Life Cycle Initiative 2017-2022
Strategy document - Annexes

Final version, Oct. 2017

ANNEX 1:

Box 2 illustrates situations where absence of life cycle thinking leads to unintended negative consequences.

Box 2: Examples of situations where absence of life cycle thinking leads to unintended consequences.

- Focusing on the introduction of electrified vehicles as conventional internal combustion engines had most emissions in the use of the products neglects the fact, that emissions of electric cars are much more relevant from the production. The reduction of emissions lead to the unintended consequence of an increase of emissions in the ;
- In the context of educating consumers for sustainable lifestyles, and in relation to water scarcity, life cycle approaches show that 85% of water consumption linked to an average consumer is linked to food production (mainly in the agricultural stage), and only 5% is consumed directly at home (mostly in showering/washing, as well as toilet flushing). Thus, consumer should be made aware of their impact due to both direct and indirect consumption of water, e.g. being informed that acting on their dietary choices (e.g. reducing meat, coffee and tea consumption) may bring greater benefits compared to simply acting on the direct use of water at home;
- Promoting bio-fuels as an alternative to fossil fuels to get a theoretically carbon neutral fuel, then generating trade-offs with other impacts such as water consumption, loss of biodiversity due to land use expansion; in this case, a life cycle thinking perspective could be illustrating the kind of potential trade-offs between SDG 7 (sustainable energy for all) or SDG 13 (combat climate change and its impacts) and SDGs 6 (sustainable water for all) and 15 (protect terrestrial ecosystems and biodiversity);
- Another important hotspot is associated with the production of the materials that compose the building, including insulation materials that help reduce the energy related hotspot. A circular economy will incentivize to build the building in such way that facilitates the recovery of as much of those materials at the end of the building's useful life, and thus reduce the hotspot of new buildings that use those recovered materials. At some point, however, the impacts associated with the recycling process may become bigger than the impacts saved through recovering the materials; i.e. Recycling may become a hotspot when it is too resource-intensive to recover the resources.

ANNEX 2: Further narrative on Life Cycle Thinking Contribution to sustainability decisions

Life Cycle approaches can be used all the way from micro to macro levels by governments, businesses and civil society, as they aim towards the Sustainable Development Goals. Crucially, Life Cycle Thinking is a holistic "systems perspective" which maximizes synergies among SDGs, as opposed to simply approaching each SDG individually (see Figure 1 below). Life Cycle Thinking is especially relevant to SDGs such as: clean

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[1] This document has been developed by the Life Cycle Initiative Strategy Working Group with the Initiative Secretariat, and has been commented by the International Life Cycle Board at the end of its phase 3.
It has been approved by the new Steering Committee in October 2017.

water and sanitation (SDG 6); affordable and clean energy (SDG 7); decent work and economic growth (SDG 8); industry, innovation and infrastructure (SDG 9); sustainable cities and communities (SDG 11); responsible consumption and production (SDG 12); climate action (SDG 13) and life on land (SDG 15).

Life Cycle Thinking may also be a means to support the definition of Nationally Determined Contributions for the Paris Agreement (see Figure 2) and decision making in the private sector (Figure 3).

Figure 1: Examples of SDGs supported by Life Cycle Thinking.

LCT contribution to SDG 8 (good jobs and economic growth), and specifically target 8.4 (decouple economic growth from environmental degradation) and its indicator 8.4.1 (Material footprint / GDP); also indicator 12.2.1:

● LCT is essential to measure resource use and environmental degradation over the life cycle, to avoid domestic improvement of efficiency at the expense of exporting polluting and resource intensive processes, and avoiding burden transfer

● LCT allows prioritizing actions and thus achieving Resource Efficiency more efficiently (more improvement per investment): hotspots in country / economy --> hotspots in key sectors --> actions / actors in those sectors.

● International agreement and harmonization is required in terms of life cycle-based protocols and data to calculate and report material footprints.

LCT contribution to SDG 12 (responsible consumption and production), LCT is required across the board and targets of SDG 12. Some of the most specific contributions may be defined as:

● LCT supports the definition of what a sound management of chemicals along their life cycle (SDG 12.4) means, and provides the tools to implement it. It may take the shape of information tools to share information on chemicals in products across the supply chain, or informing extended producer responsibility approaches, or identifying business models that enhance the benefits and reduce the risks linked with chemicals at each stage of the life cycle, etc.

