

Application 2013-2014

THE EUROPEAN URBAN AND REGIONAL PLANNING AWARDS

Limburg Territorial Development Programme

**T.OP Limburg**

A process initiated by Ruimte Vlaanderen, Spatial Development Department Flanders  
with design research by Maat-ontwerpers and ZUS landscape architects.

# T.OP LIMBURG: Limburg Territorial Development Programme

## Project statement: a plea for cooperation and synergy

The scheduled closure of Ford Genk - one of Limburg's main economic engines - presents the region with a major societal challenge. To meet this challenge and to preserve employment levels in Limburg, the Government of Flanders is implementing the SALK investment programme. SALK is aimed at strengthening existing economic activity, accelerating new initiatives and promoting innovative practices. It is a set of short-term and long-term actions involving a variety of actors in different segments of society (industry, services, employment, healthcare, tourism, energy, etc.). These actions are spatially distributed throughout Limburg and incorporate locally available potential as much as possible. However, the overall set of actions lacks a broader, place-based logic, and as of yet there has been little regard for the impact on territorial cohesion. This is precisely what the Territorial Development Programme (T.OP) Limburg is seeking to address.

T.OP Limburg is developing an integrated and territorial approach in which economic and spatial reorganization serve to reinforce each other. This action-oriented process is coordinated by Ruimte Vlaanderen, Spatial Development Department Flanders, and coproduced with partners and local initiators. In "Central Limburg" - the area most affected by the Ford closure - maximum effort is being made to find reinforcing territorial links between the SALK targets, the actions and other ongoing initiatives. By means of innovative tools for spatial policy (e.g. research by design, proactive partner dialogue and workshops, place-based policy framework and intermunicipal cooperation), possible synergies are being identified and elaborated in view of place-specific development potential. The aim is to actually achieve these territorial win-wins with a timeframe of 2020.

## Towards a RE-MINE territorial activation programme

In 2013, during the first phase of T.OP Limburg, three tracks were launched that provided the basis for a comprehensive partner dialogue. The mapping track maps out the current spatial structures, territorial systems and development potential. In the second track, research by design is used to test the development tasks and territorial win-wins at specific test sites. This is taking place within the context of a new cooperation partnership between Ruimte Vlaanderen and the Flemish Government Architect Team, which is providing the needed framework for "out-of-the-box" explorations (LABO Ruimte). Via the third track, T.OP Limburg is converted into a "place-based policy framework", a new spatial planning tool for putting a more proactive, strategic and results-oriented policy into practice at the Flemish level.

In consultation with partners, the steering group, designers and experts, the focus of T.OP Limburg was embodied in a positive RE-MINE narrative that encourages the synergetic and innovative use of space. RE-MINE stresses that there are sufficient "new" resources available in the region that could be a source of future prosperity. New economic activity is emerging within the networks of traditional economic players such as the manufacturing, construction or healthcare sectors, energy providers, the waste processing industry, etc. Based on pioneering research and creativity, these new players could have a major impact on future employment and prosperity. Moreover, the long-term survival of the traditional sectors would seem to be dependent on this.

The wide range of innovative niche economies including sustainable energy or building systems, circular economies for materials and waste management, production of high-grade biomass or additive manufacturing, etc., require innovative spatial thinking as well. For most of these investments and sectoral transitions, space is a critical success factor. New typologies for living and working environments, creative spatial synergies between sectors, new parameters for land use, proximity, connectedness and interrelatedness are all on the agenda. The interfaces between the urban, logistic and landscape system are a typical, but up until now rather inactive, asset for central Limburg in this regard. RE-MINE thus also emphasises to look in "new" ways to existing territorial capital.

With the focus on synergy, RE-MINE was recapitulated in three essential development tasks: the strengthening of central Limburg into a multi-productive urban network, a diverse living environment and a sustainable energy landscape. To achieve this, Ruimte Vlaanderen is collaborating with partners on a number of RE-MINE action-oriented programmes. RE-MINE Gateway Genk and RE-MINE National Park Maasmechelen are examples of programmes that focus explicitly on the "sustainable energy landscape" task. These two programmes are described below.

## RE-MINE Central Limburg: a sustainable energy landscape

The RE-MINE ambition "sustainable energy landscape" expands on Limburg's role as an energy producing region and focuses on ways it can make the transition from a carbon economy to a green economy. The region owes its development to the coal mines; at one time, it was a large-scale energy supplier to Flanders. RE-MINE recognises the region's potential to take the lead in the development of a sustainable energy system once again. In this way, energy supply could once more be the driving force and foundation of a wider territorial development strategy.

The mappings show that the basis for this energy transition can be found in the deep geothermal potential in central Limburg, or via (local or imported) biomass, for which the required logistical network is already in place. The region has also more space available for developing wind or solar energy compared to other, highly urbanised, parts of Flanders. In addition, EnergyVille, the European research centre for energy technology and renewable energy that is being developed in Genk, serves as a catalyst. Today, undertakings for sustainable energy transition are already being initiated throughout the region. This mainly involves forms of solar and wind energy that are being developed for larger land areas as well as for individual homes. The focus right now is on a highly developed electricity grid while heat generally remains limited to the scale of the individual home. The experiments that are planned are gaining in diversity, but they lack cohesion: separate initiatives that seem to give way to a fragmented and less than optimal energy landscape.

