Life Cycle Thinking in Latin America

12 case studies of LCA and LCM approaches of companies in the region

Report based on publicly available information.

Disclaimer

Acknowledgements

Producer

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1   Executive Summary

This report delivers short summaries about the status of implementation of life cycle approaches of 12 companies in the Latin American region. These twelve case studies were chosen from an initial 24 cases, using exclusion and selection criteria related to their reported action. Information for the drafting of these summaries was extracted from the websites of the companies, and is comprised solely by publicly available information.

The private sector in Latin America is incorporating new elements to the sustainability palette, namely by including more indicators related to environmental performance. Experience, drive for excellence and public pressure have fuelled more holistic approaches to environmental sustainability, which are leading to life cycle thinking. This report shows a small sample of what companies are doing.

Based on the exclusion criteria, seven (7) companies were not considered for further analysis. The other 17 were ranked according to the depth and breadth of their life cycle approach. The top 12 are presented in this document, and can be seen in Table 1. The criteria for selection, company names and results can be found in the annex at the end.

Table 1. Featured companies. The companies have been listed per country and countries have been listed alphabetically.

Company name	Country(ies)	Main business
Tetra Pak	Argentina	Packaging
Braskem	Brazil	Chemical products
Grupo Boticario	Brazil	Cosmetics
Natura	Brazil	Cosmetics
Gerdau	Chile	Steel
Nutresa	Colombia	Food
UNE	Colombia	Telecommunications
Cayuga Collection	Costa Rica and Nicaragua	Hotels
Florida Ice and Farm Co.	Costa Rica	Food and drink
TIP Muebles	Mexico	Furniture
ABB	Peru	Electric equipment
Pepsico	Latin America	Food and drink

It is important to notice that the results and sequence of presentation of the companies do not imply any qualification.

Main trends observed were having a local focus for action, obtaining internationally recognised certifications (such as ISO 14001 or FSC) and establishing codes of practice for suppliers. Codes of practice are used as the driving motor to improve sustainability upstream, sometimes as selection criteria for new suppliers and others as a guidance to support the enhancement of the sustainable performance upstream of the organization.

2 Case study descriptions

2.1 Argentina

2.1.1 Tetra Pak

Tetra Pak is a Swedish company, global leader in the processing and packaging of food. They work closely with customers and suppliers to offer safe, innovative and environmentally responsible products that cover needs worldwide.

The calculation of the carbon footprint of a tetra pak along its value chain (an indicator used routinely by Tetra Pak) revealed that only 4% of the impacts were within the company limits. Accordingly, Tetra Pak started working more closely with suppliers, clients and end users to reduce the carbon footprint of a box. Work has focused on energy and material efficiency, renewable energy sources and increasing recycling rates. Also, they have redesigned their filling machines (main product) to use less energy and water while filling the boxes. In addition, cardboard suppliers are chosen regarding the water stress they produce in their area.

In Argentina, Tetra Pak uses 100% cardboard from FSC certified forests. It is also actively participating in the development of city strategies for solid waste management, helping cities to implement waste segregation in origin. It also takes part in building recycling plants and donates separation belts to recycler cooperatives. Packages are recycled or used as raw material for producing other things, such as construction boards.

To know more about Tetra Pak Argentina, please visit
http://www.tetrapak.com/ar/Pages/Tetra_Pak_avanza_en_sus_objetivos_medioambientales.aspx

2.2 Brazil

2.2.1 Braskem

Braskem is a Brazilian petrochemical company that produces thermoplastic resins and other chemical products. It has production facilities in Brazil, the United States and Germany, and it exports its products to North and South America, Europe and Asia.

Commitment with the environment started with the foundation of Braskem in 2002. Some key challenges the company has had to overcome in this time have been to set relevant performance indicators, keep focus on material aspects of the three bottom line, maintain good communication with all stakeholders, and shift from traditional environmental management to a model that includes the value chain.

Life Cycle Management at Braskem has three key areas:

- Strategic management: measuring performance for decision-making. An example is the eco-efficiency assessment of PVC.
- Marketing: add value by showing greater sustainability of Braskem products. E.g.: LCA of flour sacks, LCA of surgical kits, LCA of plastic cups.
- Market protection: protect products from sustainable claims made by competitors. E.g. LCA of plastic versus paper bags for use in Brazil.

