

# Discovering a neglected backyard

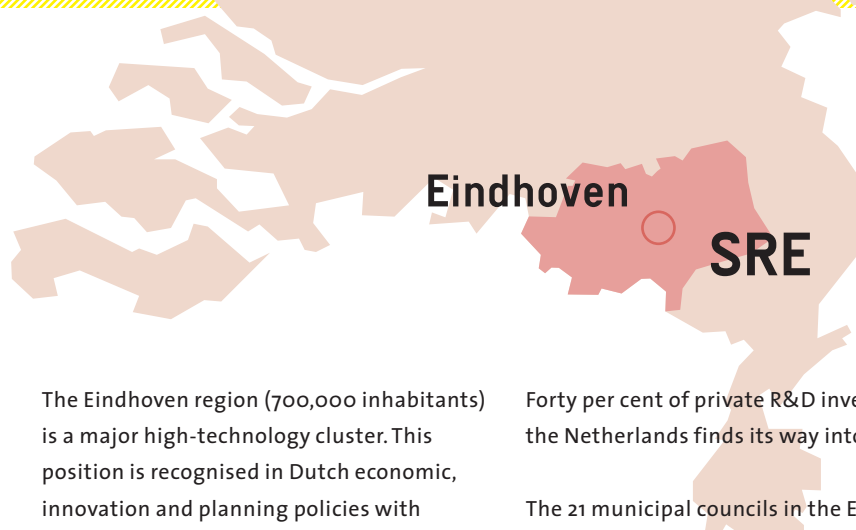
Location of SRE in The Netherlands.

Eindhoven has always kept its eyes on Randstad Holland, content to be a Dutch 'brainport'. But in an era of open borders the region now looks to Leuven (Belgium) and Aachen (Germany) for greater critical mass to compete on a European scale. For too long Eindhoven has ignored its 'backyard': the Belgian province of Limburg.

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Illustrations: Frank van der Hoeven (unless indicated otherwise)



The Eindhoven region (700,000 inhabitants) is a major high-technology cluster. This position is recognised in Dutch economic, innovation and planning policies with designations like 'Brainport Eindhoven' and 'Top Technology Region'. The region is a 'technology and innovation hotspot' with strongly developed R&D activities. It has the highest patent density in Europe and a top quality knowledge infrastructure. The leading regional clusters of mechatronics, automotive, medical and information technology have prospered, while new technologies such as embedded systems, nanotechnology and life sciences are evolving alongside a dynamic cluster of design, business development, education and creative industries. It is due to the Eindhoven region that Noord-Brabant is the only Dutch province to meet the EU goal of spending at least 3.0% of gross domestic product (GDP) on research and development.

Forty per cent of private R&D investment in the Netherlands finds its way into the region.

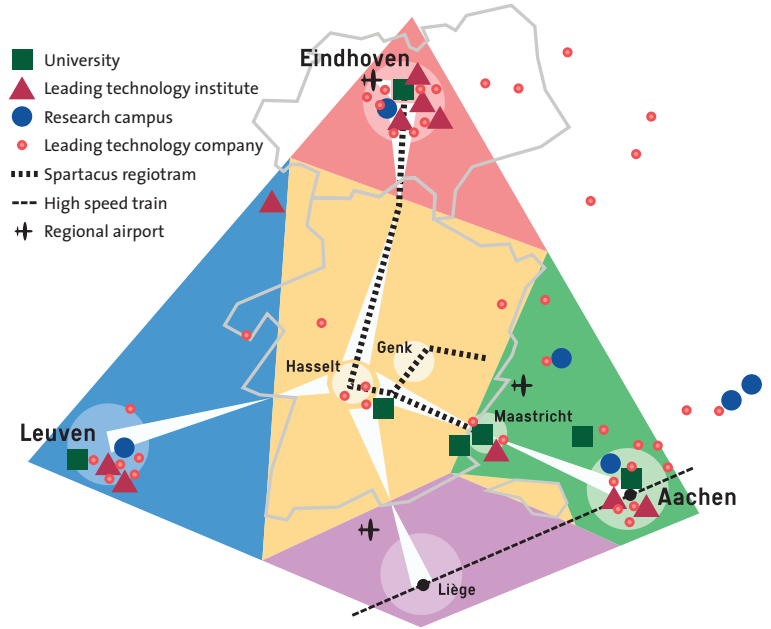
The 21 municipal councils in the Eindhoven region collaborate in the Eindhoven Regional Partnership (SRE) to promote their common interests. The SRE coordinates local government activities in the field of spatial planning, traffic and transport, housing, the environment, recreation and tourism, education, health, culture and social and economic policy. The purpose is to bring about balanced development across the region. But to compete on European and global levels the region needs to create economies of scale and scope. If Eindhoven collaborates with other regions it can create a critical mass in research, development and innovation.

