



EPP Group

CDA

Smart Specialisation Connecting European Top Performers



Lambert van Nistelrooij
Member of the European Parliament
February 2013



Smart Specialisation According to EU Commissioner Hahn

Smart Specialisation helps regions identify the priorities they would like to focus on and in which they would like to excel. It is important to develop clear strategic priorities, to focus on regional areas of strength and to eliminate barriers to innovation. This is a new focus of our policy. It is the key to maintaining prosperity and employment opportunities in the regions and to creating a competitive Europe as targeted by the Europe 2020 Strategy.

We are going in this direction in close collaboration with companies and knowledge institutes. This involves an international perspective and close collaboration with adjacent regions and regions with comparable specialisations. Smart Specialisation constitutes an important policy instrument. Clusters are extremely well suited for implementing this strategy. Their knowledge, networks and dynamics are the right ingredients available at the local level to enable regions to excel, create added value and to succeed in the global economy. Clusters can be used in the design as well as the implementation phase of Smart Specialisation. During the design phase they can be used to identify the region's areas of strength and opportunities and to contribute to developing strategic priorities and making the right political choices. The identification of clusters and benchmarks are valuable instruments that can be used to identify Smart Specialisation patterns and to compare economic activities with those of other regions in the Union.

A Smart Specialisation Strategy looks for optimal conditions, such as access to research and test facilities, the development of knowledge and skills, collaboration with local incubators and efficient cluster management. This way the full potential of clusters in the context of Smart Specialisation is exploited. This will be our focus for the coming years; will you join us?

Johannes Hahn, Brussels January 2013



EU Commissioner Hahn (Regional Policy)

EU Commissioner Hahn made a working visit to Tilburg and Eindhoven in 2012. At the same time he invited the Southern Netherlands to come to Brussels.

He spoke highly of the Brainport approach; what is developing here is an example of what the Commissioner has in mind.



Smart Specialisation for a Strong Europe in R&D and Innovation

Europe must deliver top performances. The new buzzword in this regard is 'Smart Specialisation'. What is it and why is it so important? How do we accomplish this? And what are the prospects for the Netherlands?

Europe performs well in fundamental and applied research. The EU 2020 Agenda is to produce a smarter and greener Europe that creates jobs. The challenge is to get beyond the crisis and make focused investments. Europe has to be more successful in converting its knowledge into growth and jobs.

As rapporteur I am working on new legislation for the EU funds for the period 2014-2020. By making visits elsewhere in the world and on the basis of feedback from companies, scientists and politicians I am working on this new direction for the EU. This publication briefly deals with this topic.

We are currently negotiating with member states and the European Commission about the proposals that are to go into effect in 2014. In the meantime work has also started in the member states on preparing synergy between R&D and the regional policies.

Greater collaboration between regions, companies and knowledge institutes. In Brussels I debate this strategy in platforms like Knowledge4Innovation (K4I) and the European Internet Foundation (EIF). They contribute to the proposal of 'Smart Specialisation' and will follow the implementation in the coming years.

Is it still possible to create regional initiatives in Europe; EU 'Silicon Valleys'? I believe so; as does the EU. On March 28 we are therefore organising the national conference 'New European R&D Policy: Netherlands Sees your Opportunities' at Tilburg University as a means of discussing the Smart Specialisation opportunities for the Netherlands with a broader audience.

Lambert van Nistelrooij, Diessen, January 2013



CDA EU Parliamentarian Lambert van Nistelrooij, negotiator for the EU Regional Funds 2014-2020

Regions and cities are a major focus for Brussels: strengthening of the regions; no re-nationalisation of instruments. This is why Brussels proposes to stimulate the regional economy with five Structural and Investment funds that will be definitively decided by mid-2013.

- Regional Development Fund (€ 183.3 billion)
- Social Fund (€ 83.9 billion)
- Cohesion Fund (€ 68.7 billion)
- Rural Development Fund (€ 89.9 billion)
- Fisheries and Maritime Fund (€ 6.7 billion)

For more information about the relevant backgrounds, see my publication 'Investeren in de Regio', Europa Dichtbij ('Investing in the Region') no. 20.

Smart Specialisation: what is it and why is it so important?

The EU, together with other western countries is rapidly losing its economic position in the world. As you can see from the adjacent map, the combined economies of emerging countries, such as China and India, will exceed that of all western industrial countries combined by approximately 2018. What is going on? Are we treating our raw materials with due care? What are the lessons to be learned; what should we do differently and better?

One thing is clear: we squander a lot of our talent and opportunities in the EU. We duplicate all kinds of things in the EU in the area of research and development.

By enabling national clusters to collaborate more effectively internationally we can go much further with our energy, our talent and our financial resources. Regions will determine the areas in which they want to excel and will look for partners within Europe.

The current financial and economic crisis and its consequences, such as unemployment and the associated uncertainties for citizens, demand a different approach based on tighter budgetary rules and an improvement in the operation of Europe's internal market. Not only focus on services, but in a cluster context also attempt to maintain high-quality production or to restore it where it has already been lost. Otherwise you also lose valuable knowledge. The dictum is 'use it, or lose it!' More innovation improves future levels of competitiveness, creates new jobs and enables us to maintain our prosperity.

People are much further ahead elsewhere in the world. For example in Silicon Valley, where I made a working visit in the summer of 2012 with some of my colleagues from the European Parliament. This is discussed in further detail elsewhere in this brochure.



Source: *The Economist*, August 2011

Personal Invitation

"Your opinion counts! Attend the national conference 'New European R&D Policy: Netherlands, Seize Your Opportunities!' on march 28 at Tilburg University!"

Additional information: the conference programme will appear on the website in due course.

www.lambertvannistelrooij.nl



Toolbox for Smart Specialisation: how do we go about doing this?

