

# THE MONTHLY LIST

DECEMBER 2018



## LIST'S DOCTORAL TRAINING TAKES CENTER STAGE

As every year, Luxembourg's PhD community came together in late November for two consecutive annual events organized by the Luxembourg Institute of Science and Technology (LIST) and its partners. The LIST PhD Day 2018 and the ensuing National PhD Welcome Day were held at the Belval Innovation Campus and welcomed several hundred PhDs from the various research institutions in Luxembourg.

Photo, from left to right: Paul Baustert, Enrico Bonanno, Anne Hoek Van Dijke, Concetta Di Mauro, Bahija Sebane, Arnaud Wolf and Giuseppe Bengasi (LIST PhD Day organisation team)

Incorporating PhD candidates into the daily work of a Research and Technology Organisation (RTO) is a strategic focus for LIST as it enables not only to maintain strong ties to academia, but also to work on cutting-edge topics with a view towards scientific publishing. LIST PhD candidates are directly involved in the activities of the Institute's research projects and can benefit from an inter-disciplinary and multi-cultural environment. Doctoral training at LIST also goes beyond the Institute's border. PhDs can count on broad support from various institutions on the national level.

On 15 November 2018, the third annual LIST PhD Day gathered more than 100 participants. "The LIST PhD Day has become something of an institution at LIST, developing in parallel to a growing and vibrant doctoral student community" pointed out LIST CEO a.i. Fernand Reinig in his introduction. During the day, LIST PhD candidates heard keynote speakers from both the academic and industrial worlds and took part in poster and demo sessions as well as pitch presentations by their LIST peers. A best poster award was given to Kishor Acharya and a best presentation award to Hameeda Jagalur Basheer and Mariem Jobrane, from the LIST materials and environmental departments respectively.

A week later, on 22 November 2018, the Luxembourg Institute of Socio-Economic Research partnered up with the University of Luxembourg, LIST, the Luxembourg Institute of Health, the Max Planck Institute Luxembourg, EURAXESS Luxembourg and LuxDoc, with additional support from the Luxembourg National Research Fund for the third National PhD Welcome Day. This event gathered over 110 doctoral candidates from all disciplines having recently started their doctoral studies in Luxembourg, including LIST PhD candidates. Participants were invited to follow a series of presentations on the research landscape and structure of doctoral education in Luxembourg, before the focus was turned to scientific communication as a key element for the development of their careers. In a relaxed atmosphere, the doctoral candidates met their peers, shared expectations on their thesis, discussed their research topics and made connections that should contribute to making their experience in Luxembourg an unforgettable one.

# OTHER HIGHLIGHTS



## Technology

### COSMETICS RETAILER LUSH AWARDS A NEW 3D IN VITRO LUNG MODEL DEVELOPED BY LIST

On 16 November 2018, the cosmetics company Lush has rewarded Aline Chary, an engineer in cellular biology at LIST, with one of the Lush Prizes in the “Young Researchers – Rest of the World” category. Thanks to her work on a 3D in vitro lung model - done as part of a PhD thesis pursued at LIST in partnership with the University of Trier, Germany - she was picked from more than ten finalists to receive the €10,000 prize. This award, whose purpose is to enable her to pursue a career in non-animal experimentation, also emphasizes this model's great potential: within a few years, it could replace the tests on animals currently used in industry to test for the respiratory sensitization of products. [Learn more at www.list.lu](http://www.list.lu)

## International

### LUXEMBOURG EXPORTS ITS EXPERTISE IN VITICULTURE AND CLIMATE CHANGE

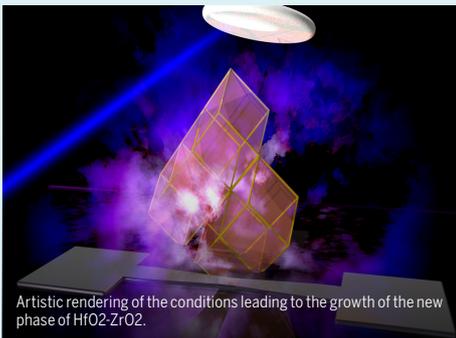
On 23-25 October 2018, LIST researchers in ecological innovation took part in the first meeting of the 3-year European Clim4Vitis project funded by the Horizon 2020 Research and Innovation programme. In this project, LIST shares Luxembourg expertise in viticulture and climate change and implement long-term relations with a leading Portuguese university, as well as with renowned European partners. This expertise is a result of LIST extensive experience with vineyards and research in the field of viticulture in Luxembourg, having worked in close collaboration with the Luxembourg Wine Institute (IVV) for several years. [Learn more at www.list.lu](http://www.list.lu)



## Scientific excellence

### LIST FINDINGS ON FERROIC MATERIALS HIGHLIGHTED IN NATURE MATERIALS

LIST material science researchers Jorge ñiguez and Hong Jian Zhao, LIST visiting professor Brahim Dkhil from Centrale Supélec, France and peers from the University of Groningen in Netherlands highlighted their latest findings in *Nature Materials* international scientific magazine. They pointed out thin films of simple oxides as a vastly unexplored class of nanoscale ferroelectrics and therefore contributed to the discovery of a new phase of a new ferroelectric based on technology-friendly HfO<sub>2</sub>. The simulations carried out by LIST researchers were key to understand the stabilization under specific epitaxial conditions of this phase, and to explain the large ferroelectric polarization values it presents. [Learn more at www.list.lu](http://www.list.lu)



Artistic rendering of the conditions leading to the growth of the new phase of HfO<sub>2</sub>-ZrO<sub>2</sub>.

## Events

### 400 PARTICIPANTS AT THE BIMLUX 2018 ANNUAL CONFERENCE CO-ORGANIZED BY LIST

On 14 November 2018, LIST in partnership with the Centre de Ressources des Technologies et de l'Innovation pour le Bâtiment (CRTI-B), Neobuild, and the Ordre des Architectes et des Ingénieurs-Conseils (OAI) hosted the BIMLUX 2018 conference. 400 participants, exhibitors, speakers and co-organisers gathered in Esch-Belval to review developments in the area of Building Information Modelling (BIM) and in integrating the collaborative process both nationally and at the European level. Beyond its undeniable success, BIMLUX 2018 was also an excellent opportunity for LIST to present its innovative research projects and tools in the field. [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.

## 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