NEW HORIZONS: LIST’S ANNUAL REPORT 2017 IS ONLINE

The Luxembourg Institute of Science and Technology (LIST) is pleased to announce the publication of its 2017 annual report, entitled ‘New Horizons’.

Representing a decisive year of consolidation, 2017 marks a turning point for LIST. Luxembourg’s only Research and Technology Organization (RTO) has laid the foundations for further growth, with a strong performance contract signed in January 2018 and prepared during the better part of 2017 in collaboration with the Luxembourg Government. This multi-year agreement, covering the period from 2018 to 2021, provides for an increase in the budget allocated by the Ministry of Higher Education and Research, as well as for the adaptation of indicators to better match those of an RTO.

A solid foundation

In 2017, LIST had 592 employees from 40 different nationalities. More than 74% of them are researchers and specialists in innovation, who have published more than 200 scientific articles with an impact factor greater than or equal to 2. In order to fulfil its ambitions, LIST also recruited 114 new hires over the same period. In 2017, LIST filed 26 patents, made 13 paid licences available and worked on no less than 319 projects and RDI contracts throughout the year. LIST entered into 20 collaborative projects with Luxembourgish and European industrial partners, including Carléx, CERATIZIT, Circuit Foil, SES and, in a wider sense, the Université catholique de Louvain or the Ministry of Agriculture. Research centres, universities and companies constituted the largest contingent of partners in 2017. Active in a wide variety of sectors, LIST’s research focused among many other things on energy and the environment, materials, biotechnologies and IT for mobility, transport and logistics. Looking beyond the national borders, LIST’s partnerships have been, for the most part, with other European countries. LIST works together with 18 countries, including France, Belgium, Germany and the Netherlands. On the international level, LIST has partnerships with the United States and Tunisia.

Industrial partnerships and technology transfer

The year 2017 also saw the fulfillment of commitments made during the previous year. As part of its flagship collaboration with the multi-national industrialist Goodyear on sustainable mobility and materials of the future, LIST recruited thirty doctoral and post-doctoral students and initiated 14 research projects. As part of a second partnership initiated in 2016 with PM-International AG on innovative bio-supplements for health, fitness, wellness and beauty product lines, LIST set up shared laboratories at its Belvaux site. These laboratories now facilitate operations and investments for the extraction and transformation of plant-based molecules.

LIST has also transferred some of its technologies to the market. In 2017, it created a spin-off, the Luxembourg Ion Optical Nano-Systems sàrl. This new company is marketing an innovative and unique SIMS (Secondary Ion Mass Spectrometer) mass spectrometry technology developed in LIST laboratories and enabling the exploration of the infinitely small at scales never reached before. This SIMS technology, VECTOR500, allows surface
analysis with a record resolution of around 10 nanometres, or up to 10,000 times smaller than the diameter of a human hair. The year 2017 was also marked by the transfer to eProseed, a software reseller for FinTech / RegTech and an IT service provider, of a tool enabling companies to comply with the new data protection regime. Designed and prototyped by a LIST team, the ‘GDPR Compliance Tool’ was developed in partnership with the National Commission for Data Protection (CNPD) and with the support of Digital Luxembourg.

Technology at the heart of LIST’s activities

LIST’s activities support and anticipate changes in modern society, whether they are technology-driven or require technology. To achieve this, LIST aims to take advantage of the benefits of connected technologies, augmented and mixed reality technologies, and intelligent technologies. LIST also supports research into smart coatings, space-based technologies, remote sensing and data analysis technologies. LIST is committed to national policies and initiatives, as part of the Luxembourg government’s efforts to make Luxembourg a real challenger of excellence at the international level. It also offers emerging and established researchers a wide range of opportunities in an outstanding international work environment with high-quality equipment. In fact, LIST hosted nearly 80 doctoral students in 2017 and 17 of them successfully completed their theses.