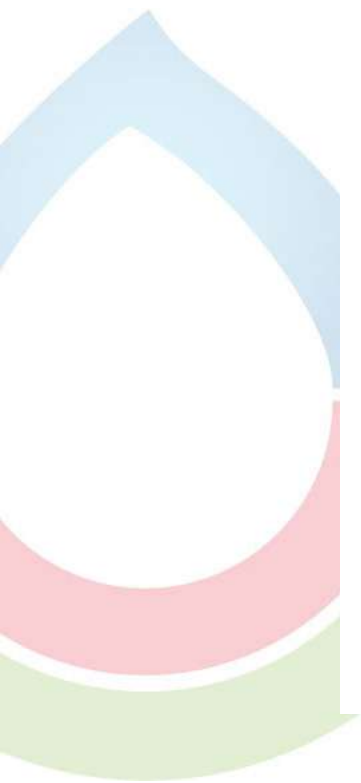
DEFINITION:

All workers and employers have the right to establish and to join organizations of their choice, without prior authorization, to promote and defend their respective interests, and to negotiate collectively with other parties. They should be able to do this freely, without interference by other parties or the state, and should not be discriminated as a result of union membership.

Freedom of association is a fundamental human right and, together with collective bargaining, a core dimension of the International Labor Organization's work. The freedom to associate involves employers, unions and workers representatives freely discussing issues in order to reach agreements that are jointly acceptable.

The right to organize includes the right of workers to strike, the rights of organizations to draw up their constitutions and rules, to elect their representatives in full freedom, to organize their activity freely and to formulate their programmes.

Freedom of association, the Right to Organize and Collective Bargaining are assessed and monitored via this subcategory.



Example : Freedom of association (2)

Examples of Inventory Indicators, Units of Measurement and Data Sources:

GENERIC ANALYSIS (HOTSPOTS)

Inventory Indicator	Unit of Measurement	Data Available
Evidence of restriction to Freedom of association and Collective bargaining	Semi-quantitative	International Trade Union Confederation (ITUC) http://survey09.ituc-csi.org/
Evidence of country/sector/organization or factory non respect or support to Freedom of association and Collective bargaining	Quantitative, semi-quantitative, qualitative	Daily trade union news Labourstart http://www.labourstart.org/
GRI: HR5 Operations identified in which the right to exercise freedom of association and collective bargaining may be at significant risk, and actions taken to support these rights	Semi-quantitative, qualitative	Organizations GRI Sustainability reports



Example : Freedom of association (3)

SPECIFIC ANALYSIS

Inventory Indicator	Unit of Measurement	Data Available
Employment is not conditioned by any restrictions on the right to collective bargaining	Qualitative/Semi-Quantitative	<ul style="list-style-type: none"> · Employment contract · Interview with directors or human resources officer · Interview with workers and trade union representatives · NGOs reports · Regulations
Presence of unions within the organization is adequately supported (Availability of facilities to Union, Posting of Union notices, time to exercise the representation functions on paid work hours)	Qualitative/Semi-Quantitative	<ul style="list-style-type: none"> · Visit to facility · Interview with directors or human resources officer · Interview with workers and trade union representatives · NGOs reports

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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,
quoting from the event launching the 'Guidelines'
(Québec, May 18, 2009)

“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:
socialca@gmail.com

'Guidelines ...' are available on
the Life Cycle Initiative web site:
<http://lcinitiative.unep.fr/>

