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Shaping the Future We Want to Live In

I am writing this foreword to our 2019 review in the midst of the Covid-19 crisis. Obviously, the pandemic had not impacted us in 2019; however it will shape the year 2020. I cannot help but give you a preview from the trenches.

I want to convey my pride about the way in which our community handled the crisis. While we had been discussing for some time the relevance of remote teaching, we were able to implement it at the scale of the entire University with practically a weekend's notice. Announced on 13 March 2020 to support social distancing on our campuses, it was implemented on 16 March. Similarly, the University switched to remote working in a very fast and successful way. These two actions have been key in the containment of the pandemic within our community. I am also very proud of the vivid response of our researchers in fields as diverse as medicine, biology, statistics, economics, logistics, law, psychology, and more who diverted their research agenda to join the Covid-19 National Taskforce serving the country with their science.

Looking back at 2019, I see a year of great development. In September, the University launched a new Interdisciplinary Space Master, co-designed with industry leaders of the space sector and co-funded by the Ministry of the Economy. The Space Master was set up to fill a gap in the labor market focusing on a truly interdisciplinary curriculum to train space experts with a genuine understanding of entrepreneurship in the space sector.

In 2019, the University has adopted an ambitious digital strategy which will be instrumental in our development beyond the current four-year plan. Within this strategy that spans the entire University, I want to particularly stress the launch of an Institute for Advanced Studies and that of a Centre for Digital Ethics.

The fast implementation of this digital strategy allowed the almost instant switch to digital teaching and learning amidst the Covid-19 pandemic in March 2020.

Within barely two years, a significant number of the Key Performance Indicators of the University's "Contrat d'établissement" were already achieved, or close to be achieved in 2019, particularly those relative to the quality of our research. Halfway through our four-year plan, all announced projects were clearly well under way.

As foreseen in our "Contrat d'établissement," the Rectorate team entered into discussions with the Ministry for Higher Education and Research for a possible mid-term revision.

We chose to focus on a series of transversal, high value-added projects. In essence, we focused our discussions with the government on the implementation of our digital strategy, the need for support of a truly active vision of multilingualism and the strengthening of our inclusion team. The mid-term revision led to an increase in our public endowment by almost 10 million euros

2019 saw the departure of Vice-Rector Romain Martin for a strategic position at the Ministry of Higher Education and Research and the arrival of Catherine Léglu at the Vice-Rectorate for Academic Affairs. At the end of the year, we also said good bye to Vice-Rector Tonie Van Dam, instrumental in the design of our Interdisciplinary Space Master, who chose to return to research.

On the administrative side, putting in place a staff grading was a giant leap forward in the implementation of the University's Collective Bargaining Agreement. Faculties, for the first time, have been structured into departments.

The Institution kept a very strong financial record, with a very sound surplus in year's end. The digitalisation of our processes made us more efficient and clearly better equipped to face crises such as the Covid-19 pandemic. Satisfaction surveys show an overall level of satisfaction close to 80%.

At the end of 2019, we also prepared for an important strategic reflection in 2020, to pave the way for the development of the University over the next 20 years. 17 years after its inception, the University should think ahead of traditional four-year plans and truly define its core identity, its long-term vision, values and strategy. The strategy will be a road map giving orientation over the longer term and providing quidance to decision making.

The University of Luxembourg aspires to be a hub of knowledge driven by interdisciplinary research. Our ambition is to entice researchers and students to cross the boundaries of scientific disciplines, to approach issues from various angles, to seek collaboration, challenges and inspiration in different fields of study and to formulate answers that integrate multiple layers of thinking and expertise. Interdisciplinarity is in the DNA of our Institution. It is at the core of our mission. Down this path lie potential solutions to the complex and challenging issues of our time.

We live in a dramatic period of history. Successful research and teaching continues to expand human knowledge and to open new perspectives. Yet at the same time, we see academic freedom and even scientific principles challenged in many countries, including some EU member states. Universities face a great responsibility to uphold the principles of science and to cultivate open-mindedness, that great engine of progress. Further human progress is by no means assured. It falls to universities to equip the next generation with the intellectual capital and the tools of knowledge to help them address the challenges ahead.

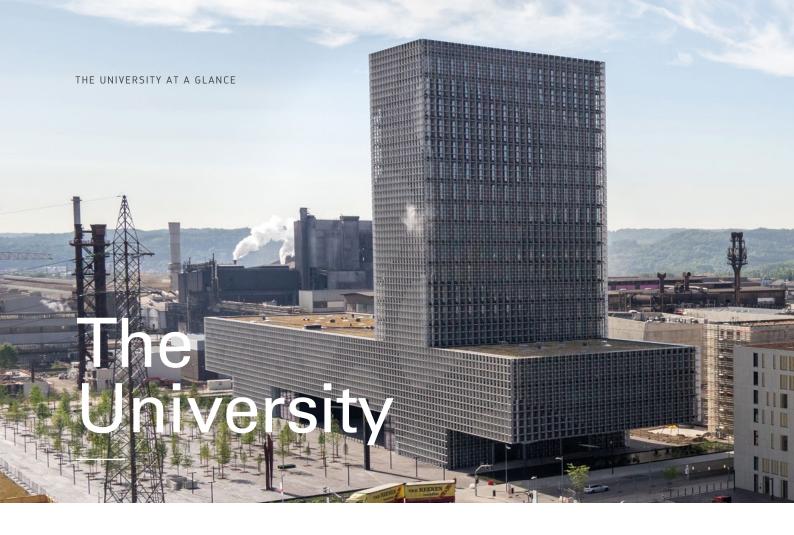
One of these great challenges is to keep our planet cool. The issue has existential dimensions that must concern us as individuals, as academics, as students. The survival of millions of fellow humans is at stake, should the sea levels rise. Activists are requesting urgent action. They are increasingly being joined by businesses and institutions raising concerns about the effects of climate change. Climate impacts and carbon footprints need to be factored into calculations and business models so as to guide an intelligent allocation of resources. This is far from being trivial. Climate research must not become a victim of the pandemic, but must remain a priority. There is no exit strategy from the Earth.

In this field as in many others we need more and better science, not less. Universities have an important role to play in unraveling complex causalities, and in helping to sketch out potential alternative futures. I am proud to say that the University of Luxembourg, which has more than 100 different research projects focused on different aspects of sustainability, is pulling its weight in this respect.

Another important challenge for Luxembourg and the world is health. The Covid-19 pandemic has reminded us that an unknown virus, likely transmitted by an animal to a human being in Wuhan, China, can bring the entire planet to its knees. While this crisis has shown the strength of international solidarity, it also showed the importance of a country's independence in terms of medical supply. The University will play an important role in strengthening the medical development of Luxembourg in years to come.

The future is one we want to live. Let us make it happen.

Stéphane Pallage, Rector



The University of Luxembourg is a **research** university with a distinctly **international**, **multilingual** and **interdisciplinary** character.

The University's ambition is to provide the highest quality research and teaching in its chosen fields and to generate a positive scientific, educational, social, cultural and societal impact in Luxembourg and the Greater Region.

The University comprises three faculties and three interdisciplinary centres: the Faculty of Science, Technology and Medicine (FSTM); the Faculty of Law, Economics and Finance (FDEF); the Faculty of the Humanities, Education and Social Sciences (FHSE); the Interdisciplinary Centre for Security, Reliability and Trust (SnT);

the Luxembourg Centre for Systems Biomedicine (LCSB) and the Luxembourg Centre for Contemporary and Digital History (C²DH).

Research at the University focuses on six priority areas and two interdisciplinary themes: Materials Science, Computer Science & ICT Security, European and International Law, Finance and Financial Innovation, Education and Contemporary and Digital History, as well as Health and Systems Biomedicine and Data Modelling and Simulation.

Times Higher Education ranks the University of Luxembourg #1 worldwide for its "international outlook," #17 in the Young University Ranking 2019 and among the top 250 universities worldwide.

With over 6,700 students from 125 nations and about 2,000 employees from all over the globe, the University is an inspiring melting pot. It offers a unique mix of international excellence and national relevance, delivering knowledge to society and businesses.













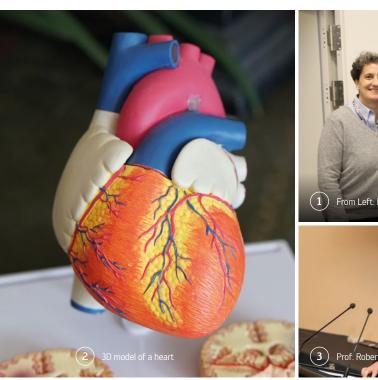


The University offers 14 Bachelor and 42 Master degrees.



Highlights 2019

- → Extension of the University's study programmes
 - New Interdisciplinary Space Master
 - Redesign of the Master programmes in **Economics and Finance**
 - Preparation of the Bachelor in Medicine
- → Development of a digital strategy for the University
- → 48 million euros competitive funding for Horizon 2020 and FNR projects
- → New ERC grants for:
 - **Paul Wilmes:** ExpoBiome, exploring the interaction between microbial molecules and the human immune system in patients with Parkinson's disease and rheumatoid arthritis
 - Jan Lagerwall: VALIDATE, verifying authenticity with liquid crystal-derived anti-theft encodin
- → 1,940 publications by University researchers
- → More than 1,300 diplomas awarded for the academic year 2018/2019
- → Confirmation of **outstanding** international ranking by Times Higher Education
 - #1 worldwide for "international outlook"
 - #17 in the Young University Ranking
 - Rank 201-250 of universities worldwide











Our Research in 2019

The **University of Luxembourg** is a strongly research-oriented university. Its ambition is to produce **top-class research** output, addressing society's challenges through interdisciplinary approaches.

The University focuses on six research priorities and two interdisciplinary themes. These are defined as areas in which excellence and critical mass, as well as a high potential for international leadership already exists or can be achieved.

Research priorities:

- Materials Science
- → Computer Science & ICT Security
- European and International Law
- → Finance and Financial Innovation
- Education
- Contemporary and Digital History

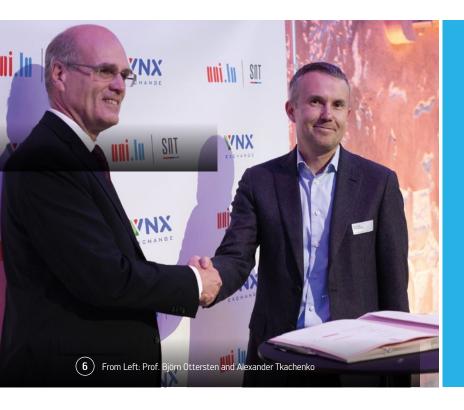
Interdisciplinary themes:

- → Health and Systems Biomedicine
- Data Modelling and Simulation

In 2019, more than 1,700 researchers were involved in more than 1,000 University projects.

