

THE MONTHLY LIST

OCTOBER 2017



SELECTING THE MOST PROFITABLE SOLUTIONS TO PROTECT THE ENVIRONMENT

More than 730 international experts from academia, private economy and governmental institutions gathered in Luxembourg city for the Life Cycle Management (LCM) conference, focusing on creating a more sustainable society through Life Cycle Management. Highlights of the event were the participation of Dr Bertrand Piccard, the attendance of Ministers Carole Dieschbourg and François Bausch, as well as the spontaneous visit of HRH Grand Duke Henri and his son HRH Prince Louis.

Luxembourg City had the honour of hosting, from 3 to 6 September 2017, the 8th international "Life Cycle Management" conference (LCM2017). This event, organised by the Luxembourg Institute of Science and Technology (LIST), in collaboration with the University of Luxembourg and ArcelorMittal, was held at the European Convention Center Luxembourg (ECCL). This three-day conference, on the theme of "Designing sustainable technologies, products and policies: from science to innovation", attracted no fewer than 730 international scientists and practitioners of life cycle assessment (LCA, a tried and tested method of quantifying the cradle-to-grave environmental impact of a product or service), ecodesign and the circular economy.

Top-tier international companies such as Volkswagen, ArcelorMittal, Unilever, Amcor, BASF, Nestlé, Delphi, Kronospan and Tarkett, along with senior representatives of European institutions and national governments, took part in the event, which featured a series of prestigious speakers and visionary leaders of the field. Delegates also had the opportunity to meet with His Royal Highness Grand Duke Henri who, accompanied by his son, Prince Louis, took part in the closing session of the conference.

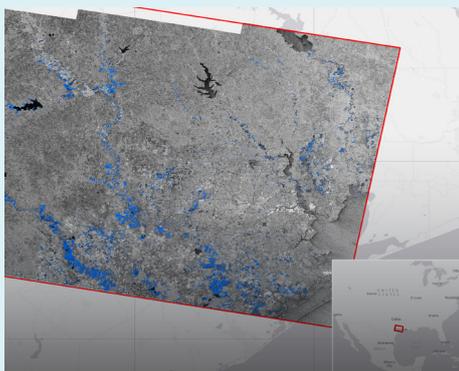
The conference gave prominence to presentations stressing current standardisation approaches, the guiding principles of the life cycle approach, best practices, and the visualisation and interpretation of results. The conference also turned the spotlight on a number of star speakers such as Swiss adventurer Bertrand Piccard, whose conference-opening speech conveyed his optimism and faith in a more environmental-friendly future, and Mathis Wackernagel, the CEO and co-founder of Global Footprint Network, which aims to help put an end to ecological overshoot by placing ecological limits at the heart of decision-making power.

LCM 2017 was thus an opportunity to give pride of place to new smart technologies such as blockchain, information storage and transmission technology as well as Building Information Management (BIM), in which sensors, meters, network infrastructures and 3D models aid decision-making processes. LIST also took the opportunity to showcase its life cycle assessment research activities from the "Life Cycle Sustainability and Risk Assessment" unit.

The next edition of the Life Cycle Management conference has already been scheduled to be held in the city of Poznan, Poland, from 1 to 4 September 2019.

Picture from left to right: Bertrand Piccard (SolarImpulse), Brian Aranha (ArcelorMittal), Enrico Benetto (Luxembourg Institute of Science and Technology), Carole Dieschbourg (Minister of the Environment - Luxembourg), Lucien Hoffmann (Luxembourg Institute of Science and Technology)

OTHER HIGHLIGHTS



Scientific excellence

IRMA AND HARVEY: USA USED FLOOD MAPS MADE IN LUXEMBOURG

LIST's researchers have developed an algorithm to automatically pick out surface water from satellite radar images. This method is attracting real interest from flood management professionals because it makes it possible to quickly create maps of flood-hit areas, which are very useful in monitoring and predicting floods.

LIST's algorithm was implemented in the European Space Agency's (ESA) and recently used by the US authorities, after the catastrophic flooding in South Texas and Florida, caused by hurricanes Harvey and Irma. LIST's proven expertise gave the US authorities an overview of the areas worst affected by flooding, thus enabling them to deploy protective measures to reduce risk. The maps made available to the US authorities for hurricane Harvey can be viewed at on the Global Flood Partnership website. [Learn more on www.list.lu](http://www.list.lu)

Industry

GOODYEAR-LIST, AN ACTIVE COLLABORATION

On 22 September 2017, LIST hosted its industrial partner Goodyear S.A. at its Belvaux site to present the Goodyear programme, and more specifically its materials strand, to Goodyear's new Global Materials Director, Eric Mizner.

During the meeting, experts from LIST and Goodyear presented the progress made in the various joint ventures in the field of materials science and technology. Together with LIST, Goodyear's engineers are focusing on developing tyres that are more environmentally-friendly in terms of the materials used, performance, and production processes. Some days later the first Onboarding seminar was held at Goodyear in Colmar-Berg where everybody involved in the programme met for two days for further discussions and training. [Learn more on www.list.lu](http://www.list.lu)



Environment

RESIDUES FROM PESTICIDES FOUND IN BEE POLLEN

LIST took part in a press conference on the subject of Bee Health, organised by the Luxembourg Ministry of Agriculture, Viticulture, and Consumer Protection, at an apiary in Brandenburg (LU). LIST's environmental researcher, Marco Beyer, presented the latest results of the BeeFirst project, which aims at identifying factors that are linked with honey bee colony losses in Luxembourg.

During the presentation, LIST scientists highlighted which residues from pesticides used in agriculture and beekeeping were found in pollen collected by bees as well as their relationship with bee health. The active substances metazachlor and thiacloprid, two key substances in rapeseed cultivation, had a negative impact. As conclusion, the Agriculture Ministry set up a precautionary measure to better protect bees from exposure to thiacloprid and metazachlor, and agreed to continue funding LIST's BeeFirst project. [Learn more on www.list.lu](http://www.list.lu)

Event

THE ECONOMIST: LIST PARTNER OF "FUTURE OF MATERIALS" SUMMIT

On 13-14 November 2017, LIST will participate in The Future of Materials Summit organised by The Economist Events in Luxembourg. LIST will be represented by Prof. Dr Jens Kreisel, Director of the Materials Research and Technology Department (MRT) who is invited as a speaker at the event.

The theme of the summit is "A new age for manufacturing". The summit will bring together leading manufacturers, scientists, technologists and policymakers for a discussion that may help to crystallise what is happening, and illuminate the role of novel materials in the manufacturing industries of the future. [Learn more on www.list.lu](http://www.list.lu)



WHERE TOMORROW BEGINS

Located in the heart of Belval's Research & Innovation Campus, LIST can ideally connect its over 600 specialists in materials, environment and IT, including its many PhD students, through a broad range of joint research projects, programmes and partnerships with virtually all of Luxembourg's other major research players. At Belval, the University of Luxembourg, LIH, LISER, Technoport, Luxinnovation and the Luxembourg National Research Fund are all literally within arm's reach.

CONTACT

Luxembourg Institute of
Science and Technology

5, avenue des Hauts-Fourneaux
L-4362 Esch-sur-Alzette

Tel.: +352 275 888 1
communication@list.lu