Life Cycle Initiative

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Update on 2017 activities of the Life Cycle Initiative

(March 2018)

1. Summary of achievements

2017 has been particularly exciting and eventful at the Life Cycle Initiative (hereinafter referred to as the Initiative)! The Initiative concluded its Phase 3 (2012-2017) and launched a new strategy, with the main objective to scale up the Initiative's activities with a more ambitious linkage to global policies and business agendas, under a more transparent and open governance structure.

Phase 3 of the Initiative successfully concluded with the following outputs added in 2017:

- The "Global Guidance for Life Cycle Impact Assessment Indicators Volume 1" identifies the "current best practice", and recommends characterization factors in four impact areas. The indicator on water use impact was recommended in the European Commission' Environmental Footprint package.
- The first e-learning module on Introduction to Life Cycle Thinking, available both in English and Spanish, attracted close to 1000 subscribers within its first 4 months on-line;
- After being pilot-tested by 12 organizations worldwide, fresh results of using the organisational LCA guidance was published;
- A series of publications were produced related to review of LCA datasets and management of databases;
- The overarching methodology framework of hotspots analysis and communication guidelines were released.

All these deliverables build on the extraordinary commitment of the many partners of the Initiative, who provide their time and expertise to the common objectives of the Initiative, as project co-chairs, expert contributors to reviews, road-testers in industry and the public sector, disseminators of the work of the Initiative, and providing insights into the strategic direction of the Life Cycle Initiative to deliver on the huge ambition of making life cycle thinking common-place globally.

In 2017, a new and exciting phase for the Life Cycle Initiative began over the summer, contributing to the global community in achieving the Sustainable Development Goals. This new phase aims to meet the growing need for more life cycle knowledge from global policy and business agendas, and serve as an interface between users and experts of life cycle approaches. The Initiative defines a vision to effectively bring Life Cycle Thinking to the mindsets of decision makers with the practical knowledge and tools to enhance the sustainability of their decisions.

A successful virtual General Assembly was held in September 2017 where a new Steering Committee was elected. By the end of 2017, the Initiative had close to 250 members from 46 countries across business, government and science/civil society constituencies (more details on members are here). Two new projects have been launched applying life cycle thinking for supporting decision making, on national hotspots analysis and marine plastics respectively.

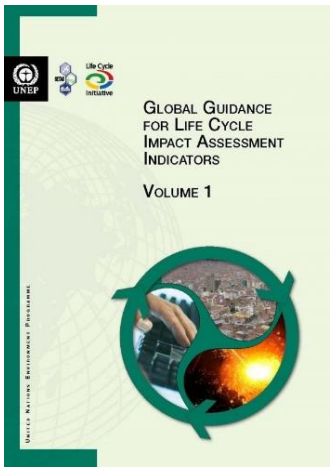
A summary of all our achievements this year is presented in the text below.

2. Conclusion of Phase 3

Promoting global consensus on Life Cycle Impact Assessment Indicators

The "Global Guidance for Life Cycle Impact Assessment Indicators Volume 1" identifies the "current best practice", and recommended characterization factors in a variety of impact areas: climate change; health impacts of fine particulate matter; water use impacts; and land use impacts on biodiversity. The report involved global consensus-building and was endorsed by the Initiative, thus making these indicators especially attractive to be used in policy and reporting frameworks requiring international recognition and stability. The development of this report was supported by more than 100 experts and stakeholders in topical Task Forces, and more than ten scientific papers have been published alongside this report. Some of the recommended indicators are being adopted by large organisations and are influencing processes such as the recommendations for impact indicators in the European Commission' Environmental Footprint package.

Continuing from the success of the first batch of indicators, the project established a new name "Global Guidance for Life Cycle Impact Assessment Indicators and Methods" (GLAM), and it has been approved by the Steering Committee of the Initiative to continue the project in its new phase. The project is currently working on acidification & eutrophication, eco-toxicity; human toxicity; mineral primary resources; ecosystem services (focus on soil quality); and crosscutting issues. GLAM is organising a one-week Pellston Workshop™ to be held in Valencia, Spain on 24-29 June 2018.



