

Energyville positioning statement

Elements:

(within the framework of) making the EU CO₂-free by 2050;

- **unifying efforts in research, development and business development;**
- **being a top European centre: EIT awarded;**
- **support Flemish industry in becoming a major European and world player in this field;**
- **construction of smart energy grids (where all renewable/sustainable energy sources receive a worthy place);**
- **making Flanders into a 'green cities' region by 2020.**

At Energyville, energy research, energy development and business development go hand in hand: from theory to practice. We are building smart energy grids and want to make Flanders a 'green cities' region by 2020. We would thus like to occupy a leading position in Europe, contribute to making the EU CO₂-free by 2050 and would like to develop new sustainable energy activities.

Energyville is an initiative by KULeuven and VITO and is recognised by the Flemish government as the leading energy project in the field of research and development in Flanders. The city of Genk is an active partner in Energyville and is developing the entire site in collaboration with LRM, which is also investigating the infrastructure realisation possibilities for Energyville.

‘Waterschei is a source of energy’

‘Energyville’ was established at the former mine site in Waterschei–Genk, under the initiative of KULeuven and VITO. Energyville combines the energy expertise of these two Flemish research institutions at one location under one coherent strategy.

Flemish minister of Innovation, **Ingrid Lieten**: *“Initially, around 200 Flemish researchers will work together at this centre, though this number will increase in the future. By setting up Energyville,*



Flanders wants to occupy a strategic position in Europe in the field of advanced energy research and related business development. Flanders has become one of the front runners in Europe, thanks to the Energyville sub-project being recognised as a European innovation hotspot for sustainable energy use in buildings and cities. This makes Flanders very appealing to foreign companies (and investors) and researchers.

“Thus Energyville has two clear objectives. The first objective is to become a leading European centre for energy research. And the second is to create jobs for the highly educated and lesser educated workforce. Thus I think it is clear that the government plays a crucial role; in this case, it acts like the oil in Flanders’ innovation engine.”

Ronnie Belmans, professor and ESAT division manager – Electrical energy, KULeuven states: *“This must result in the development of new export-based economic activities in this sector in Flanders, and must generate instruments that support a sustainable living environment. Energyville will specialise in research into Green cities featuring smart grids, and will start in the summer of 2012.”*

An answer to important social and economic challenges

The project by KULeuven and VITO **homes in on two major challenges** – particularly on the ecological front. The European Union has decided to reduce CO₂-emissions by 20% by 2020 and to increase the share of renewable energy (as a proportion of total energy use) by 20%. By 2050, the EU wants to realise a CO₂-neutral energy supply. In order to realise these objectives, it will be necessary to develop new insights and new techniques and systems in a variety of domains.

The ecological challenge also presents a huge economic opportunity. New companies will be established to realise these climate objectives, with activities being based on new production processes, products, services, management systems, ... For Flanders it is of great importance to claim a substantial part of this economic market for new energy systems. In order to realise this, work must first be carried out to develop these new technologies, systems and services.

The project by KULeuven and VITO is at the cutting edge of technological development and business development: it is aimed at developing new insights and technologies, and testing them via major business pilot projects in collaboration with companies. Businesses can use pilot projects to market the developed techniques during the next phase. Such pilot projects are essential in establishing credibility in an export-oriented industry.

Energyville enhances its strategic position by establishing important connections: at policy level, at knowledge level and at technology transfer level, whereby the developments are continuously evaluated against the European reference framework and thus achieve international standards.

*"The Construction of Energyville is a very positive evolution in Flanders", states **Gerrit Jan Schaeffer, director of***

Energy at VITO. *The initiative supports FiA (Flanders in Action) in making Flanders a single green city region by 2020. The aim is to combine our efforts in order to bring the already advanced energy research in Flanders to where it belongs: in the European elite. This has been underlined by the award of co-location for KIC Sustainable Energy within the EIT. Energyville will prepare Flanders for the coming period, in which more and more sustainable energy will be generated and used. This can only succeed if it is facilitated by the expansion of a 'smart grid'. That is why VITO and KULeuven are working intensively with local, regional and international partners to*

make Energyville an international success by integrating research, development, training and innovative industrial activities."



Strategic innovation collaboration between Flemish knowledge institutes

To be considered for recognition as an energy research lab at European level and in order to successfully realise large demonstration projects at Flemish level, it is necessary to optimise the research landscape in terms of renewable energy and smart grids. This involves two important elements: firstly, combining efforts so that enough critical matter is developed and, secondly, organising a link between the various steps in research, development and business implementation.

Energyville bundles VITO's research capacities in the field of energy research and business development, with the capacities of KULeuven and UHasselt. At the start of the project, around 200 researchers will be employed in Waterschei. Further info: www.esat.kuleuven.be/electa - www.mech.kuleuven.be/tme - www.bwk.kuleuven.be en www.vito.be (also www.powermatcher.net).

By combining efforts, an integral development process can be followed at one location, which involves fundamental research, research into industrial application possibilities, research for real companies and the development of demonstration projects as a basis for industrial implementation and marketing. The collaboration greatly enhances technological transfer from knowledge institutes to businesses. Conversely, the presence of industrial development at the same site can result in new work areas for fundamental work.

Energyville also involves establishing the Flemish Smart grids platform, which is a meeting place between research & development and Flemish industry in the field of smart energy grids. Both VOKA and Agoria participate in this platform. Energyville will also focus on network problems concerning electric vehicles.

Due to this bundling of efforts and the new organisation model, Energyville will be the focal point in Flemish energy research. Energyville is the central energy research hub in Flanders and is where projects with other partners can also be started.

The sector for renewable energy and smart energy grids (or smart grids) is a very broad domain. Energyville can only operate at European level by focussing on the correct elements, which will allow it to lay the foundations for developing activities within carefully selected domains. Energyville has opted to focus on "green cities", which includes energy supply for mobility. Such green city regions will then form the basis for future economic activity. More and more developments are pointing in this direction, as indicated by the growth of these city regions in Europe (Flanders, Randstad Holland, Ruhr region, Paris, London, Milan,...) and the rest of the world (Shanghai, Mexico, New York, Los Angeles, Moscow, ...).