HANDBOOK

Handbook for

Product Social Impact Assessment

Roundtable for Product Social Metrics

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Acknowledgements

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Executive Summary

Whereas the business evolution of environmental sustainability metrics and methodology has advanced significantly over the past decade, social sustainability at product level is still relatively immature. Research continues to support the front runners on organisational sustainability, while workable solutions at product level and complex issues have not yet been addressed sufficiently. Triggered by these practical dilemmas, a group of experts from large companies decided to join forces, initiating the Roundtable for Product Social Metrics.

Starting in early 2013, this working group aimed to i) consolidate principles for product social sustainability assessment and harmonise approaches, ii) align with other global initiatives and share with other companies and iii) develop solutions for cross-cutting implementation issues. The results of the first two phases of the Roundtable for Product Social Metrics are documented in this handbook, which proposes a practical methodology for organisations to assess the social impacts of products, building on existing standards at global level. In addition, given the Roundtable's wish to achieve broader consensus and credibility, this document reflects the development process as well as the end results.

This handbook outlines an aligned methodology for social impact assessment at product level. The work of the Roundtable is based on the approaches of the participant companies and external references such as UNEP SETAC Guidelines for Social Life Cycle Assessment of Products (UNEP SETAC, 2009) and corporate level standards (GRI, 2013; ISO, 2010). Given the lack of global standards on methodologies for social impact assessment at product level, the Roundtable developed this methodology through gaining an understanding of and drawing upon the various methods already applied by the members of the Roundtable. In addition, guiding principles were defined for the development of this work. These include a focus on the practical feasibility for organizations to conduct product social impact assessment, using a consistent method and making efficient use of human and financial resources.

The stages of the methodology are illustrated below. The methodology allows reasoned assessment of overall performance by including social topics and performance indicators that reflect positive and negative impacts of the product on three stakeholder groups: workers, consumers and local communities. 19 social topics are proposed, together with their individual performance indicators, including detailed definitions. .

| Goal and scope | Data inventory | Referencing | Social topic scores | Weighting (1st level) | Stakeholder groups scores | Weighting (2nd level) | Total score |

Application examples and recommendations for the communication of results are also included in the handbook. The methodology can be applied in numerous scenarios, from understanding improvement opportunities and steering product development in different stages, to providing support for decision making and external communications. Ultimately, by supporting the assessment of social performance, this handbook aims to enable organisations to achieve greater transparency on the social impacts of their products.

Glossary

Approach:
Methodology to assess the social impact of a product along its life cycle.

Business to Business (B2B):
Describes the relationship and selling process of goods and services between businesses, for instance, between a manufacturer and ingredient supplier. Most B2B products are purchased by companies to be used in their own manufacturing process, producing goods and services to be sold on.

Business to Consumer (B2C):
Business or transactions conducted directly between a company and the consumers who are the end-users of its products or services.

Consumers:
The end-users of the product.

End of life:
Last stage of a product life cycle when, after disposal, the product is refurbished for reuse, recycled, incinerated or landfilled.

Guidelines:
Set of recommendations that provide guidance on how to develop, implement or conduct an assessment in an effective and appropriate manner.

Local communities:
People living in the surroundings of any one of the life-cycle stages of a given product impacted by the company's activities.

Stakeholder groups:
Groups on which the product has an impact along its life cycle, such as workers, consumers and local communities.

Social topics:
Social areas related to stakeholder groups that should be measured and assessed, for example, working hours, community engagement, child labour, etc.

Performance indicators:
Quantitative and qualitative markers of performance for each of the social topics, e.g. number of working hours during weekends, minimum salary paid, etc.

Principles:
Guiding rules that have been considered while developing this handbook, or should be considered while conducting Product Social Impact Assessment or embedding it as a tool in the company.

Product Social Impact Assessment:

Methodology to assess the social impacts of a product or a service on stakeholder groups throughout the life cycle of the product. Although the methodology describes the steps that have to be followed, it should not prescribe how companies apply the assessment to their normal business processes. Moreover, although it may be associated with the acronym social LCA, it does not prescribe full alignment with the recommendations of the ISO 14040 norm for life-cycle assessment.

Service:

Intangible commodity equivalent to a product supplied by service industries, such as childcare, construction, entertainment and telecommunications. It does not refer to services such as warranties and service contracts associated with a tangible product.

Workers:

People who are paid to perform work related to the product or service, i.e. in the supply chain, manufacturing, retail or end-of-life processes. It includes formal workers (i.e. employees with formal contracts, including temporary and part-time workers), workers employed through agencies or contractors, informal workers (i.e. workers without formal contracts), apprentices and trainees, migrant workers and homeworkers.

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1 Introduction

Whereas the business evolution of environmental sustainability metrics and methodology has advanced significantly over the past decade, social sustainability at product level is still in its early stages. Furthermore, whilst most large companies have well-established company-level social compliance programmes which comply with international and industry standards, there is no general agreement on how to assess social sustainability at product level. While there is clear consensus on the need to address social issues, a workable, robust and aligned methodology for measuring and managing social impacts does not exist at product level.

Organisations have started to develop in-house methodologies to assess the social impacts of their products based on guidance at global level. These include the UNEP SETAC Guidelines for Social Life Cycle Assessment of Products (UNEP SETAC, 2009) and corporate level standards (GRI, 2013; ISO, 2010; UNGC, 2004), together with company codes of conduct and values. Although attempts to develop such methodologies are to be admired, there seems to be little harmonisation across peer-to-peer approaches.

In response to this, a group of companies initiated the Roundtable for Product Social Metrics to address these concerns and to develop a harmonised methodology through a shared and collaborative approach. The results of this collaboration are documented in this handbook, proposing a practical and harmonised methodology which organisations can apply to assess the social impacts of products whilst building on existing standards at a global level.

Ultimately, by supporting the assessment of social performance, this handbook will enable organisations to be more transparent about the social impacts of their products. Transparency at product level presents numerous opportunities, allowing companies to identify and improve the most pressing issues, report in a robust and meaningful manner, and drive new product innovation. Perhaps most importantly, given the increasing stakeholder expectations on corporate responsibility, product social assessment provides the opportunity to build brand equity and significantly enhance company reputation.

1.1 Product Social Impact Assessment

Definition and stakeholder groups
Product Social Impact Assessment as outlined in this handbook means the evaluation of the potential social impacts of a product or a service throughout its life cycle.

The boundary of the assessment is cradle to grave or cradle to gate, as follows:
• Cradle to grave: includes the whole supply chain, from raw material extraction to manufacturing, retail, consumption, and end of life.
• Cradle to gate: includes part of the supply chain, from raw material extraction to a tier in the supply chain.

The assessment covers the impacts on three stakeholder groups as shown in Figure 1: workers, consumers and local communities. These three groups include those who are directly impacted by the product, or live close to its production, use or disposal. The first two groups are directly related to the product, as they include those who either use the product, or work within the supply chain, product manufacturing, or a role associated with treatment of the product at disposal. The final group, local communities, includes those who are directly impacted by the product because they live in the surroundings of any one of the life-cycle stages.

Life cycle stages		
Supply chain raw material extraction, manufacturing and retail	**Consumption**	**End of life**
Workers	Consumers	Workers
Local communities		

Figure 1: Stakeholder groups included in the assessment

Key objectives

Product Social Impact Assessment is designed to address three main objectives:

1. Make positive and negative impacts of products measurable and visible

Social impact assessment should flag both the social issues and the social benefits associated with a product. This can help steer programmes for performance improvement on identified hotspots as well as adding value to the product by highlighting positive social impacts.

2. Support decision making and communication at product level

Primarily, Product Social Impact Assessment has to support the monitoring of product performance and subsequent internal communication and decision-making. At a later stage, it may also function as a tool for the company to support B2B communication and dialogue with external stakeholders, including potential regulatory discussions. Additionally, in a more advanced stage, it may also provide support for product marketing in B2B and B2C communication.

3. Contribute to overall sustainability assessment

Initially, Product Social Impact Assessment is a stand-alone tool to support social sustainability. Furthermore, as it is also consistent with the principles of environmental and economic assessments, it could be integrated into one overall sustainability assessment of a product. However, this integration is not addressed in this handbook.

>> More about sustainability assessment at product level and its business value in Annex 2.1

1.2   The handbook

1.2.1   Application

This handbook aims to provide guidance for social impact assessment of products and services. Since embedding sustainability across the organisation requires engagement and adoption by all business functions, the methodology proposed in the handbook must be accessible to a broad cross-section of business users, including sustainability teams, human resources, purchasing and marketing departments.

>> More about key users in Annex 2.2

1.2.2 Guiding principles

The guidance proposed in this handbook is supported by key principles. The principles provide both the guiding rules considered during handbook development and the foundation on which companies can assess product social impacts. Principles 5 to 12 should be considered whilst conducting Product Social Impact Assessments.

Table 1: Guiding principles

1. **Principles for the development of the guidance handbook:**
   Guidance for product social sustainability should focus on the practical feasibility for companies to use and implement the methodology within their respective organisations, allowing businesses to develop it organically, as well as to improve performance based on an aligned and transparent methodology.
   (New *application* principle)

2. Guidance should support companies in implementing product social sustainability and in conducting Product Social Impact Assessment using a consistent process, thus also allowing B2B communication.
   (New *harmonisation* principle)

3. **Principle for defining impact:**
   Social topics and performance indicators should reflect positive and negative impacts of the product to enable a reasoned assessment of overall performance.
   (Adapted from the *balance* principle of the GRI)

4. **Principle for the implementation of product social sustainability into the company:**
   The sustainability department should identify homogenous groups of internal and/or external stakeholders affected positively and negatively by the product along its life cycle.
   (Adapted from the *stakeholder inclusiveness* principle of GRI)

5. **Principle for identifying relevance:**
   The assessment should cover social topics that are significant for the overall evaluation of the social impact of the product, which can have an impact on the business and/or influence external stakeholders' perceptions of the product.
   (Adapted from the *materiality* principle of GRI)

6. **Principles for impact assessment:**
   The assessment should include the three stakeholder groups: workers, consumers and local communities. In addition, the impact assessment should not be conducted in a way that one stakeholder group is given a higher weighting at the expense of the others.
   (New *stakeholder balance* principle)

7. Impact assessment should make efficient use of human and financial resources (e.g. by applying a limited but effective set of indicators) and should take a realistic approach.
   (Adapted from the practical focus principle of ISEAL)

8. **Principles for data and verification:**
Data collected to support the assessment should be gathered, recorded, compiled, and in the event of external verification, eventually disclosed in a way that establishes the quality and the relevance of the information.
(Adapted from the *reliability* principle of GRI)

9. Data should be recorded and the impact assessment should be documented in a way that the assessment can be reproduced within the organisation.
(New *reproducibility* principle)

10. **Principles for communicating the results:**
Information should be made available in a form which is understandable and accessible to users of the assessment report.
(Adapted from the *clarity* principle of ISEAL)

11. Evaluations and impact assessments should be consistent and credible, allowing them to be used by stakeholders to show the contribution of a product towards social sustainability.
(Adapted from the *quality* principle of ISEAL)

12. Assessment reports should be relevant, accurate, concise and engaging.
(Adapted from the *effective communication* principle of ISEAL)

1.2.3 Handbook structure

The Product Social Impact Assessment recommended in this handbook focuses on feasibility of application, allowing businesses to implement and develop it as part of an ongoing process, as well as to improve performance based on a consistent and transparent methodology. It covers three key areas:

1. Impact assessment methodology: guidance on how to make the assessment, i.e. how to capture social performance using relevant data, interpret the performance indicators, and assess the performance and impacts of a product. However, a recommended impact assessment method should not prescribe how companies embed the outcomes of the assessment into their normal business processes.

2. Social topics: social areas related to stakeholder groups that should be measured and assessed, such as working hours, community engagement, child labour, etc.

3. Performance indicators: performance markers for each of the social topics, for example, number of working hours per week, minimum salary paid, etc.

The interrelationship between the three areas above (Figure 2) and the stakeholder groups introduced in section 1.1 is described more fully in the following chapter.
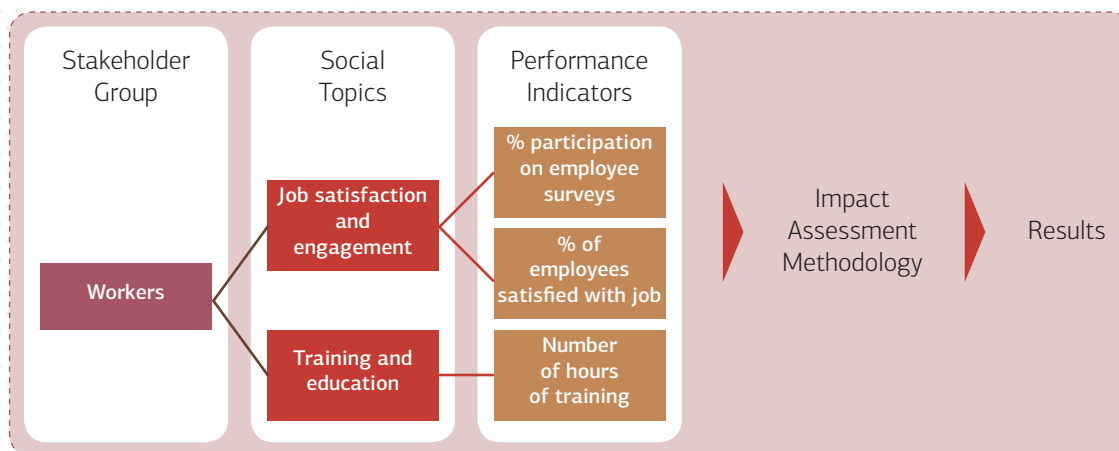
Figure 2: Key components of Product Social Impact Assessment

2 Impact assessment method

The impact assessment method allows for aggregation of performance indicators into social topic scores, stakeholder scores and the total score. Figure 3 below illustrates the data flow within the method.
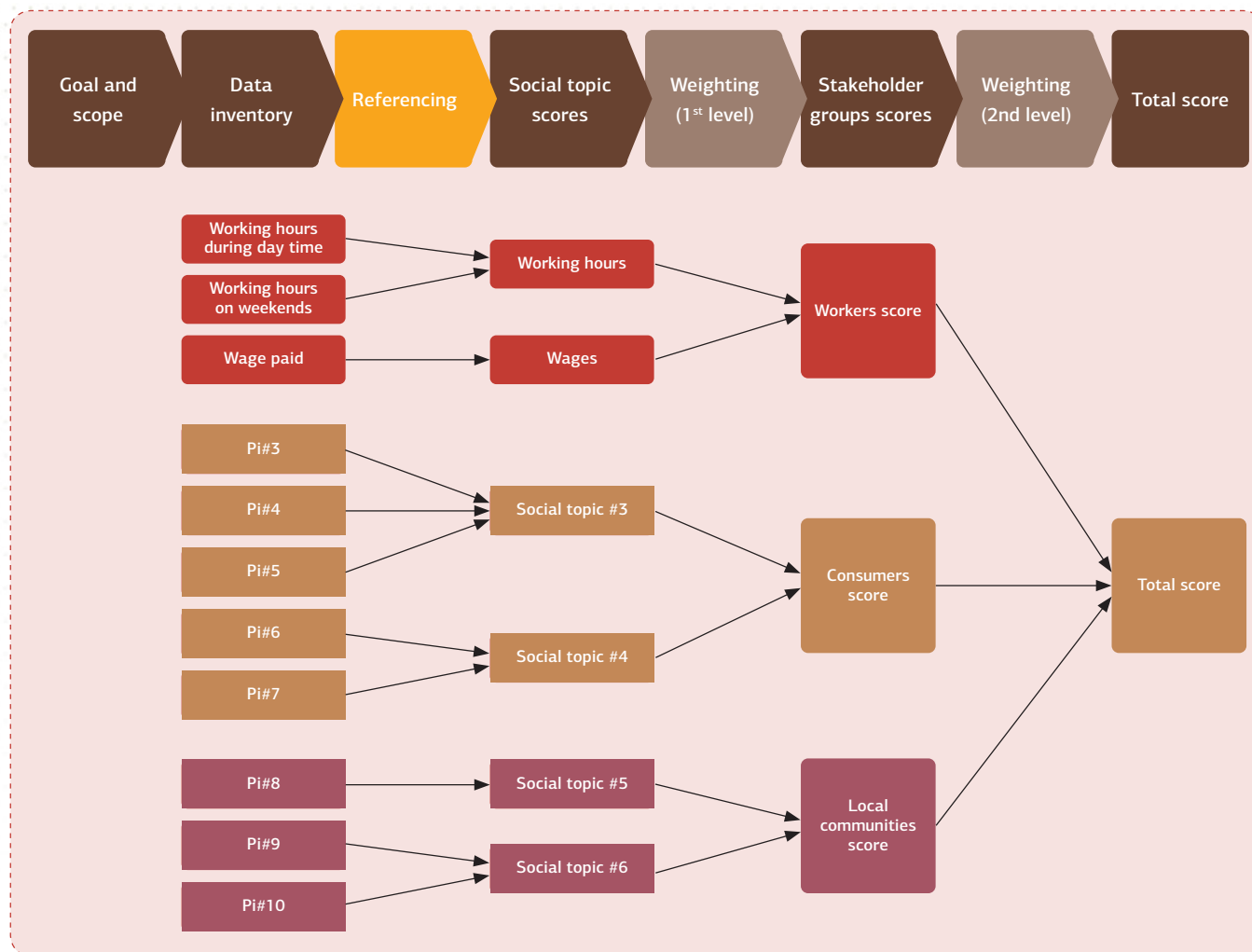
Figure 3: Typical data flow within the impact assessment method

Companies use two different types of metrics, some focusing on full quantification of all data, while others use a scale. The method described here accommodates both approaches. Although there is no significant fundamental difference, the two approaches can result in different scores due to the way data are collected, put into context (i.e. using reference values or reference scores), and how the performance indicators are then aggregated into the social topic scores.

>> **More about the development of the impact assessment method in Annex 4**

2.1 Steps of the harmonised impact assessment method

As companies use different terminology, the first step is to introduce the stages and propose common terminology (Table 2).

Table 2: Descriptions of assessment terminologies

Symbol	Meaning
Goal and scope	The product to be assessed is described, and the goal and the scope of the assessment are clearly defined.
Data inventory	Data collection per performance indicator. Data are either quantitative (number or ratio) or qualitative.
Referencing	Data are interpreted and put into context based on a reference. **Quantitative approach:** quantitative data are multiplied or divided by a reference value. **Scales-based approach:** the data are expressed in points, i.e. data are classified according to a reference scale.
Social topic scores	The quantitative or scaled performance indicators are combined to produce social topic scores.
Weighting (1st level)	The social topic scores can undergo a weighting step. Weighting factors can be based, for instance, on public or expert opinion.
Stakeholder groups scores	The social topic scores (weighted or unweighted) are aggregated into stakeholder group scores. The stakeholder group scores are quantitative numbers.
Weighting (2nd level)	The stakeholder group scores can undergo a second weighting step.
Total score	The social topic scores (weighted or unweighted) are aggregated into a total social score, which is a number.

2.1.1   Goal and scope

The goal, the scope and the product being assessed are clearly defined. The choices made at this stage need to be clearly documented to allow future comparison and to support communication of results.

Goal

The goal of the assessment can be to steer product development, for instance, or to support internal or external communication. It is important to be clear about the intended purpose since several requirements and restrictions depend on this, in particular when the intended purpose is to communicate the results of the assessment to external audiences (see section 2.3).

Geographic scope

The geographic scope of the assessment can be described by making explicit the value-chain actors which are included in the assessment, and their respective sectors and locations, as shown in Figure 4.

Supply chain			Manufacturing	Use phase	End of life

Product component:								
Sector:								
Country:								
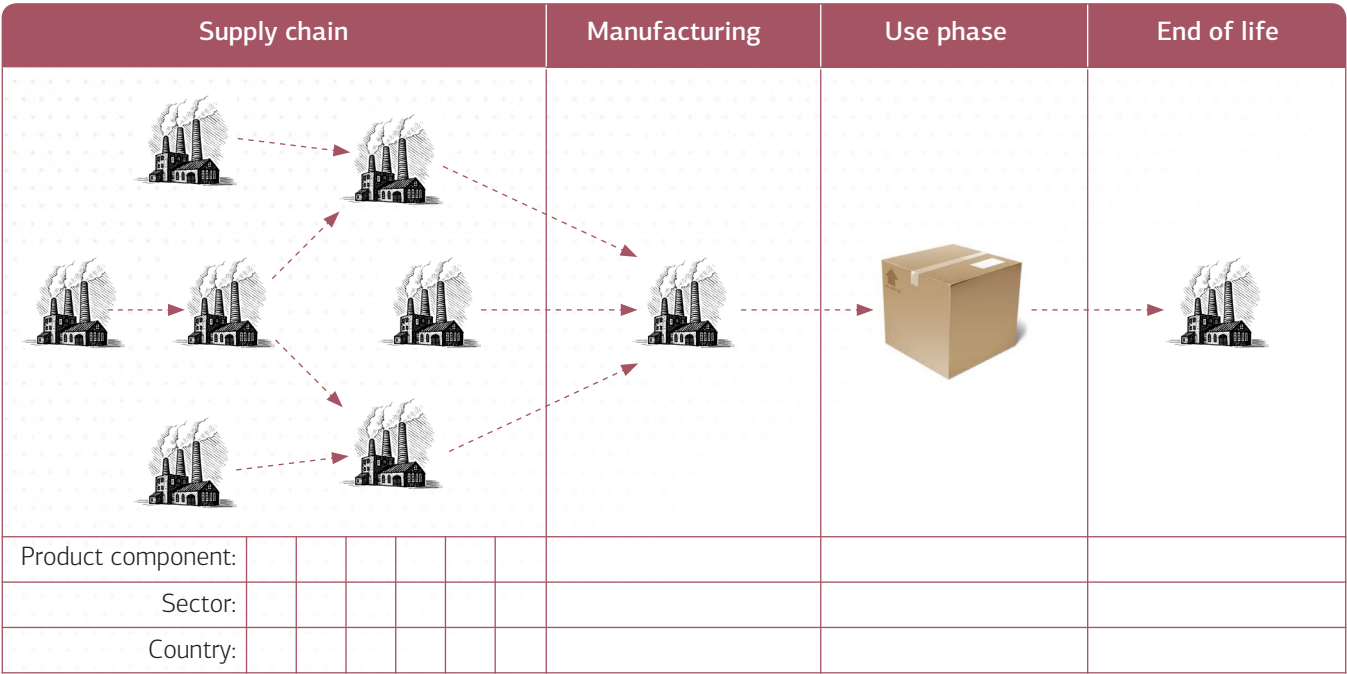
Figure 4: Representation of the scope of an assessment

Stakeholder groups

The assessment covers three stakeholder groups: workers, consumers and local communities. Different groups of workers can be involved in the life cycle of the product: employees (i.e. workers with formal contracts, including temporary and part-time employees), workers employed through agencies or contractors, informal workers (i.e. workers without formal contracts), apprentices and trainees, migrant workers and home workers. The practitioner needs to specify which groups of workers are considered in the assessment.

Social topics for assessment

The number of social topics will depend on the type and the purpose of the assessment:

• A compact assessment is intended for internal communication. It includes a strict selection of social topics, for example, the top 5 material social topics. For these social topics, data of at least one, but preferably two, relevant value-chain actors must be collected and documented, with average data providing an overview of the potential risks in the rest of the value chain. One limitation of a compact assessment is that it does not fully support comparability because the list of social topics to be assessed is not fixed.

• A broad assessment can be used for external communication. It differs from a compact assessment by including at least all social topics proposed in this handbook and collecting data from most value-chain actors. The documentation of a broad assessment also needs to be more extensive.

2.1.2   Data inventory

Defining relevance in preparation for the data collection

It is extremely important to scope data collection so as to keep the amount of work at a feasible level and to make sure that key issues do not become hidden or swamped by less relevant or irrelevant data. Essentially, when performing a compact assessment, it is necessary to identify which social topics are most relevant for the assessment before starting to collect data.

Some companies apply a filter-based risk assessment to determine relevance, with specific and overall risks being captured by a risk filter. This approach does not capture benefits. The risk assessment estimates the level of risk, ranging from high to no risk at all. Specific information is then collected, using audit reports, for instance. Finally, the risk indications obtained from the risk filter are cross-checked with the specific data. Alternatively, relevance can be defined based on materiality. The principle of materiality is used in decision-making to prioritise sustainability issues based on importance for the business and stakeholder perception. Materiality can be applied in this context to define whether a social topic is sufficiently important to gain attention or to be reported.

>> More about the process to define materiality in Annex 5

Regardless of the type of assessment (i.e. compact or broad), it is also necessary to check the relevance of the performance indicators, as these are not always applicable to all life-cycle actors. Where not applicable, evidence needs to be provided and documented in the assessment. In this case, data for a performance indicator should be collected only from life-cycle actors which have been determined as relevant.

Collecting data for the scales-based approach

Both quantitative and qualitative data can be collected for this approach. Qualitative data are often collected directly from the value-chain actor using a questionnaire. Both types of data are then aligned with a scale used in the assessment.

Collecting data for the quantitative approach

In the quantitative approach, only numerical data related to the output of a value-chain actor or the life-cycle stage are collected. Preferably, the data should be collected by working hour, but otherwise by mass (e.g. ton) or value generated (e.g. $ or €). The units of the data collected and the reference value should be compatible.

Allocation of general data to product level

It is preferable to gather data specific to a given product. A practical problem is that value- chain actors can provide generic data across an entire company whilst the company produces different products in different locations. Therefore, if necessary, data should be allocated to the specific product.

The principle of linking data to a production volume or another unit assists in allocating corporate data to a specific product. For instance, if a company makes a wide range of vitamins and has data on incidents across the entire company, the distribution of working hours per type of vitamin can be a basis on which to allocate the number of incidents to a specific vitamin. Alternatively, the mass (e.g. tons) or economic value of the product (e.g. $) can be used as the basis for allocation.

However, allocation of qualitative performance indicators is not possible, as qualitative data are usually obtained using yes/no questions. Moreover, qualitative data often reflect management policies and behaviour which apply to the entire company regardless of the production line. Therefore, allocation is only possible for quantitative performance indicators as shown in Figure 5.
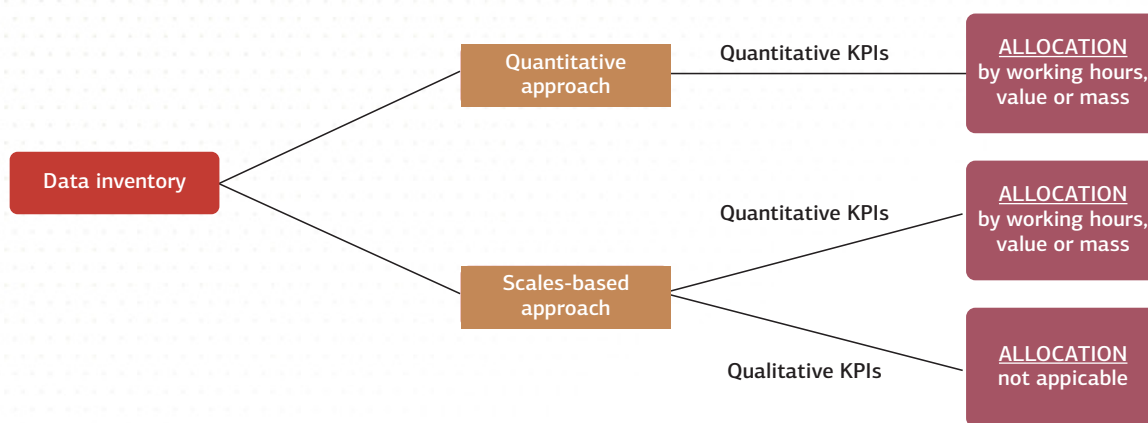
Figure 5: Possible applications of allocation

The quantitative indicators are in two forms, absolute numbers and percentages, and each requires allocation in a different way.

>> More about allocation in Annex 6

Assessing data quality

Data need to be collected from internal and external data providers, i.e. from different departments and various value-chain actors. The agility of this process and the quality of the data collected are critical elements for the assessment. Poor data compromise the quality and the reliability of the assessment and lead to uncertainty about the results. As a complete and perfect life-cycle data set does not exist, the practitioner needs to assess and document the quality of data that relates to the most critical life-cycle stages. To determine the right level of data quality, different aspects need to be assessed to increase data reliability and robustness. The seven criteria listed below are common aspects assessed by data managers.

1. Completeness: Is all required data available?
2. Accessibility: Is the data easily accessible, understandable and usable?
3. Accuracy: Does the data reflect reality accurately or is it from a verifiable source?
4. Integrity: Is the structure of data and relationships among entities and attributes maintained consistently?
5. Validity: Do data values fall within acceptable ranges defined by the business?
6. Timeliness: Is data available and up to date?
7. Correlation: Is the available data specific?

All seven criteria need to be taken into account in an effective and pragmatic manner for both scale and quantitative approaches. The range of possibilities for the last five criteria above can be distributed in a data quality matrix, adapted from Prosuite (Prosuite, 2013), as presented in Table 3. The purpose of using such a matrix is to create transparency by reporting data quality and uncertainties in a uniform way.

Table 3: Data quality matrix

Criteria	Score	1	2	3	4	5
Accuracy, integrity and validity	own operations and direct suppliers	Independent 3rd party verified data provided with documentation	Non-verified internal data with documentation, or verified data partly based on assumptions	Non-verified data partly based on assumptions, or data based on grey scientific report	Qualified estimate (e.g. by expert), or data based on non-scientific report	Non-qualified estimate, or unknown source
	other value-chain actors	Data obtained from value chain actor directly and provided with 3rd party documentation	Data obtained from value-chain actor directly with documentation	Data obtained from other value-chain actors with poor or incomplete documentation	Data obtained from literature	Unknown source
Timeliness		Data from current reporting period	Data from previous reporting period	Data from 2 years before reporting period	Data from 3 years before reporting period	Data from more than 3 years before reporting period, or unknown age of data
Correlation		Data from specific site under study	Data from other sites of the company in the same region	Data from relevant sites of the company in other regions	Data from other companies in same region with similar production conditions	Average sector or country data from public or third party database provider

The quality of data in each data field in the assessment, i.e. each performance indicator of each value-chain actor, needs to be documented. Each one of the criterion is given a score and the overall quality of each data entry is labelled by combining all 3 scores (e.g. 2, 3, 5).