12 new projects were accepted for funding by the European Commission's Horizon 2020 programme. They attracted funding of 7.4 million euros. 113 new projects received grants by the Fonds National de la Recherche, Luxembourg. This represented an amount of 40.6 million euros in terms of funding. According to the 2019 index of the journal Nature, the University's share in Luxembourg's total research output is 62%.

In 2019 **1,747** researchers



In its prestigious ranking of universities based on research output, the journal Nature ranks the University of Luxembourg #78 out of 175 young universities (under 50 years old). The University also ranks #20 out of 25 among "rising young universities" and 40 out of top 50 institutions in physical science.

Highlights

1 | Development of Colorectal Cancer Detection Kit

Biologists from the University of Luxembourg together with researchers from the Integrated Biobank of Luxembourg (IBBL) and oncologists from the Centre Hospitalier Emile Mayrisch (CHEM) have developed a kit with the potential to facilitate the detection of colorectal cancer at an early stage and help doctors choose the best treatment.

2 | Better Understanding of Congenital Heart Defects

A study published by researchers of the LCSB and researchers of the Gladstone Institute in California in the scientific journal Nature reveals molecular factors that determine the fate of specific cardiac stem cells and exposes mechanisms of disrupted cardiac development. This study provides a new framework for investigating congenital heart defects and could open avenues towards the implementation of cell therapy.

3 | New Holder of the UNESCO Chair in Human Rights

Prof. Robert Harmsen is the new holder of the UNESCO Chair in Human Rights at the University of Luxembourg, succeeding Prof. Jean-Paul Lehners. The UNESCO Chair in Human Rights promotes an interdisciplinary approach to human rights through teaching, research and public engagement.

4 | FNR PEARL Chair for Digital History Research

Prof. Dr Sean Takats, an internationally renowned expert on digital history, joined the University's Centre for Contemporary and Digital History in 2019, backed by an FNR PEARL Chair from the Luxembourg National Research Fund. Professor Takats' PEARL project, DHARPA, aims to transform historical research practices to meet the demands of the digital age and establish Luxembourg as one of the global leaders in digital history research and development.

5 | Understanding Migration Intentions

Economists from the University of Luxembourg conducted a field experiment in Tirana, Albania, to better understand how individuals form migration intentions. Part of the experiments involved the induction of individual parameters such as risk and time preferences as well as trust. The study analysed the role that information about wages and other traditional determinants such as networks, unemployment or poverty of destination countries play in migrants' decision-making of intended destination.

6 | Applying Blockchain Technology to Trade and Investment

Researchers from the Interdisciplinary Centre for Security, Reliability and Trust partnered with VNX, an innovative marketplace where investors can buy and sell positions in venture capital funds, to develop a GDPR compliant blockchain system.





Researchers at the University of Luxembourg discovered a flaw in the security standard used in biometric passports (e-passports) worldwide since 2004. This standard, ICAO 9303, is used by e-passport readers at airports to scan the chip inside a passport and identify the holder.

It is designed to ensure that the privacy and unlinkability of the passport holder is protected to the highest degree. Unlinkability ensures that an attacker could not distinguish if two elements are closely related.

Dr Ross Horne, Prof. Sjouke Mauw, PhD candidate Zach Smith and Master student Ihor Filimonov tested the standard. They discovered a flaw which allows specific non-authorised equipment to access passport data. "With the right device, you can scan passports in close vicinity and reidentify previously observed passport holders, keeping track of their movements", Dr Horne explains. "Under those conditions, passport holders are not protected against having their movements traced by an unauthorised observer."

An unauthorised device scanning a passport within several meters can identify and keep track of that passport, even though it cannot read the passport.

Thus, the privacy of the passport holder is vulnerable to potential attacks, even though the flaw does not allow attackers to read all information from a given passport or to compromise biometric information stored in a chip inside the passport.

"As most passports today use the same standard, this security flaw potentially has global impact," says Dr Horne. It is possible that in Europe, such a security breach violates requirements from the EU data protection framework. Governments have the responsibility to protect individual privacy and to ensure that official documents are immune from such attacks.

The team of researchers shared their test results with the International Civil Aviation Organization, the issuer of the standard. They also outlined several approaches for restoring privacy protection, based on the assumption that the manufacturers of e-passport readers must take responsibility for ensuring privacy protection of passport holders.

Researching Europe's Working Poor

In 2017, almost 10% of the EU's working population (representing roughly 20.5 million people) was at risk of living in poverty. In 2018, 13.4% of the working population in Luxembourg was at risk of poverty. In-work poverty leads to social exclusion, divergence, and inequality. It also jeopardises a core feature of EU citizenship: the prospect of a decent life. In order to determine how to tackle the problem, a clear understanding of its sources is required.

The pan-European research project Working, Yet Poor ("WorkYP Project"), coordinated by the University of Luxembourg, enhances that understanding and helps focus and improve qovernmental responses.

The project was awarded 3.2 million euros for three years, from 2020 to 2023, by the EU's Horizon 2020 programme. The WorkYP Project examines the social and legal reasons behind the increasing number of EU citizens who are still at risk of living below the poverty line despite being employed.

Associate Professor Luca Ratti leads a multinational and interdisciplinary research team comprised of researchers from eight European universities (Frankfurt, Bologna, Leuven, Rotterdam, Tilburg, Gdansk and Lund) as well as three social rights institutions active in Europe. Conchita D'Ambrosio, professor for economics at the University of Luxembourg, contributes her expertise in poverty and social exclusion.

"Countries implement certain measures to prevent in-work poverty, but there is not a set approach towards reducing or eliminating it. EU Member States – individually and collectively – need a better understanding of the problem, an understanding supported by pertinent data and which allows them to monitor and successfully tackle it," says Luca Ratti.

The WorkYP Project analyses seven countries with different social and legal systems (Luxembourg, Belgium, Germany, Italy, the Netherlands, Poland and Sweden) to document the problem and to propose best practice solutions to combat in-work poverty.

The project has tangible implications for individuals, says Luca Ratti: "EU citizenship should guarantee the right to a decent life, but in-work poverty in the EU still affects millions of citizens on a daily basis. To combat this pressing real-life problem, we must foster pan-European and multidisciplinary research partnerships to find solutions; a singular approach is bound to fail. The WorkYP Project relies on the combined efforts of a diverse group of social and legal experts to thoroughly analyse the problem and then suggest realistic measures to help reduce the number of working poor in the EU."



At the Forefront of Migration Research in Europe

The University of Luxembourg has been awarded a Horizon 2020 grant for research on the integration of young migrants. The MIMY*–project assesses integration policies across the EU with the aim to support EU integration strategies and to empower young migrants in vulnerable situations.

Migrants actively participate in the project and work as peer researchers. In this gendersensitive and migrant-centred approach, researchers from the University of Luxembourg work together with colleagues from 11 European partner universities to analyse EU migration policies, regional economic and social systems as well as individual practices.

They examine long-term socio-economic effects of successful and failed integration, identify the factors fostering or hindering integration processes and determine how social actors like individuals or organised groups and institutions can support young migrants by further strengthening resilience and resistance strategies.

"Our coordinating role gives us the opportunity to demonstrate that the University of Luxembourg and the Faculty of Humanities, Education and Social Sciences are at the forefront of excellent migration research in Europe," says Jutta Bissinger, one of the researchers involved in the project.

The MIMY-project is funded with three million euros from 2020 to 2023. Associate Prof. Birte Nienaber from the University of Luxembourg coordinates the project.

* Empowerment through liquid Integration of Migrant Youth in vulnerable conditions.





Facilitating GDPR Compliance with Artificial Intelligence

Dr Damiano Torre is a research associate at the Interdisciplinary Centre for Security, Reliability and Trust (SnT) with a background in ensuring software consistency for safety-critical systems. Members of the Software Verification and Validation group work in close cooperation with lawyers from global law firm Linklaters. In 2019, they began developing a set of tools to help legal professionals navigate the GDPR law, and to facilitate compliance with the new European privacy standards. The research is part of the project "Artificial intelligence-enables Automation for GDPR Compliance" (ARTAGO) funded by Luxembourg's National Research Fund (FNR).

The project harnesses techniques from the research area of software consistency to analyse legal documents. This is meant to assist organisations with implementing GDPR rules in an efficient manner.

The approach uses a completely novel way to tackle the challenges of GDPR compliance. While many online tools already claim to offer a solution, few work no better than a checklist. "Our first tool uses a model of the GDPR's privacy requirements section – the first of its kind to ever be systematically developed –

and actually checks the contents of a given document against that model," says Dr Torre. The tool then points out any omissions or inadequacies. The methodology at the core of the tool is identical to the one used with safety-critical systems. It informs users whether a certain document complies with GDPR's privacy requirements. And if it does not comply, it will flag exactly why.

A main focus of Dr Torre and the team is to determine how to best automate the privacy policy compliance review process. "At first, we wanted our tool to be completely automated. But as time went on, we realised that a tool that processed documents without any user input at all might actually be less useful." By adding only a few questions for the user to answer at the very beginning of the workflow, Dr Torre and his team reached a balance. Their tool provides just the right amount of automation to streamline the process without compromising accuracy.

"Next we want to look at 'consent'," Dr Torre says. "Building tools that will help empower people to make informed choices about their private data is gratifying. Protecting our identity and our private data ought to be just as important to us as protecting our physical safety. It is important that we, in the EU, keep doing everything we can to build a system where technological advances do not come at the cost of our privacy."



Groundbreaking Microbiome Research

Research on the human microbiome is still a relatively young discipline. It was only 15 years ago that research on the community of microorganisms – bacteria, archaea, fungi and viruses – living on (and in) the human body fully took off

Scientists at the Luxembourg Centre for Systems Biomedicine (LCSB) are performing extensive research today on how the microbiome affects humans in health and disease across a lifetime, from infancy to old age.

Professor Paul Wilmes and his team at the LCSB's Eco-Systems Biology research group, in collaboration with clinicians at the Centre Hospitalier de Luxembourg, have studied the microbiomes of babies born by C-section and by "natural" vaginal birth. They analysed the microbes in the stool of the newborns and their mothers, as well as vaginal swabs from the mothers. They discovered that important bacteria stimulating the immune system are passed from mother to child during vaginal birth and that this is largely absent in C-section infants. This possibly explains why babies delivered by C-section are more prone to develop problems linked to the immune system, including allergies and other chronic diseases.

