



Report 2011:7



COUNTY ADMINISTRATIVE
BOARD OF STOCKHOLM

Overview of the Results and Effects of the SOL Project

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Foreword

This report documents the major investment to increase skills at Scania in Södertälje, Oskarshamn and Luleå (the SOL Project), and partly at supply companies in the heavy vehicle industry. The target group for this investment was all the workshop employees in these companies. The main reason for this investment was to react quickly to the acute economic crisis that occurred during the second half of 2008. The intention was to avoid redundancies during the recession in the project period and instead increase the skills of staff through training. This would make the staff better equipped for the stricter requirements that were expected to characterise the heavy vehicle industry once the economic cycle had recovered.

The Stockholm County Administrative Board was the project owner and this document presents its overview of the results and effects of the SOL Project. The results and effects were identified in the evaluation that was carried out as an on-going evaluation in 2009-2010. This evaluation was carried out by Ramböll Management Consulting in close dialogue with the SOL Project reference group. Mats Ershammar was the project leader and responsible for the evaluation at the Stockholm County Administrative Board.

The report starts by presenting the project itself and the background to the investment. This is followed by an analysis of the various needs, i.e. the needs that the target group and the companies had in this kind of investment, as well as the results generated by the project. Finally, cooperation is discussed within the framework of this type of skills development investment. The purpose of this report is to ensure that any lessons learnt from the project can be used in similar future investments.

Stockholm, August 2011

Summary	3
What was the SOL project?.....	5
Application and background to the investment	5
A unique project – exemption from State aid rules	6
Change in conditions	7
International competitiveness and employability	7
How has the SOL project been carried out?.....	8
Training carried out in the SOL Project.....	8
Implementation from Scania’s perspective	10
Implementation from a cooperative perspective.....	11
Lessons gained from the implementation	12
Needs and relevancy of the SOL project	13
Needs of the companies and target groups.....	13
Relevancy of the activities	14
Lessons around the target group’s needs and relevancy of the activities.....	15
What results did the SOL project give?	16
The results from the skills development at Scania	16
The results of skills development at supply companies.....	19
Sustainability for Scania and supplier companies	20
Lessons from the results of the investment	23
Cooperation within the framework of the SOL project	24
Lessons from the cooperation.....	25

Summary

The SOL Project was an initiative to increase skills among around 5 000 workshop employees. It was carried out at Scania in Södertälje, Oskarshamn and Luleå, and partly at supply companies to Scania and the heavy vehicle industry as a whole in these locations. The results of the evaluation that was carried out show that skills development (in this case in the SOL Project) was a tool that met the vehicle industry's needs and the objective of the project, namely to strengthen competitiveness in the heavy vehicle industry. The evaluation also revealed that the workshop employees were interested in being part of this kind of investment.

The SOL Project generated positive results for Scania and the industry as a whole. However, the results varied between plants and groups at Scania. The increase in skills in the project enabled employees to handle more stages in production than before. They also gained a greater understanding of the final product and how their own work affected the production process. This led to individuals taking greater responsibility, resulting in higher quality in operations. The analysis also shows that workshop employees developed in line with the requirements of working life, in the sense that they achieved greater employability at Scania and probably also on the labour market as a whole in the vehicle industry. The project supported the employees needs to keep up with technical developments when new requirements are set for the manufacturing industry.

The training for the suppliers was not carried out to the full extent that had initially been intended. One reason for this was the time it took to finalise its decision on financing. When the application was finally granted, many suppliers had already reduced the number of staff as a result of the economic decline. Several suppliers were not able to develop the skills of all workshop employees to the same extent as Scania because they, unlike Scania, did not have the financial muscle to make this kind of investment without any aid during a recession, under a constant threat of bankruptcy.

Any future investment to develop skills should clarify the link to the rest of working life in order to increase employability outside Scania. The investment in skills development at the supply companies was not as extensive as had been intended. The results were good from the training that was provided. The analysis that was carried out within the framework of the evaluation showed that Scania and the suppliers developed a greater awareness of each other's needs and that the supply companies developed a greater understanding of efficient production systems.

The SOL Project increased cooperation in the three regions involved, mainly through a greater level of exchange between the adult education institutions/training companies on one side, and Scania and supply companies on the other. The main benefits for the regions were the significant increase in skills in their basic industry, a lower risk of unemployment from the crisis and better readiness to meet a future upturn in the economic cycle. The SOL Project also had an effect on learning by showing a new way of using structural funds. This was achieved by the regions involved working together to take a national approach to the industry.

The implementation of the project and to some extent the results were affected by the fact that the cooperation between industry and the public actors was not completely without any problems. However, industry and the public actors did develop a greater understanding of each other's needs during the project and there was a desire to find solutions that would work for both sides. Different timescales, decision-making processes and administration affected the implementation. Before any future investments like this are made it is important to take into consideration the different requirements of industry and the public sector. For example, ways to make administration easier should be considered to take into consideration the requirements of industry and create the right kind of incentive for implementing the project in a resource-efficient manner.