## THE EINDHOVEN-LEUVEN-AACHEN TRIANGLE (ELAT)

More recently, SRE has been working in the Eindhoven-Leuven-Aachen Technology Triangle (ELAT) with Leuven and Aachen. Their proximity on a European scale gives the cities the additional mass they need to act as a single region. The main goal of the ELAT project is to develop and implement a joint innovation strategy for the technology triangle, using ICT to tie in knowledge institutes, businesses and public authorities. The strategy is to make the ELAT an internationally recognised top region for technology and improve the economic climate. Transnational cooperation between Eindhoven, Leuven and Aachen means a larger knowledge base, a wider urban scale and greater urban diversity. Because specialised companies in the knowledge economy need to cooperate to develop new products, services, techniques and concepts,



ELAT placed between the Regions of Excellence taking part in the EU sponsored PAXIS programme (Pilot Action of Excellence on Innovative Start-ups).



ELAT (including Liège): the regional distribution of high-tech industry, knowledge institutes and major infrastructure.

# The ELAT-project is still driven exclusively by economic initiatives, but it raises questions about the wider benefits of cross-border development

direct contacts are needed for the exchange of tacit knowledge. This network economy and acts more and more like an ecosystem and ELAT offers the opportunity for its further development.

The relatively young ELAT project is still driven exclusively by economic initiatives, but it raises questions about the wider benefits of cross-border development. The regions of Eindhoven, Aachen and Leuven have always looked away from each other. The Eindhoven region has strong economic relations with the nearby Dutch city regions of Tilburg, 's-Hertogenbosch and Breda, and with the Randstad (Amsterdam, The Hague, Utrecht and Rotterdam). The Aachen region traditionally looks to the Rhine-Ruhr area, and the Leuven region has links with the Flemish Diamond (Brussels, Antwerp, Ghent). Their traditional 'backyard' is relatively underdeveloped. Whereas in the past, the

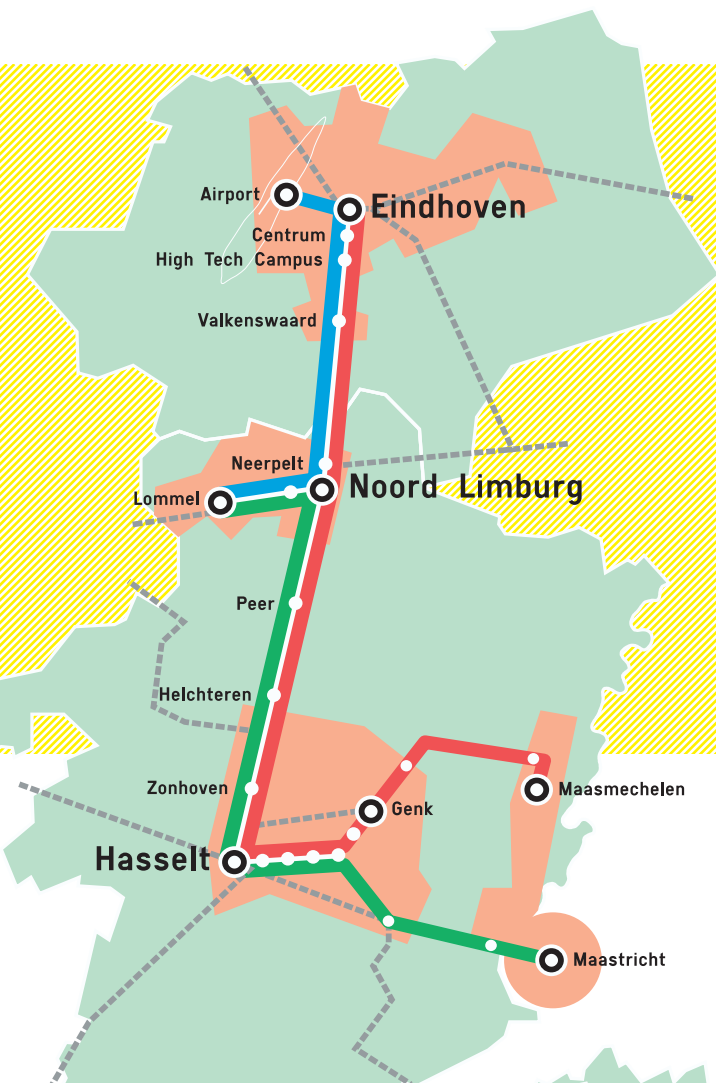
national borders hampered the development of these regions, now the open borders and new economics offer opportunities for the economic growth and spatial development of Eindhoven, Leuven and Aachen. But renewed regional growth will not automatically mould these three regions into a single new urban network. They need to strengthen their real-world ties as well.