In 2019, Paul Wilmes received a prestigious ERC Consolidator Grant for his project ExpoBiome, to further explore the interactions between microbial molecules and the human immune system in patients with Parkinson's disease and rheumatoid arthritis

"For rheumatoid arthritis, we know that therapeutic fasting reduces symptoms in many patients. One hypothesis is that the activity of the microbiome is reduced due to the lack of nutrients and that this has a positive effect on the chronic inflammation characteristic for the disease. However, it is still unclear whether microbial molecules play a role and if so, which ones," Wilmes says. His goal is to find out whether fasting triggers this beneficial effect by causing shifts in a person's microbial communities and the molecules they secrete.

As part of the ExpoBiome project, the LCSB researchers also explore the interplay between the microbial community in the gut and the development of neurodegenerative diseases such as Parkinson's. Scientists have known for some time that the microbiome influences this disease.

"We want to understand the underlying mechanisms in more detail and look for new possibilities for diagnosing and treating this disease as well," says Wilmes. To facilitate the research, the scientists draw upon a unique toolbox including their proprietary HuMiX gut-on-a-chip model. Groundbreaking research of this type in recent years has established the LCSB as a world-wide leader in microbiome research.



The microbiome is a community of microorganisms living on (and in) the human body.

Text Mining: A New Perspective on History

Over the past three years, the Luxembourg Centre for Contemporary and Digital History (C²DH) has positioned itself as an international leader in the field of digital history. One of the centre's many achievements in 2019 was the application of text mining techniques to contemporary history research, an approach that has proved invaluable for a number of projects. C²DH has developed sophisticated tools to automate the analysis, visualisation and interpretation of large quantities of historical data.

The project "impresso: Media monitoring of the past. Mining 200 years of historical newspapers" is based on a corpus of 48 million articles from 76 Luxembourgish and Swiss newspapers dating back more than two centuries. The aim of the project is to enable critical text mining of newspaper archives: by turning unstructured text content into structured data, data exploration, machine learning, information search and extraction, and natural language processing can be implemented, thereby giving historians the opportunity to explore and analyse the vast

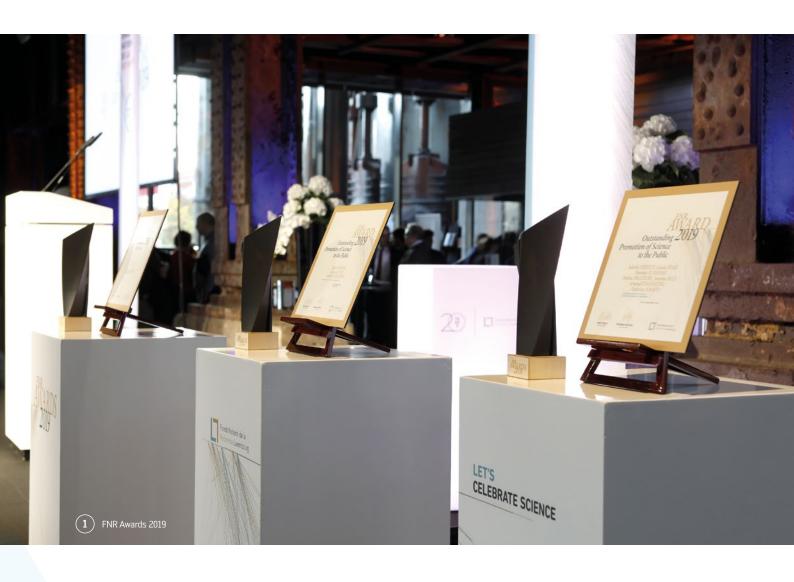
corpus of articles. "Over and above the immediate focus of the project, *impresso* also involves a broader critical reflection on the use of digital tools for contemporary history from a practical, methodological and epistemological viewpoint," explains Dr Marten Düring, who coordinates the Luxembourgish team of designers and historians.

impresso results from a close cooperation between computational linguists, digital humanists, historians and digital historians. The project is carried out in cooperation with the Ecole Polytechnique Fédérale de Lausanne and the University of Zurich.

Other C²DH projects making use of text mining techniques include "Argumentation mining in political debates", led by Shohreh Haddadan, which focuses on extracting arguments from transcripts of presidential debates in the United States from 1960 to 2016, and "Approaching Australian Aboriginal autobiographies with text mining methods," led by Ekaterina Kamlovskaya.

These innovative tools will circulate through C²DH, enabling other researchers to apply the techniques to their own contemporary history projects. Many of the tools will also be made available to the international history research community, supporting of the goals of the C²DH, which is to co-design and operate a global open science platform for history in the digital age.





Excellence

Excellence in **research** is not only a matter of strategies, programmes and projects: It is, above all, a matter of aligning **dedicated bright minds**. In 2019, many members of the University research community have been honoured with **awards of excellence**.





Here is a selection:

(5) Prof. Dirk Zetzsche

1 | Nine Researchers win FNR Awards

The FNR (Fonds National de la Recherche) Awards celebrate science and research in Luxembourg. In 2019, researchers of the University of Luxembourg received awards in two categories: "Outstanding Scientific Publication" (Prof. Antonio Del Sol Mesa, Dr Satoshi Okawa, Eva Lagunas, Shree Krishna Sharma, Sina Maleki, Symeon Chatzinotas, Prof. Björn Ottersten) and "Outstanding PhD Thesis" (Linda Wampach, Riccardo Rao).

2 | Vening Meinesz Medal for Tonie Van Dam

Prof. Tonie Van Dam was awarded the 2019 Vening Meinesz Medal from the European Geosciences Union (EGU). The award celebrates her outstanding research in geodesy, the science of measuring and understanding the Earth's shape, orientation and gravity. In her recent work, she uses data from GPS and space-based gravity measurements to model changes in ice and water mass due to climate change.

3 | Alexandre Tkatchenko: American Physical Society Fellow

Professor Alexandre Tkatchenko from the Department of Physics and Materials Science at the University of Luxembourg was named American Physical Society Fellow for the development of a novel framework for modeling and understanding van der Waals interactions in molecules and materials

4 | Three Rank Among World's Highly Cited Researchers 2019

Three researchers from the University of Luxembourg rank among the world's highly cited researchers 2019 according to Clarivate Analytics: Professor Stéphane Bordas, Professor Alexandre Tkatchenko and Professor Paul Wilmes. The number of citations of their published papers ranks in the top 1% by citation for their field and year of publication. This demonstrates significant research influence among their peers.

5 | Dirk Zetzsche Among Top Law Authors

Prof. Dr Dirk Zetzsche ranked 7th of 3,000 top law authors in 2019 according to SSRN, the open-access online database of early scholarly research. In 2019 his papers were downloaded 12,510 times.

Focus on Sustainability

The world is changing at an exceptionally fast pace. Climate change is one of the most important challenges of the time. With its **mission of research** and stimulating **innovation**, and with its broad expertise across disciplines and sectors, the University is uniquely positioned to help address societal challenges and **sustainability**.

Close to 100 ongoing research projects across the University's three faculties and interdisciplinary centres deal with aspects of sustainability. They focus on areas such as water management, sustainable finance, natural resources management, social inequality and sustainable urban planning.

The University offers one Master programme and two certificates with a thematic focus on sustainability: The Master en développement durable (Master in sustainable development),

the Certificate in Law and Regulation of Inclusive Finance, and the Certificate in Sustainable Development and Social Innovation.

The University also conducts outreach activities to engage a broad general audience. These include the "October Days of Sustainable Development," the lecture series "Inequality and...", as well as the "Inclusive and Sustainable Finance Research Conference."





Sustainable Mobility Solutions for Luxembourg - MERLIN

New digital technologies and new smart mobility services are revolutionising the transport and mobility sector. This generates new challenges and questions. How will a given population use the transportation systems in the future? What kind of planning and design solutions are required to satisfy the mobility needs? How can safety and sustainability targets be met?

The MERLIN (Multimodal Electrified infRastructure pLannINg) project aims to develop a platform to investigate the impact of future mobility solutions for the country. The ambition is to provide a decision support tool for the Luxembourgish government and for the national mobility service, to estimate and model current and future mobility patterns, to assess the environmental impact of proposed planning and management solutions and indicate avenues for designing the future transportation network.

We aim to find solutions for reducing the negative impact caused by our mobility choices, while maintaining high levels of transportation quality, efficiency and safety."

- Associate Professor Francesco Viti

Laying the Groundwork for Treating Space Sustainably - SILOSM $\,$

The development of a new 'space mining' industry has been facilitated by Luxembourg government policies supporting private companies who wish to utilise in situ resources of celestial bodies. In the absence of a clear international legal framework, the effort to provide legal standards for the industry has been supported at national level. Luxembourg (in 2017) and the United States of America (in 2015) adopted legislations recognising the appropriability of space resources. However, these conversations still miss the crucial issue of the protection of outer space's environment. Industrial exploitation of resources is bound to impact outer space's environment, potentially causing environmental damage as it did on Earth. Therefore, sustainable management of space resources needs to be legally regulated. The SILOSM research project aims to analyse the legal aspects pertaining to the appropriation in the context of the sustainable development in outer space.

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burces better."

We tend to believe that we only need to address sustainability issues on Earth. This is not true. We need to do better in outer space than we have done on Earth. As legal scholars, we want to provide the tools to treat space resources better."

- Gabrielle Leterre, doctoral candidate



Citizen Science for Improved Water Governance

Citizen Science is an approach to scientific inquiry that is collaborative and engages diverse participants from scientist to other interested individuals. Expert advisors have pointed to the urgent need of diversifying sources for drinking water. The origins of groundwater and surface water pollution needs to be pinpointed more precisely, by improved spatial and temporal sampling. Most pressing sampling needs for the protection of sources include the collection of data on nitrate and phosphate levels in groundwater, to complement official data sets. This research project "Citizen Science for Improved Water Governance" will thus focus on co-designing indicators for social and technological change which contribute to making water governance more sustainable. These will be complemented with easy-to-use nitrate and phosphate detection kits and mobile devices for citizen volunteers. In a joint effort, experts and citizen volunteers will develop indicator sets, applicable by the general public and thereby increase the chances of putting theory into practice.

All forms of life on Earth depend on water. Ensuring a high quality of water is a basic requirement to maintain resilient and diverse ecosystems in the face of accelerating global and local environmental changes. We aim to generate evidence to support concerted action and engagement to improve water quality and biodiversity – to the benefit of policymakers and practitioners."

- Ariane König, research scientist

Smart School of Tomorrow – SCASE21

The digital economy is about to revolutionise the conception of buildings and public spaces – including schools. At the intersection of Engineering, Education, Information and Communication Technologies and Social Sciences, the design process for future school buildings can evolve in an innovative way on a scientific basis.

The project SCASE21 aims to analyse "the smart school of tomorrow" as an activity system and translate its multiple dimensions into a single scientific referential guide, with particular attention to the improvement of quality of life, use of sustainable materials and innovative technologies , achievement of cost reduction and productivity gains and sharing multifunctional school spaces.