Measuring environmental performance has allowed Braskem to improve significantly in a number of areas since 2002, such as energy use (-10%), carbon footprint (-13%), waste generation (-62%) and wastewater generation (-37%). These results have given ground for numerous awards, such as the CDP Performance Leader 2013.

Recently Braskem started the production of green polyethylene, which opened a completely new supplier chain for the company. A supplier code of conduct was developed to ensure Braskem providers operate respecting the environment and society, and to ease the process of LCA calculation by requesting the report of critical information.

For more information on Braskem, please visit http://rao2013.braskem.com/

2.2.2   Grupo Boticario

Grupo Boticario consists of two companies, O Boticario and Eudora, which produce cosmetics and perfumes in Brazil. The Group influences their whole value chain, from the extraction and production of raw materials to the end of life of their packaging. Their stores are franchised, giving the organization some degree of influence over all aspects of the distribution and selling process.

At the production level, a holistic approach is used to reduce the impact that buildings and operations have on the environment. Production facilities are designed to take advantage of natural light while keeping heat outside (energy efficiency) and are equipped with water and energy saving gadgets; equipment is chosen according to its energy and water use; treated water is reused. There are dedicated slots in the parking lot for more efficient cars and the company provides transportation for workers and safe places to park bicycles. Packaging has been redesigned (e.g. refills and separate mirrors for makeup kits) to make them reusable and have lesser impact. In fact, boxes are used up to ten times.

Upstream of the production process, the Boticario Group has a sustainability programme for suppliers including guidance and an ethical commitment. The Group helps its providers to reach their goals. Downstream, at the selling level, stores (usually franchises) have low consumption lightning, promoting energy efficiency and reducing heat near the products, which in turn increases the delivered value of the item. Furniture is made with FSC certified wood. The redesign of the paper bags using holographic coating reduced the requirement of materials and makes them easier to recycle. A special programme directed to customers allows them to return the packaging of their product, which is then passed on to recyclers' cooperatives.

For further details on what Grupo Boticario does, please visit: http://www.grupoboticario.com.br

2.2.3   Natura

Natura Cosméticos, a Brazilian-based cosmetics company with a long history in sustainable procurement and production, has defined its long term goal on a whole new level: to have a positive impact on the environment and society (going beyond the mitigation and prevention of impacts). To do so, Natura has developed several performance indicators, from the supply of natural extracts to the impacts at the user level, going through production and distribution.

It has been a long way since Natura introduced refill packs (still in the early 1980's). The company started using life cycle approaches in the late 1990's and now measures carbon and water footprints, uses LCA, Social LCA, Life Cycle Costing and Ecodesign. Other indicators are related to packaging, waste, and extraction of materials from the Amazon rainforest. These indicators deliver a broad picture of sustainability – environmental, social and economic.

Main challenges of sustainability management in Natura have been: obtaining relevant data, the increased effort of managing more indicators, training employees, communicating internally and addressing trade-offs between social, economic and environmental sustainability.

Sustainability indicators have allowed Natura to build brand value through a strong sustainable image, and to have a consistent sustainability strategy. In the future, the company looks forward to improving the quality of local inventories and increasing the quantity of indicators in use. As well, the challenge of trade-offs in decision making will continue to be addressed.

To find out more about what Natura is doing for the environment, please follow this link: http://www.natura.com.br/www/a-natura/sustentabilidade/

2.3 Chile

2.3.1 Gerdau

Gerdau is a multinational company dedicated to providing solutions and materials based on steel. In Chile, the group has two production facilities and four recycling centres (where scrap is collected and packed) certified with ISO 9001, ISO 14001 and OHSAS 18001.

Gerdau has measured the environmental impacts of its two main lines of production using LCA – reinforcement bars and merchant bars - with results in publicly available EPDs. Gerdau is eager to communicate, and delivers products with information on technical specifications, use instructions, carbon footprint (scopes 1, 2 and 3), and a clean product certification (product is free of oils, grease, ionizing radiation and paints).

Steel is produced from scrap, which has an overall smaller impact in the environment than its ore-based counterpart, since it avoids the mining stage. It is less energy intensive, and allows for the use of electric energy over coke and other fossil fuels; it requires less water, much of which can be recycled in the process (only 1% of the water in use at Gerdau exits as liquid discharge); and allows for the recycling of scrap, which would otherwise become waste. Gerdau is proud to show a carbon footprint of reinforcement bars a 70% smaller than world average.

