Not yet applied, but basic

LERU works laboriously to advance outstanding research and education across Europe through influencing EU policy and developing best practices. Here, Secretary-General Professor Kurt Deketelaere discusses the League’s involvement in developing Horizon 2020, the importance of basic research to drive innovation and its targeted efforts to combat gender inequalities.

What are the key objectives of the League of European Research Universities (LERU)?

LERU is an association of 21 leading research-intensive universities that share the values of high-quality teaching within an environment of internationally competitive research. LERU advocates education through an awareness of the frontiers of human understanding, the creation of new knowledge through basic research (which is the ultimate source of innovation in society), and the promotion of research across a broad front, in partnership with industry and society at large.

The purpose of the League is to promote these values, influence policy in Europe and develop best practices through mutual exchange of experience. LERU regularly publishes a variety of policy papers, including high-level statements, in-depth analyses and concrete recommendations for policy makers, universities, researchers and other stakeholders.

Can you offer an insight into your career? What led you to become Secretary-General of the League and what are your duties in this role?

I have been the Secretary-General of LERU since 2009. I am head of the LERU office, based in Leuven, Belgium, and the internal and external face of the League. After 20 years in academia, politics and private practice, I became attracted to the position because it combines several of my favourite activities: academic management, public affairs, European policy development and international collaboration. Furthermore, it allows me to remain an active academic: I am a professor of law at the University of Leuven, where I also studied and obtained my PhD.

I have published extensively in the field of European Union (EU) environmental, energy and climate change law. I am also the editor of several leading book series and journals in the field. In addition, I chair the Board of Directors of the Flemish Regulator for Electricity and Natural Gas (VREG) and the Flemish Environmental Damages Commission, co-chair the Malta Legal Forum on Adaptation to Climate Change and am on the board of a number of profit and non-profit organisations in Belgium.

How does the League help shape EU research policy?

LERU closely monitors the EU research and innovation policy agenda. This ranges from Horizon 2020 issues and European Research Area (ERA) priorities (gender, open access, knowledge transfer, research careers, doctoral training, research funding, etc.), to the use of personal data, transfer of social security rights, use of animals for scientific research and research integrity, to name a few. This is a very broad front to follow and tackle!

With experts from our 21 universities, we develop positions on many of these topics and try to convince the EU institutions of those positions. This happens through papers, data collection, roadmaps, meetings, seminars, conferences, press releases and social media. For many
BASIC RESEARCH: A SUCCESS STORY

In 1975, two scientists at Cambridge University, Drs César Milstein and Georges Kohler, isolated and reproduced the monoclonal antibodies that defend against foreign invaders. The process of ‘discovering’ recombinant DNA started with an accident, namely a broken test tube in the 1960s. When borrowing a culture from another bacterial strain from a colleague, the researchers discovered that these bacteria were immune to the virus with which they were trying to infect them.

Based on this phenomenon, Professor Werner Arber, a scientist from the University of Geneva, identified an enzyme that specifically cuts viral DNA into pieces. For this, Arber and his colleagues received the Nobel Prize for Physiology or Medicine in 1978. This tool revolutionised the possibilities to study biology at the molecular level and has resulted in a technology of which the current economic impact is enormous. Today, monoclonal antibodies account for one-third of all new pharmaceutical treatments, and the market for monoclonal antibody drugs is worth an estimated US $32 billion.

of these issues, we also develop best practices within the League, which can also assist other universities and non-members in their internal policy developments. Our driving force is to lead by example.

Has LERU provided valuable guidance for the European Commission (EC) on research areas such as Horizon 2020 and ERA?

LERU was closely involved in the development of the Horizon 2020 legislative package, working hard on priorities such as: administrative simplification, funding rules, social sciences and humanities, and research excellence. Many of LERU’s Horizon 2020 proposals are now embedded in the applicable rules.

We have also been very active on the ERA: we signed a Memorandum of Understanding with the EC and stimulated our members to improve, as far as needed, internal policies on research careers, doctoral training, gender, knowledge transfer and open access. For the new European Parliament and EC, we also formulated a number of fresh ERA topics that need action at EU level, including: internationalisation, research integrity, social sciences and humanities, research-education-innovation nexus, and science 2.0.

What role does basic research play in advancing science and technology and, ultimately, improving society?

