

High Tech NL Young Professionals visit high-tech industry in the Liège area



November 27th, 2015

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Discovering an economic region in transition from coal mining and steel production to high-tech systems and materials

On February 10th, 2014 an agreement was made to build mutually beneficial relations between the French-speaking part of Belgium, Wallonia, and the Eindhoven area. A year before, the Ministers of Foreign Affairs of the Netherlands, Mr. Timmermans and Mr. Marcourt, had already concluded that the high-tech industry of both regions would be able to reinforce each other by discovering complementarity in the field of research and innovation. High Tech NL was one of the partners that signed the agreement, as was MécaTech, the organization that represents the Walloon high-tech cluster. For this reason High Tech NL chose Wallonia as the destination for its yearly international study tour for Young Professionals which took place on Friday November 27th.



It takes just one day

Eindhoven and Liège, the largest city in Wallonia, are only 125 kilometres away from each other. When the new tunnel infrastructure in Maastricht is completed, which has been scheduled for end 2016, it will take less than 1.5 hours to travel between Eindhoven and Liège. A lot of Dutch high-tech companies are already working together with similar companies in Flanders, where the first language is Dutch. Wallonia, however, is often perceived as a less important region economically speaking.



Our bus is our classroom

. There are two main reasons for this. Firstly, because the language of the population is French, it is assumed that most people do not speak English, and thus communication is an

obstacle. Secondly, there is still an idea that the traditional Walloon economic activities like coal mining and steel production have disappeared and have not been replaced by other activities. At High Tech NL we know that both ideas are incorrect. Now it's time to see for ourselves! To travel 125 kilometres to get there, do business, and get back home only takes one day.

Preparing for our visits in Liège



As in previous years, a complete set of study documents was provided

'Made different' and 'Smart Industry'

Eleven participants had registered for this study trip, among whom were five international students of Fontys Hogeschool of Engineering. Our driver, Frans van Brueghel, hit the road at 07h45 and during the ride we introduced ourselves to each other and defined the learning goals of the day. Some of the participants were especially interested in the Belgian set up of the 'Made different'

programme, which is quite similar to the Dutch Smart Industry programme. Others had more specific technical objectives, like discovering the Wallonian approach of additive manufacturing and research on materials and special applications. Belgium has a complex political situation. As a federal state, the country consists of three regions which have a relatively high level of autonomy: Flanders, Wallonia and Brussels. Besides Dutch and French, about 70,000 people, located in the eastern part of the country and part of Wallonia, speak German. Especially for the non-Dutch participants, this complexity was an eye-opener.



Super clusters

We arrived at 10h15 at the facilities of Sirris at the Liège Science Park, which is a technological research institute with an international reputation, especially in the field of materials. Mr. Jean-Claude Noben, who is responsible for Business Development and Innovation, was our host. He gave the floor to Mr. Rodrigo dos Santos the managing director of the Wallonia Export & Investment Agency (AWEX), an activity of the Belgian embassy in The Hague. He gave an overview of the Walloon region's current transition



Mr. Rodrigo dos Santos discusses economic transition

from the old economy of coal-mining and steel production to a variety of economic pillars. One of the stimulating programmes is the set up of super clusters. Wallonia has six super clusters, including MécaTech. This concept has already given birth to 20 new companies as well as a 20% growth of added value and a 12,000 FTE increase in jobs.

Innovative projects

The floor was then given to Mr. Thibaud Van Rooden, MécaTech's International Affairs Executive, who had prepared the programme. Mr. van Rooden explained the objectives of MécaTech which is the Walloon Competitiveness Cluster in Mechanical Engineering, created in 2006. MécaTech is focussing on setting up and conducting innovative projects with an international dimension based on networks that combine large companies, SMEs, universities, and research and skills centres. One of the fields of interest is materials – surface treatment and forming – but also mechatronics and smart maintenance and production. These projects generated 250 million of investment. Currently MécaTech has conducted over 80 projects, involving 44 large companies, over 100 SMEs and nearly 100 knowledge institutes including universities and schools. Mr. Van Rooden finished his presentation by showing how vital the hybridization of technologies is to achieve breakthrough innovation nowadays.



Global presence and impact

Mr. Jean-Claude Herman is CEO of the CRM Group. CRM is a leading research centre in production, transformation, coating and the use of metallic materials. CRM was founded during the steel production era but has transformed into a high-tech research institute that builds the bridge between science and market by turning innovation into value creation. CRM has a global budget of around € 34 Mio and integrates the talent of 245 PhDs, researchers, technicians and employees. CRM provides solutions in the field of R&D, technology and innovation in the scope of Metal & Steel production, Transformation & Application and Associated Materials. The main focus is on process

development, product development and product application. Mr. Herman gave a lot of examples of successful innovations involving saving energy, reducing CO2 emission and developing new processes in the field of additive manufacturing, not only in the Walloon area but at several locations in Belgium and with a global presence and impact worldwide.

Sustainable economic growth

Mr. Jean-Claude Noben is responsible for Business Development and Innovation at Sirris. His statement was clear: "We help large and smaller companies in the Belgian technology industry make the right technological choices and implement them, in order to achieve sustainable economic growth."



