

SMART Europe
Final, In-Depth Assessment Report
MID SWEDEN



Summary

During their visit to Mid-Sweden, the group of peer reviewers had several meetings, interviews and panel discussions with county officials of the region as well as actors operating at different stages of the innovation process. Based on their findings, and after a SWOT analysis, they drew a set of recommendations for the region that will be deepened in the following report.

Overall, the participants agreed on the fact that Mid-Sweden has numerous advantages, notably a good quality of life, a good business environment and a focus on key sectors such as outdoor activities, tourism, forestry or clean tech.

Right from the beginning, the peer reviewers highlighted the importance of ALMI, umbrella organization which coordinates and defines national strategies of innovation and accompanies the individual activities at regional level.

However, apart from ALMI, there is a wide range of actors working in the innovation sectors as well as a variety of public and private stakeholders to support potential entrepreneurs in the different stages of business development. Whereas this creates a good entrepreneurial spirit in the region, the services offered by this high number of actors are overlapping due to a lack of coordination and visibility.

Another main challenge for the region is to reverse the phenomenon of out migration of young highly educated people by inducing a change in the labor market to foster more challenging jobs. Mid Sweden has a number of assets on which to build on and should therefore advertise it via the dissemination of success stories in order to attract skilled workers in the region.

Based on these findings, the participants came out with one main recommendation for the region which is to create a lively and visible interface between business owners or potential entrepreneurs and support organisations to attract skills in the region.

Section 0: Introduction

(a) Short introduction to the SMART Europe Project

SMART Europe is based on the concept that smart and targeted regional policies and interventions can be designed to boost the employment directly in the regional innovation-based sectors.

With this aim, a consortium of 13 partners, representing 11 EU regions, will exchange policies and instruments for identifying and supporting the main regional economic actors that can generate job opportunities in the innovation based sectors of their economy.

SMART Europe will support decision makers to improve their strategies with the aim of incorporating the creation of employment as an additional key feature of their activities.

(b) Short introduction to the Peer Review methodology

SMART Europe Peer Review Methodology helps regions to improve their policies in boosting employment in the sector of their “innovation anchor”.

The SMART Europe Peer Review Methodology is an adaptation of the peer review methodology of the Assembly of European Regions (AER), developed directly to use it during the SMART Europe project, when assessing different regions’ innovation anchors. The methodology standardises the relevant aspects that need to be measured, in order to enable experts with different background, to assess the regional situation in an objective way. By this, they will be able to give appropriate recommendations on the field of innovation-based job creation in the host region. The other important advantage of peer reviews is the selection of experts, who are practitioners in the field of the assessment, which means that the recommendations given by them after the review will be practical and realistic.

Section 1: Overview

(a) Short description of the Host Region, general overview, economic profile.

The Mid Sweden Region consists of 2 counties – Jämtland and Västernorrland – with 15 municipalities. The region is located in the geographical middle of Sweden and has access to the Gulf of Bothnia. It is characterised by an impressive natural environment, which it protects actively. Its highly diverse landscape is composed of urban and rural areas, mountains and coastlines. The High Coast, with World Heritage-status is located on the north-eastern coast of Sweden, between Härnösand, Kramfors and Örn-sköldsvik is an area of unique geological interest. To the east, the mountain area goes from old forests to a rolling landscape and alpine massifs.

Population in both counties reaches 370,000 inhabitants. With a population density of 5.2 inhabitants/km² and strong disparities between rural and urban areas, some areas are very sparsely populated and long distances are a common feature. Mid-Sweden is a fast urbanising region that aims to increase its population in order to achieve its objectives of innovation, growth and attractivity.

A specific characteristic of the regional economic activity is the crucial role played by forestry, with the primary sector accounting for 6.6% of regional GDP compared to 1.7% at national level. The industrial and manufacturing sector (accounting for 30.5% of regional GDP) is concentrated on key area such as pulp, paper and paper products, together with construction and industry for machinery. The service sector is less developed than the national average, weighing 63% of regional GDP vs. 71.4% at national level although the percentage of people it employs is very similar to the national figure. The main areas of the service sector are: health and social work, education, wholesale, retail trade and tourism.

Mid Sweden brands itself as a clean tech region and supports the emergence of a new cluster of clean tech SMEs. Although the two counties face similar challenges, the economic activity is quite different, with Västernorrland focusing on forestry and clean tech and Jämtland being less industrialised and specialising on outdoor sports and green tourism. The distribution of clusters and science parks across the region reflects these differences: Peak Innovation (www.peakinnovation.se), in Jämtland is aimed at facilitating and enabling business establishment in the focus areas of tourism, sports and the outdoors, while Åkroken (<http://akroken.se/>) in Västernorrland, is focusing mainly on the forest fibre industry. World leading forest industry companies such as SCA and Metso are present in the area as well as a large number of small enterprises active in the field of clean technology. Employment in big and medium size companies in the industrial and manufacturing sector has recently been steadily declining with large foreign companies having difficulties to recruit qualified workers and relocating their activity. Business in Jämtland is characterised by a large number of small family-owned enterprises. The seasonal conditions in combination with old traditions provide a solid and sustainable basis for durable products and business ideas. Locally produced quality food gained new

attention in the past few years and the city of Östersund won the UNESCO title of Creative City of Gastronomy.

In terms of strategy, the focus areas defined by the region are people, skills, innovation capability and accessibility and infrastructure. The regional unemployment rate for 2011 (8.2%) is higher than the national one (7.5%); and especially male unemployment is higher by 3 points in the region than in the rest of the country. There are also more young people unemployed in Mid-Sweden than in the rest of the country and although the region enjoys rather good living conditions, it is faced with continued out-migration, especially of female graduates.

The Mid Sweden University has three campuses, Härnösand, Sundsvall and Östersund, with approximately 16,000 students. Around 60% are campus students, while the rest engage in distance tuition via net-based courses and programmes. The distribution of campuses across the region plays a role in terms of attractivity for enterprises and workers alike. It also ensures adequacy between R&D and the market.

(b) Description of Peer Review focus (why it was chosen, specific questions and expected outputs of the Host Region)

Hypothesis

In SMART Europe, the Peer Review process kicks off through the establishment by the host region of its main innovation drivers: in Mid Sweden, a larger acceptance amongst companies of the concept of innovation as an inherent strategy to improve competitiveness and profitability in the local context, was identified as being key to foster the creation of innovation-based jobs.

The region is characterised by long distances and a strong feeling for independence amongst entrepreneurs, who are often satisfied with the way their business is running. However, at a regional scale this attitude may not be sustainable on the longer run as innovation is generally seen as a vector for sustainable growth and lack of innovation makes enterprises vulnerable to technological or economical changes. In this context it is vital to establish a trust relationship between entrepreneurs and the innovation system.

