

# News

## National committee to advise on research and innovation policy

"Research and innovation are the motors that drive a country's evolution, economy and society in its entirety," said Minister for Research François Biltgen when announcing the creation of the Luxembourgish Higher Committee for Research and Innovation at the end of July 2008. The committee was formed to help develop a coherent and effective national policy and to advise the government on the implementation of this policy. In particular, committee members will be aiming to define Luxembourg's national research priorities and identify the steps and tools needed to achieve these goals.

Higher Committee for Research and Innovation  
[www.eco.public.lu](http://www.eco.public.lu)  
[www.mcesr.public.lu](http://www.mcesr.public.lu)

Solar Sails Materials  
[www.luxspace.lu](http://www.luxspace.lu)



By setting up the committee, Luxembourg is confirming its commitment to making research and innovation a top priority of its national policy agenda and to helping them thrive in the Grand Duchy. The committee is composed of individuals selected from the scientific, business and civic communities. Part of the idea is also that outsiders sometimes have insights that insiders miss; committee members, by taking a constructive look at research and innovation, might see unexplored opportunities and point R&D in Luxembourg in new directions. "Luxembourg can only endure if it is quick, flexible and innovative," said Minister of the Economy Jeannot Krecké, who presides over the committee along with Mr Biltgen. ♦

ENERCOM  
[www.lee.lu](http://www.lee.lu)  
[www.soil-concept.lu](http://www.soil-concept.lu)  
[www.synerco.lu](http://www.synerco.lu)

## Clear sailing ahead for Luxembourg's contribution to space research

The idea of using sails to propel spacecraft was first put forth in the 17<sup>th</sup> century, and mankind has been fascinated with the idea ever since. New breakthroughs are expected in the Grand Duchy, where a Luxembourg-led consortium recently beat out stiff competition to win the Solar Sails Materials (SSM) project from the European Space Agency to study and design solar sails and produce the required materials. "Very probably, the first European solar sail will be assembled here with 'made in Luxembourg' components," says LuxSpace Space Systems Engineer Florio Dalla Vedova.

Solar sailing uses photonic radiation pressure from the sun in much the same way as traditional sailing uses the wind; it is environmentally sound, and space agencies around the world are keen to harness its huge potential. Giant sails of tens of thousands of square metres are needed to propel spacecraft, and the sail material itself is typically an ultrathin polymer foil coated with a reflective layer on the front and an emissive layer on the back. The SSM project brings together LuxSpace as prime contractor, the Public Research Centres Gabriel Lippmann and Henri Tudor, Dupont de Nemours and partners from Belgium, France and Germany. ♦

## Waste not, want not: ENERCOM produces sustainable alternative fuel

The production of industrial and municipal sewage sludge is continuously increasing, raising the crucial question of its disposal. While the existing ways of treating sewage sludge tend to be greedy in energy consumption, the research project ENERCOM explores a concept that achieves a very high overall energy efficiency.

ENERCOM is funded by the European Union's Seventh Framework Programme for research and technological development and is run by the Luxembourgish companies

L.e.e. Sàrl and Soil-Concept S.A. in collaboration with partners from Belgium, Germany and Lithuania.

First dried through composting, the sludge is mixed with the biomass residues to constitute a blend that can then be used in three different product lines: one for composting, one for producing energy through gasification and another for manufacturing pellets. The project's most impressive achievement is that it simultaneously brings down the disposal costs of sewage sludge and greenery waste while offering a clean and energy-positive technological way to generate renewable fuels without producing CO<sub>2</sub> emissions. This innovative concept transforms the treatment of sewage sludge from something that consumes energy into something that produces it.

Although at this stage, it is not possible to heat all residential and industrial buildings with this alternative form of energy, this type of research paves the way for future developments and helps reduce the dependency on fossil fuel. To bring this innovative know-how to the market, a spin-off company by the name of Synerco Sàrl has been established in Luxembourg. ♦

## Substantial cash injection for health technologies research

In June 2008, the government of Luxembourg announced that it will be investing €140 million in health technologies research, specifically aiming to develop cutting-edge skills and expertise in molecular medicine. Molecular diagnosis is the cornerstone of personalised medicine, a relatively new approach that takes an individual's genetic and biological make-up into consideration when providing health care. Ultimately, this is expected to result in great improvements in the ability to administer the right dosage of drugs at the right time.

Three prestigious American research institutions will be working with the University of Luxembourg and the three Public Research Centres – Gabriel Lippmann, Henri Tudor and Santé – to make strides in this area of expertise. The centrepiece of the overall project will be the creation of a Luxembourg "biobank", which will be open to international cooperations and will initially



concentrate on collecting and analysing biological samples in order to support lung and colon cancer research. Funding will also go towards establishing a centre of excellence in systems biology, which will conduct research into genome sequencing and molecular fingerprinting of the body's main organs. A third area to benefit from this investment is a pilot project aiming to advance research in personalised medicine by pursuing research projects focused on developing molecular diagnostics for specific diseases. The Luxembourgish project will focus on lung cancer, a disease where the therapeutic possibilities are currently limited, and where reliable early detection tools are needed urgently. ♦

"The government of Luxembourg will be investing €140 million in health technologies research."

Health Technologies Research  
[www.eco.public.lu](http://www.eco.public.lu)  
[www.mcesr.public.lu](http://www.mcesr.public.lu)  
[www.ms.etat.lu](http://www.ms.etat.lu)

## Novelis and the Public Research Centre Gabriel Lippmann in R&D partnership

Novelis, the world leader in aluminium rolling, has its European Technology Centre based in Luxembourg and has established a long-term partnership with the Public Research Centre Gabriel Lippmann to cooperate on research and development for aluminium foil products and manufacturing processes. Set up in 2007, this collaboration is an excellent example of a public-private partnership that benefits all participants.

Aluminium – Lippmann  
[www.lippmann.lu](http://www.lippmann.lu)  
[www.novelisfoileurope.com](http://www.novelisfoileurope.com)