● Sustainability Reporting (promoted in 12.6) may be strengthened with materiality assessment supported with LCT. Again, Organizational Life Cycle Assessment applied at the reporting unit level provides a picture of the key environmental (and social) issues linked to the organization's activity, which should then be addressed in its sustainability report. Incorporating LCT in the indicators for

12.6 will enhance their credibility and guide corporations faster and more efficiently towards sustainable development

- In Sustainable Public Procurement (SPP, target 12.7), LCT supports the prioritization exercises to decide on what aspects of products/services (eg. power source, manufacturing etc.) should sustainability criteria be decided for. E.g. a local government designing a SPP plan may apply Organizational Life Cycle Assessment approach to identify the key drivers of environmental / social impacts. Once specific products and services contracted / purchased by the local government are identified (e.g. vehicles for public transport), LCT helps defining procurement criteria / conditions to include in tender processes. If no LCT considered, the government uses only purchase price, and the costs may come later (e.g. operational costs of buildings, costs related to toxicity impacts, …) PLACEHOLDER for Rutt to provide examples comparing specific products from GHG, water, toxicity… so when purchaser needs to select they can see the differences, and total cost of ownership

Support Nationally Determined Contributions
- Hotspots analysis -> key areas for emission reduction
- Share of impact in value chain: who and what?
- Sustainability intelligence, highlight potential trade-offs between GHGs emissions and other impact areas
- Assess sector roadmaps as enhanced by life cycle thinking

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Figure 2: Life Cycle Thinking supports the implementation of Nationally Determined Contributions.

LCT contribution to the Paris Agreement, supporting the Nationally Determined Contributions (NDC):
- Life Cycle based Hotspots analysis at the country- and then sub-country- (e.g. sector-) level help focus on the areas where emissions can be reduced most efficiently (in and outside national borders).
- Understanding shares of impact in different value chains: identifying where the problem is and who are the gate-keepers
- More generally, LCT structures the sustainability intelligence to identify and develop innovative solutions, while highlighting trade-offs and avoiding the single-metric blindness that may be generated by focusing only on greenhouse gas emissions.

Contribute to sustainability in Industry
- Identify better design, processes and technologies, and business models to address challenges
- Develop actions across the value chain (go beyond the boundary of factory/company)
- Life cycle perspective improving value and competitiveness of SMEs, thus supporting SDG 9.3

Figure 3: Life Cycle Thinking informs tools that support strategic and operational decision-making in the private sector.

LCT contribution to Sustainability in Industry and SMEs, by providing a value chain perspective, LCT allows any company, including SMEs, to identify better options and technologies for concrete challenges, as well as possible alliances and actions across the value chain to improve their position. Some examples include:
- A food manufacturing company in South Africa conducted a Life Cycle Assessment (LCA) study on packaging for their national tomato sauce brand, supporting the selection of packaging technology and material from an environmental standpoint. This informed a technical change that is now being

supported by a marketing strategy.
- A textile company manufactures fabric for school uniforms, importing their yarn from India. These suppliers are audited for environmental impacts by the company. It was realised through a LCA study that the biggest impacts are at the supply side (yarn manufacturing). The owner of the company is now working with the key suppliers and addressing their resource consumption.

ANNEX 3: Rules and Responsibilities for the Life Cycle Initiative Governance

The following text highlights the guiding principles for the Initiative:
Core values of the Life Cycle Initiative (which are to be preserved and applied in every action and work area of the Initiative, and also by every partner associated with the Initiative):
- Impactful: Focusing work on those areas where the Initiative can add value and make a difference
- Relevant: Specific attention to using LCT in supporting / enhancing work towards specific goals in the 2030 Sustainable Development Agenda where biggest effect can be achieved
- Objectivity and Integrity: The Initiative's work is based on critical, unbiased reviews of the best available science; the Initiative members uphold the integrity of the scientific process and identify any conflicts of interest. The Initiative ensures regular review of its deliverables by independent experts.
- Scientific rigour coupled with practicality: LCT as applied science, we push for approaches rooted in science that can be applied by governments and businesses
- Systemic and holistic: following the nature of Life Cycle Assessment (life cycle approach, large spectrum of environmental impacts), and including environmental, social and economic considerations
- Multi-stakeholder: providing the interface between science for sustainability, governments and businesses and civil society
- Collaborative and open: the Initiative builds on partnerships which enable the delivery of the mission and collective impact. A lot of the outputs are delivered in-kind and this is recognized accordingly.
- Inclusive: to ensure that all communities can contribute to and benefit from the LCI initiative