National and regional governments throughout Europe are developing research and innovation strategies for Smart Specialisation. EU funds can be more efficiently deployed by focussing them on regional growth centres. For this purpose, the unique characteristics and competences of each country and each region will be identified, the competitive advantages of each region will be emphasised and regional stakeholders and resources will be brought together.

Smart Specialisation is an important condition in the European Commission's Cohesion Policy proposal for 2014-2020, particularly as a prerequisite for calling on the European Regional Development Fund (ERDF) for support for these investments.

In terms of the Europe 2020 Strategy it is important for policymakers to become aware of how smart, sustainable and inclusive growth are inter-related. Integrated strategies for Smart Specialisation are an answer to complex developments in which policy is adjusted to the regional context. The 'Research and Innovation Strategy for Smart Specialisations (RIS3)' to be prepared by every region maps out the route to knowledge-based jobs and growth, not only in the leading research and innovation centres, but also in the less developed regions and rural areas. Most is expected from Small and Medium Enterprises; this is where the highest growth will be achieved.

The development of the RIS3 strategy is an important part of the proposed reform in the context of the EU Cohesion Policy and supports a thematic concentration, reinforcement of programmes and a performance-oriented focus.

Smart Specialisation requires strategic choices and scientifically supported policy. Priorities must be determined on the basis of strategic information about a region's operating resources, challenges, competitive advantages and opportunities for top performance. The policy mix of available policy instruments (grants, loans and other support) helps companies and stimulates private investment.

In addition, result indicators will be developed to stimulate, direct and adjust policy and programmes. This way we promote continuous evaluation, learning and exchange of policy, experiences and best practices among regions. Through means of an RIS3 strategy we establish a bridge between small, medium-sized and large companies, stimulate multi-level governance and help build up creative and social capital within regional communities.

The practical details: what is being proposed? 1/2

Smart Specialisation is included as a condition for supporting investments as part of the EU Cohesion Policy for 2014-2020 for:

1. Strengthening research, technological development and innovation (D&I objective); and
2. Increasing access to and the application of high-quality ICT (ICT objective).

In the context of the R&I objective a national and regional research and innovation strategy for Smart Specialisation has been decided that:

1. Is based on a SWOT analysis designed to bring together resources for a limited set of research and innovation priorities;
2. Implements measures designed to stimulate private investment for research, technology and development (RTD);
3. Comprises monitoring and evaluation;
4. Will see to it that a member state has a budget plan that identifies the available funds for research and innovation; and
5. That a member state has prepared a long-term investment plan linked to EU priorities (European Strategy Forum for Research Infrastructures (ES-FRI)).

What are the European Parliament's goals?

Europe is working on realising Smart Specialisation on the basis of a two-track policy: on the basis of the Research and Innovation and the European Regional Policy funds. As negotiator in both areas, I devote my efforts to see to it that these programmes are formulated to be as attractive as possible for the Netherlands.

➤ *Approach as Rapporteur for the European Regional Policy 2014-2020*

The European Parliament in July 2012 adopted the main outlines for the deployment of the five regional funds between 2014 and 2020. As rapporteur I negotiate these funds with the European Commission and the Council of Ministers on behalf of the European Parliament. From now on we will ask regions to identify the sector in which they perceive major opportunities and where further specialisation is self-evident. The approach will continue to focus on investments in regional and urban programmes; I consider re-nationalisation to be counter productive. It is the regions that will realise growth; this also applies to adjacent countries.

The European Parliament first wants to see the financial compartmentalisation between programmes eliminated. Under the old regulations a project could only qualify for a single fund. We want a project to be able to qualify for multiple funds. An example that comes to mind is decentralised rural power generation. The objectives related to sustainability and regional growth converge in such initiatives.

In addition, Parliament wants to see a shift in projects. Regional funds were traditionally used for infrastructure. We have opted for a strict limitation to the EU 2020 strategy for the richer regions: smarter, greener and focused on jobs, now and in the future.

The funds are first of all focused on stimulating growth and competitive capacity for all European regions. My proposal for more cooperation between the best projects in Europe has been accepted. Europe will be linking the best players in various sectors. This will produce a suitable response to the increasing competitive strength in Asia and other emerging countries.

The challenge of reinforcing the competitive position demands clear choices. Germany has gone down the road of increased investment in Research & Development. In the Netherlands these budgets continue to lag. It is time for the debate on this topic to be initiated.

In the meantime Smart Specialisation is a topic of consideration in the Netherlands as well. This is consistent with the top sectors that have been adopted in the Netherlands at the national level.

The practical details: what is being proposed? 2/2

In the context of the ICT objective a chapter for digital growth has been included in the Smart Specialisation strategy pertaining to:

1. Freeing up budget for and assigning priority to measures identified via a SWOT analysis carried out in accordance with the Scoreboard for the Digital Agenda for Europe;
2. An analysis related to the well-balanced support for the demand and supply of information and communication technologies (ICT);
3. Measurable objectives for the results of actions in the context of digital literacy, skills, e-inclusion, e-accessibility and e-health that lie along the same lines as the existing national and regional strategies in these areas; and
4. An evaluation of the needs for building up a stronger ICT capacity.

Additional information:

see the website of the European Smart Specialisation Platform in Sevilla:
<http://s3platform.jrc.ec.europa.eu/home>



More Commitment is Needed

The partnership between the regions, member state and the European Commission is of major importance to the regions and cities. The EU wants to assure itself of the commitment of each member state. Consequently, an agreement will be formulated with each member state prior to the start of the 2014-2020 period. The regions and cities also have an important role in this respect in terms of identifying their priorities.