### CONNECTED CITIES

Making these physical links is the aim of the Connected Cities project launched by the SRE. The idea is to create a sustainable connection between Eindhoven and Hasselt, the capital of the Belgian province of Limburg. Hasselt lies in the very heart of Eindhoven-Leuven-Aachen Triangle and could become an important public transport hub connecting these cities. Liège cannot be excluded from this transport network, as a single look at the map confirms. The resulting

diamond shaped region includes the Eindhoven area (SRE), the Leuven area (eastern part of Flemish Brabant), the Belgian province of Limburg, the Maastricht-Aachen area and the Liège urban region.

There is even a historic precedent for including Liège in such a scheme. Between 1866 and the Second World War a direct rail link between Eindhoven and Liège did exist, providing direct connections between Amsterdam and Liège three times a day. It was shut down gradually during the second half of the century. Although the rails have gone, the routes are still there. Recently they have re-emerged as key components in the Spartacus plan by the Belgian transport authority De Lijn, an ambitious new plan to improve the quality of public transport in the province of Limburg.



The Spartacus regiotram lines extended into the Eindhoven region and Noord-Limburg (Lommel).

Linking public transport networks is just a small first step, but it could be a breakthrough in the cross-border thinking that Europe is all about

**SPARTACUS REGIONAL TRANSPORT INITIATIVE**

Like many other European regions Limburg possesses a rudimentary rail network, which provides connections to the cities of Antwerp, Brussels and Liège. These connections are relatively slow and infrequent and make a very modest contribution to the modal split. There are no connections with the neighbouring Dutch provinces Limburg and Noord-Brabant (Maastricht, Eindhoven).

In recent years De Lijn Limburg has pursued a successful strategy for attracting new passengers. They have made deals with the local authorities in several towns and cities to provide 'free' public transport for all their inhabitants or selected target groups. Local bus lines in particular have been used more intensively. But it has not stimulated the use of public transport over longer distances. This is what the Spartacus plan sets out to achieve. It involves no less than a restructuring of the entire public transport