Operational principles (for the design and implementation of activities from 2017 onwards):
- Delivery will focus on those areas that use the core value added of the Initiative, e.g. because they need the legitimacy, the convening power, the link to international processes to ensure scale-up and collective impact…
- Delivery is designed with users (businesses and governments), and its practical application / uptake is embedded since its inception

Some **principles about governance**:
- Balanced: Make tripartite nature evident (Government – Business – Science & Civil Society), giving a fair say to all constituencies, developing and developed countries, and genders.
- Transparent: in decision making and clearly separating roles (funding; steering; coordinating; implementing; reviewing work and deliverables) so as to avoid conflict of interest.
- Open: Operationally, the Initiative is open in its membership base and in contracting work, for the sake of transparency and to enable as many as possible to collaborate with the Initiative
- Lean: Keep governance lean and simple.

Annex 3.1: Assembly: Membership of the Life Cycle Initiative, modalities and Rules

The Assembly is the ensemble of all members of the Life Cycle Initiative. Membership is open and free to both public and private institutions and individuals that express their interest in writing, and in the case of most institutional members also pay a membership fee (see membership form in Annex 4). Members commit to the vision and mission of the Initiative, abide to its code of ethics (see Annex 4), and commit to support the activities of the Initiative in various ways (sponsoring, delivering specific activities, fund-raising, promoting and using the Initiative approaches, etc.), depending on their possibilities. Members will find significant value in the Initiative as summarized in the bullets below:

- vote for representatives to the Steering Committee (influencing)
- early access to the deliverables of the Life Cycle Initiative
- community transforming the economy through life cycle thinking, both regionally and globally
- associated to the global processes influenced by the Initiative's deliverables
- experts influencing a stronger consideration of life cycle thinking into policy- and decision-making
- Life Cycle expert Community of Practice informing the needs of Users, thus getting their science applied
- users needing to identify best approaches for specific policy- and decision-making processes get access to top experts in the global life cycle community

The Secretariat keeps track of active membership through expressions of interest and records of activity (supported by the Programme co-chairs), mediates conflicts between members, and may raise to the Steering Committee the need to dismiss members who violate the code of ethics or work against the vision/mission of the Initiative. Members wishing to leave the Initiative should officially notify the Secretariat of their decision in writing.

- **Institutional members** support the activities of the Initiative in one or more of the following ways:
  - leading the delivery of Initiative activities;
  - funding activities of the Initiative (i.e. becoming a sponsor); specific rules for sponsors apply (see section 4.4), or contribute in-kind according to their resources and institutional capacity;
  - fund-raising to support Initiative activities;
  - promoting the use of the Initiative's deliverables in own decision- and policy-making processes; all institutional members commit to briefly report on the ways in which they promote the Initiative's vision and mission, at least when joining the Initiative and as required by the Initiative's processes (no more than once every two years)
  - hosting or co-organizing face-to-face meetings of the Initiative;
  - seeking synergies with their own activities (e.g. presenting the activities of the Initiative through own channels and public events; organizing back-to-back or joint events; etc.);
  - providing feedback and participating in Initiative's stakeholder consultations;
  - other ways that are identified as beneficial for the Initiative.
- **Individual members** are most likely to actively contribute to the Initiative through support of specific programmes, or other institutional activities of the Initiative. Specific ways in which Individual members support the activities of the Initiative include:
  - leading the delivery of Initiative activities;
  - fund-raising to support Initiative activities;
  - seeking synergies with their own activities (e.g. presenting the activities of the Initiative through own channels and public events; organizing back-to-back or joint events; etc.);

o   providing feedback and participating in Initiative's stakeholder consultations;
o   other ways that are identified as beneficial for the Initiative.