Since its creation, LERU has argued for a long-term and substantial investment in basic research. Public investment in research is essential. It has a demonstrably powerful social impact, from advancing medical diagnostics and therapeutics that improve health and quality of life, to developing new technologies that are essential to Europe’s future competitiveness. In this, the role of universities and associated research institutes is fundamental. Their focus on basic science lays the foundation for discovery and innovation, and their laboratories develop the human capital that businesses need for success.

Innovation is a complex process, not a linear progression of basic science into new products. It is rare that the new knowledge created by scientific breakthroughs has immediate practical implications. Often it is accidental. That is why we prefer to speak about applied and ‘not-yet-applied’ research.

Clearly, frontier research requires patience, persistence and investment. Europe’s research-intensive universities have the unique ability to

GLOBAL COUNCIL OF RESEARCH-INTENSIVE UNIVERSITIES

Aiming to create a Global Council of Research-Intensive Universities IRUI Networks, LERU gradually intensifies its contacts with sister organisations worldwide. So far, in addition to LERU, nine RIU Networks are participating, including the: Association of American Universities, Association of East Asian Research Universities, Group of Eight Australia, RU11 Japan, Russell Group (UK), C9 China, Hong Kong 3, U15 (Germany) and U15 (Canada).

The Global Council hopes to influence the development of research-education-innovation policies worldwide, and increase research and education collaboration between the networks and their members.
BRIDGING THE GENDER GAP

The 2014 European Research Area (ERA) Progress Report highlights that while gender issues in research and innovation are receiving greater attention in policy, the move towards equality is slow and that there is great disparity among countries. LERU has been working intensively on the gender issue and has formulated several priorities for action:

LEADERSHIP, VISION AND STRATEGY

A strong commitment from each university’s leadership should underpin all gender-related actions, which should be operationalised by a gender strategy or action plan. This commitment to gender should be backed up with the necessary funding.

STRUCTURAL CHANGE

Universities need to select the right mix of measures in accordance with their institutional and regulatory situations and target these at certain career phases as needed. They can be adopted as gender-specific career development measures and gender-neutral, work-life balance measures.

TRANSPARENCY, ACCOUNTABILITY AND MONITORING

Universities should consider how to implement and ensure effective uptake of measures: recognising that successful implementation requires transparency, accountability and monitoring of gender equality.

GENDER IN RESEARCH

ERA recommends that universities should actively promote and support a gender dimension in research, taking into account the specificities of particular research fields. Bring together the three elements that are essential to ensuring Europe’s long-term competitiveness and welfare: higher education, research and innovation. But the world is not waiting for us. China’s investment in science and technology through its universities and specialist institutes is already soaring ahead. It should be made clear to the EU and its Member States that basic research that focuses on excellence needs continued and increased support!

Does the League face challenges in its efforts to influence policy and advocate for basic research? How does it overcome these issues?

The most problematic hurdle over the past few years has been convincing the EU Council of Budget Ministers that more money must be spent on research and education. This is also the reason why LERU is now spending more time and effort in lobbying at national level, through its members, in order to make sure that national budget ministers receive the correct information. Another important issue has been our position that research money can only be spent on the basis of research excellence, and not on other criteria like geographical spreading and local needs.

Despite predicting that the inclusion of impact within the UK’s 2014 Research Excellence Framework (REF) would push post-1992 institutions into the higher rankings, traditional research powers are still dominating the leading ranks. Are you surprised by these results? What are your thoughts on REF as a whole?

In general, the leading UK universities – along with the best specialist research institutions – did score most highly in the new impact element of the Framework. This should come as no surprise, since ‘real-world impact’ (in its broadest sense) flows most readily from those centres conducting cutting-edge research.

All universities can find an arena in which to have significant impact, whether at local, regional, national or international level. However, those universities with a breadth and depth of expertise are best positioned to develop and disseminate solutions to aspects of complex, systemic and global problems – the most significant sort of impact that can be achieved.

What would you say have been the League’s best achievements so far? How do you envision LERU developing in the future?

Our broad spectrum of activities and contributions to the research policy debate have established LERU’s reputation as a major stakeholder in the EU. LERU now has an important and well-respected voice in discussions about the future of Europe’s research policy. In the years to come, LERU will continue to influence policy and intensify cooperation among like-minded organisations worldwide to stress the importance of universities for research and innovation.