It should be emphasised that the SOL Project had good results, despite facing some obstacles. The following success factors were identified:

- The joint strength of the actors involved – Scania's commitment to retain staff and the region's commitment to reduce unemployment ensured that the investment could go ahead
- Industry and the public actors gradually increased their understanding of each other's needs and there was a willingness to find pragmatic solutions that would work for both sides. This ensured that the investment could take place, despite a number of obstacles
- The 'train-the-trainer' model that was used to implement the investment: 1) which enabled such a major investment in skills development to be carried out 2) which helped to spread the results based on the experience gained by the production leaders in their new role
- Scania had used the 'train-the-trainer' model before, which meant that the project could be implemented quickly and the knowledge could be spread effectively. This would otherwise have been difficult to accomplish
- That the training corresponded to a need at the companies (Scania and the suppliers) – to strengthen international competitiveness – and that skills development formed part of this work. The investment was therefore relevant for the companies involved
- Interest had been identified in the target group (the workshop employees) for an investment to increase the level of skills – and the activities that were carried out were generally relevant for the target group
- Success factors that were mentioned for the results that were achieved included 1) the training was work-based and linked theory with practice and 2) the trainers showed a high level of commitment

What was the SOL project?

The SOL Project was an initiative to increase skills among workshop employees. It was carried out at Scania in Södertälje, Oskarshamn and Luleå, and partly at supply companies to Scania and the heavy vehicle industry as a whole in these locations. The main reason for this investment was to try to avoid redundancies during the recession at the time and instead increase the skills of staff through training, helping the employees to be better equipped for the stricter requirements that would characterise the industry once the economic cycle had recovered.

Application and background to the investment

On 26 January 2009 the Stockholm County Administrative Board submitted an application to the Swedish ESF Council for a grant of more than SEK 100 million from the European Social Fund (ESF)¹ for an investment in work-based skills development, with a special focus on the heavy vehicle industry. As the heavy industry in the Stockholm region has strong links to places such as Oskarshamn and Luleå, the application included an integrated approach across county borders. The objective was to offer skills development for around 6,000 people, divided between Södertälje, Oskarshamn and Luleå.

The background to the application was the major challenges facing the Swedish vehicle industry. The vehicle industry is one of the largest industries in the country in terms of employment and one of the leading export sectors. Other reasons for submitting the application were the acute crisis facing the vehicle industry in the second half of 2008 and greater competition between global actors. Although the vehicle industry in Sweden cannot compete with low pay levels, it can compete through innovation, technical knowledge, commitment and working methods. Stricter quality requirements and the need to increase the rate of production will place greater requirements on the employees. Making an investment to increase skills among workshop employees was considered to be a way of making existing production more efficient and preparing the way to implement product refinements. The SOL Project was one of the initiatives that the Stockholm County Governor, Per Unckel, took as part of the government assignment to be the 'Regional coordinator with responsibility for dealing with redundancies'. This government assignment was introduced to tackle the increasing number of redundancies caused by the global economic and financial crisis in the autumn of 2008.

¹ The ESF is one of the EU's structural funds, which aims to improve economic cohesion and economic welfare in all regions in the Union by taking employment-based action. The main purpose of the ESF fund is to help create more and better jobs in the EU.

Companies that implemented measures to increase skills and retain existing staff were expected to be better equipped when the demand increased. The knowledge and skills that the heavy vehicle industry has amassed is based on a solid holistic approach and consistent thinking related to the complexity of vehicles. These areas of strength were expected to contribute to greater competitiveness in a more knowledge-based and globalised economy. Against this background Scania was awarded more than SEK 100 million from the ESF programme, priority axis 1 'skills provision':

"In programme area 1, applications for aid can be submitted for projects that make it easier for women and men (people who own their own business, employees or managers) to develop in line with the requirements of working life. This refers to competence development that contributes to the individual gaining the competence needed for any changes to the labour market, putting them at a lower risk of being unemployed"

A unique project – exemption from State aid rules

The project differs in terms of administration because three different structural fund partnerships² put some of their training funds into a joint training pot. The structural fund partnerships involved were the County of Stockholm, Småland and Öarna, and Norrland. However, the main difference was the significant amount of aid to one individual company. It therefore breaches Article 87.1 of the EC Treaty:

"Aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favoring certain undertakings or the production of certain goods and affects trade among Member States is incompatible with the common market."

As the aid for the investment that had been applied for did not adhere to the rules, an exemption decision from the State aid rules was needed from the EU Commission. In short the State aid rules mean that aid cannot be granted if it is judged to lead to different operations being carried out than what would normally have been carried out (either because it is stipulated by law or because the market forces themselves provide enough stimulus for the operations to be carried out).