Annex 3.2: Rules for Voting for Steering Committee members

Each constituency in the Assembly votes for its representatives to the Steering Committee. I.e., private institutions vote for Industry Steering Committee members; governments / governmental bodies vote for Government Steering Committee members; and individual members vote for two representatives of Science / Civil society Steering Committee members, whereas academic institutions and NGOs becoming institutional members in this constituency, vote for one representative in this constituency. All members have one vote; institutional members vote for institutional representatives (8/10 seats in the Steering Committee) and individual members vote for individual representatives in the Science and Civil Society constituency (1/10 Steering Committee members); UN Environment holds a permanent seat in the Steering Committee.

To ensure geographical representation, members of each constituency have to be from different regions (Africa; Asia/Pacific; Europe; Latin America and Caribbean; North America; West Asia). Global institutions do not use the space of any region (regardless of where their headquarters are), but there can only be one global institution in each constituency. In practice, one member of each constituency is replaced every year; thus only candidates from regions not represented by the two remaining members may stand for election.

Annex 3.3: Terms of Reference of the Steering Committee

The main duty of the Steering Committee is decision making towards the implementation of the Initiative's vision, mission and planned outputs – allocating resources, appointing co-chairs and projects to deliver programmes, endorsing deliverables and so on. It represents three key constituencies and the host organization (UN Environment) in a balanced way:

- 3 seats for Government;
- 3 seats for Business;
- 3 seats for Science / Civil Society;
- 1 seat for UN Environment as host organization.

The Steering Committee members select two co-chairs among themselves to chair the meetings, aiming for geographical and gender balance. The composition of the Steering Committee seeks balance at many levels: constituency (equal seats for Government, Business, Science and Civil Society); geography (same region cannot be repeated within the same constituency's seats); and gender (strive for gender parity in steering committee as far as possible). Steering Committee members provide their time to the Initiative in-kind. In order to ensure openness and rotation also at the top of the decision-making structure, one third of the Steering Committee is to be elected each year (1 member of each constituency: Government; Business; Science and Civil Society). *I.e. after initial election of 9 members in year 1, three of the seats are to rotate in year 2; three more seats in year 3; and the last three of the original seats in year 4; then successively… Thus, after the initial phase, steering Committee members act in principle for 3 years each, and may opt to be re-elected for their post only once. I.e. members serve terms of three years unless they elect to step down or are removed for cause*. UN Environment is normally represented by the Director of the Economy Division, or an alternate delegated by the Director.

Members of the Steering Committee have to pay their own travel costs; and those who cannot fund

themselves can always participate virtually in Steering Committee meetings.

Responsibilities of the Steering Committee:
- The Steering Committee members take overall responsibility for the delivery of the Initiative's vision, mission, and programme of work.
- Decide on allocation of funds between the different programmes depending on possible gap between the available funds and initial estimated budget, as well as performance of the different work areas against agreed performance indicators (see 2.3.3.).
- Identify synergies between programmes of the Initiative, as well as with external partners who may need to be approached / engaged. In relation to this, the Steering Committee may designate one of its members to represent the Initiative in other partnerships (e.g. the Multi-stakeholder Advisory Committees of 10YFP programmes).
- Meet through teleconference at least every 2 months, and face-to-face once per year during Initiative Assembly meetings. Steering Committee members may delegate their presence to calls or face-to-face meetings to an alternate in writing to the Secretariat.
- Steering Committee members are expected to actively participate in the discussions and decisions of the Steering Committee. Members who do not provide an alternate or justification for absence in 3 meetings / calls in a year (or 2 in a row) may be invited to give up their position in the next election process.
- To the extent possible, Steering Committee members strive to liaise with their constituencies in order to represent their views.
- Consensus is sought for decisions; if consensus is not achieved, a decision may be postponed until the next meeting at the latest (i.e. 2 months' delay maximum), where the decision may be made by 6 votes in favour/against (out of 10 potential votes) if consensus is not reached in the process.
- Review and approve new project proposals or components within the existing Programmes of the Initiative, ensuring that funds will be available for successful completion of the project.
- Resolve major issues, for example, topics that are not in line with the vision and mission or the Code of Ethics of the Life Cycle Initiative, or that deviate from the original project proposal endorsed.
- In cases where external review of a deliverable is needed, the Steering Committee will appoint the reviewers and decide on the approval of deliverables based on the recommendations given by the ad hoc review teams about the deliverables reviewed.
- The Steering Committee decides on the eventual endorsement of deliverables from the Programmes, which do not undergo a review, for them to be officially backed by the Life Cycle Initiative.
- The Steering Committee reviews the work programme and Resource Mobilization Strategy of the Initiative every 4-5 years in order to ensure it continues to deliver towards the Vision and Mission of the Initiative, and adapts to external drivers as far as relevant. In these exercises the SC may define the way to fully review the strategy of the Initiative and the transition process to the new structure if necessary, or to close the Initiative altogether once its Vision is achieved.
- The Steering Committee may decide to modify the governance of the Initiative and any rules therein by consensus only.