For example, the bio-based economy in the South-western Netherlands and energy in the North can certainly be expected to receive support. The urban dimension has not been excluded: sustainable and innovative urban renewal also form part of the priorities. The Parliament wants to achieve an agreement as quickly as possible so as to allow cities and regions sufficient time to prepare their plans.

The Commission's proposal involves € 336 billion. The final amount depends on the European budget negotiations for 2014-2020 that are expected to be completed at the beginning of 2013. In short: a lot of work remains to be done by the decentralised governments. From now on the focus in the EU is on 'Smart Specialisation'; the new buzzword.

Regions throughout Europe in 2013 are preparing themselves for the period 2014-2020. They are being asked to develop a Smart Specialisation strategy. This strategy should be selective on the one hand and challenging on the other. This process involves active consultation with the business community, government bodies and knowledge institutes. In 2013, all member states will be given the opportunity of signing the partnership accord with the EU. First come, first serve.

➤ *Approach based on the European Policy for Research & Innovation 2014-2020*

The Netherlands makes effective use of the European Framework Programme for Research and Innovation. But it could do better still: I am urging Western European knowledge institutes to increase their efforts of collaborating with Eastern European sister institutions in order to make Europe as a whole more competitive. I want to encourage collaboration with institutions in the new member states by rewarding such collaboration with an additional 1-10 percent over and above the European grants. Furthermore, in my view innovation funds provided by the structural funds for Eastern Europe also provide additional work for Dutch knowledge institutes. Indeed, they can assist in setting up new border-transcending (research) programmes. The emphasis on knowledge and innovation within the structural funds effective from 2014 is also interesting for Dutch initiatives such as Wet-sus (Leeuwarden), the Medical Valley (Leiden), Brainport (Eindhoven) and Foodvalley (Wageningen). Within the funds too there is a clear shift in emphasis from financing roads, bridges, airports, ecoducts and bicycle paths to stimulating knowledge clusters. Each region is asked: what do you do well? There will be consistency with the criteria of the EU 2020 Strategy designed to make the EU smarter, more competitive and greener. That provides greater focus and less fragmentation.

Lessons from Silicon Valley

Differences between Silicon Valley and Europe according to Prof Burton Lee from Stanford University (recorded during the working visit of 25 July 2012).

Culture:

- Attitude towards risk
- Attitude towards the work-personal life balance
- Attitude towards sharing information
- Active development of vision or wait until government develops it
- Optimism versus scepticism
- Open versus closed
- Speed: Processes and decisions are much faster in Silicon Valley
- The role of government: Minimal intervention in the US at all levels of government
- Institutions: Broader diversity of institutional models and size; greater flexibility in terms of the action to be taken
- Markets: Lower transaction costs, greater liquidity, larger and more markets
- Networks: Strong hubs, dense and efficient communication, global, fast formation

More will be happening on a European scale. We can deploy EU funds more efficiently and smarter. Knowledge is a raw material, one that is available in abundance in Europe and in the Netherlands in particular. Knowledge is 'free floating', so let us bundle it on a European scale. Are we making sufficient use of the technical engineers from Eastern Europe? Europe has lots of brains, so let us use them in smart ways. Doing so will help us to be among the top 5 knowledge economies by 2020.

➤ *Approach as Joint Negotiator for the EIT*

On behalf of the European People's Party I also negotiate on the 'European Institute for Innovation and Technology' (EIT). The EIT stimulates and facilitates collaboration in education, research and innovation among universities, research institutes and the business community. The EIT's objective is to stimulate innovation in Europe by promoting collaboration between industry and researchers. Not only in the laboratory, but also together with students, multi-nationals and start-ups.

As such it is the first institute that is focused on the entire innovation chain; ranging from education to application within the business community. For example, in Eindhoven there is collaboration among the Knowledge and Innovation Community (KIC), InnoEnergy and ICT to create smart combinations between ICT and energy efficiency.

What is our goal in all this? In June 2012 I launched a new idea that has since gained broad support in the European Parliament. In addition to the top European institutes I argued for 'Regional Innovation and Implementation Communities' (RICs). These RICs will contribute to the development of regional knowledge hubs that are not yet able to participate among the top in Europe, like Eindhoven and Delft by contrast are already able to do. The intent is for the RICs to participate in the KICs and this way evolve into EU top centres. The RICs can obtain funds from the regional investment funds.

What are the implications for the Netherlands? First, in addition to top players, such as Brainport, smaller knowledge hubs in the Netherlands will also be able to participate in the EIT. For example, Wetsus in the Northern Netherlands and Maintenance Valley in the Southern Netherlands come to mind. The 2014 themes suit us well:

1. 'Innovation for active and healthy ageing'.
2. 'Scarce materials and the bio-based economy';
3. 'Sustainable food production';
4. 'Urban mobility';
5. 'High-quality materials and production'.

In addition the EIT's annual budget will be significantly increased: from € 309 million to € 2.8 billion. Good news, for the Netherlands as well.



