

New forms of employment

ICT-based mobile work, Sweden

Case study 35: Engbergs Transportsystem

Workplaces in Sweden have used technology to enable people to work remotely or on the move since the late 1990s, particularly in the IT sector. This case study focuses on a company in a sector not traditionally associated with mobile work, Engbergs Transportsystem, which has introduced some interesting mobile work solutions.

Introduction

Many workplaces in Sweden have had some form of ICT-based mobile work since the late 1990s. ICT-based solutions have been especially popular in the IT sector and have been widely used in the major cities. More recently, this employment form has become more widespread in other sectors throughout the country. Laptops, cell phones and tablets with mobile broadband (4G) are being used to handle an increasing share of the work in a wide variety of workplaces. The telecom companies have developed their services in this area, and the fully mobile office is now commonplace.

This case study focuses on the use of mobile work in a logistics company, Engbergs Transportsystem, where most of the work is blue-collar. Although the company does not use mobile work widely, it has introduced some interesting solutions, which have increased flexibility for employees and for the company. The company headquarters is far from Sweden's major cities, and although there is a notable lack of reliable mobile infrastructure, the company benefits considerably from the availability of ICT technologies and possibility of mobile work, albeit only for very specialised tasks.

This report is based on five interviews with representatives from the company, including employees and managers, and with an external expert. Web articles and reports have also been used as source material.

General characteristics of Engbergs Transportsystem

Engbergs Transportsystem is a family-owned company founded in 1970 and based in Timrå, in north-east Sweden. It provides logistics solutions for one major client, a pulp mill. Engbergs Transportsystem and four different companies form a group, Engberg Gruppen. Most of the administrative functions are carried out by a central group office. The employees of Engbergs Transportsystem are able to focus on the core function of the company, which is to provide logistical solutions.

Engbergs Transportsystem has complete authority to make its own strategic decisions about company development, HR issues and work organisation. The group mostly makes economy of scale possible in certain administrative areas. Engbergs Transportsystem's staff of about 70

people are almost exclusively drivers of fork-lift trucks and mechanics responsible for the maintenance of the vehicles and equipment.

The average age of the employees is 40, and more than 90% are men. The company operates around the clock in three shifts. The fork-lift truck drivers work close to the pulp mill and nearby logistical centres such as the harbour. Most of the employees have indefinite full-time employment contracts, but some workers are hired on short-time contracts since the work is seasonal. One trade union, the Swedish Paper Workers Union, is active among the employees.

The company is well-established and is considered a major actor in the logistics sector in the region because it serves one of the main employers in the area. Engbergs Transportsystem has always aimed to be at the forefront with ICT solutions and was an early user of computers and digitalised information. The pulp and paper industry has been very much affected by fierce international competition. It means Engbergs needs to be innovative to keep costs down and increase efficiency. The company has experienced sound and steady growth during recent years.

The only employee of Engbergs Transportsystem who uses mobile solutions is responsible for staffing of shifts. He is a full-time fork-lift truck driver, and looks after the staffing of shifts on overtime. He is 36 years old and has worked as a fork-lift truck driver for 10 years, taking on the additional responsibility of staffing the shifts two years ago. Since he has a young family, he values the autonomy he has to plan and conduct tasks. Staffing of shifts depends on when ships arrive with raw material for the pulp-processing plant. The company has introduced a more flexible solution based on mobile work so that he can respond quickly to changes in demand for staff on each shift. The employee normally uses both mobile devices and his home computer to do this work. The company introduced mobile work in 2012 and all interviewees agree that its introduction was very straightforward.

Design and implementation process

The company has been well positioned to implement ICT-based mobile work, having used IT since the earliest computer technology was available. It also has a well-established dialogue with its employees, both through the trade union and, when necessary, directly with affected employees or all employees collectively. Engbergs is a family-owned business with a long history, and has had only minor changes in management. This has created an environment of familiarity, trust and security, which has facilitated the introduction of new technical systems.

Mobile work solutions were introduced as part of overall plans to streamline the business and to be more efficient. The aim was to become not only more competitive, but also to give employees more flexibility in where, when and how they perform their tasks. All costs for the software systems are borne by the company. The company participated in an EU project financed by the European Regional Development Fund (ERDF), but this has not been a major factor in its investment in new ICT systems in general. The company says it needed quick decisions about the new systems and the ERDF project was inherently slow.

Where the employee uses mobile work to deal with the staffing of shifts, the ICT-based mobile work system is, broadly speaking, a necessity and therefore no alternatives have been identified. There is a degree of uncertainty regarding staffing, as the workload is partly dependent on when the ships will arrive with their cargo. People calling in sick also creates a need for ad-hoc staffing. The company therefore sees high flexibility as greatly beneficial.

The employee has agreed to take on this responsibility using mobile working because it can be done effortlessly without affecting his work-life balance, while also adding to his income. In interviews, he mentions being able to do this work while taking his sons to football practice. The increased responsibility also enhances his employability.

