

Making the SDGs relevant to business

Existing knowledge on the linking of SDGs to business needs and the role of LCA in meeting the needs and filling the gaps



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1. Introduction

This short report summarises the current knowledge on the interests of companies and policymakers to link the UN Sustainability Goals (the SDGs) to business needs and explores the interest in using Life Cycle Assessment (LCA) as a tool to support the use of SDGs.

There has been a flurry of proposals and reports on how to bridge the gap between the "official" SDG's and what companies can contribute. Some reports have focused on the importance and business benefits of business involvement, while others have focused on identifying the extent of current business interest and efforts. Many organisations and joint initiatives have written whitepapers that address the links between the SDG's and existing reporting frameworks, and how to select the most relevant SDG's. We review a few of the most interesting (in our view) in the following.

We conclude in Section 7 that there are many on-going parallel initiatives that addresses business stakeholder issues as well as gaps and needs, but none of these addresses the specific potential contributions and solutions that can be offered by linking the SDGs to life cycle impact pathway frameworks.

In Section 8 we shortly introduce our new project "Linking the UN Sustainable Development Goals to life cycle impact pathway frameworks" that aims to overcome the identified gaps by developing a clear linkage between the visionary process that led to the creation of the SDG's and all the science-based knowledge, data and methodology in the Life Cycle Sustainability Assessment area.

2. The importance and benefits of business involvement

2.1. World Business Council on Sustainable Development (WBCSD)

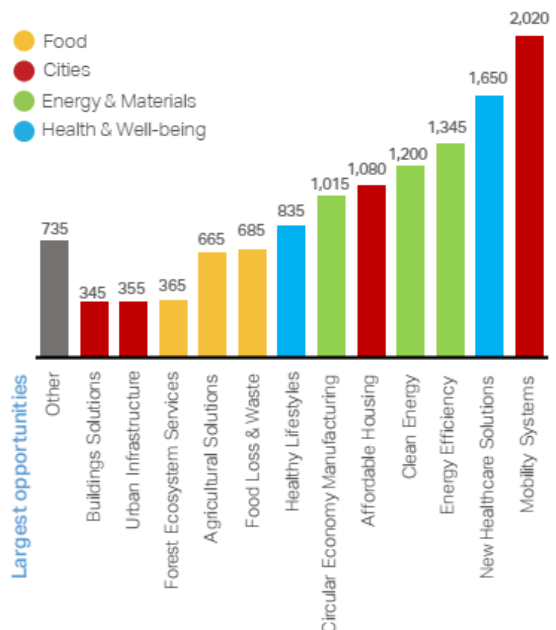
Together with the Global Reporting Initiative (GRI) and the UN Global Compact, WBCSD initiated The Business and Sustainable Development Commission, a two-year project that finished its work in January 2018.

Its most important outcome was the *Better Business, Better World*¹ report that finds that achieving the SDG's could unlock 12 trillion dollars per year in terms of business value and 380 million jobs. The biggest contributions would come from Food and agriculture, Cities and urban Mobility, Energy and Materials, and Health and Wellbeing.

More recently, the *CEO Guide to the Sustainable Development Goals*² is the result of contributions from a number of CEO's in the WBCSD membership. It is very clearly structured and convincing document that highlights the business benefits of using the SDG's as guidance in strategy development; quote: *"The SDGs provide us with a new lens through which to translate global needs and ambitions into business solutions. These solutions will enable companies to better manage their risks, anticipate consumer demand, build positions in growth markets, secure access to needed resources and strengthen their supply chains, while moving the world towards the delivery of the SDGs."*

The report proposes 4 pillars along which the implications of the SDGs need to be understood, see the figure to the right. The report stresses the need to develop suitable metrics, and there is a strong suggestion to express impacts in terms of monetary values. However, the specific way to do this remains rather vague; there is a reference on how to do this for climate risk as the only example.