Google visit, summer 2012

Ideas for a more innovative Europe

Prof Burton Lee from Stanford University during the working visit of the European Parliament in July 2012:

1. The EU must participate more directly in Silicon Valley;
2. The EU is currently lagging in the innovation race. New ICT developments, and especially their pace, are bypassing Europe; this need to be improved;
3. The US has a much larger internal market than the separate markets of the 27 member states of the EU. Silicon Valley is in a leadership position at the global level, definitely when it concerns translation to the business world. This is why Europe must work hard to develop an internal online market;
4. Geographically, Silicon Valley is located close to Asia (Singapore, Korea, India and Japan). Europe feels that it can do it on its own. We have to enter into more partnerships

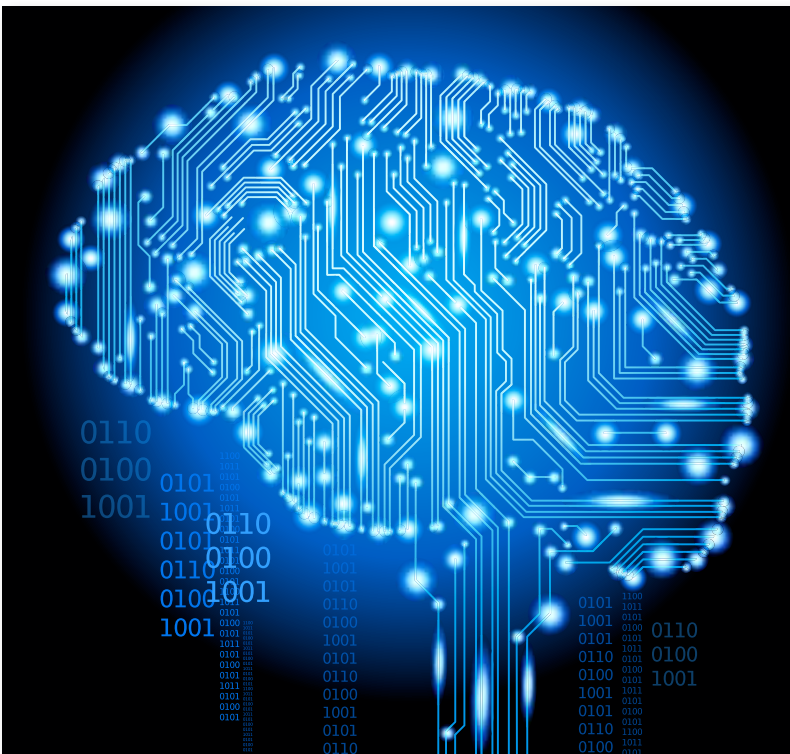


Professor Burton Lee, Stanford University
I have invited Burton Lee to give a lecture during the 5th European Innovation Summit in the European Parliament in October 2013.
Interested? Let us know.

Greater Synergy in Europe

The relationship between these approaches is documented in two reports that I authored and that have been adopted by the European Parliament. This involves a report about creating synergy between the European funds for Research and Innovation and the fund for Regional Policy.

A key theme of this report is the 'three Cs': Connection, Concentration and Cooperation. Europe supports Concentration in lead areas subject to the condition of the other two Cs. In other words: subject to the condition that these regions connect and cooperate with each other. This way the surrounding areas also benefit from their rise in prosperity. This provides future-oriented substance to solidarity and cooperation in Europe. Knowledge sharing and cooperation is a condition for the top performers when they want to qualify for the European funds in the 2014-2020 period. Do you also perceive such opportunities?



Visiting Intel, summer 2012

Intel in the coming years will invest more than € 3 billion in the Dutch company ASML, a leading supplier of photolithography systems for the semiconductor industry. A good example which demonstrates that the Netherlands and Europe are attractive due their head start in high technology knowledge and skills. It is essential to maintaining employability, now and in the future

Knowledge exchange and Smart Specialisation: why?

1. R&D costs are growing faster than the income of individual companies;
2. The complexity of issues and solutions is increasing and demands multi-disciplinary cooperation;
3. Breakthroughs are often realised at the interface of technologies or due to the convergence of technologies in an area of application;
4. Product life cycles reduce the 'time to market';
5. Due to the increased specialisation of individual organisations there is a need to make use of internal and external knowledge sources;
6. Sharing of R&D ideas, costs, risks and capacity.

Smart Specialisation: connecting top performers

The Netherlands from Follower to Leader

Although the Netherlands is doing well, we are not the best kid on the European block. According to the EU Innovation Scoreboard 2011, the Netherlands taken as a whole is an 'innovation follower'; we are in 7th place in this respect.

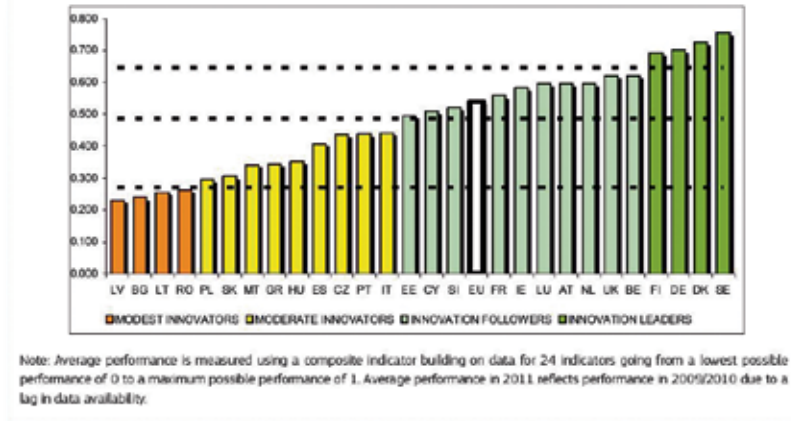


Figure 1: Innovation strength of EU member states in 2011. From: EU Innovation Scoreboard 2011. The Netherlands is in the upper middle class and is an 'innovation follower'.



Brainport: the smartest region in the world

The Netherlands has plenty of opportunities for playing a significant role in the Smart Specialisation process. The leading magazine Fortune in September 2012 announced the selection of Eindhoven Brainport as the smartest region in the world in 2011 on the basis of the data published by the non-profit think tank 'The Intelligent Community Forum'. On the one square kilometre High-tech Campus, 100 primarily technology companies and around 8,000 researchers, developers and entrepreneurs are collaborating in accordance with the Open Innovation Model. Together they are responsible for approximately 50% of all patents in the Netherlands.

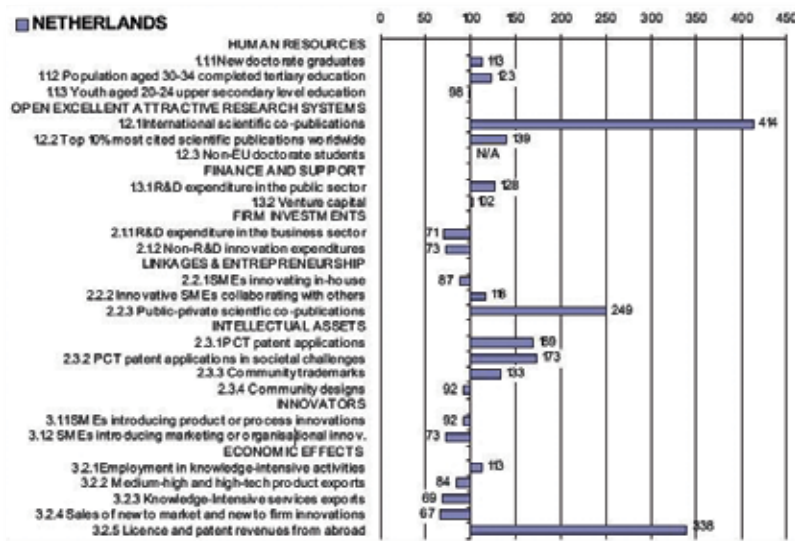


Figure 2: Areas of strength and for improvement relative to the EU-27 average. From: EU Innovation Scoreboard 2011.

Connecting top performers under the name Silicon Europe

High-tech companies from Brainport play a leading role in the national network of companies and knowledge institutes, for example in the area of micro- and nanoelectronics, ICT, 'Point-One'. Four of the leading micro- and nanoelectronics regions in Europe, including Point-One, bundle their strengths in the European cluster partnership 'Silicon Europe'. This constitutes one of the largest technology clusters in the world. The collective goal of the regions from Germany, Belgium, France and the Netherlands is to secure and expand Europe's position as the centre for micro- and nanoelectronics, and information and communication technology. Silicon Saxony (Dresden, Germany), DSP Valley (Belgium), Minalogic (Grenoble, France) and Point-One (Eindhoven) bundle their research, development and production experience. The four organisations together represent 800 research institutes and companies among which are the world market leaders Philips, NXP, Globalfoundries and Infineon. As such Silicon Europe is one of the largest technology clusters in the world. 'Silicon Europe' is stimulated by the European programme 'Regions of Knowledge'.

Micro- and nanoelectronics is considered one of the 'Key Enabling Technologies' by the European Commission as well as the Dutch government; it is applied in medical systems, the internet, telephones and cars, as well as in production processes and machines. A healthy micro- and nanoelectronics foundation contributes to a strong and innovative European economy.

To maintain and increase Europe's competitive position at a world scale, the bundling of regional knowledge and skills of these four European regions in micro- and nanoelectronics is essential. By regionally highlighting the key research topics within which the four regions set priorities for research and product development. This way Silicon Europe contributes to the realisation of the Europe 2020 Strategy.

This also applies to the High-tech Systems and Materials (HTSM) top sector in the Netherlands. This sector is capital intensive and collectively invests more than € 2.3 billion per year in in-house research and development. Some companies export more than 90% of their production value; others invest up to 20% of their revenues in R&D. The objective is to bring the export value of the high-tech sector to € 77 billion by 2020. Not only the large players benefit from this approach, but the SMEs and the knowledge institutes as well. Seems to me an ideal opportunity for European cooperation.

This example in nanoelectronics demonstrates that this sector is succeeding in keeping high-quality research and product development in Europe. Much of the production of end-products and components has since shifted to Asia. Concentrating high-quality core activities increases the chances of keeping Europe competitive in the high-tech sector. 'You use it, or you lose it', applies to more and more sectors. What now applies to the nanoelectronics sector will also apply to other sectors in coming years.



Silicon Europe.

Source: http://www.silicon-europe.eu/images/container_bg.jpg.



Reflections from the Business Community

Opportunities for expanding top centres and top regions are still there. What are the factors that motivate domestic and foreign companies and centres to establish an office somewhere? What can we learn from some recent experiences?

Newcomer in Europe: why, where?

By: Wouter van Wijk, EU Public Affairs Manager, Huawei Technologies

Huawei Technologies, a leading global provider of ICT solutions, in September 2012 decided to invest £ 2 billion in the United Kingdom over the next 5 years. This is only just one of the many investments that Huawei has made since 2000, the year in which the company became active in Europe. What counts, when large multi-nationals set their sights on Europe? Which regions score and why?

When it announced its investment in the United Kingdom, Huawei indicated that in part this was related to the fact that the United Kingdom's government is transparent and efficient in the way it operates. The political climate is an important factor in deciding to invest. For a company like Huawei it is very important that a government is prepared and capable of engaging in a constructive dialogue as a means of building mutual trust. In the 140 countries in which Huawei operates, trust is the catalyst for social and commercial interaction. However, local conditions also play an important role in deciding to invest in one country rather than another.

Huawei sees Europe as an important region for its global strategy. In 2001, Huawei opened its first offices in Europe; in Basingstoke (GB) and Eschborn (DE). A few months prior to this Huawei opened its first R&D centre in Sweden. These sites were selected due to the availability of well-educated workers and the proximity of the first customers. This is consistent with Huawei's philosophy of putting the focus on the customer and being physically present in proximity to the customer. The most prominent example of this is the office in Düsseldorf right across from the head office of one of Huawei's largest customers, Vodafone.

In November 2011, Huawei opened its first Global Competence Centre outside China in Milan for the newest generation of microwave technologies. This centre serves as a new hub for excellence and innovation at a global level. The decision to also vest itself outside China shows that the concern wants to invest locally as well, close to its customers. In addition, the centre is also responsible for service, marketing and sales. The decision to invest in this centre in Milan was also taken on the basis of the availability of universities and well-trained workers in the region. Lombardy is internationally renowned as a natural ecosystem for the development of microwave technologies.

Huawei wants to further expand its activities in Europe over the coming years. Huawei now has 37 branches, 10 R&D centres and 7,300 employees in Europe. By the end of 2014 this number is planned to increase to 11,000. Investment decisions, such as those referred to above are taken on the basis of trust, proximity to the customer, local partners and well-educated workers. Huawei wants to enrich the quality of life through means of communications and by continuing to focus on the wishes of customers by offering high-quality technologies and services that provide real added value. There are opportunities here, and that includes your own region as well.



Reflections from Actual Practice

Wetsus: Textbook Example for Smart Specialisation

By: Pieter de Jong, EU Liaison Officer, Wetsus

The strategic commitment of the Province of Fryslân and the city of Leeuwarden to water technology approximately ten years ago is an example of successful Smart Specialisation in the northern part of the Netherlands.

By daring to make a choice, a solid basis has been established for an international innovation cluster in the field of water technology that is increasingly being recognised by the water technology sector, the national government and European institutions. The lack of a university within the provincial boundaries has been used as a strength of the innovation cluster. This meant that Wetsus was free to establish links with universities in other parts of the country and subsequently in other member states as well. At this point in time we have 18 universities in 9 EU member states with a total of 45 European Chair groups. This way the multi-disciplinary knowledge is insourced and 70 PhDs work in-house on ground-breaking research at Wetsus at the Leeuwarden WaterCampus. And with success. The Wetsus research programme has gained international recognition due to the impact of its scientific publications and patents, and now has the reputation of being the most highly integrated water programme in the world.

The research is commissioned by the business community. In addition to the water technology sector, the problem owners are also involved in the research programme. Companies from the chemical, food, beverage, energy, HTSM, agriculture, drinking water, waste water and many other sectors are directly or indirectly dependent on water for their production processes. Because water is a strategic key enabling resource for them that they cannot do without, they have a vested interest in participating in this industry-driven programme instituted by Wetsus. This participation has since grown to 95 companies that finance 30% of the research in this public-private programme with long-term commitment and a high degree of trust. The percentage of SME companies in the research programme is 45% and the number of start-ups in the cluster is also considerable.

A unique cluster has emerged around Wetsus over the past 9 years: Waterampus Leeuwarden. Research, education, innovation, commercialisation and marketing converge on the campus. In addition, the unique European Master in Water Technology is taught here. This way all elements of the knowledge triangle converge. At the beginning of 2013 an expansion of the Watercampus will be initiated.

The European Commission and the European Parliament view this development as a textbook example of how Smart Specialisation should be effected. A regional centre of excellence with added value for the EU as a whole. Various European programmes support Wetsus. Many Wetsus crossovers with other northern clusters (Energy, Healthy Ageing, Agribusiness and Sensoring) as well as the international crossovers with universities and companies in other European regions are essential in this respect.

This way Wetsus demonstrates how in over 10 years a EU top performer has been put on the map with greater competitive capacity in the field of water technology for the EU as a whole.

Expanding new regional hubs: it is still possible. Read how Wetsus took the initiative and became a leader in Europe.

Additional information: www.wetsus.nl



Model of the WETSUS WaterCampus: 'The Whale'

Reflections from Actual Practice

Smart Specialisation: World Class Maintenance

By: Lex Besselink, CEO Dutch Institute World Class Maintenance

The importance of maintenance has been recognised in the South-western Netherlands since 2007 by the 3 pillars entrepreneurship, education and government. Specific improvements were achieved via small and larger innovative projects involving tens of companies in the maintenance sector, which only served to even further reinforce the importance of maintenance. The focus of the World Class Maintenance programme is aimed at the sectors in the Dutch (manufacturing) industry that primarily use capital intensive goods with a lifespan of 15 years or more. Here we are talking about assets such as process installations, power plants, aeroplanes, ships, infrastructure - bridges, tunnels, railways, water distribution, etc with a value of approximately € 400 billion in the Netherlands alone. And this does not yet include real estate!

To ensure that the (manufacturing) industry continues to operate successfully in the Netherlands and Europe requires an excellent maintenance society. If the Netherlands and Europe want to continue to grow economically it cannot depend on the services sector alone. This also requires a manufacturing/production sector. Maintenance can ensure that this sector remains competitive in comparison to other areas of the world. The World Class Maintenance programme was created on the basis of the visions and initiatives of the regional development corporations and companies in the South-western Netherlands supported by the Ministry of Defence and Economic Affairs and the education and research sector. Financially it was facilitated by grants from the provinces of Zeeland, Noord-Brabant and Limburg and the European Fund for Regional Development (EFRD). The initial and the continuously increasing support and participation from the business community is and remains the crucial source of funding and determines the success of the World Class Maintenance programme.

The programme builds onto the solid foundation created in the Southern Netherlands by the High-tech Systems & Materials (HTSM), Chemical & Process Industry, Energy, Logistics and Water clusters. Emerging clusters or clusters with growth potential include, but are not limited to Maintenance, the Bio-based Economy and Life Sciences and Health. Work is underway in various partnerships on the development and, certainly just as important, the rollout of new technologies, products and related services.

Over the coming years, with or without the support of national and European programmes, at the behest of industry, the focus on initiating and developing (open) innovation projects will be expanded. Together with entrepreneurs, educational and research institutions, if necessary facilitated by government (triple helix approach), cross-sector work will be carried out in the Chemical, Logistics, HTSM, Energy and Water top sectors on innovation projects in the area of maintenance planning and systems, monitoring-based maintenance, safety & reliability, service logistics, maintenance engineering, physical failure factors, human factors and management and organisation.

Boundary-transcending innovative projects are also being initiated and developed in the area of maintenance education, as well as between companies, such as the 3i project with participants from Flanders, Northern France and Britain in the area of unmanned flight. In addition, representatives from Belgian companies participated in the Summer School organised by DI-WCM/MEC in August 2012 and the collaboration with the Belgian Association for Maintenance is increasing in intensity.



Reflections from Actual Practice

The focus and ambition of the Dutch World Class Maintenance Institute, of which I am the director, is primarily aimed at the sectors in the Dutch (manufacturing) industry which primarily use capital intensive goods with a lifespan of 15 years or more. The maintenance sector required to maintain these capital-intensive goods and installations offers extensive employment opportunities in the Netherlands and billions in contributions to the annual GDP. In addition, the service logistics, in which maintenance and logistics converge, provides a further turnover of € 8 billion annually. Once you realise that billions are annually spent just on preventing and fighting corrosion, i.e. rust, it is not difficult to compute that maintenance during the life of the asset costs more than the acquisition of the installations and/or goods.

Furthermore, in the Netherlands a large portion of the industrial infrastructure was built between 1950-1970. Based on the experience that technical installations on average last 30-40 years, that the scarcity of raw materials is a current theme and that through means of modern technologies life-extending measures are an option, this means that maintenance needs will be increasing. This is furthermore reinforced by the increased social awareness and necessity of producing safely and sustainably.

As a result of the baby boom, a large group of maintenance workers with a great deal of experience will be leaving companies in the Netherlands over the next 5 to 10 years. Add to this that in addition to the greying population, the number of new workers entering the market is also insufficient (fewer young workers). This combined with the virtual to total lack of knowledge of the maintenance profession and its poor image, makes interesting younger people in educational programmes that are relevant to the maintenance sector a major challenge. Even if more young people opt for the maintenance profession, it will still not be possible to fill vacancies to a sufficient degree. This demands an especially efficient alignment between the needs of the business community and educational institutions/schools. Furthermore, investigation will be required to determine whether innovative methods, such as virtual reality, robotics and other methods of working will allow the quantitative needs to be adjusted downwards.

The rapid technological developments on the one hand cause maintenance to become more complex and demand more well-trained workers. On the other hand, the benefit of these developments is that it offers the possibility of creating 'intelligent' systems. Sensors can help in developing condition-based maintenance and monitoring the maintenance situation remotely and perhaps, as is the case already in the aerospace industry, carrying out remote maintenance (remote monitoring and controlled maintenance).

Our mission is clear: We will be developing, stimulating and disseminating Maintenance Awareness and the World Class Maintenance Model and introducing it into actual practice. In this respect, the DI-WCM already does today what will be stimulated in the European Union in the coming years with smart specialisations and we can therefore serve as an example and further increase our collaboration with other European regions.



Maintenance Valley



Parliamentary debate

MEPs on fact finding mission in Spain

From 12-14 February 2013 the Committee on Industry, Research and Energy of the European Parliament visited Spain. The visit started in Tarragona on 12 February with meetings with local authorities, representatives of companies and of the University Rvira i Virgili to discuss their proposals regarding Smart Specialisation. After that, we visited the Institute for Prospective Technological Studies in Seville, part of the EC Joint Research Centre (JRC), to discuss the future position of Smart Specialisation and its role in strengthening the European economy.

The exchange of views highlighted that in order to facilitate the participation in the EU programmes and the access to regional funds, further simplification was needed for the next cycle of programmes. The importance of regional Knowledge and Innovation Communities (KICs) were underlined. Our Spanish partners expressed hope that new KICs would be launched soon, as they are seen as a good way to leverage private funds. The discussion particularly focussed on the Regional Innovation Clusters (RICs) as an additional instrument for regions to improve their innovation capacity.

My focus when visiting the EU Joint Research Centre was merely on the S3 Platform. This platform supports the EU countries and regions preparing for accessing funds for Research and Innovation. In the next regional funding period there is an ex-ante conditionality for regions to have a Smart Specialisation Strategy (RIS3) in place in order to be eligible to receive funding from the EU structural and regional investment funds.

I highly appreciated the experiences of the experts in Seville. I took them on board in the negotiations on the 2014-2020 regulation. In the 'trilogue' negotiations between the European Parliament, the Council and the Commission, it has now been agreed that every member state or region has to present a Smart Specialisation Strategy in 2013. The details of the synergy between the EU funds for beneficiaries are safeguarded in a separate document: the Common Strategic Framework (CSF).

Smart Specialisation is there, in the legal texts. There is special attention for the less developed and less performing regions in the 'Stairway to Excellence'. As Rapporteur, I am very glad with this result. Now we invite you, partners in international cooperation and excellence, to participate.



Delegation picture

Parliamentary debate

ICT and Internet: the European Internet Foundation

The European Internet Foundation (EIF) provides European political leadership for the development of European public policies to deal with the worldwide digital revolution. During the summer of 2012, an EIF delegation of Members of the European Parliament visited the tech hubs in New York and Silicon Valley, to learn how innovation is done in the US and develop strategies on how to apply this in Europe. In 2013, the EIF organises visits to ICT-hubs in Asia and Brasil. It takes part in the Smart Specialisation Strategy by visiting and encouraging European ICT-hubs and centres of excellence to claim their role in the new 'app economy'.