An interviewed trade union representative says that the company management has been keen to involve affected employees to integrate their views and experiences into the planning of new

systems. There is good dialogue between the employees and management in all matters. Sometimes dialogue on ICT investments takes place with the trade union through the existing social dialogue forum, and sometimes directly with the affected employees.

Working methods, processes and procedures

One of the interviewees is the employee responsible for staffing the different shifts. Normally, as mentioned above, he works full time as a fork-lift truck operator. He accesses the administrative system daily through the VPN technology. He also uses mobile technology to keep track of ships so that he can assess the workload for the coming days. The employee has an extra contract on top of his regular employment contract for this work, and is paid a fixed extra monthly sum for the extra responsibility and overtime required. The employee does not need to report how much time he has spent on staffing, and he is trusted by the employer to meet his responsibilities.

The staffing of shifts and similar job tasks were previously carried out at the office by specific administrative staff (the HR manager). The employee currently responsible had been in charge of staffing for two years at the time of the interview (January 2014) and has handled the tasks entirely from mobile locations and from his home.

He reports that he checks the system daily, including weekends, but this often just takes a couple of minutes each time. He can do it regardless of location. It does not affect his normal working tasks as a truck driver. The responsible employee needs to frequently check the status of staffing in order to cope with situations like sick leave or a sudden increase in workload as new ships or trains arrive with goods. Staffing updates are performed every day of the week, including weekends. The employee distributes the machines and trucks to different employees if changes need to be made to the original schedule, and emails changes to affected employees. They typically receive this information when accessing their email accounts from their mobile phone. However, they are not expected to monitor their emails for changes to the schedule, as they are also informed when they come into the office. The updated schedule is also sent to the physical workplace. The employee commented that when he takes his sons to football practice, he can use the mobile work solutions during his time waiting there. He says he uses it as a way to reconcile increased responsibility at work with family life to achieve work–life balance.

The ICT-based mobile work system is practically free from administration or maintenance. In order to ensure that everything is reported correctly, the HR manager regularly checks the staffing of shifts that have been entered through the mobile systems. Apart from that, the ICT-based mobile work system runs smoothly and with little involvement from management. The employee states that no extra training was needed apart from an introduction to the systems when he took on the responsibility.

There have been no conflicts between the employer and the employees regarding the introduction of the ICT-based mobile work system, according to the respondents. Its introduction was made easier by the fact that the company has always strived to be at the forefront of technological innovation, and that good dialogue has built a high degree of trust between the employees and the management.

On the question of the work environment, the relevant legislation states that mobile workers have the same rights as office workers and that the employer is responsible for any flaws in the work environment (The Work Environment Act 2011), meaning that the work environment should not constitute any risk to the employee. This law also applies when mobile work is required by the employer, who then is responsible for providing necessary equipment for a sound working environment. If the employee requests mobile working, then they have a greater responsibility for the conditions they choose to work under. As concerns the mobile work of the staff coordinator at Engbergs, the company has not had to make any special arrangements for his

mobile work. The interviewed trade union representative mentioned that this has not been an issue.

External support

When planning the mobile work, the company used ICT consultants as and when needed. They have mainly dealt with the technological aspects of introducing the systems, such as developing the intranet with accessibility from any location. The effectiveness of the support received was satisfactory, but in interview the CEO said that it was important to be clear about the company's expectations of the final product and how the company intends to use it, to avoid misunderstandings. The employer said it was important to use ICT consultants who understood the technical requirements, and who would carry out rigid pilot studies when implementing ICT-based mobile work systems and other kind of ICT investments.

At Engbergs, this had been learned through trial and error. The company has discovered that the consultant and the company may have very different views on the expected outcome and about how the technology is likely to be used. Therefore, Engbergs now discusses the work with the consultant, making its expectations very clear from the outset.

Furthermore, Engbergs Transportsystem has participated in an EU Regional Development Fund project called the Business Value of IT (AMIT), which aims to encourage the use of ICT in small and medium-sized enterprises. This project –nr. 68152, under the Mid-North Sweden operational programme 2007SE162PO007 – co-financed on average 50% of ICT investments by participating companies. The project ran from 2009 to 2012 and aimed, through targeted IT support directly in individual companies or groups of companies, to create greater competitive strength and growth, leading in turn to increased regional growth.

It also helped increase access to ICT consultancy services and to increase networking and exchange of experiences within and between the participating companies. The project focused on two regions – Jämtland and Västernorrland – both of which are large, sparsely populated regions which have great potential for increased ICT-supported mobile work.

Participating companies have said that the project increased their competitiveness and the quality of their daily work, and Engbergs agreed that these two outcomes have benefited their company most. However, there was a much lower take-up of the project by companies in the region than was expected. The most frequently cited reason for not participating was that companies felt ICT investments were irrelevant for them. According to the project leader, there were no requests for mobile work solutions even though these qualified for assistance.

Engbergs decided to participate in the project to get support in its efforts to concentrate all its information in one system that could be accessible from everywhere. Engbergs was given consultant support by the project to develop this system. The development of mobile work for the employee who oversees the staffing rota is indirectly connected to this – it would have been impossible to create his role without the centralised information system in place.