Value of incremental market opportunities in 2030 US \$ billions: 2015 values



Source: *Better Business, Better World*, Business & Sustainable Development Commission



¹ <http://businesscommission.org/news/better-leadership-better-world>

² <https://www.wbcsd.org/Overview/News-Insights/General/News/New-CEO-Guide-to-the-SDGs>

3. Reporting on the current business interest and efforts

3.1. Navigating the SDGs: a business guide to engaging with the UN Global Goals

The accounting and management services network PwC published the report *Navigating the SDGs: a business guide to engaging with the UN Global Goals*³ in 2016. A key part of this report is the explanation of which societal challenge each SDG addresses, why this matters to business, and what businesses can do. It furthermore describes which targets may be most relevant to put focus on. While this reports provides an interesting overview, it is not very concrete in how to address and measure the impact of business as such. Taking the example of climate, the only recommended Performance Indicator is 13.3, which refers to educating and raising awareness on the issue.

3.2. SDG Reporting Challenge 2017: Exploring business communication on the global goals

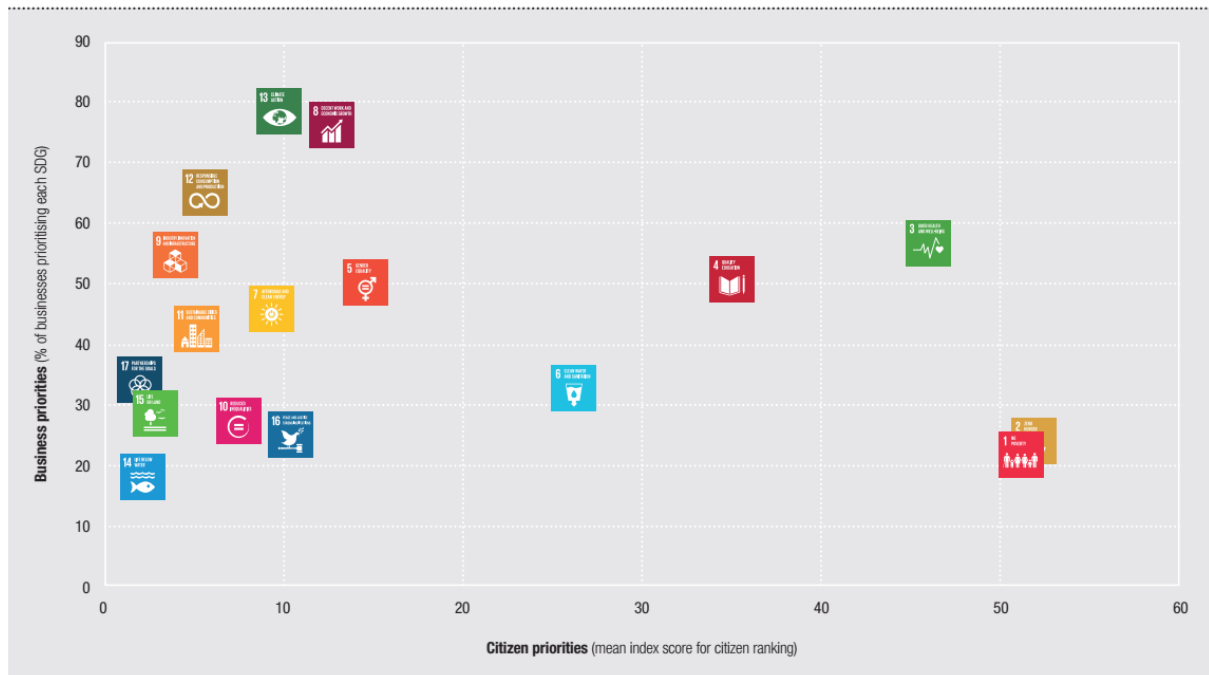
In 2017, PwC published the report *SDG Reporting Challenge 2017: Exploring business communication on the global goals*⁴. As the title indicates, this report explores how companies are and how they perhaps should report on their progress towards SDGs. They analysed 470 companies in 17 countries, representing a business value of 9.4 billion dollar. The report highlights the stark contrast between the 62% of the companies that mention SDG's in their reporting, while 63% aren't offering any meaningful level of engagement with the goals; just 37% have selected priority SDG's, mostly on a corporate level; not on a business unit level, let alone on product category level.