SCASE21 establishes an innovative framework adapted to the specificities of the Luxembourg school ecosystem. Sustainability is a core concept in shaping the smart school of tomorrow: from sustainable construction and minimal energy impact of a building to responsible and sustainable behaviour."

- Prof. Charles Max





Managing Health Data from Anywhere Within the EU - SMART4HEALTH

Smart4Health aims to provide an easy-to-use, secure, constantly accessible and portable health data and services prototype within the EU. The project raises digital health management to a new level by allowing citizens to securely access their data across borders, provide feedback and cooperate with healthcare providers to ensure quality and patient-centred care. Importantly, citizens are empowered to provide and donate their data for societal benefits. The collected data supports the existing data infrastructure, to advance research, disease prevention and personalised health care.

Citizens can monitor in which studies their data have been used. This will increase the transparency and give credit to their contributions, which will then encourage more citizens to participate in research."

- Prof. Reinhard Schneider

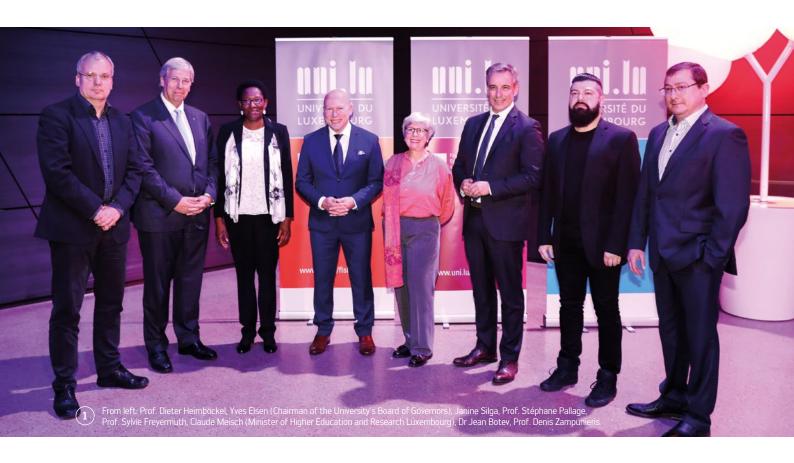
Repairing Technology, Fixing Society? - REPAIR

Electrical power grids, roads, housing restoration, automobile repair or telephone networks – the history of maintenance and repair gives valuable insights about the emergence of consumer identities and helps us to better understand when and how people care for the technologies they routinely use. The project uses Luxembourg as a key example of a Western consumer society and postulates that maintenance and repair practices have not become obsolete in modern consumer societies; and that both practices are still fundamental for keeping everyday technologies, the economy and society functioning and running.

By revealing when, why and how things were maintained, repaired or scrapped, the project will provide crucial insights into the historical and political contexts of the emergence of consumer identities, the hidden societal, economic and environmental dimensions of repair, and the quest for more sustainable consumer practices."

- Stefan Krebs, assistant professor





A Unique Experience

Studying at the University of Luxembourg is a **uniquely enriching experience.** The University instils a drive for **excellence and success** in its students. It offers a **supportive** environment, including a network of **great expertise**.

Students can learn, grow, explore and benefit from a truly stimulating international environment.

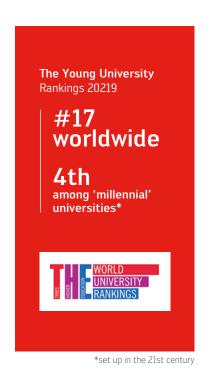
In 2019, the number of students enrolled at the University has grown to more than 6,700.

Studying at the University of Luxembourg is a uniquely international experience. 56% of the student population is international. The student population represents 125 nationalities. This diversity is echoed by the teaching staff from 94 countries.

Teaching at the University of Luxembourg is multilingual. The programmes are primarily bilingual (French/English or French/German), some are trilingual, and others are entirely taught in English.

The University offers 14 Bachelor's and 42 Master's degrees, 16 lifelong learning courses and vocational training opportunities, as well as 4 doctoral schools.

To ensure highest-quality teaching, the University relies on highly experienced academic staff across its faculties and interdisciplinary centres. It also draws on the knowledge of a range of experts from the business community and international institutions. It collaborates with Luxembourg's financial centre — one of the world's leading— the European Court of Justice, the European Investment Bank and many more.



Outstanding Teachers, New Programmes and New Alumni

1 | 6 Teachers Receive Awards

Recognising excellence in teaching, the University of Luxembourg bestowed Teaching Awards on six teachers: research scientist Jean Botev and Prof. Denis Zampunieris of the Faculty of Science, Technology and Medicine; Ass. Prof. Jean-Daniel Guigou and post-doctoral researcher Janine Silga of the Faculty of Law, Economics and Finance; and Prof. Dieter Heimböckel and Prof. Sylvie Freyermuth of the Faculty of Humanities, Education and Social Sciences.

The award winners are chosen based on student recommendations. Awards are open to professors and associate professors, and to PhD candidates and post-docs who are greatly respected for their work.

2 | New Bachelor in Medicine

The University is establishing a new Bachelor in Medicine, starting in September 2020. Prof. Gilbert Massard was appointed Director of Medical Education with the mission to develop the Bachelor programme. It will extend the currently existing study offer of the first Bachelor year and will focus on the early development of clinical skills through simulation training and tutoring by doctors with proven teaching abilities.

3 | New Interdisciplinary Space Master

The University launched a new two-year Interdisciplinary Space Master in the fall of 2019. The programme covers many aspects related to space operations and aims to generate a talent pool of highly skilled engineers and innovative entrepreneurs to help create, shape and sustain leading commercial space enterprises.

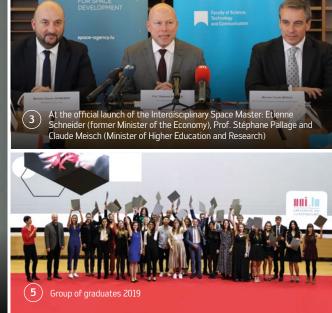
4 | New Masters of Science in Finance and Economics

The University of Luxembourg has redesigned its Master programmes in economics and finance in order to modernise curricula, adapt to a changing job market and encourage interdisciplinary and experiential learning. The redesign is the result of a fruitful collaboration with key representatives of the financial centre and demonstrates the University's commitment to provide highly qualified graduates for the Luxembourg labour market. The new Master programmes focus on interdisciplinary teaching in economics and finance, offering specialisations in Sustainable Finance, Banking, Investment Management, Risk Management and Financial Economics. The Faculty of Law, Finance and Economics by The Faculty of Law, Economics and Finance is working with the Ministry of Finance and the Ministry of the Environment, Climate and Sustainable Development to further develop teaching and research in the area of sustainable finance.

5 | More than 1,300 Diplomas

Close to 1,300 students and doctoral candidates graduated from the University of Luxembourg in 2019 (640 Bachelor and 528 Master students as well as 126 doctoral candidates). Since its inception, close to 11,500 students and doctoral candidates have graduated from the University.





What Students Say About the University



Veronika Guseva (Master in Learning and Communication in Multilingual and Multicultural Context, Russian):

"With Luxembourg's unique multicultural and multilingual environment, the skills obtained in this Master programme can easily be put into practice. Since this programme has a fairly broad focus, the knowledge acquired will provide many opportunities for building a future career and is an advantage in the labour market in any country in the world."



Anna Letta (Bachelor en Sciences Économiques et de Gestion, Polish-Italian):

"I love the University of Luxembourg for being so international. Studying here gives you the best opportunity of your student life: studying abroad, anywhere you dream of. But even when you're not travelling, the atmosphere on campus will make you feel like you are! Thanks to the international community, you meet new people from all around the world everyday who will make your studies feel like a journey around the world. Be ready for new adventures!"



Beatriz Ribau (Bachelor in Law, Portuguese):

"Before starting my studies at the University, I was a bit concerned because I didn't know anybody there. I started following uni.lu on Instagram and I felt welcomed by all the interactions between the University, other students and myself. The first year was tough but it was the first step to being fully integrated in the University. Today, I have new friends, I learn a lot and I feel incredibly comfortable on campus. These years at the University are moving quite fast and I'll be sad to leave it one day."



$\label{lem:lem:lembourgish} \textbf{Nicolas Wurth (Master in Law, Luxembourgish):}$

"I can only encourage students from Europe and beyond to apply for one of the multilingual programmes offered by the University of Luxembourg. Enrolled as a Master student in law, I gained an in-depth understanding of European Union and International Law, as well as a professional-oriented insight of legal challenges in innovative domains. The practice-focused approach of the University of Luxembourg allowed me to develop my personal ability to effectively leverage my enthusiasm and passion into tangible, impactful objectives."



Student Life

The SEVE - **Service des Études et de la Vie Étudiante** - is the service for students at the University of Luxembourg for administrative procedures during their studies. The SEVE accompanies students from their **application to their graduation** and supports them in managing their student life. The SEVE provides information about study programmes and registration procedures, accommodation, mobility, health, well-being and inclusion, student participation and internships and student jobs.

Inclusion Office: Strengthening an Open, Inclusive and Safe University Community

The University of Luxembourg is highly international and hosts students and staff from multiple different national, cultural and personal backgrounds. Internationality is one of the University's greatest assets. However, it can also be a challenge, on occasion. The Inclusion Office at the University of Luxembourg is committed to promoting diversity and strengthening an open, inclusive and safe environment for everyone on campus.

The University values the contribution of all members of its community and recognises that

society's big challenges - especially the divisive ones - can only be conquered as an inclusive community.

"The Inclusion Office works to ensure that our campus is a place where all students feel welcome. We understand that going to university is an exciting period in life, but it can also be challenging. We offer support, information and advice to students and provide information on the variety of support services available within as well as outside the university," says Joanna West of the Inclusion Office

In 2019, the University put in place a Reasonable Accommodation Committee, supporting students with special educational needs as well as new students transitioning from high school to university life. In addition, the Inclusion Office has supported asylum seekers and refugees gain access to higher education at the University of Luxembourg. This initiative has led to a successful collaboration with BGL BNP Paribas to create the "One Step Forward Program," offering professional mentoring and internship possibilities to 18 students.

Additional Student Housing

The University provides 35 student residences with 1,100 rooms and studios in close proximity to the campuses. The accommodations are located in the City of Luxembourg, Esch-sur-Alzette, Mondercange, Noertzange, Dudelange, Belvaux, Obercorn and Niederkorn. In 2019, the University has inaugurated a new student residence.