Questions

The region asked peers to **identify the missing link between an entrepreneur with an idea and the innovation system**, in order to improve the effectiveness of regional innovation policies.

They more specifically asked how to reach out to wider groups of companies and support them locally to engage in networks discussing ambitions and investment strategies regarding market, competence and innovation.

Section 2: Regional Strategy

(a) Key Findings

The Mid Sweden region provided information on the regional strategy for innovation and job creation in both counties: Jämtland and Västernorrland. The Mid Sweden region emphasizes the attractive living and business environment and the entrepreneurial spirit. In the regional development strategy 2011-2020 innovation is a driving force next to accessibility and demographic challenges.

Based on this information, the peer team assessed the regional strategy and concluded as follows:

Job creation appearing in strategy

The region is proud of the amount of SME's, start-ups and solutions. They play an important role in the strategy on job creation. The region wants to increase the share of young business owners. There is a strong focus on profitability of innovative ideas of entrepreneurs over the job creation potential of the region. Due to the fact that a lot of SME's are small and self-employment is on a high rate, a strong focus on (starting) entrepreneurs is in a way also vulnerable.

Innovation appearing in strategy

There is a strong focus on building a capacity for innovation. The Mid Sweden region has an extensive innovation system that consists of a wide range of development agencies, venture capitalists, science parks, incubators, dynamic networks and clusters. During the evaluation visit we were impressed by the variety and by the professionalism of these organizations.

In order to increase the investments in R&D and the amount of SMEs, the regional strategy aims to create opportunities for all viable ideas to develop into business. In order to achieve these objectives, the Mid Sweden region applies measures of:

- Innovation and investment climate
- Entrepreneurship and start-up promotion
- Clusters and innovative systems
- Strategic regional marketing.

➤ **Coordination**

The Mid Sweden region consists of two different counties: Jämtland and Västernorrland. Both have their own strengths. In addition there are a lot of good and wide spread initiatives implemented and facilitated in order to provide all entrepreneurs with a good idea all the support needed. This wide range of complementary actors as development agencies, venture capitalists, science parks and incubators requires visibility and coordination. Especially in an area with long distances it is crucial to have good contacts.

As mentioned in the SWOT-analysis the Mid Sweden region can build upon their good contacts. Distances have shaped a willingness and an ability to use contacts well. Furthermore the innovation system should be easily recognized and accessed by the entrepreneurs. The peer team noticed that the considerable amount of actors with their different roles and activities aimed at the SME's are not, however, always very clear to them.

➤ **Internationalization**

Long distances to the international markets and the strong currency are a threat for the region. Facing this challenge, the tourism industry uses an effective marketing and innovation strategy: knowledge based, destination driven, build on the strengths like local gastronomy and a strong focus on Sweden, Norway and upcoming market Russia. This example shows the benefits of joining forces and working together.

(b) Recommendations

➤ **Set higher goals with visible milestones (SMART)**

As mentioned above, we were impressed by the variety of strong elements in the innovation system like development agencies, venture capitalists, science parks, incubators, dynamic networks and clusters. The peer team was invited to search for the missing link. But we did not see the problem. We saw a solid base of good initiatives, a strong sense of responsibility and confidence in creating a bright future. In order to meet all opportunity's in an effective and efficient way we recommend to be ambitious. Set higher (specific, measurable, acceptable, realistic, time-framed) goals with visible milestones so the different actors have to make strategic choices in how to deploy their capacity and means in order to meet the needs of the SME's.

➤ **Use each other's strengths to be the best in each field**

Despite the different economic profile of Jämtland and Västernorrland, there is also a good basis to develop a common approach and use each other's strengths. Both counties share for example the ambition to be the best in a certain field of expertise. Knowledge based innovation, branding activities or other experiences and working methods in order to deliver Europe's leading nature based experiences (outdoor tourism) can also be

useful in being successful in the Forest Innovation Arena and vice versa. Create more synergy between both counties.

Negative population trend due to workforce demand of Norway or other Swedish regions make it crucial to keep the youngsters in the region. Maybe this common approach can play a key role in creating a more attractive and cooler environment for young people to live, work and stay in the region. Use each other well!

🟢 ***Build on your strengths***

The SWOT analysis shows that Mid Sweden has a lot to brag about. Due to long distances, you have good contacts and you use them well. There are good and widespread initiatives. Support by different stakeholders in the first stages of business development is available. Priority areas for research and development are well defined: forestry, clean technology and outdoor tourism. Use what you have, but take into account that local benefits need local focus.

🟢 ***Stimulate new crossovers***

Innovation is often found at crossroads, where different fields of expertise come together. During our visit we did not see an example where the traditional sectors are challenged to use new technologies and developing new products. Make it a central topic in the strategy with a certain consciousness, so that companies and organizations know that they are a part of and contribute to the value chain. Stimulate traditional sectors to make crossovers, to experiment and be creative.

Good practice n°1

FastForward – To drive faster growth within SME companies

Fast Growing Companies

FastForward is a program aimed to helping ambitious entrepreneurs (SME) to accelerate their growth as fast growing companies are, more than other companies, boosting job creation and innovation. Companies are seen as fast growing companies as they have grown in sales, at least 20-30% for at least 3 consecutive years.

This program is a joint initiative of the province of Flevoland in cooperation with two other provinces and two municipalities, and also knowledge-intensive and innovative companies with financial support from the state.

Work ON your business, instead of work in your business

Many entrepreneurs are working in their business (helping current clients, accounting, etc.), instead of working ON their business. The main challenge is to strike a balance between managing the current business and building a sustainable future.

The quote "working on your business" seems abstract, but ambitious entrepreneurs instantly recognize the importance of this statement. In addition, they quickly see the added value through cooperation with other entrepreneurs.

Common *language*, different branches

The backbone of the program is based on the proven methodology of growth "Mastering the Rockefeller Habits" by Verne Harnish. Obviously there is no panacea for growth, but the clear intent and own use of the method ensures that a common language is created. This gives clear guidance to connect the long term with the next 90 days, among themselves within the program and within their company.

The program provides a common ground and language for the participants working in different branches and segments. Therefore the diversity of the companies is no longer an obstacle but building on the strength of the region. As a result a community of ambassadors for growth is created: by and for entrepreneurs.

Success factors

- Ambitious entrepreneurs only want other ambitious entrepreneurs to work with in such a program. In other words, selecting the right entrepreneurs is the key. Make them feel proud to enter the program.
- Hire entrepreneurs to develop and produce the program, together with a learning professional or professional trainer/business coach.
- Develop a program with a clear structure, monthly rhythm and make it a 1-year program at least.