By means of a systems analysis, the research by design is exploring various development strategies for achieving a more cohesive energy landscape. Possible territorial win-wins concerning renewable energy supplies are being investigated based on the region's assets and the envisioned territorial developments. The mapping of the potential energy landscape serves as a synthesis. It offers a concrete framework within which future initiatives can be crafted into stepping stones toward the development of a stronger and more visible energy landscape. As a new structural foundation for the region, it will allow us to further urbanise in a targeted way, to transform industry and also to work on designing the landscape.

The mapping of the potential energy landscape mediates between development targets at the local, regional and international level. It supports the region to position itself within cross-border initiatives such as the Green Metropolis: a 2008 manifesto in which the European coal-producing regions of Belgian Limburg, Dutch Limburg and the Aachen metropolitan region join forces in search of a new "post-coal" future by making the transition to non-fossil energy sources. At the local level, it currently underpins the partner dialogue for the continued development of the National Park Maasmechelen and Gateway Genk RE-MINE programmes.

## RE-MINE National Park Maasmechelen

In Maasmechelen, the sustainable energy landscape ambition is linked to the development of the main access gate to the unique National Park. This planned investment is part of the Terhills project, which seeks to implement a wide-ranging programme that includes retail, research and recreation. The design explorations reveal a new development concept that combines the existing projects and ongoing initiatives into a cohesive recreational system in which the different components reinforce each other instead of simply existing alongside one another. RE-MINE strategies strengthen the region as a green infrastructure and as an energy and heritage landscape. This will allow Maasmechelen to position itself as a sustainable, tourism-recreational destination, and it will also contribute to the SALK target of raising Limburg's profile as "Limburg: Flanders's Park".

1. A first development strategy is aimed at activating Maasmechelen's potential for the extraction of **deep geothermal energy**. A geothermal power plant combines electricity generation with the distribution of residual heat for manufacturing, recreation and homes. The heat is distributed by means of a district heating scheme.
2. The geothermal power plant organises future **development via the "energy cascade" principle**. In order to keep the system profitable and efficient, direct large-scale consumers and sufficient critical density are developed in the vicinity of the plant. The heat produced is first used to power industrial processes (excavation and the accompanying concrete industry). The residual heat then serves the major heating needs of the planned recreational and healthcare functions, which will eventually become the biggest consumers of this heat. The existing garden suburb with its own facilities network, completes the chain and is the last to be connected to the heat cascade. The district heating scheme structures the preservation and densification of this mining heritage. It is this entire cluster that will form the main gateway to the National Park as a sustainable energy landscape.
3. Land clearings and excavations of sand and gravel, are used to reconvert paved surfaces into natural areas over a 30-year time span. Excavations therefore occur in accordance with **active landscape development** (the expansion of the National Park) and the design of a recreational and nature area network that stretches all the way to the Maas Valley.
4. The **district heating loop** becomes the main infrastructure for a modified form of transport, which incorporates electric bicycles or small-scale electric public transport. It is keyed to serve the newly developed programmes and access to the National Park.
5. The steep ridge of the Campine plateau and the existing lakes are being developed for use as water catchment basins and as a **battery for energy storage**. It can be used to smooth out peaks in energy production within the wider network (e.g. caused by the solar park located in the mining sites).

These design explorations were discussed and elaborated with the relevant actors and (energy) experts during workshops. The municipality of Maasmechelen and the National Park have confirmed that RE-MINE dovetails with their own aspirations. They engage in the RE-MINE programme to jointly integrate synergetic strategies and the larger goal of a sustainable, low-carbon energy landscape in the Terhills project and other development plans. The principal initiators of the Terhills project see added value in contributing to this so long as it does not slowdown current initiatives for retail development.

For the continued development of the RE-MINE National Park programme, the design strategies are being revitalised by development ideas and planned projects on a local scale. Newly launched ideas in the partner dialogue include the use of the water basins as a source of heat for heat pumps (sustainable "eco resort" heating) or the extraction of hot water from the old mines. In a step towards the formulation of concrete business cases, the economic and technical feasibility of the entirety of the different strategies is being examined. In the event that a pilot project for deep geothermal energy is not feasible (too conditional and too long of a timeframe), the experts suggested the alternative of evaluating the use of biomass or the anaerobic digestion of organic agricultural wastes.

## RE-MINE Gateway Genk

In the Genk region, the redevelopment of the Ford site is being investigated as a catalyst and a lever to give added value to existing industrial areas and to reactivate entrepreneurship. RE-MINE strategies strengthen the diversity and the connectivity between the various production areas. Historical infrastructures and the remnants of strong landscape structures offer a point of departure in this regard. Territorial connectivity is not only improving in terms of mobility; the clever cross-overs between policy-makers, investors and innovative sectors, as well as ecological networks, and energy and material flows, determine the reinforced functional cohesion between production areas and urban fabric. In this way, a sustainable energy landscape is created - in the broadest sense - that is characterised by closed circuits, high spatial returns and an innovative entrepreneurial climate.