Figure 4 of this report, reproduced below, shows an interesting discrepancy between the prioritisation in these companies and what the citizens find important. 74% of citizens said that they would be more likely to use the goods or services of organisations that are engaging with the SDGs. The illustration below indicates that especially SDG 1 (No Poverty) and 2 (No Hunger) are considered to be much more relevant by the citizens, while target 12 (sustainable consumption), 13 (Climate Action), and 8 (decent work and economic growth), are considered high priority by industry, but less so by citizens.

³ <https://www.pwc.com/gx/en/services/sustainability/sustainable-development-goals/mapping-the-way.html>

⁴ <https://www.pwc.com/gx/en/sustainability/SDG/pwc-sdg-reporting-challenge-2017-final.pdf>

Figure 4: Business and citizen priorities



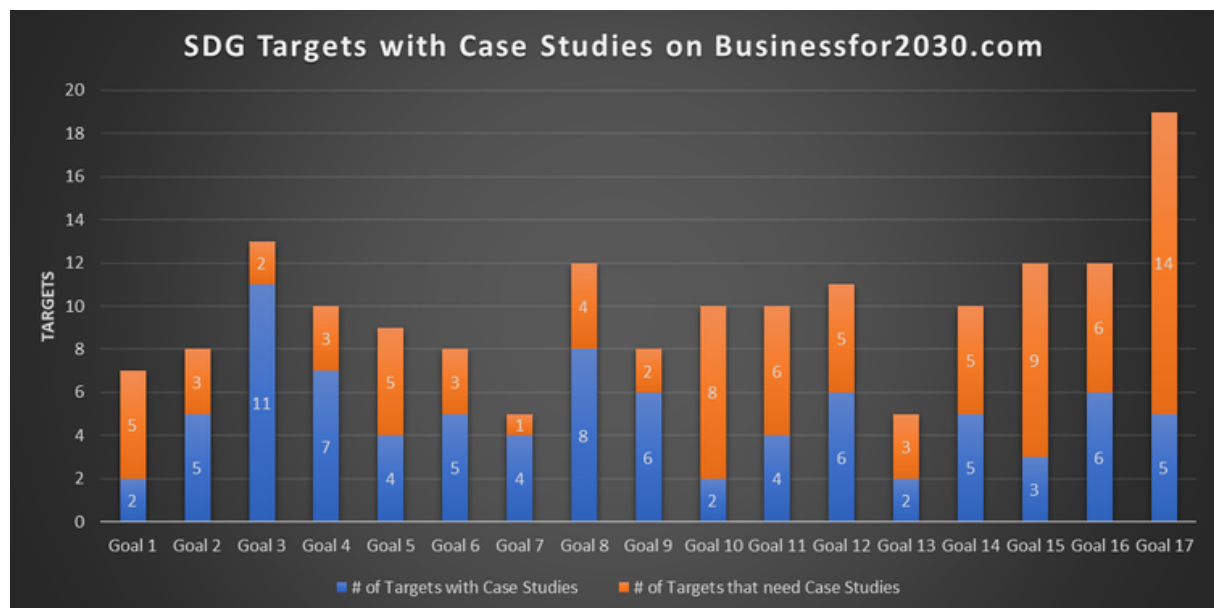
Source: PwC, SDG Reporting Challenge 2017
 Base: Companies with priority SDGs (173); All citizen respondents (2563)

3.3. Business for 2030 by USCIB

An interactive website⁵, developed by the United States Council for International Business (USCIB), that showcases how companies are progressing towards the SDG's, mostly by analysing their reporting. It is possible to access reports on individual companies, but also to inspect the projects and achievements per company on a clickable map. Most information relates to specific projects and commitments, there is not much information on outputs and results that have been achieved.

There is an interesting total overview graph that plots the cases on the SDG, see below. The height of the bars indicates the total number of indicators per SDG, as defined by the UN, the blue part indicates how many case studies refer to these goals.