The County Administrative Board therefore applied for an exemption from the State aid rules through the Swedish Ministry of Enterprise, Energy and Communications and this exemption was granted by the EU Commission. The exemption was granted mainly because it was assessed that Scania's employees would gain access to much more training than they had

² The structural fund partnerships include representatives of municipalities and county councils in the counties involved, and representatives of labour market organisations, county administrative boards, county employment boards, trade organisations and associations. The task of the structural fund partnership is to state which applications should be prioritised among those that have been approved by the managing authority for the relevant EU programme.

previously had, and that the training would benefit employees who would normally receive the lowest amount of skills development at the companies. Another important reason for allowing this exemption was the fact that the skills of the employees would be increased by them being offered training that was not specific to Scania's operations, but that could be used within the sector as a whole. The training was to include language and mathematical training, technical training and training in efficient production systems. All this training would result in greater employability for the employees, which would therefore strengthen their position on the labour market.

Change in conditions

In 2010 the project budget for Scania was almost halved from around SEK 100 million to around SEK 60 million following an application from the Stockholm County Administrative Board. The main reason for this change was the strong demand for trucks that Scania experienced in the autumn of 2009. The market situation made it difficult for Scania to plan and make effective use of all the time that had been available for training in the SOL Project in its original scope. Scania was therefore not able to carry out all the training it had planned for the project. The reason behind this was that Scania was not able to start the planned basic courses and other courses that needed to be procured, partly due to the amount of time it took to receive the final decision from the ESF to grant the financing. Scania's introduction of a four-day week for most of 2009 and partly of 2010 also reduced the time available for training. However, the project period and project content did not change as a result of halving the project budget.

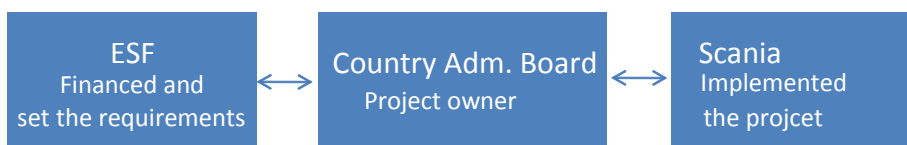
International competitiveness and employability

The main objective of the SOL Project was to increase employability for the employees and also the competitiveness in the participating companies by making a major investment in training. Instead of making employees redundant during the economic decline, expertise in the company and the subcontractors would be made available, enabling the companies to meet a future upturn in the economic cycle. One of the basic ideas of the SOL Project was also to promote various kinds of knowledge transfer to ensure that the skills of employees in the companies could continue to increase in the future.

How has the SOL project been carried out?

This section contains a description of how the SOL Project was carried out, including a description of the content of the project and the cooperation around the implementation itself. The three main actors in this investment are Scania, the Stockholm County Administrative Board and the ESF (administered by the ESF Council). Scania implemented the project, while ESF was the financial backer and set the requirements. The County Administrative Board is the project owner and had a coordinating and supporting role.

Figure 1. The three central actors in the SOL Project



Training carried out in the SOL Project

The training for the workshop employees was mostly targeted at Scania's employees, but also to some extent at the employees of Scania's suppliers and other supply companies in the heavy vehicle industry. The training varied slightly between Scania and the suppliers. In terms of the workshop employees at Scania, the idea was for the training to contain the following sub-components:

Table 1. Modules to increase the skills of workshop employees at Scania

Sections	Description
Module 1. Basic training	This module focused on strengthening the basic skills among employees in general by offering blocks of upper secondary skills in core subjects, as well as technology, IT and the work environment
Module 2. Work-based training in production technology	This module prepared workshop employees for more work in production technology, by offering training in, for example, processing, assembling and logistics
Module 3. Efficient production systems	This module intended to increase the involvement and commitment of the employees and raise the quality of their work by increasing their understanding of efficient production systems through problem-solving, with a focus on quality and habits

The main method used for training Scania employees was the ‘train-the-trainer’ concept. In this concept the managers from one level teach the staff at the next level down in their own organisation. For the employees this meant that their production leaders trained them. Approximately 60-70 percent of the training was provided by internal trainers. The training activities for the suppliers were provided by Scania and also by KTH Royal Institute of Technology, which had been commissioned by the County Administrative Board. Although the structure of the training varied between different supply companies, the focus was on production systems. The training was carried out in the following scope:

- 4,934 of Scania’s employees took part in the project (target: 4,650)
 - Södertälje: 3,037
 - Oskarshamn: 1,318
 - Luleå: 579
- On average employees at Scania received around 153 hours of training per participant (target: 170)
- Around 754,500 hours of training in total (target: 800,000)
- Training around accessibility issues was carried out in all places with strategic people (e.g. HR representatives)
- All course participants were trained in gender equality, integration and diversity
- Around 120 people from the supply companies were trained (target: 200)
 - of which around 40 through Scania
 - of which 77 through KTH

At Scania the training was carried out to the extent that had been finally planned. However, the training for the suppliers was not carried out to the full extent that had initially been intended. One reason for this was the time it took to finalise its decision on financing. When the application was finally granted, many suppliers had already reduced the number of staff as a result of the economic decline. The difficult economic situation at that time for many of the companies contributed to their rather low demand for competence development.