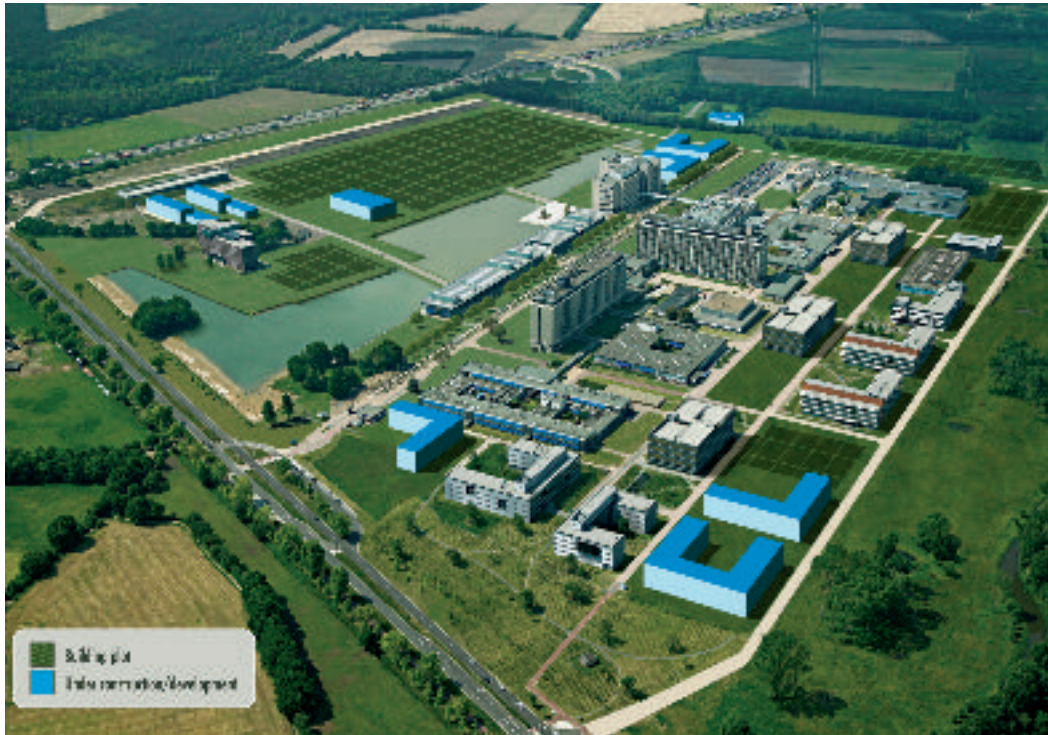
network in Limburg. And it is no academic exercise, or one of those mobility plans that regions love to develop but fail to realise. The Spartacus plan rests on solid ground: it is explicitly mentioned in the Flemish coalition agreement and the necessary funds have been secured.

At first glance Limburg might seem an odd place for innovations in public transport. The Belgian province of Limburg (800,000 inhabitants) lacks most of the 'urban' characteristics experts would consider necessary for developing a successful public transport network. The urban area is very dispersed and densities rather low. But in 1997 the regional capital Hasselt launched a unique experiment with 'free' public transport. It resulted in a significant increase in the use of local buses. Whereas in January 1997 only 32,000 passengers used the bus in Limburg's capital, in January 1998 the number of passengers had risen to 269,000,

more than eight times as many. Hasselt became a model for many other towns throughout Belgium. The 'free' public transport initiative was the brainchild of Hasselt's mayor Steve Stevaert, who went on to become Flemish Minister of Mobility and Spatial Planning and in 2005 regional governor of Limburg. Public transport in Limburg clearly has solid political backing. In the case of Spartacus there is also a sense of urgency. The regional and national public transport services in the province are in a poor state and it is widely acknowledged that something has to be done. It helps that Spartacus is not a mega project absorbing billions of euros, but requires a rather modest investment in the infrastructure of between 150 and 200 million euros. An additional 10 million euros per year are needed to operate the network.

The Spartacus plan proposes a network of improved rail links with the larger cities in Belgium, supported by regional light rail and regional connections. Public transport hubs tie this network together. In essence, Spartacus consists of four main components:

- 1 De Lijn plans to upgrade existing rail connections with Brussels, Antwerp, Liège and Leuven. Frequent and direct services



High Tech Campus Eindhoven, in future serviced by Spartacus? (source: High Tech Campus Eindhoven)

- will eliminate the need to transfer and cut travel time significantly.
- 2 Spartacus proposes the introduction of regional light rail, or regiotram. Most of these regiotram connections use railway lines that were closed during the second half of the twentieth century. Large stretches of these routes are now used as cycle paths. The Limburg regional plan identified such routes as lines that can be converted back to rail with only relatively light investment. Three regiotram lines connecting Maastricht, Maasmechelen and Noord Limburg are proposed. The Noord Limburg line includes the option to reach into the Eindhoven region.
  - 3 Where passenger volume is modest, regional bus lines are proposed. Significant reductions in travel time are foreseen.
  - 4 Finally, the Spartacus plan includes the development of a number of public transport hubs where all these systems meet and connect, including Hasselt, Genk, Maasmechelen and Noord Limburg.

