Report of the study visit to Aachen, Eindhoven and Leuven

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1. Introduction

This document summarizes the results of a 3-day study visit to Aachen, Eindhoven and Leuven, leading cities in the field of business-research collaboration. The visit took place in early March 2016. The goal was to learn from triple helix collaborations in these cities, and describe implications for Liesing. We visited interesting hotspots and organisations, and had time to discuss with local leaders how these collaborations work, how they came about, but also what the problems and pitfalls are.

The sections in this report contain brief summaries of the lessons learned in each of the cities. Section 2 focuses on Aachen, section 3 on Eindhoven and section 4 on Leuven. In each city, we spend one full day. Section 5 contains some leads for action to develop triple helix approaches in the Liesing district, as well as ideas from elsewhere in Europe.

Annex 1 contains a full overview of the programme.
Annex 2 shows the presentations held by our hosts, as far as we received them.

2. Visit to Aachen

In Aachen, we had two main destinatination. The first one was AGIT, one of the best practices of economic development agencies, with a long track record in incubation, innovation support, and housing tech companies (www.agit.de)

After that, we went to the new campus of the RWTH, the Melaten Campus, a very innovative concept where research and business are integrated in the design and organisation of the campus (http://www.rwth-aachen.de/cms/root/Wirtschaft/Campusprojekt/~elg/Campus_Melaten/lidx/1/). Here, we had discussions with leaders of research institutes located there (FEN GmbH, on power, and wind energy) and with the campus management.

From the presentations and interviews, the following inspiration and lessons for Liesing were derived:

1. At the Melaten Campus, an "Innovation factory" is being set up. It might be inspirational for the Liesing area. This concept has a number of elements: a) Camps: places where companies can try out things, where they can make rapid prototypes, do 3D printing etc; b) Convention: it has spaces for meeting and convening; c) Labs: there will be labs for testing products and ideas, and; d) Shops: showing new inventions and selling them to outsiders. The innovation factory can be used by all the companies and institutes on the campus, it is a shared facility.

2. Our visits to both AGIT and campus underline the importance of long lasting relationships as a basis for getting things done. The strong point of the Melaten Campus is that individual and incidental company-uni contracts are now replaced by a long term programmatic approach and deeper commitment. And at AGIT, the conclusion was that only durable relations and help to get Chinese companies to Germany. For Liesing, this also means that establishing longer-term relations with knowledge institutes is an important goal. Only working ad-hoc has severe limitations.

3. The collaboration between RWTH and DHL in Aachen was impressive: they co-developed an electrical delivery vehicle, that is now produced on a larger scale. Could a similar collaboration be worked out in Liesing, where DHL also has an important presence?

4. A lesson from RWTH is that to have a strong collaboration between university and business, you must start by knowing precisely who the individual professors are, what they do, and what linkages already exist. Also the other way around: what links do Liesing companies (like for example MAN) have with universities. This knowledge is underdeveloped so far in Liesing.

3. Visit to Eindhoven

In Eindhoven, we started with a study visit to Holst Centre, a research centre for pre-competitive collaboration between industry and research (http://www.holstcentre.com), located a Eindhovens High Tech Campus. Next, we had a discussion with the leadership of Brainport Development organisation – Their vision and how Eindhoven has organised the collaboration between business and research (http://www.brainportdevelopment.nl/en/) After that, we went to see the latest developments in Strijp S, a former closed Philips plant that is now being redeveloped as hub for creative people and industries. Finally, we paid a study visit to Helmond Automotive Campus: a place where production, education (on all levels) and research are co-located (http://www.automotivecampus.com/en/)

From the presentations and interviews, we derived the following inspiration & lessons for Liesing:

1. To get good area development, you need to develop a strong concept. This is what happened at the Automotive Campus, at Strijp S and at the High Tech Campus. Such concepts must be developed in very close collaboration with the investors, otherwise it will not work.

2. Mr. Noordzij (Automotive campus) stated that a concept must be clear, it should fit on one sheet of A4. You need to be able to sell it to stakeholders and outsiders.

3. In Eindhoven, unlike in Aachen, the local business sector seems to be the driving force, not the university. It is important to identify strong companies that want to take the lead.

4. To define something good for Liesing, some information is still lacking. It is key to get clarity about what is already in place regarding Technology transfer initiatives and campuses in the Vienna region, if there is a strategy, and if/how Liesing can be linked to that.

5. Some more advices from Mr Noordzij: Don't only talk, but do something, and do it well. Only then you can convince actors to join the club. Again, we concluded that the logistic cluster could be a good start.

