

Summary:

More time- and place-independent work: opportunities and obstacles

Time- and place-independent work (such as at home or with flexible working hours) can result in employees avoiding traffic jams and congestion during their home-to-work commutes. Insights into the reasons why employees work time- and/or place-independently, and the existing obstacles that prevent this from occurring more frequently, can offer key starting points for policy focused on promoting traffic congestion avoidance behaviour. From 2008 to 2012, the percentage of home-/teleworkers increased from 27 to 32%, owing to a combination of independent developments, efforts undertaken by the government and companies, and developments within organisations. 68% of employees in the Netherlands never telework during normal business hours, while the number of hours per week that employees spend working from home or remotely has remained relatively unchanged for years. The main reasons why people do not more often opt for ways of working that make it possible for them to avoid traffic jams are: a lack of mutual trust, a work culture that does not (or only minimally) permit working remotely, a limited applicability of existing regulations and lack of knowledge about these regulations, habitual behavioural patterns, and limited flexibility at the start and end of workdays. Moreover, there is seemingly a natural limit to the amount of time per week in which people can and want to work from home: between 1 and 2 days per week. In order to arrive at a realistic estimate of the net effect this has on mobility in the long-term, it is therefore necessary to take into account these obstacles and natural limits to time- and place-independent work, even in these times of increasing flexibility, efforts being made by the government and companies, and rapid technological development. A further increase in time- and place-independent work may be possible if concurrently these obstacles are reduced or removed.

The Better Use (*Beter Benutten*) programme has outlined a framework of methods for contributing toward the fight against traffic congestion. The national government, regional governments and companies are working together in this policy programme to decrease congestion in 12 regions of the country. This involves the implementation of various types of measures, such as encouraging commuters to travel at different times of day or to travel less often.

In this research project, commissioned by the Better Use programme, the KiM Netherlands Institute for Transport Policy Analysis is focused on the question of whether it is potentially possible to promote the various types of time- and place-independent work, such as home-/teleworking, and which obstacles

must eventually be removed to achieve this. In order to answer this question, we have mapped the ways in which employees already work time- and place-independently, and identified the forerunners in this area. Forerunners have much to teach us about the ways in which people approach time- and place-independent work in practice, about which preconditions must be in place to achieve a certain level of this type of working, and about which factors impede efforts to further extend these working practices. We have therefore mapped the employees who belong to these forerunner groups in the area of time- and place-independent work and also identified the obstacles they encounter when attempting to extend these practices. This research was conducted using a literature study, analyses of various databases, and four group discussions with commuters belonging to forerunner groups (employees and commuters holding managerial positions).

To what extent do people work time- and place-independently, and in what ways?

There are various types of time- and place-independent ways of working that make it possible to avoid traffic jams; for example, working from home, teleworking, changing one's working hours or a combination of these actions. Home-/teleworking has increased in recent years due to a combination of independent developments, efforts undertaken by government and businesses, and various developments within companies and organisations. Consequently, the number of companies and organisations in which employees have worked from home-/teleworked increased from 20 to 25% between the years 2007/2008 and 2009/2010. This increase also partly includes overtime work done outside of normal working hours, which is a type of work that has no bearing on traffic congestion avoidance. If overtime work is excluded, it appears that the majority of employees never home-/telework during normal business hours: 68% of all employees in the Netherlands work all of their normal business hours at a (fixed) work location outside the home, while 32% routinely work from home or remotely. On average, this latter group works 6.1 hours of their normal working hours per week at home, and this hourly figure has remained relatively constant for a number of years. For companies with more than 500 employees, a larger percentage of employees more often work at home as compared to smaller companies. Home-/teleworking particularly occurs in the ICT, Financial and Educational sectors, and in the COROP regions of Greater Amsterdam, Haaglanden and Utrecht.