For the time being Spartacus will reach into Noord Limburg, covering more than half the distance between Hasselt and Eindhoven. The question is whether Eindhoven can

bridge the remaining half. The Connected Cities network organised several expert meetings and workshops on this task, which generated a step-by-step approach that offers a 'once in a lifetime opportunity' to make an adequate response that bridges the gap. The SRE would have to determine with De Lijn Limburg how the link between Eindhoven and Hasselt affects the position of the Noord Limburg public transport hub. The advanced public transport system developed for the Eindhoven region over the last ten years is not a regiotram, as in Belgian Limburg, but the Phileas Bus Rapid Transit system, which uses dedicated traffic lanes and futuristic vehicles. Somehow these systems, regiotram and Phileas, have to be knitted together.

#### CONNECTING ELAT

All in all these are not easy questions to answer. The steps to be taken in this process are nevertheless straightforward:

- 1 SRE needs a vision that provides a context for the sustainable link between Eindhoven and Hasselt. The Eindhoven-Leuven-Aachen Triangle (Liège included) can provide just that. The Eindhoven-Hasselt link should be instrumental in strengthening the real world ties

between Limburg (the neglected backyard) and the ELAT cities.

- 2 The scales of operation have to be determined. Initial studies show that the travel time between Eindhoven and Hasselt can be kept close to 60 minutes. In that case the link can serve all necessary scales: inter-regional, regional and intra-regional. Although this seems contrary to generally accepted wisdom, in this case public transport services on all scales are lacking in this border area and introducing one system will provide a significant improvement on all scales. A link that bridges the distance between Eindhoven and Hasselt in 60 minutes will provide reduced travel times on long and short journeys. It will improve the connection Eindhoven-Brussels, Hasselt-Amsterdam, Eindhoven-Leuven, Eindhoven-Hasselt, Eindhoven-Noord Limburg, and even Eindhoven-Valkenswaard.

- 3 The desirable and possible connections should be determined. Working with a trunk line with branches offers a flexible solution that fits the Limburg context. This trunk line runs straight from Eindhoven to Hasselt, with as few detours as possible to keep travel time close to 60 minutes. The trunk can branch off in →



Masterplan for Lommel, set to accommodate 40,000 to 50,000 inhabitants. (source: gemeente Lommel, Belgium)

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Noord Limburg towards Lommel, a city that is expanding to 40–50,000 inhabitants.

- 4 Locating the Noord Limburg transport hub and related urban development requires careful consideration in weighing up the different alternatives. This will take some time. From the perspective of ELAT the capacity of the hub to provide space for the next university, technology institute, research campus or technology cluster should be examined.
- 5 The overall routing of the line is in part pre-determined by the existing and past rail infrastructure.
- 6 The final choice of system (regiotram or Phileas) is a tricky one. Further work could

focus on the possibility of these systems sharing one and the same track between Eindhoven and Noord Limburg (Lommel). Both regiotram and Phileas use guided vehicles. If regiotram and Phileas can be combined, it would make ELAT the first testing ground in the world for comparing Bus Rapid Transit with Light Rail on a one to one basis. The results may surprise us.

**REAL WORLD TIES**

Arriving from two rather different backgrounds, the Dutch region of Eindhoven and the Belgian province of Limburg are looking for ways to connect to each others region's by advanced public transport. Establishing a sustainable link between Eindhoven and Hasselt could become a first

step towards a network that strengthens the real world ties between Eindhoven, Aachen, Leuven and Liège and their central backyard. Linking public transport networks is just a small first step, but it could be a breakthrough in the cross border thinking that Europe is all about.