Maison des Chercheurs

A former grocery store has been transformed into new accommodation reserved for researchers and doctoral students of the University of Luxembourg, the Maison des Chercheurs. The building now has nine single rooms, each equipped with a bathroom. The kitchen and the living room are shared.





Representing the Students

The student delegation of the University of Luxembourg was established in November 2018. Its mission is to:

- represent and defend students' interests and to communicate on their behalf to the governing bodies and entities of the University;
- inform the students of the decisions that concern them;
- participate in the management of the Office of Student Life.

"As a newly founded delegation heading into 2019, the biggest challenge was to exist, first of all," says Sam Bernard, member of the student delegation. With no foundation to work with, the priority was to create digital communication channels and present itself and its role to the University, the students and external partners.

"What's the point of being a voice for students, if we won't be heard where it is necessary," Bernard asks.

Deciding on the best thing that happened in 2019 is hard for the delegation. "We consider the consolidation of our role in general as key achievement of the past year. The opportunity for students to finally have a representative body that is rather broad in its coverage, and which is able to give input to so many topics is a huge success. We were able to foster exchange between student associations, push for the extension of the library's opening hours and contribute to the inception of an Ombuds Office," Oleskii Domin, president of the student delegation, says.

In comparison to other universities, the University of Luxembourg is rather small and quite young. It has great potential to grow and develop a culture of its own.

"We currently find ourselves in the midst of an important step in developing our own identity as a university. Each and every one of us has the opportunity to contribute to shaping an enriching culture and unique student life at the University of Luxembourg," Bernard says.

An Ombuds Office for the University

launched preparations for an Ombuds
Office in 2019. The office will be
implemented in the medium term and
serve as point of contact for students
and employees with concerns, complaints
or conflicts. The ombudsperson will
provide coaching and offer solutions
and mediation for conflicts.

Supporting Student Employability

The Career Centre of the University was set up in 2011. It caters to students who are on the way to employment, and to recruiters who are interested in hiring students of the University of Luxembourg.

Services by the Career Centre are available on the platform uni-lu.jobteaser.com. On this platform, students can access job offers from Luxembourg. In 2019, more than 700 job vacancies have been posted exclusively for students of the University of Luxembourg. The platform offers internships, student jobs, permanent and fixed-term positions, most of

them in the sectors banking/finance, consulting and audit. Recruiters, on the other hand, can consult a database of around 2,250 CVs of University students. In 2019, 755 new students registered on the platform.

In order to improve the students' employability after University, the Career Centre also offers up to 30 workshops dealing with CVs and cover letters, social and digital skills, and more.

A University of Luxembourg education does not end after graduation. The University cares about the professional future of all of our students, and we try to enhance their possibilities for employment from the day of their arrival. For the University of Luxembourg, employability means fostering skills that matter for a lifetime."

- from the University four-year plan

Bringing Students Together

Student associations tend to federate students with similar interests and contribute to generating a positive study experience. They provide a framework for social activities and allow students to engage with the University and their peers beyond academics; they can create a family away from home, or simply provide a valuable opportunity to work in a team.

In total, the University of Luxembourg has 15 recognised student associations:

Architecture Student Association (ASA)



Conscious and Cultural Student Association (CCSA) (fostering openness towards culture, multiculturalism and ecological challenges)



Chinese Student Association



Cercle des Étudiants de la FSTM (CEST)



Doctoral Students Association in Luxembourg (DSAiL)



Economics Law Management Association (ELMA)



European Law Student Association (ELSA)



Erasmus Student Network (ESN)



Engineers Without Borders (EWB) (enables young engineers to apply their skills in low-resource settings)



Historic UL (for students of the History Department)



Indian Student Association Luxembourg (ISAL)



Law and Economics Fraternity (LEF)



International Society for Computational Biology's Regional Student Group Luxembourg (RSG)



University of Luxembourg English Studies Student Association (ULESSA)



University of Luxembourg LGBT+ Students' Association (LGBT+)



Luxembourg Learning Centre

Visitor Record for the Luxembourg Learning Centre

The Luxembourg Learning Centre, the University's library, is a bright, multifunctional space for learning and research. The library is home to more than 160,000 books (more than 10,000 have been newly acquired in 2019), more than 625,000 e-books and close to 80,000 online journals. It also offers a wide range of services and innovative tools, like the 'Book Taxi', which delivers books to campuses Kirchberg, Limpertsberg and Weicker, and 'Book a Librarian', offering personalised appointments and assistance in documentary research.

In 2019, 271,057 people visited the Luxembourg Learning Centre (LLC), the highest number since its inauguration in 2018. Compared to 2018 (219,237 visitors), it represents an increase of 24%.





A Partner to Society

A university is a place where knowledge is created and **new ideas** are born. It is also a place where **creative minds** transform their research insights into practical applications and new businesses.

It is part of the **University of Luxembourg's** mission to deliver **research** and **innovation** with a positive impact on the regional economy and society.

Throughout 2019, the University has sought out meaningful partnerships to further strengthen its network with other research institutions, ministries and companies in Luxembourg and beyond.







1 | PayPal, University and the Fonds National de la Recherche (FNR) Announce New Chair in FinTech

Prof. Gilbert Fridgen was appointed the inaugural PayPal-FNR PEARL Chair in Digital Financial Services which explores the future of financial services in a data driven environment. The goal of the chair is to demystify digital technology and rethink connections across regulators, industries and users.

3 | University and ArcelorMittal extend Collaboration in Steel Engineering

The University of Luxembourg and ArcelorMittal have extended their collaboration in the ArcelorMittal Chair of Steel Construction. The funding will allow chairholder Christoph Odenbreit, professor within the Department of Engineering, to pursue his research dedicated to making steel construction more efficient and sustainable. One of the main focus areas is to further enable a circular economy approach for steel construction components. This would significantly improve the carbon footprint of the building sector.

2 | Artificial Intelligence to Support Financial Regulator

Luxembourg's financial regulator, the Commission de Surveillance du Secteur Financier (CSSF) and the Interdisciplinary Centre for Security, Reliability and Trust (SnT) signed a partnership agreement to apply artificial intelligence to state-of-the-art financial data processing techniques. CSSF faces the challenge to provide effective regulation with minimal response times. The cooperation uses artificial intelligence to extract data from extensive documentation submitted to the CSSF by fund managers and to verify regulatory compliance.

4 | Continued Partnership with the European Investment Bank

The European Investment Bank (EIB) and the University of Luxembourg have renewed their cooperation agreement. It covers areas including research cooperation such as common research projects; teaching cooperation in the form of courses at the EIB and seminars at the University; cooperation in training and the organisation of work experience placements.





5 | Innovative Research on Parkinson's Disease

The University's Luxembourg Centre for Systems Biomedicine (LCSB) joined the health research area of the European Institute of Innovation & Technology (EIT Health). With their outstanding know-how in Parkinson's research, the LCSB supports the technology company Phillips and the start-up company Portabilis in the development of a sensor designed to recognise an acute risk of falling in Parkinson's patients. The sensor would register the risk early enough to warn the patient, prevent injury and at the same time call for help.

6 | Ripple Blockchain Research on

Micropayments

The University of Luxembourg participates in the University Blockchain Research Initiative. It is a multi-year, multi-million-euro research programme funded by Ripple, a provider of leading enterprise blockchain solutions for global payments. Ripple's funding supports research to develop the network communications necessary for micropayments, which have the potential to change the way people consume content on the internet. Micropayments allow payments as users consume, using tiny fractions of a cent.

7 | Partnership with NVIDIA Boosts Research in Artificial Intelligence (AI)

Luxembourg is the first European country to launch an Al partnership with NVIDIA, a global pioneer in Al technology and GPU computing. A team works on joint projects, with its six members coming from NVIDIA, the University of Luxembourg's HPC Team; Luxembourg Centre for Systems Biomedicine (LCSB); Interdisciplinary Centre for Security, Reliability and Trust (SnT); and the Luxembourg Institute for Science and Technology (LIST). Enabled by the government's "Digital Luxembourg" initiative, the joint Al laboratory will encourage research in diverse fields such as finance, healthcare and space resources research.

8 | Making Train Journeys More Enjoyable

The Human-Computer Interaction group recently launched a public-private partnership with CFL (Chemins de Fer Luxembourgeois, the Luxembourg rail company) to support their efforts towards becoming a 100% customercentric service provider. Positioned at the intersection of social sciences and digital communication, the researchers will investigate the needs of travellers and develop as well as validate communication and information solutions to enhance user experience on journeys.

9 | SnT at the Heart of EU Cybersecurity Push

The European Commission launched four Cybersecurity Competence Networks - an initiative to accelerate cybersecurity research by drawing together Europe's leading experts. The Interdisciplinary Centre for Security, Reliability and Trust contributes experts to three of the four networks. They work on resilient systems for the Internet of Things (IoT), biomedical data protection, automated detection and fixing of Android app vulnerabilities, big data, and blockchain based distributed systems. These networks will shape Europe's approach to cybersecurity research, development and innovation for years to come. The University's involvement puts Luxembourg in an exciting position at the heart of EU's cybersecurity efforts.

10 | Towards Optimising Luxembourg's School Monitoring System

The Luxembourg Centre for Educational Testing – LUCET – is commissioned to develop Luxembourg's school monitoring programme "Epreuves standardisées" to record the pupils' academic competences, motivation to learn and attitude towards school. LUCET also publishes the Education Report for Luxembourg every three years which describes the national education system in its entirety and takes an analytical look at the opportunities and challenges it faces.

LUCET LUXEMBOURG CENTRE FOR EDUCATIONAL TESTING



Bridging the Gap Between Academia and Industry

The promotion of research-based spin-offs – taking **scientific results** from concept to market – is one of the instruments for bridging the gap between the academic world and the industry. A total of nine spin-offs have been incepted at the University of Luxembourg since 2006, six of which are operational and **evolving successfully.**

Incubating Innovative Ideas

The University of Luxembourg Incubator is the home for innovative ideas and start-ups emerging out of the University. Created in 2017, the Incubator has rapidly become the one-stop shop for entrepreneurial training, courses, support, mentoring as well as a host to 20+ companies created by the University students, researchers, staff and alumni. Located in the heart of Belval, the Incubator is a house of ideas. Since its inception, the Incubator has channeled more than 1,000 participants through its different initiatives. It has hosted more than 200 highly qualified mentors from around the world and supported more than 60 start-up ideas. The Incubator offers a wide range of initiatives to foster entrepreneurial thinking, including the popular workshop "Ideation Camp," the pitch competition "Falling Walls Lab" or the Venture Mentoring Service.