⁵ <http://www.businessfor2030.org/>



3.4. How to report on the SDGs

The most recent report on this topic is KMPG's *How to report on the SDGs*⁶ which has a chapter on the current practice. This survey of the World's 250 top companies by revenue, show that 40% mention the SDGs in their corporate reporting, but only 10% have set specific and measurable business performance targets related to the SDGs. The SDGs most commonly prioritized by leading companies are Climate Action (SDG13), Decent Work & Economic Growth (SDG8) and Good Health & Wellbeing (SDG3). The SDGs least commonly prioritized are Life on Land (SDG15), Zero Hunger (SDG2) and Life Below Water (SDG14). 75% of companies that report on the SDGs discuss the impact their business has on the goals, but reporting is largely unbalanced with most companies discussing their positive impacts but not the negative.

⁶ <https://assets.kpmg.com/content/dam/kpmg/xx/pdf/2018/02/how-to-report-on-sdgs.pdf>

4. Guides on linking SDGs to existing reporting frameworks & selecting which SDGs to focus on

4.1. SDG compass

The *SDG Compass*⁷ was created by GRI, UN Global Compact and WBCSD shortly after the ratification of the SDGs and aimed to give companies an initial guide User guide, Business Indicator Inventory and a Tools inventory. It seems especially useful to align the current reporting to the SDG's; but is not really useful for decision support. There is one reference to LCA, which reads as follows:

"A number of tools and methodologies are available to help companies map high impact areas. Many companies use Life Cycle Assessment (LCA) methodologies and environmentally-extended input-output (EEIO) models. Some tools can be applied to specific SDGs. Examples include the GHG Protocol Scope 3 Evaluator, the Social Hotspots Database, the Human Rights and Business Country Guide, the WBCSD Global Water Tool and the Poverty Footprint Tool. These and other tools for impact assessment can be found at: www.sdgcompass.org"

4.2. Business reporting on the SDGs

Produced by GRI and UN Global Compact, with the technical assistance of PwC, this Analysis of the Goals and Targets⁸ is sometimes referred to as the SDG "bible" because of its sheer volume with 223 pages. It makes a detailed analysis of possible qualitative and quantitative indicators per SDG, at the level of the 169 targets and how they can be linked to a wide array of reporting standards, like GRI, CDP, etc. While is an important foundation for further work, it has no links to LCA or any other impact pathway framework.

4.3. SDG Industry Matrix

The *SDG Industry matrix*⁹ is another tool developed by UN global compact, supported by KPMG. It focuses on 6 industries: Financial services, Food/beverage/consumer goods, Healthcare & life sciences, Industrial manufacturing, Transportation, Energy/natural resources/chemicals. A downloadable guide for each industry provides both industry highlights and an industry matrix, relaying the bold pursuits and decisions made by companies in addressing each SDG. There are very few references to LCA. In the Food/beverage/consumer goods report there is one mention:

"Levi Strauss & Co. developed a comprehensive Life Cycle Assessment (LCA) on a pair of its jeans, which allowed it to examine the entire production cycle from start to finish, in order

⁷ https://sdgcompass.org/wp-content/uploads/2015/12/019104_SDG_Compass_Guide_2015.pdf

⁸ <https://www.pwc.com/gx/en/sustainability/publications/assets/sdgs-business-reporting-analysis.pdf>

⁹ <https://www.unglobalcompact.org/library/3111>

to identify where they could change behaviours, engage with consumers, save resources, and streamline processes."

4.4. UN-Global Compact, Analysis of goals and targets

In another report by UN Global Compact, an analysis is made of all the targets, and for each target, an interpretation is given how to make this relevant for companies; the links are qualitative and range from rather defensive actions, like either Identifying risks and opportunities driven by changes in regulations to collaborating with governments on ambitious policy solutions (both taken from target 31.2 page 154)¹⁰.

4.5. SDG selector

An online tool from PwC¹¹ that filters the SDGs according to relevance per industry sector. Mainly interesting for familiarising yourself with the SDGs. No references to LCA.

