

MADE IN SWEDEN



Frontrunners in innovation

Three clusters in Dalarna,
Gävleborg and Värmland

The test lab – A magnet for success

The story of how Karlstad acquired one of Sweden's most modern testing laboratories for IT began just over five years ago with the downscaling of Sweden's armed forces. Parliament decided to invest half a billion Swedish kronor in four regions where the downscaling would be noticeable in economic terms. Värmland was one of these regions.

A precondition for being eligible for these funds was that the application should be for activities that offered a growth potential for the future. The cluster organisation for IT and telecom companies in the Karlstad region, Compare, which since its inception has focused on creating meeting places and cooperation between the member companies, recognised an opportunity for development. Göran Österman, who works at Compare, contacted Bengt Möller, who at that time was local manager of the IT company TietoEnator in Karlstad. Bengt Möller felt that Compare should create an independent testing laboratory for IT solutions where the presence of the larger companies would at the same time give smaller companies access to resources which they otherwise lacked.

Five million

Göran Österman asked Möller to accompany him to a meeting with decision-makers from the county and with representatives from the university.

“And Bengt Möller, who is a very competent speaker, agreed. He described how a test lab could work, how companies, the public sector and the university would be able, in cooperation, to create a competence centre in the areas of testing and safety, and how this collaboration would be able to generate business,” says Göran Österman.

Of the 50 million Swedish kronor in Government funding that was to be allocated to Värmland, Compare was given just over 5 million, which is more than anyone at Compare had dared to hope for in a region which, in Göran Österman's own words, “has been characterised since the beginning of time by paper and pulp and steel and manufacturing”.

The five million marked the starting point for the

test lab which today, five years later, is working according to the original concept: companies turn to the laboratory in Hammarö outside Karlstad to hire infrastructure for the testing, quality assurance and certification of software and systems. The test lab is operated through Compare by several companies working in cooperation with the common motto: “Together we can attract major testing assignments which individually we would never be awarded”. This paves the way for new business opportunities for Compare's member companies.

The test lab has also attracted peripheral investments and today offers conference, hotel and restaurant facilities, and a golf course.

Sells services

The test lab also creates new business opportunities. It no longer only offers the chance to hire time for testing – it also sells services.

“We are in the process of starting a project in which we emergency test IT systems for authorities and large companies. Put simply, we try to knock out their systems and study how well the systems can cope, how quickly customers can get their systems back into operation if the worst were to happen

Compare test lab





Göran Österman

and what they need to do in order to be less vulnerable,” says Göran Österman.

Another service that Compare sells is a green IT environment.

Through smart cooling systems, environment-friendly energy supply and the recycling of heat

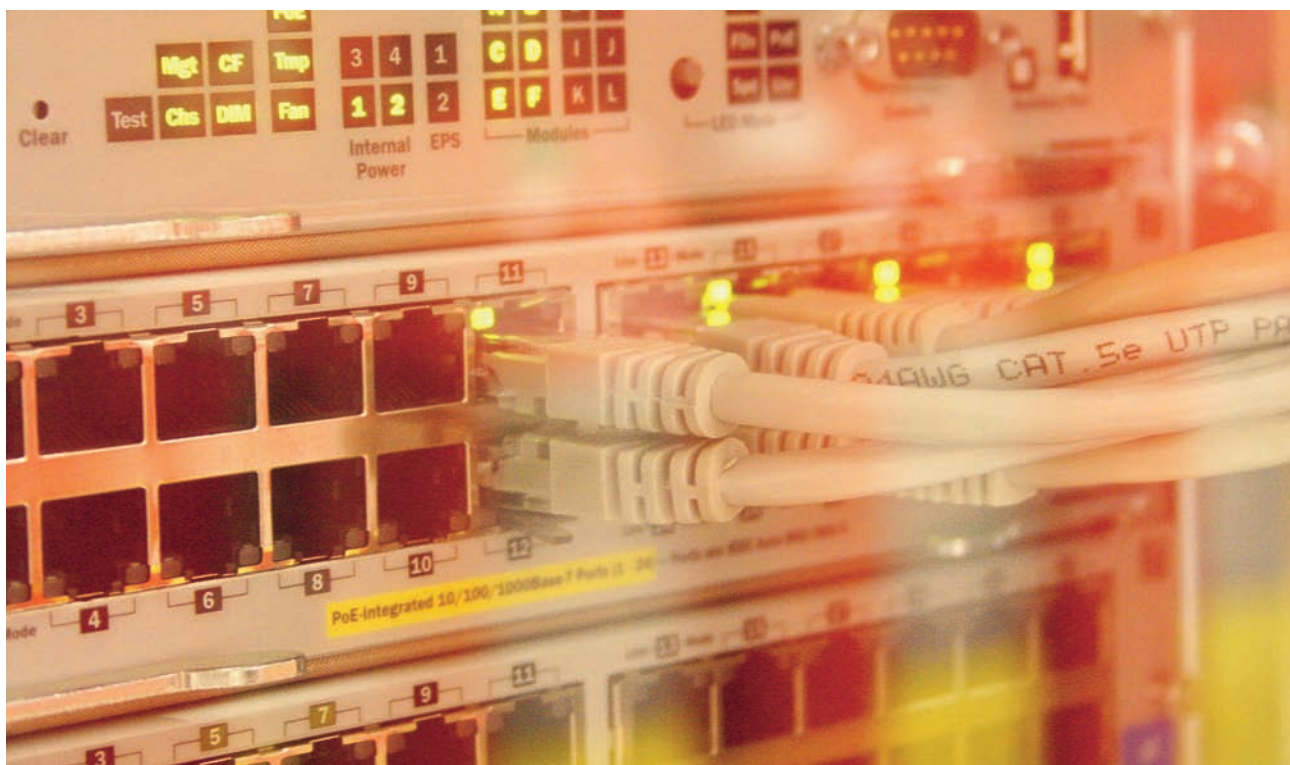
(the surplus heat from the computer hall is used to heat up the local swimming pools), Compare offers customers the chance to locate their servers in the test lab and to make their computer operation green.

“Not only will their electricity bills be lower, but they will also receive an environmental seal of approval, which is an attractive concept for many companies,” continues Göran Österman.

The challenge of marketing

One of the companies that use the test lab is Netpower Labs, with its head office in Nacka on the outskirts of Stockholm. Within the framework of an EU project which Compare is involved in, Netpower Labs is conducting full-scale testing in which computer servers are supplied with DC instead of AC. Running the servers on DC is estimated to save 20–25 per cent of the overall costs for power supply, which also entails less impact on the environment.

Compare test lab



“When we talk to large companies about our idea they tend to be cautious and don’t want to take any risks. I’m impressed by the fact that the authorities in Hammarö and Compare were so keen on trying out new technology,” says John Åkerlund, Managing Director of Netpower Labs.

“That’s the way things work at Compare,” says Göran Österman. “We work fast and make quick decisions. If you want to set up a business here, we can basically arrange a meeting with the principal of the university or with the county governor within a day. That’s one of the advantages of being outside the metropolitan regions.”

If we look at what the future holds in store for Compare in general and for the test lab in particular, we can basically conclude that the major challenge is not in operating an innovative business but rather in marketing it. Or as Göran Österman says:

“Nobody associates the city of Karlstad with IT. That is why we started Compare ten years ago – in order to strengthen the area. Today we have fantastic competence, but the newspapers still prefer to talk about the paper industry. It is deeply rooted. This is why the test lab is so important to us. We have lots of study visits, and it gives us the opportunity to talk about Compare in general. We can prove that we’ve succeeded, and the work in the lab gives us a chance to talk about our cooperation between the IT companies in the region, the university and the public sector, and how the various meetings generate contacts, business and new services.”

Growing together

It is October 2009. Johan P Bång has just held a speech for some 400 delegates at China's largest annual conference on geographical IT. He has marketed the Swedish cluster Future Position X – and given a number of small and medium-sized Swedish companies exposure on a market which they would otherwise not have been able to penetrate as a company on their own.

As a cluster, we can present ourselves as a single entity," says Johan P Bång, head of operations for FPX. "If you are a Swedish company with 75 employees you don't stand a chance in this situation. As a cluster we can say that we have 26 000 members and annual sales of 44 billion Swedish kronor. Then we start to become interesting – we get to meet the mayor and the governor, and we are invited to a meeting with the principal of the University."

Swedish FPX is Europe's leading cluster in the field of geographical IT. Expressed in simple terms, geographical IT is a way of managing, working with and presenting geographically-related information. For the ordinary man in the street, perhaps the best known examples are web site services, where you can conduct a search for a street address and then on a map sheet add information on, for example, nearby restaurants.

Geographical IT has a wide variety of different applications and can, for example, be used to calculate the number of potential customers within a ten-minute driving distance from a shop. Or, as FPX has done together with the Municipality of Karlstad, develop a model to illustrate areas where there is a risk of flooding – and suitable measures to combat the problem.

FPX is based in the city of Gävle and is an independent arena for the testing, development and marketing of geographical information technology, services and know-how.

To China via Norway

In recent years, FPX has focused more on finding new business opportunities abroad for its member companies, and the fact that FPX was last year invited as the only international organisation to attend the Chinese conference on Geographical IT is the outcome of several years' goal-oriented work aimed at helping its Swedish member companies to access

an international market. Initially, China was not the obvious market – FPX's journey began in fact with Norway.