Section 3: Education and Human Resources

(a) Key Findings

Multi-campus network university

Mid Sweden University (Mittuniversitetet) is a multi-campus network university, with centres in Härnösand, Sundsvall and Östersund, being one of the ten largest institutions of higher education in Sweden. The university has a decentralized structure with two faculties, the Human Sciences and Technology and the Natural Sciences, and sums up 16,000 students. Education and research are carried out in eight departments.

Besides setting-up 3 campuses, the university is trying to deal with long distances in Mid Sweden by developing net-based learning, approximately 40 percents of the students studying such courses or programmes.

University is also internationally oriented, 19% of its students being foreign students (mostly from Asia), enrolled in international programs, or exchange students.

Good match between business needs and education programs & competences

With an initiative like MIUN Innovation, Mid Sweden University is trying to fill the gap between research and the commercial market.

MIUN Innovation is a creative meeting place where students, teachers and researchers at Mid Sweden University get help to realize and turn their ideas into business ideas.

Concerning co-operation with regional actors, Mid Sweden University has close links with industry and commerce, local authorities, governmental authorities and other bodies in the region.

On the other hand, the fact that the University board includes, besides professors and the university management, a bank director, a number of CEOs from the regional business environment, as well as the president of the Swedish Sports Confederation, makes the university even more aware of the specific demands the regional labor market is raising concerning skills and competences a Mid Sweden University graduate should possess.

School drop-out

One aspect which constitutes a problem for the region is the unwillingness of young men to apply for or, sometimes, finish their higher education, which leads to underrepresentation of men in higher education and a rate of tertiary education below national level.

This can be related with a social behaviour also, because boys are really not motivated to go on with their studies, since, in the region, men have higher salaries than women do, even if the last ones are better educated most of the time.

(b) Recommendations

• *Try to induce a change in the labor market by fostering more challenging job profiles*

One aspect that was brought to our attention several times during the meetings with regional representatives and different other institutions from both Jämtland, as well as Västernorrland was the continued out-migration of young, highly educated people, especially of female graduates. And they move out to more intensely urbanized areas, such as Stockholm or Malmö, probably looking for a more challenging job, one that offers them more opportunities for personal development.

Mid Sweden should really look more closely into the reasons why young people prefer to move out after they finish school. This way, the authorities would be able to identify the job profiles which are more preferred by the graduates and try to support the development of local business initiatives which are creating jobs that suits those profiles, no matter the nature of the support (could be covering a part of the salary expenses for a certain period of time or anything else that will stimulate the companies that are creating these types of jobs).

• *Perform a sociological study to further analyze population trends (school drop-out and the reasons that incentivize people to stay, go or come to the region) and identify job profiles that would be more challenging for young people*

As a long term, strategic action, the regional authorities should perform a sociological study to find out the main reasons why the population is decreasing in the region. The study should cover a wider variety of inquires, trying to also identify what would motivate people to stay or come to the region.

Simultaneously, the study should look for those challenges that young people expect from the ideal work place. Such data can be used for substantiating actions that are meant to foster more challenging jobs in the area, as recommended above.

University drop-out amongst male students (in particular) can also be related with unsatisfactory job opportunities that are provided to them after graduation. So they probably decide to give up higher education and start making money sooner. The study can investigate this issue as well, identifying reasons why some students are unwilling to finish their studies and counteract them. One way to do this can be by offering study programs which are addressing more challenging or better paid jobs, if this proves to be a major reason for dropping out school. Mid Sweden University can also use the success stories of their graduates, inviting them to speak to the students about the benefits one can achieve by graduating higher education. Promote your success stories amongst students!

- **Stimulate national & foreign students at Mid Sweden University to stay a few more years in the region, and make more information available in English (websites for instance)**

Another issue that can be addressed by the above-mentioned study (or studies, if the region will find it more appropriate to cover separately each investigated topic) is the one of keeping a part of the national and international students in the region after they graduate. Several inquiries amongst such students can be done, trying to find out what would attract them to stay for several more years in the region once graduated. They can be offered various incentives if they decide to stay, live and work in the region for, let's say, five more years. By staying longer in the region, they are susceptible of establishing deeper bonds within the region, or even a family of their own, and deciding not to leave Mid Sweden afterwards.

On the other hand, make Mid Sweden more accessible for foreigners, by making more information available in English, besides the one of touristic interest. And the best place to do this is on the virtual environment, by e.g. offering institutional websites in English as well.

- **Create a program to accelerate growth in established SMEs**

Before addressing this issue, it is important to understand that there are two types of SMEs:

- **Lifestyle firms:** these are businesses that are set up primarily to undertake an activity that the owner-manager enjoys or gets some comfort from whilst also providing an adequate income, for example craft-based businesses. They are not set up to grow and, therefore, once a level of activity that provides the adequate income is reached, management becomes routine and tactical. However, a lifestyle business can change, if the owner-manager's motivations change, and they have the entrepreneurial qualities to see it through.
- **Growth firms:** these are set up with the intention of growth, usually by entrepreneurs. Occasionally a lifestyle business can turn into a growth business unintentionally. However, if the manager does not have entrepreneurial characteristics they are unlikely to succeed in the long run. Rapid growth is risky and creates major problems that must be addressed within very short time frames.

So the first step in stimulating growth in established SMEs is to learn how to differentiate the *lifestyle firms* from the *growth* ones, because they will need very different approaches and support. A growth firm will need expert assistance in planning, marketing and financing.

On the other hand, a lifestyle firm needs an approach which is more owner-oriented. As the business grows and the scale of activities increases, the owner-manager has to learn to delegate. The business will need to take on a more formal hierarchical structure and the structure will need to be adhered to, by everybody. The owner-manager has to learn to control the business by monitoring information rather than by direct physical intervention (which is their preferred approach). So, what is actually needed

in this case is a kind of support which will help the owner-manager to go through all these stages and he/she will need assistance in the process of changing themselves so to achieve all the new skills needed to manage a growing business.

The practice of Flevoland Province can be addressed as a model of stimulating growth in small firms.

Good practice n°2

Lectureship: boosting the cooperation between the university and the region

Since March 2011, the University of Applied Sciences CAH Vilentum hosts the Chair 'Nature, Health and Society'. The Chair, with Dr. Dinand Ekkel as the leading Professor, is financed by the Province of Flevoland, with support by the City of Almere. There were several reasons to start this Chair.

The University of Applied Sciences CAH Vilentum, a leading Agricultural Applied University located in Dronten (also in Flevoland) for decades, wanted to extend its educational activities and valorize its knowledge towards the health and wellbeing of citizens, besides contributing to food production and agricultural entrepreneurship. The University wants to play an innovative and creative part in solving problems related to food and health.

