

# MADE IN SWEDEN

Cluster cooperation in Northern Central Sweden  
Assessments 2009



# Cooperation for growth and competitiveness

In Sweden, with a long tradition of famous inventors, new jobs and innovation power are created through dynamic cooperation between researchers and companies. A new culture of innovation is being built by means of cluster construction.

In Northern Central Sweden, in the regions of Värmland, Dalarna and Gävleborg, there are some 60,000 employees in 600 companies, gathered into 14 cluster organisations. Here, enterprises from strong traditional Swedish industrial sectors, such as steel and engineering, pulp and paper, ICT and the service sector, account for a large share of the Swedish export sales. This is achieved through close cooperation with the University of Karlstad, Högskolan Dalarna (the University of Dalarna), the University of Gävle and Mid Sweden University. These universities serve as important partners for the 600 companies, with 30,000 students and 3,000 researchers and academic employees on their very doorstep.

In this major “testing lab” of Northern Central Sweden, cluster construction is taking place. By establishing trust and social capital between entrepreneurs from the enterprises and well-educated and inquisitive academics, growth and competitiveness are created and the products and services of tomorrow invented.

The cluster organisations in Northern Central Sweden have been initiated in answer to a demand on the part of local companies, and are the result of a bottom-up process. The organisations act as agents between people and organisations to generate ideas and provide potential for new business opportunities. Creating meeting places is a central part of the activities. Critical success factors include creating an infrastructure for development projects and developing the interaction between corporate research and universities.

## Annual measurement of cluster process effects

The cluster construction model used in Northern Central Sweden is relatively new to Sweden, and builds on strong cluster organisations as coordinators of companies in a regionally localized branch or sector. Cluster assessment, with annual

“Close cooperation with the University of Karlstad and the Service Research Centre at the university has resulted in unique new services for consumer analysis and testing in Packaging Media Lab. We are in the process of creating a new sector through consumer-driven packaging development, which offers new opportunities, new markets and increased international competitiveness for our member companies.”

Per Branzén, MD, The Packaging Arena

measurements among companies, is a part of this model. These assessments provide answers to the question of what works in the cluster construction process and what does not.

Measurements are conducted at corporate level and are based on the companies' own assessments of the benefit of their collaboration in the cluster organisation. The ambition is to assess how the cluster organisation contributes to four growth indicators: growth in existing companies, the creation of new business, increased near-industry research, and training for long-term competence provision.

The first measurement survey was conducted in Värmland in 2005. The method has subsequently been refined, and since 2008 the results of the cluster organisation efforts in Dalarna and Gävleborg have also been gauged. During the same year, the regions initiated a joint cooperation project on

cluster development entitled “System management for innovative environments in Northern Central Sweden”, co-funded by the European Regional Development Fund. The cooperation comprises process support and learning in cluster organisations in the three regions.

Close cooperation on developing the model has also been established with the European Cluster Observatory and its coordinator Professor Örjan Sölvell. The Swedish national authorities for innovation (Vinnova) and economic and regional growth (Tillväxtverket) are close partners in following up the cluster organisation performance.

## Feedback to strategic planning and learning

In addition to providing insight into the results of the cluster organisations, the assessments serve to provide a greater understanding of the work on cluster development among the politicians responsible. When it is possible to discern concrete growth effects from the activities, the politicians acquire basic input on which they can make clearer prioritisations to support regional development.

The measurements also serve to increase the know-how among the cluster process managements as to the needs of the participating companies, and which of the activities undertaken in the organisation are in demand among the companies. The assessments also lend legitimacy to the organisations and facilitate their work on creating new cooperation and networks with companies and other players in the region.

