

# MADE IN SWEDEN

*Assessment of cluster initiatives  
in Northern Central Sweden*



# Positive effects on regional development

For a number of years, work has been in progress on building up cluster initiatives in three regions in Northern Central Sweden. In Värmland, the initiatives have evolved from regionally strong industries, with trade and industry playing a leading role. In Gävleborg, the academic and business life of the area has been linked together with the public sector to form innovative environments for the development of new products and services. In Dalarna, companies collaborate with players in the public sector and applied research in order to strengthen the level of regional competitiveness.

A successful cluster initiative is characterised by advanced cooperation between companies, the public sector, academic life and risk capital. Cluster initiatives have been initiated in answer to a demand on the part of local companies and are the result of a bottom-up process. Creating meeting places and developing the social capital is a central part of the activities. The initiatives act as agents between people and organisations to generate ideas and provide potential for new business opportunities. Important criteria for success are to create an infrastructure for development projects and to develop the interaction between corporate research and universities.

The cluster initiatives are based on the traditional industries of Northern Central Sweden such as forestry, ore-mining and power generation, but are also developing new areas such as IT and communications, services and tourism. In most cases, the public and private sector players have together taken the initiative for the cluster developments in order to increase the growth and power of innovation in the region. The public stakeholders have been both local and regional players with support from the national authorities for innovation (Vinnova) and economic and regional growth development (Nutek).

## Gauging the attitude of companies

The need to systematically measure and assess the results of cluster initiative efforts has been identified by both the participating companies and the public sector players who are responsible for the development of the region. Therefore, a few years ago Region Värmland took the initiative in developing a method of assessment. The method is based on a system perspective of cluster development and sheds light on the effects of the cluster process on economic growth and development within the reg-

ion. The first measurement survey was conducted in Värmland in 2005. The method has subsequently been refined, and since 2008 the results of the cluster initiative efforts in Dalarna and Gävleborg have also been gauged.

The annual measurements are conducted at corporate level and are based on the companies' own assessments of the benefit of their collaboration in the cluster initiative. The ambition is to assess how the cluster initiative 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 results of the measurements that have been carried out to date indicate that the cluster initiative activities contribute towards the growth and development of the participating companies and that the model for cooperation between the business community, academic life and society that has been developed in Northern Central Sweden really works.

## Feedback to strategic planning and learning

In addition to providing insight into the results of the cluster initiatives, 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 experience from Northern Central Sweden also shows that the regional mobilisation around the cluster initiatives is strengthened when the benefits of the public funds invested in regional development can be demonstrated.

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

## Continued increase in knowledge and learning

Continued development is planned concerning measurement of the effects that the initiatives have on regional development, in cooperation with research staff at the Stockholm School of Economics, Uppsala University and the University of Karlstad. Through similar studies, the three regions not only learn more about cluster development in each individual region, but at the same time identify common development areas and facilitate joint learning.

Close-up of optic fibre



Destination Dalarna



Processing white-hot steel



### Model for cluster management and assessment

The regions in Northern Central Sweden have in cooperation with researchers developed a programme for cluster management and assessment that leads to innovation and growth.

The model is based on four central processes for cluster development: business development, entrepreneurialism, near-industry research and competence provision. By taking advantage of unique factor advantages, innovative environments have been developed that create joint action between companies, increase the creation of new business and strengthen the international exchange of experience. In cooperation with institutes of higher education, the conditions are created for recruitment and increased near-industry research.

Cluster assessment, with annual measurements among companies, is included as part of the development model and is an important tool in gauging the effects of public funds invested in regional development.

# Cooperation on cluster initiatives

## Region Värmland

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

**No. of member companies:** approximately 30

#### Cooperative

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

**Examples of companies:** Stora Enso, Billerud, Kitech, Motherland, Miller Graphics Scandinavia, Wasabröd, SCA Packaging Sweden, Nordic Paper

Through cooperation in The Packaging Arena between companies, researchers and designers in Värmland, consumer needs can be transformed into new products and services on a global market.