The city of Almere, who stimulated CAH Vilentum to start higher education from 2009 onwards, wanted to encourage CAH Vilentum to do applied research and to develop knowledge on how Almere can grow and develop as a green and healthy city. In general, the health of Almere's citizens is, in comparison with other regions and cities, not good. The province of Flevoland, eager to improve the attractive environment for people and businesses, was particular keen on the innovative subject of the lectureship, the active relationship with companies and healthcare organizations in the region and the (inter-) national knowledge based networks, including the publicity through symposia, publications and appealing best practices.

Finally CAH Vilentum has the obligation to meet the necessary requirements to continue the lectureship when the financial support ends after four years.

The main research question of the Chair 'Nature, Health and Society' is 'How can we achieve a sustainable balance between the green ambition and the health and wellbeing of men?' The chair has three major themes:

1. The relation between nature and health. It has become very clear in research the last decades, that contact with nature is very important for the health and wellbeing of men. Nature has very strong restorative power, nature makes people

relax, stimulates recreation and movement, stimulates mutual contact and interest of people within the neighborhood, etc. So, planners, designers, local authorities and housing corporations start to consider the health potential of present or future green areas. But, the green environment is also important for biodiversity and maintenance has to be paid for. And, moreover, children who want to play or bike in the green areas might not match with older people who prefer silent areas. So the challenge is to (re)design gardens, parks and other green areas, taking specific health functions of certain population groups relevant for that area into account.

2. The human-animal relationship. Animals, in particular companion animals, are very valuable for many people. Not only for families, also e.g. for children with disorders in the autistic spectrum, people with depression or Alzheimer or people in caring institutes and hospitals, the company of a cat or a dog makes them feel more secure and comfortable, and enhances self-esteem, self-confidence and communication. However, the function of animals in that role might conflict with basic animal welfare starting points as the need for them to express natural behavior and the possibility to retreat if the animal wants to. There needs to be a balance between the needs of the child, patient or the family and the needs of the animal. Moreover, risks of transmission of diseases from the animal to men increase with increased mutual contact and these issues have to be known very well, in order to develop good protocols for growing initiatives as Animal Assisted Activities, - Interventions and – Therapy.
3. Food and Health. “Distancing” of people from food becomes a major problem. Food is, in most developing countries, available everywhere and very cheap. But knowledge about food is decreasing, intake of fast food is increasing, people have no idea where food comes from and food-related health problems as obesity and diabetes are a major issue. In this Chair, we study ways how to change food-behavior of people, how to encourage them to make healthy food choices. Do school-gardens contribute to that? What about healthy canteens? It is known that changing food-ambiance in retirement centers can increase food-intake. Is it worth considering the inclusion of food from local farmers or ‘forgotten vegetables’ in the menu? Does that improve the pleasure of eating additionally? These are questions that will be addressed within this theme.

Ultimately, the Chair has to contribute to knowledge, concepts, scenario’s, products and services that can help the city of Almere to grow and develop towards a green AND healthy city. On a regional level the combination of employment, social policy, knowledge development and economic policy leads to one integrated policy.

Section 4: Innovative Environment

(a) Key Findings

■ *The innovation system*

During the peer review we noticed that several intermediary organisations are supporting the SMEs with several products and services. A document was introduced to us, showing some overlaps between the major actors:

- Almi: Nationwide (whole Sweden) organisation supporting SME on finance & innovation; active in different areas.
- Incubators at the university: supporting the start-up of student companies.
- Business Agencies: supporting SME in their specific area (Sundvall, Östersund), with a broad variety of services.
- Clusters: supporting organisations that are active in some specific areas, such as Forestry, Tourism & Sport (e.g. Peakinnovation).

There seems to be a lack of coordination between all these organisations. It may look like the swimming pool of Sundsvall: the SME is standing on the top of the waterslide in the tower and has the choice which water tunnel to glide in. *“Do I have to choose the green one of Almi’s or the dark-green tunnel of the business agency?”*

This is a typical metaphor for the innovation system that we saw during the peer review.



■ *The innovation anchors*

The region is aware of the existing business opportunities:

- Tourism

The areas of Östersund and Åre are presenting themselves as dedicated regions for outdoor skiing. The Peak Innovation cluster is setup to support the business

opportunities. Also the clean environment of Mid Sweden contributes to get tourists to visit Mid Sweden. Cleantech is therefore a natural anchor.



■ Forestry

Today the wood industry is still an important sector in Mid Sweden. The natural

It seems logical to focus on the natural business opportunities, like tourism, cleantech, forestry.

resources are still the trees!

■ ***Focusing on key sectors of the regional economy***

Excellent choice to focus on key sectors of the regional economy, but we didn't perceived a development of these sectors towards products or something that allows an increase in value added, as well as we didn't perceived a real synergy and cooperation between the local university and the local industrial manufacturing, in order to orient the effort of academic research toward improving the competitiveness of local enterprises and diversification, understood in terms of increase in the value added of the products made by the same companies.

Also, we got an excellent impression on Peak Innovation, an example of focused innovation in the tourism sector, which in few time led to the creation of 36 start-up with over 150 new jobs and, in particular, with 85% of these start-ups operating in the manufacturing sector. Interesting pattern to develop start-up in the tourism sector, not

only services but also manufacturing. This can be a path of development in a county, primarily, that of Jämtland, which has expressed strong willingness to invest in the tourism sector, not only in terms of promotion of the most popular resort, Are, but also in the development of new tourist destinations, as well extend the tourist season beyond the winter season only.

• ***Clean tech industry***

We found the idea to concentrate efforts and investments in energy and clean tech in both counties albeit with different approaches quite interesting: large investments in wind, in Jämtland, interesting investment in cleantech in the region of Västernorrland. The clean tech could generate great opportunities, not only by the start-up and then in relation to the creation of new businesses, but also to existing businesses and to them re-orientation to the needs of the market exploiting its expertise and resources

• ***The umbrella organization***

Very interesting the ALMI experience that seems to be an umbrella organization which coordinates and defines the national strategy of innovation and accompanies the individual activities at the regional level, through the support to the creation of science parks, appropriate financial instruments, vehicles dedicated to innovation, such as the experience of Peak Innovation, support in terms of mentoring and support to new business experiences. However, against this positive picture, is observed also a sense of confusion on the part of local users who often do not know disentangle the various deals that sometimes appear provided in a disorderly way.

(b) Recommendations

• ***Develop ICT expertise***

The region is isolated and with population decrease. The local expertise in ICT should be developed, in order to facilitate connections, such as in health monitoring.

• ***Strengthen links between university and business environment***

It appears necessary to strengthen links between the university and local businesses so that universities can help to maintain a good level of technology and innovative local businesses, primarily in strong sectors of the local economy.

- ***Attract young and highly educated people to the region***

Strengthen the stimulus to the creation of start-ups with some program of incoming researchers, inventors, young entrepreneurs, not only from other places in Sweden, but also from neighbouring countries.

- ***Develop jointly projects***

We recommend increasing the cooperation between the two big cities. Since Mid Sweden is a rural region, increased cooperation between the SMEs, universities and Sundsvall & Östersund is easier to be done than to bring together all the actors and SMEs in the whole region.

See for example the cooperation between Linköping and Norrköping. They are called the twin cities.

- ***Miniclusters, focusing on SMEs and strengthening the connection between university and industries***

We recommend creating miniclusters. In the Flevoland project “Chance for Flevoland” mini-clusters were supported to create new products and services (PMC). The goal is to create new connections between the existing SME’s and universities to create new business. A mini-cluster is often cooperation between 2 to 4 SMEs and, sometimes, a university. It is business driven and not forced by the university to valorise the existing knowledge.

In the Flevoland project, each mini-cluster was provided with a cluster-voucher of approximate 10K euro for developing a new PMC.

- ***Clarify the role of the innovation system actors***

We recommend the region to clarify the role of each actor involved in the innovation system and state a simple proposition to address the SMEs. We suggest the usage of ICT to overcome distances and the development of a specific application in this regard.

Section 5: Partnership

(a) Key Findings

• ***High number of organizations and institutions related to innovation and companies creation***

During the peer-review week, we had the opportunity to realize how many organizations and institutions focussed on the innovation sector and involved in job creation through innovation are actively working in this field.

University, public authorities, science parks, incubators, private companies... share the common goal of raising the opportunities of entrepreneurs and companies of creating jobs based on innovation. Not only is it important to have such a large number of actors, because they also have important resources, including subsidies, to carry out the advice for companies.

Nevertheless, this large amount of actors can be a little bit counterproductive; due to the fact the potential user of these services cannot easily find the way to access to the chain of innovation boost, since being in front of a large number of actors who in some cases have no clear differences among their roles. An evidence of this fact can be the one of the entrepreneur met at Science Park, who said that he didn't receive any help from any institution when actually he did, which is an example of (sometimes) unclear definition of actors involved.

• ***Lack of defined competences among actors and overlapping of some responsibilities***

After the interviews held during the peer review week, sometimes we have had the feeling of not being sure about what the competence in which some actors are focused. The different steps for creating a company based on innovation is complex (idea, company creation, start up the business, maintenance of the company, internationalization etc.) and it's not clear for a company which actor should be chosen for each stage.

Each stakeholder role is represented in the "Map of the Regional Enterprises and Innovation System", delivered at the beginning of the week, and it is the idea we think can be useful for spreading among entrepreneurs and companies, in order to assure them the right actor selection depending on the stage and needs of their business.

Despite of the fact that this scheme is in the good path to clarify entrepreneurs and companies how they can get into the innovation boost chain, somehow could be improved because of it shows some competences overlapping that can make users doubt about which actor is the best option for each step. For example, a company in the stage of "development" will see that there are four groups and 20 actors with potential to help them.

In this way, it seems to be a lack of specialization in some field of some of the actors involved in the job creation chain, which means that some actions are not developed in the most effectively way. We miss some kind of agreements among actors in order to make perfectly visible what is the specialization respectively, therefore to guarantee the company and entrepreneur to obtain the highest added value by each step of the chain.

➤ ***Different scope and nature of actors involved***

There are different actors with its particular composition. By one hand, there are public and private actors, and some of them are private but managing public funds. On the other hand, there are actors with competences at local level, some of them at regional level.

This amalgam of stakeholders makes difficult to chose the best option for each user, and it's not clear when the advices are for free or when user has to pay for the service, so, a further classification should be taken into account in order to map and organize them.

(b) Recommendations

➤ ***Formalise and structure partnerships to get synergies***

Having clear that there are several actors covering all the spectrum of the necessities along the way of creating job based on innovation, it is considered that these actors should be structured under the umbrella of a partnership based on a formalised agreement, which should be defined to make the most of each field of expertise.

This action could be structured using as basement some formal agreements among different actors, to structure the help they will offer to users in the most profitable way. These partnerships shouldn't be complicated, taking into account that, according to meetings held, the atmosphere of collaboration among different institutions is appropriate.

If partnership works properly, the user (company or entrepreneur) will receive the best advice in each step because the actor involved will be expert on that, and the user will receive the needed assess step by step. Moreover, the proper stakeholders dealing with assessment on innovation could get scientifically synergies from their joint efforts because of their unique voice when discussing with other stakeholders as government, similar organizations etc.

However, this partnership should be offered as a whole to the entrepreneur or the company, in order to ease him the management, it might be consider as a comprehensive tool. The user will receive a "complete package" which should work inside with the specific contribution of several stakeholders, but this internal work mustn't be visible for the user. As a metaphor: *the user doesn't care about the different pieces of the engine inside the car, it only cares the vehicle works properly.*

● ***Define an active, wide and flexible framework for networking***

During the week, many actors have explained that their work process is based on a decision board composed by several institutions or organizations. The interest of this way of working is based on the contributions that different points of view can give to the institution, so the framework is established in a collaborative foundation, which is positive. An example of this fact is the Mid-Sweden Science Park, with a board composed by several institutions.

However, this framework seems to be fixed and in some way not flexible enough, leaving out of it some actors which could support the rest of members because their experience, or because the activity can evolve and need some different points of view which were not necessary at the beginning, as we noticed within some of the interviews, when persons in charge answered that he missed some different actors being part of the board.

The proposal is the potential changes in the composition should be foreseen and promoted, establishing a flexible framework to add or leave out members of the board, and these needs should be analysed periodically on the base of the formal agreement. An example of flexible framework is the public-private collaboration, the local-regional, the inter-sectors cooperation, including the geographical approach since it was noticed an unbalanced situation between the urban and rural areas. In the end the goal is to build up a flexible and effective network.

● ***Establishing specialized working groups***

The recommendation is based on the evidence that some actors are better than other in some field: catching potential entrepreneurs, facilitating the way to make companies grow up, but they spend some efforts in other activities, when it seems to be more productive if each actor focuses its work in an specific field, to be as much as productive as possible.

The large number of actors and their own identity is focussing their actions in a general framework, dealing with a wide scope and not being focussed in concrete issues which can require more specific analysis. So, according with the field of expertise / competences should be created working groups within partnerships, for instance: financing, training, quality, internationalization, marketing, others skills,etc., so, the proposal aims to put the spotlight on the necessity of choosing specific topics to work on, trying to increase the specialization of these groups, obtaining more positive results

Not only should be these groups fixed to work on specific topics, but they should work on specific sectors as well (infrastructures, outdoor activities, sport management, forestry...), in order to obtain the best results for each sector.