There are numerous reasons why people decide to opt for these new ways of working, such as working from home or changing their working hours. These reasons often determine the type of time- and place-independent work that they choose. For example, in order that they may work productively in a quiet environment or to entirely avoid home/work commutes, they may opt to work from home for the entire day, which is a type of place-independent work. Unexpected travel delays during a commute are often given as a reason for opting to change one's working hours and thus work time-independently. Avoiding daily congestion on the commuting route is however no reason for routinely changing one's working hours: people are much more inclined to regard daily traffic jams as a normal part of their home/work commutes and not as a separate travel delay, to which they do not adjust their working hours accordingly. It is of course possible to combine various types of time- and place-independent work: for example, to work from home during the morning commuting hours and then to travel to work later in the day. For most employees, however, such a work schedule is exceptional.

Which employees play a pioneering role in the area of time- and place-independent work?

Home-/teleworking is done more often in certain sectors than in others. The percentage of home-/telework in Education, ICT and the Financial Services sectors is considerably higher than the average for the Netherlands. Moreover, many employees in these sectors report that traffic delays hinder their work on a weekly or even daily basis. It is not only the 'regular' employees who relatively often work from home/telework: their managers also frequently work time- or place-independent. These groups therefore work in environments in which time- or place-independent work is seemingly widely accepted (social norm), in which there is substantial experience with delays caused by traffic jams, and in which management exhibits exemplary behaviour for others to emulate.

Given the above-stated information, it would seem logical that these employees would also home-/telework more frequently and for more hours. This however is not the case: employees in these sectors do not work more hours at home on average than employees in other sectors. They apparently also encounter certain obstacles to further expanding their flexible work schedules.

Which obstacles do forerunners encounter that prevent them from more often working time and place-independently?

There is a natural limit to the amount of time per week that people can and will work from a remote location (for example at home): this figure is between 1 and 2 days per week (or 8 to 16 hours). The primary reasons for this are related to the physical presence or visibility of employees in the workplace, a lack of mutual trust when working remotely, and limited opportunities for reciprocal contact if multiple group members work more than 2 full days per week at home or remotely.

Traffic jams are often relatively minor parts of the entire door-to-door commute. This is partly due to the fact that daily traffic jams seldom play a role in the choice of working from other locations or at other times of the day. On a normal day, commuters are able to accurately predict how long their door-to-door commutes will take, and they factor in delays caused by traffic jams when making these calculations. This is not to say however that commuters enjoy being stuck in traffic; rather, they often regard this as a regrettable waste of time. However, this does not stop them from routinely being stuck in traffic jams. People regard unexpected delays caused by traffic jams to be significantly worse than expected traffic jams. This feeling is less intense when personal obligations are involved (usually evening rush hours) than it is with work obligations (often morning rush hours), unless the personal obligations are also time-dependant. If for example people must pick up their children from school or daycare, which is time-dependant, then the flexibility available at the end of the workday can also be limited.

Commuters state that the costs involved with setting up and using a home office that adheres to *arbo* (Dutch national working conditions) regulations are high and present an obstacle to routinely working from home. The *arbo* regulations and costs associated with home-working also limit and deter employers from instituting teleworking. In addition, organisations are also concerned about the security issues that can arise when employees use their own home computers and home internet networks.

Corporate management regards home-/teleworking more as a favour that they extend to employees than as a right. And because regularly scheduled, weekly home-working days are often deemed undesirable, many employees do not profit from the beneficial tax regulations associated with home-working, although this is now starting to change. Because in recent years new ways of working (such as HNW, 'The New Way of Working') were often imposed by management in order to lower office/facility costs, management often encouraged employees in such organisations to work more frequently from home. Consequently, it is not unthinkable that in certain companies and organisations HNW will evolve from a favour into a right and perhaps ultimately into an obligation.

Generally, there is still much to be desired in terms of organisational knowledge about the advantages and disadvantages of time- and place-independent work. Because of this, companies and organisations are less quickly inclined to encourage home-/telework or flexibility in their employees' working hours, or even to permit this at all.

The major obstacles to further extending time- and place-independent work are a lack of mutual trust, a work culture that does not permit working remotely or only minimally, a limited applicability of existing regulations and lack of knowledge about these regulations, habitual behavioural patterns, and limited flexibility at the start and end of workdays.