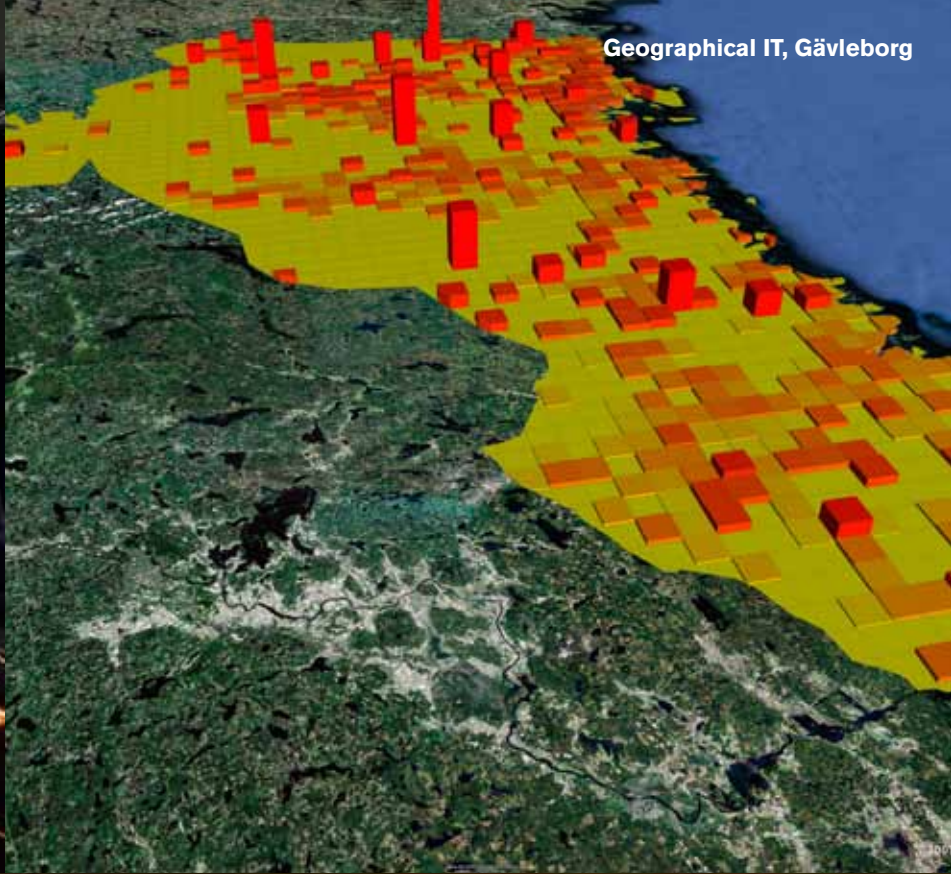
The assessments 2009 show that cluster companies:

- have a stronger desire to grow than other companies,
- increase their participation in research and development,
- predict increased innovation and commercialisation of new ideas,
- have a strong belief in the fact that the cluster organisations contribute towards greater competitiveness.

Steel industry in Dalarna/Bergslagen



Geographical IT, Gävleborg



Eye-tracking, The Packaging Arena, Värmland



# Cooperating cluster organisations

## Värmland

### The Packaging Arena (TPA) [www.thepackagingarena.com](http://www.thepackagingarena.com)

**No. of companies:** 35

**Cooperative**

**No. of employees:** approximately 8,000

**Sample companies:** Stora Enso, Motherland, Procordia, Wasabröd, SCA Packaging Sweden, Broby Grafiska, Löfbergs Lila, Billerud, Attityd i Karlstad

The Packaging Arena is an innovation platform for consumer-driven packaging development. The Packaging Arena brings together different players within the business community and research, and develops new products and services on a global market.

### The Paper Province (TPP) [www.paperprovince.com](http://www.paperprovince.com)

**No. of companies:** 82

**Cooperative**

**No. of employees:** approximately 8,300

**Sample companies:** Andritz, GL&V, Metso Paper/Metso Fiber, Voith, Arctic Paper, Billerud Gruvön, Mondi Packaging, Munksjö Aspa Bruk, Nordic Paper, Rottneros, Stora Enso, Tetra Pak, Tieto Forest

The Paper Province coordinates and develops cooperation between the players in the paper and pulp industry in

Värmland, the northern part of Dalsland and the County of Örebro. This concentration of competence is unique in the world. In a ranking of European cluster groups, The Paper Province is positioned among the 16 clusters with the highest grades for powers of innovation.