Annex 3.4: Terms of Reference for Programme co-chairs and Programme set-up

The work of the Life Cycle Initiative is delivered through programmes, one for each of the key deliverables of the Initiative. Each programme has two co-chairs, appointed by the Steering Committee based on their

expertise and track record. Depending on the programme structure, it is also possible that co-chairs are elected from the implementing partners delivering into that programme.

Responsibilities of the Programme co-chairs:
- Seek synergies with other Initiative programmes, as well as with external projects which are aligned with the Initiative Vision and Mission, to present them to the Steering Committee to decide on potential partnerships.
- Conduct fundraising efforts related to their Programme areas in coordination with the Secretariat.
- Ensure the successful delivery of tasks.
- Stay in close contact with task and project leaders within their Programmes and support them on the processes needed to present the deliverables to ad hoc Review teams, and to complete them by taking into consideration feedback received.
- Report regular status updates to the Secretariat on current projects, and prepare communication materials with the Secretariat when relevant.
- Represent the respective Programme of the Initiative, but not the Initiative as a whole unless given permission / requested by the Steering Committee.
- Further strengthen the participation of the community by inviting newcomers to engage with the Initiative.
- Maintain records of members actively contributing to each Programme and update the Secretariat on these members once a year.

The implementing partners are selected by the Steering Committee through open calls and based on transparent criteria; they have the implementing capacity to receive and spend funds to deliver the necessary activities and outputs to achieve the goals of the programmes. The programme set up is geared to enabling the combination / coordination of projects by the partners for collective impact, by identifying on-going projects and project proposals that deliver the programmatic ambition of the Initiative. In some cases, projects may be integrated within the Initiative, whereas in other cases collaboration agreements may be established where the Initiative goes alongside new partners on ad hoc collaboration terms.
Thus, three broad levels of integration / governance of projects delivering the key deliverables of the Initiative may be envisaged:

1. Fully funded through the Life Cycle Initiative, 100% governance by the Steering Committee.
2. Projects with funds raised by Initiative partners, with partial funding to the Initiative's core budget, and shared governance with the Initiative's Steering Committee. Project deliverables may be considered as the Initiative's, to be decided by partner and the Steering Committee. E.g. the REAL project (TBD).
3. Collaboration agreements between an external partner (or a partner within the Initiative) and the Initiative, where synergies are identified towards achieving one of the key delivery areas of the Initiative and ad hoc collaboration terms are agreed for the partnership. In this case the partner is not considered as a sponsor of the Initiative. E.g. GLAD (TBD).

The Steering Committee will evaluate such proposals with criteria in line with the core values and operational principles of the Initiative (see above), and decide on the project portfolio and allocation of the Initiative's own funds. The co-chairs of each programme provide their time in-kind (i.e. paid by their own institutions). Depending on the complexity of the programme's delivery, several sub-projects may be envisaged to contribute to the programme, as long as the overall complexity does not make them unmanageable. Implementing partners will be selected through open, transparent and inclusive bidding-

process, based on evaluation criteria aligned with the principles of the Initiative, and avoiding potential conflicts of interest. Box 3 illustrates some potential examples of programme funding.