The Incubator's Venture Mentoring Service (VMS) addresses a need highlighted by students, staff and researchers. Promising university start-ups require great investment in terms of coaching to facilitate the smooth transfer of scientific knowledge and ideas into societal and commercial use. Three to five dedicated mentors, high-level professionals in their fields, join the start-up teams on a pro bono basis and provide support. The regular meetings of mentors and mentees challenge the entrepreneurs to study areas that are new to them and crucial to their business. The mentors also provide valuable contacts since they come with a strong network, which they are happy to share. The VMS is a sister programme of the prestigious MIT Venture Mentoring Service



Providing your expertise to mentees in order to help them consolidate their ideas and avoiding major pitfalls is not only a one-way experience. It helps the mentor to discover and explore new entrepreneurial mindsets and enhance his/her knowledge in this and other fields. This win-win situation is a true asset for the Luxembourgish ecosystem (of future entrepreneurs)."

- Sébastien WIERTZ, General Manager Paul Wurth InCub

A University Spin-Off for Personalised Metabolic Health

NIUM, founded in May 2019, develops software to predict how each individual responds to different foods or diets. It provides personalised dietary recommendations based on an individual's unique metabolism.

The ambition is to use personalised nutrition as a tool to prevent and treat medical conditions. NIUM provides research support for food companies, analysing clinical data to give insights into the metabolic effects of food products. It also works on offering a solution for healthcare providers to treat and prevent diet-related diseases.

"Starting the company has been a whole new experience. It has been very enriching personally, because a whole set of skills needs to be developed, which are not important as a researcher, but essential for managing a company. Fortunately, I have had plenty of support from the University of Luxembourg Incubator and in particular from Dr Adam Selamnia, an e-health entrepreneur who joined the project from the University side to accelerate



our scientific and commercial development. This incredibly supportive environment has been a key factor in building NIUM," says Alberto Noronha, founder and CEO of NIUM.

NIUM was created with the help of a Luxembourg National Research Fund (FNR) Proof-of-Concept grant of 400,000 euros, and was one of the winners of the October 2019 Fit4Start competition, an acceleration programme dedicated to high potential start-ups.



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Dr Aida Nazarikhorram and Dr Pouyan Ziafati

Robots Teach Social Skills to Children with Autism

In 2016, Dr Aida Nazarikhorram and Dr Pouyan Ziafati decided to bring their different backgrounds (medical doctor and computer scientist) together and founded LuxAl – a spin-off of the University of Luxembourg. Their idea was to offer a user-friendly robot for children with autism, which healthcare professionals as well as non-professionals can easily operate. Ever since producing a viable prototype during Ziafati's doctoral research project, LuxAl has worked on further optimising the solution. In September 2019, the first QTrobot, a 60cm humanoid robot, was sold.

By now, the spin-off has gone global. Customers from Europe, Australia, the Middle East, the US and Canada buy the humanoid robotic helpers to complement therapy sessions. The robot performs simplified facial expressions and body movements. Thereby children learn what emotions are, how to recognise and to express them. The robot can also tell stories and play games.

The support of the University of Luxembourg was critical for the development of our product and company. Through the research done at the University, I developed my research focused on programming cognitive robotics, which later turned into a core value for LuxAl. We always regard the University as a key research collaborator for developing new ideas and new products."

– Dr Pouyan Ziafati



Donations Make a Difference

The University's central fundraising office was created in November 2018. Its goal is to raise donations to finance its research and students. In the short time since its inception, the office has gained dozens of new donors including individuals, companies, foundations and service clubs. In 2019, all faculties and interdisciplinary centres have benefited from these donations. "The University of Luxembourg has received millions of euros for its research from private donors since the fundraising office was created. However, there is also a growing trend for donors to support students through the creation of scholarships, which now allows the University of Luxembourg to compete with universities worldwide by attracting the best international students," says Philippe Lamesch, Head of Fundraising.

Lions Clubs Luxembourg Support Refugee Students

Together with the University of Luxembourg, Lions Clubs Luxembourg have set up an initiative to support four refugee students. Three of them are women with children.

These students have escaped war, persecution, political turbulence and other challenges, clouding their future perspectives. Leading their life, supporting their family and at the same time successfully pursuing their studies was a considerable challenge. "Our hope is to empower these courageous students to follow their dream and accompany them in building their future. We believe that their wellbeing and success will have priceless benefits for our entire community," says Alex Bernard, Lions Clubs Luxembourg.

The scholarship from the Lions Clubs Luxembourg in the amount of 27,600 euros allowed the four students to resume their studies at the University of Luxembourg. The clubs continue to raise funds, hoping to increase the budget to support even more students.

Lions Clubs Luxembourg are committed to helping underprivileged communities of the world. Promoting education is part of their mission because they believe education is one of the best strategies for shaping a better today and tomorrow.



We make a living by what we get, but we make a life by what we give."

- Winston Churchill

André Losch Fondation Contributes to University's Success

The André Losch Fondation has been a long-time supporter of the University of Luxembourg and its projects. Through its support, the foundation intends to facilitate independent scientific research in Luxembourg, in order to make it a centre of excellence at the service of common good.

The foundation has assured support for three additional University projects in 2020:

- → the "Trausch-Project" studies the life and work of Gilbert Trausch, a prominent Luxembourgish historian of the 20th century;
- → the Scienteens Lab's Physics Program, offering high school students insights into the world of modern physics;
- and the research project Modelling Rare Genetic Disorders in Zebrafish and Testing Small Molecule Compounds, which models rare genetic childhood disorders such as Zellweger Syndrome and triokinase deficiency in zebrafish and human cells. The models are then used to test drugs that can potentially help patients.

Daniela Ragni, director of the André Losch Fondation, says: "The André Losch Fondation has supported the University of Luxembourg for several years in different fields, from educational activities to scientific research in the areas of medicine and history.

The collaboration has been initiated by the founder André Losch who realised the importance and value of the University for our country from the very beginning. We recognise the achievements of the University and are proud to have been contributing to its success."



2016: André Losch (r.) presenting the key of the Parkinson's Van to Prof. Rejko Krüger in the presence of LCSB director Prof. Rudi Balling and CHL neurologist Dr René Metz.

Donations to the University of Luxembourg in 2019

By topic:

Technology	26%
Neurodegenerative Disease Research	23%
Cancer	15%
History	11%
Other Biomedical Research	10%
Scientific Outreach	8%
Student Support	5%
Other	2%

By donor type:

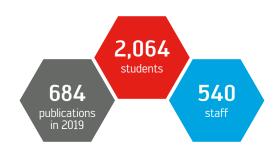
Foundations	55%
Corporate	34%
Private	5%
Service clubs	5%
Other	1%

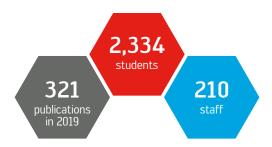


Faculty of Science, Technology and Medicine (FSTM)

The FSTM contributes multidisciplinary expertise in the fields of mathematics, physics, engineering, computer science and life sciences and medicine. The FSTM trains new generations of responsible citizens and leaders in order to better understand, explain and advance the society and the environment we live in.

With 8 Bachelor and 17 Master degrees, one doctoral school in science and engineering and lifelong learning programmes, the FSTM offers opportunities with multilingual and small - group courses, early involvement in research projects and close connections with institutions and industry. Its five departments undertake cutting-edge science and innovation in collaboration with local and international partners.





Faculty of Law, Economics and Finance (FDEF)

The FDEF features three departments – the Department of Law, the Department of Finance and the Department of Economics and Management, including the Luxembourg Centre for Logistics and Supply Chain Management (LCL).

A common theme is a resolutely European and international outlook that is rooted in the Luxembourg context through a number of strong institutional and industry partnerships.

FDEF offers 3 Bachelor and 12 Master degrees as well as lifelong learning/vocational programmes. It aims to shape critical thinkers who are able to provide solutions to the challenges of today and tomorrow in Luxembourg and beyond.

Faculty of Humanities, Education and Social Sciences (FHSE)

The FHSE covers a wide range of fields: behavioural and cognitive sciences, education and social work, geography and spatial planning, humanities and social sciences. The faculty's research and teaching focuses on social, economic, political and educational issues with the common goal of contributing to an inclusive, open and resourceful society.

The FHSE offers four Bachelor and 15 Master degrees and a doctoral school providing students with the necessary knowledge and high-qualified skills to succeed in their future career.





Interdisciplinary Centre for Security, Reliability and Trust (SnT)

The SnT conducts internationally competitive research with high relevance in information and communication technology (ICT), creating socio-economic impact. In addition to long-term research, the SnT engages in demand-driven collaborative projects with industry and the public sector. The centre has set up a Partnership Programme with a 47 members targeting strategic areas addressing challenges confronting industry and the public sector in ICT. The resulting concepts present a genuine, long-lasting competitive advantage for companies in Luxembourg and beyond.

The SnT has undergone rapid development since its launch in 2009, recruiting top scientists, launching over 80 EU and European Space Agency projects, creating a technology transfer office, protecting and licensing IP, launching four spin-offs, and creating a dynamic interdisciplinary research environment.





Luxembourg Centre for Systems Biomedicine (LCSB)

The LCSB is accelerating biomedical research by closing the gap between systems biology and medical research. In 14 research groups, collaboration between biologists, medical and computer scientists, physicists, engineers and mathematicians offers new insights into complex systems such as cells, organs and organisms. These findings are essential for understanding principal mechanisms of disease pathogenesis and for developing new tools in diagnostics and therapy.

Neurodegenerative diseases such as Parkinson's disease and the description of diseases as networks are the focus of the LCSB's research. The centre has established strategic partnerships with leading biomedical laboratories worldwide and with all major biological and medical research units in Luxembourg. The LCSB fosters collaboration with industrial partners and accelerates the translation of fundamental research results into (clinical) applications.

Luxembourg Centre for Contemporary and Digital History (C2DH)

The C²DH focuses on the history of Luxembourg and Europe in the 20th and 21st centuries. It also focuses on digital history, analysing the impact of digital technology, tools and working methods on historical research. The centre serves as a catalyst for innovative and creative scholarship and new forms of public dissemination.

Public history, outreach and societal engagement with history in Luxembourg are a core focus of the centre's approach. Under the heading Forum Z, a series of events offers a platform for the discussion of current issues related to contemporary Luxembourgish and European history. The C²DH doctoral school in Digital History and Hermeneutics is committed to training the next generation of history scholars in digital literacy.