### Cluster of Steel and Engineering [www.stalverkstad.se](http://www.stalverkstad.se)

**No. of companies:** approximately 150

**Project organisation**

**No. of employees:** approximately 14,000

**Sample companies:** Rolls-Royce, REC Scanmodule, ScanWind, BAE Systems, CCI Valve Technology, Volvo Bus, Volvo Construction Equipment

The Cluster of Steel and Engineering supports the steel and manufacturing industries within the region in cooperation with other regional players in the areas of entrepreneurialism, business development, research and development and competence provision.

## Compare

[www.compare.se](http://www.compare.se)

**No. of companies:** approximately 100

**Foundation**

**No. of employees:** approximately 2,500

**Sample companies:** Tieto, Telia Sonera, Logica, Sogeti, ÅF, Relacom, Atea, Eltel Networks, Prevas, Oracle, Telenor, Two

Compare, which stands for Competence Area, conducts business and competence development within IT and telecom (ICT). The partner companies cooperate in order to strengthen the competitiveness of the region on a global market. An example of what can be created by cooperation between the Compare companies, the University of Karlstad and the local authority is Compare Testlab, a high-tech centre for the independent testing of software.

## Dalarna

### Destination Dalarna [www.dalarna.se](http://www.dalarna.se)

**No. of companies:** Seven major players with approximately 1,000 companies in their network

**Network organisation**

**Sample companies:** Siljan Turism, Visit Falun, Södra Dalarna Turism, Turismintressenter i Sälen, Älvdalens turistråd

Destination Dalarna is developing an innovative growth environment for companies in the tourism sector by marketing Dalarna on Swedish and international markets. The organisation runs demand-driven joint development projects for Dalarna, which contributes towards developing the tourist industry and thus the competitive strength of the region.

“Thanks to matchmaking-events, the regional companies create business with each other, and offer new business opportunities to common global brand name owners.”

JanErik Odhe, Operational Manager, Cluster of Steel and Engineering

“The increase in cooperation between companies, the public sector and the university has resulted in The Paper Province being identified as one of Europe’s 16 most innovative clusters.”

Mats Williams,  
MD, The Paper Province

# ons in Northern Central Sweden

## Triple Steelix [www.triplesteelix.se](http://www.triplesteelix.se)

**No. of companies:** approximately 720

### Network organisation

**No. of employees:** approximately 22,000

**Sample companies:** SSAB, Outokumpu, Sandvik, Fagersta Stainless, Ovako, Erasteel, trade organisation Jernkontoret (principal)

With steel as its base, Triple Steelix shall encourage a higher level of growth and make Bergslagen more attractive.

## DalaBIT [www.dalabit.se](http://www.dalabit.se)

**No. of companies:** approximately 170

### Network organisation

**Sample companies:** Stora Enso Timber, Siljan Wood Products, Karl Hedin, Dala-Hästens Hemslöjd, Dalarna Lumber

Dala BIT is an organisation for cooperation between interested parties within Dalarna's construction and timber industries. The cluster organisation shall provide information on products and services and market them, help companies find the right competence and contacts, contribute towards raising the level of competence within the participating companies and facilitate contacts with players within society.

“Triple Steelix offers a common platform for collaboration to small and medium-sized companies within the steel and manufacturing industry and associated services. Now when 13 local authorities, universities and institutes of higher education and 700 companies are working with a common vision and common goals, it makes a real difference.”

Maria Engholm,  
Process Leader, Triple Steelix

## Gävleborg

### Fiber Optic Valley [www.fiberopticvalley.se](http://www.fiberopticvalley.se)

**No. of companies:** approximately 50 (30 members and 20 co-financiers)

### Non-profit association

**No. of employees:** approximately 3,100

**Sample companies:** Ericsson Network Technology, Acreo, Gävle Energi, ServaNet, Hiab, Fiberson, OpenNet, Fiberdata, Easit, Fiberstaden, JBEX Networks, Åkroken

Fiber Optic Valley's core business is to help global and local companies to grow. This is accomplished by means of support in the form of research, training, financing, contacts, business development and a testing environment for technical and behavioural science studies.

### Future Position X (FPX) [www.fpx.se](http://www.fpx.se)

**No. of companies:** approximately 30

### Non-profit association

**No. of employees:** approximately 18,500

**Examples of companies:** Sandvik, ESRI S-Group, Sweco, FiberData, Open Care, Donald Davies and Partners, Reflectus, Byggfakta

Future Position X is Europe's foremost cluster for the innovative and growing use of geographical IT. The cluster drives research and development for new products and services within various fields of application linked with geographical IT, e.g. logistics, the environment, civil contingency planning and consumer services on the Internet.