The first two rows in the matrix relate to 'Accuracy, Integrity, Validity, Accessibility and Completeness'. They are mutually exclusive: the first one applies to company-owned operations and direct suppliers, whilst the second one applies to other value-chain actors. In many cases, available data will cover only the company-owned operations and direct (first-tier) suppliers. This represents a problem as social issues related to workers and local communities often occur upstream in the life cycle. If the direct supplier cannot or does not provide data on its suppliers, it may be necessary to collect data from indirect sources or literature. In this case, data will be classified as 3 or 4 in accordance with the second row in the matrix.

Note that as the company does not always have direct relationships with some or all of the above-mentioned value-chain actors, it may not be possible to collect data from them directly. 'Timeliness and Correlation' will be critical especially in the case of complex supply chains that go beyond direct control from a company-owned point of view, where specific and up to date data is often not accessible to the company.

>> **More about data collection and data quality in Annex 7.**

2.1.3   Referencing

Referencing in the scales-based approach

In the scales-based approach, data are interpreted and scores are attributed to each life-cycle actor in relation to a scale. The performance indicator is then calculated by aggregating the scores of the life-cycle actors for which the performance indicator has been determined as relevant. Note that if a performance indicator is not applicable to a life-cycle actor, the criteria related to the performance indicator are not taken into account in the scale rating.

The scale allows the comparison of data with a reference, usually an international standard, an industry average, or even an improvement target set by the company. The proposed scale has 5 positions. Each position on the scale is a performance reference point, which is assigned a score ranging from -2 to +2 (Figure 6).

Performance Reference Points

+2 **ideal performance**
+1 **intermediate positive performance**
 0 **aligned with international standards**
-1 **intermediate negative performance**
-2 **non acceptable performance**
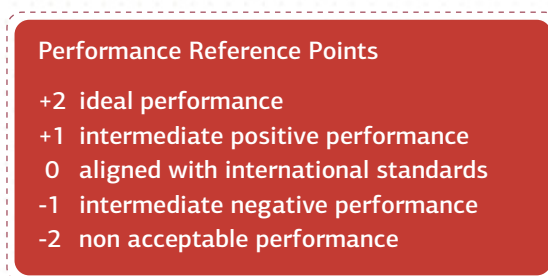
Figure 6: Scaling example

When the scaling is done on quantitative indicators, for instance on the number of incidents in a factory, this data can be compared to an exact number or a range. Then if the number of incidents is higher than this reference, it can be scored as "worse than average" with a score of -1; if the number of incidents is much higher than the reference, it can be assessed as "much worse than average" and given a score of -2. When the scaling is done on qualitative indicators, the process is less objective. Scaling can be done based on multiple choices or binary input, for example, 'workers understand how to file a complaint' (yes/no). With both quantitative and qualitative indicators, the final score is dimensionless and can be totalled with other indicators to calculate a topic score.

One particular feature of the scale is the option of including knockout criteria. A knockout criterion indicates that the performance of the product in a social topic is not accepted by the company. When included, knockout criteria are indicated at the lowest level of the scale. If the performance of a product in a social topic meets a knockout criterion, this needs to be flagged red in the assessment of the product.

Referencing in the quantitative approach

As data need to be interpreted in order to make decisions after an assessment, they must be compatible in order to be compared with other alternatives or references. If two or more alternatives fulfilling the same function are compared with each other, referencing is needed, and different results should be summarised as an overall result. This part of the methodology shows for each criterion the alternative which indicates the best performance and allows the subsequent aggregation of results.

Referencing is done in four steps, as described below.

Step 1: Definition of Reference Values

Following data collection for the quantitative approach, a referencing phase is necessary to show the relative positive or negative performance of the product in the social impact assessment. For social impacts, unlike environmental impact, lower values are not always better. Further complexity arises due to the different types of quantitative indicators within the assessment. In some cases, such as indicators related to child and forced labour, common ethical references may apply. However, for other indicators, such as the number of hours of health and safety training or other educational training, no definitive standard exists. For these indicators, it is recommended using either minimum standard values (e.g.at least one hour of training per employee per year in each lifecycle stage), or optimum standard values (e.g. composite measure of experienced well-being is 10 out of 10).

Reference values for each performance indicator were identified and are reported in sections 3.1 – 3.3 based on the three scenarios described above, i.e. ethical, minimum or optimum standard.

Step 2: Allocation of Reference Values

As the collected data is allocated to one unit of the product in a defined application related to the whole life cycle, the same is required for the reference values:
• When the indicator is measured using absolute numbers, the reference value has to be converted and related to one unit of the product. An example of this is to divide each reference value by the conventional number of working hours per employee and multiply the resulting number by the total working hours necessary to produce one unit of the product (see equation in Figure 7 below). A conventional number of working hours per employee can be calculated as 8 working hours per day times 220 working days (8x220=1760). This allocation is not necessary for indicators where the reference value is zero, as the reference will remain at zero.
• When the indicator is measured using percentages, the indicator has a direct relationship and so requires no allocation.

The reference values can be converted using the following equation, which provides an example of the calculation of the minimum expected number of training hours across the life cycle of the product. For an illustration of how to calculate the total working hours in the life cycle, please see Example 2 in Annex 6.

$$\frac{Reference\ value}{Number\ of\ working\ hours\ per\ employee} * Total\ working\ hours\ for\ the\ product$$

Figure 7: example of allocation of a reference value by working hours

Step 3: Referencing Phase

For each allocated datum collected (DC), we can compare the value to the allocated reference value (RV) of the indicator to determine the performance value (PV), i.e. to determine positive or negative performance of the indicator. This can be achieved measuring the distance to target:

> If reference value is a percentage (expressed in decimals):
> • PV=1-(DC-RV)
> If reference value is an absolute number:
> • If RV>0 => PV=DC-RV
> • If RV=0 => PV=RV-DC

Using this approach PV=0 means the target has been reached. If the result is PV>0, the indicator demonstrates positive performance, and if PV<0, it demonstrates negative performance. It is important to note that for indicators with an ethical target of zero, the performance will never show as positive, only meeting the target or falling short.

Box 1: Hotspot Assessment along the Product Life Cycle

To know if life-cycle actors perform below the reference values, the referencing phase for each life-cycle phase is completed individually. This allows flagging life-cycle actors.
All negative values should be flagged, as they indicate performance below the reference value.
If a red flag appears, it can be a signal not to aggregate the results.

Hotspot assessment in case no data related at the product level is available
The hotspot assessment may also be used when data is available only at corporate or site level. In this case, the referencing phase is still possible by applying the distance-to-target approach to each phase of the product life cycle without conversion of the reference values. This can also demonstrate the phases of the life cycle which have the worst or best performance compared with the reference value.
However, because the indicator values for each life-cycle stage are not available at product level, it is not possible to aggregate them to obtain a final value for the product life cycle. One option in this case is to use for each indicator the life-cycle stage with the worst performance, thus considering the worst case scenario for the product. It can be useful for identifying hotspots and opportunities to improve the product.

Step 4: Calculation of Dimensionless Indicators

To compare two products or alternative supply chain options, it is necessary to be able to eliminate the units so that the results can be aggregated across indicators. After all performance indicator values relative to the product are obtained, these values can be normalised by the maximum value.

For some indicators, adjustments may be required, depending on the direction of the indicators. These adjustments are described in the following scenarios of aggregation of performance indicator along the product life cycle.

Scenario 1

Conditions:
- The higher the values, the better the performance
- Reference value is > 0

Example:
Performance indicator: Number of hours of training
Assume 0.002 hours for alternative 1 and 0.003 hours for alternative 2.

o   From step 2: The allocated reference value is 0.00001

o From step 3: Calculate PV=DC-RV

    Performance values:

    0.002-0.00001 = 0.002 for alternative 1

    0.003-0.00001 = 0.003 for alternative 2

o Step 4: Divide both performance values by the maximum value (i.e. 0.002/0.003 and 0.003/0.003) and the scores obtained indicate the performance relative to each alternative:

- Alternative 1 = 0.67
- Alternative 2 = 1

Scenario 2

Conditions:
- The lower the value, the better the performance
- Reference value = 0

⇨ A correction is needed to reflect the desired direction of the performance indicator.

Example:

Performance indicator: Average rate of incidents

Assume 0.005 incidents for alternative 1 and 0.008 incidents for alternative 2.

o From step 2: The allocated reference value is 0

o From step 3: Calculate PV=RV-DC :

    Performance values:

    0 - 0.005 = - 0.005 for alternative 1

    0 - 0.008 = - 0.008 for alternative 2

o Step 4: First divide both performance values by the maximum value (i.e. -0.005 /- 0.005 and -0.008 / - 0.005) and the scores obtained indicate the performance relative to each alternative:

- Alternative 1 = 1.0
- Alternative 2 = 1.6

However, the above values have the incorrect preferential order and therefore can be calculated as the inverse of the above values, resulting in correct figures:

- Alternative 1 = 1/1.0 = 1.0
- Alternative 2 = 1/1.6 = 0.625

Scenario 3

Condition:
- Performance indicator expressed as a decimal

Example:

Performance indicator: Percentage of workers whose wages meet at least the legal or industry minimum wage

Assume alternative 1 reaches 100% of the legal or industry minimum wage and alternative 2 80 %.

o   From step 2: The reference value is 100%

o   From step 3: Calculate PV= 1-(DC-RV) :
      Performance values:
      1 - (100% – 100%) = 1 for alternative 1
      1 - (100% – 80%) = 0.8 for alternative 2

o   Step 4:

Divide both performance values by the maximum value (i.e. 100 % /100 % = 1.0 and 80 % /100 % = 0.8) and the scores obtained indicate the performance relative to each alternative:

•   Alternative 1 = 1.0
•   Alternative 2 = 0.8

Steps 1 – 3 are illustrated below.

Table 4: Example of referencing one performance indicator in the quantitative approach

	Social topics	Performance indicators	STEP 1 Reference value (absolute):	STEP 2 (Allocated) reference value:	data collected and allocated		aggregated life cycle	STEP 3 performance value of the indicator
					Life cycle actor 1	Life cycle actor 2	Entire life cycle	
Workers	Health and safety	Average rate of incidents during the reporting period.	0	0	0,005	0,008	0,013	-0,013

2.1.4   Social topic scores

In both approaches, a social topic score is a dimensionless number that represents the impact of the product with regard to a social topic. The social topic score is calculated by aggregating performance indicators. Value-chain actors are not weighted.

The calculation of social topic scores is highly recommended in some forms of communication, as presenting only the performance indicators can confuse non-experts. A number of application areas and recommendations regarding aggregation of performance indicators into social topics are presented in section 2.3.

Aggregation of performance indicators into social topics in the scales-based approach

In order to avoid fluctuations in social topic scores caused by the number of value-chain actors being assessed, the performance indicators are divided by the number of value-chain actors to generate average social topics scores. Failing to do this will result in the social topic scores being influenced by the number of value-chain actors supplying information. Figure 8 provides a simplified example of aggregating performance indicators into two social topic scores, following the quantitative and scales-based approaches.

Life cycle stage	Suppliers	Scores per life-cycle actor	
		Working hours :	Training and education :
Tier 1 suppliers	A	1	0
	B	0	0
	C	-2	1
Tier 2 suppliers	D	1	0
	E	0	1
	F	1	0
		Working hours score:	Training and education score:
		= 1 / 6	= 2 / 6
		0,167	0,333

Figure 8: Aggregation of performance indicators into social topic scores in the scales-based approach

Aggregation of performance indicators into social topics in the quantitative approach

The dimensionless score for each indicator can be totalled for each product to provide aggregated scores. In order to weight the performance indicators equally, the sum is divided by the number of indicators included in the aggregation.

Note that in the quantitative approach aggregation of performance indicators into social topic scores, stakeholder scores and total social score (sections 2.1.4, 2.1.5 and 2.1.6 respectively) is only possible when comparing products or supply chains. The aggregation of performance indicators into one social topic score if only one product is assessed and no comparison system is involved is much more difficult, because the absolute figures required cannot be obtained easily. A system could be developed in which every impact is related to a dimensionless number on the same scale. These numbers could then be combined into a single score. For social performance indicators such a system is not currently available.

Another option would be to calculate different types of products and applications and to define average numbers which are typically valid for such a product, and then compare the alternative under consideration with these figures. Furthermore, distance-to-target calculations can be an alternative if the targets are well defined.

2.1.5   Stakeholder scores

The stakeholder score is the aggregation of social topic scores. It is a dimensionless number which represents the impact of the product on a stakeholder group.

2.1.5.1 Weighting (1st level)

The social topic scores can be multiplied by weighting factors that can be defined as a percentage of the weight assigned to the social topic score per stakeholder group. A simplified example of weighting two workers' social topic score is shown in Figure 9.

Working hours score:			Weighting factors			Workers score:	
	0,007205	×	Working hours	0,9	▶		0,007061
Training and education score:			Training and education	0,1			
	0,005765						
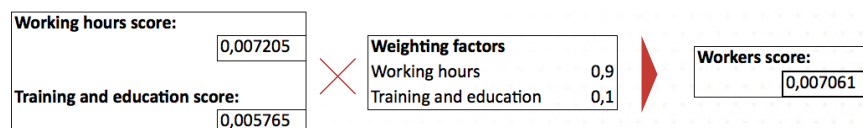
Figure 9: Application of weighting factors on two social topic score

Weighting is generally used for subjective assessment. The practitioner has the option of putting effort into collecting underlying data in order to substantiate weighting factors, making it less subjective to refer to this as an assessment stage. Weighting in particular must be performed with a high degree of transparency.

>> **More about weighting factors in Annex 8**

2.1.6   Total social score

Similar to the stakeholder scores, the total social score is a dimensionless aggregation that represents the total social impact of a product. The main limitation of a total score is that details become lost. Therefore, flags can be assigned to the total scores, allowing unsatisfactory performance (i.e. very bad scores) in a given stakeholder group to be marked with a red flag. Figure 10 illustrates an example of an aggregated total social score provided with a 'traffic light'. The traffic light indicates the levels of impacts of constituents of the total score, providing context to the single value.

Workers score:	
	0,01297
Consumers score:	
	0,02107
Local communities score:	
	0,01003

Total score:	
	0,04407

Workers
Consumers
Local communities
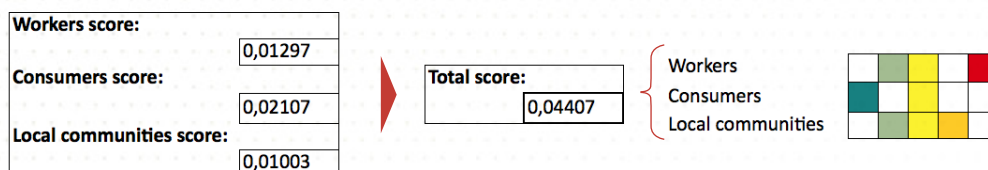
Figure 10: Total social score provided with traffic light

2.1.6.1 Weighting (2nd level)

The stakeholder scores can be multiplied by other weighting factors defined as percentages. However, weighting at this level cannot be supported by evidence, since at this stage the importance of the stakeholder groups is being assessed. Therefore, applying weighting should always be reported with transparency.

2.1.7   Overview

The table below provides a summary of the steps and the intermediate results for both the quantitative and the scales-based approaches, together with the major differences between them.

Step	Scales-based approach	Quantitative approach	Difference
Goal and scope	The product is described, and the goal and the scope of the assessment are defined.		No difference
Data inventory	Data are collected and attributed to the performance indicators.	Data are collected, then related to the amount produced (i.e. allocated in hours, tons or value), and then attributed to the performance indicators.	Both approaches collect information from value-chain actors. In the quantitative approach, this has to be in the format that relates the number to a reference flow (i.e. quantitative data), while in the scales-based approach different types of information (i.e. quantitative and qualitative data) can be collected and used.
Referencing	Data are compared with a reference and plotted on a scale. This results in a quantitative score per indicator. The scale can be based on industry averages or on target values.	Data are compared with a reference value. The reference values can be based on ethical, minimum, or optimum standard.	Both approaches compare the data to a reference. In the quantitative approach fixed reference values are used. In the scales-based approach the assessment is made based on a fixed scale.

Step	Scales-based approach	Quantitative approach	Difference
Social topic score	The scores of the performance indicators are added, and divided by the number of performance indicators applied, and then divided by the number of value-chain actors.	The scores of the performance indicators are added and divided by the number of performance indicators applied.	The score in both approaches is a dimensionless number. Aggregation in the quantitative approach is only possible in comparative assessments.
Weighting	Each topic score is multiplied with a weighting factor based on stakeholder consultation. If weighting factors are not set, each topic is given the same weight (i.e. each topic is multiplied by 1).		No difference
Stakeholder group score	The score is a dimensionless number. In addition, "flags" can be shown, e.g. a red flag when a hotspot is identified.		Aggregation in the quantitative approach is only possible in comparative assessments.
Weighting (2nd level)	Each topic score is multiplied by a weighting factor based on stakeholder consultation. If weighting factors are not set, each topic is given same weight (i.e. each topic is multiplied by 1).		No difference
Total social score	The result is a dimensionless number that represents the total social impact of a product. In addition, "flags" can be shown.		Aggregation in the quantitative approach is only possible in comparative assessments.

2.2   General procedure

The decision tree in Figure 11 below describes the general procedure for the impact assessment. Note that, fundamentally, the scope and the results will depend on the following decisions as discussed in sections 2.1.2, 2.1.5.1 and 2.1.6.1:

• Time and resources available
• Social topics to be included
• Approach to be used: quantitative or scale
• Application of weighting and, if so, at which level

Goal and Scope

Define goal and geographic scope

Define time and resources for the assessment and

Select most relevant topics for the assessment.

Data Inventory

Choose between Scale or Quantitative approach

Collect data related to all relevant value-chain actors and

Allocate data.

Scales-based approach

Referencing: attribute scores to quantitative and qualitative data based on a reference scale and

Compute contribution of each value-chain actor to the performance indicators.

Quantitative approach

Referencing: attribute scores to quantitative and qualitative data based on a reference value and

Compute contribution of each value-chain actor to the performance indicators.

Quantitative approach: Aggregation is only possible in comparative assessments.

Social Topic Scores

Aggregate contributions of value-chain actors and

Divide the performance indicators by the number of value-chain actors.

Quantitative approach: Aggregation is only possible in comparative assessments.

Stakeholder Scores

Weight Social Topic Scores: yes / no
and
Aggregate Social Topic Scores

Quantitative approach: Aggregation is only possible in comparative assessments.

Total Social Score

Weight Stakeholders Scores: yes / no
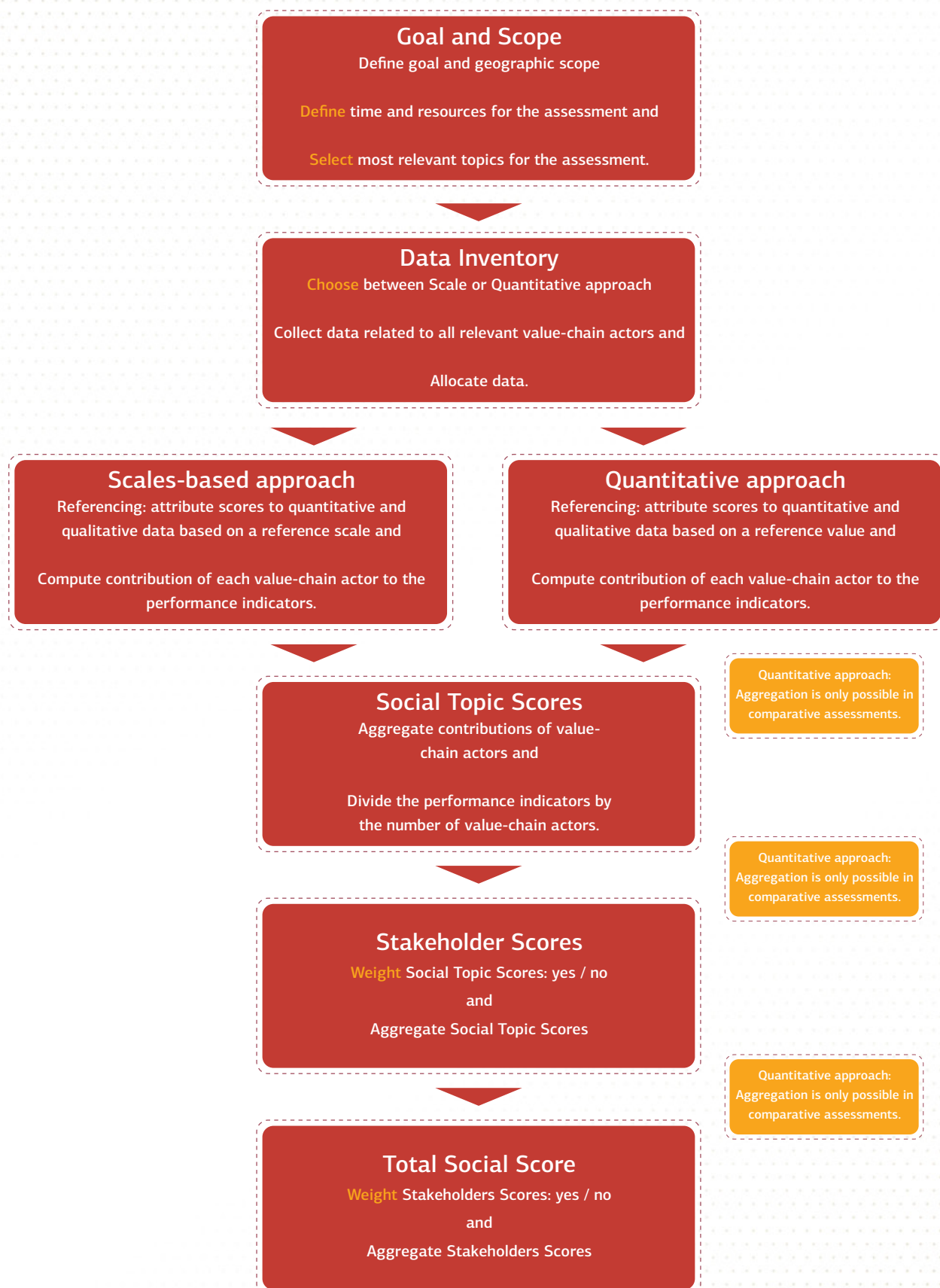and
Aggregate Stakeholders Scores

Figure 11: Procedure for computing and processing data up to the total social score

The conceptual structure above allows the use of scaling and quantitative approaches. The scaling approach can be used to develop a good understanding of the risks and points of excellence in the value chain, whereas the quantitative approach can be used for measuring and comparing results in an objective way. It is not advisable to mix both approaches in one assessment, as the use of a linear scale in the quantitative approach is not compatible with the ordinal scales used in the scales-based approach.

2.3 Application guidance and rules for communication of results

The methodology proposed in this handbook leaves a number of choices to the user. The most important are:
• The choice between the quantitative and the scales-based approach
• The level of aggregation of results, which can be social topic scores, stakeholder group scores (consumers, workers, local communities) or one single total score. Note that the results can also be reported at the performance indicator level.
In this section guidance is provided on how to use this flexibility, depending on the application context.

2.3.1 Quantitative versus scales-based approaches

During the development and testing of the handbook, benefits and disadvantages of both the quantitative and the scales-based approaches were recognised. Although it is not possible to give general guidance on which approach is best, a number of issues related to the application context can be identified.
• The quality of data collected is critical in both approaches. Therefore, data collection requires a well-defined procedure. In general, obtaining data from the different life-cycle actors may demand less effort in the scales-based approach than in the quantitative approach. Data collection in the quantitative approach may present a challenge in providing the necessary level of information detail. This applies to situations when conducting an assessment in various stages of a product development process, and when making a comparison with an alternative product.
• The scales-based approach allows for an intuitive judgement of results, as these are presented as positive, neutral or negative according to a reference scale. The scales-based approach can help flag issues or potential differentiators. For example, if a score is -2, it indicates an unacceptable condition that needs improvement.
• The quantitative approach has a higher resolution which gives a higher degree of granularity in the decision-making process. Provided that the quality of the data is sufficient, it allows for the recognition of smaller differences, or it makes important differences clear. In the scales-based approach a score will range from -2 to + 2, whereas the quantitative approach can capture any number.
This guidance is preliminary. As companies develop more application examples and have the possibility of testing both approaches, they will have a better understanding of when one approach is preferable to another, and for which application.

2.3.2 The level of aggregation of results

The ability to inform stakeholders and to help them make better-informed decisions based on the social impact of products determines the business value of the method in this handbook. With this as the key objective, it is important to understand the elements that contribute to an effective way of informing both internal and external stakeholders of the outcomes of Product Social Impact Assessments (see also principles 7 - 12 presented in section 1.2.2).
1 Clarity: stakeholders must receive information on a level they can understand and relate to, providing the appropriate level of aggregation. Too much detail may be confusing, whilst too little detail may not be sufficient to make a decision. See also principle 10 in section 1.2.2.
2 Timely: the information must be presented at a time when decision-makers can use it as a relevant basis for their decision. In some circumstances the assessment will need to be done within a short time frame. In this case, having access to a quick assessment at the right time and in line with guidance in this handbook is preferable to a fully-detailed report that is received too late to influence a decision.
3 Transparency. If a company makes public claims about the superiority of its product, external stakeholders must have access to the Product Social Impact Assessments report and procedures that support this claim.

4 Credibility: To avoid false or misleading claims with reference to the handbook, and to protect the reputation of the methods it describes, the handbook sets out principles and process descriptions for carrying out and reporting the methodology. The level of detail of the assessment must match the level of detail which is published or provided to third parties.

5 Relevance. The data used in the assessment must fit the goal and scope of the study, cover the most relevant social topics, and include a description of any cut-off criteria and reasons why any social topics or life-cycle actors are outside the scope of the assessment.

6 Cost effectiveness. If social assessments are too costly and resource-intensive, they will not be undertaken. A realistic compromise on robustness, level of detail and the effort required should be made.

These elements have influenced the development of the following communication guidelines relevant to the purpose or application of the Product Social Impact Assessment and its communication context.

2.3.3 Guidance and rules regarding the communication of the results

In order to protect the reputation of the methodology proposed in the handbook, a number of principles and rules have been defined that must be followed when using the handbook.

Listed below are a number of application examples, which can be seen as typical use cases or user scenarios for which Product Social Impact Assessments can be beneficial. The first 4 are examples of internal applications. Example 5 refers to business-to-business communication, while example 6 refers to communicating to the general public.

No.	Application example	Communication	Type of assessment
1.	Understand potential risks and improvement opportunities of a new product in initial development phase.	Internal	Compact or broad
2	Understand potential risks and improvement opportunities before making the decision to start a project pilot.	Internal	Compact or broad
3	Screen (a part of) the product portfolio to identify hotspots, risks and improvement opportunities.	Internal	Compact or broad
4	Assess the impacts of a product in the market for internal assessment and optimisation.	Internal	Compact or broad
5.	Communicate results in a B2B context, comparing a product with an alternative product or solution.	External, B2B. Purpose is to inform business partners about product and value-chain characteristics, not aimed at addressing or convincing the general public.	Broad
6	Communication of results to general public.	External, general public. For instance, general publication including explicit statements about the superiority of a product in comparison with another alternative product	Broad

Table 6: Overview of application examples and typical communication contexts

The principles and rules relate to the different types of application and the context of the communication. Below, principles are provided for application examples 1-5 and rules are defined for application example 6.

Application example 1: Understand the potential risks and improvement opportunities associated with a new product in the initial development phase

In the early phase of product development, the product characteristics, the supplier choices and how the company aims to bring the product to the market are still in development. It is probably unclear which suppliers from which regions will be selected, and it might also be unclear exactly what the impacts on the consumers will be and how the end-of-life phase will evolve.

A Product Social Impact Assessment might be beneficial in this phase to identify potential social impact risks related to consumers, workers or local communities, or potential innovation or business opportunities. The suggested approach is as follows:

1. Devote sufficient time to identify the relevance of each social topic to be assessed
2. Focus effort on the main aspects of potential negative and positive social impacts. Choose the most relevant performance indicators based on earlier experiences.
3. Aggregation to social topic scores may be less meaningful when the quality of the data for a large number of performance indicators is poor. It is also not meaningful to aggregate social topic values across the value chain, if the product developers or marketeers involved want to understand in which particular life-cycle stage specific issues or improvement opportunities exist.
4. If decision-makers want overall guidance on which direction they should take, an aggregation and result interpretation might be needed. This should be provided transparently and comprehensively.

The main result will be a first impression of the expected social impact profile, as well as a list of issues that need to be addressed, either by adjusting the product concept or creating an action list for further investigation. Imagine a 'dashboard' showing the scores for all the different life-cycle stages. The social impact profile enables questions to be answered that can provide guidance to product developers, such as:

• Which product features can strengthen the positive impacts?
• Which upstream or downstream life-cycle stages will require special attention, and would it be possible to collaborate with suppliers, retailers and end-of-life actors to minimise potential negative impacts?

Step	Recommended?	Comment
Risk and/or materiality screen	Yes	Important
Present performance indicators	Yes	When requested by internal stakeholders and possible to generate
Calculate and present social topic scores	No (*)	(*) Possible if data can be quantifiable and is of good quality
Calculate and present stakeholder scores	No (*)	(*) Possible if data can be quantifiable and is of good quality
Calculate and present single score	No (*)	(*) Possible if decision makers request single score, if based on reliable data input, transparent explanation of calculations is given, and detailed results are also provided

Table 7: Overview of steps and recommendations for internal communication

Application example 2: Understand the risks and improvement opportunities before decisions are made to start a pilot project

When the product development process has resulted in design specifications, or in the case of a well-designed production process, more information about the product is available. Proposals for sourcing and production are proposed. However, final decisions still need to be made, for example, supplier selection and end-of-life processes, where return and recycling systems might still be under development.