Implementation from Scania's perspective

The rapid start and implementation of the project were considered to be both a problem and a success factor. The rapid implementation meant that there was not enough educational support for trainers and that not all the structures were in place when the training started. The rapid reaction to the economic crisis was highlighted as being necessary to ensure that the investment was to take place at all. The crisis was intense and required immediate action.

The implementation itself was made possible by all the actors involved joining forces. The 'train-the-trainer' concept was highlighted as being essential to ensure that such a major investment could be made. The reason for its success was that Scania had previously used this model, enabling it to quickly mobilise the internal resources that were needed.

As for the implementation of the training, the employees said that there were inequalities in the educational quality of the training; which is one disadvantage of the 'train-the-trainer' model. The educational knowledge and commitment of the production leaders varied. When any future investment is to be made, more educational support is recommended for trainers and that the production leaders that have higher educational competence should carry out more of the training.

Implementation from a cooperative perspective

In terms of the cooperation between the ESF, the County Administrative Board and Scania, many different views were offered that had an impact on the implementation and the results. Scania and the other companies gave the County Administrative Board a high mark for supporting the organisation in the implementation of the project. During the implementation the County Administrative Board acted as the 'middleman' between the two other actors (ESF and Scania).

It was also stated that the commitment from individuals and the joint use of strength enabled the project to be carried out, even though certain obstacles were identified (for example the need of a exemption from the State aid rules). This commitment was essential for enabling to get the project off the ground at all. However, there were some factors that made cooperation more difficult and can be used as lessons for future investments. Firstly the different logics used in industry (Scania) and EU bureaucracy (ESF). This included everything from target setting, timescales, decision processes, reporting requirements, administration, and acts and rules. The ESF placed high requirements on administration and the company found these requirements extremely time-consuming. Although Scania thought that the project itself was extremely successful, they were unsure as to whether the project should have been carried out in the way it was if tried again. Their uncertainty was not about the investment itself, but as to whether Scania should have applied for financing from the ESF, as they found the administration and the decision process far too cumbersome. They stressed that if Scania had not had the financial muscle and efficient administration processes, the project would never have been possible. They also pointed out that they would not recommend other companies without the resources of Scania to carry out this kind of investment due to the administrative requirements associated with this kind of funding. Scania also stated that some rules about what expenses can be claimed create the wrong kind of incentive; for example, it was not possible to receive aid for investing in a projector, but it was acceptable to hire a projector twenty times, even though this was more expensive.

The amount of time taken for the decision to be made (it took around five months from the time the application was submitted and the EU Commission approved the financial support) had implications on the implementation. One result was that only very few externally organised courses were carried out in 2009. This meant that time was not able to be used to its full extent during the project. Similarly, training for suppliers was

not as extensive as had been planned. However, the most serious issue was that the planning phase was far too short, which affected the implementation. However, having a longer pre-project phase could also have had a negative effect on the number of training hours, as most training hours were carried out during the first months of the project. Uncertainty and long decision processes were said to be difficult. Scania thought that the ESF was unavailable during the introductory phase of the project.

Before any future investments it is important to take into consideration the various requirements of industry and the public sector, both in terms of time and how administration can be simplified to meet the needs of industry. Success factors that were mentioned were the commitment to retain staff (Scania) and the Country Administrative Board, according to the external evaluation of the project, being sensitive to the conditions that Scania and other companies were under.

Lessons gained from the implementation

The project was implemented quickly in order to respond to the acute crisis that was already taking place at the time the decision was made. However, a more indepth pre-project phase is requested for any future investments. One success factor that was mentioned was the 'train-the-trainer' model, which made such a major investment in skills development possible. One disadvantage was the varying quality of the training due to different educational knowledge and commitment from the production leaders. More educational or pedagogical support for production leaders (internal trainers) was requested for any future investment.

The cooperation between industry and the public actors was not completely without problems either. However, they now have a greater understanding of each others' needs and they all showed a willingness to find pragmatic solutions that would work for both sides. Different timescales, decision processes and administration affected the implementation of the investment. Before any future investments, it is important to take into consideration the various requirements of industry and the public sector, both in terms of time and how administration can be simplified to meet the requirements of industry, and to create the right kind of incentives.

The SOL Project was carried out effectively despite some obstacles. One important success factor was the joint strength from the actors involved. Scania was committed to retaining its staff and the regions wanted to reduce the risk of unemployment and strengthen the companies' ability to handle the need to adapt to changes to the economic cycle and structural changes.

Needs and relevancy of the SOL project

In order to ensure that this kind of project can give sustainable results, there firstly has to be a need/interest among the investment's target group, namely the workshop employees in this particular project. Secondly the activities have to be relevant to the objective; in this case to create greater international competitiveness, employability, flexibility in the companies and to prevent a loss of skills, enabling companies to have the right skills available to meet future demand. This following section describes the extent to which the implementation of the SOL Project met these needs.