4.6. Future-fitness and the SDGs

A webpage¹² that provides links between the SDG's and the 8 Future-Fit principles and 21 Future-Fit Goals. The Future-Fit Business Benchmark is a Goal-based method based on the Natural Step Framework. The method does not specify how to make trade-offs between its goals and indicators. There are no references to LCA.

4.7. ISO 26000 and SDGs

In the report *ISO 26000 and the SDGs*¹³ published by the ISO 26000 Post Publication Organisation, a rough mapping is made between the SDG's and the 37 "issues of social concern" referred to in clause 6 of that standard. The supplementary publication *Linkages between ISO 26000:2010 and the Sustainable Development Goals (SDGs)*¹⁴ contains a 1:1 mapping, but no arguments or explanations are provided in any of the two documents on how the linking was made. No references to LCA.

¹⁰ <https://www.unglobalcompact.org/library/5361>

¹¹ <https://dm.pwc.com/SDGSelector/>

¹² <http://futurefitbusiness.org/resources/sustainable-development-goals/>

¹³ <https://www.iso.org/publication/PUB100401.html>

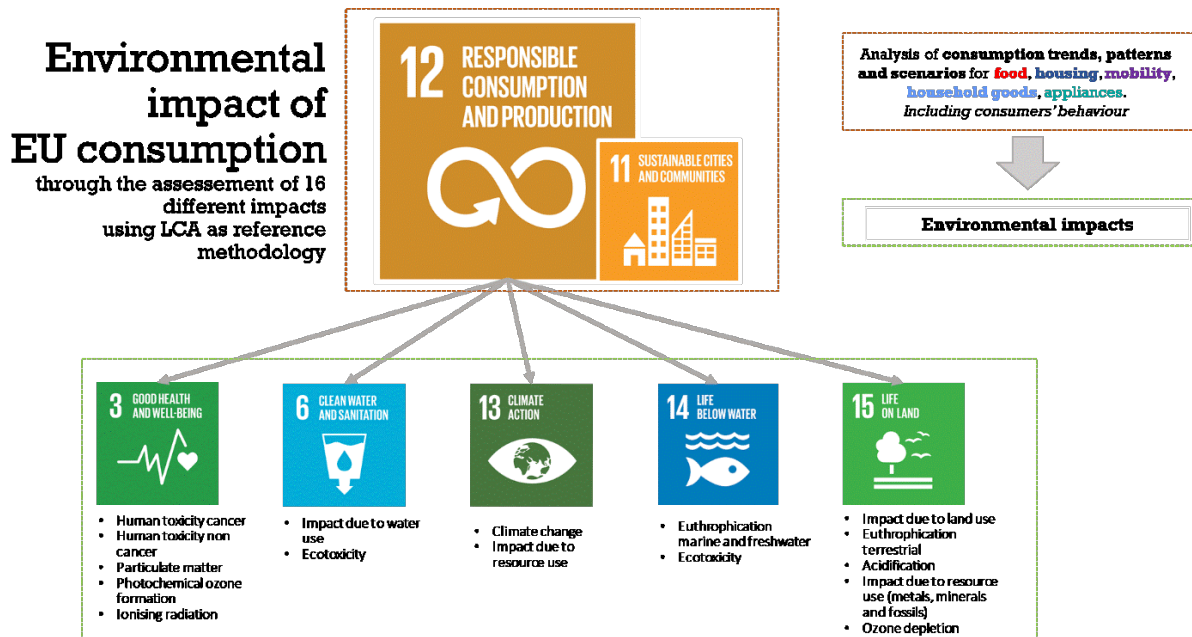
¹⁴ <http://r.duckduckgo.com/l/?kh=-1&uddg=http%3A%2F%2Fiso26000.info%2Fwp-content%2Fuploads%2F2017%2F02%2FISO-26000-Protocol-ISO2600-and-SDGs-in-detail.pdf>

5. Sustainable Consumption Project by JRC

The Joint research centre is about to finalise a project that focuses on linking LCA to SDG 12, Responsible Consumption and Production¹⁵. The project also links this to Circular economy.