One example of this point can be the Jämtland Härjedalen Tourism, this institution, composed by several stakeholders (public and private; institutions and companies ...) with a concrete target (support tourism destinations).

Good practice n°3

Specific partnership for developing the tourism for disabled people in the city of Avila

Ávila is a city with an industry mainly based in tourism. For this reason, the City Council has been working for several years in the promotion of tourism, working together with several actors involved in this topic.

Some years ago, the National Organization of Blind People (O.N.C.E. <http://www.once.es/new/otras-webs/english/ONCEfundation>) and the City Council of Avila started the promotion of accessible tourism sector, establishing a specific partnership focused on this topic.

This collaboration was meant to introduce accessible criteria within several monuments of the City:

- the creation of an accessibility Office

http://ec.europa.eu/justice/discrimination/disabilities/award/access-city-2011/award-winner-avila/index_en.htm

[http://www.avila.es/articles/accesibilidad/item/498-oficina-municipal-de-accesibilidad-servicios-que-ofrece"\);](http://www.avila.es/articles/accesibilidad/item/498-oficina-municipal-de-accesibilidad-servicios-que-ofrece)

- the edition of a compilation of accessible resources in the City http://www.avila.es/images/descargas/guia%20accesible_11-7.pdf which has been uploaded in several pages like the Spanish national tourism website.

This is a success example of how a flexible framework of concrete and specific partnership can work to produce interesting results. In Avila's case, this partnership has meant the increase of disabled people visiting the city because they know there are installations for them. So, the tourism industry has positioned a part of its offer on a precise market niche.

Section 6: Sustainability of the jobs created by the innovative sectors

(a) Key Findings

➤ *Availability of support structures and funding*

During the peer review we noticed that support is available in the different stages of business development through a variety of public and private stakeholders and that in general, funds were available for innovation:

- **In the conceptual phase**, the regional county councils of Jämtland and Västernorrland and public organisations such as ALMI, MIUN Innovation and the Mid Sweden Science Park (Business Incubator Jämtland, Peak Innovation), the Åkroken Business Incubator, Science Park and Number One Forest Industry Network help define an innovative idea and turn it into a business idea. Private organisations like Awa Patents, Soft Financing AB, LinkExpo AB or the Fiber Optic Valley can offer consulting. Branch organisations, the farmer's federation, the Swedish Tax Agency, Swedish Companies Registration Office, Patent and Trademark Office and the Swedish Inventors' Association furthermore offer support in this initial phase. Several of these stakeholders, in particular ALMI, the incubators and some private consultants are actually active in the 3 main stages of development.
- **The development phase** is supported by numerous organisations both private and public and is implemented in different ways: scholarships, funding, and consultancy, coaching, support to internationalisation and export... Business Angels generally start being involved in projects in the development phase, which requires more investments.
- **The commercialisation and growth stage** is also supported by a wide range of stakeholders, especially banks, who will rather come in at this stage.

➤ *Low awareness of/ suspicion towards the support organisations*

Although there is a very broad support offer for innovation we got the impression that it was still difficult to get entrepreneurs or potential entrepreneurs make an extensive use of it. Several hypotheses could be given for this:

- Entrepreneurs and potential entrepreneurs are not aware of the support offer because it is **not visible enough**.
- Stakeholders who have an innovative idea have **the feeling it is complicated to get support** for their idea (impression of the support system being a jungle or a system not targeted at them, feeling of not belonging to the innovation system)
- At least 2 of the entrepreneurs we interviewed told us they didn't remember where they got support from; one even thought he had not received any although

he had actually attended an information session from ALMI. This shows that the **low visibility of an organisation like ALMI is counter-productive on the longer run** as this prevents entrepreneurs from giving credit to the organisation for the support they got.

- Entrepreneurs who already have a business, which is running well, seem not willing to invest (time, energy, staff, money...) in R&D and innovation. On one hand they are often **satisfied with their current situation** and **do not see the need to change** it and on the other hand there even seems to exist **some kind of suspicion towards support organisations**. This is critical as experience generally shows that continuous innovation increases the sustainability of enterprises and jobs.

■ ***Cooperation organised in an (effective) informal way/ risk of insufficient coordination***

During our different visits it was very clear that face-to-face and informal meetings had an important role in a region that is characterised by long distances and cold winters. We noticed that cooperation was well organised between similar stakeholders (example of the BIG initiative for clusters at national level). Cooperation exists also between different types of stakeholders and is often organised in an informal way but the coordination between the different stakeholders in the support system seemed to be weak at regional level. Their relative independence can be explained for historical and geographical reasons. However the fact the different stakeholders are not coordinated at regional level means there is a risk of having either overlapping services or a gap in the offer.

■ ***Accessibility of the innovation system***

The services offered to entrepreneurs or potential entrepreneurs with an idea in the framework of the innovation system are to a very small extent for free. This could be an obstacle for extended use of the different services and cause lower use of the system than expected. In terms of sustainability it is crucial to have a critical mass of entrepreneurs or potential entrepreneurs use the innovation system otherwise there is a risk of a too big divide between the innovation system and the economy.

■ ***Demographic challenges***

Continuous negative population trends, due to low fertility and out-migration in both counties are a challenge all over the Mid Sweden region, even if Västernorrland has some international immigration. Out-migration is due to a workforce demand and higher wages both in the southern part of the country (especially Stockholm & Malmö) and Norway. One of the main objectives of the region is therefore to become more attractive and be able to provide its inhabitants with career opportunities, extensive services and good quality of life in order to recruit and to keep skilled workers. This situation was emphasized both by the Mid Sweden Science Park in Østersund and Næringslivsbolaget in Sundsvall.

One of the additional challenges referred to by politicians, officers and incubator & science park managers is male school drop-out: girls tend to be more educated and more mobile leading to **gender-specific out-migration**. Boys on the contrary tend to be less willing to move and not enough motivated to attend higher education. The current trend is towards male under-representation in universities and R&D institutions. It is difficult for us to know whether this is due to a misrepresentation of the labour market where traditionally men were able to earn more with lower qualifications than women (hypothesis voiced by stakeholders during an interview at the Mid Sweden Science park), or to the feeling that the market is providing enough opportunities for workers without higher education and a general satisfaction with the jobs that are available.

Finally there is a concentration of innovative initiatives in urban areas, although it is normal that the incubation, integration in a science park and clustering occur close to cities, it seems that even innovative ideas and projects are also rather coming from urban areas.

(b) Recommendations

➤ *Coordinate the innovation support system*

Although the different stakeholders are already willing to collaborate, some kind of formal coordination at regional level could be useful to improve the overall visibility and its accessibility. The objective is obviously not to add administrative burden but to improve synergies and cooperation possibilities.