Organisational LCA

The report 'Road testing organizational life cycle assessment around the world: Applications, experiences and lessons learned' was published following the successful launch in 2015 of the 'Guidance on Organizational Life Cycle Assessment', a Life Cycle Initiative publication with more than 10,000 downloads to date. In the new report, the Organizational LCA (O-LCA) flagship project embarked on an ambitious piloting process: O-LCA was applied by 12 organizations from around the world: the "O-LCA road testers". The new publication offers in-depth insights into O-LCA application, developed from the outcomes of the road testing. It includes an executive summary for each of the road testers' case studies, and it presents the results of a comprehensive survey through which the road testers share their experience, feedback and lessons learned.

The publication's case studies represent an important contribution to the existing body of examples and guidelines, which the authors hope will promote and inspire further application of O-LCA, greater use of the O-LCA Guidance, and on-going enhancement of the O-LCA methodology.

Data and database management

The project on "Data and database management" published several reports and articles on its work.

Specifically, the results cover a second round of country-specific evaluations of datasets using refined criteria following the first round of reviews. Newly selected databases from Australia and Chile were included along with the Thai national database from the first round. Improvements in the applicability and interpretation of the criteria by the reviewers were noted. In the case of the Thai datasets, the improvements in the datasets themselves from the previous review were also observed. Two journal articles are being submitted for publication in parallel with the reports. One deals with the refinement of the criteria and the other with the aggregated road-testing results and the path ahead for supporting data review.

A related component of the project has also been completed. The Global Guidance Principles for LCA Databases (Sonnemann and Vigon, 2011) lays out a set of nine high level management practices for sound database operations. The nine Responsible Management Practices (RMP) were further elaborated into scores for management performance and applied to four national databases: Australia, Thailand, Chile and the US. Results from this road-test included a self-assessment by the manager and an independent oversight by an experienced database manager. The results of this two-step approach clearly demonstrated both the applicability of the scoring system and the feasibility of combining self-assessment with independent third-party evaluation.

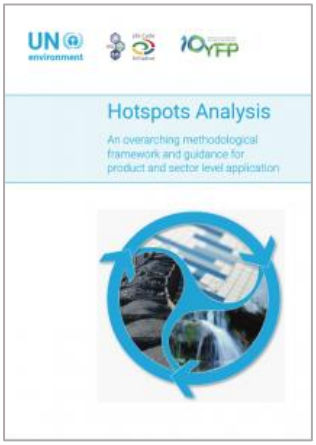
Hotspots Analysis methodological framework and communication protocol

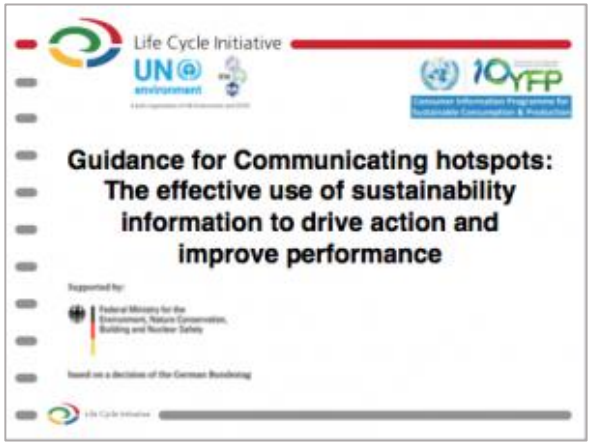
The report 'Hotspots Analysis: An overarching methodological framework and guidance for product and sector level application' provides useful information to carry out a hotspots analysis in a life cycle context. As a framework, rather than a standard, it provides a degree of flexibility to enable hotspots analysis to be used in differing circumstances.