E.g. 1: Government X funds a project with UN Env that delivers to capacity development and data accessibility; the Initiative SC is in overall project Steering Board, and may appoint specific technical advisors on the specific topics of the project; the project funds 30% of Secretariat staff for duration of the project. X is listed as sponsor of the Initiative, and the reporting to X may focus on the specific project delivery, as well as an overall reporting "on the overall progress of the Initiative"

E.g. 2: Government Z provides an annual contribution to fund the Secretariat of the Life Cycle Initiative. In addition Government Z funds directly an Initiative Pellston workshop© for impact assessment indicators. Z is listed as sponsor, and receives specific report on the Pellston workshop in addition to general progress of the Initiative

E.g. 3: Private institutional member Y provides annual contribution to the Secretariat. In addition, partner Y is funded by its members to deliver practical guidance and capacity on Life Cycle Thinking within sustainable value chains. The Initiative SC is engaged in the steering of such project; UN Env and other Initiative partners are sub-contracted to deliver specific components of the project (e.g. capacity development of SMEs in emerging economies), but a cash contribution to the Initiative core funding is not possible for Y. Y is NOT listed as sponsor of the Initiative, but it is acknowledged as contributor.

E.g. 4: Academic partner H develops a project proposal in line of the Impact Indicator area of the Initiative and obtains funding from the Horizon 2020 programme. The project proposal engages the steering and governance bodies of the Initiative, including funds for the Technical Review Committee to ensure robust delivery of the final output; however, no payment to the core funding of the Initiative is possible for H2020. H is NOT listed as sponsor of the Initiative, but it is acknowledged as contributor, and the outputs of the project are communicated as outputs of the Initiative.

Box 3: Potential cases of programme funding.

When necessary, programme deliverables must be subject to stakeholder consultations where enough time and openness is allowed to ensure relevant stakeholders may have a say in what the Initiative is delivering. Feedback from such consultations must be taken into account by the Technical and Policy Review teams when making recommendations for endorsement by the Steering Committee.

Annex 3.5: Terms of Reference for the Secretariat

The Secretariat of the Life Cycle Initiative is hosted by UN Environment, and provides the backbone, coordination and communication activities required to deliver the collective impact of all the partners. The main role of the Secretariat is to act as record keeper and report on activities in support of the needs of the Steering Committee, manage the funds and provide information on the financial status to the Steering Committee and the programme co-chairs, as well as to provide the communication needs of the Initiative. The Secretariat is also responsible for ensuring that activities executed through the programmes are accurately and efficiently monitored through regular calls with the Programme co-chairs. The Secretariat staff is funded by the Life Cycle Initiative's core funding.

Responsibilities of the Secretariat:
- Organize and conduct teleconference calls, as needed, with the Steering Committee, Programme co-chairs and ad hoc Technical / Policy Review groups; take minutes of the calls, distribute for review and revise as needed.
- Take minutes of face-to-face Steering Committee meetings, distribute for review and revise as needed.
- Execute, with support of the Programmes and Steering Committee, outreach to stakeholders, sponsors and potential partners.

- Manage the funds deposited in the Life Cycle Initiative, as well as any necessary contracts and funding agreements that are necessary to deliver the Initiative's Programmes. With a UN Environment hosted Secretariat, funds and contracts management is done according to UN Rules and Regulations.
- Support the ad hoc Technical / Policy Review teams regarding the review of deliverables, following the request of the Review Chair.
- Facilitate the discussion between the Steering Committee and the Technical and Policy Review ad hoc teams, and support the latter with the follow-up of incorporation of feedback in the final version of a deliverable.
- Support the Programme co-chairs in the follow-up, monitoring and regular report to the Steering Committee on planned and ongoing activities of the Life Cycle Initiative.
- Maintain web-based information and a knowledge management system including a database of members. Lead on internal and external communications for the Life Cycle Initiative.
- Reception of completed deliverables to be reviewed and request for review by ad hoc Technical / Policy Review teams.
- Ensure monitoring and evaluation of the programme delivery according to agreed impact indicators, in liaison with UN Environment's evaluation office.
- Keep track of membership through expressions of interest and records of activity.
- Mediate conflicts, and potentially dismiss members who violate code of ethics or go against the vision / mission of the Initiative, in agreement with the Steering Committee.