“Future Position X has given us the chance to develop new products, enter the market more quickly and create entirely new business both nationally and internationally.”

Ingrid Hedin-Amrén,  
MD, Open Care

### FindIT – Forum for Industrial IT solutions [www.findit.sandbackapark.se](http://www.findit.sandbackapark.se)

**No. of companies:** approximately 30

### Network organisation

**No. of employees:** approximately 20,000

**Sample of companies:** Sandvik, SSAB, Outokumpu, Ovako, Fagersta Stainless, Erasteel, Industriautomation, DLA Elteknik, Midroc Electro, Stora Enso, KTH Royal Institute of Technology, Luleå University of Technology

FindIT is a dynamic investment in the continued development of a competence centre in industrial IT, with its base in Gävleborg/Dalarna. FindIT combines the strengths of the traditional basic industries and IT, with the aim of increasing the competitiveness of the small and medium-sized companies in the region, supporting the growth of new companies, products and methods, and developing the business community in the region.

”As a neutral competence centre, FindIT acts as an intermediary for cutting-edge competence from the academic world and the steel, paper and pulp industries to the small and medium-sized manufacturing firms. All the efforts stem from real needs, and at the same time generate regional benefits.”

Ulrika Malmkvist,  
Process Manager, FindIT

# Belief in the future and a

The assessments conducted in 2009 in Värmland, Dalarna and Gävleborg show that the cluster organisations are having an impact on the current growth and future competitiveness of the member companies. Compared with other companies, the cluster companies have a considerably greater willingness to grow in terms of both turnover and number of employees. The member companies would also like to see greater cooperation in the future with the universities and institutes of higher education within the region.

## Strengthening the level of competitiveness

Many companies feel that participation in a cluster organisation has resulted in concrete growth effects, above all when it comes to increased sales. Other growth effects are new investments and an increase in the number of personnel. The cluster organisations also contribute towards a stronger long-term competitiveness among companies, primarily in the form of improved products and services, but also as a result of cost benefits. The faith of companies in the capacity of the clusters to strengthen the level of competitiveness in the long term has also increased over the course of time.

The three most important motives as to why companies join cluster organisations are the possibilities for increased cooperation and interaction with other companies, the creation of new business and access to knowledge of trends and business monitoring. The process leader has an important role to play in building this cooperation and creating a dynamic development within the cluster organisations.

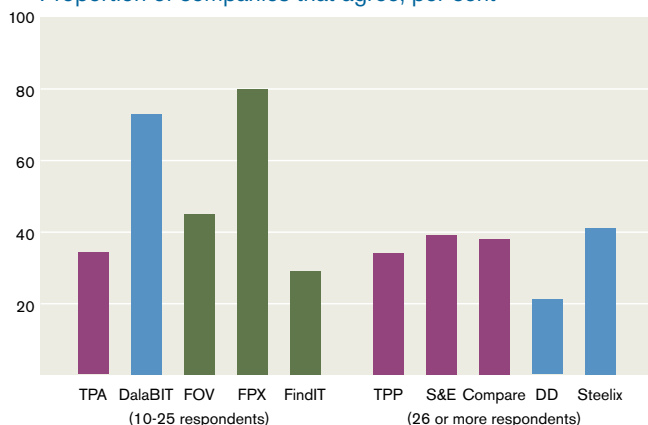
“Compare’s ten-year journey has developed from breakfast meetings into real business projects, cooperation with the University of Karlstad and partner companies, which has in turn led to new types of business that we would never otherwise have been able to acquire on our own.”