6. Finally, we learned that it is quite normal that only a few companies are interested to do joint activities or develop innovative concepts. Brainport works with a limited "coalition of the willing" and this works out fine. You must not strive for full participation but gradually work towards results.

4. Visit to Leuven

In Leuven, we had four appointments. We started with a visit to Leuven R&D, the technology transfer office of Leuven University; http://lrd.kuleuven.be/en/technology-transfer-office. Next, we got a presentation about Leuven Mindgate, an new organisation that positions the Leuven region as a premier destination for Health, High-Tech and Creativity (http://www.leuvenmindgate.be/en). After lunch we learned more about Leuven Inc., a network for high-tech entrepreneurship that brings together 'like-minded people' from academic research groups, high-tech start-ups, consulting agencies, venture capitalists, and established companies in the Leuven region (http://www.leuveninc.com/), and finally, we were informed about the way Leuven's university is promoting entrepreneurship among students. http://www.lcie.be/en

The highlights from the discussions are the following:

1. University of Leuven is very strong at technology transfer and start-ups/spin-outs. The secret: they give gives professors a "bankacount", and autonomy over what to do with contract funding that they acquire. Moreover, Leuven R&D (LRD) supports them well with advice on contracting, patenting etc. LRD and university are separate legal entities.

2. Typical for Flanders (and also for researchers at the Leuven university) is to be modest, provincial, careful, and not too good at selling. But in fact, the quality of what happens in Leuven is very high. Leuven Mindgate was set up by all the key organisations in Leuven to show better how good things are, and tell the success stories. This is important for attracting talent and companies from abroad.

3. One new initiative is the "Health House": a medical experience centre to show medical innovations, and to create awareness of the population what science can do.

4. Leuven Inc. is a network organisation that organises all sorts of interesting sessions for high-tech companies. Several types of meetups are organised:
-Entrepreneur Cafe, consisting of a company visit + onsite presentation; 6x p/a
-Visionary seminars: a speaker explains about fast evolutions, new technology, concrete applications (i.e. machine learning); 4x p/a
-High tech management: coaching programmes, Masterclasses High tech entrepreneurship
-In-company trainings.

5. Over the years, Leuven Inc has build a good reputation. Members pay a fee (depending on organisation size), and are quite active. Leuven Inc. is a prime example how to organise a community, some of the elements could be used in Liesing.

6. The student entrepreneurship community LCIE unites students who want to be entrepreneurs, and organises all sorts of activities. They connect alumni to

entrepreneurial students, and create all sorts of interdisciplinary projects to "break" the strict faculty barriers of the university.

5. Some leads for action in the Liesing district

In Aachen, Eindhoven, and Leuven we have observed concepts where companies and research/education institutes collaborate and reach synergies. But it never comes easy: it has to be organised somehow.

One basic task for the Liesing team is to have more clarity about the current state-of-the-art regarding existing collaborations and policies in place. It should:

- Identify which company-university collaborations are already in place. Which companies already have experience with collaborating with researchers, with students, or otherwise? What are their experiences, and would there be a need for a more structured/common approach, or support from the Liesing team? DHL is an obvious candidate, also MAN, and there are more.

- Identify the current policy frameworks in Vienna concerning business-university collaboration. Vienna has a large university system with universities and universities of applied sciences (very important for more practical types of research and innovation). These universities have all sorts of structures in place to facilitate connections with firms: incubators, technology transfer offices, organisations such as Leuven R&D. It would be helpful to initiate talks with the leaders of these organisations, to explain the situation and ambitions of Liesing, and to develop ideas together.

- Identify on the Vienna policy level what initiatives exist to support business-company collaboration, and funding opportunities. Here again, it makes sense to do a round of open interviews with key people to discuss and exchange options for action. There must be cluster organisations or other intermediaries that have vast experience with triple helix. Probably, the ERDF operational programme for Vienna offers scope for funding projects, under the heading "SME support", or "innovation".

These discussions will probably sharpen the ideas of what can and cannot be done in Liesing. It could help, when doing these talks, to bring some initial, "rough" ideas on the table: the idea of the innovation factory, or some of the options mentioned later in this section. People can react on it, express their ideas, and provide modifications, and you get closer to a viable idea or concept.

If the basic idea has crystallised, a key lesson from Eindhoven is to start small, with active people who want to change something. Go for small actions that have visible and tangible results, and communicate them clearly.

Interreg Europe could be a good instrument to learn from others and improve yourself. The Interreg Europe programme facilitates policy learning and knowledge exchange between European regions, and also demands that each partner makes an action plan. To participate, it would be needed to team up with similar areas in Europe that have similar ambitions. Hamburg Ost/Billebogen is an obvious candidate.