Needs of the companies and target groups

Target group	Needs
Companies (Scania and the suppliers)	<p>There was a consistent view that Scania and the industry's supply companies needed to strengthen their international competitiveness. It was particularly important for companies in the vehicle industry in Sweden to continually develop to ensure that they could compete with low-cost countries; the main way of doing this was to have a higher level of knowledge among employees. In this work, developing the skills of workshops employees contributes to continual improvements in production, which is essential to keep pace with tougher competition. The same applies for Scania's existing and potential suppliers. Implementing such a major investment to develop the skills of all workshop employees is a way of meeting future needs and challenges. The suppliers were not able to do this to the same extent because they, unlike Scania, did not have the financial muscle. Several suppliers did not have the resources or the capacity to make this kind of investment without any aid during a recession, under a constant threat of bankruptcy.</p> <p>A vast majority of the production leaders that were asked at Scania thought that the skills development matched the needs of operations for higher efficiency, quality and flexibility and could therefore lead to better international competitiveness in the long term.</p>

<p>Needs of the target group/employees</p>	<p>The primary objective for the target group was to increase their employability, both inside and outside their own company, i.e. to develop in line with the requirements of the labour market. In this context skills development is seen as being central for enabling employees to follow technical developments when new requirements are set in the manufacturing industry. In this way training can be seen as a way of equipping individuals in their current job and also increasing their future opportunities on the labour market.</p> <p>The ambition was to take into consideration the individual's wishes for the choice of subjects and times as far as possible. This was going to be the case for the participants in the courses of the joint training program decided by the ESF. However, the interviews that were carried out showed that this did not fully take place to the extent that had been intended. In order to increase the relevancy of the training investment for the target group, future investments in skills development should as far as possible take into consideration how to balance between the wishes of the individuals and the requirements of a modern working method, characterised by team work and resource-efficient procedures as a whole. Although there were some minor shortcomings in this particular respect, the conclusion is that the project generally met the needs and interest of the target group.</p>
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Relevancy of the activities

It is essential for the activities that are carried out to have a clear link to the main objective. This means that there needs to be a clear link between the skills of the workshop employees and higher international competitiveness. The assessment was that the increase in the employees' skills was in line with the needs of Scania and other participating companies to meet the market's demand for complex products. The activities and the training that were carried out were relevant for Scania and the participating suppliers. It was particularly relevant for their international competitiveness, where the training in more efficient production processes had a clear link to the main objective. The link between the training and greater employability outside Scania was not as clear for the workshop employees. Although the content could be used outside Scania and the other companies involved, the workshop employees were not fully aware of this. However, the training did allow the individuals to see their own role in relation to the whole process, which strengthened the individual both inside and outside the company.

Lessons around the target group's needs and relevancy of the activities

There is a consistent view of the need to strengthen international competitiveness for the industry and that continual improvements need to be made to compete with low-pay countries. Developing the skills of the staff is part of this work. The ability to develop the skills of the workshop employees also enabled the companies to be prepared for an increase in production, so they were fully ready for when the economic cycle started to recover. The assessment is that the investment met the needs of the individuals for greater employability and also the needs of companies for higher international competitiveness.

The main objective for the primary target group was greater employability, both inside and outside their own company. In this respect skills development is seen as a way of strengthening employees, so that they can keep up with technical developments when new requirements are set for the manufacturing industry. Most production leaders also thought that the employees were interested in the training. In order to further increase the relevance for employees, any future investment in skills development should take in to consideration the balance between the wishes of the individuals and the requirements of a modern working method, characterised by team work and resource-efficient procedures, also need to be taken into consideration. The training should also show a clear link between the training and the individuals' work tasks and how much of the content is transferable on the market in general (employability).

What results did the SOL project give?

The investment generated various kinds of results for Scania, the supply companies and the regions involved. These results are presented below. The sustainability of the results is also discussed, i.e. the ability for these results to have a lasting impact and how they can be spread outside the primary target group, the workshop employees.

The results from the skills development at Scania

The results of the investment were assessed to be good. However, there were some variations between plants and groups. It should be stressed that in the basic training many workshop employees would have preferred more flexibility and a greater range of courses than had been included in the planning.

The following results were identified from the investment to increase skills in the SOL Project at Scania:

- **Greater knowledge of production systems:**
The SOL Project has led to a significant increase in the knowledge of modern production systems (Lean and Scania's SPS production system). As the employees increased their knowledge and were able to rotate between different jobs and positions to a greater extent than before, they have now become more independent in their work and find their work more enjoyable. However, the extent to which employees were able to rotate between different tasks and positions and were able to take on more responsibility varied between groups and locations.
- **More involvement and commitment:**
The SOL Project led to more employees becoming involved in issues that only the production leader and group coordinator used to handle. Employees took a more active role in the improvement work and felt more involved when they could see that their contributions to the improvement groups were making a difference. The interviews that were carried out showed that employees gave more of their own ideas and improvement suggestions, and that they were now able to point out if they thought that a production leader or any other employee made a mistake/contravened the company's values. More people took responsibility in production because they had gained a better overview and understanding of their own role in the process. Some production leaders also thought that the training measures had increased their staff's self-esteem as they could see

that value is created by their work. This project created a sense of pride in being part of Scania and in the company investing in staff during the recession. This had a positive impact on the employees' attitude towards the company and their own work and motivated them to be more alert when any problems occurred and to play a role in the solution.