Outside of its operational limits, customers receive greater value from products with a smaller carbon footprint, which can be used to comply with LEED building standards. Being Gerdau the biggest producer of recycled steel in Chile and a member of the Green Building Council in Chile gives the company advantage to enter this new and growing market. On the other side of the value chain, scrap providers get training in business administration, sustainable driving and safety.

To know more about Gerdau, please visit: http://www.gerdau.cl

2.4 Colombia

2.4.1 Nutresa

Grupo Nutresa is a large Colombian company dedicated to the production of food and drinks. It has a broad distribution network spanning several Latin American countries and the United States.

The Group has long term sustainability goals at the corporate level comprising water and energy efficiency, renewable energy, GHG emissions, waste management, packaging use, and environmental culture. A life cycle approach is used to evaluate performance indicators.

Suppliers are engaged to make the value chain more robust and to share experience and knowledge on sustainability. For instance, support is been given to the supplier of packaging to achieve carbon neutrality, hence reducing the carbon footprint of products. Transport contractors are given a publication developed by Nutresa for the calculation of carbon footprints in transportation, meant to engage the companies that distribute their products and reduce their scope 3 carbon footprint.

For more information on the environmental programme at Nutresa, please visit: http://www.gruponutresa.com/es/content/pol%C3%ADtica-ambiental-0

2.4.2 UNE

UNE is a public company in the telecommunications and entertainment sector that operates primarily in Colombia. They work to minimize their impacts over the environment while delivering more value to their customers using a life cycle approach to sustainability.

UNE has spent several years working on avoiding and mitigating internal impacts improving energy efficiency and waste management, looking for innovative ways to use and reuse water, and reducing air pollution, just to name a few. The scope 3 carbon footprint is calculated routinely and LCA was used to compare the impacts of 4G LTE (mobile Wi-Fi) with that of cable broadband. Currently, UNE is transitioning to incorporate life cycle management in the corporate structure, starting by training top management in LCM, and middle management and sales force in LCA and Service.

Outside of the company, suppliers, contractors and clients are engaged to collaborate in reducing life cycle impacts. Suppliers are required to commit to a set of good practices, with support from UNE. These good practices include indicators related to impact mitigation, resource efficiency, management, control, treatment and disposal of wastewater, emissions to air, solid and hazardous waste and promotion of the environment. UNE also provides environmental management guidance for contractors. Clients can help by choosing electronic bills over paper, or giving their old equipment back to UNE for recovery, reuse or donations. Public services are reducing their use of paper with the help of UNE.

For more information on UNE, please visit the website: http://www.une.com.co/images/compania/Inversionistas/Doc_accionistas_inver/Asamblea_2014/informe_une.pdf

2.5 Costa Rica

2.5.1 Cayuga Collection

Cayuga is an administrator of boutique hotels in Costa Rica and Nicaragua, with a strong commitment to environmental, social and economic sustainability. Their corporative structure shows the relevance of the topic, with a sustainability director at the central level and sustainability coordinators in each hotel. They are in charge of avoiding and mitigating negative impacts and driving positive impacts on the environment and their close neighbours. Cayuga invests so that every element of the hotels contributes to the reduction of impacts in the life cycle. From the architectural design to the choice of technology, including the hotel operation and the activities after the guest has left the premises.

When building a new hotel, Cayuga will look at the impacts through the life cycle of the building, from the construction materials to the operation. They use only certified wood to build, and choose sites that respect the natural corridors of wild animals; design and infrastructure are chosen to minimize water and energy consumption, including features such as passive ventilation and solar heating; the hotels are operated taking advantage of the natural resources, e.g. laundry is dried in the open, when possible. Water is treated before returning to the environment and solid waste is recycled (e.g. aluminium, plastic), or used to make biogas, compost, or feed for local farms (pigs). Local providers are preferred, supporting local businesses and reducing impacts due to transport.

More information on the life cycle vision of Cayuga can be found here: http://www.cayugaonline.com/our_sustainable_approach/

2.5.2 Florida Ice and Farm Co. (FIFCO)

FIFCO is a multifaceted organization based in Costa Rica. Its companies are dedicated to food and drink production and to real estate. Its mission is to become the leader of the drink and canned food sectors in Central and North America, in terms of the creation of economic, social and environmental value, for their customers, collaborators, shareholders and communities.

