



# Bioeconomy Factsheet Luxembourg

November 2018

This factsheet gives an overview of the Luxembourg's bioeconomy innovation technology system. It includes the key government interventions, research institutes, networks and finance instruments in Luxembourg.



## BIOECONOMY GOVERNANCE

Luxembourg's key government bodies in the bioeconomy are the:

- Ministry of Sustainable Development and Infrastructure
- Ministry of the Economy

## FINANCIERS

Not specific to the bioeconomy:

### National Research Fund (FNR)

- Research projects, PhDs and post-docs, public-private partnerships, etc.

**European Investment Bank (EIB)** based in Luxembourg and active in 160 countries, the EIB provides finance for projects supporting innovation, SMEs, infrastructure and climate action.

### Luxembourg Ministry of the Economy

- via grants
- Research-development aid (25-80%)
  - Feasibility study aid (50-70%)
  - Innovation aid for SMEs (50-100%)
  - Aid for young innovative enterprises (up to €800,000 or €1,200,000)
  - Aid for process and organisational innovation (15-50%)
  - Investment aid for research infrastructures (50%)
  - Investment aid for innovation clusters (50% or 55%)

### Société Nationale de Crédit et d'Investissement

- via loans:
- Direct R&D loan (up to €250,000)
  - Indirect development loans (up to €10,000,000)
  - Loans for innovative start-ups (€1,500,000)

## LEGISLATION

Luxembourg's first national climate policy objectives were adopted in 1990 and have since been tightened and developed with a strong influence from EU directives. A series of action plans have been introduced to make Luxembourg cleaner and more sustainable.

As well as EU legislation and initiatives, Luxembourg's own laws are implemented through the adoption of regulations. Regulations of note for the bioeconomy are the:

- Grand Ducal regulation concerning the sustainable use of biofuels (Memorial A781 01/09/2017)
- Grand Ducal regulation related to the production of electricity based on renewable resources (Memorial A154 08/08/2014)
- Grand Ducal regulation related to the remuneration and commercialisation of biogas. (Memorial A34 15/03/2016)

## OPEN ACCESS PILOT PLANTS

Luxembourg has no open access pilot plants.

## BIOECONOMY STRATEGIES AND ROADMAPS

Luxembourg doesn't have any national bioeconomy-specific strategies or roadmaps, although some of their action plans relate to the bioeconomy.

- National Action Plan on Renewable Energy (2010)
- 2<sup>nd</sup> Action Plan for Reducing CO<sub>2</sub> Emissions
- National Plan for Smart, Sustainable and Inclusive Growth (2017)

In 2018 Luxembourg intends to adopt the 3<sup>rd</sup> National Climate Plan which will cover a range of sectors including, the economy, energy supply, and agriculture and nutrition.

## NETWORKS AND CLUSTERS INDUSTRY ASSOCIATIONS

### Innovation clusters (managed by Luxinnovation):

- Luxembourg EcoInnovation Cluster
- Luxembourg Wood Cluster
- Luxembourg Materials & Manufacturing Cluster

### Associations and other clusters:

- **Biogasvereenegung** a.s.b.l. (biogas association)
- **Neobuild** (sustainable construction cluster)

## UNIVERSITY CENTRES AND RESEARCH

Environmental Research and Innovation (**ERIN**) department, Luxembourg Institute of Technology (**LIST**) (formerly Henri Tudor and Gabriel Lippmann research centres)

Research Unit in Engineering Sciences (**RUES**), University of Luxembourg

National Composite Centre Luxembourg, **LIST**





## INDUSTRY STAKEHOLDERS

Energy and waste management are the main sectors that contribute to the bioeconomy in Luxembourg. Key players are **Luxenergie S.A./ KIWATT** (biomass combustion and gasification), **Boson Energy** (gasification), **SuperDrecksKëscht** (publicly financed waste management), **Ama Mundu Technologies** (digestate processing), **Minett Kompost**, **Naturgas Kielen**, **Soil Concept** and **L.E.E. s.à.r.l.** (biogas).

There is an emerging sector for bio-based construction materials, including **Willy Nature s.à.r.l.** (natural construction materials retailer), **Tarkett S.A.** (manufacturer of some bio-based flooring), **Peintures Robin S.A.** (manufacturer of “Verdello” bio-based paint), and **Miscanthus.lu a.s.b.l.** (fibre-based materials).

Luxembourg has a significant polymer industry (including Dupont Teijin Films) and although few work on bio-based polymers some companies including **INNOmaterials Luxembourg** do.

Luxembourg has a large industrial sector, and some key players are ArcelorMittal (steel), **Goodyear** (tyres) and Dupont Teijin Films (polyester). Goodyear test tyres containing bio-based components in their **Goodyear Innovation Centre** in Luxembourg, and although ArcelorMittal and Dupont are active in the bioeconomy in other countries, they are not yet active in Luxembourg.



### BIOBASE4SME

BioBase4SME is a strong network of leading bio-economy experts. The project offers innovation support services to North-West European SMEs and start-ups active in the bio-economy.

The project supports SMEs on their way to getting industrial proof of concept and a realistic business plan. Both are essential to convince any type of investor or client.

This factsheet was produced by the BioBase4SME partners, more factsheets and information on the project can be found here: <http://www.nweurope.eu/BioBase4SME>

BioBase4SME is co-funded 60% by the Interreg North-West Europe Programme. Interreg NWE fosters transnational cooperation to make Northwest Europe a key economic player and an attractive place to work and live, with high levels of innovation, sustainability and cohesion.

BioBase4SME partners are:



BioBase4SME is additionally co-funded by:

