

**Summary:**

# **Videoconferencing in Norwegian industry and commerce: Increased use, less travel?**

During recent years sales of videoconferencing equipment has increased rapidly in Norway and elsewhere. An important task within transport planning is to forecast the possible impacts of videoconferencing on business travel. The aim of this project has been to examine use of and attitudes towards videoconferencing in Norwegian industry and commerce, and how videoconferencing changes travel patterns and collaboration between businesses. The project is a follow-up study to a survey conducted by Institute of Transport Economics and Telenor Research and Development in 1998.

The following research questions are raised:

1. Have the attitudes towards videoconferencing and business travel changed during the past five years?
2. Has videoconferencing practice changed due to new user groups?
3. How is business travel affected by videoconferencing?
4. What are the prospects of future use of different communication media (incl. face-to-face meetings)?

Data were collected via a postal survey among financial directors in 563 enterprises, of whom 164 used videoconferencing. The sample was drawn from the same industries as in 1998, and results are comparable across the two surveys.

## **Positive attitudes towards videoconferencing**

Videoconferencing usage has increased. 29 percent of the enterprises in the present survey report use, compared to 20 percent in 1998. These figures are not representative for Norwegian enterprises in general, but an effect of the sample partly being drawn from industries known to be in the front with respect to videoconferencing usage.

Results show overall positive attitudes towards videoconferencing. This also applies to firms that currently do not make use of this technology. Compared to 1998 results, fewer state that the technology for videoconferencing is inferior. With respect to future diffusion, this is clearly positive. On the other hand, more regard costs to be high. Most likely, this is due to the current depression in the economy.

Many consider travelling a burden, both in respect of the working situation and family life. However, these negative aspects of business travel conflicts with the business community's need for external contact. Three of four financial directors actually consider personal contact to be irreplaceable.

## **Uniform use**

During recent years, mid-sized enterprises (20-100 employees) have increased their use of videoconferencing significantly, and become a more important user group. To some degree, this has changed videoconferencing usage. For example, videoconferencing is more often being used in customer contact. However, the overall picture is the same as in 1998 – videoconferencing usage is rather undeveloped in the sense that it is used by a relatively small number of people within the organisation, and for a restricted range of purposes and contact points. Daily use is largely characterised by internal company meetings where routine information is exchanged. Managers are the largest user group.

## **Minor substitution effects**

The interaction between videoconferencing and transport has been an important issue within transportation research since the introduction of the technology in the 1970's. Recent research has shown that substitution effects are questionable, and that ICT in some situations can also generate travel.

Videoconferencing has so far only to a minor degree substituted business travel in these firms. Results from the present study indicate that about 40 percent of video-conferencing users have managed to substitute some travel, but only some 10 percent have experienced substantial replacement. A few users report that video-conferencing has in fact generated travel within their company, reducing the net substitution effect. Yet, generation of travel due to videoconferencing is far less than the substitution effect.

Substitution is somewhat stronger now than five years ago. Again, this is most likely due to the depression in the economy.

## **Videoconferencing will continue to grow**

Results indicate strong growth for new communication media. The only medium that is expected to decline in use is the fax machine. More than three out of four respondents maintain that they will increase their use of Internet and e-mail. About half state that videoconferencing will become a more important communication technology in their enterprise. In addition to increasing numbers of new users, current users have plans of broadening their utilisation.