Times Higher Education¹
World University Rankings 2020

Top 201 to 250

No. 1
worldwide for its international outlook

No. 17 worldwide in the Young University Rankings 2019

by subject:

- → among the top 90 in Computer Science
- → among the top 126-150 in Engineering & Technology
- → among the top 126-150 in Social Sciences
- → among the top 176-200 in Education
- → among the top 176-200 in Physical Sciences
- → among the top 176-200 in Psychology
- → among the top 201-250 in Business and Economics



Global NATURE index² 2019

- ↑ No. 78 of top 175 young universities³
- ↑ No. 20 of rising young universities
- ↑ No. 40 in Physical Science

Shanghai Ranking⁴ 2019:

701-800 among the top 1,000 universities worldwide

76-100 in Telecommunication Engineering

¹ The THE World University Rankings was founded in 2004 by the Times Higher Education magazine. It evaluates world-class universities against 13 separate performance indicators, covering the full range of a top university's essential areas of activity: research, interaction with business, international outlook and the teaching environment.
² based on research output.

³ under 50 years old.

⁴ The Shanghai Academic Ranking of World Universities (ARWU) aims to establish the quality of teaching, the quality of research as well as the impact of an institution by using multiple criteria. More than 1,800 universities are ranked by ARWU every year and the best 1,000 are published. It has been the official publisher of the Academic Ranking of World Universities since 2009.

Board of Governors

The **Board of Governors** decides upon the University's general policies and strategies and oversees the University's activities.

It has 13 voting members: 11 members are appointed by the government (of which two are proposed by the University Council). The head of the staff delegation and the head of the student delegation are also voting members of the Board of Governors. The Rector of the University and the government commissioner participate in a consultative capacity in meetings.



Chairman

Yves Elsen

Managing partner and CEO of HITEC

Vice-Chairman

Kristín Ingólfsdóttir

Professor and former Rector at the University of Iceland

Members

Yvonne Flour

Professor and former Vice-Rector of Université Paris I Pantheon Sorbonne

Michel Goedert

Programme leader at Medical Research Council Laboratory of Molecular Biology in Cambridge, Honorary professor of University of Cambridge

Gérard Hoffmann

Chairman and CEO of Proximus Luxembourg

Members (continued)

Paul Lesch

Director at the Centre national de l'audiovisuel

Claudine Moulin

Professor at the University of Trier

Virginie Mucciante

Head of the staff delegation

Anke Müßig

Professor at the University of Luxembourg

Georges Steffgen

Professor at the University of Luxembourg

Jeannot Trampert

Professor at the University of Utrecht

Sandra Visscher

Director of UNICEF Luxembourg committee

Oleksii Domin

Head of the student delegation

Non-voting participants

Stéphane Pallage

Léon Diederich

Government Commissioner

Secretary General

Massimo Malvetti

Secretary General

Anne Christophe

Deputy Secretary General

University Council

The **University Council** assists the Rector in the organisation of teaching and research activities, decides on the orientation of study programmes and issues opinions on internal regulations, appointments of rectorate members, the four-year plan, the budget and other strategic decisions.

President

Paul Heuschling

Voting Members

Sam Bernard

Tegawendé François D Assise Bissyande

Sami Bouraoui

Pascal Bouvry

Audrey Collard

Elena Danescu

Antoine Fischbach

Anne Grünewald

Jacques Klein

Anke Müßig

Léa Neveux

Voting Members (continued)

Andreia Pinto Coelho da Costa

Christoph Purschke

Elisabeth Schaffner-Reckinger

Ariane Hélène Marie Scheffer

Jang Schiltz

Janine Silga

Adolfo Sommarribas

Georges Steffgen

Véronique Weber

Advisory Members

Rudi Balling Andreas Fickers Jens Gerkrath

Advisory Members (continued)

Jens Kreisel

Catherine Léglu

Katalin Ligeti

Massimo Malvetti

Georg Mein

Erica Monfardini

Björn Ottersten

Stéphane Pallage

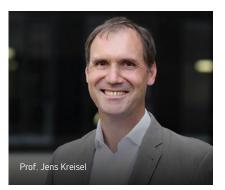
Jean-Marc Schlenker

Tonie van Dam

Skerdilajda Zanaj

Joanna West

Key developments in 2019



1 | University refines its digital strategy

The rise of the digital world comes with challenges and opportunities. In order to strengthen its positioning in the context of various national digital initiatives and major international trends, the University has launched an ambitious initiative to refine its digital strategy. The project was implemented over the course of five months by a working group representing the different faculties and research centres of the University and chaired by Prof. Jens Kreisel, the Vice-Rector for Research. The conclusions of the digital strategy report have had a significant impact on the mid-term review of the four-year plan established between the University and the Luxembourgish government. A major portion of the additional funding made available by the government is related to projects identified by the digital strategy conclusion report.

The report identifies areas for projects and investments in alignment with the University's missions in research, teaching and learning as well as societal, economic and cultural impact, and in line with Luxembourg's ambitions to be among the leaders in digitalisation worldwide.

The digital strategy envisions University-wide collaboration in projects related to four major interconnected strategic themes: digital literacy, digital research, responsible digitalisation and digital administration. By the end of 2019, a number of projects had already been launched: the inception of a Centre for Digital Ethics to monitor and close the gap between ethics and digital technologies; Digitally Literate Students, aiming to make digital literacy an integral element of the educational profile of each UL student; and the Luxembourg Time Machine, creating a digital resource to travel through time in Luxembourg. The additional funding made available through the mid-term review, will enable the starting of additional priority projects such as an Open Science Cloud or the reinforcement of University's capabilities in High Performance Computing and Data Science.



2 | Catherine Léglu New Vice-Rector for

Vice-Rector for Academic Affairs of the University

of Luxembourg in September 2019, succeeding

Prof. Romain Martin. She is in charge of Bachelor and Master programmes, lifelong learning and all

Prof. Catherine Léglu has been appointed

aspects related to student life.

Academic Affairs

3 | Denis Scuto Appointed Vice-Director of the C²DH

Associate professor Denis Scuto was appointed Vice-Director of the Luxembourg Centre for Contemporary and Digital History (C²DH) and head of the research unit on Contemporary History of Luxembourg. He studied history at the Centre Universitaire de Luxembourg and the Université Libre de Bruxelles and is currently associate professor for Contemporary History of Luxembourg at the University of Luxembourg.



Prof. Ulf von Lilienfeld-Toal

5 | New Head of the Department of Finance

Prof. Ulf von Lilienfeld-Toal was appointed head of the Department of Finance at the Faculty of Law, Economics and Finance. His main priority is to raise visibility of the department and strengthen the cooperation with external stakeholders.



6 | Stefanie Knill Appointed New Head of SEVE

Stefanie Knill was appointed acting head of the Student Department (Service des Études et de la Vie Étudiante - SEVE) in April 2019. She was formally appointed head of the Department in early 2020.



4 | 10th Anniversaries of SnT and LCSB

On 4 June 2019, the Interdisciplinary Centre for Security, Reliability and Trust (SnT) celebrated its 10th anniversary. In 10 years, the centre has developed from a small start-up with a couple of employees into a research centre with around 300 staff members of more than 40 different nationalities. Since its foundation, the SnT has participated in more than 70 major EU research projects; it maintains partnerships with 43 industrial companies; it has generated 4 spin-offs, registered 35 patents and holds 14 active licenses. Since 2009, SnT researchers have been awarded three ERC grants and have acquired 125 million euros in external funds.

The Luxembourg Centre for Systems Biomedicine (LCSB) also celebrated its 10th anniversary and marked the event with the exhibition "Mind the Brain." This exhibition, a mixture of art and science, consisted of 10 sculptures in the shape of a giant brain displayed in the city centre of Luxembourg. For ten years, the LCSB has been connecting scientists from all over the world with different academic backgrounds, from biology to computer science, to study brain diseases. With 230 people working together in 14 research groups and participating in more than 400 collaborations, the centre has largely contributed to placing Luxembourg's biomedical research on the map and its expertise is recognised in several key areas.



Students by degree		
Bachelor	3,088	
Master	1,731	
PhD	897	
other degree*	998	
*** (;		

^{*} Vocational and lifelong learning programmes

Students by faculty		
FSTM**	2,064	
FDEF***	2,334	
FHSE***	2,243	
Competence Centre	73	



Total number of students

6,714

University **Graduates**

Graduates by degree		
2018/2019		
Total	1,364	
Bachelor	640	
Master	528	
PhD	126	
other	70	

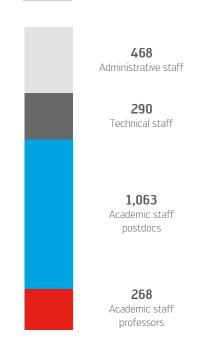
Graduates by faculty		
2018/2019		
Total	1,364	
FSTM	222	
FDEF	540	
FHSE	476	

Student **Nationalities**

Total nationalities:

129

University Staff



Publications

Authored books

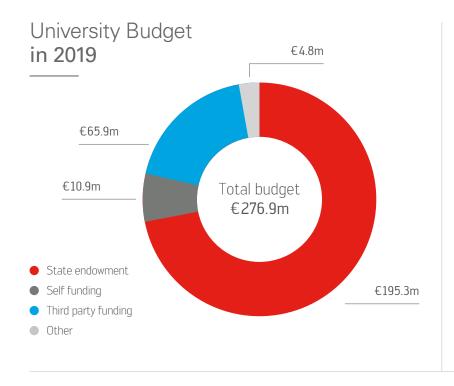
Edited books

Book chapters

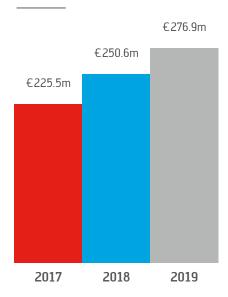
Journal papers

Conference proceedings

^{**} Faculty of Science, Technology and Medicine, *** Faculty of Law, Economics and Finance, **** Faculty of Humanities, Education and Social Sciences



Budget Evolution 2017-2019



ERC Grant Holders and Chairs at the University of Luxembourg

	ERC grant holders	
Prof. Lionel Briand (Advanced Grant)	Prof. Daniele Brida (Consolidator Grant)	Prof. Jean-Sébastien Coron (Advanced Grant)
Prof. Massimiliano Esposito (Consolidator Grant)	Prof. Josip Glaurdic (Starting Grant)	Prof. Jan Lagerwall (Consolidator Grant)
Prof. Anja Leist (Starting Grant)	Björn Ottersten (Advanced Grant & Proof of Concept)	Paul Wilmes (Consolidator Grant)
	Alexandre Tkatchenko (Consolidator Grant)	
	PEARL Chairs	
Chair in Cyber Solutions for Critical Information Infrastructures (Prof. Paulo Esteves-Veríssimo)	PayPal-FNR PEARL Chair in Digital Financial Services (Prof. Gilbert Fridgen)	Chair in Digital History Advanced Research Projects Accelerator (Prof. Sean Takats)
Chair in Functional Materials (Prof. Jens Kreisel)	Chair in Neuroscience (Prof. Rejko Krüger)	Chair on Social Inequality (Prof. Conchita D'Ambrosio and Prof. Louis Chauvel)
	Chair in Software Verification and Validation (Prof. Lionel Briand)	
	ERA Chair	