FIFCO has grown from a compliance-based approach to a 3-bottom-line vision, supported by a change in the business model of the company. The company started using environmental indicators in 2004, with the certification of the environmental management system by ISO 14001. GRI indicators were added later, and are now used as key performance indicators for all business units. Although LCA is not used to its full capacity yet, the current goal is to include more aspects of the methodology and get closer to achieving life cycle management in all product lines; differentiating FIFCO in the market.

Main challenges in this transformation have been to help management change its vision, find time to train all collaborators, and gather relevant information to aid decision making. Challenges were overcome thanks to the help of Higher Management, which supported the inclusion of the environmental dimension to the company; Human Resources, who related the environmental performance to that of the workers and their salaries; and Procurement, which relates with the rest of the supply chain.

Some environmental goals that have been achieved in these 10 years, have been:

- Giving new life to 99% of waste (making FIFCO a zero waste company). FIFCO has a 50% recycling rate for packaging (above regional and global rates), coupled to a strong recycling programme for aluminium cans, plastic bottles and Tetra Pak of *any* brand.
- Florida Bebidas (a subsidiary) has calculated its Carbon Footprint and looks to neutrality by 2017.

- Reaching Carbon Neutrality in the bread-making process.
- Reducing water use by 20%. The other 80% is "compensated" by providing communities with access to water and by protecting forests around water sheds, in line with the corporate commitment to protect biodiversity inside and outside the influence area of buildings.

FIFCO involves its suppliers in sustainable practices by requesting commitment to the "Code for Responsible Suppliers", a programme expected to expand in the following years. In addition, the company communicates results of environmental management on a regular basis both internally and to the general public.

To know more about FIFCO, please visit: http://www.florida.co.cr/website/SocialResponsibility

2.6 Mexico

2.6.1 TIP Muebles

TIP Muebles is the front end of the Forest and Agricultural Community and Services Unit (UCFAS), located in Oaxaca, Mexico. UCFAS gathers three indigenous communities that together harvest and sawmill wood, produce high quality furniture and run the stores (TIP Muebles) where they are sold.

The approach of UCFAS to life cycle thinking is grounded on providing sustainable work and income to the communities, protection of the environment and preservation of local culture. Using life cycle management, UCFAS has been able to obtain a certification for responsible forest management from the Forest Stewardship Council.

Life cycle assessment has been used to improve the design of products and to provide information to customers such as the Public Green Procurement program. It has also been useful to improve process efficiency, increase value of products, differentiate in the market, expand to new niches, and be publicly recognized.

For more information about TIP Muebles, please visit www.tipmuebles.com

2.7 Peru

2.7.1 ABB

ABB is an international company in the electric industry, with a portfolio ranging from transmission lines to robots. LCA is embedded in the operations, and is used for product design, impact assessment and sales. Reporting is done using Product Category Rules (PCR). Energy efficiency and carbon footprint are indicators used throughout ABB buildings, and all is coordinated using an ISO 14001 compliant system.

In Peru, ABB has done the LCA of its products together with local life cycle practitioners. ABB uses a broad set of environmental aspects as performance indicators, such as emissions, water use, waste, organic chemicals, and heavy metals, to name a few.

Using the results of environmental impact assessment, ABB has redesigned its products to use non GHG refrigerants, reduce carbon footprint, choose renewable energy sources (when possible), lessen water use and increase water reuse, decrease waste and packaging and intensify recycling at the end of life of their products. LCA has served to replace toxic substances in products, such as organic lead, VOCs (in paints), phthalates (PVC), cadmium, mercury, and SF_6. Efforts have been deployed in the limits of the organization, but an expansion of the policy to subcontractors is planned.

Suppliers are also integrated into the ABB strategy, having to adhere to a Supplier Code of Conduct which requests applying the same internal policies from ABB to their own operations. Suppliers are ranked according to the risk they represent to the company and are supported to achieve the standard.

To know more about ABB Peru, please visit:
http://www.abb.com.pe/cawp/peabb002/8968e4f763c1526ec12578ef0066ecea.aspx

2.8 Latin America

2.8.1 Pepsico

Pepsico is a global food and drink company, which has put sustainability along the value chain in the core of its focus through the *Performance with Purpose* programme. The programme has three key areas: human, environmental and talent sustainability. It serves as an umbrella which guides operation towards sustainable goals mainly in their direct and downstream operations. Some examples are the choice of packaging according to their life cycle impacts and training truck drivers to drive more efficiently, using less fuel and emitting fewer greenhouse gases.