Göran Österman, Operational Manager, Compare

## CONCRETE EFFECTS REPORTED ON COMPANIES' CURRENT GROWTH

### Increase in sales

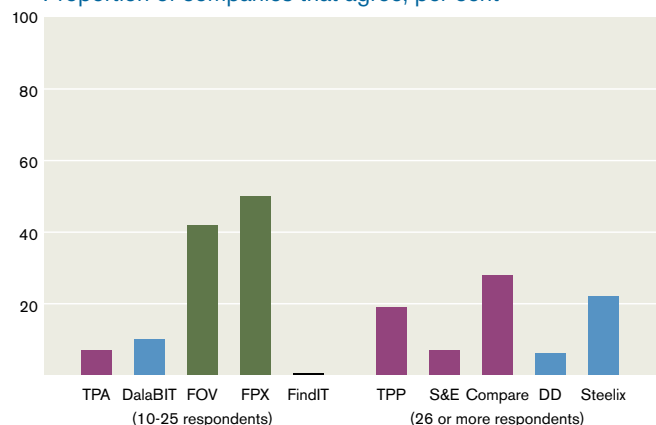
Proportion of companies that agree, per cent



In all three regions, increased sales is the single most important growth effect among companies as a result of the cluster organisation activities.

### Increase in number of employees

Proportion of companies that agree, per cent



In Värmland, the companies report greater number of employees as being the second most important growth effect, while the companies in Gävleborg and Dalarna specify new investments.

In the figures, the cluster organisations are gathered into two groups according to how many responding companies were included in the survey for 2009. The group on the left contains clusters with 10-25 responding companies, and on the right clusters with 26 or more responding companies. One surveyed cluster organisation, Center for

RF-Measurement Technology (Gävleborg), has not been included in the figures because the number of responding companies was less than ten and it cannot therefore be directly compared with other cluster organisations.

# a strong desire to expand

## Contribution towards research and development

The companies judge that the cluster organisations have a sound capacity to contribute towards research and development. The R&D cooperation among the companies has increased both with other companies (Dalarna) and with universities and institutes of higher education (Värmland and Gävleborg). They also emphasize the role of the organisations as agents when it comes to the needs of the companies for competence development and recruitment.

It has also been possible for the cluster companies in Värmland, Dalarna and Gävleborg to be compared with other small and medium-sized companies in the region. "Willingness to grow" proves to be

Assessments of the effects of cluster organisations have comprised interviews with the process leaders, data analysis of the organisations' activities, and a questionnaire to the individual companies in respective clusters (some 600 companies, just over half of which responded). A comparison has also been made with a nationwide survey of small and medium-sized companies in Sweden (Tillväxtverket). In addition, representatives of the universities and institutes of higher education in the three regions were interviewed concerning the connection between research and training, and the cluster organisations.

considerably greater among the cluster companies than among companies in general, as regards both turnover and number of employees.

## Increase in cooperation with the academic world

Most of the cluster companies cooperate with either a university or an institute of higher education, even though the breadth and depth of the cooperation varies between the regions. The companies wish to increase their cooperation with the academic world in the future and to develop their joint efforts to a greater extent. The representatives of the regional universities and institutes of higher education maintain in their turn that cooperation with the cluster organisations gives concrete added value in connection with both research and training, and that it also has an influence on the research strategies.

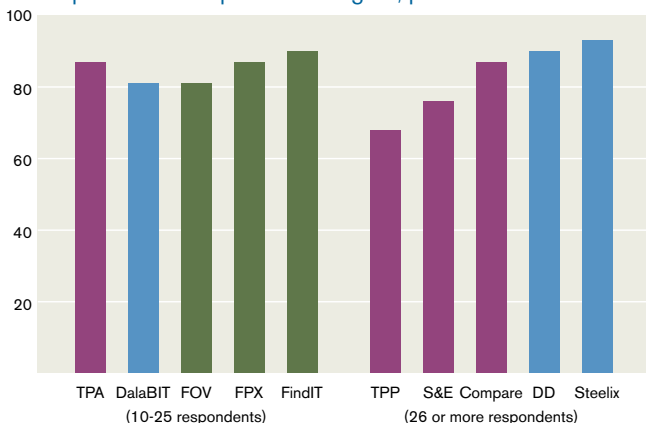
"Our company currently has a number of major customers who purchase fibre optic training, from design and installation to welding, measurement and fault detection. Our cooperation with Fiber Optic Valley has helped us to develop our range of courses and find new contacts on the European market."