“For Motherland, The Packaging Arena has meant that we have been able to extend our network with skills that we do not possess ourselves. This makes the range we can offer on the market more comprehensive and increases our competitiveness internationally. The Packaging Arena also provides a direct link with new knowledge and research within the area.”

Urban Karlstam, MD and strategist, Motherland AB

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

**No. of member companies:** approximately 75

#### Cooperative

**No. of employees:** approximately 8,600

**Examples of companies:** Andritz, GL&V, Metso, Voith, Arctic Paper, Billerud, Mondi, Munksjö, Nordic Paper, Rottneros, Stora Enso, Tetra Pak

The Paper Province coordinates and develops cooperation between the players within 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.

“The Paper Province has become an international hub for the global paper and pulp industry. Within the region there is a unique and integrated competence that encourages other companies to establish themselves in the area. One can only congratulate Värmland on the decisions that have been and are being made in connection with The Paper Province”.

Mikael Forslund, MD of Andritz in Sweden

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

**No. of member companies:** approximately 300

#### Project organisation

**No. of employees:** approximately 16,000

**Examples of companies:** PartnerTech, Uddeholm Tooling,

REC Scanmodule, Fimek, Outokumpu Stainless Steel, Zakrisdalsverken, Volvo Construction Equipment, University of Karlstad.

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

“The region has a number of companies that are strong on the global steel and manufacturing markets as well as a number of smaller qualified and forward-looking companies with specialist competence. Add to this an expanding university with ambitions in the area of mechanical engineering and it gives us an added value that makes things happen in the region.”

Gert Nilson, Head of Research, Uddeholm Tooling and MD of Machining in Hagfors

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

**No. of associated companies:** approximately 95

#### Foundation

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

**Examples of companies:** TeliaSonera, Telenor, Logica, Sogeti, Ninetech, TietoEnator

The Compare Foundation Karlstad conducts business and competence development within IT and telecom (ICT). Compare offers services to associated companies that create growth for the companies in question by placing the focus on business transactions, establishments and competence provision.

“For us, Compare as a network builder has helped us to solve the problems associated with generation shift within our corporate management and thereby made sure that we can remain an independent company with its base in Karlstad.”

Ulf Sandlund, MD for Ninetech

## Region Dalarna

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

**No. of companies:** approximately 720

#### Network organisation

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

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

With steel as the base, Triple Steelix shall promote the growth and attraction of the Bergslagen region.

“Triple Steelix links together large and small companies. It is a network which above all gives small companies the chance to verify their ideas on product development and to come into contact with

# es in Northern Central Sweden

the development resources that are available to large companies. It is also a network that is both concrete in nature and at the same time extremely active.”

Henrik Stigers, MD of Dalforsån AB

## 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

**Examples of 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 initiative runs demand-driven joint development projects for Dalarna, which contributes towards developing the tourist industry and thus the competitive strength of the region.

“Dalarna is a large region, and those of us involved in tourism must find new ways of working together. When it comes to marketing abroad, we really must generate greater resources. In this context, the individual destinations are too small and it is only by working together that we can reach out to everyone.”

Hans From, MD of Hotel Gyllene Hornet

## Region Gävleborg

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

**No. of member companies:** approximately 40 companies and some 10 organisations

### Limited company

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

**Examples of companies:** Ericsson Network Technology, Acreo, Gävle Energi, ServaNet, Hiab, Fiberson, OpenNet

Fiber Optic Valley is a forum for the testing and development of products and services based on fibre optics. In cooperation with the university, society and the business community, Fiber Optic Valley is involved in building tomorrow's broadband society.

“Ericsson Network Technologies is one of the initiators of Fiber Optic Valley. We need a strong neighbourhood environment in which we can test new products before launching them on the world market. Through our cooperation with Mid Sweden University, Acreo and companies in the region, we have an environment that strengthens our own efforts in the area of broadband and fibre technology.”