The project has delivered a number of reports in specific consumption domains. There are also links to some other SDG's, as is illustrated below.

There are approaches to make relative contributions on territories and countries, consumption domains and product level. This report has some good insights for the linkages concerning the environmental areas.



¹⁵ http://eplca.jrc.ec.europa.eu/?page_id=1517

6. What our clients tell us

At first sight it may appear relatively obvious how to link SDG's to LCA. For instance, take target 13, Climate Action. Virtually all LCA's report climate impacts, but if one takes a closer look at how the SDG 13 is defined, the link becomes less obvious. The indicators defined under this topic hardly seem to have any relevance at all to industry. The indicators are relating to policies and subsidy schemes implemented by governments. So while it is possible to create an intuitive link to SDG 13, it is very difficult to substantiate the link in a robust and actionable way. In other words, the way the SDGs are formulated is more input than output oriented.

To make SDG-related initiatives interesting for investors and shareholders it's key to pinpoint the positive impacts that can be achieved, so they can know what return on investment to expect. Many companies have publicly committed themselves to take the SDG as the guidance for setting long term goals but are struggling with the question how to link their activities and programs to these goals without just making vague and questionable links. Some have started to use the term SDG washing instead of green washing. At the moment, that link between macro and micro level is missing.

PRé is facilitating a roundtable that has been developing a methodology for product social metrics since 2013. It has resulted in a handbook¹⁶ that is available under a Creative Commons licence CC BY-ND 4.0. While company membership changed over time the current members are: DSM, BASF, Nestlé, Solvay, Steelcase, Corbion, Mahindra and Arcelor Mittal. The third iteration of this handbook was released in 2016, and since then our members have been expressing the urge to create a much better link between the social topics (impact categories) and the SDG's. In the period, 2016-2017, all companies were extremely focussed on this and this theme often dominated our meetings. People representing these very proactive companies are simply confused by the vagueness in the many top-down approaches that are very high-level and not concrete. The summaries above illustrate this.

To address this and other points, the 2017-2018 period aimed at developing a complete revision of the handbook, with the SDG link as a key objective. It is important to note that the members of the roundtable are real frontrunners, and often involved in very forward-thinking initiatives, and not the average company that is just starting to get interested in this. The worry most of our members have is that, if the link between what they measure with social and environmental LCA is not robust and agreed upon, there is a high risk of being accused of SDG washing, and that is what they want to avoid. As a result of all these issues, in the end the new handbook release will not have robust links with the SDG's as the companies would not like us to make a link that is not well enough grounded in science.

Other companies, outside the roundtable also have similar opinions; they start with great enthusiasm linking their work with the SDGs, but then start to understand this is far less intuitive than it seems.

Through a business-driven, crowd-funded project, 2.-0 LCA consultants have developed a social footprint method which has been successfully tested for feasibility in global supply chain contexts¹⁷. This method applies monetary valuation to social indicators to enable their use in trade-offs. A new crowd-funded project, the 2.-0 SDG club now has the ambition to extend this to all indicators of the SDG targets.

¹⁶ www.product-social-impact-assessment.com

¹⁷ <http://lca-net.com/p/2858>

7. Why the link to LCA is needed

The short analysis above shows there is a tremendous business value when the SDGs can be reached as agreed, yet companies are struggling how to do this. Most reports take a high level, top-down approach but stop short in being concrete. In practice they recommend each company to solve this problem on their own.

7.1. Identified gaps and needs

In summary, the gaps and needs we have identified are:

- Indicators must be specific and measurable
- Indicators must be relevant for business operations
- Indicators must be applicable across the supply chain
- Indicators must be comparable, allowing for trade-offs to be made
- Measures must include the relationships between the SDGs and their targets
- Data must be available for the indicators

In this section we explain how LCA can contribute to meeting these needs.

7.2. The need to link to LCA

LCA has a tradition for making measurements of indicators specific, quantitative and additive over the supply chain. LCA indicators are applicable both at the level of an organisation and in the supply chain.