It aims to provide a consistent approach to hotspots analysis. As an action-oriented methodology, the key outcome is to identify where the greatest opportunity for improvement against an impact occurs, rather than communicating a precisely quantified current impact. Other organisations (i.e., trade associations) may wish to offer more specific guidance on implementing hotspots analysis for their own sectors or circumstances based upon this framework. The framework aims to be equally

applicable to businesses, government, as well as individual researchers and other organisations (i.e., NGOs and academic institutions). New projects within the Life Cycle Initiative are applying this guidance to country-level assessments, in sustainable tourism value chain, as well as a systemic approach to marine litter.

A protocol for the appropriate use and communication of sustainability information derived from hotspots analysis is available in a companion publication: "Communicating hotspots: The effective use of sustainability information to drive action and improve performance" available on the Life Cycle Initiative website.

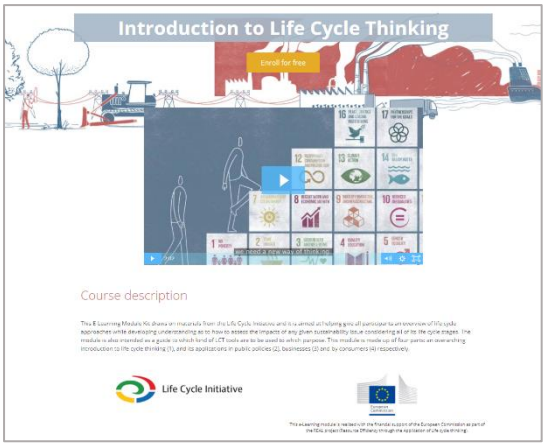




E-learning Module

The Initiative's first e-learning module, 'Introduction to Life Cycle Thinking' is available online in both English and Spanish. It has been co-financed by the European Commission REAL project.

The module aims to help participants gain an overview of life cycle approaches and develop understanding on how to assess the impacts for any given sustainability issue considering all life cycle stages. The module also provides guidance on which kinds of Life Cycle Thinking tools are best for this purpose. This module contains four components: (1) an overarching introduction to life cycle thinking, and its applications in public policies (2), businesses (3) and by consumers (4) respectively. The e-learning module has been especially well received in Latin America.



3. Launch of a new phase

The Life Cycle Initiative moved into a new phase of programmes promoting life cycle knowledge and thinking. At this exciting time, The Life Cycle Initiative will deliver programmes across three main areas: 1) **technical and policy advice**, 2) **capacity development**, 3) and **knowledge**. By 2022, the Initiative will, crucially, mainstream the use of Life Cycle Thinking into at least four global areas of policy making and decision making for sustainable development, through partnerships in at least 15 countries and 30 companies. The Initiative will also train at least 2,500 policy makers, business decision makers and Life Cycle Assessment practitioners, in addition to offering an on-line solution to access Life Cycle Assessment databases and impact assessment characterisation factors in an interoperable way.

This new, more ambitious phase in the Initiative's development follows an extensive review of the Initiative's strategy, and a subsequent streamlining process. It reflects the growing need for an engaged and active membership base, including institutional members from three broad constituencies (government, business, science and civil society), and individual members from science and civil society.

A video introducing the new strategy and structure of the Life Cycle Initiative has been released.

Life Cycle Initiative Introduction

Newly Elected Steering Committee

The Initiative designed a new governance structure and launched a call for members ahead of the virtual General Assembly on 21 September 2017. Here, a new Steering Committee was elected, from across academia, business and government constituencies thus heading a more transparent, more open and leaner governance structure.

The Steering Committee is comprised of 10 seats: three occupied by government representatives; three by business representatives; and three by science and civil society stakeholders, including one seat for an 'individual' committee member. The remaining seat is occupied by a representative of UN Environment as the host organisation. The Steering Committee members elected in 2017 are:

Government	Business	Science/Civil Society/ Individuals
IBICT (Latin America and Caribbean)	Plastics Europe (Europe)	World Resources Forum (Europe)
European Commission (Europe)	FICCI (Asia/Pacific)	CIRAIG (North America)
South Asia Co-operative Environment Programme (SACEP) (Asia/Pacific)	Regenerativa (Latin America and Caribbean)	Jorge Antonio Hilbert (Latin America and the Caribbean)

New projects

A series of new projects have been approved to fulfil the mission and vision of the Initiative. The Initiative has been also in the process to collect and review new project ideas and proposals from its members, and a number of new projects are expected to be approved and launched in 2018.