Benefits of carrying out a Product Social Impact Assessment at this stage include having more insight into the possible risks and opportunities for a new product, and this can support final decisions on the choice of both suppliers and final product development.

For the workers and local communities across the life cycle, the assessment can be done on the basis of the information available on the proposed suppliers, geographical location and sector. The expected impact in the usage phase is likely to be very well assessed by this time. It is assumed that in this application example, contrary to application example 1, major social impact risks have already been mitigated. Although other minor issues may arise, more details are now available on supply chain and actual usage phase.

The recommendation is to aggregate the results up to the level of the social topic score. There is no objection to further aggregation if this helps inform product developers and other stakeholders of the overall result. It is advised to keep disaggregated data available as background information, so that specialists are able to explain further details on the results if necessary.

Step	Recommended?	Comment
Risk and/or materiality screen	Yes	Important
Present performance indicators	Optional	When requested by internal stakeholders and possible to generate
Calculate and present social topic scores	Yes	Needs to be based on reliable data input and transparent explanation is included
Calculate and present stakeholder scores	Optional (*)	(*) Yes, if based on reliable data input and transparent explanation is included
Calculate and present total score	Optional (*)	(*) Yes, if based on reliable data input and transparent explanation is included

Table 8: Overview of steps and recommendations for supporting decision-making before a pilot

Application example 3: Screen (a part of) the product portfolio to identify hotspots, risks and improvement opportunities

Screening (part of) a product portfolio of a company or a business unit can reveal risks and improvement opportunities. In this situation all products are already on the market, and most information is known or can be relatively easily gathered.

The benefit of using Product Social Impact Assessments in this situation lies in getting answers to one or more of the following questions:
• What are the recognised hotspots in the portfolio? Hotspots include risks or unacceptable situations, as well as positive impacts. The list can also include potential issues which need further investigation before determining if they are relevant along the whole supply chain
• What are the areas in which the company is creating measurable positive impacts?
• What are the actionable improvement opportunities? Where can the company take action to improve performance, mitigate potential negative impacts and/or strengthen positive impacts?

In order to obtain a useful overview of hotspots and issues, data collection can be conducted as follows:

1. Check what historical data or information is already available.
2. Check external stakeholder opinion on the product group, the associated risks and improvement opportunities.
3. Conduct further research on the issues that are not well-understood in order to determine relevance. For this, the handbook can be used as in application examples 1 or 2.
4. Consider regulations coming into force and activities of the different stakeholder groups, such as peer companies, government institutions, NGOs, scientists.

Step	Recommended?	Comment
Risk and/or materiality screen	Yes	Important
Present performance indicators	Yes	Needed for relevance check
Calculate and present social topic scores	Optional	If quantification is possible and brings added value
Calculate and present stakeholder scores	Yes	Quantitatively or qualitatively for guidance of decision makers
Calculate and present total score	Optional (*)	(*) Yes, if number of appropriate indicators are very high and an overview result is needed

Table 9: Overview of steps and recommendations for screening product portfolio

Application example 4: Assess the impacts of a product in the market for internal assessment and optimisation

In this application the product has been or will be brought to the market. More information is available about the suppliers and the impact the product has on the stakeholder groups (consumers, workers, communities).

The benefit of using Product Social Impact Assessment in this situation is to gain a good understanding of the specific social impacts of the product and opportunities for further improvement.

Step	Recommended?	Comment
Risk and/or materiality screen	Yes	Depending on the available time. In this case it is best to report all performance indicators
Present performance indicators	Yes	When requested by internal stakeholders. Results at the level of performance indicators are the basis to aggregate scores.
Calculate and present social topic scores	Yes	This is an intermediate step for stakeholder and total scores.
Calculate and present stakeholder scores	Yes	This is an intermediate step for the total score.
Calculate and present total score	Optional	One single score may help to summarise and compare with other assessments.

Table 10: Overview of steps and recommendations for internal assessment of a product in the market

Application example 5: Communicate results in a B2B context, comparing a product with an alternative product

This type of assessment will often be used by companies if they wish to compare products. Comparative assertion about competitors' products leading to claims of superiority is a difficult topic and should be made without weighting. Details of the assessment should be published in the report without compromising confidentiality aspects.

The benefits of comparing products on the basis of their social impact can be both an important internal supporting mechanism as well as a tool for sharing information with external business partners.

When used as an internal evaluation system, rules apply as described under application example 1 and 2 (internal communication context).

In communication between business partners, the discussions are likely to be held between non-experts, such as sales or purchasing representatives. This may represent a risk that detailed outcomes are not seen in the context of the total assessment. Hence, in those situations it is recommended that the complete assessment is shared. This should include all relevant and differentiating performance indicators and decisions taken in order to narrow the scope in terms of life-cycle stages and indicators, whilst still being able to present the underlying scores.

High aggregated scores can be presented only if the difference between the products is large enough to outweigh the uncertainties. Additionally, all detailed results remain available and should be used for further interpretation and explanation. This means the level of uncertainty needs to be communicated in the context of the quality of the data used (see assessing data quality in section 2.1.2) or based on expert judgment. If the difference is insignificant, it is recommended including a statement that the results do not show a significant difference.

Step	Recommended?	Comment
Risk and/or materiality screen	Yes	Limitations of methodology, and choices made with respect to social topics and scope must be clearly communicated
Present performance indicators	Yes	Can lead to incorrect interpretation and will probably raise confidentiality issues, thus raw data should not be disclosed to external parties.
Calculate and present social topic scores	If requested	Explain definitions and their origins.
Calculate and present stakeholder scores	Case by case	Only when differences between the products are significant even when uncertainties are considered. If this is not the case, the communication must stress that the difference is too small to be significant, or that the products are almost equal in performance, varying only in the highlighted social topics. In practice this could mean that the difference between both product scores should be a factor two or more, depending on the data quality. Furthermore, a critical review by an independent third party is recommended if important decisions are going to be taken based on the results of the assessment..
Calculate and present stakeholder scores	Case by case	

Table 11: Overview of steps and recommendations for B2B communication

Application example 6: Communicate the results of Product Social Impact Assessment to general public

This application refers to a scenario where the outcomes are intended to be shared with a large audience, which could consist of a wide range of external stakeholders, ranging from consumers, researchers, NGOs, to business partners.

Benefits of this application could be to promote to a wide audience reduced social impact risks or amplify product differentiators related to social impact, using Product Social Impact Assessment to support this claim.

This application and communication context represents the most sensitive situation, as communication of false or unfounded claims can be detrimental to the reputation of the company publishing the message. It is also the most sensitive area for the authors of this handbook and the organisations using it.

For this application, it is no longer about guidance but about the rules that apply and must be observed if the practitioner intends to claim compliance with the handbook:

Step	Obligatory	Comment
Content and communication of detailed report	Yes	The report must be available on a website and include goal and scope system boundaries, data sources, data quality evaluation and transparent aggregation
Present performance indicators	Yes	Precautions can be taken to hide confidential information
Present social topic scores	Yes	Reporting in a transparent, comprehensible way.
Present stakeholder scores	Optional	If yes, transparent and clear
Present total score	Optional	If yes, show detailed evaluation process with comprehensive information especially for the weighting/aggregation step

Table 12: Overview steps and recommendations for communications to general public

The content of the detailed report should include the following items:
1. The intended purpose of the communication
2. Who the parties affected are, for instance, competitors, authorities, NGOs and customers
3. Who commissioned the assessment and to whom comments can be addressed
4. The independent third party which reviewed the assessment, how the review was conducted and the comments provided by the reviewer (if any)
5. A comprehensive self-assessment of the quality of data sources, limitations, validity and uncertainties, cut-off criteria, trade-offs
6. Whether other assessments for similar products have been published, and whether the same methodological rules were used; if not, why not and the subsequent implications for the comparison
7. The market overview and why the selected alternatives are relevant (including market share), as far as confidentiality allows
8. How the following methodological aspects were handled:
    a. The boundaries of the assessment, i.e. the geographic scope, how far in the life cycle, and the time-related validity
    b. The procedures for data collection, and the selection of the quantitative or scaling approach
    c. Allocation
    d. Reference values or reference scales used
    e. Aggregation and weighting
    f. Interpretation and conclusions, clearly and transparently published

For further guidance on communicating results of life-cycle assessments to the general public the ISO 14040 standard for environmental life-cycle assessment and the ISO 14025 standard for environmental labels and declarations can be used as references.

3 Social topics and performance indicators

Social topics are defined by the specific areas which are the subject of assessment, such as working hours, wages and access to education. They address questions related to three stakeholder groups - workers, consumers and local communities - and drive the performance indicators as illustrated in Figure 12.
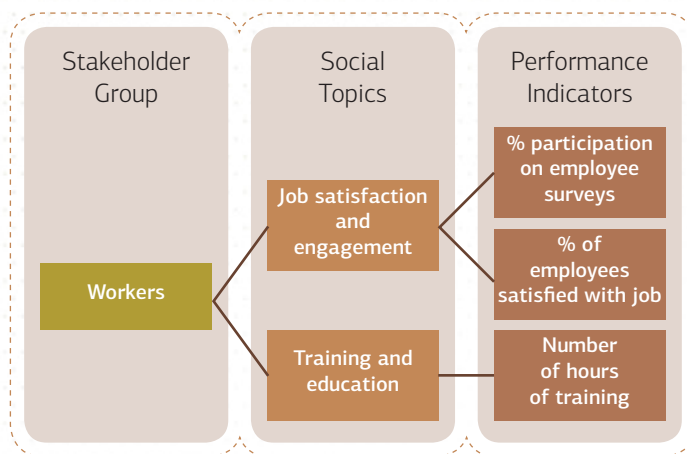
Figure 12 Information structure for social impact assessment

Performance Indicators (PIs) are the quantitative and qualitative markers of performance for each of the social topics, such as number of working hours during weekends, minimum salary paid, etc. They are used for the systematic monitoring of progress on improving or achieving social topics. The PIs are topic specific and are assumed to be the best means of capturing the measurement of part of or the entire social topic.

The social topics presented in Table 13 are proposed as an initial list against which companies can assess the social impacts of products and services. It is recommended that the relevance of these topics is assessed before conducting the assessment, as discussed in section 2.1.2.

Workers	Health and safety Wages Social benefits Working hours Child labour Forced labour Discrimination Freedom of association and collective bargaining Employment relationship Training and education Work-life balance Job satisfaction and engagement
Consumers	Health and safety Experienced well-being
Local communities	Health and safety Access to tangible resources Local capacity building Community engagement Employment

>> More about the methodology used to select the social topics in Annex 9

Note that there are synergies among the social topics listed above. At least five overarching topics can be identified: i) health and safety, ii) well-being, iii) employment, resources and infrastructure, iv) freedom of expression and discrimination, and v) training and education (see Annex 10.4). However, these correlations are not considered in the impact assessment proposed in this handbook, as the objective is to assess what impact the product has on the three stakeholder groups (i.e. workers, local communities and consumers) for each one of the 19 social topics.

Sections 3.1 to 3.3 define the social topics and provide performance indicators, reference values and reference scales to support the impact assessment.

3.1 Stakeholder group: 'workers'

Social topic:	Health and safety

Definition:	The purpose of occupational health is the promotion and maintenance of the highest degree of physical, mental and social well-being of workers in all occupations; the prevention of workers leaving their jobs on the grounds of ill health caused by their working conditions; the protection of workers against risks incurred at work as a result of factors detrimental to health; the placing and maintenance of workers in an occupational environment adapted to their physiological and psychological capabilities; taking gender differences into account and, to summarise, the adaptation of work to each person and of each person to his/her job.

>> More about health and safety in Annex 10

Quantitative approach:

Performance indicators

1. Number of hours of health and safety training per worker given during the reporting period.
Answer format: *whole number*

2. Average rate of incidents during the reporting period.
Answer format: *decimal*

Reference values

Performance indicator 1: 1 hour

Performance indicator 2: 0%

Scale-based approach:

Performance indicators

1. The company or facility ensures that all workers receive adequate health and safety awareness training in line with the requirements of their job function and local legal requirements, including the use of any essential personal protective equipment (PPE). Such training or awareness is also provided for new, temporary and reassigned workers, and is updated periodically.
Answer format: *yes/no*

2. The company or facility has clearly delegated and defined lines of duty and responsibility throughout all levels of the organisational structure, from shop-floor workers to management. A management representative with appropriate authority, support and resources is responsible and accountable for the implementation of the health and safety policies and procedures.
Answer format: *yes/no*

3. The company or facility involves workers in the design, development and review of health and safety programmes and sets targets to reduce the level of incidents. The rate of incidents is measured and reduction targets are set.
Answer format: *yes/no*

Reference scale

+2 Health and safety training is provided and duties and lines of responsibility for health and safety are defined. In addition, workers are involved in the design, development and review of health and safety programmes. The level of incidents is measured and reduction targets are set.

+1 Health and safety training is provided and duties and lines of responsibility for health and safety are defined. In addition, workers are involved in the design, development and review of health and safety programmes.

0 Health and safety training is provided and duties and lines of responsibility for health and safety are defined.

-1 No health and safety training is provided, or no duties and lines of responsibility for health and safety are defined.

-2 No health and safety training is provided and no duties and lines of responsibility for health and safety are defined.

Glossary

Rate of incidents	A uniform measure for determining the average rate of incidents and for the severity of incidents should be applied across the value chain. Possible measures include: total recordable rates, total incident rates, lost working days, number of recordable injuries or periods of illness, lost time frequency, and days away from work rate.

Social topic:	**Wages**

Definition: Wages paid for a normal working week should meet at least the minimum wage, established either by law, collective bargaining agreement or an industry standard. Living wage means that wages received by a worker for a standard working week in a particular place should be sufficient to provide a decent standard of living for the worker and his or her family.

>> More about wages in Annex 10

Quantitative approach:

Performance indicators

1. Percentage of workers whose wages meet at least legal or industry minimum standards and their provision fully complies with all applicable laws.
Answer format: *percentage*

2. Percentage of workers who are paid a living wage.
Answer format: *percentage*

Reference values

Performance indicator 1: 100%

Performance indicator 2: 100%

Scale-based approach:

Performance indicators

1. Percentage of workers whose wages meet at least legal or industry minimum standards and their provision complies with all applicable laws.
Answer format: *percentage*

2. Percentage of workers who are paid a living wage.
Answer format: *percentage*

Reference scale

+2 All workers are paid at least the legal or industry minimum wage, with >=25% of workers paid a living wage

+1 All workers are paid at least the legal or industry minimum wage, with <25% of workers paid a living wage

0 All workers are paid the legal or industry minimum wage

-1 <25% of workers paid below legal or industry minimum wage

-2 >=25% of workers paid below legal or industry minimum wage

Glossary

Living wage	Workers and their families should be able to afford a basic but decent life style that is considered acceptable by the community at its current level of economic development. Some sources to help determine or estimate a living wage: http://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---travail/documents/publication/wcms_162117.pd http://fairwageguide.org http://livingwage.mit.edu
Decent standard of living	Workers and their families should i) be able to live above the poverty line, ii) be able to afford food, water, housing, education, health care, transport, clothing, and other essential needs, including provision for unexpected events, and iii) be able to participate in social and cultural life.
Industry standards	Wages paid by an industry sector which apply at country or even at regional level.

Social topic:	Social benefits

Definition: In addition to wages, the provision of social benefits should comply fully with all applicable laws. Five basic categories of social security benefits are often included and are paid based upon recorded workers' earnings: retirement, disability, dependents, survivor benefit and, in the case of termination of employment, severance pay.

>> More about social benefits in Annex 10

Quantitative approach:

Performance indicator

1. Percentage of workers whose social benefits meet at least legal or industry minimum standards and their provision fully complies with all applicable laws.
Answer format: *percentage*

Reference value

Performance indicator 1: 100%

Scale-based approach:

Performance indicator

1. Percentage of workers whose social benefits meet at least legal or industry minimum standards and their provision fully complies with all applicable laws.
Answer format: *percentage*

Reference scale

+2	All workers are paid at least the social benefits required by law, with >= 25% of workers paid additional social benefits
+1	All workers are paid at least the social benefits required by law, with <25% of workers paid additional social benefits
0	All workers are paid the social benefits required by law
-1	<25% of workers not paid the social benefits required by law
-2	>= 25% of workers not paid the social benefits required by law

Social topic:	Working hours

Definition: The number of working hours is defined by applicable laws and industry standards on working hours and public holidays. The normal working week, excluding overtime, should not exceed limits laid down by law or 48 hours for hourly workers. Workers should be provided with at least one day off following every six consecutive days of working. Overtime work is voluntary, compensated at a premium rate in accordance with either the law or applicable collective agreement, does not exceed 12 hours per week, and is not demanded on a regular basis.
More about working hours in Annex 10

Quantitative approach:

Performance indicator

1. Average number of hours worked per hourly worker per week during the reporting period.
Answer format: *decimal*

Reference value

Performance indicator 1: 48 hours (for 6 working days per week)

Scale-based approach:

Performance indicators

1. Hours worked in a normal working week, not including overtime, are below the limits set by law and do not exceed 48 hours.
Answer format: *yes/no*

2. Overtime hours worked are voluntary, do not exceed 12 hours per week, are not demanded on a regular basis and are reimbursed at a premium rate.
Answer format: *yes/no*

Reference scale

+2 Normal working week does not exceed legal limit or 48 hours for hourly workers. Overtime is recorded, voluntary, compensated at premium rate and does not exceed 12 hours.

+1 Normal working week does not exceed legal limit or 48 hours for hourly workers. Overtime is recorded, voluntary and compensated, but either not at premium rate or exceeds 12 hours.

0 Normal working week does not exceed legal limit or 48 hours for hourly workers. Overtime is recorded, voluntary and compensated, but not at premium rate and exceeds 12 hours.

-1 Normal working week exceeds legal limit or 48 hours for hourly workers in peak seasons only. Overtime is not recorded or compensated.

-2 Normal working week regularly exceeds legal limit or 48 hours for hourly workers. Overtime is not recorded or compensated.

Glossary

Normal working week	The normal working week is a maximum of 48 hours, or any number of fewer normal maximum weekly hours that are laid down either by national or local law or a collective bargaining agreement.
Premium rate	A premium rate refers to a higher rate of pay than the normal working week rate. Premium rate is often defined by national law. In countries where a premium rate for overtime is not regulated by law or a collective bargaining agreement, personnel should be compensated for overtime at a premium rate or equal to prevailing industry standards, whichever is more favourable to workers' interests.
Regularly	Constantly or in the majority of weeks

Social topic:	**Child labour**

Definition: Child labour is work that deprives children of their childhood, their potential and their dignity, and is harmful to physical and mental development. In its most extreme forms, child labour involves children being enslaved, separated from their families, exposed to serious hazards and illnesses and/or left to fend for themselves on the streets of large cities.

>> More about child labour in Annex 10

Quantitative approach:

Performance indicators

1. Number of actions during the reporting period targeting business partners to raise awareness of the issue of child labour.
Answer format: *whole number*

2. Number of hours of child labour identified during the reporting period.
Answer format: *whole number*

Reference values

Performance indicator 1: 1 action

Performance indicator 2: 0 hour

Scale-based approach:

Performance indicators

1. The company or facility has policies against employing children and a compliance management programme exists should children be found to be working in a factory.
Answer format: *yes/no*

2. The company or facility records proof of age upon recruitment, including copies of documents, such as birth certificates, passports, religious, medical or other records.
Answer format: *yes/no*

3. The company or facility monitors business relations, such as employment agencies and suppliers, to assess the likelihood of child labour directly linked to its products or services.
Answer format: *yes/no*

Reference scale

+2	Policies against child labour a compliance management process exist and proof-of-age records are documented. In addition, employment and recruitment agencies and suppliers are pro-actively monitored to prevent child labour.
+1	Policies against child labour, a compliance management process exist and proof-of-age records are documented. In addition, employment and recruitment agencies are pro-actively monitored to avoid child labour.
0	Policies against child labour a compliance management process exist and proof-of-age records are documented.
-1	Policies against child labour and a compliance management process exist, but no proof-of-age records are documented.
-2	No policy against child labour, no compliance management process and no proof-of-age records exist.

Child labour	Child labour exists if the child is below: • the age of 15; • or the minimum age for employment laid down in the country, if higher; • or the age of completion of compulsory education, if higher. However, if the local legal minimum age is set at 14 years in accordance with the developing country exception under ILO Convention 138, this lower age may apply. A young worker is any worker over the age of a child and under the age of 18. Young workers are allowed to work if they fall within the conditions stated in the ILO Convention 138.
Hazardous work	Work which by its nature or the circumstances in which it is carried out is likely to harm the health, safety, or morals of children. Hazardous work must not be performed by any worker under the age of 18.
Assessment of the possibility of child labour	It may be carried out in the form of self-assessment questionnaires or audits to assess.

Social topic:	**Forced labour**

Definition: Forced labour is all work or service which is exacted from any person under the threat of any penalty and for which the person has not offered himself/herself voluntarily. Forced labour includes practices such as the use of compulsory prison labour by private business entities, debt bondage, indentured servitude and human trafficking.

Workers should be free to leave the workplace and manage their own time while not on duty, without interference or intimidation from management or security guards. If workers choose to leave their jobs, they should be free to do so, provided they have fulfilled their agreed obligations under a recognised employment contract.

>> More about forced labour in Annex 10

Quantitative approach:

Performance indicators

1. Number of actions during the reporting period targeting business partners to raise awareness of the issue of forced labour.
Answer format: *whole number*

2. Number of hours of forced labour identified during the reporting period.
Answer format: *whole number*

Reference values

Performance indicator 1: 1 action

Performance indicator 2: 0 hour

Scale-based approach:

Performance indicators

1. The company or facility has a policy which prohibits retention of all or part of a worker's salary, benefits, property or original documents, both at the commencement of and during employment.
Answer format: *yes/no*

2. All workers are employed under reasonable terms and conditions which include their right to early termination of employment.
Answer format: *yes/no*

3. Employment or recruitment agencies and suppliers are monitored to prevent forced labour directly linked to its products or services.
Answer format: *yes/no*

Reference scale

+2	Management does not retain workers' documents and/or salary, and workers are employed under reasonable terms and conditions which include their right to early termination of employment. In addition, employment or recruitment agencies and suppliers are monitored to prevent forced labour.
+1	Management does not retain workers' documents and/or salary, and workers are employed under reasonable terms and conditions which include their right to early termination of employment. In addition, employment or recruitment agencies are monitored to prevent forced labour.
0	Management does not retain workers' documents and/or salary, and workers are employed under reasonable terms and conditions which include their right to early termination of employment.
-1	Management does not retain workers' documents and/or salary, but workers are not employed under reasonable terms and conditions which include their right to early termination of employment.
-2	Workers' documents and/or salary are retained, and workers are not employed under reasonable terms and conditions which include their right to early termination of employment.

Glossary

Penalty	It implies a form of monetary sanction, or physical forms of punishment such as loss of rights and privileges, or restrictions on movement where employers hold deposits or workers' documents.
Workers' documents	E.g. passports, birth certificates, work or residence permits, travel documents, etc.

Social topic:	**Discrimination**

Definition: Discrimination refers to any distinction, exclusion or preference which has the effect of nullifying or impairing equality of opportunity or treatment. In order to prevent discrimination, a company should not engage in or support discrimination in hiring, remuneration, access to training, promotion, termination, or retirement which is based on race, national or social origin, caste, birth, religion, disability, gender, sexual orientation, family responsibilities, marital status, union membership, political opinions, state of health (including HIV/AIDS status), age, or any other circumstance that could give rise to discrimination.

>> More about discrimination in Annex 10

Quantitative approach:

Performance indicators

1. Number of actions taken during the reporting period to increase staff diversity and/or promote equal opportunities.
Answer format: *whole number*

2. Number of complaints identified during the reporting period related to discrimination.
Answer format: *whole number*

Reference values

Performance indicator 1: 1 action

Performance indicator 2: 0 complaint

Scale-based approach:

Performance indicators

1. Workers understand how to file a complaint or raise concerns about any management action that violates the non-discrimination policy of a company/facility.
Answer format: *yes/no*

2. Wage slips or wage records of workers confirm equal pay for work of equal value.
Answer format: *yes/no*

3. Goals for staff diversity are set and/or achieved.
Answer format: *yes/no*

Reference scale

+2 Complaint procedure operational, equal pay for work of equal value and goals for staff diversity are achieved.

+1 Complaint procedure operational, equal pay for work of equal value and goals for staff diversity are set.

0 Complaint procedure operational, equal pay for work of equal value but no goals for staff diversity are set.

-1 Complaint procedure operational but unequal pay for work of equal value and no goals for staff diversity are set.

-2 No complaint procedure operational, unequal pay for work of equal value and no goals for staff diversity are set.

Glossary

Equal pay for work of equal value	Addresses wage differences between men and women for equal work but also to wage differences between local and migrant workers and/or minorities.

Social topic:	Freedom of association and collective bargaining

Definition: Workers should have the right to establish and to join organisations of their choice, without prior authorisation, 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 against as a result of union membership. The right to organise includes: the right of workers to strike, the rights of organisations to draw up their constitutions and rules, to freely elect their representatives, to organise their activities without restriction and to formulate their programmes.

>> More about freedom of association and collective bargaining in Annex 10

Quantitative approach:

Performance indicator

Percentage of workers identified during the reporting period who are members of associations able to organise themselves and/or bargain collectively.
Answer format: *whole number*

Reference value

Performance indicator 1: 100%

Scale-based approach:

Performance indicators

1. Workers confirm that the employer does not hinder or interfere but pro-actively informs workers about their right to organise themselves and bargain collectively.
Answer format: *yes/no*

2. Workers confirm that there has been no disciplinary action taken by management against workers organizing themselves collectively.
Answer format: *yes/no*

3. In cases where free association is restricted by law: workers understand and can describe how management pro-actively informed them on their choice of whether or not to organise themselves and engage in collective negotiations.
Answer format: *yes/no*

Reference scale

+2	Where free association is restricted by law, workers are pro-actively informed about their choice of whether or not to organise themselves and engage in collective negotiation and that their doing so will not result in disciplinary action.
+1	Workers are not hindered in their attempts to exercise their right to organise themselves and bargain collectively and worker representatives do not face disciplinary action. In addition, workers are pro-actively informed about their right to organise themselves and bargain collectively and that their doing so will not result in disciplinary action.
0	Workers are not hindered in their attempts to exercise their right to organise themselves and bargain collectively and worker representatives do not face disciplinary action.
-1	Workers are hindered in their attempts to exercise their right to organise themselves and bargain collectively or worker representatives face disciplinary action.
-2	Workers are hindered in their attempts to exercise their right to organise themselves and bargain collectively and worker representatives face disciplinary action.

Remark

With reference to the performance indicators of the scale-based approach:
Only the first two performance indicators will apply to most developed countries. The third performance indicator addresses countries where freedom of association is restricted by law. Therefore, the '+2 level' is not applicable to most developed countries where freedom of association is not restricted by law.

Social topic:	Employment relationship

Definition: Work should be performed on the basis of a recognised employment relationship established through national law and practice. Obligations to workers under labour or social security laws and regulations based on a normal employment relationship should not be circumvented by the use of labour-only contracting, sub-contracting, home-working arrangements, contracting of self-employed workers, trainee and apprenticeship schemes, or the excessive use of fixed-term contracts of employment. All parties should be aware of their rights and responsibilities, and should have access to an effective grievance mechanism.

>> More about employment relationship in Annex 10

Quantitative approach:

Performance indicator

Percentage of workers who have documented employment conditions.
Answer format: *percentage*

Reference value

Performance indicator 1: 100%

Scale-based approach:

Performance indicators

1. Percentage of workers who have documented employment conditions.
Answer format: *percentage*

2. Percentage of workers who have a permanent employment relationship.
Answer format: *percentage*

Reference scale

+2	All workers have documented employment conditions and >= 25% of workers have a permanent employment relationship
+1	All workers have documented employment conditions and < 25% of workers have a permanent employment relationship
0	All workers have documented employment conditions, but no workers have a permanent employment relationship
-1	< 25% of workers do not have documented employment conditions
-2	>= 25% of workers do not have documented employment conditions

Glossary

Documented employment conditions	A contractual relationship exists between the company and the employees, and clearly defines the conditions for continued employment, the conditions for fair dismissal, and the conditions under which the employees can terminate their employment on good terms, or an at-will employment relationship exists where the employees are made aware of their legal rights and the employees are entitled to terminate their employment without reason or warning.
Permanent employment relationship	There is a legal link between employers and workers. Both parties sign a contract where reciprocal rights and obligations are defined. The worker performs work or services under certain conditions in return for compensation. In permanent employment the relationship extends indefinitely, i.e. no date is fixed for the employment relationship to cease.

Social topic:	**Training and education**

Definition: Training and education refers to workplace policy and initiatives to expand workers' capabilities and skills, thus increasing their capacity and employability. Capacity development is important as it contributes to the growth of human capital within the organisation.

>> More about training and education in Annex 10

Quantitative approach:

Performance indicator

1. Numbers of hours of training per employee during the reporting period.
Answer format: *whole number*

Reference value

Performance indicator 1: 1 hour

Scale-based approach:

Performance indicator

1. Percentage of workers who received training or have participated periodically in programmes aimed at capacity and skill development.
Answer format: *percentage*

Reference scale

+2	All workers are trained periodically
+1	>75% workers are trained occasionally
0	Between 50% and 75% of workers are trained occasionally
-1	<50% of workers are trained occasionally
-2	Workers do not receive training

Glossary

Employability	Refers to the experiences, competencies and qualifications that increase a worker's capacity to secure and retain decent work.
Periodically	At least every year.
Occasionally	Less than once a year.

Remark

In order to avoid double-counting, training which targets workers' health and safety should be captured by the Health and Safety social topic.

Social topic:	**Work-life balance**

Definition:	Work-life balance concerns workers having choices over when, where and how they work. The balance between the commitments of work and those of private life is central to workers' well-being. Work-life balance is achieved when the worker's right to a fulfilled life at and outside work is accepted and respected, for the benefit of both the worker and the employer.