It may be useful to ensure that local officers (be it in the municipalities, unemployment agencies, life-long learning organisations) have not only regular updates but also opportunities to meet their peers and the different stakeholders of the innovation system so that they who are directly in contact with the public are more aware of the wide range of possibilities and can talk positively about them.

Coordination of the innovation system would improve the sustainability of the jobs created by the innovation sector:

- Entrepreneurs or potential entrepreneurs, who may need support in bringing their innovative idea on the market, but have not yet made use of the innovation system because it seems too complicated to them, may no longer have this impression and could benefit from the support services, thus improving the survival potential of their project.
- An individual with an idea would be easily post-signed to the relevant stakeholder in the innovation system, as all stakeholders would have an exact and overall picture of the system and would feel they belong to a dynamic network that is for really innovative ideas, wherever they may come from. Again, the fact of more end-users being willing to use the innovation support system would increase the survival potential of projects.

- Coordination also means targeted use of resources (from a user's point of view) and increased adequacy of the support offered, which in turn will improve effectiveness.

- ***Increase visibility: tell the world what you are doing***

In order to tackle the issues of low awareness and suspicion it is crucial to advertise on the activities carried out within the innovation system and by the potential coordinating organisation. Potential **end-users need to have a positive impression** of the innovation system and need to see how it could benefit them. This can be carried out through different ways, especially through the **dissemination of success story**.

- ***To increase creativity and the emergence of innovative ideas, further build on inclusivity***

Make sure entrepreneurs and potential entrepreneurs from rural areas get involved in the innovation system. Consider whether prices of support services are an obstacle to getting some entrepreneurs or potential entrepreneurs involved. How do you advertise about the incubators, science parks and other innovation stakeholders? There may be a psychological divide between the innovation system and entrepreneurs with an innovative idea leading to having only candidacies from project holders with similar social and educational background. This is also linked with coordination and visibility: there should be ownership of the innovation objectives by all stakeholders of the innovation system, especially by people who are directly in contact with end-users or potential end-users as they can act as a bridge between the latter and the innovation system.

- ***Communicate on R&D for SMEs***

R&D is not only for big companies, it is actually very important for SMEs as well. It would be useful to advertise on the importance of R&D for SMEs through a specific programme. The regional public sector should also be acting as a role model and encourage use of e.g. new technology in the public sector and act as a test arena. Public procurement represents a huge potential in this aspect.

- ***Improve synergies between the different sectors***

“Peak Innovation” in Jämtland is a very good example of connecting and using synergies between the tourism industry and the outdoor industry (mountain equipment, clothes, boots etc.). The aim is to create growth in new and existing businesses, to produce more research results of commercial interest, to attract investment and to strengthen the region's brand and competitiveness. Peak Innovation is a partnership between business, academia, the public sector and the sports movement. The stakeholders are business (through Peak Business & Sports AB) Jämtland-Härjedalens Idrottsförbund, Mid Sweden University, the municipalities of Östersund, Krokom and Åre, and Jämtland County Council. Peak Innovation is run by a jointly-owned company – Mid Sweden Science Park

AB. It is a successful cluster and after 3 years Peak Innovation has helped start-up 21 new companies and approx. 160 new jobs were created. This way of thinking and organising should be tried out also on other sectors, especially with the wood industry, which is definitely a key sector for the Mid Sweden region as a whole.

- ***Dedicate efforts on the summer season to lower seasonality.***

This point is also related to the tourist industry and emphasises the importance of this industry in Mid Sweden. In Åre there is a current trend to focus on the summer season as well and develop activities like downhill mountain biking, fishing, hiking, white water rafting, paragliding, climbing, abseiling and caving and other summer activities for tourists. In order to increase the sustainability of the innovation-based jobs, it is important to increase the number of full-time jobs (all types, skilled and unskilled) as this will have a very positive and rapid effect on growth in the population. Lower seasonality for the regional economy may also improve returns on R&D investments for companies.

- ***Further strengthen the higher education jobs in the tourism industry***

The tourism industry being a driving force, especially in Jämtland, it is necessary to further stimulate the creation of higher education jobs in the tourism industry. This is valid for the whole Mid Sweden region as both counties are quite interconnected. Indeed whereas the tourism generates a high volume of seasonal-jobs, these are often taken by young people and unskilled workers. Most of these workers are mobile and will go back to their home town when the season is over. The development of high-skilled jobs in the tourism industry will allow for increased R&D absorption and higher retention of skilled workers. It is also the key to perennially attracting new talents, thus addressing the demographic challenge.

- ***In general: ensure increased sustainability of the jobs created by the innovation sector by looking for added value***

In order to keep jobs in the longer run, look for added value: what the sector needs is specialised skills and productive profiles that will stay in the region. To overcome the negative population trends it is necessary to attract more skilled workers to the region or to motivate those out-migrating to come back after a while.

It is important to show the importance of why the specific jobs are located in Mid-Sweden and why they should be there also in the future! Comparative advantage is a keyword in this matter. The Mid-Sweden has a number of comparative advantages (quality of life, career perspectives in certain areas, availability of support, high quality research in clean tech, forestry, tourism and outdoor) and should use them to attract skilled workers.

🟢 ***Talk up the region: use the FIA-KATE model!***

Modesty is only useful when all stakeholders are aware of their mutual strengths and weaknesses or will have the opportunity to discover them. In a context of competition between regions at national and international level it is crucial to advertise, in order to build the reputation of a region. The first step is to be aware of the strengths and opportunities your region offers, the second step to be proud of them and the third to share this pride and tell others about how amazing Mid Sweden actually is! You have living good practices from people, who love their region and know how to talk about it: Fia Gulliksson, CEO & founder at JAZZKÖKET in Östersund and Kate Almroth from the Näringslivsbolaget i Sundsvall AB. These persons are so passionate about what they are talking that you would virtually buy anything they say. This is not only an asset, it is a model, we called it the FIA-KATE model as we think they should be an example on how to speak on a daily basis about the region, not only for people whose job it is to advertise but also for all those who are involved in the work of the region. Pride, if combined with openness and a commitment to inclusivity will act as a magnet for tourists, workers, enterprises ... Again the use of success stories to share about the achievements and the potential of the region is key to effective communication, but passion is needed!

Good practice n°4

The Creation of Innovative Start-ups - Nanochallenge

What is Nanochallenge?

In 2005 Veneto Nanotech, the Italian Cluster of Nanotechnology, consistent with its mission and its strategic objectives for the dissemination of nanotechnology in Italy, has launched an international business plan competition aimed at creating innovative start-ups in the field of nanotechnology.

Nanochallenge, an international business plan competition that identifies emerging technologies and new entrepreneurs, has been conceived therefore. The competition was thought as a tool to finance new technologically advanced enterprises in the seed and start-up stage, enhancing the know-how of the country, encouraging the trend of private investments in technological innovation and of venture capitals (private equity), and to identify new technologies with immediate industrial application for the benefit of already existing and traditional businesses.