Prof. Yannick Baraud (Mathematical Statistics and Data Science)

Chairs in Partnership		
ATOZ Chair for European and International	SES Chair in Satellite Communications and	ADA Chair in Financial Law (Inclusive Finance)
Taxation (Prof. Werner Haslehner)	Media Law (Prof. Mahulena Hoffmann)	(Prof. Dirk Zetzsche)
ArcelorMittal Chair of Steel and Façade	Chaire de recherche en études	UNESCO Chair in Human Rights
Engineering (Prof. Christoph Odenbreit)	parlementaires (Prof. Philippe Poirier)	(Prof. Robert Harmsen)





Faculty/IC	Responsible/PI within Unilu	Project acronym	Role of Unilu
FSTM	LAGERWALL Jan	VALIDATE	Coordinator
FDEF	RATTI Luca	WorkYP	Coordinator
FHSE	NIENABER Birte	MIMY	Coordinator
FHSE	NIENABER Birte	CONDISOBS	Coordinator
SnT	VOLP Marcus	ADMORPH	Partner
SnT	BARRERA Olga	MetaBioMec	Coordinator
SnT	STATE Radu	TOKEN	Partner
SnT	BOUVRY Pascal	PRACE-6IP	Partner
LCSB	SCHNEIDER Reinhard	ELIXIR-CONVERGE	Partner
LCSB	SCHNEIDER Reinhard	ImmUniverse	Partner
LCSB	SCHNEIDER Reinhard	imSAVAR	Partner
LCSB	GLAAB Enrico	PERMIT	Partner
LCSB	SKUPIN Alexandre	TranSYS	Partner
LCSB	WILMES Paul	ExpoBiome	Coordinator
LCSB	SCHNEIDER Reinhard	MIRIADE	Partner
C²DH	WIENEKE Lars	OPERAS-P	Partner

FNR **Projects**

Faculty/IC	Responsible/PI within Unilu	Project acronym	Role of Unilu
FSTM	WIRTZ Ludger	ACCEPT	Partner/coordinator
FSTM	MAAS Stefan	D-DAB	Partner/coordinator
FSTM	TKATCHENKO Alexandre	QUANTPhonon	Partner/coordinator
FSTM	REDINGER Alex	TINPERO	Partner/coordinator
FSTM	TEFERLE Felix Norman	IBG-4SC	Coordinator
FSTM	PETERS Bernhard	AdMuF	Coordinator
FSTM	SENGUPTA Anupam	MicroSTUFF	Coordinator
FSTM	TKATCHENKO Alexandre	TFPUOPMI	Coordinator
FSTM	REDINGER Alex	2D_defects	Coordinator
FSTM	ABANKWA Daniel	DflexBio	Coordinator
FSTM	TEHEUX Bruno	Congrès MATh.en.JEANS2020	Coordinator
FSTM	WIRTZ Ludger	35th European Conference on Surface Science (ECOSS 35)	Coordinator
FSTM	LEYER Stephan	Ignition	Coordinator
FSTM	VITI Francesco	Maas4All	Coordinator
FSTM	BALLER Jörg	EMDD	Coordinator
FSTM	BEEX Lars	ROPETEST	Coordinator
FSTM	KORONAKI Eleni	HybridSimCVD	Coordinator
FSTM	REHOR Martin	RIFLE	Partner
FSTM	MEDINA PESCHIUTTA Alexander	RHAMEP	Coordinator
FSTM	ZARE Mohammed	SIPFLU	Partner
FSTM	TKATCHENKO Alexandre	ENAML	Coordinator
FSTM	KREISEL Jens	C οφπ2	Coordinator
FSTM	VAN DER TORRE Leon	DLAI	Coordinator

Faculty/IC	Responsible/PI within Unilu	Project acronym	Role of Unilu
FSTM	ABANKWA Daniel	PolaRAS2	Coordinator
FSTM	ESPOSITO Massimiliano	NTEC	Coordinator
FSTM	ESTUPINAN DONOSO Alvaro Antonio	TuCaNG	Coordinator
FSTM	IDRISOV Edvin	HYBMES	Coordinator
FSTM	MACCAFERRI Nicolo	ULTRON	Coordinator
FSTM	POLTAVSKYI Igor	QML-FLEX	Coordinator
FSTM	SENGUPTA Anupam	TOPOFLUME	Coordinator
FSTM	PARLIER Hugo	SOUND	Coordinator
FSTM	COPERTARO Edoardo	SHIM	Coordinator
FSTM	KOBOU NGANI Patrick	ActPoSS	Coordinator
FSTM	ESPOSITO Massimiliano	NTEC	Coordinator
FDEF	PRÜM André	IFBFIPAIFR	Coordinator
FDEF	STEFANOVA Denitsa	Finance Seminar of Luxembourg School of Finance (2019-2020)	Coordinator
FDEF	RATTI Luca	Solidarity and the European Social Model	Coordinator
FDEF	LÖHNDORF Nils	IntuitBuy	Coordinator
FDEF	BLOUNT Percy	CSD	Partner
FHSE	VÖGELE Claus	BODILLUSION	Coordinator
FHSE	WAGNER Melanie	LPPLEBIS	Coordinator
FHSE	BINSFELD Andrea	LEGIO XXII	Coordinator
FHSE	MARGUE Michel	BOSAMEN	Coordinator
FHSE	NIENABER Birte	EUMMEP	Coordinator
FHSE	GREIFF Samuel	The 12th Conference of the International Test Commission	Coordinator
FHSE	NIENABER Birte	IMISCOE 2020 Conference: "Crossing borders, connecting cultures"	Coordinator
FHSE	ROELENS Nathalie	12th International IAWIS Conference "Water and Sea in Word and Image"	Coordinator
FHSE	D'AMBROSIO Conchita	ALAC	Coordinator
FHSE	HOWARTH David	BEEBS	Coordinator
FHSE	KIRSCH Claudine	COMPARE	Coordinator
FHSE	PINTO COELHO DA COSTA Andreia	ASA	Coordinator
FHSE	SCHULZ Christian	AltFin	Coordinator
FHSE	SONNLEITNER Philipp	FAIR-ITEMS	Coordinator
FHSE	VAN RINSFELD Amandine	MultiMathBrain	Coordinator
FHSE	FISCHBACH Antoine	MaGrid	Coordinator
SnT	HU Hailong	PriML	Coordinator
SnT	RYAN Peter	ESORICS 2019 - The 24th European Symposium on Research in Computer Security	Coordinator
SnT	MAUW Sjouke	PrivDA	Coordinator
SnT	KLEIN Jacques	ExLiFT	Coordinator
SnT	SABETZADEH Mehrdad	ARTAG0	Coordinator
SnT	CHATZINOTAS Symeon	DISBuS	Coordinator
SnT	LE TRAON Yves	STABILITY4.0	Coordinator
SnT	FRANK Raphael	CDI	Coordinator
SnT	VOOS Holger	AuFoSat	Coordinator
SnT	LESAGE Laurent	DAFI	Coordinator
SnT	JUBBA HONNAIAH Puneeth	REGAL	Coordinator
SnT	BELTRAO Gabriel Tedgue	MIDIA	Coordinator

Faculty/IC	Responsible/PI within Unilu	Project acronym	Role of Unilu
SnT	LORENTZ Joe	DETECT	Partner
SnT	KLEIN Jacques	Sleepless@Seattle	Coordinator
SnT	BIRYUKOV Alexei	APLICA	Coordinator
SnT	CHATZINOTAS Symeon	ASWELL	Coordinator
SnT	CORDY Maxime	BEEHIVE	Coordinator
SnT	VERISSIMO Paulo	ByzRT	Coordinator
SnT	GLUMAC Anina	DATA4WIND	Coordinator
SnT	IANNILLO Antonio Ken	STARTS	Coordinator
SnT	LAGUNAS Eva	FlexSat	Coordinator
SnT	OTTERSTEN Björn	5G-Sky	Coordinator
SnT	PAPADAKIS Mike	RASoRS	Coordinator
SnT	RYAN Peter	EquiVox	Coordinator
SnT	FALK Eric	FIBer	Coordinator
SnT	FIZ PONTIVEROS Beltran Borja	DigitalUs	Coordinator
SnT	GHORBEL Enjie	REST	Coordinator
SnT	LENZINI Gabriele	NOFAKES	Coordinator
SnT	NORVILL Robert	KYC-DSB	Coordinator
SnT	STATE Radu	NIRW	Coordinator
SnT	BISSYANDE Tegawendé François d Assise	MoNeyBox	Coordinator
SnT	FRANK Raphaël	DigitalUs	Coordinator
SnT	FRIDGEN Gilbert	DFS	coordinator
LCSB	SCHNEIDER Reinhard	PREADAPT	Partner/coordinator
LCSB	SCHNEIDER Reinhard	HeartMed	Partner/coordinator
LCSB	WILMES Paul	4th international metaproteomics symposium	Coordinator
LCSB	SKUPIN Alexander	5th International Systems Biomedicine Symposium - "Systems neuroscience: bridging the scales of the brain"	Coordinator
LCSB	SCHWAMBORN Jens	Brain0id	Coordinator
LCSB	WILMES Paul	GoMiCo	Coordinator
LCSB	GONCALVES Jorge	MoveSence Al	Partner
LCSB	SCHWAMBORN Jens	spacePD	Coordinator
LCSB	Bobbili Dheeray Reddy	GenXcess	Partner
LCSB	KRÜGER Rejko	PD-BIOMARK	Coordinator
LCSB	AALTO Atte	DynCell	Coordinator
LCSB	BOLOGNIN Silvia	IDeM	Coordinator
LCSB	DEL SOL MESA Antonio	MATURITY	Coordinator
LCSB	GRÜNEWALD Anne	CAMeSyn	Coordinator
LCSB	SARAIVA Claudia	axPD	Coordinator
LCSB	WILMES Paul	metaPUF	Coordinator
LCSB	GONCALVES Jorge	SYBION	Coordinator
LCSB	LINSTER Carole	HAPPY	Coordinator
SnT	CORON Jean- Sébastien	SWITECH	Partner/coordinator
SnT	MAUW Sjouke	SLANT	Partner/coordinator
C ² DH	MAJERUS Benoît	GloLux	Coordinator
C ² DH	CAUVIN Thomas	PHACS	Coordinator
C²DH	SCUTO Denis	WARLUX	Coordinator
	TALLATOR	DITADDA	Coordinator
C²DH	TAKATS Sean	DHARPA Ulstars	Coordinator

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