- **Better understanding of the logic in the production process:**
At a general level it was stressed that the employees gained a greater understanding of Scania's business and the market that Scania works on, as they were presented with information about the market and the company's prospects at the beginning of the training. This section of the training gave the employees an understanding of the long-term goals of the company and was said to have increased their interest in where the company was in relation to its competitors and the market. The investment in training also provided a joint view between Scania's various units and employees at Scania and gave them a greater insight into the importance of their own work in production, which would have taken longer to build up without this training investment. Having a greater understanding of their own role and how their own work affected the business as a whole gave them a greater understanding of the importance of everything being correct throughout the chain and how something going wrong can affect the customer in the long term.
- **Better quality and efficiency in the production process:**
Greater commitment among the employees along with new procedures and a standardisation of the production stages created better order in the workshops and reduced waste. Quality in production increased as the employees developed a greater understanding of the customer perspective and what makes a good production, as well as an awareness of how to work with deviations in production and therefore achieve a more efficient production process.
- **Broader or more advanced tasks in the company:**
Skills development created a greater understanding of the product and more independence in the group, paving the way for successive improvements. Responsibilities moved downwards from the production leaders to workshop employees and many employees broadened their skills and were therefore able to support each other in their roles. However, there was a certain amount of variation in the extent to which employees thought that the training had led to broader or more advanced work tasks.

- **Development in line with the requirements of working life (greater employability):**

Scania's employees were assessed as having developed in line with the requirements of working life, insofar as they had achieved greater employability at both Scania and on the industry labour market as a whole.

However, the employees were not as clear about how their employability had been affected on the labour market. Many employees found it difficult to determine the value of the skills development outside Scania, and sometimes they found it difficult to report on the skills development they had received. The reason for this was mainly because the intensity of the training was so high for many of the course participants, that they found it difficult to put it into a larger context. The employees' understanding of their value on the labour market could have been increased through this training, if it had been made clear to them that they were being taught about Lean within the framework of the SPS production system, and that Lean was essential in modern industrial production. Their feeling that they had become more attractive on the labour market would also have increased, if they had been given direct access to the documentation of the training they had followed, for example, in the form of a certificate or access to the computerised information system, where all training was documented at an individual level as well.

- **Greater knowledge of equality and diversity issues among workshop employees and about accessibility problems:**

The interviews with the workshop employees revealed that although the training in equality and diversity was a particular eye-opener and encouraged discussions among employees, it did not result in any major changes to the working method relating to these issues. However, the employees were extremely positive about this element of the training. Both production leaders and employees stressed that their attitude towards these issues had changed to a certain extent through the skills development and that it had broken down difficult jargon in many cases. The changes in attitude and the greater level of awareness surrounding these issues meant that they now found it easier to say something in situations that they would previously had let pass, and that the employees felt that the company was now behind them in these kinds of discussions. This included, for example, derogatory comments between employees, or people using much too difficult jargon. It should also be noted that equality and diversity were handled as an integral part of all training carried out at Scania. This was strengthened by Scania's set of values, 'Respect for the individual', which was an intrinsic part of all training.

Production leaders and workshop employees thought that it was also positive that the company highlighted the strength of having employees with different kinds of experience and perspectives in the organisation and that they welcomed different kinds of thinking. At an organisational level, the production leaders thought that it had had an effect on the working method and that they now took more time to think about how to compile working groups to ensure that there was a more even distribution of sex, background and age. However, the extent to which this took place varied between the plants.

The results of skills development at supply companies

The section of the training aimed at suppliers was not carried out to the extent that was originally intended or within the timeframe that had been initially planned. The results were therefore not able to be measured in the way that had initially been planned by the evaluators. The evaluation provides an indication of the conditions needed for the results to be achieved and therefore a limited picture of this section of the SOL Project. There are many explanations as to why the investment was not carried out to the extent planned. One explanation for this was the long decision time between when the training was planned and the final decision on financing from ESF being notified. Some suppliers had already been forced to make staff redundant by that stage as a result of cuts in production. Another reason was that the original structure, in which suppliers were going to send course participants to take part in Scania's courses, was not possible due to the financial crisis. Targeted training was therefore carried out for fewer suppliers, which meant that there were fewer course participants and fewer training hours. The training provided by KTH got underway so late that the economic cycle had already started to turn around when the training started. The suppliers therefore assessed that they did not have the time any more to train the staff, but instead focused on increasing their rate of production. Here is a summary of the results linked to the supplier training:

- **Mutual understanding of each others' needs and conditions:**
The aim of the training for Scania's suppliers was to create a 'win-win' situation between the supplier and Scania. The idea was for training in modern production technology to both strengthen the employees' employability and create more efficient production by improving quality and reducing the companies' costs. The companies that Scania trained stated that they had close contact with Scania for many years and that they really appreciated Scania investing in long-term relationships with its suppliers. This meant that they had built up an understanding of each other's needs. The suppliers said that the training enabled them to have a better understanding of Scania and that it created a sense of commitment that produced mutual trust. The suppliers also said that they

appreciated Scania giving advice without imposing ideas around production – this also created mutual respect.

- **Higher skills in efficient production systems:**
Everyone who had been interviewed stressed that the training had increased their knowledge of the production process, which formed the core of the training. The suppliers thought that the reason for the success of the training was that it was based on real life and linked theory with practice. In concrete terms their own operations were used in the training to increase their ability to identify areas/stages with potential for improvement. Another success factor that was identified was the trainer's commitment to the training. However, many people did state that although it was not possible to measure concrete results, they expected that the higher skills among employees would result in shorter lead times, higher quality and better profitability in the future.
- **Effect on the companies' development work:**
Most suppliers pointed out that gaining a better understanding of the production process helped them to identify improvements/development areas. Improvement groups were also set up and the work of existing groups was intensified. As the training had just finished when the evaluation was carried out, it was not reasonable to expect any major impact on the companies' development work at that time. However, there had been an intensification of the improvement work, so it was assessed that the project created good conditions to have a positive effect on the companies' development work and the workers' employability in the future.

Sustainability for Scania and supplier companies

There are a few aspects to consider when looking at sustainability for Scania and supplier companies, including how the results of the investment will live on in the organisation and how spreading the results in the organisation can contribute to sustainability.

Interviews with strategic people at Scania provided a uniform image of the challenges in the vehicle sector. The increase in globalisation with competition from low-cost countries has led to a major cost squeeze in the vehicle industry. This competition, along with stricter requirements from customers, results in a major cost squeeze, and companies also need to increase their investments in research and development. There is also a dramatic technical shift in the vehicle industry and a structural transformation, with changes in ownership. The main competitive strength of the Swedish vehicle industry compared with low-pay countries is its

skills and process efficiency. The commitment and involvement of individuals in this continual improvement work are key in this respect, and individuals who play a role in influencing their workplace can help to increase quality and production. Other factors that contribute to strengthening competitiveness include the increase in the employees' knowledge of the market and competition, and subsequently customer awareness. Higher skills in modern production technology (Lean) and continual improvements are expected to lead to higher employability both inside and outside Scania.

The investment was therefore fully in line with the strategies of the companies involved and the competitive advantages which they need in order to meet a changing market and create the conditions for achieving sustainable results. When the economic cycle had turned around, the companies were better equipped and were able to increase their pace of production. Now the same number of trucks are being produced with fewer staff. The quality in production has also been maintained despite high staff turnover (new employees have been hired). In this respect they stressed that the strength of the investment was its strong focus on knowledge of the ability to work in groups, with modern production systems, and on providing the staff with fundamental skills. The link to the main objective would indicate that these results are sustainable.

In addition to the target group, the workshop employees, the production leaders also benefited greatly from the investment in skills development. The internal trainers in the organisation used the 'train-the-trainer' model. The strength of this model was the ability to spread knowledge effectively and the experience that the production leaders gained from their new role. However, it should be pointed out that the disadvantage of this model is that different groups receive varying levels of educational quality in the training depending on the educational knowledge and commitment of the production leaders. Better support would have improved the quality of the training. It was pointed out that the rapid implementation did to some extent hinder the project, as there was not enough time to strengthen the educational knowledge of the production leaders. It was also underlined that Scania was now better prepared to implement a similar kind of investment in the future and to continue its work with skills development, as the organisation now has 500-700 internal trainers. It was also pointed out that one of the success factors was the fact that Scania had previously used this learning model. One important factor that was stressed in many interviews was also that the sustainability of the skills development investment would have been better if white-collar workers had also been included in the investment; this was not covered by the ESF's decision to finance the project. Employees who were not employed under collective agreements felt excluded to some extent from the company's investment.

In terms of the suppliers, the project was not as extensive as had been planned, even though the training that was provided showed good results and therefore helped to achieve the main objective. It is currently far too early to evaluate the sustainability of the results for this part of the project. The strategic impact for Scania's suppliers was therefore only assessed to be limited at this time. However, it was stressed that some suppliers survived because Scania overcame the crisis, and that they were still able to deliver to Scania. But there was a disadvantage for the regions from the suppliers not being able to carry out the training to the same extent as had been planned – the knock-on effect was much less because of this.