>> More about work-life balance in Annex 10

Quantitative approach:

Performance indicator

1. Percentage of workers with direct family responsibilities who were eligible for maternity protection, or to take maternity, parental or compassionate leave during the reporting period.
Answer format: *whole number*

Reference value

Performance indicator 1: 100%

Scale-based approach:

Performance indicators

1. Workers with direct family responsibilities are allowed to benefit from maternity protection, and to take maternity, parental or compassionate leave when needed.
Answer format: *yes/no*

2. Percentage of workers that can benefit from flexible working arrangements to balance work and private life.
Answer format: *percentage*

Reference scale

+2 Workers with direct family responsibilities are allowed to benefit from maternity protection, and to take maternity, parental or compassionate leave. In addition, more than 50% of the workers benefit from flexible working arrangements.

+1 Workers with direct family responsibilities are allowed to benefit from maternity protection, and to take maternity, parental or compassionate leave. In addition, between 25% and 50% of the workers benefit from flexible working arrangements.

0 Workers with direct family responsibilities are allowed to benefit from maternity protection, and to take maternity, parental or compassionate leave. In addition, less than 25% of the workers benefit from flexible working arrangements.

-1 Workers with direct family responsibilities are allowed to benefit from maternity protection, and to take maternity, parental or compassionate leave. However, flexible working arrangements are not allowed.

-2 Workers with direct family responsibilities are not allowed to benefit from maternity protection, or to take maternity, parental or compassionate leave. Flexible working arrangements are also not allowed.

Maternity protection	A worker who is pregnant or breastfeeding may cease to perform her job if she believes that, due to the pregnancy or breastfeeding, the continuation of any of her current job functions may pose a risk to her health or to that of the foetus or child. The employer may, in consultation with the worker, reassign her to another job that would not pose a risk to her health or to that of the foetus or child. The worker, whether she has been reassigned to another job or not, is deemed to hold her original job and continues to receive the wages and benefits that are attached to that job.
Maternity leave	When In possession of a medical certificate stating the estimated date of delivery, or other appropriate certification as determined by national law and practice, a woman is entitled to a period of maternity leave of not less than 14 weeks. Cash benefits are provided, in accordance with national laws and regulations, or in any other manner consistent with national practice, to women who are absent from work on maternity leave. Where a woman does not meet the conditions to qualify for cash benefits under national laws and regulations, or in any other manner consistent with national practice, she is entitled to adequate benefits from social assistance funds, subject to the test required for such assistance.
Parental leave	Parental leave refers to relatively long-term leave for fathers and mothers to allow them to take care of an infant or young child over a period of time usually following the maternity or paternity leave period.
Compassionate leave	Leave is allowed to provide care or support to a direct family member with a serious medical condition and with a significant risk of death within 26 weeks, including providing care in the context of HIV and AIDS. Family responsibilities do not, as such, constitute a valid reason for termination of employment.
Direct family	Children, wife, husband or partner, father, mother or ward, brother or sister.
Flexible working arrangements	Flexible working arrangements alter the time and/or place that work is conducted on a regular basis, in a manner that is as manageable and predictable as possible for both workers and employers. A flexible working arrangement includes: 1. Flexibility in the scheduling of hours worked, such as alternative work schedules (e.g. flexitime and compressed working weeks), and arrangements regarding shift and break schedules. This also includes work arrangements such as predictable scheduling, greater advance notice of scheduling, and/or scheduling choice (e.g. systems that would allow managers to create a better match between business demands and worker scheduling preferences); 2. Flexibility in the number of hours worked, for example, part-time work and job share; and 3. Flexibility in the place of work, such as working at home or at a satellite location.

Social topic:	**Job satisfaction and engagement**	

Definition:	Job satisfaction is the extent to which workers are satisfied with their job, their employer, intend to stay and to be loyal to their employers. Many factors influence the job satisfaction levels of the workers of an organisation, for example, work content, responsibilities and career opportunities.

>> More about job satisfaction and engagement in Annex 10

Quantitative approach:

Performance indicators

1. Percentage of workers who participated in a job satisfaction and engagement survey during the reporting period.
Answer format: *percentage*

2. Worker turnover rate during the reporting period.
Answer format: *percentage*

Reference values

Performance indicator 1: 100%

Performance indicator 2: 0%

Scale-based approach:

Performance indicator

1. Worker turnover rate during the reporting period.
Answer format: *percentage*

Reference scale

+2	Worker turnover rate <5%
+1	Worker turnover rate >=5% and <10%
0	Worker turnover rate >=10% and <15%
-1	Worker turnover rate >=15% and <20%
-2	Worker turnover rate >=20%

Glossary

Job satisfaction and engagement survey	Job satisfaction and engagement is measured through a worker survey which includes all workers and measures worker satisfaction on the following minimum aspects: - Determination to accomplish goals and confidence in meeting their goals - How their work contributes to the business goals of the company - The relationship of workers with their direct colleagues and supervisors - The communication between workers and senior management - Opportunities to use their skills and abilities at work - Career progression opportunities and professional development - Wages, compensation and benefits
Worker turnover rate	Rate at which the employer loses workers in the reporting period.

3.2 Stakeholder group: 'consumers'

Social topic:	Health and safety

Definition: Products are expected to perform their intended functions satisfactorily and not pose a risk to consumers' health and safety. This social topic addresses both risks and the positive impacts that products may have on the health and safety of the end-users of products.
>> More about health and safety in Annex 10

Quantitative approach:

Performance indicators

1. Number of claims acknowledged by a certification or accreditation body that the product contributes to a higher level of consumer health or safety.
Answer format: *whole number*

2. Number of complaints identified during the reporting period related to consumer health and safety.
Answer format: *whole number*

Reference values

Performance indicator 1: 1 claim

Performance indicator 2: 0 complaint

Scale-based approach:

Performance indicators

1. The level of contribution the product makes to consumers' health or safety.
Answer format: *multiple choice*

2. The product is labelled for safe handling.
Answer format: *yes/no*

3. A procedure is in place in the event of an unsafe product recall.
Answer format: *yes/no*

Reference scale

+2 The product improves the health or safety of the consumer, acknowledged by a certification or accreditation body. In addition, the product is labelled on a voluntary basis for safe handling (i.e. not required by regulation in the country of sale) and there is a procedure in place in the event of the recall of an unsafe product.

+1 The product reduces the risk of disease, or it helps prevent accidents or injuries. In addition, the product is labelled for safe handling according to regulation in the country of sale and there is a procedure in place in the event of the recall of an unsafe product.

0 The product does not reduce the risk of disease and neither does it help prevent accident or injury. The product is labelled for safe handling according to regulation in the country of sale and there is a procedure in place in the event of the recall of an unsafe product.

-1 The product does not reduce the risk of disease and neither does it help prevent accident or injury. The product is labelled for safe handling according to regulation in the country of sale, but there is no procedure in the event of the recall of an unsafe product.

-2 The product increases risk of disease, accident or injury. Furthermore, the product is not labelled for safe handling although required by regulation in the country of sale and there is no procedure in the event of an unsafe product recall.

Glossary

Certification or accreditation body	Health and safety claims are based on criteria defined by standards and validated by certification or accreditation bodies specific to each country (e.g. the European Food Safety Authority).
Claims	A health claim is any statement on labels, advertisements or other marketing material stating that consumption of a given product results in benefits to the consumer's health, such as a claim that a food product can help reinforce the body's natural defences or enhance learning ability. A nutrition claim states or suggests that a food product has beneficial nutritional properties, such as "low fat", "no added sugar" and "high in fibre".
Complaints related to consumer health and safety	Complaints regarding consumer health and safety include, for example, illness due to rotten food, or accidents due to a malfunctioning seat belt in a vehicle.
Labelling for safe handling	Supplier brings to the consumers' attention hazardous risks and provides the consumers with adequate instructions for safe handling and use of the product. Labelling for safe handling may be as a result of existing regulation in the country of sale (e.g. ReaCH in Europe, Carb in the USA, the European Cosmetics Directive) or on a voluntary basis if the company's policy goes beyond regulation.
Unsafe product recall	Supplier informs consumers and the authorities if a hazardous or unsafe product component is detected, and provides mechanisms for recall.
Safe product	Consumers are entitled to purchase products and services that are safe and free from hazardous risks and that comply with applicable health and safety standards.

Social topic:	**Experienced well-being**	

Definition: Experienced well-being is the self-evaluation of positive and negative feelings or emotional states, with reference to a particular experience. This social topic measures the well-being the consumer experiences associated with the use of a product.

>> More about experienced well-being in Annex 10

Quantitative approach:

Performance indicator

Composite measure of experienced well-being
Answer format: *whole number*

Reference value

Performance indicator 1: 10

Scale-based approach:

Performance indicator

1. Composite measure of experienced well-being
Answer format: *whole number*

Reference scale

+2	Composite measure of experienced well-being from +6 and +10
+1	Composite measure of experienced well-being from +1 and +5
0	Composite measure of experienced well-being = 0
-1	Composite measure of experienced well-being from -1 and -5
-2	Composite measure of experienced well-being from -6 to -10

Glossary

Experienced well-being questions	The following set of questions asks consumers how they felt on a scale of 0 to 10 when using a product. Zero means they did not feel the emotion "at all", while 10 means they felt the emotion "a lot":
	A1. Overall, how happy did you feel? [0-10]
	A2. Overall, how calm did you feel? [0-10]
	B1. Overall, how angry did you feel? [0-10]
	B2. Overall, how sad did you feel? [0-10]
	B3. Overall, how much pain did you feel? [0-10]
	B4. Overall, how tired did you feel? [0-10]
	C1. Overall, how comfortable did you feel? [0-10]
	C2. Overall, how much self-esteem did you feel? [0-10]
	C3. Overall, how proud did you feel? [0-10]
	C4. Overall, how connected did you feel? [0-10]
	C5. Overall, how pleased did you feel? [0-10]
	D1. Overall, how uncomfortable did you feel? [0-10]
	D2. Overall, how insecure did you feel? [0-10]
	D3. Overall, how ashamed did you feel? [0-10]
	D4. Overall, how lonely did you feel? [0-10]
	D5. Overall, how annoyed did you feel? [0-10]

Glossary

Composite measure of experienced well-being	The composite measure of experienced well-being is based on experienced well-being questions. It captures aspects of the respondent's effect balance, i.e. positive and negative mood, and which of the two is the stronger. In all cases, the answers are associated with a particular experience. The composite measure can be calculated as the composite measure of positive effect less composite measure of negative effect, for each respondent, divided by 16 and averaged over all respondents. This results in a value from -10 to 10.
Composite measure of positive effect	A composite measure of positive effect can be calculated as the average score for Questions A1-2 and C1-5, excluding missing values. This results in a value from 0 to 10.
Composite measure of negative effect	A composite measure of negative effect can be calculated as the average score for Questions B1-4 and C1-5, excluding missing values. This results in a value from 0 to 10.

Remarks

As with any other performance indicator proposed in the handbook, the assessment of the composite measure of experienced well-being depends on the availability of data. Therefore, this topic can be assessed only if based on a sample from consumer research with a valid number of respondents.

This social topic is not applicable to products of ethical controversial business areas (Oekom, 2014) and/or if there is a significant negative health risk associated with either one-off or long-term use of the product. In the latter, these risks may outweigh the positive experience of well-being associated with the product. Significant negative health risks may arise, for instance, through the use of:
• Alcohol: alcohol poisoning or risk associated with impaired driving from one-off use, or liver disease including cirrhosis from long-term use;
• Cigarettes: cancer associated with long-term use;
• Drugs: overdose or impairment associated with short-term use, severe health damage associated with long-term use;
• Weapons: risk of injury to oneself or others through misuse.

Limitations

• Questions A1-2 and B1-4 are based on one of the question modules that focus on one specific aspect of subjective well-being as defined by the OECD (OECD, 2013). Questions C1-4 and D1-4 were added by the Roundtable for Product Social Metrics based on surveys undertaken in industry.
• Experienced well-being as defined by the OECD (OECD, 2013) measures a person's state of mind, not how a person's state of mind is influenced by using a product. The original experience reconstruction questions were rephrased to assess "how did you feel about yourself and your life" instead of "how did you feel while using product X". No empirical evidence was found to prove that the original question could be adapted to measure the well-being associated with using a product as proposed here.
• A consumer often uses many products during a specific period in a time, for example clothing, tea, cup, toothbrush, toothpaste, etc. No empirical evidence was found that a single product is responsible for the experienced well-being, as opposed to the combination of products and external factors.
• If the period of time was fixed, this performance indicator would not make visible the effect of using a product, but rather the feelings associated with using the product in the fixed period of time. For instance, the performance indicator could assess whether consumers felt pain when consuming an aspirin, but not whether consumers felt less pain 2 hours after consuming an aspirin.
• The experienced well-being questions do not allow the "allocation" of the feelings to a specific product component, but rather the assessment of the product as a whole.
• The questions do not take into account external factors that may affect the experienced well-being, For instance, they do not consider the contribution of weather and traffic when assessing the well-being associated with driving a car.

3.3 Stakeholder group: 'local communities'

Social topic:	Health and safety

Definition: The extent to which the company or facility works to prevent and mitigate adverse impacts, or enhance positive impacts on the health and safety of the local community, with particular attention to vulnerable groups such as indigenous peoples and women.

>> More about health and safety in Annex 10

Quantitative approach:

Performance indicators

1. Number of programmes during the reporting period to enhance community health or safety.
Answer format: *whole number*

2. Number of adverse impacts on community health or safety identified during the reporting period.
Answer format: *whole number*

Reference values

Performance indicator 1: 1 programme

Performance indicator 2: 0 adverse impact

Scale-based approach:

Performance indicators

1. Risks and impacts on community health and safety are regularly assessed and monitored.
Answer format: *yes/no*

2. Appropriate measures to prevent or mitigate adverse impacts on community health and safety are implemented.
Answer format: *yes/no*

3. Proactive action to improve community health and safety is taken. .
Answer format: *yes/no*

Reference scale

+2 Risks and impacts on community health and safety are regularly monitored. Appropriate measures to prevent and mitigate adverse impact are implemented. The company or facility also takes proactive action to improve community health and safety.

+1 Risks and impacts on community health and safety are regularly monitored. Appropriate measures to prevent and mitigate adverse impact are implemented.

0 Risks and impacts on community health and safety are regularly monitored. No actual damage is identified, but either no or only minimum measures necessary to prevent adverse impact are implemented.

-1 Neither risks nor impacts on community health and safety are regularly monitored. Only minimum measures necessary to mitigate adverse impact are implemented in response to actual damage.

-2 Neither risks nor impacts on community health and safety are regularly monitored. No measures to mitigate actual damage are implemented.

Glossary

Adverse impacts	Negative impacts on community health or safety, for example, dealing with hazardous waste in an inappropriate way resulting in a river becoming polluted. Adverse impacts may be identified through complaints, petitions and legal disputes.

Social topic:	**Access to tangible resources**	

Definition:	The extent to which the company or facility works to prevent and mitigate adverse impacts on, or to restore and improve community access to, tangible resources and infrastructure. It also includes respect for indigenous peoples' and women's land rights and tangible forms of cultural heritage.
	>> More about access to material resources in Annex 10

Quantitative approach:

Performance indicators

1. Number of programmes during the reporting period to enhance community access to tangible resources or infrastructure.
Answer format: *whole number*

2. Number of adverse impacts on community access to tangible resources or infrastructure during the reporting period.
Answer format: *whole number*

Reference values

Performance indicator 1: 1 programme

Performance indicator 2: 0 adverse impact

Scale-based approach:

Performance indicators

1. Risks and impacts on community access to tangible resources are regularly assessed and monitored.
Answer format: *yes/no*

2. Appropriate measures to prevent or mitigate adverse impacts or to restore community access to tangible resources are implemented.
Answer format: *yes/no*

3. Proactive action to improve community access to tangible resources is taken.
Answer format: *yes/no*

Reference scale

+2 Risks and impacts on community access to tangible resources are regularly monitored. Appropriate measures to prevent and mitigate adverse impacts are implemented. The company or facility also takes proactive action to improve community access to tangible resources.

+1 Risks and impacts on community access to tangible resources are regularly monitored. Appropriate measures to prevent and mitigate adverse impacts are implemented.

0 Risks and impacts on community access to tangible resources are regularly monitored. No actual damage is identified, but only minimum measures necessary to prevent adverse impacts are implemented.

-1 Neither risks nor impacts on community access to tangible resources are regularly monitored. Only minimum measures necessary to mitigate adverse impacts are implemented in response to actual damage.

-2 Neither risks nor impacts on community access to tangible resources are regularly monitored. No measures to mitigate adverse impacts are implemented.

Glossary

Tangible resources	Tangible resources such as water, land, mineral resources and tangible forms of cultural heritage.
Infrastructure	Physical and technical structures that support the community, for example, roads, street lighting, telecommunications, sanitation and waste disposal systems.
Cultural heritage	Refers to (i) tangible forms of cultural heritage, such as tangible movable or immovable objects, property sites, structures, or groups of structures, having (prehistoric) archaeological, paleontological, historical, cultural, artistic, or religious value; and (ii) unique natural features or tangible objects that embody cultural values, such as sacred groves, rocks, lakes, and waterfalls.
Adverse impacts	Negative impacts on community access to material resources, for example, by limiting access to water or land, polluting rivers, congestion on roads, or mismanagement of water drainage affecting local properties. Adverse impacts may be identified through complaints, petitions and legal disputes.
Programmes to improve community access to tangible resources or infrastructure	Programmes such as beneficial waste programmes, energy production and maintenance of wetlands.

Social topic:	Local capacity building

Definition:	The extent to which the company or facility works to contribute to the long-term development of local communities by enhancing and unlocking their human potential through improved access to knowledge, information, technology and skills.

>> More about local capacity building in Annex 10

Quantitative approach:

Performance indicators

1. Number of programmes targeting capacity building in the community during the reporting period.
Answer format: *whole number*

2. Number of people in the community benefitting from capacity building programmes during the reporting period.
Answer format: *whole number*

Reference values

Performance indicator 1: 1 programme

Performance indicator 2: 1 person

Scale-based approach:

Performance indicator

1. The company or facility identifies opportunities and implements programmes to build human capacities of community members through general community education initiatives and/or formal programmes.
Answer format: *yes/no*

Reference scale

+2 Capacity building through formal programmes which target community members is ongoing with transparent guidelines and timelines.

+1 Capacity building through general community education initiatives which target community members is ongoing with transparent guidelines and timelines.

0 Capacity-building initiatives which target community members are undertaken on an ad-hoc basis.

-1 Opportunities to build human capacities in the community are identified but no initiative which targets capacity building is undertaken.

-2 Opportunities to build human capacities in the community are not identified.

Glossary

Formal training programmes	Vocational training programmes that target a wider community, other than specific staff training provided by companies to their own workers.

Remark

In order to avoid double-counting, training programmes that target workers are captured by the Training and Education social topic.

Social topic:	Community engagement

Definition: The extent to which the company or facility engages with community stakeholders through ongoing open dialogue and responds to their concerns and inquiries fairly and promptly, in order to continuously foster greater trust and the relationship with the local community. Particular attention needs to be paid to engaging representatives of vulnerable groups such as indigenous peoples and women.

>> More about community engagement in Annex 10

Quantitative approach:

Performance indicator

1. Number of programmes or events targeting community engagement during the reporting period.
Answer format: *whole number*

Reference value

Performance indicator 1: 1 programme or event

Scale-based approach:

Performance indicators

1. Culturally appropriate and accessible communication channels between the company or facility and the community (e.g. local panels) are formally established and used regularly. Community queries and grievances concerning the company's social performance in practice are assessed and addressed based on transparent guidelines and timelines.
Answer format: *multiple choice*

2. Opportunities for community support are identified and appropriate programmes are implemented.
Answer format: *yes/no*

Reference scale

+2 Communication channels between the company or facility and the community are formally established and used regularly. Community queries and grievances are addressed voluntarily in a transparent and systematic way. The company or facility also identifies opportunities for community support and implements appropriate programmes.

+1 Communication channels between the company or facility and the community are formally established and used regularly. Community queries and grievances are addressed voluntarily in a transparent and systematic way.

0 Communication channels between the company or facility and the community are formally established but not used regularly. Community queries and grievances are addressed voluntarily on an ad-hoc basis.

-1 Communication channels between the company or facility and the community are not formally established. Community queries are addressed on an ad-hoc basis; community grievances are addressed reactively, i.e. only if demanded by local authorities.

-2 Communication channels between the company or facility and the community are not formally established. Community queries and grievances are not addressed.

Glossary

Community support	Direct involvement in community initiatives and/or through financial support of community projects targeting areas other than health or education.
Query	Any inquiry or request from a member of the local community.
Grievance	Any complaint from a member of the local community related to something believed to be wrong or unfair.

Remark

In order to avoid double-counting, community programmes that target health or education are captured by the Health and Safety and the Local Capacity Building social topics respectively.

Social topic:	**Employment**

Definition:	The extent to which the company or facility creates new jobs. Employment improves the economic livelihood of the workforce and their families. Employment also creates ripple effects of sustainable development across the community.
	>> More about employment in Annex 10

Quantitative approach:

Performance indicators

1. Number of new jobs created during the reporting period
Answer format: *whole number*

2. Number of jobs lost during the reporting period
Answer format: *whole number*

Reference values

Performance indicator 1: 1 new job

Performance indicator 2: 0 job lost

Scale-based approach:

Performance indicators

1. Number of new jobs created during the reporting period
Answer format: *whole number*

2. Number of jobs lost during the reporting period
Answer format: *whole number*

Reference scale

+2	Number of new jobs created > number of jobs lost. Number of new jobs created >= 2% of total number of jobs in the company or facility.
+1	Number of new jobs created > number of jobs lost. Number of new jobs created < 2% of total number of jobs in the company or facility.
0	Number of new jobs created = number of jobs lost
-1	Number of new jobs created < number of jobs lost. Number of jobs lost < 2% of total number of jobs in the company or facility.
-2	Number of new jobs created < number of jobs lost. Number of jobs lost >= 2% of total number of jobs in the company or facility.

Glossary

New jobs created	Additional new individual jobs or headcount. This does not include the replacement of workers who have left the company.

The performance indicators presented in sections 3.1 to 3.3 were selected to support the impact assessment. One limitation of the proposed performance indicators is that they typically measure inputs and outputs, instead of the final impacts of the product (see relationship in Figure 13).
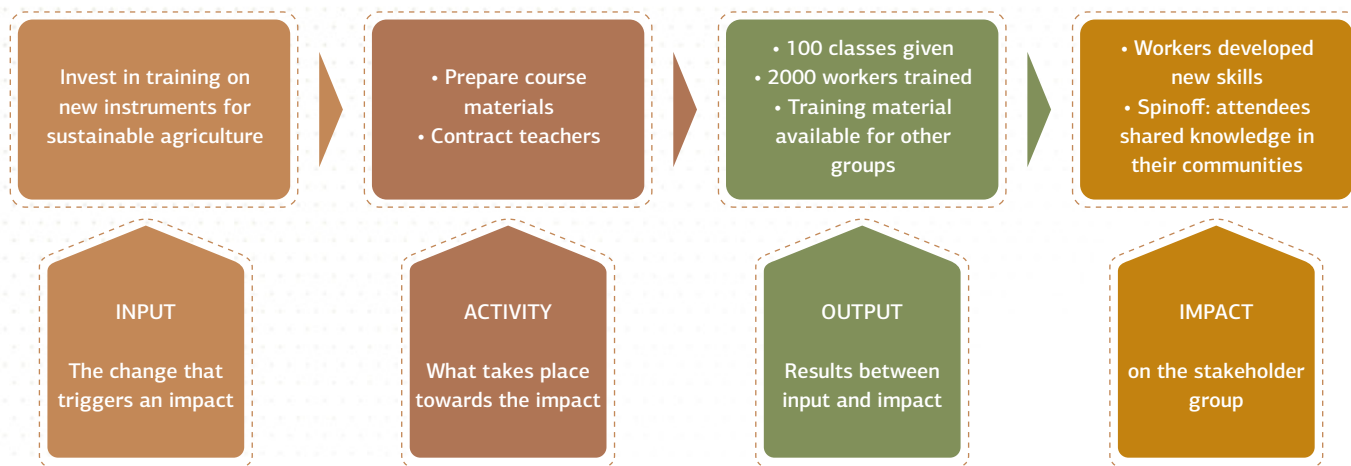

Figure 13: Social cause and effect of training workers

It is evident that measuring impacts should be achievable in impact assessment. However, assessing final impacts implies a less objective interpretation, as the mechanisms and other factors that can influence the final impact, including the time dimension, need to be considered. In the example above, the link between investing in training workers (i.e. the input) and the consequence of the investment in terms of education (i.e. the impact) is described. Key questions for assessments in this example could be "how much the workers improved their skills due to the knowledge acquired during the training" and "how much more knowledge can be transferred if more budget is available for training". However, as illustrated in Figure 13, this will depend on different factors, including the quality of the training material. Furthermore a problem of double-counting might occur if inputs, outputs and impacts are assessed. Therefore, due to the objectivity of the impact assessment proposed in this handbook, only parts of the mechanism are measured, mostly inputs or outputs.

4 Pilots

The methodology proposed in the handbook was tested during the 2nd phase of the Roundtable for Product Social Metrics by the participant companies. The summaries of the pilots are presented in this chapter.

4.1 Pilot 1: tire
Approach tested: Quantitative

Introduction
The product chosen for this pilot was a Run On Flat tire as mounted onto a BMW vehicle. This tire is designed to provide extended mobility by providing temporary performance in deflated mode. In order to simplify analysis, four main materials were considered in the production of the tire, with the main raw material feedstock being produced by BASF and the tire manufacturing phase being conducted by Goodyear. This case demonstrates the methodology by evaluating a well-known product and product application. Through the testing, we considered multiple tiers in the supply chain and attempted to collect data through a variety of methods. Furthermore, this case sought to examine how the methodology might be applied to businesses of different sizes.

Application of the Methodology
We decided to implement a quantitative approach for the entire product life cycle while considering all three stakeholders groups. We decided to apply a quantitative approach because BASF, Goodyear and BMW are interested in quantifying social aspects along the supply chain in existing life cycle activities. Examples of experiences in this topic are BASF's SEEBALANCE® methodology as well as BMW Group´s Sustainability Risk filter. Another goal was to test the ability to quantify and aggregate the data to allow for comparison of alternatives. The test phase was a good opportunity to see if the methodology provides a workable approach to support decision-making with quantified, life-cycle-based data founded on social indicators.

Our initial goal was to assess the product from cradle to grave, including the production of raw materials at multiple tiers of suppliers throughout the use phase of the car (the tire can, for example, affect the comfort and "well-being" of the driver in the use phase) until the end of life of the tire. Inadequate data availability led to the eventual exclusion of some phases and a focus on the most relevant products and life cycle steps.

We decided to include data from the production of other materials, such as steel and natural rubber that were outside the operational control of the project partnership. The data were collected using questionnaires to suppliers, different types of reports, and statistical databases. This approach allowed testing of data collection from multiple data source types, showed the quantified contribution of different industries to the social impacts and made it possible to identify improvement potential in the supply chain.

Operationalisation and Feasibility
Operationalisation of the assessment strongly depends on the company size. In our case, it was necessary to involve several departments in the assessment (e.g., human resources, company site management, procurement, EHS). Furthermore, the assessment was coordinated by specialists from the departments responsible for sustainability and life cycle assessment who were able to contribute data from existing databases and methodological set ups. These departments may be best suited to facilitate the assessment, particularly a quantitative one, because the logic relies on the methodological approach normally used in a life cycle assessment. Even if there are no existing ISO standards for social assessments, the logic and processes of ISO 14040, 14044, and 14045 are helpful in performing a study using social indicators.

The time requirement is not easy to estimate as it may depend on company size and the number of parties involved in the data collection process. Due to the large number of indicators for which it is necessary to find data, data collection is likely to require a minimum of 30 to 40 working days. This depends to a large extent on the complexity of the assessment, the number of industries covered, and the number of alternatives to be assessed. It is easier if all companies involved in the product life cycle jointly participate in the project; otherwise, obtaining social data may be challenging for reasons of confidentiality.

In our case, we succeeded in obtaining 65% of the data for the entire life cycle. This included steps that were not directly controlled by the project partners. In some cases, we found that it is possible to obtain secondary data from sustainability reports and statistical data at sector or country levels. However, statistical data were not available for all indicators within the assessment (e.g., job satisfaction, experienced well-being). The end-of-life step was particularly challenging: No specific social data were available and it was not even possible to identify country-specific data.

By asking similar questions to different stakeholders about the same area, it was found that interpretation may pose a challenge due to greater subjectivity in the social metrics. More guidance may therefore be required in the future to enable more uniform assessments and to ensure that all actors within the value chain respond similarly to questions. The testing further showed that there were opportunities to improve the quantitative assessment methodology both for indicators and aggregation of results. This feedback was integrated into the revised handbook.

For a number of reasons, some modification would be required for it to be truly applicable to this group: 1) criteria may be worded for an organization with a management structure and employees (e.g., employment relationships), 2) some criteria may not be expected of small farmers, 3) some criteria would require consideration external to a farmer's operation (e.g., training), 4) some criteria would need to be interpreted differently (e.g., wages), and 5) some data may not be collected or available (e.g., job satisfaction). This experience has also been made in other agricultural applications and initiated the development of "AgBalance™" by BASF, a holistic agriculture specific evaluation method including social indicators.

The results of the analysis can be used in internal decision-making, as well as for marketing purposes by informing the supply chain and society about the benefits related to products and innovations. It makes sense to place priority on evaluating products that have high visibility in society, due to the greater consumer awareness of such products. Social benefits/impacts of a product might help to spread the product itself in the marketplace because of its sustainability performance and generates better understanding of this new type of evaluation including social aspects. Additionally, specific hotspots can be identified and optimized during product design and development and can be shown to different stakeholders. It is also helpful to get an overview of the whole life cycle of a product and supply chain, refine results from important life cycle steps, and identify areas where improvements would be most effective.

Value Added

The methodology helps to identify the most relevant social indicators and impacts, in addition to any data gaps. The transparent data aggregation provides direction for decision-making and can support development processes as well as demonstrate future product improvements. Furthermore, it was found that the data collection process could facilitate discussions with supply chain partners and provided a tool for engagement on important social topics within the company across functional groups. Due to consideration of both positive and negative criteria, the methodology allows for an action-based discussion that may help to promote more positive actions throughout the supply chain. This is a part of a more sustainable product solution that can be supported with quantitative data. Lastly, the methodology facilitates the communication of the social benefits of products to both sustainability professionals and non-experts to support a general understanding of the contributions of products and applications to a more sustainable society.