Annex 3.6: Terms of Reference for the ad hoc Technical / Policy Review teams

The ad hoc Technical / Policy Review teams are appointed by the Steering Committee as necessary to ensure that the deliverables are consistent with the Life Cycle Initiative's mission and objectives. They also ensure international acceptance and acknowledgement of robust and consistent deliverables on life cycle methodologies and on issues of scientific / policy concern. The ad hoc Technical / Policy Review teams act as independent advisory resource and report to the Steering Committee. The Steering Committee will decide on the most adequate number and profile of reviewers depending on the complexity and policy relevance of the deliverable to be reviewed.

The reviewers are appointed *ad hoc* for specific deliverables and the time they devote to the coordination of the review tasks is expected to be provided in-kind. Acknowledgement of the reviewers' time is provided in the Initiative website and any publications linked to the specific deliverable. The reviewers should meet the following criteria:
1. In-depth knowledge of the Initiative and of life cycle approaches
2. Proven technical, scientific and policy objectivity
3. Proven skills in managing reviews and solving conflicts
4. Available time to cover the role of reviewer
5. No conflict of interest with the deliverables of the Initiative object of review

Responsibilities of the ad hoc Technical / Policy Review teams:
- Ensure that the deliverables are consistent with the Life Cycle Initiative's mission and objectives.
- Ensure international acceptance and acknowledgement of robust and consistent deliverables on life cycle methodologies and on issues of scientific concern.
- A Review Team chair may be selected to act as the main contact point and oversee the roles and responsibilities of the ad hoc reviewers.

ANNEX 4:

Annex 4.1: Code of Ethics

The code of Ethics and Conflict of Interest Policy can be found in the following link:
http://www.lifecycleinitiative.org/about/code-of-ethics-and-antitrust-statement/.

Annex 4.2: Membership form

The membership form may be downloaded from the Life Cycle Initiative website.

Annex 4.3: Antitrust statement

As the Life Cycle Initiative may include multiple manufacturing partners from the same industry, UN Environment will monitor for risks of antitrust activities, and request its members to commit to avoid discussions potentially linked to such antitrust activities, including:
- Price fixing: to avoid price fixing, meetings will not include discussion or exchange of price from the private sector;
- Market allocation: industry participants will not agree to certain market shares, assign territories, and/or forego a product market in favour of a competitor;
- Group boycotts: Industry participants shall not boycott business with a particular supplier or other commercial entity.

If any member of the Initiative has any concerns of antitrust behaviour, they should not hesitate to discuss with the Secretariat at UN Environment.

ANNEX 5: Glossary

- Life Cycle Approaches: Life Cycle Approaches are techniques and tools to inventory and assess the impacts along the life cycle of products (UNEP, 2012), and include: i) Life Cycle Concepts (LCT, LCM, life cycle engineering, etc.); ii) Life cycle methods and models (LCA, LCC, SLCA, MFA, etc.) and iii) life cycle tools (databases, software, checklists, etc.).
- Life Cycle Assessment (LCA): Compilation and evaluation of the inputs, outputs and the potential environmental impacts of a product system throughout its life cycle. (ISO 2006)
- Life Cycle data: life cycle inventory data, and raw information that is necessary to build Life cycle inventory datasets.
- Life Cycle Knowledge: science-based life cycle methods, indicators and data developed for different levels of application.
- Life Cycle methods: refer to life cycle impact assessment indicators (mostly environmental indicators, but social indicators and methods to monetize impacts into economic value for Life Cycle Costing fit here too).
- Life Cycle Thinking: Life Cycle Thinking is a mostly qualitative discussion to identify stages of the life cycle and/or the potential environmental impacts of greatest significance e.g. for use in a design brief or in an introductory discussion of policy measures. The greatest benefit is that it helps focus consideration of the full life cycle of the product or system; data are typically qualitative (statements) or very general and available-by-heart quantitative data. (Christiansen *et al*., 1997).
- Life Cycle tools: specific applications / approaches to make application simpler / more meaningful… such as Organizational LCA; hotspot analyses, etc.