Repetition and continued skills development are needed to maintain the results and create sustainability. It was stressed that the training was stopped when the production rate increased. Employees said that they needed more follow-up from the training than was currently the case. It was also pointed out that the introduction of new employees, who joined the training at the end of the project, might be insufficient as they were not able to benefit from the training to the same extent. The group interviews showed that new employees could come in and, for example, reduce the level of jargon as they had not been involved in the equality and diversity training. However, it should be stressed that employees were happy with the training – many thought it was beneficial and gave them new perspectives.

Lessons from the results of the investment

The results of the investment at Scania were judged to be good, but there were some variations between the plants and groups. Scania's employees were judged to have developed more in line with the requirements of working life and had achieved greater employability at Scania and probably on the industry labour market as a whole. The awareness of this among individual employees could have been higher. This should be taken into consideration for a similar investment in the future – i.e. to clarify for the employees that they are learning about a modern production technique (Lean), which is also applied in other companies/operations. Employees should also have direct access to the documentation from the training they have been through; employees in Scania are said to gain access to this after the project has finished.

The equality and diversity training in particular was an eye-opener for employees and created discussions. The lesson for any future investments in training of this kind is to encourage discussions and try to create the right kind of environment for this. It can also be a good idea to use concrete examples from daily working life. Examples from daily life make it easier for these discussions to spread further through more informal conversations.

Scania's training of suppliers was not as extensive as had originally been intended. The main reason for this was that when the final decision came from the ESF to go ahead with the investment, the suppliers had already been forced to reduce their workforce and Scania was focusing on its internal training. The time aspect was therefore a hindering factor. One success factor for the training of supply companies that was mentioned was that the training was work-based, linking theory with practice, and that the trainers showed a high level of commitment.

At Scania the results were seen as being sustainable and permeated the companies' operations. However, a follow-up of the project was requested to maintain the knowledge level and improvement work. A better introduction of new employees should also be introduced to get them up to the same level.

Cooperation within the framework of the SOL project

The SOL Project aimed to strengthen the cooperation within and between the regions involved. The cooperation in the regions increased the exchange around skills supply between the actors involved, which in this project were the adult education institutions, private training companies, Scania and the supply companies, and the structural fund partnerships involved. The actors needed to increase their communication and develop better/new forms of cooperation between them.

Scania cooperated with the project owner, the Stockholm County Administrative Board, in the procurement of skills development from external actors (mainly from KTH and Komvux³) within the framework of the project, and this provided the company with greater knowledge of what the adult education institutions and training companies could offer. The project enabled Scania to use Komvux in a way that they had previously not been aware of. However, the procurement was not as extensive as initially intended, as it was not possible to purchase external training before the final decision had come from the ESF to finance the SOL Project. An earlier start would have allowed more of the training to be procured.

Scania stressed that the project also provided the adult education institutions and the training companies with greater understanding of the needs and conditions of the vehicle industry. The close dialogue between the actors involved had given them a better understanding of each other's needs. For example, the adult education institutions showed flexibility and helpfulness, for example by reorganising their offer to make sure that the training could be carried out in the evening, and they understood Scania's circumstances. The cooperation with KTH also intensified and the institute is now willing to take a holistic approach to the companies' needs for training in a way that was not possible before this training.

As for the cooperation structures between the structural fund partnerships, the interviews revealed that no new structures for cooperation around skills supply had been established; instead existing contact networks had been used. There did not seem to be any great need for this. When the evaluation of the project was carried out, cooperation activities were still planned, where lessons from the project were going to be looked at. The regional actors actually pointed out that the regions involved were affected in a positive way, as their basic industry had been strengthened by the skills

³ Komvux is a public supplier of adult upper secondary education all over Sweden.

development investment. The project has therefore contributed to knowledge about how the social fund can be used in a new way. The lessons are therefore that this solution can be a way of tackling structural problems in specific industries and that it can be an idea to allocate a specific pot of money for this kind of structural and national investments. It was suggested that the next programme period could be better planned for downturns and upturns in the economic cycle, by creating greater flexibility when acute events take place. In terms of the changed working method following on from the project, the regions pointed out that they now had a different approach to State aid rules and the possibilities of being granted an exemption from them. In order to strengthen the efficiency in the implementation of projects that include regions and partnerships, communication between them should be improved.

Lessons from the cooperation

In terms of the cooperation structures, the adult education institutions and the training companies have gained greater knowledge about the requirements of industry to a certain extent and have shown flexibility in their offer and changed their working method accordingly. The forms of cooperation between the structural fund partnerships were not affected to any noticeable extent, as existing contact networks were used. The project has therefore contributed to greater awareness of how the social fund can be used in a new way. In future programme periods, there is a request for a special pot to be allocated to national sector investments and that the actors involved plan for both upturns and downturns in the economic cycle, and work in a more proactive way. In order to strengthen the efficiency in the implementation of projects that include regions and partnerships, communication between them should be improved.

In cooperation with



Växtkraft Mål 3
Svenska ESF-Rådet



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