The pilot showed that the quantitative approach can generate information related to a product's contribution to society (e.g., how many safety training hours are associated with the production and assembly of a tire throughout its life cycle). These data points are not normally available, but support the understanding of the overall importance of a product and provide a full picture of improvement opportunities beyond environmental and economic aspects in order to generate more sustainable solutions. The quantification allows a very distinct discussion of the results. If it were to be scaled up, for instance to all produced cars, it could generate information about the overall contributions of specific products to social indicators. If the understanding of the methodology is clear, it might also be very interesting to assess products with lower visibility in order to demonstrate their contribution (positive or negative) to social indicators. The products with mainly positive contributions may in turn lead to higher acceptance of products in society.

4.2 Pilot 2: hypothetical protective coating
Approach tested: Scales-based

Introduction
The pilot was conducted among the Roundtable participants AkzoNobel and DSM. The participants decided to evaluate the social product metric of a hypothetical protective coating. The scope of the project was set from the vitamin produced by DSM up to the coating produced by AkzoNobel, which includes four life cycle actors. The value chain begins with a vitamin produced by a DSM facility in the Netherlands. The vitamin is being used to nourish the microorganisms used in biobased process in which sugar is converted through a fermentation process to produce a lactic acid based product. The lactic acid based product is then used as one ingredient in the production of AkzoNobel's protective coating, also in the Netherlands.

Application of the Methodology
The group decided to focus on indicators related to workers. Although there are also social considerations for consumers related to using the protective coating as well as an impact on the community in the production of the coating, these were not considered for the purpose of the pilot. The worker topics were prioritized as follows based on perceived risk in the Netherlands. The following were considered of high importance: health and safety, freedom of association, training and education, work-life balance, and job satisfaction. The following were considered of medium or lesser relevance for this case: living wage, working hours, employment relationship, forced labour, and discrimination. However, it was decided to investigate all worker indicators for the pilot for completeness.

Operationalisation and Feasibility
Based on the data collected internally and externally it was possible to create an overview of social impacts across the life cycle of the coating, across four stages. Most of the information required to estimate the scale values of the indicators was available in company questionnaires or databases. These were in the form of company data provided by the Human Resources and Operations departments of AkzoNobel and DSM.

Another important outcome of this pilot was the comparison of the handbook indicators with other existing sources. These were: the Social Hotspots Database, Vigeo questionnaires, Ecovadis and Sedex. The information is not directly compatible with the scales but it can be derived from these sources. Vigeo, SEDEX and Ecovadis cover most but not all indicators, their limitation is that not all companies are covered by these databases. The Social Hotspots Database is very general as it gives information per region and industrial sector. We recommend using it only to fill in data gaps or for a preliminary screening. For the assessment of the sugar supplier, a Sedex self-assessment questionnaire filled in by the sugar supplier was used to fill in the responses to the product social metrics questionnaire where appropriate. In some cases, the Sedex questionnaire did not contain the information requested and in other cases, it included much more detail than required. Also, DSM performed an evaluation of its vitamin based on the Social Hotspots Database. Again, these data were deviated from the indicators in the handbook, and could only be partly used.

The current social topics descriptions and proposed questionnaire provides a good guidance to execute the methodology. Some indicators were difficult to interpret or not completely aligned with common measures, however these revisions/improvements have been incorporated into the latest version of the handbook. Certain suggestions were made to refer to information typically collected by companies, such as in the case of safety - requesting the lost working day case (LWC) frequency rather than accident rate as this is more common in industries - or in terms of employee satisfaction, requesting whether a survey is conducted rather than the satisfaction rate. This is thought to make implementation easier for companies and ensure that the data more consistent. During the assessment, regional differences in employment practices became evident. For example, in the United States, there are typically no formal employment contracts, but rather other documents which describe the employment relationship. This meant rewording the questionnaire to describe the employment relationship in an applicable way.

The questionnaire was thought to be quite easy to implement due to the fact that it is fairly manageable in terms of information requirements / resources required. In our experience, if all data is available, the indicators can be collected within a two hour timeframe. The assessment can be best operationalized by including the following departments: sustainability, life cycle specialists (if present), human resources, legal, and operations. However, one focal point is ideally best to coordinate and administer the data.

Value added
The members of the pilot felt the handbook and indicators will have added value in showing companies where potential social hotspots exist as well as opportunities for improvement. The methodology offers companies the possibility to investigate both risks and differentiators of products across the value chain.

A key motivation in performing the assessment is to provide more transparency on both risks and benefits related to a product's production and use. Therefore, in terms of risk assessment, it may be most valuable for value chains with operations in non-OECD countries, as these may be exposed to greater social risks. The methodology may also be valuable for products in which social benefit are expected, particularly for communities or consumers, as the methodology may enable positive impacts of the product's use to be better understood.

4.3 Pilot 3: hair care product
Approach tested: Scales-based

Introduction
The pilot was conducted by Philips and DSM. It addresses a new consumer hair care product currently in pilot-production and in pre-release when the study was conducted.

Application of the Methodology
The interest of both companies was to focus on opportunities that enable product differentiation on the basis of social metrics towards consumers, notably based on 'experienced well-being'. In the assessment we identified and listed data quality levels driven by data origin and credibility.

Operationalisation and Feasibility
During this test the following departments were involved from both companies: Product Marketing, Procurement, Group/corporate Sustainability, LCA expertise centre and suppliers.

In our case the Procurement/Sourcing department, the Group/Corporate Sustainability departments performed the assessment. Time spent in total was 15 days (throughput time) and 2 days (in total at both companies) for data collection and review. The throughput time was influenced, for example, by availability of the data, willingness to share data, reliability of the data and the life cycle stage of the product (development, released, obsolete).

We consider this scales based approach is feasible for internal hotspot and business opportunity analysis if it is being performed by the same subgroup of stakeholders and if a subset of assessment indicators is used for comparison. The current way of questioning (questionnaire) may leave some room for interpretation. We advise optimising and updating the questionnaire and aligning it with the social topics description to make sure all users have the same understanding.

As we see it, the scales-based approach can be used by companies to create awareness and understanding of potential hotspots (negative scores) or product differentiators (positive scores) within a relatively short period of time.

We expect that all types of products can be assessed. The outcome depends on the scoping or coverage, the complexity of the selected product, the complexity of supply chain (N-Tier) and willingness or ability to provide information.

We expect this approach could be very valuable when identifying additional value of new innovations versus assessing commodities, as it could improve customer experience and increase customer satisfaction. If the existing supply chain is already known, has been checked, audited or even verified by a third party on the social aspects (such as the pilot already undertaken), we do not expect new information to surface. Differentiation at the customer stage is recognized as the most useful, especially in supporting benchmarking and customer research.

Value added
The added value of social impact assessments as tested for companies will notably be mid or long term, when a standardized and robust approach for product social impact can be integrated into different companies. It would then support product development and product marketing in gaining new consumer and market insights, in creating product specification and when making product claims.

Most added value can be created once this approach is implemented as part of the existing product development process. In that situation, when information is available over a range of comparable products, it would mean products having the same functionality from a customer perspective, even if this is achieved via a different technology. It can be used as a measurement instrument for product evolution or in the development of new products, to differentiate on social impact, such as well-being or health and safety.

Additional insights
This pilot is a typical example of using the Handbook in early development or pilot phase (application 2 and 3), before product launch. It demonstrates that product differentiators in the use phase can be found and substantiated, contributing to consumers experienced well-being.

4.4 Pilot 4: task chair component
Approach tested: Scales-based

Introduction
Steelcase and DSM have partnered in this pilot. The product chosen by the companies was a Steelcase task chair component, made of a DSM polyamide grade.

Application of the Methodology
The approach chosen was the "scales-based" assessment. The scope was the life-cycle stages from materials production to use phase, with the following actors:
- Materials production: DSM and a DSM supplier
- Component production : injection moulding at a Steelcase supplier
- Assembly and completion of the final product: assembly of the task chair at Steelcase

- Use: consumer
- End of life, transportation, and some of the materials production steps were excluded from the scope considering the limitations of the data in terms of time and availability. The consumer's "experienced well-being" was excluded from the scope.

Operationalisation and Feasibility

Several departments were contacted for the related data collection, depending on the companies involved: human resources, product certification in-house experts, research and innovation, operations, and sustainability / environment. Most data were available. Test partners considered that this data collection was not very time consuming.

Value added

It sounds obvious that such a social assessment could be performed on most office furniture products (chairs, storages, desks, partitioning walls, screens, etc.). It is also highly probable that the most interesting outputs would come in particular from the analysis of both the materials production stages. In fact, many industrial operations occur during those stages, which mean that a number of workers and local communities are potentially directly/indirectly concerned.

Based on the test and discussions following the outcomes, Steelcase and DSM have defined a number of observations and recommendations:
- If the assessment is primarily based on reports provided by companies and suppliers themselves, how can the data quality be guaranteed and the right level of confidence regarding the resultant answers (i.e. risk mitigation strategy) be created? Suggestions might include requesting extra evidence that substantiates the answers, or performing audits. Within the boundaries of throughput time and time spent on this pilot, it was difficult to assess the end-of-life stage. For future case studies we would recommend creating a database with end-of-life principles and data.
- For this test we looked at one part of an office chair. The question is how to allocate the social impacts of a whole chair which could consist of a large number of components. A chair is made from about 300-400 parts, of various weights (from a few grams to a few kilos) and material types. We believe it is important to continue exchanges between participants to find a feasible and practical solution for this.
- We believe that data collection could probably be optimized if data are collected together with environmental data, for instance for LCAs, certifications, CSR reports, etc.
- Product Social Impact Assessments can provide additional data that can be used for CSR communications, except that with this type of assessment there is a more important focus on specific products and/or specific life-cycle stages (e.g. external production).
- Assessments like this can potentially create new information that can be used in marketing, for instance new information on improved experienced well-being by the end-user (including, for instance, comfort). In this case we could not test this, but we can imagine that if you assess a whole product, market research can help to provide information on experienced well-being.

4.5 Pilot 5: serum and hand cream
Approaches tested: Quantitative and Scales-based

Introduction

The L'Oréal Group, DSM and AkzoNobel have decided to test both approaches with two products: a serum and a hand cream (both from The Body Shop, one of L'Oréal's brands). Both products contain ingredients from AkzoNobel and DSM. It was decided not to cover the whole life cycle of these products, but to focus on the stages where we could get information, such as production of ingredients and packaging components, manufacturing of the products, retail and usage. The end of life was excluded.

Application of the Methodology

This pilot was the opportunity to test the 2 approaches: the scales-based and the quantitative. By trying these two methods, the companies aimed at getting experience and insight about what is more feasible and relevant, according to the type of product. The participating companies decided to assess social topics related to the 3 stakeholder groups as described in the handbook i.e. workers, consumers and local communities.

The social topics assessed for both the scales-based and the quantitative approaches were:
- Workers: Health and safety, wages, and social benefits;
- Consumers: Health and safety, and experienced well-being,
- Local communities: Access to tangible resources, and community engagement.

Operationalisation and Feasibility

The assessment was carried out with the support of different departments. At L'Oréal the following departments were involved: the Group CSR Department (in charge of coordination), the brand Sustainable Development Department, the brand Purchasing Department, the brand Marketing Department and the brand HR Department. DSM and AkzoNobel involved the Sustainability, the Purchasing and the Corporate Operations departments.

To perform the assessments we needed to collect data from the different stakeholders groups: ingredient and packaging suppliers, not only for their own production but also related to the local communities, the manufacturing plant workers, the retail workers and the brand itself regarding the consumer insights. Since such assessment is not something they were used to, it was quickly identified that there was a need for guidance and training. Specific questionnaires were then expanded. Most of the information that was required was available in internal company databases or questionnaires. The data were collected from the suppliers and through The Body Shop HR, CSR, purchasing and marketing departments.

The pilot took approximately 60 days, from the moment we sent the questionnaires until the assessment was completed. More than 95% of the time was spent in gathering data. On the basis of the data collected during the process we have been able to get an overview of the social impacts along the assessed life-cycle stages of the products.

The *scales-based approach* appeared to be more appropriate for this pilot. The *quantitative approach* appeared to be more complex related to the nature of information needed and to some confidentiality issues. The *quantitative approach* single number output does not allow precise identification of where the hotspots are along the supply chain and makes it then more difficult to improve the score.

The current social topics descriptions and proposed questionnaire provide good guidance on performing the methodology for the *scales-based approach*. The questionnaire was thought to be easy to implement. The subcontractors and suppliers have judged the time and effort required to do this assessment as fairly manageable. The assessment is feasible provided that the company allocates resources. The methodology is most feasible for products that are relatively advanced in the development process (ideally already on the market) as all data exist and can be collected. It would be less feasible at earlier stages of the development process as some data would be missing.

Value added

The assessment shows where potential social hotspots may occur. It monitors lines of improvement. In this pilot no particular hotspot has been identified.

The assessment provides companies with more transparency regarding product production and use. The methodology of the assessment may also drive the suppliers towards more engagement on social benefits. Furthermore, the assessment allows companies to compare different products based on social criteria which might be helpful for improvement.

Additional insights

The Body Shop, DSM and AkzoNobel decided to test the two approaches on different products to be able to conclude which works best for the pilot.

Moreover, the choice of the Body Shop products made this case interesting as the brand is responsible for product design and retail, and also works very closely with the local communities through The Community Fair Trade programme.

Based on this pilot we have had the opportunity to discuss and improve the definitions for Consumer Health and Safety, and Consumer Experienced Well-being. These two social topics are of particular interest not only to avoid negative impacts, but also to explore ways of creating positive social impacts.

4.6 Pilot 6: plastic oil pan
Approaches tested: Quantitative and Scales-based

Introduction

The subject of study was a plastic oil pan used in the BMW cars made of a material produced by DSM.

Application of the Methodology

We decided to test both the scales-based and the quantitative approaches. Our goal was to assess the product – from cradle to gate - from production of raw material to the assembly phase of the car. In line with the life-cycle thinking approach, we also considered the energy supplier for component production. We have not considered the use phase or the consumer as stakeholder group because we concluded that this specific vehicle´s component does not significantly impact the end-users. End of life was also left out of the scope because of the limited data availability within the test period.

The data obtained are site-related. It was not possible to obtain data at the product level, except for the last life-cycle phase. In order to make a comparable assessment we decided to carry out the assessment with site-specific data for all life-cycle stages.

We performed the scales-based assessment up to the highest level of results aggregation and the quantitative assessment up to the referencing phase, according to the methodology as explained in this handbook.

Operationalisation and Feasibility

We found that to carry out the assessment, and gather all necessary data, the process is influenced strongly by the company size:

a. A small company can obtain the necessary data from the management teams of the company sites involved in the life cycle of the product under assessment, including the human resource information.

b. Practitioners in large company need to involve several departments: e.g. human resource, company site management, and procurement if they need information from the suppliers.

The time spent also strongly depends on the company size. Hence it is difficult to make any estimate of average time spent. We experienced that if the companies are informed in advance, and are part of the joint project to create a social assessment of a product along its life cycle, the information can be obtained easier and faster. If companies are not informed in advance and committed, getting social data can be really difficult for privacy reasons. We are positive about the ability to mitigate this difficulty in the future, once product social impact assessments become more standardized, just as it has been harmonised for environmental life cycle assessment over recent years.

In some case it is possible to get secondary data from sustainability reports and statistical data at sector or country level, at least for a screening phase. When you need to use secondary data for life cycle phases that are not at the product level, we would suggest, for consistency, using for the entire assessment site-specific data and not product-specific.

Our experience is that:

- The scales-based approach can be used as a first step to identify possible hotspots or differentiating opportunities at some point in the value chain where we need further information at product level. The collection of data for the qualitative assessment is feasible within the timeframe set and if suppliers are pre-informed. We asked the suppliers to fill in an excel file on the basis of which we could directly arrive at the score value. When assessing a country or a sector with high social risk, we propose in the future to request the direct data from the value chain partners to substantiate the scales-based assessment.
- The quantitative approach should be used if you want to calculate (come up with a number) the social impact for those products which have a relevant social impact (positive or negative); or if you want a comprehensive sustainability assessment with a aggregated outcome, based on a single-number social impact score, combined with a single-number environmental and single-number economic assessment.

Value added

We recognize a number of reasons why the Product Social Impact Assessments add value:

- The scales-based assessment can be used to identify possible hotspots or business differentiators along the life cycle where we would like to have further information at product level.
- The quantitative assessment adds value if:
  a. You want to calculate the social impact for those products which have a relevant positive/negative social impact;
  b. You want one comprehensive sustainability assessment when the environmental and/or the economic impact has already been considered.
- Both types of assessments are meaningful to reach a complete transparency along the supply chain.

The ability to obtain a qualitative score at product level; it is useful to compare more products of the same group or more materials in the development phase, and compare qualitatively their performance at each life-cycle stage.

The quantitative assessment gave us the idea of the distance-to-target (using reference values) of each life-cycle phase and the entire product life cycle. It can be useful to compare different products of the same group. If we had data at the product level, we could use it to analyse the product in terms of sustainability assessment by considering the three pillars at the same time towards a more comprehensive sustainable product. In this case it is possible only by using the qualitative assessment for the social pillar.

If you do not have primary data and need secondary data for a life-cycle phase, the assessments are still valuable. In that case we recommend using for the entire assessment site-specific data and not product specific, so the data are consistent. Unfortunately it is not possible then, in the quantitative approach to obtain a unique aggregated value which represents the social impact of the product. However, it is still possible to assess the entire supply chain and to compare it with the reference value, to flag life cycle phases that are underperforming or better than the reference value.

Additional insights

In this pilot, we have used both primary and secondary data. It was not possible to collect data at the product level. We succeeded in assessing the entire product life cycle with both the scales-based and quantitative approach.

This can be considered a good example of Application Example 3 'Assessment of a product already on the market', and the suggested approach can be followed when, as in our case, no data at the product level are available.

5 Current limitations and opportunities for future development

The different approaches and contexts of the participants of the Roundtable for Product Social Metrics, combined with the recommendations from the external review and literature, formed the basis for the development of the handbook. The methodology proposed in the handbook was also tested by participants of the Roundtable for Product Social Metrics, confirming that it is applicable to companies in different sectors and with global operations. However, the handbook presents limitations which can be addressed in the future, including:

• The handbook was not tested by companies from sectors other than chemicals, automotive, tire and rubber, electronics, consumer goods, office furniture and retail. Furthermore, the companies which tested the methodology tested only a subset of the metrics, not all of them.

• A limited number of suppliers from regions other than Europe and North America were involved during the tests. Despite the effort of the group to develop the handbook using common language, the wording and the criteria for assessment proposed may not be universal, or may not be applicable to every country and context.

• The collaboration of external stakeholders during the development of the handbook was limited. Therefore, the handbook might not be fully compatible with the varying levels of understanding which different stakeholders may have of social impacts.

• The performance indicators are not fully applicable to small farmers, small companies and the self-employed. Some performance indicators and criteria for assessment are written for large organisations with management structure and employees. Other criteria may not be applicable to small farmers, small companies and the self-employed, or might need to be interpreted differently.

• The performance indicators proposed typically measure inputs and outputs, rather than the final impacts of the product. However, assessing final impacts would require a more complex methodology, as the mechanisms that can influence the final impact, including the time dimension, would have to be considered.

• The development of the handbook did not include development and testing of weighting sets and, therefore it does not provide factors for weighting different social topics. However, weighting factors may be necessary for decision-making processes where a distinction needs to made on the importance of the various social topics.

• The tests on experienced well-being were limited. More evidence based on larger samples is required to improve this social topic. See limitations on page 51.

• Product Social Impact Assessment clearly depends on the availability of data. Data collection is the most time-consuming stage in the assessment, as collecting specific data from direct and indirect business partners is often challenging. The handbook does not provide guidance on possible data sources, neither has it mapped the performance indicators with data that may be available on public or private databases.

• The handbook can be used for multiple purposes, including reporting, risk management and to steer product development. However, the handbook does not include guidance on how to integrate product social metrics into organisations, nor on how to engage different life-cycle actors.

- The described methodology is not yet aligned with other ongoing global initiatives. It could be benchmarked with other social evaluation frameworks and, furthermore, indicators could distinguish between what is legally required by national legislation and what a company practises beyond legal requirements. Overall, social metrics are considered to be a new and evolving area in which all companies are attempting to develop. Therefore, cooperation and alignment on the terminology, approach and working with business partners to advance the topic would be greatly welcomed.

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Handbook for
**Product
Social Impact
Assessment**

Roundtable
for Product
Social Metrics

USE EXAMPLES ANNEX

1 Annex 1: The handbook development process

1.1 The Roundtable for Product Social Metrics

The Roundtable for Product Social Metrics is organised in three phases. Essentially, it aims to harmonise principles, methodologies, impact categories and performance indicators for Product Social Impact Assessment, engage with other companies and initiatives, and address cross-cutting implementation issues (Figure 14).
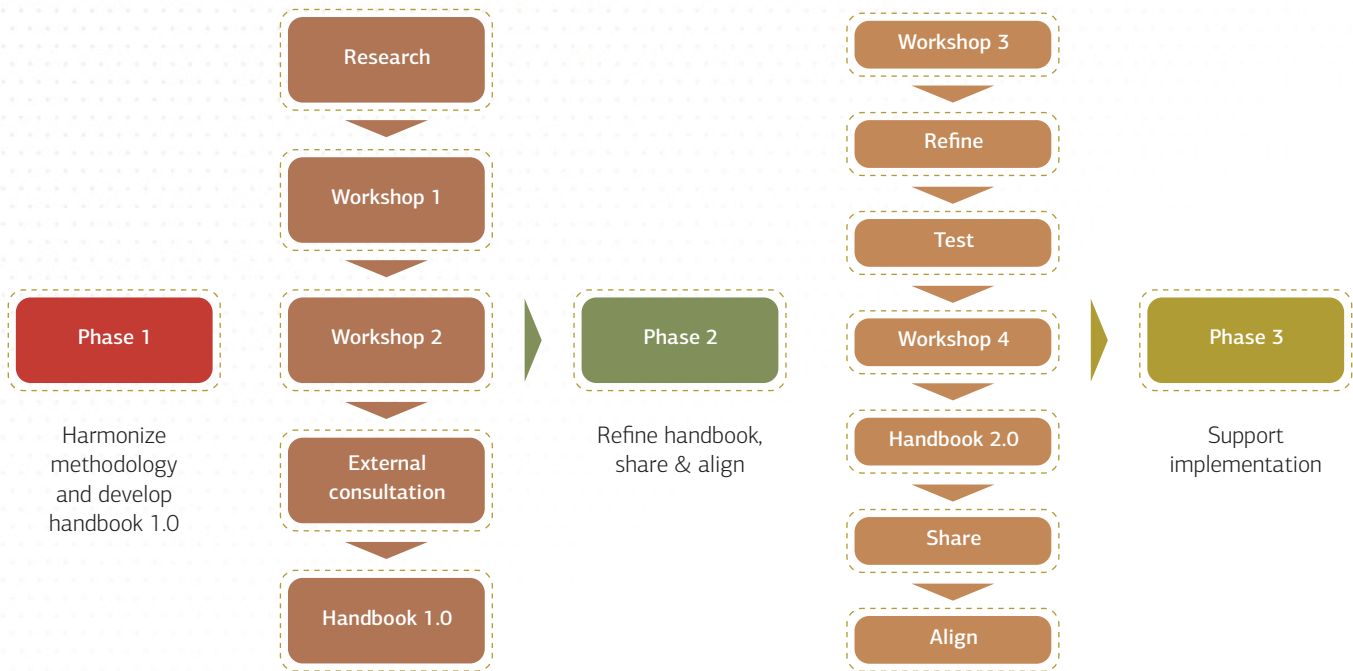
Figure 14: Roundtable development process

1.2 Roundtable Phase 1

The first phase of the Roundtable for Product Social Metrics started with seven companies: Ahold, BASF, BMW Group, DSM, Goodyear, Philips and RB.

The Roundtable Phase 1 resulted in Version 1.0 of the Handbook, which included the Product Social Impact Assessment methodology and performance indicators. It also built on the first draft in which principles for impact assessment and social topics were discussed and selected. As Version 1.0 was still in an early stage of development, it required additional features to improve usability in support of implementation. Before finalising Version 1.0, experts from external organisations were invited to provide feedback on how the handbook could be improved (annex 1.4).

1.3 Roundtable Phase 2

The feedback received from the external parties and from the five new participant companies (AkzoNobel, L'Oréal, Marks & Spencer, Steelcase and a chemical company) was considered in the second phase of the Roundtable for Product Social Metrics. This included:
• improving the definitions of social topics and performance indicators,
• including reference values and scales to support the assessment, and
• providing case studies to facilitate adoption.

During Phase 2, United Nations Development Programme and Social Accountability International helped improving the definitions of the social topics, the performance indicators and the reference scales of local communities and workers respectively.

After refinement, the handbook was tested by the participants of the Roundtable for Product Social Metrics and fine-tuned before being made publicly available.

1.4 Feedback from external consultation

Assisted by PRé, the participants of the Roundtable Phase 1 completed the development of the Handbook for Product Social Impact Assessment version 1.0 in June 2013. Experts from external organisations were invited to provide feedback and to suggest areas for improvement. The external parties received a list of topics and asked to comment provide feedback on all these topics, or on the topics they felt most competent to comment on.

18 external organisations were invited to provide feedback, of which the following 10 made contributions:

• WBCSD
• ILO
• ISEAL
• Anonymous NGO
• Intergovernmental organisation
• Technical University of Denmark
• Technical University Berlin
• University of California, Berkeley
• Product Stewardship and Regulatory Affairs Council
• Donor Committee for Enterprise Development

The comments of these 10 organisations are included in the next pages of Annex 1.4, referring to the previous Version 1.0 of the handbook.

1.

External stakeholder: WBCSD
Contributor: Kitrhona Cerri (Program Manager, Development Focus Area)

Content:

• Have we captured the most important social topics (chapter 4)? If not, what should be added?

>> It would be interesting to include social topics related to Suppliers as an additional stakeholder – particularly if the analysis is being characterized as cradle to grave.

• Have we selected the most useful performance indicators to measure the social topics chosen (chapter 5)? If not, which ones should be used instead or in addition?

>> It's great that the assessment looks at negative impacts & errs on the side of risk management, but the approach could also drive more positive social behavior amongst companies if it included more positive/ambitious indicators. E.g. Within the consumer stakeholder group, perhaps indicators could be included for products which allow access to essential goods/goods which have the potential to increase consumer wellbeing but which may otherwise have been unavailable (e.g. not previously available in a particular geography or at an affordable price point).

• Is the impact assessment method clearly described and implementable (chapter 3)? If not, what are your recommendations for improvement?

>> The biggest challenge faced by companies is often data-gathering and management. Perhaps it would be useful to include some hints and tips/recommendations from Roundtable members on how they have gone about gathering the data included in the indicators and channelling that to key stakeholders within the organization for practical use?

Development process:

• Is the process undertaken by the Roundtable for the development of the Draft Handbook clearly described, i.e. how we arrived at the harmonized methodology (chapter 3), and how the social topics and performance indicators were selected (chapters 4 and 5 respectively)?

>> Yes, very clear. Perhaps more information could be included on why the weighting element is deemed important even-though it is currently only applied by one of the Roundtable companies.

Added value:

• Following the implementation of the proposed impact assessment method by companies, what is the added value for businesses?

>>

• Following the implementation of the proposed impact assessment method by companies, what is the added value for society?

>>

Other:

• Additional remarks (if any). Please feel free to address any additional aspects that you may find relevant.

>> Definition of Wellbeing – this is a new area of work for us here at the WBCSD as well – we are currently undertaking research and generating discussion on the topic under a couple of work streams. I would be happy to have a conversation/share progress on the subject in a few weeks once our thinking is a little more mature.

>> Weighting – we would have 2 recommendations in this area to ensure your weighting process is open and fair. Firstly, we would recommend that the weightings (at both the 1st and 2nd level) are defined before data gathering or analysis

is started. This way, a company cannot be thought to be manipulating the results. Secondly, you could consider a process similar to the prioritization process we recommend in the WBCSD Measuring Impact Framework – where priorities are set by both the company, and stakeholders. The results are compared and company priorities can be revised accordingly. Ref: http://www.wbcsd.org/impact.aspx

2.

External stakeholder: ILO
Contributors: Peter Poschen (Director, Job Creation and Enterprise Development) and
      Emily Sims (Manager, ILO Helpdesk for Business)

Content:

• Have we captured the most important social topics (chapter 4)? If not, what should be added?

>> Yes. Some of the descriptions/definitions are however subject to amendments (see detailed comments attached on separate sheet as well as in PDF version)

• Have we selected the most useful performance indicators to measure the social topics chosen (chapter 5)? If not, which ones should be used instead or in addition?

>> Broadly yes. Some formulations should be revised, however, to ensure consistency with relevant international legal frameworks. Some alternative/additional indicators are also suggested for consideration (see detailed comments attached on separate sheet as well as in PDF version).

• Is the impact assessment method clearly described and implementable (chapter 3)? If not, what are your recommendations for improvement?

>> No. Some of the practices described/suggested are questionable (weighting e.g.); the text does not deal with the practical difficulties of carrying out the data collection and with the risk of 'garbage in/garbage out' as a result of technically/methodologically poor audits.

Development process:

• Is the process undertaken by the Roundtable for the development of the Draft Handbook clearly described, i.e. how we arrived at the harmonized methodology (chapter 3), and how the social topics and performance indicators were selected (chapters 4 and 5 respectively)?

>> No. The rationale is not clear. The current text invites speculation as to what the common denominator and motivation of the companies is (e.g. shared value chain?)

Added value:

• Following the implementation of the proposed impact assessment method by companies, what is the added value for businesses?

>> Not for us to judge, but certainly interested in the feedback received. One experience from other efforts is that harmonized standards and verification can reduce compliance and verification cost.