Unfortunately, it is difficult to state what net effect home-/telework has on mobility: the available sources of information for determining this are insufficient. It is however clear that the options for instituting time- or place-independent work have increased in recent years, and this also applies to the

overall awareness of such options. In order to arrive at realistic estimates for the future growth in time- and place-independent work, it is important to take account the obstacles and natural limitations that currently exist. In the past (as expressed for example by the Task Force Mobility Management), high expectations were placed on the growth of home-working as an instrument for reducing traffic congestion in home-to-work commutes. Since 2010, these expectations have ranged from a 43% increase in the number of home-workers between 2010 and 2012 to a fivefold increase in the total number of Dutch home- and teleworked hours between 2012 and 2015. Articles published in the more distant past set even higher expectations for the growth of teleworking. However, in reaction to this, scientific articles published in the Netherlands and elsewhere in the early 1990s strove to temper such high expectations. This underscores the importance of including these obstacles and natural limitations in estimates of the future growth of time- and place-independent work.

What are the key issues for increased time- and place-independent work?

Employees, management and organisations/employers offer numerous reasons both for and against the various types of time- and place-independent work. From this we have formulated six key issues for extending the use of these various ways of working. These issues are not independent of one another and should be implemented in combination in order to actually achieve the potential extensions. The Ministry of Infrastructure and the Environment does not have a role to play in all these issues; other parties also have roles to play.

The six key issues are briefly detailed below.

- **Changing the work culture**
The culture on the workplace played a role in many of the reasons given for opposing working from home/remotely or during other times of the day. Various parties are involved in changing this culture. Clear agreements must be reached between employees and their managers and between colleagues. Moreover, employee unions, works councils and employers can play agenda-setting and leading roles.
- **Breaking habitual behavioural patterns**
People attach value to routine and daily rhythm. They do not simply change their habits themselves. Breaking habitual behavioural patterns is difficult, although there are indeed options available for achieving this. Financial incentives in combination with other behavioural measures can ensure that people do change their behaviour (at least in the short and medium terms). The Ministry of Infrastructure and the Environment already plays an active role in this through the programme Better Use (*Beter Benutten*). Moreover, one can make use of the natural or created interruptions that occur in those habitual behavioural patterns, the so-called discontinuities, such as moving to a new home or starting a new job. Finally, a positive experience with time- or place-independent work is an important prerequisite for behavioural change, and also for habitual behaviour patterns. Promoting pilot projects that involve various ways of working can serve as a means of offering employees these positive experiences.
- **Increasing flexibility at the start/end of the workday**
Both professional obligations and personal obligations can be time- and place-specific. A limited degree of flexibility at the start/end of the (work) day can drastically reduce the possibilities for working time-independently. Multiple parties play a decisive role in expanding this time flexibility. As such, employees and their colleagues can collectively reach agreements about plans for meetings and discussions at the start/end of the workday, and management and employers can also play a role in this. In addition, flexibility can be increased if opening times are extended for stores, schools, pre-schools and other services often accessed at the start/end of the workday.

- Improving the connection of various regulations with the actual practice of time- and place-independent work
Existing tax regulations establish conditions that in practice often do not connect with the set-up of corporate and working processes. The stipulation that home-work days must occur weekly on the same day and must be established in agreements is for example inconsistent with the approach taken by many managers, who do not permit such recurring weekdays. Also, the required set up of a home-workplace limits the ability to work from home. A home-workplace that adheres to *arbo* (national working conditions) requirements is widely considered to be important to the health of employees, yet at the same time it is an obstacle to home-working. According to Erasmus University Rotterdam, the implementation of *arbo* rules and regulations are at the top of the list of prerequisites for HNW ('The New Way of Working'). An adjusted working cost regulation can possibly serve to promote home-work, as via this regulation the costs associated with for example home internet use, workplace set up and other comparable (daily and incidental) costs can also be reimbursed.
- Expanding knowledge of existing regulations and options
Both the limited connections of existing regulations with current practice and a lack of knowledge about the existing regulations can be an obstacle to increased time- and place-independent work. Expanding the available knowledge about these regulations could therefore also be beneficial, especially for those employees who are not yet aware of their rights on this matter.
- Making facilities available for home-/telework
Inadequate ICT facilities for home-/telework also create an obstacle to working time- and place-independent. Employers should focus on facilitating communication between colleagues and with management, as well as on properly organising digital security and the related reimbursements. Tax regulations could have a positive impact in this area.