"Four or five years ago we were convinced that the Baltic countries were the first step for our companies to access international markets," says Johan P Bång. "And we helped some of our companies into Norway and the Baltic counties. What we discovered was that it takes a lot of effort for a company to change country, culture, legal system and language. Why then invest so much effort in setting up operations in countries that are smaller than Sweden when it takes just as much effort to establish operations in a large country?"

So FPX changed its strategy. If the cluster was to spend time and energy, it should do so on a market that offers the chances for growth.

"If we can only gain a foothold in one province in China, we suddenly have a population of 100 million and a completely different customer base. And they have a growth rate of nine to ten per cent – which cannot be equalled by any of our neighbouring countries or by any other country in Europe."

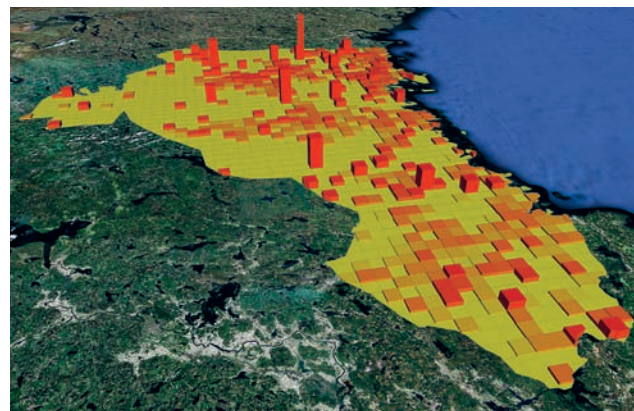
Since 2007, FPX has established relations with three provinces in China. They have met government authorities, the university, research institutes, and provincial and municipal dignitaries. Slowly but surely they have built up trust and understanding – "Something that would have been impossible for a smaller company on its own, which has to spend all its time hunting for business opportunities to guarantee its very existence," Johan P Bång points out.

"As a cluster, however, we can work on a long-term basis with the goal of doing business in one or two years' time," he concludes.

Hunting, not fighting

"Furthermore," says Johan P Bång, "a small Swedish company on its own would never have had the chance

Geographical IT





Johan P Bång

to enter the Chinese market in the same way.”

“Too much effort is involved and individual companies are too small. But as a member of a cluster it is possible to gain access. When we arrive in China accompanied by the county commissioner, the

principal of the university and the mayor – and represent 26 000 people instead of 25 or 100 – we are definitely a stronger player.”

But the companies in FPX do not only have the benefit of being mentioned in the same context or appearing in a table in a presentation. Through FPX, they have also begun to cooperate on business development in concrete terms. “A typical example,” says Johan P Bång, “is two companies each with about 100 employees which in Sweden are partly competing for the same customers, but which by cooperating can set up an international business venture and attract new customers.”

“The cluster provides them with a project manager who “puts together” the companies and gets them to drop their guard and realise that in Sweden they are perhaps fighting for the same customers, but that they can hunt together internationally”.

New cooperation agreement

Johan P Bång quotes an example of ongoing cooperation between a company that offers and operates web services which has developed a joint service together with a software company.

“The software company recognised the problems involved in gaining access to the Chinese market on its own. They said, “We’d sell them a disc with our program, then it would be copied and that would be the end of our business.” But by offering the use of the software over the Internet it is possible to receive payment from each registered user. It would be a new type of business – a service based on the competence of both companies.”

FPX has been successful in its efforts to develop business opportunities for its member companies. They have on average created 100 new jobs in their member companies each year since 2004 as a result of the cluster.

FPX’s presence at the conference in China in October 2009 resulted in a number of new business contacts and two letters of intent with Chinese companies. Four universities declared an interest in cooperating on research and student exchange activities.

In spring 2010, a new trip was made to China. Seven cooperation agreements were entered into with companies and the university. The Municipality of Gävle signed an agreement with the town of Zhuhai – which is small by Chinese standards with some 1.4 million inhabitants.

Position tracking of a Dala horse en route to the World Expo in Shanghai



A heart of steel

The fact that the steel industry has existed in Sweden for hundreds of years and exports are counted in billions of kronor per year is no guarantee for future success. This is one of the starting points for the work conducted at Triple Steelix, the regional development effort that aims at strengthening the steel and manufacturing industry in the Bergslagen area, in the heart of Northern Central Sweden.

“Is the existence of SSAB and the other major steel manufacturers guaranteed in 20 years’ time? I don’t think so,” says Maria Engholm, Process Manager for Triple Steelix. “And I believe it is dangerous to make such assumptions. If we are to have a steel industry that is at the cutting edge of development, we must all pull in the same direction. It won’t happen by itself. And that is what we are doing at Triple Steelix – helping the regional steel companies to meet and take advantage of each others’ existence. And all this – with steel as a basis – to create regional growth.”