• Following the implementation of the proposed impact assessment method by companies, what is the added value for society?

>>

Other:

• Additional remarks (if any). Please feel free to address any additional aspects that you may find relevant.

<< ILO provided extra input in additional documents >>

3.

External stakeholder: ISEAL
Contributor: Kristin Komives (Senior Manager, Monitoring and Evaluation)

Content:

• Have we captured the most important social topics (chapter 4)? If not, what should be added?

>> The stakeholder characterization leaves out farmers or others who work on production but not in an employee relationship. That would seem to be a big omission if you want the methodology to be applicable across all products.

Under community, I was surprised not to see anything about prior informed consent. That could fit under community engagement.

• Have we selected the most useful performance indicators to measure the social topics chosen (chapter 5)? If not, which ones should be used instead or in addition?

>> I am sending the ISEAL list of indicators (as well as a more comprehensive earlier draft) for you to consider. What strikes me as more important than the indicators themselves is what you use as the reference point and how you plan to make this relevant at the product level. For example, if a product uses inputs from many different supply chains, are you just considering the policies of the final manufacturer?

On salary, note that the lowest wage compared to living wage, minimum wage or sector wage could be very different.

An indicator like number of involuntary land changes seems difficult – what counts as "one" change and what is the time period?

• Is the impact assessment method clearly described and implementable (chapter 3)? If not, what are your recommendations for improvement?

>> The handbook is clear, but I do not think I could do the assessment based on just this information. There still seem to be many questions unanswered (see my questions above about reference points and application to product level). Are these captured in other existing guidance?

Development process:

• Is the process undertaken by the Roundtable for the development of the Draft Handbook clearly described, i.e. how we arrived at the harmonized methodology (chapter 3), and how the social topics and performance indicators were selected (chapters 4 and 5 respectively)?

>> Yes, though it was not clear to me whether participants have already signed off on this methodology.

Added value:

• Following the implementation of the proposed impact assessment method by companies, what is the added value for businesses?

>>

• Following the implementation of the proposed impact assessment method by companies, what is the added value for society?

>> That depends a lot on how, whether the results are used.

Other:

• Additional remarks (if any). Please feel free to address any additional aspects that you may find relevant.

>> I like the list of principles.

I am concerned about the use of the word impact assessment. There is a lot of sloppy use of the terms impact evaluation and impact assessment, and the term "impact" itself. I think it is important to include a clear definition of what you mean by impact and impact assessment. For me, assessment is about an ex-ante, theoretical look at what impact could be. Evaluation would be looking ex post at what actually happened as the results of production of that product.

You asked about companies overruling stakeholder assessment of weighting. What is most critical is that the why an impact is assessed is clear and open to scrutiny. That means that assigned weights should also be made available, allowing those reviewing results to complain if they disagree with approach.

Clearly the reference used is important. Will you come up with harmonized suggestions for reference points?

4.

External stakeholder: Intergovernmental organisation
Contributor: Anonymous (Policy Analyst)

Thanks for inviting us to comment on the draft handbook. Supporting businesses in taking a systematic approach to social impact is an important area of work – so the idea of a handbook is a very welcome one. As relevant publications on well-being clearly show, there is a wide variety of good quality, quantitative social indicators available – and we think they can provide valuable information to businesses and private citizens, not just to governments.

That said, we have some serious concerns about the approach described in the handbook, and whether it will enable you to get meaningful and comparable impact assessments. One area that could make a lot of difference is more clearly separating out the final social outcomes of interest, and all the inputs, outputs and processes needed to achieve those outcomes. While it's useful to have definitions of each social topic presented separately from the performance indicators used to measure them, in practice the performance indicators are a real mixture of outcomes (e.g. injuries and fatal accidents at work) and inputs (e.g. whether a company has procedures to identify employee exposure to hazards). You may well want to measure both inputs and outcomes (because you want to understand how the whole thing works, and how outcomes can be improved), but from the specific perspective of assessing social impact, it is the final outcomes that should be the focus. It's no good having a procedure for identifying workplace hazards if this isn't doing anything to prevent injuries and accidents… As a rule, I would suggest that company procedures shouldn't count as "social impact" – what matters is whether having those procedures helps you to achieve the social outcomes you are aiming for. A much stronger focus on final outcomes would also enable you to reduce your final list of performance outcomes to a much more manageable number of measures.

Other points:
• The data collection procedure for the performance indicators is very unclear – and this is essential to rectify, because methodology is very important both for data quality and comparability.

• The draft requests specific advice on measuring well-being, by which you seem to mean subjective well-being (and, confusingly, whether consumers are given information about products, which doesn't seem to fit here at all). Certainly from a consumer and community perspective (and arguably from an employee perspective too) it would be better to look across all domains of well-being

• Aggregating the data across all social topics (the first "weighting" step) will result in considerable information loss, and seems ill-advised. If the goal of these indicators is to make social impacts more transparent, aggregating a very wide variety of topics will only serve to reduce transparency, making it impossible to understand where areas of relative strength and weakness lie. Aggregating across the employee, consumer and community measures (the second "weighting" step) seems particularly unhelpful. A more rigorous process of selection, including based on data quality, and a focus on outcomes, could bring the indicator set down to a more manageable number (70 seems very large). For presentation purposes, you could consider some kind of "traffic light" system for each social topic. There are several examples from national statistical offices (http://www.abs.gov.au/AUSSTATS/abs@.nsf/mf/1370.0.55.001; http://www.bfs.admin.ch/bfs/portal/en/index/news/publikationen.html?publicationID=5058) where the traffic lights are underpinned by good quality quantitative information that has been simplified to enable easy communication.

• Presumably the reason for aggregation would be to compare the overall social impact of 2 or more products. But in attempting to be highly flexible, offering a variety of methodological options means that there will be no comparability between one analysis and another. You will need a much more standard procedure for data collection and indicators, and some absolute reference points (not judgments relative to specific products), if you want to compare the social impact of several different products against each other.

• The method for data "characterization" outlined on p.22 is either incompletely described or totally flawed. There are standard procedures you can adopt in order to normalize data with different units. .

• This is a life cycle assessment, but it is not clear how the time dimension is incorporated. If phone (A) typically breaks after 2 years, but phone (B) typically breaks after 4 years, phone B is having an impact on the consumer for twice as long. How does this get reflected?

• The descriptions of existing assessment methods (pages 14 – 18) are too abstract to be useful. How about instead just describing in more detail the 9 possible steps identified in figure 14 (with enough detail that the methods used at each step can be fully understood)? You could then summarise the parameters on which existing approaches differ across companies (e.g. number of steps, data sources, scoring methods, how reference product is selected etc.). Figure 14 is a useful summary.

• You might consider including a worked example at the end of the document, or as an annex. It is otherwise difficult to see how this will all come together.

• Social impact assessment is obviously at a different stage of development, relative to environmental impact assessment. But it would be good to ultimately bring them together, because both are about well-being, broadly conceived. There is also potentially some overlap between, e.g. environmental impact and something like health and community impacts.

• The proposed performance indicators themselves (p.14-18) need much better specification. Some problems are highlighted below as examples.

Specific points about performance indicators:
• The "performance indicators" need to be more tightly specified in order to generate meaningful, comparable data. For example, how will you measure if "reasonably practicable steps" are being taken to prevent accidents and ill health? What does "on a regular basis" mean? Why are the working hours indicators restricted to "non-management" employees only, and how will "management" be defined? What counts as "active dialogue" or "scientifically proven evidence"? In many cases, the table details high-level principles – not practically implementable performance indicators. These might be very important principles that a company wants its supply chain to sign up to, but they are not necessarily measures of social impact.
• Even where the indicators involve a simple yes/no judgment, it needs to be clear what data is collected and who will make that yes/no assessment. Is it the company, the supplier, or an external 3rd party with some expertise? What information will they use to make this judgment? How will the procedure be standardized so that the resulting data is reasonably comparable?
• For the 'employees' category, many performance indicators concern compliance with local labour laws. How will this be assessed? (surely no supplier would say they are not compliant?). On a much more fundamental point, labour law compliance is an input, not a social outcome. I would have thought this sort of compliance should be an absolute bare minimum, and there should be a totally separate process for ensuring it happens (it's about legal compliance not social impact). Social impact surely must mean more than just complying with the law?

• Some of the performance indicators seem to be about absolute standards (e.g. not exceeding 48 hour working weeks), whereas others require some reference in order to be meaningful. E.g. the "number of social benefits" or the "number of consumer complaints about health and safety". What would a meaningful number be? Some information about which indicators are absolutes, versus which indicators are relative (only understood in comparison to a reference product) would be helpful.

5.

External stakeholder: Anonymous NGO
Contributor: -

• page 10/ definition of stakeholder groups: for supply chain focus is restricted on employees, which misses out an important and distinct group of SME or small farmer suppliers in the chain who are merely entrepreneurs with a different set of risk, investment and needs compared to labour/ employees.

• page 11/ impact assessment methodology: %participation is an output and not an indicator of satisfaction. a normal impact chain makes a distinction of output, outcome, impact.

• page 15/ question about weighting. I would recommend to only apply balancing rather than weighting, i.e. if number of participants of one type is much larger in number than other type a simple average would imply overweighting the high number category.

• page 25/ prioritisation: the roundtable has selected those most essential. most essential to whom? this process preferably should be done inclusively with potential participants in order to prevent a bias towards the user preferences over the participants' preferences of what is relevant for the performance.

• page 27/ fair salary: to illustrate the point made above for page 10: SME would consider more relevant to talk about fair price, fair sourcing practices, fair negotiations.

• page 28/ material resources: it would be helpful for other to understand relevance of this issue if its importance for local food security e.g. subsistence farming is specifically mentioned here.

6.

External stakeholder: Technical University of Denmark - DTU
Contributor: Alexandra Bonou (Researcher, Management Engineering)

Content:

• Have we captured the most important social topics (chapter 4)? If not, what should be added?

>> To identify the most relevant topics there needs to be a clear definition of the area of protection: what is it that we are trying to minimize/maximise? What do the indicators describe? Is it the area of protection the 'social well-being' given in principle 7 (page 13)? Also, if the target is to protect social well-being then isn't it necessary to include the views of all stakeholders regarding the definition of well-being? The handbook now includes the 'social sustainability' applied to employees, consumers and communities based on the view of the specific roundtable group. If this is the only stakeholder taken into account then the whole attempt could be biased.

At such a generic level it is only possible to identified globally agreed upon (and mostly regulated) social issues and in these terms they are well captured. Nevertheless the value of this generic top level for the case specific assessments is debatable. I would suggest guiding the practitioners on how to choose the social topics and subsequent indicators that best fit their needs and preferences.

• Have we selected the most useful performance indicators to measure the social topics chosen (chapter 5)? If not, which ones should be used instead or in addition?

>>Given the aforementioned yes, the indicators chosen are meaningful. It could be useful to add the specific units for each indicator. Also to explicitly guide the practitioner on what are the criteria to choose between the 2 different approaches of characterization and for each approach, how to step by step get the characterization factors (e.g. how to choose between references for the social topic or how to come up with a meaningful scale). Further guidance is needed on how to allocate them to the product.

• Is the impact assessment method clearly described and implementable (chapter 3)? If not, what are your recommendations for improvement?

>> In general i would be reluctant with the term 'method': Now it is not at all clear in logical terms how all these numbers are derived, aggregated and combined and how they are allocated to the product. Also how the system boundary cut off criteria is set. I would more label it as the very generic 'outline' of the method. I assume that at the very final version of the handbook there will be clear guidance on how to do all these ratings and characterization factor setting while at the same time the principles consistent and credible/realistic approach to assessment will be kept. I would expect to see a concrete step by step guide on how to perform the steps described in 3.5.1-3.5.8 (page 22, 23) with alternative examples applied to different types/scales of companies.

Also regarding the term 'harmonized': Harmonization means coming to a consensus regarding structuring the process steps, thus guiding how to do: system definition, stakeholder and objective analysis, impact assessment (quantification/valuation). It seems though that the current approach is more a combination of the principles and practices already applied from the round table participants rather than a rational platform, guiding how to decide upon principles and practices.

Development process:

• Is the process undertaken by the Roundtable for the development of the Draft Handbook clearly described, i.e. how we arrived at the harmonized methodology (chapter 3), and how the social topics and performance indicators were selected (chapters 4 and 5 respectively)?

>> Yes, chapters 4 and 5 are clearly described. Chapter 3 has a meaningful outline, but needs a lot of elaboration as mentioned right above. The methodology steps are not adequately described and the rational is not transparent. Also, it is not clear why there is a need for a new methodology for SLCA given the UNEP SETAC guidelines, other methods of social assessments and other methods of product related social impacts. It would be useful to have a review of all these different types of methods and argue why they are not enough and what are the questions that they cannot answer, but this new method will. Also it is not clear how the stakeholder participation and preference analysis will be included in the method and what the overall motivation for having such a product approach is. It could be useful to relate the development process to the decision analysis process (see 'Other').

Added value:

• Following the implementation of the proposed impact assessment method by companies, what is the added value for businesses?

>>

• Following the implementation of the proposed impact assessment method by companies, what is the added value for society?

>> The participatory approach of addressing different companies and global initiatives is highly appreciated and supported. Also the iterative process of building the methodology along with real case applications (addressing challenges) is highly relevant both to the societal request for corporate social responsibility as well as the company need to identify the business value and the applicability of such initiatives. Open dialogue between the stakeholders regarding problem definition, methodology evolution and practical implementation could lead to consensus on the final practical output.

I assume that the meaningfulness of the product approach is still to be verified in the next development steps. But in any case the implementation for such a method will facilitate a more holistic life cycle management.

Other:

• Additional remarks (if any). Please feel free to address any additional aspects that you may find relevant.

>> The overall conclusions from the review were summed up above. Bellow, you can further find the complete analysis, addressing several points related to the complexity of the issue. You will also find all the specific references to the handbook with issues that need clarification/rise questions/can be considered during further implementation, as well as consequent recommendations

<< DTU provided extra input in additional documents >>

7.

External stakeholder: Technical University Berlin – TU Berlin
Contributors: Ya-Ju Chang (Researcher, Sustainability Assessment and SLCA) and
    Matthias Finkbeiner (Chair of Sustainable Engineering)

Content:

• Have we captured the most important social topics (chapter 4)? If not, what should be added?

>> Yes, but some aspects need to be adjusted or a clearer definition/description, shown as following:

>> Behaviour change of customers: behaviour change may be triggered by market change and technology development. Behaviour change doesn't fit the article.

>> Local communities: people who close to the site where the product is produced, used or disposed.

>> Local employment: it is contradict with the equal opportunity.

>> Child labour: 'potential' and 'dignity' mentioned in the topic are not clear.

>> Employment and employment relationship: 'Employees are contracted according to local labour law' can lead to grey area, for example, people who are self-employed can be ignored. Although we understand the purpose of this topic is evaluate the relationship between employees and employers, the sentence still not fully appropriate. Illegal work is also a grey area.

>> Job satisfaction and engagement is also a very subjective issue, hard to justify the results.

>> In access to material resource, improvement of infrastructure may also have a negative effect for example violating indigenous right. A clear definition to consider these kinds of possible negative effects should be addressed.

• Have we selected the most useful performance indicators to measure the social topics chosen (chapter 5)? If not, which ones should be used instead or in addition?

>> The selected indicators are a good start, but some definitions are not precise enough (e.g. child labour, fair salary, working hours) or leading to some bias (e.g. working hours and work-life-balance), shown as following:

>> Child labour: In page 30, the point 3 is better to be moved to health and safety topic.

>> Work-life balance is an issue possibly related to people's working efficiency, time-allocation ability, and subjective judgments. The stronger evidence to influence employees' personal casual/personal time is working hours or excessive working hours. Actually in the article, the maximum working hours are set as 60 hours per week. Under the statement, it's hard to have so-called work-life balance. In addition, 'number of stress related injuries in the company/facility' is better to be moved to health & safety topic.

>> Equal opportunities and discrimination: in page 30, the point 2 and 3 are all inherent in the point 1. The point 2 and 3 sometime are not appropriate to use in every company/industry, for example heavy manual labour. The job condition should be considered in this big topic.

>> Salary is an important issue for supporting employees' life. Fair salary in this article needs more definition like 'why you set the lowest paid employee earn 20% more than local minimum wage.' In addition, we suggest focusing on the comparison of actual salary employees get and the non-poverty wage can really reflect if the salary is sufficient.

>> In working hour part, what does 'normal working hour' mean? Besides, the baseline of overtime work is set as 60 hours per week, which is really long-time working. Is that a suitable baseline?

>> In well-being topic of consumer (page 33), we suggest not including the indicator 2 (too subjective; the indicator 1 is also involve in health and safety issue which can be adjusted.

>> In page 33, there is incorrect word in the point 1 'Number of programs to improve access to material resources, e.g. community education, health care, lending programs, educational grants.' The topic is related to 'immaterial'. The point 2 is a little bit overlap with community engagement (clearer definition needed here). Another doubt: why the intellectual property right is part of local communities? This issue is like a 'national level' issue.

>> Community engagement: 'number of groups' in the point 1 can't fully reflect the situation rather the impact of it. It has also to differentiate the active groups and the purpose of the groups.

• Is the impact assessment method clearly described and implementable (chapter 3)? If not, what are your recommendations for improvement?
>> The structure of chapter 3 should be reconstructed. It's good to place the overview first, then introduce of every phase in the method. The comparison table should be put in the corresponding phase in the method, not in the beginning. Section 3.3 can be moved as annex.
>> Using the two approaches (scale and quantitative approaches) in the same assessment can be exercised.
>> At this point it is not clear where the actual impacts are measured or how impacts are defined. When one talk about impacts

Development process:
• Is the process undertaken by the Roundtable for the development of the Draft Handbook clearly described, i.e. how we arrived at the harmonized methodology (chapter 3), and how the social topics and performance indicators were selected (chapters 4 and 5 respectively)?
>> It is described well. But we suggest you explaining why you only chose the 3 stakeholder groups. Making description of the reason and also comparing the decision with the UNEP/SETAC guideline are good for audience to clearly understand.

Added value:
• Following the implementation of the proposed impact assessment method by companies, what is the added value for businesses?
>> As the impact assessment method is not sufficient at this point, because of the missing impact definition and description, the added value is still not significant.

• Following the implementation of the proposed impact assessment method by companies, what is the added value for society?
>> As the impact assessment method is not sufficient at this point, because of the missing impact definition and description, the added value is still not significant.

Other:
• Additional remarks (if any). Please feel free to address any additional aspects that you may find relevant.
>> In the beginning, the sustainability should be defined and described. Also, wording as social sustainability, environmental and economic sustainability should be avoided (environmental, economic and social topics are included in sustainability, not there are three different types of sustainability).
>> How do you identify the 'risk'? What is the methodology or mechanism of 'the risk filter'? Here needs more explanation. Exclude any type of risk assessment as it is not part of LCA which is the basis for SLCA.
>> Three kinds of well-being mentioned in the article should be defined first.

8.

External stakeholder: University of California, Berkeley
Contributor: Margot Hutchins (Associate Director, Laboratory for Manufacturing and Sustainability)

Content:

• Have we captured the most important social topics (chapter 4)? If not, what should be added?
The topics that were selected seem well aligned with the international standards and initiatives related to social impacts. It is not clear why topics for the stakeholder group society and value chain actors were not included. I would also suggest carefully considering the inclusion of "access to material resources" and "access to immaterial resources." Several of the organizations I have worked with to implement the S-LCA guidelines have struggled with those topics in particular.

• Have we selected the most useful performance indicators to measure the social topics chosen (chapter 5)? If not, which ones should be used instead or in addition?
I do not have any suggestions at this time.

• Is the impact assessment method clearly described and implementable (chapter 3)? If not, what are your recommendations for improvement?
I believe this is implementable, assuming data is available. It is well described, but I have a few suggestions regarding clarity, below.

However, I think an important question (which you are hinting at) is whether this is the "right" methodology. One aspect that I find problematic is the multiple weighting steps. I agree that there is some utility in being able to compare an employee score to a customer score (i.e., stakeholder scores). However, I believe that an overarching social sustainability assessment may be more effectively and transparently achieved by simply weighting all indicators in use and combining into a single score. This method more clearly communicates (mathematically) the effect of the number of indicators and topics on the impact an indicator has on the final score. It may also reduce the chance of an erroneous calculation because there are fewer steps.

Development process:

• Is the process undertaken by the Roundtable for the development of the Draft Handbook clearly described, i.e. how we arrived at the harmonized methodology (chapter 3), and how the social topics and performance indicators were selected (chapters 4 and 5 respectively)?
There were a number of elements of the process that were unclear to me.

1. It seemed like there was an assumption that performance indicators should be aggregated within social topics and that social topic scores should be aggregated into stakeholder group scores. Was this the case?
2. In section 4.1, step 4, indicated "participants of the Roundtable prioritised social topics from Groups 1 & 2." It would be useful to know how they were prioritized. Was it simply consensus or majority vote? Was a more formal methodology used?
3. In section 5.1, step 3, the last sentence doesn't seem aligned with the goals described (i.e., 3-4 PIs). My suggested corrections in red:
"If this did not resulted in more than four KPI's per social topic, the four remaining principles were used."
4. The document indicates that the Roundtable intends to further refine descriptions for each PI and recommend criteria for the assessment of each PI. I would also suggest ensuring that each PI is, in fact, a single PI. An example of two indicators being combined is: "Percentage of woman in total workforce and percentage of woman in leadership position." I would also suggest ensuring that, if the intent is to combine scores from indicators into social topic scores, the Roundtable should ensure that PIs for a social topic have data characteristics (e.g., quantitative, have a larger score

for more positive impact) that allow them to be combined.

5. The last step in figure 16 did not align precisely with my understanding of the methodology. Is the assumption that all the scores from across the value chain will be added together? If this is the case, and the Roundtable decides to pursue a multi-stage weighting, would it also make sense to weight the value chain actors in some way (based on hours or value add to the product)? Perhaps this is what has already been suggested – I am simply indicating what is unclear to me!

Added value:

• Following the implementation of the proposed impact assessment method by companies, what is the added value for businesses?

• Following the implementation of the proposed impact assessment method by companies, what is the added value for society?

Other:

• Additional remarks (if any). Please feel free to address any additional aspects that you may find relevant.

To define the social topic "well-being" you might consider Maslow's hierarchy of needs. Based on the context, it seems like products that support well-being address the higher 3 needs: love/belonging, esteem, and self-actualization. Some might argue that products that address the lower 2 needs – "basic" needs (e.g., food, water, shelter) and safety – also promote "well-being."

9.

External stakeholder: Product Stewardship and Regulatory Affairs Council
Contributor: James Romine (Vice President, Product Stewardship and Regulatory Affairs)

Comments:

1. We like the three stakeholder category approach. The business dialog that reflects on these types of indicators is valuable although the metrics seems mostly qualitative.

2. The list of performance indicators (chapter 5) seems complete.

3. The framework/approach appears to be unique and may add value. In light of some of the 'social' issues in recent news, social impact becomes increasingly important.

4. Product vs. Organizational Analysis - While the framework is set up to assess and measure the social performance of products, the "Impact Assessment Methodology" (figure 3 on page 6) and much of the methodology/metrics seem to be more focused at the organizational level.

    o Uncertain how the assessment will work at the product level, especially for the consumer and community dimensions. It seems that the assessment is really of the business practices/process not the "product."

5. On the range of sustainability measures (financial, environmental, and social), social is the most difficult to measure, the most subjective. Besides being a subjective measure, it's very difficult to measure at the product level:

    o Is there value from measuring social impact at the product level? Environmental data at the product level does make sense.

6. Risk assessment / hotspot analysis - seems to be a key part of figuring out what metrics to measure for any given product. It is mentioned, but if all of this is done based on self-assessments of what an organization believes to be the most "material" risk areas for a product there will be little standardization for how companies identify the hotspots with the products. If two companies both make similar electronics component, they could arrive at very different pictures of where their hotspots are and that will influence the rest of the social performance measurement.

7. Sourcing/ Suppliers - It seems like sourcing /suppliers are missing as a life cycle stage / stakeholder group (Figure 2 - page 5). Maybe everything upstream is lumped into production, but that is not how most other existing sustainability methodologies would look at it. It seems like lot of the social hotspots for products will be in raw material extraction / refining / production as you get upstream farther from the end use consumer and into lower-value unprocessed goods.

8. Comparability - It seems like the tool gives the user (presumably a company measuring its own product social performance) a lot of flexibility and freedom to determine what the reference point for comparison is, what the weighting factors are, etc. So in the end, you could come up with a numeric "score" for a product, but it's hard to say how well scores of similar products could be compared given how different companies could approach the tool in very different ways and tell the story that they want to tell about their product.

9. Well-Being – The handbook highlights questions in a few places about how to define/measure well-being ... this seems hard to do and could potentially include everything/anything. The UN has been doing a lot in the last couple years on thinking about development in terms of happiness / well-being so there might be something from UN that this tool could borrow from: http://www.un-ngls.org/rioplus20/newsletter/issue5/article14.html Additionally: http://www.well-beingindex.com/

Additional Suggestions:

1. The Sustainable Apparel Coalition has just completed developing an is now implementing social indicators in the Higg Index (http://www.apparelcoalition.org/higgindex/) which has Brand, Facility and Product modules. "Product" means a consumer product. The Higg Index assesses both environmental and social performance. I have been engaged in the environmental indicators, not the social indicators. The SAC "Brand" module is most like what is discussed in the handbook as I see it.

We encourage you to engage the SAC to share learning as it proceeds forward. The SAC is now finalizing version 2 of the Higg Index which will incorporate social indicators at the Brand, Facility and Product. The contact at SAC is Kirsty Stevenson (kirsty@apparelcoalition.org; Tel: +1.415.699.6988)

2. To determine if DuPont should participate with the Roundtable group, we might want to select a DuPont business which would have value for the approach as a test case.

3. The draft handbook would benefit from a few product-specific examples as it was hard to really get a feel for how this would work in practice.

10.

External stakeholder: Donor Committee for Enterprise Development
Contributor: Jim Tanburn (Coordinator)

Content:

• Have we captured the most important social topics (chapter 4)? If not, what should be added?

 o The handbook contains very useful information and KPIs referring to employment and local community impact. However, it is relatively weak on social impact for the consumers.

 o I think this is because the topic of 'social impact for consumers' is so broad that no set of simple KPIs could capture them. Social impact for consumers could include health, education, financial, etc. The calculation of social impact will need to be rooted in a strong understanding of exactly what the product is supplying. Generic indicators will not capture that.

 o Similarly, the 'local employment' section is not particularly comprehensive. Businesses will often not contribute to formal employment in the local community, but provide informal opportunities (e.g. a farmer switches from subsistence farming to cash crops to supply to the business.) The indicators suggested will not really capture this.

 o To measure both of these issues properly will also require dealing with contentious issues, such as how far to measure down the value chain, and how to decide what changes are 'attributable' to the company, and which would have happened anyway.

 o It might be better to have a two-stage process for measuring impact. The first, simple stage can require companies to measure changes in direct employment and in the local community, which can be done with a relatively small amount of tailoring. The second, for companies more interested in social impact, will require tailoring this system to their exact product and way of working.

 o One methodology for doing this is the DCED Standard - a technique for measuring the social impact of the private sector, based on describing exactly what the company is aiming to achieve and then setting indicators to measure it. While developed for aid agencies working with the private sector, there is increasing interest in how it can be used directly by businesses. See http://enterprise-development.org/page/measuring-and-reporting-results

• Have we selected the most useful performance indicators to measure the social topics chosen (chapter 5)? If not, which ones should be used instead or in addition?

 o See above. The indicators chosen were sensible, although not comprehensive.

• Is the impact assessment method clearly described and implementable (chapter 3)? If not, what are your recommendations for improvement?

 o It is clearly described but perhaps confusing in places. I think more worked examples and mini-case studies would help significantly.

 o The sections on process (how the impact assessment methodology was developed) are perhaps useful for some, but I imagine of less use for those trying to implement the recommendations. The same goes for section 3.3, which is of general interest but not specifically useful for implementers. Perhaps it could be split up into two separate documents, one describing how the methodology was developed and another (shorter) describing how to use it?

Development process:

• Is the process undertaken by the Roundtable for the development of the Draft Handbook clearly described, i.e. how we arrived at the harmonized methodology (chapter 3), and how the social topics and performance indicators were selected (chapters 4 and 5 respectively)?

>> As discussed above, I think it was clearly described but not so relevant for my purposes.

Added value:

• Following the implementation of the proposed impact assessment method by companies, what is the added value for businesses?

>>

• Following the implementation of the proposed impact assessment method by companies, what is the added value for society?

>>

Other:

• Additional remarks (if any). Please feel free to address any additional aspects that you may find relevant.

>> The handbook makes a valuable contribution to a very important topic. The distinction between different social topics is useful and brings some more clarity to the field.

2 Annex 2: Product level social sustainability assessment

2.1 Business value

Many global standards and guidance documents exist that allow companies to investigate impacts at an organisational level. Although these initiatives have helped to raise awareness of social issues and have provided companies with an assessment of operational risk, they provide limited guidance for companies to assess products in a more comprehensive and harmonised way. Recent significant advances in both environmental sustainability assessment and societal awareness have resulted in the growing importance placed on full product value chain transparency. This relates to the need to investigate and make visible all sustainability impacts throughout the product life cycle, and has become an increasingly important value driver for frontrunner companies in the sustainability arena. The added value of taking a product level approach to sustainability impact assessment includes:

1. **Reducing risk and improving product development:** Reducing risk and associated costs (value protection) or developing new and innovative products with sustainability benefits (value creation) is only possible once sufficient information on the full product value chain is available. In other words, operational, product development and supply chain teams first need to know where the product's hotspots lie and which social needs the product can meet before action can be taken. In addition, sustainability performance indicators and assessment methods at product level can be incorporated into the company's own innovation process and decision-making in order to facilitate improved sustainability performance of new products.