The initiative has found the leading supporter in the Fondazione Cassa di Risparmio di Padova and Rovigo, a local private bank foundation that from 2005 to 2012 has awarded yearly a total of 250,000 euro cash grant as a reward for the start-up with the best business idea.

The investments chain



Main Objectives

The main scope of the Nanochallenge was to boost innovation and entrepreneurship and:

- foster the entrepreneurial spirit of Italian university researchers and scientists.
- encourage the creation of new businesses in Italy
- stimulate private investments in research and high technology
- create a 'network between research, finance and business
- encourage innovation in existing companies promoting start-ups brand-new technologies
- attract domestic and foreign scientific and entrepreneurial talents
- create new jobs for personnel with scientific and economic expertise.

The Competition Process

The collection of business ideas has been always carried out at the international level through a communication and marketing campaign aimed at identifying the best talents and the best business ideas from around the world.

Presentations of the competition were made at some of the most important conferences in the nanotech industry since 2005, and in 2007 Veneto Nanotech launched a program of road shows at major scientific and technological universities in Italy and abroad, such as MIT, UCLA, Harvard and Imperial College.

A scientific jury specifically appointed in all editions has been charged with selecting the best start-ups projects among those received and that had sent an executive summary of their business idea, to give them access to a following training and mentoring phase and to the final contest.

Veneto Nanotech in collaboration with PricewaterhouseCoopers assured any selected start-up a free training via web through a mentoring program designed to help teams in the preparation of a business plan and prepare their final pitch in front of the contest jury and investors.

At the end of each edition, there was a final event in the presence of an international jury and an audience of investors and VCs, where the finalist teams were called to appear, pitch and answer questions of the jury to allow them to elect the winner of the prize of 300,000 euro.

Outcome

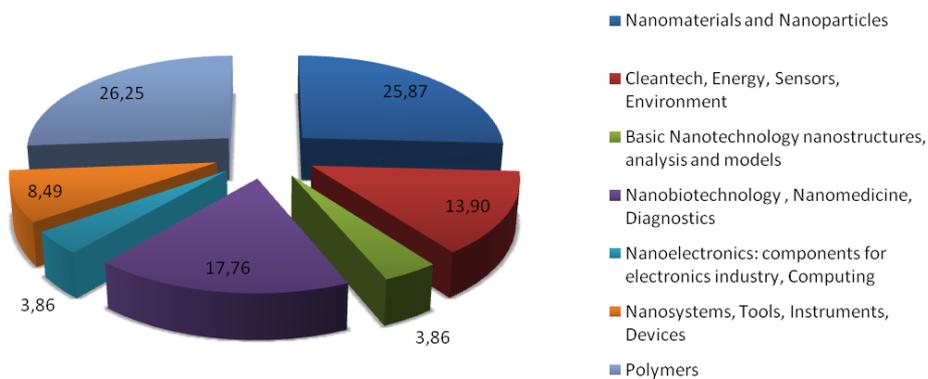
Since 2005 Nanochallenge has become a successful international brand, representing an initiative that annually attracts researchers, scientists, entrepreneurs and investors from around the world, engaged in the field of nanotechnology, biotechnology and polymer and composite materials.

The numbers prove it:

- Total prizes 2005-2012: **1.900.000 € cash + 400.000 € in services**
- Investments handled: **1 M €**
- Number of start-ups created: **14**
- Jobs created: **30**
- Business proposals received: **246**
- Countries of origin of the teams: **21**
- National and International finalist teams: **87**
- Scientists hosted during the final contest from around the world: **190**
- Venture capitalists involved in the jury: **15**
- Companies, investors, researchers in the audience during the pitch of the start-ups: **450**
- Visiting countries of the website www.nanochallenge.com: **74**



Sectors of the Projects 2005-2012



Partners

Fondazione Cassa di Risparmio di Padova e Rovigo: the main supporter and financier of the Nanochallenge grand prize

PricewaterhouseCoopers: the first partner involved in the training of start-ups through a mentoring program finalized to the drawing of a feasible business plan.

IMAST: Since 2007 the District of Campania of polymeric and composite materials joined Veneto Nanotech in the organization of the business plan competition, giving away additional 300,000 Euros for the best start-up in the field of polymeric materials and composites. Consequently the total prize amount of the competition Nanochallenge and Polymerchallenge became 600.000 euro, the largest worldwide since that moment for a business plan competition.

Intesa San Paolo Start-up Initiative: since 2009 Intesa San Paolo since 2009 has become a partner of the initiative through its Corporate and Investment Banking business unit, providing the selected start-ups with an additional management training program for future entrepreneurs called Boot Camp

Judges and Sponsors: from the beginning Veneto Nanotech has tried to involve industrial groups and investment companies in the project Nanochallenge, with the aim of facilitating the creation of a network between virtuous new technology companies, finance and business. Therefore Veneto Nanotech involved many partners in the selection jury to judge the projects and some of them became sponsors of the competition.

Among investors: 3I Investments, Lux Capital, Nanodimension AG, Atlante Venture, TTVenture, Veneto Sviluppo, Friulia SGR, Quantica SGR, Venrock Corporation.

Among enterprises: Alenia Aeronautica, Agusta Westland, Bracco, Carel, CRF, Basf, Dainese, Enel, Eurotech, Gear-World, Glaxosmithkline, Lux Research, Mapei, Pirelli, pricewaterhousecoopers, Sapio, Selex,SI.

References

Nanochallenge website: www.nanochallenge.com

Section 7: Conclusions

All the recommendations and the observations highlighted in the current report are mainly based on the findings the experts got during the meetings with county officials from both Jämtland and Västernorrland, as well as during the panel discussions with the ALMI, Mid Sweden Science Park, Peak Innovation, Mittuniversitetet, Rebnis Hotel Systems AB, Safetyrespect AB, during the visits to Jämtland Härjedalen Turism, Sundsvall Business Agency, Åkroken Business Incubator, and the discussion the experts had with the owners of Collimated Chipping and ProSharp in Sundsvall.

Overall, Mid-Sweden has a number of advantages: quality of life, career perspectives in certain areas, availability of support, high quality research in clean tech, forestry, tourism and outdoor.

One main aspect the experts noticed while visiting Mid Sweden was that ALMI seems to be an umbrella organization, which coordinates and defines the national strategy of innovation and accompanies the individual activities at the regional level. But there are also many other dedicated actors (institutions that are operating on a narrower area), who's services are overlapping most of the time (with ALMI's and with each other, as well). Starting from this, the experts issued one big recommendation for the region:

Create a lively & visible interface between business-owners or potential entrepreneurs and support organisations to attract skills in the region.