Jan Sjärdén, MD of Ericsson Network Technologies

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

**No. of member companies:** approximately 30

### Non-profit association

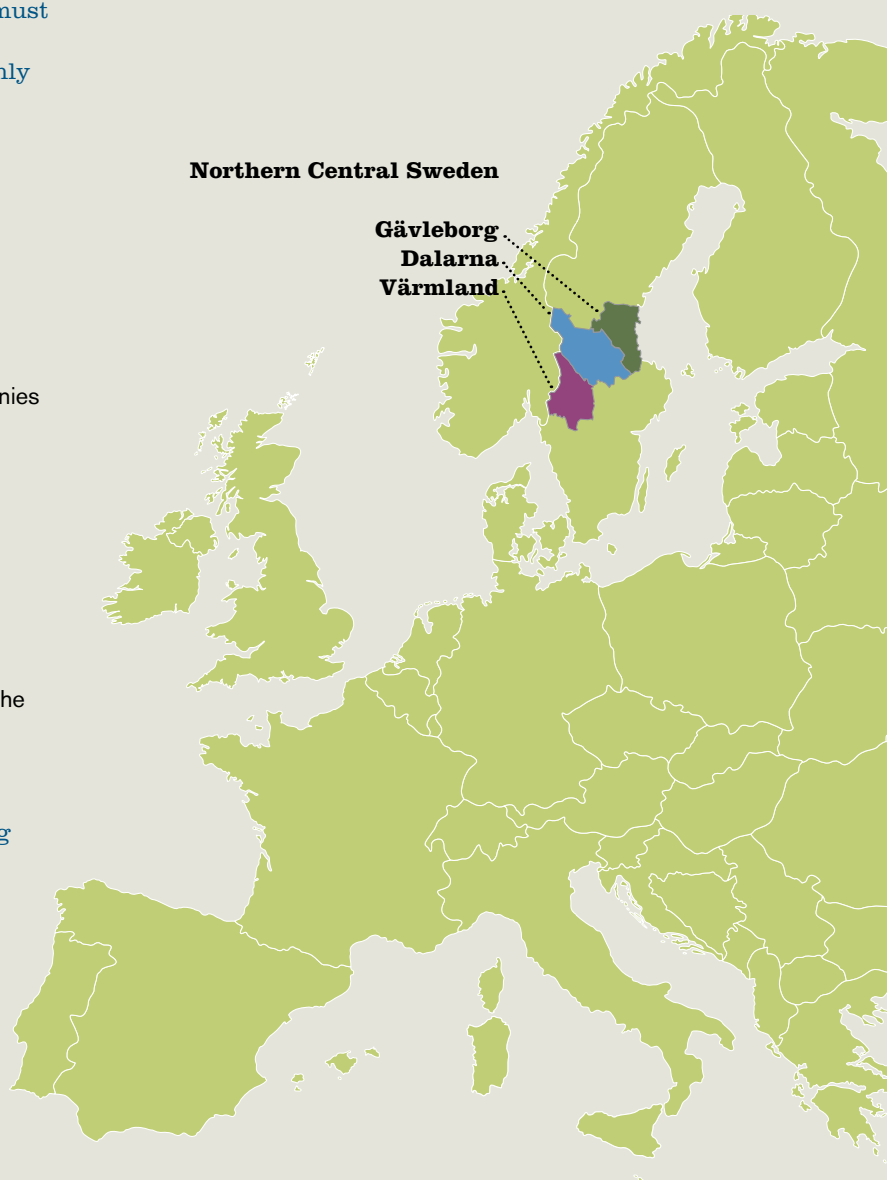
**No. of employees:** just over 5,000

**Examples of companies:** ESRI S-GROUP, Korsnäs, Sandvik, Wahlströms Datanät i Gävle, Open Net, Rivermen

Future Position X is a gathering point for companies and organisations that are promoting the innovative use of geographical information (GIS/GIT). FPX offers the members networks for allocating knowledge and competence, and linking them to their own companies' growth, business and market development, internationalisation and a newly built development laboratory for GIS.