The traditional impact pathway framework of LCA is intended for the trade-offs necessary in practical decision-making. In some methods, monetary valuation is used for this purpose. Bringing the SDG indicators into this impact pathway framework will allow a much more structured understanding of the different indicators and their interrelationships.

LCA practice has spurred a demand for databases that must be both very detailed and very complete. Process-based databases like ecoinvent are supplemented by more complete input-output-based databases. SDG indicators can be added to both types of databases.

The recent developments in socio-economic LCA have provided social and economic indicators that are measurable and additive over the supply chain and which have high relevance for the SDGs. In the linking of the SDGs to the LCA impact pathway framework, we expect that the current, more government- and policy-related indicators will need to be supplemented by new, more specific business-relevant indicators for the SDG targets.

8. Our new project: Linking the SDGs to life cycle impact pathway frameworks

8.1. The objectives and distinctive characteristics of the project

Our ambition is to address the above-identified gaps and needs in an action-oriented way, providing specific tools for businesses, rather than just another generic guideline.

The project objective is to develop a clear linkage between the SDGs and the knowledge, data and methodology in the Life Cycle Sustainability Assessment area. With this link specific decisions can be related to the goals.

Linking to expressed business needs, we will take the best of the LCIA tradition (the cause-effect oriented approach to modelling impact pathways; the inclusion of uncertainty; detailed and complete databases) and bring this to bear on the SDG targets and indicators.

8.2. Project work plan

The project consists of five tracks in parallel:

- Track 1 is a stakeholder consultation process that runs in parallel with the technical development throughout the project, both to continuously inspire and challenge the development and to reflect on the experiences of using the project outcomes. The process starts with the identification and invitation of decision-makers representing government, business and consumers and relevant experts from the LCA and SDG research fields. Interactively, an agenda for discussion is then established to understand the context of how SDGs are being used by decision makers and how LCA-based metrics can contribute to that, and which stakeholders have which requirements, wishes, and needs for capacity building. In a second round, the draft concepts are placed under discussion, to identify missing cause-effect relationships, areas for improvements, and potentially controversial issues and further needs for capacity building. In a third round, the focus is on reviewing the final results. There is one physical consultation for each round, as well as a continuous web-based consultation process. The web-based stakeholder process applies interactive web-based audience engagement tools like Kialo and Consider.it to ensure an efficient and well-documented process with a truly global reach.
- Track 2 assesses ways to develop more business relevant indicators to the SDGs as is reflected in the vision of the companies in the Product Social Metrics project. The objective of this track is to interpret or redefine the 169 indicators, to make them more suitable to link these to the impact categories found in environmental and social LCA. This is especially useful in screening or lifecycle thinking solutions but should also be seen in dialogue with the development of the quantified cause-effect chains in Track 3.
- Track 3 develops metrics and cause-effect chains, that create a fully quantifiable cause and effect chain based link, as proposed in the 2.-0 SDG club¹⁸. The objective of

¹⁸ <https://lca-net.com/clubs/sdg/>

this track is to place the 169 targets of the 17 SDGs into a comprehensive impact pathway framework, linking each of the targets and their indicators to causal impact pathways from pressure (LCI) indicators, measurable at the level of specific production or consumption activities, to a single endpoint of sustainable wellbeing, as a comprehensive summary indicator for all social, ecosystem and economic impacts. Track 3 will actively seek to link with other parallel projects of the Life Cycle Initiative, e.g. the project on National Hotspot Analysis, as well as the on-going efforts of to streamline the collection of statistical data for the SDGs, in line with the internationally accepted Recommendations on Measuring Sustainable Development of the Conference of European Statisticians.

- Track 4 develops actual business case studies in three industry sectors, selected on the basis of active contributions and readiness to co-fund, that test the ideas in track 2 and 3, and provide inputs on things that work or that are difficult to apply. Some business cases will include a qualitative study, which will then later also be used for testing the quantitative method.
- Track 5 focuses on dissemination and support to the organisations that develop the case studies. An important task is also to implement the results into an open, global multi-regional input-output database (Exiobase v3) and as far as possible in other databases and software tools.

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