

CleanTech

Did you know...

The Luxembourg building Solarwind stands out as the spearhead of sustainable construction. The building is based, a world-first, on a triple environmental certification. It meets the highest sustainable development and eco-citizenship standards, and incorporates key renewable energy sources: biomass, solar, wind, geothermal and water.

Turning innovation into business

Luxembourg is home to a significant number of CleanTech companies specialised in **renewable energy, waste management, water treatment and eco-construction**. Luxembourg provides an attractive economic environment to entrepreneurs keen to add value and generate growth by optimising the use of materials, resources and energy, whilst focusing on three critical areas: the **circular economy, sustainable construction and mobility**.

6-10 minutes

Luxembourg is the test arena for a leading sustainable transportation project with Volvo. A fleet of Volvo Plug-in Hybrid buses, recharging from electricity grids via a collector installed on the roof, are being tested in Luxembourg. The plug-in buses have a large battery package, making it possible to drive quietly and free from emissions. The batteries are recharged at the bus terminus in just six to ten minutes.

100%

Differdange is one of the first towns in Europe with 100% electric buses on its network.

Leading the way in circularity

Luxembourg is gradually demonstrating its leadership in terms of circular initiatives. These range from healthy interiors to the leasing of steel and building materials substitution, with knowledge-based ICT and leasing industries driving circularity logistics and services. The commitment to circular models impacts traditional industries such as construction, manufacturing, retail and logistics as well as the tech sector in ICT and 3D manufacturing.

In line with the strategic study "Third Industrial Revolution" of the American economist Jeremy Rifkin, the transition to a circular economy is an economic priority for Luxembourg. Also, leading architect and co-creator of the philosophy of "Cradle to Cradle", William McDonough, will accompany the development of 3 large construction projects at Kirchberg.

Expo 2020 Dubai

The theme chosen for the Luxembourg Pavilion at Expo 2020 in Dubai is "Resourceful Luxembourg". Luxembourg being a smart nation has always connected human, natural, technical, industrial and financial resources in order to shape its future.

International success stories

- **Apateq:** Winner of multiple international awards, Apateq is a clean-tech company recognised for high-end wastewater treatment technologies. For example, Apateq has developed cost efficient scrub water treatment technologies for installation in harbours and on board large ships to treat contaminated water resulting from the washing of exhaust gases, generated during combustion in the engines of large ships.
- **Carbon process and plant engineering:** specialist technology provider of air pollution control processes (turnkey plants) for the removal of sulphur oxides, nitrogen oxides and carbon dioxides.
- **Solartec:** manufacturer of decentralised independent power systems based on renewable energies.

Sustainable construction for the future

Sustainable development is one of the major challenges for the construction sector and Neobuild is the first innovation cluster in sustainable construction that set up its own modular building to **test new technologies under real life conditions**.

The company's 2,200 m² net-zero energy headquarters constructed with over 100 building materials, products and systems, are also used as a laboratory to promote innovation in the construction sector and to coach innovative construction start-ups and projects. Neobuild is a public-private partnership supported by the Ministry of Economy.

1st

In Luxembourg, we have developed the first 100% bio-based paint for interiors. Verdello® is made from tall oil and is a colour of vegetable origin. The product is Cradle to Cradle certified.