“FPX is a catalyst for cross-border meetings that give us business and contribute towards our internationalisation.”

Rickard Zetterberg, CEO of the ESRI S-GROUP



# Results that lead to growth

The assessments that have been made of the effects of the cluster initiatives comprise interviews with the process managers, the documentation of activities and results, and a questionnaire to be completed by the individual companies in the respective cluster initiatives.

## Long-term perspective and global competitiveness

The overall conclusions from the measurements conducted in 2008 in the regions of Värmland, Dalarna and Gävleborg show that the most important driving force of the initiatives is their contribution towards competitiveness on a global market. For several of the initiatives, the foremost challenge is securing access to the right competence. Competence needs to be available from both within and outside the regions. The initiatives and the regional players

must therefore be able to market the regions and the advantages they offer.

Having a long-term perspective is an essential precondition for cluster development. The process manager has an important role to play and sustainable financing is a vital prerequisite. The capacity to maintain the involvement of companies over the course of time is also of importance if the initiatives are to be active in the long term.

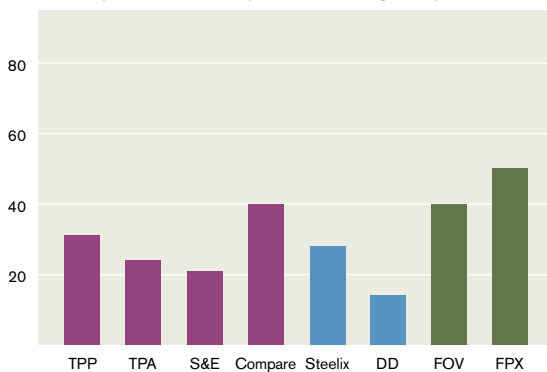
The basic point of departure and the core of the cluster initiatives is the companies and their needs. Here, the initiatives are largely based on a bottom-up perspective and focus on those aspects that generate added value for the companies. In its cooperation with other companies, the capacity of the initiative to create results is also a decisive criterion for success.

The cooperation between companies, institutes of higher education and other public sector players contributes towards a high level of competitiveness among companies, which shows that cluster develop-

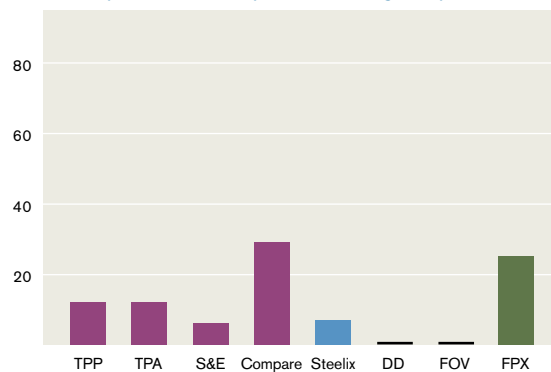
## ASSESSMENT OF CONCRETE GROWTH EFFECTS, 2008

Increased sales is the single largest growth effect that companies cite as being the result of their participation in a cluster initiative.

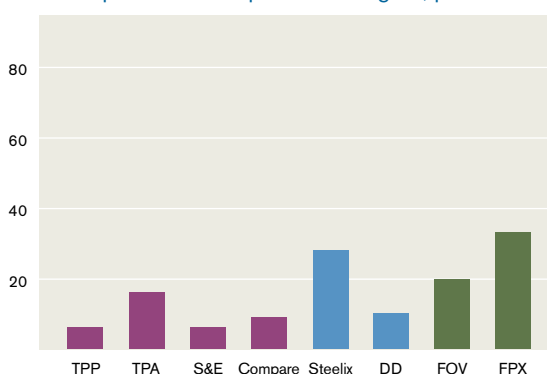
**Increase in sales**  
Proportion of companies that agree, per cent