2. **Improving reputation:** This relates to consumer and investor expectations that companies are responsible and accountable for their activities. This growing requirement is fuelled by changing stakeholder values and expectations, increasingly powerful communication technologies, and greater social connectivity and access to information. There is a growing societal recognition that a company is not just the operational elements that make up manufacturing, logistics, offices, etc., but is defined by the products it sells. In other words, people do not buy companies, they buy products and brands. As the majority of sustainability impact occurs outside the operational boundaries (exacerbated by the trend to outsource), there is therefore a need to assess and manage social sustainability performance at product level, from cradle to grave.

3. **Improving communication and reporting:** Increasingly more customers want to purchase the most sustainable products they can, essentially engaging their supply chain in support of their own sustainability ambitions. Product level impact assessment potentially provides customers with the information they require in order to make better purchasing decisions and manage their own sustainability goals. Additionally, product transparency also allows a company to avoid cherry-picking sustainability stories that are not necessarily aligned with their key value-chain hotspots. This provides the sustainability team, marketing and sales with more robust and credible communication, based on improving the impacts that really matter for each product.

2.2 Key users of product social impact assessment

Given the growing intention and requirement to understand and manage sustainability issues, many companies are building in-house capacity to assess operational and product sustainability impacts, engage business teams and ultimately embed sustainability metrics and decision-making across their day-to-day business activities. The primary users of such metrics are therefore in-house sustainability and CSR teams involved in the development and execution of systems capable of providing the business with robust performance data. It is at this group of business focussed sustainability professionals that this handbook is primarily aimed.

However, deriving business value from improving sustainability performance cannot be done in isolation. Embedding sustainability across the organisation ultimately requires the engagement and adoption by all business functions, since the value of improving product sustainability performance involves the entire product value chain. At worker level, operations teams need information to improve manufacturing activities, whereas upstream supply chain issues require the collaboration of supplier and purchasing teams. Downstream impacts, particularly those involving the use or consumption of products, require the attention of marketing teams, and right throughout the value chain, product development teams are needed to address hotspots and improve overall performance.

As such, the development of methodology and metrics to assess product social impact must be accessible and feasible for a broad cross-section of business users. Although the development of this handbook is primarily aimed at sustainability teams, it must also take into consideration a wider audience if it is to be successful in encouraging more organisations to take a product level approach to social sustainability.

ANNEXES

3 Annex 3: Development of the guiding principles

The guiding principles proposed by this handbook provide both the basis for the decisions being made by the Roundtable and the foundation for companies to assess product social impact. These guiding rules were considered during handbook development, and should be considered whilst conducting social life-cycle impact assessment and embedding as a working tool within the company.

A set of principles proposed by ISEAL (ISEAL, 2010) and the GRI (GRI, 2011) were selected for consideration. In addition, four principles were added to the initial list due to the need to make these guidelines feasible and applicable for business. Principles were shortlisted based on the majority vote by members of the Roundtable for Product Social Metrics.

4 Annex 4: Development of the impact assessment method

4.1 Introduction

A key principle for developing social impact guidance is the provision of an aligned and harmonised assessment methodology that is practical for all companies to implement. However, given the relative immaturity of social impact assessment methodology at product level, in addition to the need to adapt methods depending on specific company needs and cultures, there is advocacy for an approach that allows flexibility within a generic framework. It is therefore the intention of the Roundtable to develop a generic yet robust methodology which can be subsequently adapted depending on individual requirements.

The approach adopted by the Roundtable to arrive at such a generic methodology was to understand the different types of assessment methods used by the members of the Roundtable, given the lack of methodologies for social impact assessment at a product level proposed by global standards. This approach not only provides context for the group in order to understand different levels of maturity and cultural approaches, but also serves as building blocks from which to synergise a generic methodology. The participants of the Roundtable for Product Social Metrics Phase 1 were asked to provide a general overview of their social impact activities, together with a detailed description of their impact assessment methods. For confidentiality, individual company descriptions of social impact assessment, either at corporate or product level, are not included in this document. However, in order to attempt a synergy of methods, annex 4.2 provides a top line description of each method. Note that some companies use more than one approach and as such, a total of nine methods have been examined.

After assessing the rather wide array of approaches, it was found that the participant companies use quite similar building blocks, in various configurations. The participants also use two different types of metrics. Some focus on a full quantification of all data, while others use what is called a scale.

4.2 Impact assessment methods used by the participants of the Roundtable Phase 1

Impact assessment method #01:

Quantitative data from databases are obtained. Following that, data are normalized in relation to totals in the region. The normalized scores are then attributed to the social topics, e.g. 'working accidents = 0.0678'. Weighting factors based on data from public survey are then applied. First, weighting factors are attributed to the social topic scores and aggregated into the end point scores, e.g. 'workers = 0.6187'. Finally, weighting factors are attributed to end point scores and aggregated into the total social score.
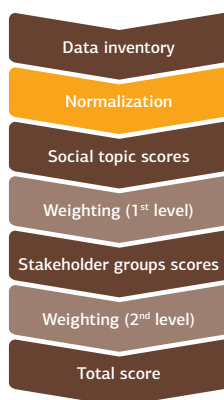

Data inventory
Normalization
Social topic scores
Weighting (1st level)
Stakeholder groups scores
Weighting (2nd level)
Total score

Figure 5: Method 1

Impact assessment method #02:

Quantitative and qualitative information is obtained from suppliers' self-assessments and audit reports, internal knowledge (i.e. data from operations, marketing and sales), plus scientific and/or marketing research. The impact of each social topic is then classified according to a 5-point scale (from -2 to +2) that corresponds to a range from unacceptable to optimal performance. The results are attributed to the social topics, e.g. 'healthy and safe working conditions = 1'. The social topic scores are then aggregated into stakeholder group scores, e.g. 'working conditions = 6'. The product is then compared to the competitor's product.

Data inventory
Scaling
Social topic scores
Stakeholder groups scores
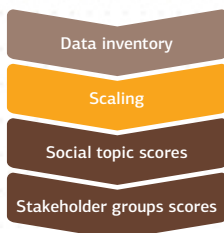
Figure 5: Method 2

Impact assessment method #03:

Qualitative information is obtained from an internal database derived from country-specific data. It is then checked whether the product brings improvement. In order to qualify, the product must satisfy one of two criteria: the product has to have a lower environmental footprint or the product has a direct relation to human health. Double counting is avoided.

Data inventory
Scaling
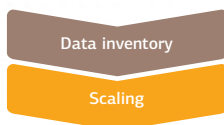
Figure 5: Method 3

Impact assessment method #04:

Qualitative information is obtained from internal knowledge and publicly available sources. The impact on each social topic is then classified according to a 3-point scale which corresponds to a range from worse to better performance. The product is compared with the incumbent product, or the category average, or the competitor product. The results of this comparison are attributed to the social topics, e.g. 'improve access to education = better'.

Data inventory
Scaling
Social topic scores

Figure 5: Method 4

Impact assessment method #05:

Qualitative information is obtained from internal knowledge and publicly available sources. The impact of each social topic is then classified according to a 5-point scale which corresponds to a range from no impact to major impact. The product is compared with either the incumbent product, or the category average, or the competitor product. The results of this comparison are attributed to the social topics (e.g. 'accessibility = significant impact').

Data inventory
Scaling
Social topic scores
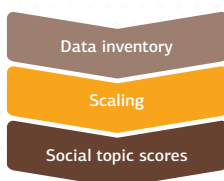
Figure 5: Method 5

Impact assessment method #06:

Quantitative and qualitative information is collected from various sources. The impacts are then classified according to a 3-point scale which corresponds t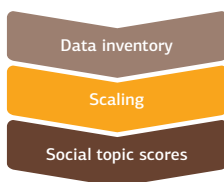o a range from worse to better performance. The product is compared with either the incumbent product or the category average. The results of this comparison are attributed to the social topics. Finally, in order to be qualified, the product must score at least one green social topic score and no red social topic scores.

Data inventory
Scaling
Social topic scores

Figure 15: Method 6

Impact assessment method #07:

Target: workers in the supply chain

Quantitative and qualitative information is obtained from proxy databases. Next, specific and overall risks are indicated by applying a risk filter. Knockout criteria based on international agreements are put on top of the risk filter. The risk assessment then estimates the level of risk according to a 3-colour scale that ranges from high to no risk at all (e.g. 'risk of excessive working hours = yellow'). Specific quantitative and qualitative information is then obtained from suppliers' self-assessments and audit reports. Finally, the risk indications obtained from the risk filter are cross-checked with the specific data, with the latter either confirming or withdrawing the risks that were indicated by the former.

Risk assessment
Data inventory
Social topic scores

Figure 15: Method 7

Impact assessment method #08:

Target: own workers and customers

Quantitative and qualitative information is obtained from various sources. Performance on the social topics, e.g. 'consumer passive and active safety' and 'workers' working hours' are then assessed in relation to targets: the higher the result in relation to the target, the better.
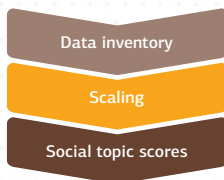
Data inventory
Social topic scores

Figure 15: Method 8

Impact assessment method #09:

Target: local communities

Quantitative and qualitative information is obtained from proxy databases. Specific and overall risks are then indicated by a risk filter that estimates the level of risk according to a 3-colour scale, e.g. 'overall risk of local communities = green'. In addition, quantitative information about financial contributions provided to the communities is obtained from various sources. Finally, performance is assessed in relation to the financial contribution: the higher the contribution, the better. The information obtained with the risk filter is not currently included in the final assessment.

Figure 15: Method 9

4.3 Comparison of participant methods

All impact assessment methods above are consolidated in Figure 24. The content of this graphic allows the reader to visualize the similarities and differences between the impact assessment methods, and facilitates a route towards harmonisation.
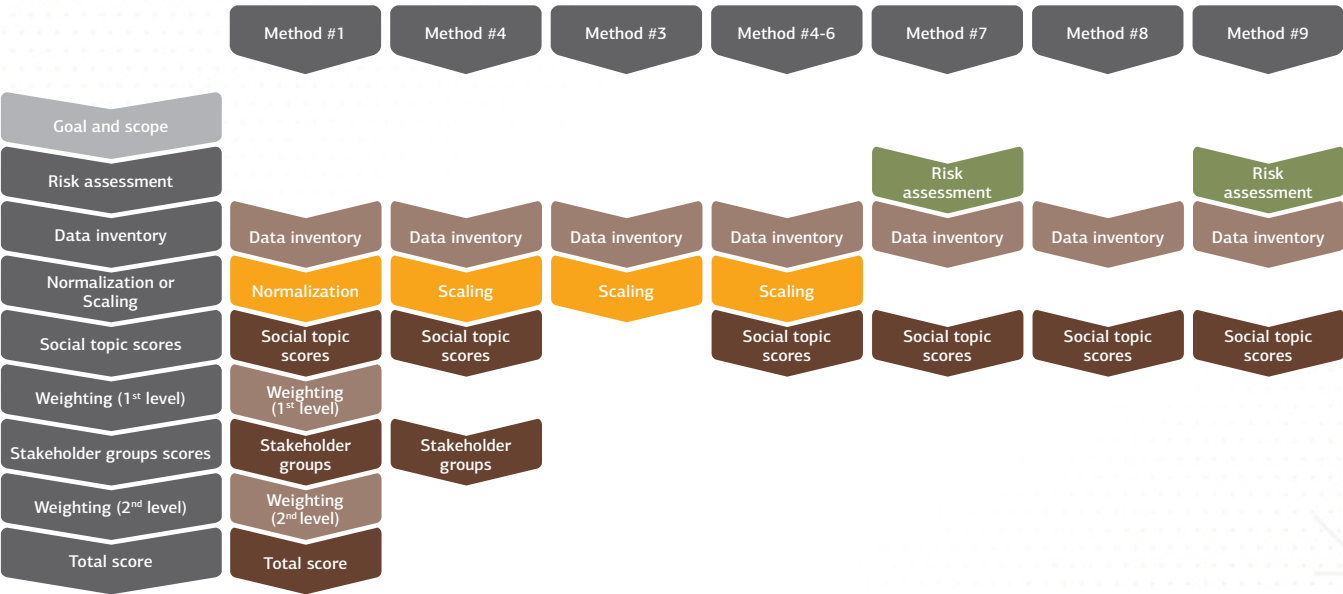
Figure 24: Comparison of impact assessment from participants of Roundtable for Social Metrics Phase 1

Although the methods applied by companies are diverse, they also have important common elements. While some methods deal with both quantitative and qualitative information, others use either one or the other at varying levels of depth and complexity. In addition, while one method aggregates the results up to a single total score, other methods do not aggregate social topic scores. However, the outcomes of the assessment (social topic scores and stakeholder group scores) and the steps of the methods (data inventory, classification, aggregation, etc.) are relatively similar, which suggests a common ground for harmonisation.

In light of the ambition to develop harmonised methodology for impact assessment, it was noticed that the methods share a common path as described by the headings of Figure 24. It appears that some synergy exists across the methods, allowing them to be represented by the following two approaches:

- Quantitative approach: corresponding to method 1 in Figure 24, which deals with quantitative data only
- Scale approach: corresponding to methods 2, 4, 5 and 6, which apply impact scales while also dealing with qualitative data

The participant companies strongly feel that there should be one common method that can both handle the quantification and the scale approach. In section 2.1, this common method and the consequences of using each one of the two approaches are described.

5 Annex 5: Process to define materiality

The GRI provides guidance to define material topics and boundaries (GRI, 2013), which can be borrowed and adapted for product social life-cycle impact assessment. The process can be summarised in four steps as follows:

Step 1: Identification

An initial list of social topics and respective performance indicators is provided in chapter 3. The first step is to identify the most significant topics according to their impact on the business. This can be realised through a diagnosis by internal experts from corporate sustainability and other departments, preferably from different regions in order to capture country-specific issues.

Additionally, the relevant stakeholders that interact with the company are identified, and their insights and expectations are collected, e.g. via surveys, interviews and forums.

The outcome of this first step is a list with the most and the least significant topics with respective boundaries.

Step 2: Prioritization

Social topics can be more relevant to specific contexts, e.g. sectors and countries in the supply chain. For example, while child labour is a critical topic, it is more relevant for suppliers located in developing countries.

In the second step, the social topics are weighted based on criteria defined by the company, according to the nature of the company and the strategy of the business. This leads to a final weighted listing of topics and a ranking. The criteria used in the weighting is documented and disclosed in communications with stakeholders.

The prioritisation can be represented in a materiality matrix (see Figure 25), which helps identify which topics are material, i.e. the topics that are both of interest and significant for the business.
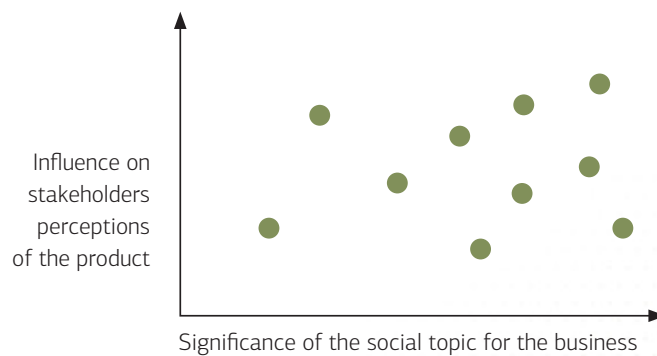
Figure 25: Materiality matrix

Note that conducting steps 1 and 2 before every assessment would be an expensive or redundant exercise. In order to maximize efficiency, a materiality matrix for a product group or at a regional level can be generated based on the materiality matrix used by the CSR reporting team for the company as a whole. Following this, any additional concerns related to the specific product to be assessed can be added to the default lists.

Step 3: Alignment with available time and resources

While CSR reporting can take one year to complete, the time and resources available for assessing one single product will be more restricted. Steps 1 and 2 allow for selection of topics whilst not losing sight of what stakeholders are interested in and what is relevant. However, the boundaries of the assessment in terms of the number of topics to be included still need to be defined. Finding a trade-off between costs and the value of information is necessary. The value is highly dependent on what the stakeholders using the results want to know.

The number of social topics will depend on the nature and purpose of the assessment:

• A compact assessment is intended for internal communication. It includes a strict selection of social topics, e.g. the top 5 material social topics. For these social topics, data of at least one, but preferably two relevant value-chain actors must be collected and documented, with average data providing an overview of the potential risks in the rest of the value chain. One limitation of a compact assessment is that it does not fully support comparability as the list of social topics to be assessed is not fixed.
• A broad assessment can be used to support claims. It differs from a compact assessment by including a broader range of topics and collecting data from more value-chain actors. The documentation of a broad assessment also needs to be more extensive.

Figure 26 illustrates the selection of topics from a materiality matrix for a compact assessment. The dotted lines can be seen as the cut-off. If time or resources are limited, the lines can be moved closer to the upper right corner.

Figure 26: Selection of social topics for a compact assessment

Step 4: Validation

Check with the sustainability team and other business departments whether the choices made in the previous steps are consistent and valid, and if not, adjust. Furthermore, document all decisions, as these should be provided when the results are presented.

>> More about materiality test on GRI G4 Implementation Manual pages 32-39

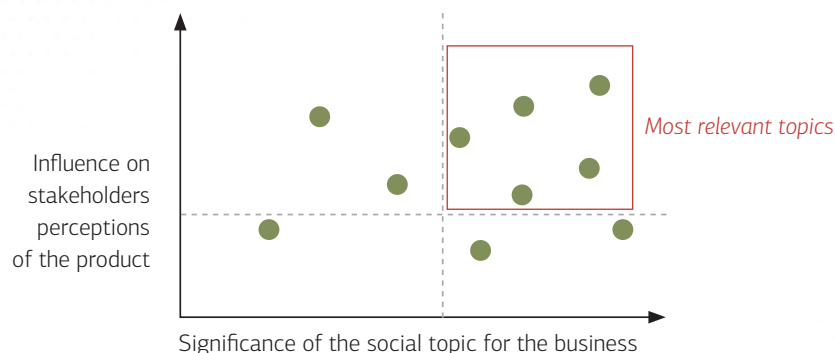# 6 Annex 6: Allocation

The following examples demonstrate how to aggregate indicator scores across an entire product using allocation. The performance indicator score is calculated by aggregating only the scores of the life-cycle actors for which the performance indicator has been determined as relevant. Notice that if a performance indicator is not applicable to a life-cycle actor, that actor is not considered in the aggregation of the performance indicator.

Examples of how to allocate both absolute numbers and percentages for the quantitative approach are demonstrated below.

There may also be cases in a quantitative assessment where data are collected at a higher level (e.g., corporate) and appropriate data to apply allocation are not available. In this case, it may be possible to average values across all life-cycle actors as in the scale approach. If this is done, it must be clearly documented

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Example 1: Calculating the number of safety training hours to produce one tire

This example shows how to use the mass of material associated with each production step to apportion the number of safety training hours involved in the production of one tire. Alternatively, this calculation could be done using the working hours associated with each production step or the equivalent monetary value. If this value is unknown, an example of the calculation can be seen in the normalisation section. In this example, we will assume there were 20 hours of training per employee in synthetic rubber production and 10 hours of training per employee in steel production.

To apportion the data, we will also assume a unit of one tire and we will only consider the production of materials to make the tire. The theoretical tire is made with 80% synthetic rubber and 20% steel with a total weight of 20kg (16 kg synthetic rubber and 4 kg steel). We will assume there are 50 employees working on synthetic rubber production and 30 on steel production. Lastly, we will assume the facilities produce 600,000 kg per year of synthetic rubber and 200,000 kg per year per steel respectively.

The results can then be calculated via the following equation:

$$\frac{Training\ Hours}{Employee} * \frac{Total\ Employees}{Total\ Production} * Weight\ in\ Product = Training\ Hours\ per\ Product$$

Number of training hours to produce one unit of a product of each life cycle phase:

Phase 1: Synthetic Rubber Production
The training hours per unit for synthetic rubber production are consequently 20 training hours/employee * 50 employees / 600,000 kg yearly production * 16 kg synthetic rubber/product = 0.027 training hrs. /product

Phase 2: Steel Production
The training hours per unit for steel production are consequently 10 training hours/employee * 30 employees / 200,000 kg yearly production * 4 kg steel/product=0.006 training hrs. /product

Entire life cycle

The training hours associated with the production of the product (e.g., one tire) are given by:

0.027 training hours / product +0.006 training hours / product = 0.033 total training hours per tire

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Example 2: calculating the job satisfaction rate of employees producing one tire

This example shows how to determine the job satisfaction rate of the employees involved in the production of one tire. We will keep the same data as in the previous example, but here will assume a job satisfaction rate of 93% in synthetic rubber production and 85% in steel production.

The calculation can be done using a weighted average value of the total hours to produce a product. In essence, it will show on average how satisfied employees were throughout the production of the product. To do this, the proportion of the total hours in each production stage will be considered and multiplied by the job satisfaction rate for that portion of the hours. These can be added to provide the overall job satisfaction rate.

The results can be calculated via the following equation:

$$\sum Job\ Satisfaction\ Rate\ per\ Stage * \frac{Hours\ per\ Product\ per\ Stage}{Total\ Hours\ to\ Produce\ the\ Product} = Overall\ Job\ Satisfaction\ Rate$$

Overall job satisfaction rate for the production of one product:

Number of hours = 220 working days at 8 h = 1760 h

Phase 1: Synthetic Rubber Production
50 employees /600,000 kg = 8.3 e-5 employees /kg
* 1760 h / employees = 0.147 h /kg
*16 kg /product = 2.347 h /product

Phase 2: Steel Production
30 employees /200,000 kg = 1.5 e-4 employees /kg
* 1760 h / employees = 0.264 h /kg
*4kg/product = 1.056 h /product

Entire life cycle
Total Hours = Hours for Synthetic Rubber Production + Hours for Steel Production = 2.347 h + 1.056 h = 3.403 h

Job Satisfaction Rate:
[93% satisfaction in synthetic rubber production * 2.347 h synthetic rubber production / 3.403 h total] + [85% satisfaction in steel production * 1.056 h steel production / 3.403 h total] = 90.5% overall job satisfaction rate

7 Annex 7: Data collection and data quality

Although there are differences between the data collection from internal and external data providers (i.e. departments from the same company and other business partners), the general rule is that data providers need to be motivated to contribute, as there is a general sense of questionnaire fatigue. There are various factors that influence the willingness to provide data.

Before sending questionnaires

Questionnaires are an element in a communication channel, but not the communication channel itself. Before questionnaires are answered a communication channel needs to be established. Simply sending a questionnaire to an unknown person often does not work. Important conditions in a productive communication channel are:

• Understand what the data provider knows and what he probably does not know. Are you contacting the right person?
• Understand the terminology that the data provider is used to, and to which other systems he already submits data regularly.
• Manage confidentiality agreements if necessary. Find ways to obtain the information you need without the provider having to disclose sensitive data.
• Limit the number of questions to what you really need to know, and always explain why that is important for you.
• Ask about the type of the data sources (e.g. verified report, internal unverified report, personal communication, etc.). This is useful as low quality data may be sufficient if a topic turns out to be less relevant.

The sphere of influence

An important factor is the sphere of influence. If you address an internal data provider, you can use internal mechanisms to obtain the data you need. When data are collected from a supplier, there is a dependency. If your company is a major client for that supplier, your ability to influence will be different than if you are a small client, for instance if you are dealing with an electricity or mining company. That is probably also going to be the case when questioning data providers about impacts on local communities, use phase and end of life.

8 Annex 8: Weighting

Weighting is a contentious issue among practitioners. Social science does not provide the exact answer to "what is important", but social science methods have been developed to illicit opinions from panels.

Does "no weighting" exist?

Practitioners who do not want to apply weighting often propose simply adding the scores of each stakeholder group. In fact, it means applying weighting factor 1 equally. This is an acceptable solution; however, stating in this case that weighting is not applied is arguable. In practice, when two products are compared based on "non-weighted scores", the user will have to interpret the scores anyway, which means that the user has to apply weighting, implicitly or explicitly.

Setting weighting factors to measure preferences

If preferences are to be weighted in an explicit way, it is necessary to set weighting factors. These weighting factors can be based on the opinions of a panel of stakeholders. There are various techniques to elicit the opinions from these stakeholders, including:

- Panel procedures where a representative group of people state their values and develop a ranking or a set of explicit weighing factors. The most well-known procedures are connected to the use of written questionnaires and panel discussions.
- Assess the implicit or explicit way society deals with values, mostly by assessing the willingness to pay, e.g. assessing the willingness to pay for protecting local communities' interests.

Note: the list above is not extensive, since providing guidance for setting weighting factors and stakeholder consultation are beyond the scope of this handbook.

Setting factors to weight stakeholder groups

In the impact assessment method proposed in the handbook, a weighting step was put at the final stage where the importance of the impacts on the three stakeholder groups (workers, local communities and consumers) are weighted. The first question to be asked is, do we see these stakeholders as individuals, or are they a single entity? In other words, is the impact on 10 workers less important than the impact on 100 members of a local community? And is the impact on one consumer even less important, even though that client can represent a retail organisation that serves millions of clients? For the moment it has been assumed that each one of the stakeholder groups is an entity, thus the number of people being represented is less relevant.

Most important is that weighting may be applied if the practitioner believes it can support decision-making. Furthermore, weighting needs to be applied consistently, and the procedure used to set weighting factors needs to be transparent, well documented and verifiable.

9 Annex 9: Selection of social topics

The number of social topics found in literature is vast. On the basis that a framework with a large number of social topics would become impractical and unmanageable, the Roundtable has prioritised those that they feel most essential. Therefore, the set of social topics proposed in this guidance document is based on:

- Research: the selected social topics originate either from external references or from social topics currently addressed by the participants of the Roundtable.

- Selection: the selected social topics cover the most significant social impacts that can be associated to a product as identified by the participants of the Roundtable.

9.1 Methodology for identification and selection of social topics

Step 1:
Nineteen external references were shortlisted in the Roundtable for Product Social Metrics Phase 1 (see Annex 9.2).

Step 2:
The social topics referred to by these references and the social topics currently addressed by the members of the Roundtable for Product Social Metrics were sorted into three groups:
- Group 1: Social topics referred to by the UNEP-SETAC Guidelines for Social LCA (UNEP SETAC, 2009) and in other references;
- Group 2: Social topics not referred to by UNEP SETAC, but referred to in other references;
- Group 3: Social topics addressed by the participants of Roundtable.

Step 3:
Overlap between the social topics of Group 3 and the social topics of the other groups was made evident (see Annex 9.3). This step prevented duplication of social topics.

Step 4:
The participants of the Roundtable prioritised social topics from Groups 1 and 2. In particular, all social topics referred to by UNEP SETAC for the stakeholder group workers were indicated as relevant.

Step 5:
The social topics of Group 3 that were found most relevant with no equivalent social topic in the other groups were selected.