Sustainability is monitored also at the supplier level, with the *Sustainable Agriculture Initiative*. This programme is directed to help critical suppliers improve yields, run farms more efficiently and use less agrochemicals, which in turn reduce the life cycle impacts of Pepsico products.

Pepsico works with numerous performance indicators, some internally managed, and some certified by external entities, such as the Rainforest Certification for potato and seed suppliers in Chile, or the Global Good Agricultural Practices for Argentina and Brazil.

In those ways Pepsico stands to the challenge of sustainability both upstream and downstream of their operations, using own or external tools, engaging in the way suppliers, recyclers and their staff.

More information about what Pepsico is doing in sustainability in this link:
http://www.pepsico.com/Purpose/Performance-with-Purpose/Sustainability-Reporting

3 Benefits

The analysed companies declared to have one or more of the following environmental, social and socio-economic benefits from the application of LCA. Examples of companies reaping these benefits are given in parenthesis.

- Decoupling growth from environmental impacts (Gerdau)
- Reduction of operation, transport, management, disposal and meeting costs (Braskem)
- Increased working productivity (e.g. web conferences instead of meetings at ABB)
- Increased security and business sustainability in time, by making the supply chain more robust in critical raw materials or services (Pepsico)
- Improved sustainability performance of the supply chain (e.g. Pepsico, Natura, Grupo Boticário, Nutresa)
- Increased efficiency of resources use (e.g. improved energy, water and resource efficiency. UNE)
- Increased use of renewable energies (e.g.: use of renewables or waste as energy source. Black liquor, solar power)
- Identification, quantification and management of environmental risks in operations. E.g.: predicting and preparing for greater energy demand due to climate change (Pepsico, ABB)
- Reduction of waste (Cayuga Collection)
- Improved community relations (Cayuga Collection, UNE, FIFCO)
- Better quality of life at work. E.g.: A/C control in offices (ABB)
- More value and greater quality to products. E.g.: VOC-less paints (ABB), LEED compliant steel (Gerdau)
- International and national awards or recognition (ABB, Braskem, Natura, TIP Muebles)

4 Conclusions

A number of different approaches can be seen across the region, which show varying levels of depth in the application of environmental sustainability indicators. It was apparent from the research that certification schemes such as FSC or Rainforest Alliance and international standards such as ISO 9001 and ISO 14001 are widely used by the industry and support the collection of data necessary for environmental management, but not necessarily to allow a holistic assessment or carry out an LCA. The companies (shown geographically in Figure 1) prioritized topics which were locally relevant, and applied solutions and strategies that fit their own organizational and local culture. Overall, companies seem to be following voluntary reporting and monitoring schemes instead of waiting for national legislation to emerge.

Figure 1. Companies presented in this report, by country.

A popular trend is establishing "Codes of Practice" for suppliers, and engaging them to improve their own environmental performance. Those that have integrated sustainable supply chain management programmes and have completed carbon footprints and water footprints are the closest ones to LCA based approaches. Those companies with greater advance redesign their processes and choose new materials to meet environmental, social and business goals.

Annex 1.   Evaluation system

This evaluation system is designed to measure the impact of businesses on the life cycle of their products or services. Businesses with shorter experience will be more focused on compliance and internal efficiency while others with more experience will be looking at establishing criteria for the election of suppliers and will work to reduce impacts throughout the life cycle.

Figure 2. Generic life cycle of a product or service.

In general, broader influence in the life cycle will be hand in hand with higher maturity levels in a Capability Maturity Model (CMM)[1].

Table 2. Capability Maturity Model for LCM thinking (adapted from UNEP/SETAC[1]).

Maturity Level	Description	Comments for this report
1. Ad hoc	Chaotic, success depends on heroic effort of individual.	Companies at this stage were not considered in this report
2. Managed	Requirements managed, measured, and repeatable results on a project basis.	This corresponds with internal environmental management and compliance
3. Defined	Standard processes, consistent across organization, measures of process and work products.	First key performance indicators are defined and measured
4. Quantified	Quantified process control, quantified objectives, special causes of variation corrected. Value chain.	Goals are set to manage the environmental performance of the company
5. Optimizing	Process improvement objectives continually revised to reflect changing business objectives: agile and innovative workforce.	Environmental indicators are embedded in the organization, and product/service design is optimized to meet goals.