New advances in Information and Communication Technologies (ICT) continue to evolve at an astonishing rate. This drives change across the full spectrum of human activity with profound social, economic and political consequences. These dynamics confront politicians and regulators with new issues. Smart Specialisation is now on the agenda of the EIF. Experiences all over the world will evoke more excellence in all EU Member States. My question, as a governor of the EIF: where is the next big European 'Silicon Valley', or will we rather see many smaller, but highly specialised 'Silicon Valleys'?



More information: <https://www.eifonline.org>



EIF delegation visiting Symantec, summer of 2012



EIF delegation visiting Intel, summer of 2012



EIF delegation visiting Ericsson R&D Campus, summer 2012



EIF delegation visiting Intel, summer 2012

Parliamentary debate

Knowledge4Innovation Forum: the wake up call for Europe

The K4I Forum of the European Parliament, that I have the honour of chairing since 2009, consists of a group of Members of the European Parliament fully committed to stimulating innovation in Europe. In order to build coalitions needed to succeed in this aim, the K4I forum organises regular discussions between universities, entrepreneurs and public authorities. Every year, we organise a high level European Innovation Summit (EIS) in the European Parliament. This Summit is supported by European Commission president Barroso, former President of the European Parliament Jerzy Buzek and the Commissioners Geoghegan-Quinn, Hahn, and Vassiliou.

The 4th European Innovation Summit in 2012 gave a strong signal for the priorities in the 2014-2020 Multiannual Financial Framework. Innovation is at the heart of our approach for growth and jobs. The European Commission and the Council of Ministers took the conclusions on board. Now that the Regulations for the EU structural and regional investment funds (222 billion Euro¹) and the research fund Horizon 2020 (70 billion Euro²) are set, we are organising a 'wake up call' to make sure the new possibilities will be used by the partners in the member states. For the outcome, see:

http://www.knowledge4innovation.eu/sites/default/files/4EIS_OutcomeBooklet.pdf



The poster features a blue and white color scheme. At the top left is a silhouette of a human head with a glowing brain. The main text is centered and reads: '5th European Innovation Summit', '30 September - 2 October 2013', 'European Parliament, Brussels', and the 'knowledge4innovation' logo. Below this, a large 'Save the Date' section is followed by the text: 'Become part of the debate on the future of innovation in Europe', '30 September - 2 October 2013', 'We kindly ask you to note this event.', 'The invitation and the agenda will follow soon.', and 'We look forward to welcoming you.'



In the fall of 2013, K4I will organise the 5th European Innovation Summit in the European Parliament. For more information please send an email to k4i@Knowledge4innovation.eu or visit <http://www.knowledge4innovation.eu>



Starting K4I in 2009: Roland Strauss, Paul Rübige, José Manuel Barroso (President of the European Commission), Lambert van Nistelrooij

¹ Provisional amount. The final amount depends on a final deal between the European Parliament and the EU Member states on the 2014-2020 Multiannual Financial Framework (MFF), expected by summer 2013.

² Idem.

Europe Close-by Publications:

1. Regionaal Beleid Revisited (Regional Policy Revisited) May 2004
2. Van Halderberge tot Deurne: Europese Referendumcampagne
(From Halderberge to Deurne: European Referendum Campaign) July 2005
3. Making Innovation Visible December 2005
4. Vergrijzing: Kans en Uitdaging (The Greying Population: Opportunity and Challenge) December 2005
5. Handleiding EU Regionaal Beleid in Nederland (EU Regional Policy in the Netherlands Manual) August 2006
6. Energie is 'Hot' (Energy is Hot) December 2006
7. Creatieve Industrie: Recept voor Groei (Creative Industry: Recipe for Growth) May 2007
8. Wegwijs in een nieuw Regionaal Beleid in Nederland en de Europese Unie 2008-2013
(Finding Your Way in a New Regional Policy for the Netherlands and the European Union 2008-2013) September 2007
9. Het platteland in verandering: Bouwstenen voor een Vernieuwde Aanpak Regionaal Plattelandsbeleid
(The Changing Countryside: Building Blocks for an Innovative Approach to a Regional Rural Policy) January 2008
10. Europa Dichterbij: Focus op Verandering (Europe Closer-by: Focus on Change) January 2008
11. Klimaatverandering: Een zaak van iedereen (Climate Change: Everyone's Business) April 2008
12. A new Regional Policy: Innovative Ideas for the Post-2013 Reform October 2008
13. Regio's aan zet - naar een nieuw Europees Regionaal Beleid voor Nederland
(The Regions' Move - Towards a New European Regional Policy for the Netherlands) March 2009
14. Europese waarden en normen: regionale identiteit en interculturele dialoog
(European Values and Standards: Regional Identity and Inter-cultural Dialogue) April 2009
15. Brabanttuin: opmaat naar Culturele Hoofdstad (Brabant Garden: Towards a Cultural Capital) April 2009
16. Energie en klimaat: naar Kopenhagen... en verder (Energy and Climate: To Copenhagen... and Beyond) November 2009
17. Vergrijzing en krimp: Kansen voor jong en oud in de 'zilveren economie'
(The Greying Population and Contraction: Opportunities for Young and Old in the 'Silver Economy') December 2010
18. Ontwikkelingssamenwerking: Nieuwe aanpak voor Europa en Nederland
(Development Cooperation: A New Approach for Europe and the Netherlands) May 2011
19. Europese Structuurfondsen 2014-2020: een toekomstperspectief
(European Structural Funds 2014-2020: A Future Perspective) October 2011
20. Investeren in de regio (Investing in the Region) January 2012
21. On the Move July 2012
22. Slimme specialisatie: Europese toppers verbinden
(Smart Specialisation: Connecting European Top Performers) January 2013

