

# THE MONTHLY LIST

MAY 2019



## LIST AIMS TO SPEED UP DEVELOPMENT OF SMART CITY SOLUTIONS

As a participant in the pan-European initiative on smart cities, LIST recently organized an international conference leveraging its involvement in various projects in different areas of smart city development.

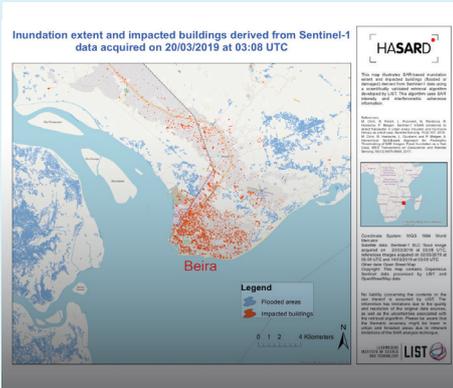
LIST's solutions developed within projects like Bimeet and SUCCESS bring together all the key players in the construction industry, including project managers, contractors and building firms. A number of open tools are available for local authorities, construction companies and transporters that want to try the existing solutions. Sustaining quality of life in increasingly overcrowded cities is an ongoing challenge. In particular, it is difficult to keep cities moving in a way that is both efficient and does not damage the environment. Many countries have established emission restriction zones in an effort to reduce pollution in big cities. Not all cities can invest high amounts of capital in new or renewed infrastructure though. For this reason, LIST is promoting through some of its projects (MUV, Modales, SWAM, Connecting) the adoption of healthier and greener mobility habits and a more effective use of the existing equipment and infrastructure.

Life cycle assessment is a process to evaluate the environmental burdens associated with a product, process or activity, by identifying the energy and materials it consumes and the waste associated with this. It is designed to enable better identification and implementation of methods to achieve improvement in environmental impact. Pollution is not the only issue related with mobility. With the advent of new technologies such as connected and automated vehicles, humankind is soon facing a true paradigm shift in mobility for the first time since the introduction of the first cars. Understanding the impact of these disruptions is a very challenging task that LIST is pursuing with two projects, 5G-MOBIX and PASCAL.

In terms of Smart energies, initiatives such as the Urban Agenda for the EU aim to transform the European energy system into the most sustainable in the world. LIST's focus has been on helping companies that produce, consume or distribute energy to manage and predict their consumption better, through three main projects, the Secure, CleanMobilEnergy and Bimeet initiatives. Air and water pollution frequently pose major health hazards for city dwellers, and can have an impact throughout the ecosystem. The LIST Observatory for Climate and Environment samples water and sediments using commercial equipment to ensure water quality is monitored and any problems promptly resolved. It operates a similar programme for air quality, involving research into the triggers for air pollution and examining how policymakers can set objectives for its reduction.

Photo from left to right: Damien Lenoble (LIST) and Fedor Antonov (Anisoprint)

# OTHER HIGHLIGHTS



## International

### INTERNATIONAL ORGANISATIONS USED LIST MAPS TO MONITOR MOZAMBIQUE FLOODS

On March 2019, Mozambique was affected by severe floods caused by the Tropical Cyclone Idai which is regarded as one of the worst tropical cyclones on record to affect Africa and the Southern Hemisphere as a whole. The flood maps generated by LIST with the HASARD® tool, a LIST technology allowing for flood maps to be generated on a global scale using satellite data, have been employed to map the area under water for different organizations managing the response to this event, such as the NASA Earth Science Disasters Program, the World Food Program (WFP) of the United Nations and the Global Flood Partnership. The LIST software applied to map floods and their impacts in Mozambique represents a novelty. It now takes advantage of the enhanced imaging features provided by the latest European Copernicus satellites to better identify urban areas impacted by an event. [Learn more at www.list.lu](http://www.list.lu)

## Innovation

### LIST TECH DAY: WHAT TO EXPECT

Luxembourg's main platform for future technologies and the business of tomorrow will take place in Belval on 20 June 2019. The event brings together business leaders, policy makers, entrepreneurs, investors and early adopters from all around Europe. Focused on market innovations, LIST TECH DAY features live technology demonstrations "made in Luxembourg", technology pitches and a technology summit including national and international speakers. The 10 hour day program full of inspiration, new contacts and matchmaking opportunities will be followed by a networking dinner with live music in a new location. [Learn more at www.list.lu](http://www.list.lu)



## Europe

### THE FUTURE LIES IN EUROPEAN RESEARCH ECOSYSTEMS

As a member of the European Association of Research and Technology Organisations (EARTO), LIST participated in the EARTO Annual Conference 2019, held on 19-20 March in Espoo (FI) and hosted by EARTO member VTT Technical Research Centre of Finland. The conference focussed on "Research, Development & Innovation Ecosystems for Industrial Leadership and Sustainable Future", bringing together more than 250 participants from all Research & Innovation stakeholders and institutions at the European, national and regional levels. It featured high-level speakers from the European Commission and Finnish Institutions, as well as members of EARTO and high-level representatives of RTOs from all over the globe. [Learn more at www.list.lu](http://www.list.lu)

## Event

### HIGHLIGHTING SATELLITE-BASED IOT APPLICATIONS AND SERVICES

LIST organises the 18<sup>th</sup> International Conference on Ad Hoc Networks and Wireless (AdHoc-Now 2019) that will take place in Luxembourg-Kirchberg at Melia Hotel on 1-3 October 2019. As LIST researcher and conference chair, Maria Rita Palattella explains: "AdHoc-Now serves as a forum for interesting discussions on ongoing research and new contributions in the field of Wireless, Mobile, and Ad-Hoc Networks. This year edition focuses on new innovative satellite-based IoT applications and services. The event aims to bring together ICT and Satellite Communication experts from National and International research institutions, academia, industry, start-up and investors". [Learn more at www.list.lu](http://www.list.lu)



## WHERE TOMORROW BEGINS

Located at the heart of Belval's Research & Innovation Campus, LIST can easily connect its 600-plus 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 within arm's reach.

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