There is a clear trend towards sustainability between companies in Latin America. In order to classify and group them, the following criteria were defined.

Exclusion criteria: a company must fulfil all of them to be analysed.

1. Sustainability information was available in web page
2. Has sustainability policy or strategy defined and published
3. Is already taking steps to meet sustainability goals
4. No complaints or serious concerns from relevant stakeholders have been identified in the press media.

Businesses in the "Ad hoc" maturity level are not considered for further analysis.

Selection criteria: they are used to define where in the CMM each business is (see next page for details).

1. Scope of environmental monitoring: range in which the organization accounts for its impacts.
2. Sustainability management in organizational limits: management practices in the organizational limits, such as corporative policies and key performance indicators.
3. Upstream sustainability management: engagement with suppliers to reduce the overall impact of the organizational activities.
4. Downstream sustainability management: involvement in reducing and mitigating impacts downstream of the organization. E.g.: eco-design or alliances with recyclers.

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[1] Adapted from UNEP/SETAC 2009. "Life Cycle Management: How business uses it to decrease footprint, create opportunities and make value chains more sustainable". Accessed: 16/07/2014. Available at: http://www.unep.fr/shared/publications/pdf/DTIx1208xPA-LifeCycleApproach-Howbusinessusesit.pdf

Table 3. Selection criteria for all businesses included in the report.

Criteria	Score			
	0	**1**	**2**	**3**
Scope	Does not measure impacts or no information available.	Measures impacts in the organization (scope 1) at least in one category.	Measures internal and energy-related impacts (scope 1 and 2) in more than two impact categories.	Measures impacts in the value chain (scope 3) in more than 3 categories, for at least one material.
Internal Management	Does not have a sustainability policy, statement or plan or no information available.	Has a clear sustainability policy or statement published on website.	Has performance indicators to measure progress and shows intention of improving them	Has impact reduction/mitigation goals and uses performance indicators to measure and report progress
Upstream management	Does not engage suppliers in sustainability management or no information available.	Has criteria to do sustainable purchases	Has criteria to choose suppliers, which include sustainable management practices	Works with suppliers to mitigate and reduce impacts on the value chain
Downstream management	Does not invest or plan to prevent or mitigate downstream impacts or no information available.	Engages users of product or service to have a more sustainable experience. Example: use instructions.	Actively engages in recycling products after use or mitigates impacts (Mitigation approach).	Designs product(s) to have less impacts on the downstream (Prevention approach)

Scores range from 0 (lowest) to 3 (highest) and were used to assess the performance of the companies included in this report.

About the Life Cycle Initiative

The Global Life Cycle Initiative was established by UNEP and SETAC. Among other things, the Life Cycle Initiative builds upon and provides support to the on-going work of UNEP on sustainable consumption and production, such as Industry Outreach, Industrial Pollution Management, Sustainable Consumption, Cleaner and Safer Production, Global Reporting Initiative (GRI), Global Compact, UN Consumer Guidelines, Tourism, Advertising, Eco-design and Product Service Systems.

The Initiative's efforts are complemented by SETAC's international infrastructure and its publishing efforts in support of the LCA community.

The Life Cycle Initiative is a response to the call from governments for a life cycle economy in the Malmö Declaration (2000). It contributes to the 10-year framework of programmes to promote sustainable consumption and production patterns, as requested at the World Summit on Sustainable Development (WSSD) in Johannesburg (2002).

The Life Cycle Initiative's vision is a world where life cycle approaches are mainstreamed, **and its mission** is to enable the global use of credible life cycle knowledge for more sustainable societies.

Our current work is building on the Life Cycle Initiative's continual strength to maintain and enhance life cycle assessment and management methodologies and build capacity globally. As we look to the future, Life Cycle Assessment (LCA) and Life Cycle Management (LCM) knowledge is the Life Cycle Initiative's anchor, but we will advance activities on LCA and LCM to make a difference within the real world.

Therefore, the renewed objectives are the following ones:

Objective 1:

Enhance the global consensus and relevance of existing and emerging life cycle methodologies and data management;

Objective 2:

Expand capability worldwide to apply and to improve life cycle approaches; making them operational for organisations;

Objective 3:

Communicate current life cycle knowledge and be the global voice of the Life Cycle community to influence and partner with stakeholders.

For more information, see **www.lifecycleinitiative.org**