1. A first RE-MINE strategy reactivates the former coal track as an urban infrastructure and public transport axis for a chain of renewed urban and economic centralities. Each of these “**areas of intensification**” strengthens its particular connection with the landscape and urban structure, reevaluating the existing monumental mine heritage. Through the development of this cluster alongside the railway, formerly isolated enclaves are connected, which facilitates sectorial cross-pollination, synergy and collaboration.
2. RE-MINE intensification strategies are put in place in order to limit the additional development of ‘green fields’ and to create sufficient critical urban mass. More activities will be organised within **smaller areas through mixed-use development** (where synergies between production, living and recreation are possible) **or through functional specialization and clustering** (where necessary). Industries are increasingly pollution free. By strategically (re)organising company locations, former generic industrial estates will be (partially) transformed into a rich diversity of living and work environments.
3. Genk-Zuid (South Genk), the industrial estate housing the Ford site, plays a catalysing role in the chain of renewed urban and economic centralities. Due to its exceptional size, connection to the logistic network and its renewable energy potential, this site is the ideal location for the development of a **circular economy**. The planned conversion of the nearby coal-fired plant into a biomass power plant will be linked to a district heating scheme and wind farm on the site. The soil remediation is done in an integrated way so that constructions will anticipate the future developments. The energy infrastructure, in combination with the remediation constructions, are offered to future investors (e.g. to compensate for the high workload). They organise the basic infrastructure for a cycle of industrial activities, from recycling to modular building systems.
4. In order to ensure the quality of the multi-productive urban network, the **open space network is enhanced**, creating a unity of large and continuous open spaces with green-blue connections in-between. RE-MINE extensification strategies develop the underlying landscape layer into a green infrastructure for parks, water management, climate regulation and bio-diversity.

The development of Genk into a Flemish logistics gateway is an old ambition. RE-MINE renews this ambition and makes the gateway Genk into both a test laboratory and an icon for innovative policies, like the Flemish energy policy and Materials Programme (waste = raw material), or the provincial and municipal climate and low carbon policies. The design explorations, linked to a cradle-to-cradle workshop, made it possible to get the various Flemish and local partners on the same wavelength.

In the meantime, there is a partnership agreement (with amongst others the city of Genk and the Flemish partners dealing with economic investments and waste management) to develop the programme RE-MINE Gateway Genk in parallel on three scale levels: a traditional, pragmatic approach for the Ford site; the circular economy scenario for Genk-Zuid; and the multi-productive urban network at the level of the Genk region. The simultaneous execution of the development strategies on these three scale levels allows to align ambitions concerning entrepreneurship, circular economy, energy supply, integrated soil remediation and urbanisation. It creates a collaborative strength: attracting investors, developing knowledge, encouraging multi-level governance and cooperation between policy areas. In addition to the anticipated developments in the long run, the partnership also anticipates activities in the short term: prospective research on circular economy, impact study for soil remediation, organisational (business) models for district heating schemes, activities to encourage participation from residents, public events and temporary use on the Ford site, etc.

## Towards shared action

TOP Limburg advocates a place-based territorial approach. It works together with local public and private actors, as well as with Flemish and international experts, to develop clear contours for a stimulating development strategy. It becomes involved in both concrete activities and innovative spatial research, monitors the overall story, motivates and communicates, forges connections and brings diverse actors together around tangible actions. In this way, TOP Limburg is seeking a new directive role for regional spatial planning on the one hand, while providing an answer to concrete challenges specific to Limburg on the other hand.

In this regard, TOP Limburg also seeks to connect with what is already in motion. Only a combination of top-down and bottom-up can take on the societal challenges in Limburg and activate an upward spiral of change. It benefits from the existing dynamics: the trends at the macrolevel (e.g. globalisation, climate change, CO<sub>2</sub>, energy), the transitions on the mesolevel (e.g. SALK, the Flemish Materials Programme, decentralisation), and the ambitions and the initiatives at the local level (e.g. SALK, Climate Pact Limburg, municipal policy plans).

In order to move from shared vision to shared action, TOP Limburg works simultaneously on various RE-MINE programmes. The RE-MINE programmes link policy areas and investors at different scale levels and from different perspectives. They anticipate the realisation of a broad range of activities: quick wins in one to two years, medium-term projects in five to seven years (e.g. pilot projects), long-term programmes with a duration of eight to ten years, “made-to-measure” advice for territorial win-wins, etc.

It is a dynamic and inviting process. Authorities and stakeholders are increasingly convinced of the importance of an integrated approach for spatial development issues. Ruimte Vlaanderen capitalizes on, and stimulates, this societal change in the TOP Limburg process. It therefore offers together with key partners, support for the content, finances and implementation procedures. This puts central Limburg on the map as the leading innovative space in which to “learn” about territorial governance, proactive planning and the application of new policy instruments - the development of knowledge and expertise in order to exercise a directive role in large-scale, integrated territorial development.