Here is a list of approved projects by December 2017.

- **National hotspots analysis to support science-based national policy frameworks for sustainable consumption and production**
- **Mapping the plastics value chain and identifying priority actions at national level, with a focus on marine plastics**
- **"Global Guidance for Life Cycle Impact Assessment Indicators and Methods" (GLAM)**
- **SAICM (the Strategic Approach to International Chemicals Management) chemicals project, on chemicals in products and their life cycle management**

Discussions are also progressing for the integration of the Global LCA Data Access network (GLAD) into the Initiative during 2018.

4. Events

Conferences and networking events

SETAC Europe Annual Meeting The Initiative was present at the conference, sessions and a workshop on life cycle impact indicators was organised. Back to back with the conference, the last meeting of the International Life Cycle Board was held to conclude Phase 3, and prepare for the launch of the new strategy of the Initiative

CILCA 2017 Conference focusing on the contribution of life cycle thinking to the Sustainable Development Goals. The Initiative and UN Environment conducted a training on life cycle thinking and eco-innovation.

Life Cycle Initiative Virtual General Assembly In September 2017, the Secretariat of Life Cycle Initiative hosted a virtual General Assembly, the first such meeting of the Initiative's new phase.

LCM2017 Conference focusing on practical solutions for the implementation of life cycle approaches in strategic and operational decision making. The Initiative presented its new strategy to raise attention and attract new members, and launched the report of O-LCA and the e-learning modules.

Basque Eco-design Meeting An international event aiming to enhance strategic decision making and product environmental innovation so that organizations edit their policies to obtain competitive advantages. The Initiative introduced its new strategy and approached potential partners.

Indian Conference on Life Cycle Management (ILCM) The Initiative participated virtually, with the Secretariat presenting the Initiative's new strategy for this new phase of activities (2017-2022).

World Resources Forum 2017 'Accelerating the Resource Revolution' focused on conditions, challenges and opportunities for governments, businesses, academia and civil society. The Initiative presented its new strategy and key programme areas.

2017 LCA Award The award aims to transfer tools and knowledge to develop capacities on using LCA in target regions. Individuals and organizations based in Africa, Asia and Latin America and the Caribbean submitted their project proposals and selected projects received technical support from LCA experts, as well as access to LCA software and/or database from our sponsors.

The [avniR] Conference on 'Life Cycle Management, the pathway for eco-transition' The objective of the conference was to share the latest best practices, scientific insights and innovations leading to the successful implementation of Life Cycle Management to boost competitiveness. The Initiative presented the new strategy and the work on O-LCA.

Training Events

Workshop on Impact Assessment Indicators and Methods: In May, the Initiative along with SETAC Europe, organized a stakeholder meeting whose agenda included short presentations about the state of work of the Task Forces on Acidification and eutrophication, Human toxicity, Eco-toxicity, Mineral primary resources, Ecosystem services (focus on soil quality) and Crosscutting issues.

Life Cycle Thinking and Eco-innovation for Sustainable Value Chain Management: A one-day training event on 'Life cycle thinking and eco-innovation for sustainable value chain management'. The training was funded by the European Commission, under the Resource Efficiency through Application of Life cycle thinking (REAL) project, and introduced participants to life cycle thinking and management and eco-innovation as strategic business solutions.

'Life Cycle Concepts and LCA Award Scheme' workshop was held in Kenya aimed at introducing life cycle thinking and the associated policy and business solutions that support better decision making.

1. "LCA Awards" launch in CILCA (Columbia); 2. Lively discussion in World Resources Forum 2017; 3. Life cycle thinking workshop in Kenya; 4. The last International Life Cycle Board meeting in Brussels to conclude Phase 3; 5. Introducing the O-LCA achievement in the LCM conference (photo credit: LIST); 6. The Secretariat of Initiative in preparation for the first virtual General Assembly.

5. Acknowledging the Sponsors of the Life Cycle Initiative

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