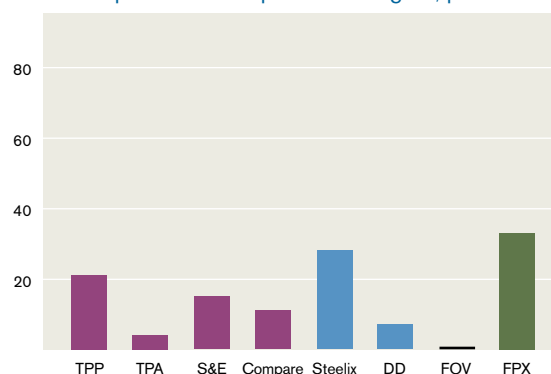
**Increase in number of employees**  
Proportion of companies that agree, per cent



**New investments**  
Proportion of companies that agree, per cent



**Lower costs**  
Proportion of companies that agree, per cent



# h and competitive strength

ment is an important tool for regional growth. A common denominator for companies in all initiatives is that they want to increase their cooperation with universities and institutes of higher education.

## Increased sales and new products

In the questionnaire part of the assessment, each company makes a subjective assessment of the effects of the cluster initiative on its own activities. The results of the eight cluster initiatives that are involved in the Northern Central Sweden cooperation are shown in the figures below.

The reason given by the companies for taking part in the cluster initiatives is in the first place the need for new networks and cooperation with other

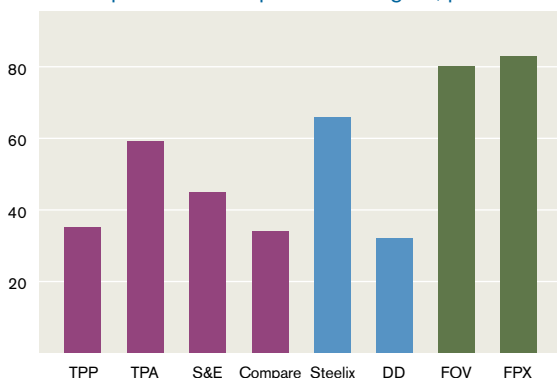
companies. The companies require cooperation in marketing, product development and sales, and also to a certain extent in R&D. In the latter case, it is primarily cooperation with the university and institutes of higher education that has produced results.

Among the concrete growth effects of the cluster initiative activities, the companies cite in the first instance increased sales. The principal contribution of the initiatives to an increase in the companies' long-term competitive strength is improved products and services. The initiatives also contribute to the competitiveness of the companies through greater and deeper cooperation with other companies and players in their immediate environment.

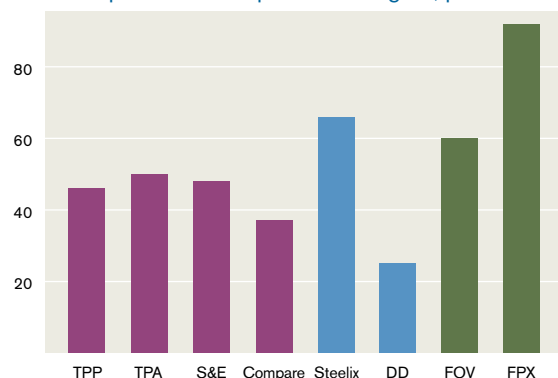
### ASSESSMENT OF GREATER COMPETITIVENESS IN THE LONG TERM, 2008

Improved products and services is cited by individual companies as being the most important contribution of the cluster initiative to their competitiveness.