9.2 Social topics referred to by external references
base reference: UNEP SETAC

Stakeholder	Sub-dimensions	UNEP SETAC	HDI	MDGs	OECD	GRI	UNGC	ISO 26000	ISEAL	COSA	WBCSD	CI	IRIS	AIM-PRO	ETI	Ruggie	Sphere	NEF	WHR	GSCP
Employee	Freedom of association and collective bargaining	■				■	■	■	■					■	■	■				■
	Child labor	■				■	■	■		■				■	■	■				■
	Fair salary	■			■			■		■				■	■	■				■
	Working hours	■						■			■			■	■	■				■
	Forced labor	■				■	■				■			■	■	■				■
	Equal opportunities and discrimination	■		■		■		■	■				■	■	■	■				■
	Health and Safety	■						■		■	■			■	■	■				■
	Social benefits and social security	■				■	■	■								■				
Consumer	Health & safety	■		■		■		■		■	■	■	■							
	Feedback mechanism	■						■				■	■							
	Consumer privacy	■				■	■	■												
	Transparency	■				■				■		■								
	End of life responsibility	■						■												
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	■			■															
Society	Public commitments to sustainability issues	■																		
	Contribution to economic development	■	■											■						
	Prevention & mitigation of armed conflicts	■												■						
	Technology development	■						■												
	Corruption	■				■	■	■			■		■							
Other actors in the value chain	Fair competition	■			■															
	Promoting social responsibility	■		■																
	Supplier relationships	■									■									
	Respect of intellectual property rights	■						■												

others topics (not included in UNEP SETAC)

Stakeholder	Sub-dimensions	UNEP SETAC	HDI	MDGs	OECD	GRI	UNGC	ISO 26000	ISEAL	COSA	WBCSD	CI	IRIS	AIM-PRO	ETI	Ruggie	Sphere	NEF	WHR	GSCP
Employee	training and education				X	X		X		X	X		X			X				
	civil and political rights						X	X								X				
	right to marry and protection of family						X									X				
	food security									X		X	X							
	employment and employment relationships							X						X						
	remediation					X		X												
	freedom of thought, opinion, expression, religion						X									X				
	compliance						X	X												
	inhumane treatment														X	X				
	work-life balance				X															
	investment and procurement practices					X														
	security practices					X														
	assessment					X														
	property							X												
	social dialogue				X															
	human rights risk situations							X												
	voidance of complicity							X												
	economic, social and cultural rights							X												
	human rights protection or expansion							X												
	regular employment													X						
	health and access to medical services				X											X				
	participate in culture, scientific progress															X				
	right to work				X											X				
	privacy															X				
	fair trial															X				
	freedom of movement															X				
	peaceful assembly															X				
	life, liberty and security				X											X				
	self-determination															X				
	protection under the law																			
	life satisfaction																			
	well-being				X													X		
	happiness																		X	
Consumer	life satisfaction																			
	well-being				X													X		
	happiness																		X	
	right to satisfaction of basic needs											X								
	right to choose											X								
	right to redress											X								
	right to consumer education											X								
	right to a healthy environment											X								
Local community	governance				X			X												
	public policy					X		X												
	life expectation		X																	
	interest group activity																			
	education and awareness							X												
	participation										X									
Society	population change																			
	social investments						X													
	investing in capacity									X										
	producer perception									X										
	creation of infrastructure										X									
	agricultural productivity												X							
	capacity building												X							
	generate funds for charitable giving												X							
Other	environment				X	X	X			X	X	X	X	X	X					
	economics					X														

9.3 Social topics addressed by participants

Social topics of external references in relation to the topics addressed by the companies that participated in the 1st Phase of the Roundtable for Product Social Metrics:

		Stakeholder	Topics	corresponding companies topics (see legend below)
1	referred by UNEP-SETAC and other references	Worker	Freedom of association and collective bargaining	e7, e11, e19
2			Child labour	e3
3			Fair salary	e4
4			Working hours	e5
5			Forced labour	e6
6			Equal opportunities and discrimination	e22
7			Health and safety	e8, e9, e13, e14, e15, e16
8			Social benefits and social security	(e17), e24, e30
9	referred by other references	Worker	Training and education	e18, e21, (e27), e41
10			civil and political rights	
11			right to marry and protection of family	
12			food security	
13			Employment and employment relationships	e20, e23
14			Remediation	
15		similar to 6	~~freedom of thought, opinion, expression, religion~~	
16			Compliance	e12
17			inhumane treatment	e25
18			Work-life balance	e42
19			Investment and procurement practices	(e28), e29
20		similar to 7	~~security practices~~	~~e14, e15~~
21			Assessment (on human rights)	
22			Property (in relation to civil and political rights)	
22			social dialogue	
23			human rights risk situations	
24			Avoidance of complicity	
25		similar to 6	~~economic, social and cultural rights~~	
26			human rights protection or expansion	
27		similar to 13	~~regular employment~~	~~e20~~
28			participate in culture, scientific progress	
29			right to work	
30			Privacy	
31		similar to 38	~~fair trial~~	
32		similar to 5	~~freedom of movement~~	
33		similar to 1	~~peaceful assembly~~	
34			life, liberty and security	
35		similar to 5	~~self-determination~~	
36		similar to 6	~~equal recognition and protection under the law~~	
37			Well-being and happiness	e31, e40, e45
38	companies specific		Disciplinary practices	e10

	Stakeholder	Topics	corresponding companies topics (see legend below)
39	Consumer	Health & safety	c1, c3, c4, c5
40	referred by UNEP-SETAC and other references	Feedback mechanism	
41		Consumer privacy	
42		Transparency	c12
43		End of life responsibility	
44	Consumer	Well-being and happiness	c2
45		right to satisfaction of basic needs	
46		right to choose	
47	referred by other references	right to redress	
48	similar to 51	right to consumer education	c12
49		right to a healthy environment	
50		Poverty alleviation	c8
51		Contribution to education	c9
52		Empowerment	c10
53	companies specific	Behaviour	c11

	Stakeholder	Topics	corresponding companies topics (see legend below)
54	Local community	Access to material resources	l6
55		Access to immaterial resources	l5
56		Delocalization and migration	
57	referred by UNEP-SETAC and other references	Cultural heritage	
58		Safe & healthy living conditions	l2
59		Respect of indigenous rights	
60		Community engagement	l1, l7, l9
61		Local employment	l3
62	similar to 58	Secure living conditions	
63	Local community	governance and public policy	
64	referred by other references	Life expectation	
65		interest group activity	
66	similar to 60	community development	
67	companies specific	Local sourcing and procurement	l4
		Imports from developing countries	l8

Legend of social topics addressed by the participants of the 1st Phase of the Roundtable for Product Social Metrics:

Workers:

e1	Healthy and safe working conditions
e2	Equal opportunities
e3	Child labour
e4	Remuneration
e5	Working hours
e6	Forced labour
e7	Freedom of Association
e8	Fatalities and Emergency Preparedness
e9	Occupational Diseases
e10	Disciplinary practices
e11	Right to collective bargaining
e12	Compliance & ethics
e13	Toxicity Potential
e14	Physically Demanding Work
e15	Machine Safeguarding
e16	Industrial Hygiene
e17	Sanitation, Food and Housing
e18	Professional Training
e19	Strikes and Lockouts
e20	Employment
e21	Qualified Workers
e22	Integration of Disabled Persons
e23	Part-time Workers
e24	Family Support
e25	Humane Treatment
e26	Working conditions
e27	Number of Trainees
e28	Research and Development
e29	Investments
e30	Social Security
e31	Worker wellness
e32	Social Risk at country and commodity level
e33	Government stability
e34	Social responsibility
e35	Respect for each other
e36	Fair and responsible business
e37	Protection of company property & confidential information
e38	Avoid conflicts of interests
e39	Performance to objectives
e40	Satisfaction with leadership
e41	Training of workforce
e42	Work/life balance
e43	Worker participation in sustainability
e44	Community involvement
e45	Worker satisfaction

Consumers:

c1 Toxicity and safety
c2 Well-being
c3 Health
c4 Adverse effects (on health)
c5 Reduction of risk of diseases
c6 Other Risks
c7 Comfort
c8 Poverty alleviation
c9 Contribution to education
c10 Empowerment
c11 Behaviour
c12 Product information communication
c13 Consumer footprint

Local Communities:

l1 Site level community activities
l2 Healthy and safe living conditions
l3 Local employment
l4 Local sourcing and procurement
l5 Provision of education
l6 Improvement in infrastructure
l7 Community engagement
l8 Imports from developing countries
l9 Brand and company level programmes implemented
l10 Foreign Direct Investment (FDI)
l11 Compliance & ethics

10 Annex 10: Definitions of social topics

The definitions of the selected topics are given in this annex. In cases where multiple definitions were available for a topic, the most complete version was included, with the UNEP SETAC Guidelines for Social LCA being the leading reference (in order to ensure alignment with product level guidelines).

10.1   Workers

Health and safety

Since 1950, the International Labour Organization (ILO) and the World Health Organization (WHO) have shared a common definition of occupational health. The definition reads: "Occupational health should aim at: the promotion and maintenance of the highest degree of physical, mental and social well-being of workers in all occupations; the prevention amongst workers of departures from health caused by their working conditions; the protection of workers in their employment from risks resulting from factors adverse to health; the placing and maintenance of the worker in an occupational environment adapted to his physiological and psychological capabilities; and, to summarize, the adaptation of work to each person and of each person to his/her job." All workers have the right to a safe and healthy workplace. Another possible definition of safe workplace, provided by the OSHA, is a workplace that is free of serious recognized hazards and in compliance with OSHA standards. Where the workplace term covers all places where workers need to be or to go by reason of their work and which are under the direct or indirect control of the employer; The term health, in relation to work, indicates not merely the absence of disease or infirmity; it also includes the physical and mental elements affecting health, which are directly related to safety and hygiene at work. This social topic assesses both the rate of incidents and the status of prevention measure and management practices.
Source: adapted from UNEP-SETAC Guidelines for Social LCA

Wages

Living wage is a wage that enables workers and their families to meet their needs for nutritious food, water, shelter, clothing, education, healthcare and transport as well as providing for a discretionary income. It is usually higher than the minimum wage in many locations. This social topic aims to assess whether practices concerning wages are in compliance with established standards and if the wage provided is meeting at least the minimum wage, established either by law, collective bargaining agreement, or industry standard, and whether it can be considered as a living wage.
Source: adapted from UNEP-SETAC Guidelines for Social LCA

Social benefits

Social benefits refer to non-monetary employment compensation. Four basic categories of Social Security benefits are often included and are paid based upon the record of worker's earnings: retirement, disability, dependents, survivors benefit and, in case of termination of employment, severance pay. Other social benefits that may be provided include: medical insurance, dental insurance, paramedical insurance including preventive medicine, medicine insurance, wage insurance, paid maternity and paternity leave (parental leave), paid sick leave, education and training. Social benefits are typically offered to full-time workers but may not be provided to other class of workers (e.g., part-time, home workers, contractual). Countries have different laws and policies regarding social security and social benefits and that entails that some benefits may already be taken care for by the national government. For example, some countries have a public medical system accessible by all citizens while other countries have a private medical system calling for citizen/worker to be covered by a medical insurance. This social topic assesses whether an organization provides for social benefits and social security of workers and to what extent.
Source: adapted from UNEP-SETAC Guidelines for Social LCA

Working hours

The hours of work comply with applicable laws and industry standards. Workers are not on a regular basis required to work in excess of 48 hours per week and have at least one day off for every 7-day period. Overtime is voluntary, does not exceed 12 hours per week, is not demanded on a regular basis and is compensated at a premium rate in accordance with either the law or applicable collective agreement. The needs and expectations of the workers are taken into account in the organisation of working hours. There are also higher restrictions if the hours of work are made during the night. Hours of work are also in function of different time arrangement (from part time to full time) and work places (e.g. from home workers to field workers and manufacture).

Source: UNEP-SETAC Guidelines for Social LCA

Child labour

The term child labour is often defined as work that deprives children of their childhood, their potential and their dignity, and that is harmful to physical and mental development. It refers to work that is:
- mentally, physically, socially or morally dangerous and harmful to children;
- depriving them of the opportunity to attend school;
- obliging them to leave school prematurely;
- or requiring them to attempt to combine school attendance with excessively long and heavy work.

In its most extreme forms, child labour involves children being enslaved, separated from their families, exposed to serious hazards and illnesses and/or left to fend for themselves on the streets of large cities often at a very early age.

Child labour is child working while being below:
- the national minimum age for employment;
- or the age of completion of compulsory education;
- or any otherwise specified exceptions; any person under the age of 15, whichever is higher. If however, local minimum age law is set at 14 years of age in accordance with developing country exceptions under ILO Convention 138, this lower age may apply.

Hazardous work is work which, by its nature or the circumstances in which it is carried out, is likely to harm the health, safety, or morals or children. Hazardous work should not be performed by any worker under the minimum age of 18.

The assessment aims to verify if the organization might or is employing children (as defined in the ILO conventions). It will be looked upon if the conditions are favourable for the occurrence of child labour, if prevention measures are being taken and if schooling, childcare or parental care for young children are being provided and if adequate transitional economic assistance and appropriate educational opportunities are being provided to any former child workers.

Source: adapted from UNEP-SETAC Guidelines for Social LCA

Forced labour

Forced or compulsory labour is any work or service that is exacted from any person under the menace of any penalty, and for which that person has not offered himself or herself voluntarily. Providing wages or other compensation to a worker does not necessarily indicate that the labour is not forced or compulsory. By right, labour should be freely given and workers should be free to leave in accordance with established rules. The assessment aims to verify that there is no use of forced or compulsory labour.

Source: UNEP-SETAC Guidelines for Social LCA

Discrimination

Opportunities in education, employment, advancement, benefits and resource distribution, and other areas should be freely available to all citizens irrespective of their race, national or social origin, caste, birth, religion, disability, gender, sexual orientation, family responsibilities, marital status, union membership, political opinions, health condition (including HIV/AIDS status), age, neither any other condition, nor individual or group characteristic unrelated to ability, performance, and qualification. The social topic aims to assess equal opportunity management practices and the presence of discrimination in the opportunities offer to the workers by the organizations and in the working conditions.

Source: adapted from UNEP-SETAC Guidelines for Social LCA

Freedom of association and collective bargaining

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 against 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 Labour 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 social topic.

Source: UNEP-SETAC Guidelines for Social LCA

Employment relationship

The significance of employment for human development is universally accepted. As an employer, an organization contributes to one of the most widely accepted objectives of society, namely the improvement of standards of living through full and secure employment and decent work.

Every country provides a legal framework that regulates the relationship between employers and employees. Although the precise tests and criteria to determine whether an employment relationship exists vary from one country to another, the fact that the power of the contracting parties is not equal and that employees therefore require additional protection is universally accepted, and forms the basis for labour law.

The employment relationship confers rights and imposes obligations on both employers and employees in the interest of both the organization and society.

Not all work is performed within an employment relationship. Work and services are also performed by men and women who are self-employed; in these situations the parties are considered independent of each other and have a more equal and commercial relationship. The distinction between employment and commercial relationships is not always clear and is sometimes wrongly labelled, with the consequence that workers do not always receive the protections and rights that they are entitled to receive. It is important for both society and the individual performing work that the appropriate legal and institutional framework be recognized and applied. Whether work is performed under an employment contract or a commercial contract, all parties to a contract are entitled to understand their rights and responsibilities and to have appropriate recourse in the event that the terms of the contract are not respected. Companies using temporary placement agencies should ensure that the agency is reputable and respects all of the rights under law, as well as the core labour standards.

In this context, labour is understood to be work performed for compensation and does not include activities undertaken by genuine volunteers. However, organizations should adopt policies and measures to address their legal liability and duty of care concerning volunteers.

Source: adapted from ISO 26000

Training and education

Human development includes the process of enlarging people's choices by expanding human capabilities and functioning, thus enabling women and men to lead long and healthy lives, to be knowledgeable and to have a decent standard of living. Human development also includes access to political, economic and social opportunities for being creative and productive and for enjoying self-respect and a sense of belonging to a community and contributing to society.

Organisations can use workplace policy and initiatives to further human development by addressing important social concerns, such as fighting discrimination, balancing family responsibilities, promoting health and well-being and improving the diversity of their workforces. They can also use workplace policy and initiatives to increase the capacity and employability of individuals. Employability refers to the experiences, competencies and qualifications that increase an individual's capacity to secure and retain decent work.

Source: ISO 26000

Work-life balance

Striking the right balance between the commitments of work and those of private life is central to people's well-being. Employers' demands on workers' time should take this principle into account. Too little work can prevent people from earning enough to attain desired standards of living. But too much work can also have a negative impact on well-being if people's health or personal lives suffer as a consequence, or if they cannot perform other important activities, such as looking after their children and other relatives, having time for themselves, etc. The way people allocate their time is determined by both necessity and personal circumstances, which in turn are shaped by individuals' preferences and by the cultural, social and policy contexts in which people live.

Source: adapted from OECD Better Life Index

Job satisfaction and engagement

Job satisfaction is the extent to which workers are satisfied with their job, their employer, have the intent to stay and be loyal to their employers. Job satisfaction is how people feel about their jobs and different aspects of their jobs. It is the workers' view that they are treated respectfully and appropriately by management.

The well-being of staff is an increasingly relevant and necessary consideration in the modern workplace. It is considered an important factor that together with satisfaction of basic needs, fair salary, working time, and work-life balance, affects the well-being of the workers.

Well-being at its simplest level is perhaps ultimately about personal happiness - feeling good and living safely and healthily. This means not allowing work to undermine the basic purposes and workers' needs, and by extension those of their families and loved ones. In this respect well-being is a significant aspect for work and careers.

The workers' satisfaction is frequently measured by an interview with the workers on different factors. There is no consensus about the best or standard way to measure job satisfaction. A transparent description of the aspects that have been considered in the workers' interviews is recommended. Since work –life balance is considered as another social topic, to avoid double counting it should not be re-considered here. Aspects that could be considered in preparing the questionnaire are challenges, motivation, work breaks, working methodology, prioritising tasks, autonomy to make decisions at work and to develop your own ideas, etc.

Source: Roundtable for Product Social Metrics working group

10.2   Consumers

Health & safety

Health and safety address the consumers' rights to be protected against products that may be hazardous to health or life. Consumers expect products to perform their intended functions satisfactorily and not pose a risk to their health and safety. Additionally, this social topic addresses the positive impacts that products may have on the health and safety of the end-users of products, under defined conditions.

Source: adapted from UNEP-SETAC Guidelines for Social LCA

Experienced well-being

Experienced well-being is the self-evaluation of positive and negative feelings or emotional states, with reference to a particular experience. This social topic measures the well-being the consumer associated with the use of a product.

Source: adapted from OECD Guidelines on Measuring Subjective Well-being

10.3   Local communities

Health and safety

This social topic assesses how organizations impact community safety and health. This includes the general safety conditions of operations and their public health impacts. With regard to general safety, operations can impact community safety through equipment accidents or structural failures. Project-related land use changes can also lead to natural disasters, such as landslides. Disease may spread as a result of business-related land use changes, for example when poor water drainage contributes to the spread of malaria. Influx of workers can also encourage the spread of communicable disease. The generation and/or use of hazardous material and pollution emissions may also lead to adverse health impacts. Organisations should institute environmental risk management systems for preventing, mitigating and controlling health damage from their operations. Finally, organisations may contribute to the health of local communities, for example by shared access to worker health services. Organisations should also communicate potential health and safety impacts of their operations to surrounding communities. Organisations culpable for negative health effects should engage in remediation or compensation efforts.

Source: UNEP-SETAC Guidelines for Social LCA

Access to tangible resources

This topic assesses the extent to which organizations respect, work to protect, to provide or to improve community access to local material resources (i.e. water, land, mineral and biological resources) and infrastructure (i.e. roads, sanitation facilities, schools, etc.). It includes respect to indigenous land rights. Communities and organizations may share the use of material resources (natural and man-made) and have a mutual interest in protecting and enhancing the quantity and quality of local resources and infrastructure. Expanding operations carry the potential for conflict over natural material resources (e.g. water, forest land, home lands), especially in emerging or unstable countries. Organisations should conduct risk assessments with attention to potential conflict over material resources and engage with the local community over sustainable methods for sharing resources. Organisations should institute risk management plans for preventing, mitigating and controlling environmental damage. This includes management attention to the sustainable use of natural resources, pollution prevention and waste recycling. Environment Management Systems are certifiable systems that help organisations improve material resource conservation. Similarly, Social and Environmental Impact Assessments are encouraged for business operations that are likely to have significant adverse impacts on material resources. Organisations and communities may also benefit from improving the quality of local infrastructure. Assessment should consider the extent to which project-related infrastructure, such as roadways and waste disposal systems, have positive long-term effects on local economic development.

Source: adapted from UNEP-SETAC Guidelines for Social LCA

Local capacity building

Local capacity building is a long-term, continuous process by which individuals, groups, organisations, institutions and societies increase their ability to perform core functions, solve problems, define and achieve objectives, and to understand and deal with their development needs in a broad context and in a sustainable manner. UNDP believes that capacity building at the community level is an essential component of sustainable development. As companies enter emerging markets, they too can contribute to the long-term development of local communities by enhancing and unlocking their human potential through improved access to knowledge, information, technology and skills – typically, companies can transfer knowledge, information, technology and skills to local communities through formal training programs (e.g. vocational training programs that target a wider community, which are separate from specific staff training that companies provide to their employees) and general community education initiatives.

Source: UNDP expert interviews, conducted January 2014

Community engagement

This social topic assesses whether an organization includes community stakeholders in relevant decision-making processes. It also considers the extent to which the organization engages with the community, in general. Community stakeholders include individuals or community groups that may be affected by the actions or products of an organisation. Organisations should consider these stakeholders in the development and implementation of business policies, particularly those that affect local environment, health and well-being. An organisation should attempt to engage with a broad range of stakeholders that represent balanced community interests. Community engagement should provide community members and leaders with a venue to voice concerns. Organisations should respond to these concerns with a strategic plan of action. Representatives at all levels of the organisation should engage in this continuous process. Organisations also foster community engagement through direct involvement in community initiatives and/or through financial support of community projects (e.g. Earth Day activities, recycling initiatives and visits to local schools).

Source: UNEP-SETAC Guidelines for Social LCA

Employment

This social topic assesses the role of an organisation in directly affecting employment, by creating jobs, generating income and training opportunities to community members. Organisations can have a particularly strong effect on local community development when they hire local workers for senior management positions. This is likely to encourage open communication and trust with the community.

Source: adapted from UNEP-SETAC Guidelines for Social LCA

10.4   Correlations among selected social topics

Possible synergies among the 19 social topics that were selected:

	Overarching topics	Workers	Communities	Consumers
	Health and safety	Healthy and safe working conditions	Healthy and safe living conditions	Health and safety
	Well-being	Job satisfaction and engagement Work-life balance Working hours Forced labour Child labour		Experienced well-being
	Employment, resources and infrastructure	Wage Social benefits Employment relationship	Employment Access to tangible resources Community engagement	
	Freedom of expression and discrimination	Freedom of association and collective bargaining Discrimination		
	Awareness, training and education	Training and education	Local capacity building	

11 Annex 11: Selection of performance indicators

There are a vast number of PIs available, especially for social topics at worker level. It is recommended that from a business feasibility perspective this number should be reduced as much as possible, whilst being complementary and maintaining applicability to the definition, i.e. all PIs should be aligned with the definition of the social topic.

11.1   Methodology for identification and selection of PIs

Step 1: Aggregation of the PIs
All available PIs of the social topic reference standards and all relevant company specific standard PIs were collated per topic in one document.

Step 2: Selection of PIs
The following seven criteria were formulated as a guideline for the selection of the KPI's.

Table 14: Criteria for PI selection

1. Aligned with definition used The PIs are relevant to the definition.
2. No repetition Each indicator stands alone and no two indicators should cover the same information.
3. Non sector specific The PI is relevant for all sectors.
4. Practicality Data are currently available from public or private databases, or relatively easy to obtain.
5. Risk oriented Omission represents a high reputational risk.
6. Preferably at product level The PI expresses the performance of the product. Otherwise allocation from corporate data to the product level needs to be possible.
7. Balanced The complete set of performance indicators should reflect positive and negative impacts of the product to enable a reasoned assessment of overall performance.

Step 3: Reviewing the PIs
Each PI was first judged using the first three principles. If this resulted in more than four KPI's, the four remaining principles were used.

Step 4: Refining the PIs
A final check was made based on whether the PIs were complementary to the definition, i.e. overall the set of PIs should cover the key aspects of the definition. If required, the wording of the KPI's was refined.

11.2   Performance indicators per stakeholder group

Based on the selection methodology outlined in the previous section, the following performance indicators were shortlisted for each stakeholder group (see tables 15-17) during the Roundtable for Product Social Metrics Phase 1. While developing the reference scales for the scales-based approach during the Roundtable for Product Social Metrics Phase 2, the performance indicators were revisited and reformulated, concluding with an average of two performance indicators for the quantitative approach and two for the scale approach per social topic.

Table 15: PIs selected for the stakeholder group 'workers'

Stakeholder group: Workers

Equal opportunities and discrimination

1.   Equal rights and opportunities: The company/facility does not engage in or support discrimination in hiring, remuneration, access to training or promotion, termination or retirement based on race, colour, language, caste, national origin, indigenous status, religion, disability, gender, marital status, sexual orientation, union membership, political affiliation, age, pregnancy or any other condition that could give rise to discrimination; except when specifically required by applicable laws or regulations (e.g. as required in South Africa mandating positive discrimination towards disadvantaged groups).
2.   Percentage of women in total workforce and percentage of women in leadership position.
3.   Percentage of workers with a disability.

Child labour

1.   No child labour: absence of children in the facility or organisation under the legal age of 15 years old (or 14 years old in developing countries).
2.   Percentage of young workers, i.e. percentage of workers who are under the age of 18 and above 15 (or under the age of 18 and above 14 in developing countries).
3.   If young workers are employed, the company/facility ensures the following:
4.   Young workers that are attending school are not employed during school hours (except if permitted under apprenticeships or other programmes in which they are lawfully participating)
5.   Safe working environment: the company/facility does not expose young workers to situations or activities that are deemed to be hazardous or unsafe to their physical and mental health and development. The minimum age for hazardous work is 18 years.
6.   Day-time work: young workers do not work at night.
7.   The number of hours in which such employment or work may be undertaken per day is compliant with local laws.

Health and safety

1.   Percentage of injuries or fatal accidents in the company/facility by occupation (e.g. per one million hours worked).
2.   The company/facility complies with applicable health & safety laws or regulations and provides a safe & healthy working environment including, with due regard to the health & safety hazards posed by the activities being undertaken, taking reasonably practicable steps to prevent accidents and ill health.
3.   The company/facility ensures that all personnel receive adequate health & safety training or awareness in line with the requirements of their job function and required by local law, including the use of any essential personal protective equipment (PPE). Such training or awareness is also provided for new or temporary contracted and reassigned personnel, and is refreshed periodically.
4.   The company/facility provides adequately stable and safe buildings. It includes:
     a)   access to adequate toilets and potable drinking water, adequate exits for use in the event of a fire or emergency;
     b)   first aid and medical treatment in the event of a workplace injury, as well as essential safety equipment (e.g. personal protective equipment) free of charge;

c) adequate lighting & ventilation;

d) sanitary facilities for food storage where applicable;

e) physical guards, interlocks and barriers are provided and properly maintained where machinery presents an injury hazard to workers;

f) if living quarters are provided, it is assured that they are clean, safe and sufficient.

5. The company/facility identifies, evaluates and controls:

a) Workers' exposure to the hazards of physically demanding tasks, including manual, material handling and heavy repetitive lifting, prolonged standing and highly repetitive or strenuous assembly tasks;

b) Workers' exposure to hazardous substances do not exceed the Occupational Exposure Limits (OEL);

c) When risks cannot be adequately controlled by such means, workers' health is protected by appropriate personal protective equipment programs.

Freedom of association and collective bargaining

1. Workers' representatives are invited to contribute to planning of larger changes in the company, which will affect the working conditions.

2. Right to organise: The company/facility does not obstruct the right of all personnel to form, organise and/or join trade unions of their choice and to bargain collectively, where these activities are not restricted under applicable law. Joining trade unions will not result in any negative consequences to personnel or retaliation from the company/facility.

3. The company/facility, in those locations where the right to freedom of association and collective bargaining are restricted under law, allows workers to freely elect their own representatives; without contravening applicable laws and regulations.

Forced labour

1. Workers voluntarily agree upon employment terms. Employment contracts stipulate wage, working time, holidays and terms of resignation. Employment contracts are comprehensible to the worker and are kept on file.

2. The company/facility does not require, neither retain nor keep part of personnel's salary, benefits, property or original documents (e.g. passport, work permit, etc.), neither upon hiring nor during employment.

3. The company/facility does not engage in, neither does it use or support the use of forced, bonded nor involuntary prison labour.

4. Workers are free to leave their employer after reasonable notice and have the right to leave the workplace after their shift.

Wages

1. Compensation paid to workers complies with applicable laws.

2. The lowest paid wage compared to the living wage, the sector wage or the minimum wage (e.g. the lowest paid worker earn 20% more than local minimum wage).

3. Deductions from wages where not permitted by applicable law (e.g. as result of disciplinary measures), are not permitted without written permission of the worker concerned.

4. Payment to workers is documented accordingly.

Working hours

1. Normal working hours per day: The company/facility complies with applicable laws or regulations on working hours.

2. The normal working week (excluding overtime) for non-management workers does not exceed 48 hours on a regular basis (except in operations with rotation periods, e.g. one week on, one week off).

3. Workers normally are provided with at least one day off in every seven-day period (except in operations with rotation periods), and receive all public and annual holidays required by local law.

4. Overtime work for non-management workers is voluntary and is reimbursed at a premium rate and the total hours worked in a week shall not exceed 60 hours on a regular basis (except in operations with rotation periods).

Social benefits

1. Number of social benefits provided to the workers (e.g. health insurance, pension fund, child care, education, and accommodation).
2. Percentage of benefits which are only provided to full-time workers that are not provided to temporary or part-time workers.
3. Number of complaints and registrations of violations of obligations to workers under labour or social security laws and employment regulations.

Training and education

1. Average hours of training to improve skills and capabilities per worker by gender, worker category compared with the average number of hours worked.
2. Number of workers trained to ensure employability in the long term (e.g. managing career endings).

Job satisfaction and engagement

1. Percentage of workers who have participated in worker surveys on worker satisfaction.
2. Percentage of workers who claim in the surveys to be satisfied with their job according to a specified list of factors.

Employment and employment relationships

1. All work is performed by women and men who are legally recognized as workers or who are legally recognized as being self-employed, e.g. no illegal work.
2. The organisation meets all the responsibilities that the labour law places on employers and provides decent working conditions for their workers.
3. Work is contracted or subcontracted only to organisations that are legally recognized, or are otherwise able and willing to assume the responsibilities of an employer and to provide decent working conditions.
4. Home workers are not treated differently than other workers.

Work-life balance

1. Average number of hours that the workers spend at work annually compared to the average number of working hours stipulated in the workers' contracts.
2. Presence of an active dialogue with workers on how the organisation can contribute to a healthy work-life balance, e.g. by means of a worker satisfaction survey on work-life balance
3. Number of stress-related injuries in the company/facility.

Table 16: PIs selected for the stakeholder group 'consumers'

Stakeholder group:
Consumers

Health and safety

1. Percentage of products in compliance with regulations and voluntary codes concerning health and safety impacts of products and type of outcomes.
2. Number of consumer complaints regarding impacts on health and safety
3. Presence of management measures to assess consumer health and safety.
4. Industry certification that assures healthy and safe use of the product (if applicable).
5. Scientific proven evidence of positive health status change associated with the use of the product under defined conditions, measured with defined markers of health.
6. Scientific proven evidence of increased safety reduced risks of accidents associated with the use of the product under defined conditions.

Experienced well-being

1. Transparent, fact-based product information is available to help consumers and shoppers make informed product choices and to use to product correctly.
2. Perceived comfort related to the use of the product under defined conditions, proven by market research.

Table 17: PIs selected for the stakeholder group 'local communities'

Stakeholder group: Local communities

Health and safety

1. Damage and risks of damage caused by the organisation on the living conditions of the community are identified.
2. A monitoring system is in place to track health and safety issues, and is evaluated and updated regularly.
3. Programme is in place targeting the improvement of the health and safety in the community.

Access to tangible resources

1. Damage and risks of damage to the material resource of the community by the organisation are identified.
2. Competition and risk of competition by the company/facility with local public services are identified.
3. Improvement in the infrastructure by the organisation is identified, and it is a permanent benefit to be shared with the local community.
4. Number of involuntary land changes in the local community by the company/facility.
5. Amount of extraction of material resources by the company/facility.

Community engagement

1. Number of different community stakeholder groups that engage with the organisation.
2. Company/facility support (e.g. financial, time and expertise) for community activities.
3. Number of community development programmes implemented.
4. Number of training or meetings to engage with, inform or educate the community.

Local employment

1. Percentage of workforce hired locally.
2. Percentage of workers who already resided in the area of the major company locations before employment in management position (%)
3. Strength of policies on local hiring preferences.
4. Percentage of product components that are supplied by locally-based companies, i.e. % of local supplies.

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More background information about the handbook and the development process is available on www.product-social-impact-assessment.com/handbook

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For more than twenty years PRé Sustainability has been at the forefront of life-cycle thinking and has built on knowledge and experience in sustainability metrics and impact assessments to provide state of the art methods, consultancy and software tools. Internationally, leading organisations work with PRé to integrate sustainability into their product assessment and development systems in order to create business growth and value. PRé Sustainability has offices in the Netherlands and the United States plus a global partner network to support large international or multi-client projects.

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