Some ideas could be taken into consideration as well, also when talking to the players discussed above:

- The creation of an innovation factory, like the Aachen example. What could it look like in Vienna, who would be the partners/initiators

- Make a clear value proposition for a university or school. Offer Liesing as a "field lab" where a university can do experiments, where students take apprenticeships, do thesis work or otherwise. This must be organised. You would need to create an intermediate structure between the university and the firms in Liesing, that organises the exchange. The Demola-organistaion from Tampere (Finland) is a best practice in this respect. It links student's research work to demands/research questions from companies and public organisations. It is a co-operation of all the HEIs in Tampere and the city. Demola collects research questions, topics or requests for product development from all sorts of organisations, and assembles multidisciplinary student teams that work on those problems. Students can gain 5 ECTS by participating. Demola runs on a small budget (€300k) but it is considered very successful and dynamic.

- Create open spaces where firms, students and researchers can meet. Knowledge exchange and transfer between university and businesses can be enhanced by developing "open spaces". An example can be found in Linköping, Sweden. At the science park, the "creActive area" was opened: a space where students, researchers and companies can meet in a fully neutral, "logo free" and inviting setting (http://creactive-mjardevi.se/)

- Universities typically find it easy and straightforward to work with advanced companies in the region (multinationals, high tech firms etc.). But what about the smaller and less advanced ones? **Linköping** University has 5 "liaison offices" in the region, where SMEs are brought into contact with university knowledge and competences. Each year, 500 companies are visited to inform them about what's going on in relevant parts of the university. Could this be done in Liesing? **Tampere** University of Technology set up "Problem Fridays": SMEs are actively approached and invited to a one-hour session, where they can bring a problem or question, to be discussed with a team of university experts. By the end of the hour, it must be clear if there is scope for some sort of collaboration, and if so the partners arrange for next steps. This model might be inspirational as well.

ANNEX 1: PROGRAMME STUDY VISIT TO AACHEN, EINDHOVEN AND LEUVEN, 2-4 MARCH 2016

Wednesday 2 March, Aachen

Uhrzeit	Standort / TOP	Adresse
09:30 Uhr – 10:30 Uhr	AGIT	Dennewartstr.25 – 27 Aachen, Konferenzraum K 2
10:30 Uhr – 11:00 Uhr	Besichtigung Technologiezentrum Aachen	Dennewartstr.25 – 27 Aachen
11:00 Uhr – 11:30 Uhr	Anfahrt Campus Melaten	
11:30-12:00	FEN GmbH – Flexible Elektrische Netze GmbH	Campus-Boulevard 57, Aachen
12:00 Uhr – 13:30 Uhr	Mittagessen	
13:30 Uhr 14:30 Uhr	Vortrag Campus	Campus Boulevard 57 Aachen
14:30 Uhr 15:00 Uhr	Rundfahrt Campus	Bus
15:00 Uhr – 16:00 Uhr	Vortrag + Besichtigung Cluster Schwerlastantrieb	Campus-Boulevard 61 Aachen

Thursday 3 March

Uhrzeit	Standort / TOP	Adresse
10:00 Uhr – 11:00 Uhr	Holst Centre	High Tech Campus 31 5656 AE Eindhoven Room 2.024
11:30 Uhr – 12:30 Uhr	Vortrag Brainport Eindhoven	Emmasingel 11, 5611 AZ Eindhoven
12:30 Uhr – 13:30 Uhr	Mittagessen	
14:00 Uhr 15:00 Uhr	Strijp S	
15:30 Uhr 17:00 Uhr	Automotive Campus Helmond	Automotive Campus 30, hoofdgebouw 5708 JZ Helmond (voorheen steenovenweg 1)

Friday 4 March

Uhrzeit	Standort / TOP	Adresse
10:00 Uhr – 10:15 Uhr	Leuven R&D: Wecome	Waaistraat 6, Leuven
10:15 Uhr – 11:30 Uhr	Leuven R&D: Presentation about Tech Transfer in Leuven and the Leuven ecosystem	Waaistraat 6, Leuven
11:30 Uhr – 12:30 Uhr	Leuven Mindgate	
12:30 Uhr - 13:45 Uhr	Mittagessen	
14:00 Uhr - 14:30 Uhr	Leuven Inc.	
14:30 Uhr - 15:30 Uhr	LCIE	
15:30 Uhr - 16:00 Uhr	Q&A	

Annex 2: Presentations

-AGIT
-RWTH Campus GmbH, Aachen
-Brainport Eindhoven
-Leuven Research & Development (LRD)
-Leuven Mindgate
-LCIE