Outcomes and effects

According to the interviewees, the ICT-based mobile work system works exactly as planned and has delivered the benefits expected, and the company is satisfied with the staff member's performance. For the individual worker, there has been greater flexibility in how he plans his working time. He has emphasised the importance of autonomy over his working time because it makes it easier for him to reconcile work and family life than it would have been without the ICT mobile solution. He reports that handling work tasks from home makes them feel less demanding. The employee still has extensive contact with the office, and he is regularly at the office to discuss matters with the HR manager and other colleagues. He also works as a fork-lift truck driver, and so has contact with the physical work place. He feels that the increased responsibility

and his familiarity with mobile work have strengthened his employability because he can demonstrate that he is able to handle both new technology and tasks where trust between the employer and the employee is paramount.

Neither the of the interviewed stakeholders sees any work environment risks with the ICT mobile work system. Instead, the respondents highlighted the positive effects for the workers. The trade union representative pointed out that the work being done from home could also be done at the company computers. It is thus voluntary to what extent the individual chooses to use the ICT mobile solutions. The trade union representative also pointed out that the individual often chooses to work from home because it is more convenient.

For the company, the implementation of ICT-based mobile work has had many positive effects. Firstly, flexibility has increased, and the administrative systems (HR, wages, staffing) run more smoothly. Both factors have had a positive impact on business performance. There is also a positive employer branding effect of being known as a company that operates in the forefront of mobile work solutions. The employer reports that while this is difficult to measure, it is still valuable.

Strengths and weaknesses

The most important strength for the company has been the increased timeliness of staffing of shifts. Since it is now operated through mobile systems it is much quicker and monitored around the clock. This ensures more accurate staffing of shifts depending in response to the workload at hand.

The individual employee benefits through increased flexibility. He can now adjust the work according to his own schedule, and he does the work, for instance, when his sons are at football training. He is also feels in control and up-to-date.

He says it is important not to be sensitive to stress, and this could be one of the weaknesses of increased mobile work. It might be difficult for the individual employee to have free time without thinking of his work responsibilities.

For the company, no weaknesses have been reported. In fact, it is planning to increase its investment in mobile solutions. As mentioned previously, it has been problematical dealing with technical consultants at times, but the result has always been satisfactory for Engbergs in the end.

Future plans

Engbergs Transportsystem is about to roll out new ICT investment to enable drivers to access data when seated in their vehicles and machines, which will be equipped with tablets or smart phones. The drivers will then have access to all necessary information about the vehicle status, about the delivery details and any relevant safety issues related to the transportation task at hand. At the moment, the employees communicate this type of information over two-way radio. The primary purpose of the new investment is to cut paperwork, but it will also have health and safety benefits according to the employer and the trade union representative.

The employer also plans to share more of the maintenance work through cloud solutions, and use cloud solutions in general to a greater extent.

Commentary

Traditionally, ICT-based mobile work is usually associated with white-collar workers. This case study has shown that blue-collar workers in sectors not usually associated with ICT-based mobile work solutions, such as machine and fork-lift operators, also benefit from it.

At Engbergs Transportsystem this has benefited both the employees and the company through greater flexibility. The positive effects for the company are evident. It is likely that by

highlighting this and similar examples, more companies will implement similar technology. The effects are incremental rather than revolutionary; employees will not stop showing up at the physical workplace, but mobile work solutions will increase convenience and flexibility so that employees can, when appropriate, access work from remote locations.

Many people work from home from time to time, but the connection to the physical workplace and the social interaction with co-workers is still highly valued. ICT-based mobile work has increased the accessibility of information regardless of place, which enables people to be highly productive wherever they are. This has positive effects on the productivity of the whole economy, and many people value the increased flexibility. It may, however, have a negative impact on the perceived stress levels, the ability to disconnect from work and the overall working environment.

The Swedish union Unionen released a report in 2013 that compared attitudes among mobile workers to those of office workers. In general, mobile workers do experience more difficulty switching off from work and work-related thoughts during their free time, and many feel that they would like to be less connected during their free time (Unionen, 2013).

A majority of the respondents reported that there were no policies or guidelines on when the employee was expected to be available out of ordinary working hours. Despite these issues, many Swedes are positive about working with ICT-based mobile work to increase their flexibility.

The case of Engbergs Transportsystem illustrates how flexibility increases with the use of ICT-based mobile work systems, for instance through the increased ability to reconcile work and family life.

Information sources

Bibliography

Arbetsmiljö Verket (The Swedish Working Environment Agency) (2012), *Arbetsmiljön 2011* [The work environment 2011], Arbetsmiljöstatistik Rapport 2012:4.

Arbetsmiljö Verket (undated), 'Datorarbete i hemmet' [Computer work at home].

Ribbing, L. (2009), *Att arbeta på distans* [Towards work mobile], Prenter, Stockholm.

Unionen (2013), *Jobbet alltid närvarande* [The job is always present].

Mats Kullander, Oxford Research