Change takes time

Through objective and non-bureaucratic cooperation between companies, authorities and researchers in 13 municipalities spread over three counties, the opportunities are created for new ideas to develop, be tested and implemented. The ideas do not necessarily need to concern new technical solutions, but may just as well involve improved production methods, more efficient service or a more rational use of different types of steel. However, the work has a basic common denominator – it is long term.

“We base our efforts on a heritage that built Sweden,” says Maria Engholm. “Steel is the industrial heart of the country, and the industry does not accept starry-eyed solutions to problems that have never previously been resolved. Projects that have made a loss in the steel industry can almost always be explained by the fact that the project time frames were too tight. It is well known within the steel industry that change takes time. We are far too experienced to invest capital, our trust and time in something that is short term.”

“The fact that there is a long tradition dating back over hundreds of years is not the same as saying that the industry is conservative,” says Maria Engholm. “But it is a matter of achieving a status in which people are prepared to listen to you.”



Steel processing

“Provided you do your job well, keep your promises and work hard you earn the trust of others, and once you have gained it the door opens and you are given access to a huge arena of knowledge, human resources and capital. People in the industry are extremely open to new ideas and to development.”

Not only large companies

Maria Engholm and her colleagues in the management team for Triple Steelix have earned the trust of others through their ability to provide the right kind of help to the just over 700 companies – both large and small – that operate in Bergslagen with steel as a base. Triple Steelix has been able to contribute towards expanding the interfaces between companies and facilitating cooperation.

As in the case of the roll forming centre in Fagersta. The giant steel company Outokumpus had planned to discontinue its tube and pipe manufacture in Fagersta, which meant that just over 140 employees were likely to lose their jobs. The management of Triple Steelix, as a neutral liaison centre, managed to interest SSAB in taking over the



Steel industry in Bergslagen

plant. Their efforts resulted in the establishment of a testing shop where end users and steel suppliers can jointly test and evaluate high-strength tubing. SSAB and Outokumpu are joint owners of the project and have acquired an important partner in the form of IKEA, who use many different types of tubes in their furniture.

However, the roll forming centre is not only intended for use by large companies. Triple Steelix's ambition to increase cooperation between companies has led to a breakthrough.

Still at the cutting edge in 2025

"Small companies such as ME Plåt in Borlänge are also able to make prototypes in the roll forming centre and to develop their structural tubing for drag racing cars, which at present has to be imported from the USA. Now it is instead possible to locate the prototype production of tubing in Fagersta."

"They will have access to research competence and the large companies," says Maria Engholm, who points out that this last factor has historically been rare in the sector. Many smaller companies normally

have very little direct contact with large companies such as SSAB or Outokumpu. Since they do not purchase sufficiently large volumes of steel, the smaller companies are referred to wholesalers, who perhaps lack process industry know-how concerning future materials and how these materials are likely to affect the industry.



Maria Engholm

"But in Triple Steelix's innovation system we give the smaller companies access to knowledge on research and development which they would otherwise not have had. This creates the preconditions necessary for new ideas and a growth that will hopefully give us a steel and manufacturing industry that will continue to be at the cutting edge in 2025," says Maria Engholm.

Cluster cooperation that generates growth and competitiveness

The regions of Dalarna, Värmland and Gävleborg together run the SLIM Project in order to support the development of cluster organisations. The project comprises 15 cluster organisations in these regions. Within the cluster organisations there are some 700 companies that together have approximately 60 000 employees, who cooperate with each other and with the universities and institutes of higher education, local authorities and public sectors within the regions. The goal is to increase the growth and competitiveness in the three regions.

The cluster organisations constitute innovative platforms for new business ideas and research and development projects that could help to create new companies, new products and services as well as job opportunities within the regions. The three cluster organisations presented in this folder are examples of the kind of successful cluster cooperation that falls within the framework of SLIM.

The SLIM Project was initiated in 2007 and is due to run until 2013. It is financed to an equal extent by the European regional development funds and the regions of Värmland, Dalarna and Gävleborg.

The project entails a joint learning of how regional innovation environments can be developed in dialogue between cluster organisations, the business community, universities and politicians, and national players. The project also offers process support to the managements of the cluster organisations in the form of mentorship, coaching and competence development. Because the business community organisations in the regions are involved in the cluster cooperation, the smaller companies are also engaged in new business solutions, international marketing and research and development work.

The SLIM Project also has a European and international perspective and the participating cluster organisations cooperate with other clusters in Europe in order to learn from each other. SLIM is also linked to the European Cluster Observatory, which is financed by the EU Commission.



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