Morgan Hallgren,  
MD, ICT Networks

## COMPANIES ALSO PREDICT GROWTH AND COMPETITIVENESS IN THE LONG TERM

### Willingness to grow

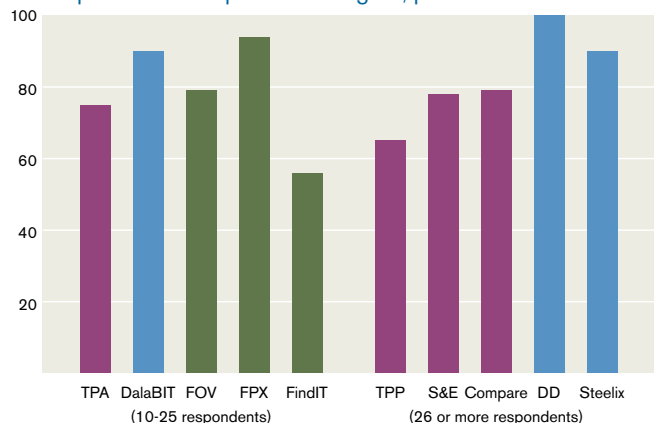
Proportion of companies that agree, per cent



Eight out of ten companies in the cluster organisations state that they wish to grow in terms of both turnover and number of employees. Among all companies in the region, only about one in four have the same ambition.

### New products and services

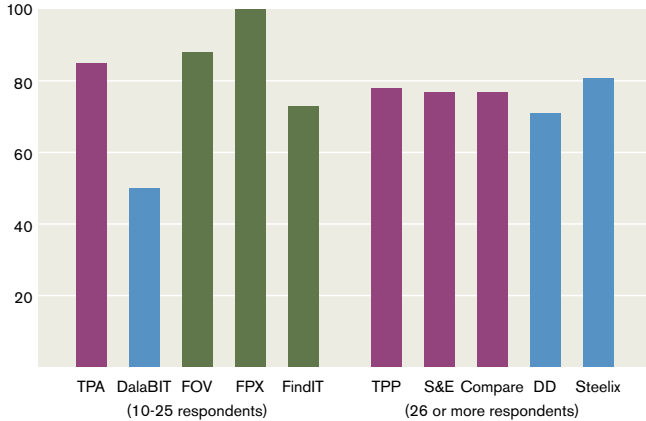
Proportion of companies that agree, per cent



The companies consider, to a greater extent than previously, that the cluster organisations will contribute to a greater level of competitiveness in the future as a result of the development of new products and services.

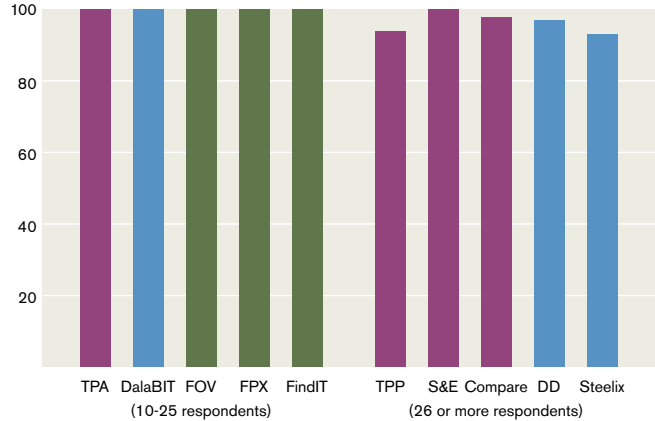
## COMPANIES DISPLAY A GREATER INTEREST IN COOPERATION WITH THE ACADEMIC WORLD

**Cooperate with the academic world today**  
 Proportion of companies that agree, per cent



Most companies have some form of cooperation with a university or institute of higher education, even though this varies somewhat between the cluster organisations.

**Willingness to cooperate with the academic world in the future**  
 Proportion of companies that agree, per cent



Practically all companies in all cluster organisations also want to cooperate more with universities and institutes of higher education in the future.

“It is extremely gratifying for the university that so much has been gained from the cooperation so far, and that the prospects for the future are even greater.”

Kerstin Norén, Principal, University of Karlstad



**Packaging concepts, The Packaging Arena**



**Paper industry, Värmland**



**Acreo Fiber Lab in Hudiksvall**

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