**Improved products/services**  
Proportion of companies that agree, per cent



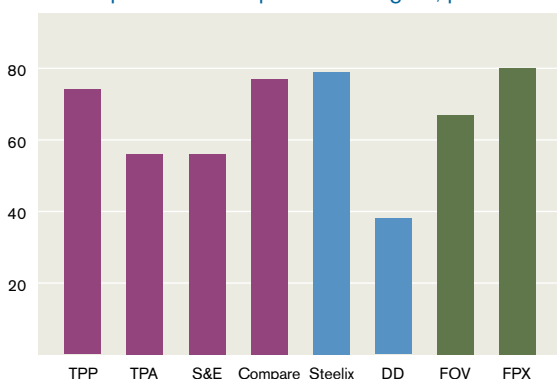
**New products/services**  
Proportion of companies that agree, per cent



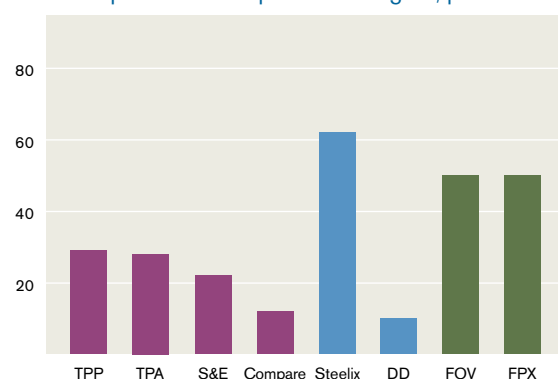
### ASSESSMENT OF CLUSTER PARTICIPATION, 2008

Most companies state that the cluster initiative has to some extent helped in recruiting the right competence to the company. Fewer state that their participation in the initiative has led to increased cooperation with universities and industrial research institutes.

**Recruiting the right skills**  
Proportion of companies that agree, per cent



**Increased R&D cooperation with universities and industrial research institutes**  
Proportion of companies that agree, per cent



# Cross-border experience and know-how

During 2007, the three regions in Northern Central Sweden initiated closer cooperation on cluster development. The cooperation comprises process support and learning in cluster initiatives and is conducted as part of the joint project entitled "System management for innovative environments in Northern Central Sweden".

The purpose of the project is to help coordinate, measure and support efforts made in existing and future cluster processes and innovative environments in the three regions. The eight cluster initiatives that are included in the cooperation comprise some 500 participating companies with approximately 60,000 employees. The project is financed through EU structural fund grants and will be implemented in stages up until 2013.

Within the three-part cooperation, a learning process is being conducted around those cluster

initiatives that have proved to be most successful. Knowledge, methods and experience are shared between the participating cluster initiatives and disseminated to other initiatives that are in an early phase. In this way, a substantial contribution is being made to regional development and to increased national competitiveness among the participating companies.

The continued measurement of cluster initiative effects on regional growth and development is an important feature of the cooperation in Northern Central Sweden. By feeding back know-how from the cluster companies, regional research and development strategies can be designed together with institutes of higher education within the regions. Joint strategies will also increase the possibility of coordinating activities within Northern Central Sweden that are financed through EU's framework programmes and the regional structural fund programmes.

## Invitation for European and international cooperation on cluster management and assessment

Work on developing international contacts and marketing is important for the cluster initiatives. Internationalisation helps to increase the attraction, develop innovative capacity and enhance the competitive strength of the participating companies and regions.

The cluster initiatives in Central Northern Sweden are therefore seeking contact with cluster initiatives and players in other parts of Europe and internationally for cooperation that mutually supplements and strengthens the companies and contributes towards regional development. Learning and the exchange of experience on cluster development, research projects within those areas in which

cluster initiatives are particularly strong and cooperation projects to increase internationalisation and innovation among small and medium-sized companies are of particular interest.

One example of international cluster cooperation is CLOE (Clusters linked over Europe), which is a European cooperation project between cluster initiatives in eight European regions, one of which is Värmland.

The three interacting regions in Northern Central Sweden are more than willing to share their experience, and look forward to developing a network among players in Europe and internationally within cluster management and assessment.

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