Mr. Jean-Claude Noben discussing "The factory of the future"

Mr. Noben explained how Sirris is contributing to innovations on ICT, Advanced Manufacturing, Materials and Mechatronics. Sirris is working closely with Agoria, the Belgian association for entrepreneurs in the field of technology –comparable to the Dutch FME – and together they created the master plan of innovation for the technology industry. This is about 'Business of the future', 'Product of the future' and 'Factory of the future'. A high-tech infrastructure of technology labs has been set up all around the country, together with a lot of large companies, SMEs and

international knowledge institutes, to develop and implement new products, processes and applications. The group was then split up into two smaller groups to have a guided tour around the Sirris facilities. For example, Sirris has Europe's widest selection of technologies & machine park in additive manufacturing. We were impressed to see so many laboratory facilities under one roof!



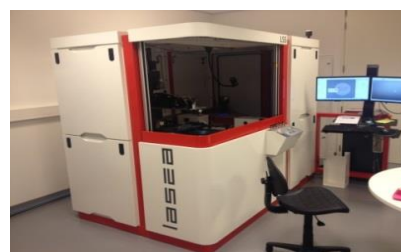
Visiting the research facilities at Sirris

Lasea. Example of a new OEM company

After having lunch together we moved on to Lasea, located at the Liège Science Park. Mr. Jean-Cristophe Wauters, who is responsible for Business Development, was our host. Lasea is an SME company established in 1999 as a spinoff of the

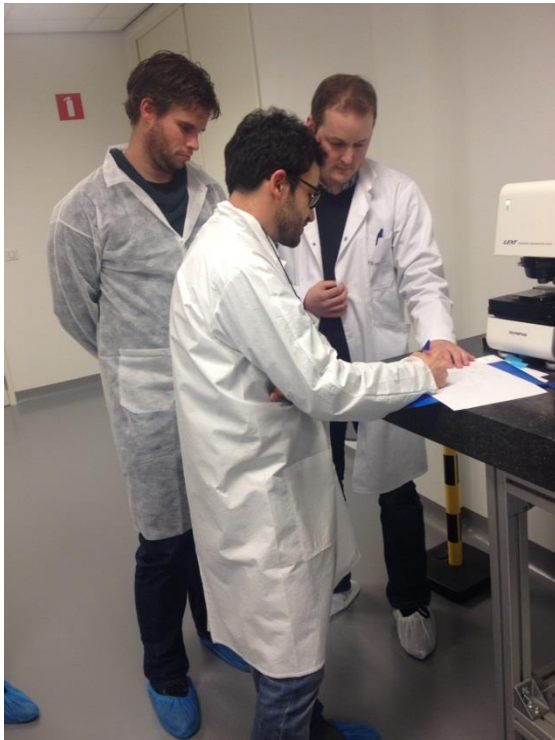


Centre Spatial de Liège / Université de Liège. New laser applications, like high-precision engraving, have been integrated in an advanced system. Nowadays Lasea has around 45 employees and is located in Liège, Bordeaux (F), and Switzerland. A guided tour through the research and production facilities gave us a good overview of this company. It has grown step-by-step from a recent start-up into an OEM company (Original Equipment Manufacturer) which can compete globally with large, advanced companies in the field of laser technology.



Demonstration facilities at Lasea

It was really great to have the opportunity to talk with some of the researchers at Lasea. They discussed their research topics, application development and specialties. Incredibly, when one of them asked if we'd ever heard of the so-called 'confocal microscope', Giuseppe Visimberga, who is working as a PhD for the Dutch M2i research institute for materials, answered: 'I'm building one myself'. From that moment on the discussion became one between scientists.



Giuseppe Visimberga (M2i): 'I'm building one myself'

What did we learn?

After thanking our hosts, we left the Liège Science Park at 16h30. We had plenty of time to evaluate the day during our trip back home. We had interesting discussions and feedback and drew up several statements and conclusions:

- I didn't know Belgium is decentralized as a federal state and divided in three parts which seem very different to me.
- The super clusters seem to be successful. They are more compact than the Dutch approach of 'topsectoren'. You are either part of it and you participate or you are not part

of it. This distinction is not clear in the Netherlands.

- This is the first time I have heard of governmental policy in both the Netherlands and Belgium trying to accelerate innovations through clusters of companies, knowledge institutes and governmental institutes.
- The Brainport Region Eindhoven seems to operate more like a Belgium cluster than our top sectors do.
- Large companies continue to outsource parts of their products to the supply chain. This forces SMEs to invest in innovation. On the one hand this leads to more interdependence; on the other hand ecosystems are created which have more power to compete.
- It is obvious that the Walloon region has better access to money, both European and Belgium, than Dutch regions. Could we both benefit by increasing joint innovations based on complementarity?
- I am sure that doing research and innovation together with our neighbours, in our backyard, will be more productive than trying to invent everything on our own.
- The total set of equipment that is available in both the Eindhoven area and at the Liège Science Park is impressive. Combined with talent and assets like masters and PhDs, we can make 1 + 1 equal more than 2.
- I enjoyed this day. It was a useful combination of information, networking and fun. I will participate next year again!

High Tech NL offers an interesting programme for Young Professionals. A yearly international study trip is part of it. In January the calendar for 2016 will be distributed. Young Professionals, especially those from SMEs, are encouraged to participate.

I hope to meet you again soon!

Many thanks for Mr. Thibaud van Rooden for being our host for the Walloon visit!

Jos van Erp
9 December 2015

 High Tech NL