

# WORK & MOVE™ PITSTOPS

POLICY DOCUMENT





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# Trends & developments

The nature of our activities has changed drastically over time. Developments on a technological level have taken over many of our physical activities. A large proportion of the population is no longer engaged in physical work, but primarily with specialist tasks. And we primarily carry out those tasks looking at a screen for prolonged periods.

According to the 2017 Netherlands Working Conditions Survey by TNO and CBS, Dutch workers spend an average of four hours a day looking at a screen. 39% of the Dutch workforce spends at least six hours a day in front of a screen.

*Despite alarming reports in the media about the negative effects of prolonged sitting, we keep spending an increasing amount of time looking at our screens.*

At least 42% of the Dutch workforce spends over 10 hours of every working day sitting. Granted, this includes leisure time and commuting, but it is still a great deal of time. Too much, because body and soul were not made for that much sitting.

## **The consequences of a sedentary lifestyle**

A sedentary or inactive lifestyle can cause serious physical and mental illnesses: diabetes, cardiovascular disease, depression and cancer. There is an abundance of evidence for this in the form of epidemiological research (Van Uffelen 2011, Samitz 2011, Teychenne 2010).



In addition, reduced day-to-day physical activity also has a negative effect on our concentration and our performance, as well as contributing to burn-out and anxiety disorders (Lindwall et al. 2014).

## **Link between stress and performance at work**

Our hormone metabolism is regulated by the hippocampus. This part of the brain is important for regulating emotion and essential for memory processes and learning. Prolonged stress causes elevated levels of cortisol in our blood. The hippocampus can become damaged and shrink as a result. When the hippocampus shrinks, its ability to inhibit stress decreases.

Prolonged stress thus causes even more stress. Short-term memory and concentration are affected and symptoms of depression and anxiety can manifest. We often see these symptoms in people with burn-out.



### Move to improve

Fortunately, shrinkage of the hippocampus is reversible. Regular intensive exercise reduces the effects of stress.

A quick look at our craniums... stress causes resistance to endorphins and brain-derived neurotrophic factor (BDNF). We need these substances to create new neurons in the hippocampus. BDNF is thus essential for optimal functioning of neurological processes such as memory, the ability to learn, and emotion regulation.

We can thus manage our stress levels better by simply moving more. Endorphins and BDNF are then able to do their job and we have a more balanced state of mind and our brains function better.

### The responsibility of the employer or the employee?

The trend on the shop floor is still to sit for hours on end. Yet it is far better for the performance and physical and mental health of employees to exercise regularly. Does it help if an employee plays sport regularly and actively exercises in their leisure time? No, this has proven insufficient in countering the negative effects of prolonged sitting at work (van der Ploeg et al., 2012).

Employees are therefore unable to ensure they remain fit, stress-free and optimally productive (on their own). Employers will need to do their part when it comes to behaviour on the shop floor. The current structure of our activities and workspaces, with little or no exercise, has too many negative effects to be ignored any longer. It can – and must - change!

### Vitality as an appealing employment condition

Employees also look to the employer when it comes to employment terms and conditions. The NGA HR Global Pay Optimization Survey (2017) reveals what employees value in their employment terms and conditions. Investment in employee welfare features strongly in third position. If employers wish to attract employees, they would therefore do well to have a vitality plan in place.

Enough organisations invest in vitality, such as yoga classes, running sessions, kettlebell training and a meditation space. However, the problem with such initiatives is that it is always the same group of employees who participate: those who are already sporty and health conscious. The challenge is to implement activities that are appealing, accessible and effective for all employees.

### Invitation to exercise more

How can you invite all employees to exercise more? You can do this via nudging, a technique by means of which you tempt the users of a space to make healthy choices. For example, apply a games element to the staircase so that employees are more likely to use the stairs rather than the lift.

By using nudging as a means of low-threshold encouragement, employees subconsciously opt for the more active option. This often requires little motivation or perseverance, so new, healthier behavioural patterns develop 'automatically'. You can use software to nudge employees that work with DSE in an accessible, but above all efficient way.

### **The philosophy of WORK & MOVE™ PitStops**

At BakkerElkhuizen, we believe that prolonged and stable concentration is a myth and that prolonged sitting is the cause of many health issues. If an employer expects employees to work in a concentrated manner while sitting for prolonged periods, this will have a negative effect in the short and long term. More errors, reduced productivity, lower concentration, less creativity, more symptoms of stress and a higher level of sickness absence.

We recognise that employees need to recharge their batteries regularly. BakkerElkhuizen is therefore committed to an innovative behavioural change programme. A smart software tool that uses dynamic "nudges" to invite your employee to exercise, which ensures variation between sitting/standing and provides cognitive pit stops. The tool is called WORK & MOVE™ PitStops.

With WORK & MOVE™ PitStops, employees work more purposefully, remain vital for longer and are employable in the long term. Additional benefits of this software are:

- 1) the ability to reach the whole organisation (at the same time);
- 2) individual employees can adjust the digital coach according to their own preferences and needs.



# Scientific evidence for WORK & MOVE

The tactic used in American Indy Car Racing is a good metaphor for a smarter rhythm on the shop floor. The strategic pit stop was introduced there in the eighties. By 'recharging' in the pit in the interim, drivers were able to achieve faster finish times compared to drivers who made fewer pit stops. The same applies to performance at work. If employees ride out their working day without pit stops, their tyres wear out sooner and their tank is empty before the end of the race, metaphorically speaking.

## The rhythm of great performance

During a renowned study in 1993, Ericsson (Ericsson et al., 1993) discovered that the best violinists in the study group all trained in the same way. They practiced for three 90-minute sessions in the morning, with a break between each. They took regular naps of 20-30 minutes in the afternoon. Scientists observed the same rhythm in other top performers - musicians, athletes, chess players and writers (Plimpton, 1977). Ericsson called this principle 'the rhythm of great performance.'

'The rhythm of performance' evidently also exists when it comes to working on the computer. After just 20 minutes of uninterrupted working, the brain can no longer use all available information for a task. After an hour of uninterrupted working, there is a decrease in typing speed and an increase in the number of typos. In addition, DSE users display inefficient behaviour and become less flexible in managing issues and resolving problems (Boksem et al., 2005 and Lorist et al., 2000, 2005).

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## The effect of pit stops

The Draugiem Group studied 'the rhythm of great performance' using real time tracking software. The most productive computer users in the test group work in blocks of 52 minutes, then take a 17 minute pit stop and subsequently start on a new block. The common denominator for these top performers is the high level of purposeful working. The secret to a high level of productivity is thus not to work longer, but to work smarter with frequent pit stops.

*Relaxation, socialisation and cognitive pit stops proved to be related to a more positive state of mind and this state of mind was determinative for sales performance.*

Kim, Headrick & Park (2018) investigated the effect of pit stops on the performance of call centre personnel. For two weeks, researchers questioned 70 employees about their state of mind on a particular day and compared it with corresponding sales performance. Relaxation, socialisation and cognitive pit stops proved to be related to a more positive state of mind and this state of mind was determinative for sales performance. Pit stops focused on food had no significant effects.



Van den Heuvel et al. (2002) and Hedge & Evans (2001) observed positive effects when someone regularly changed activity (when prompted by a pop-up signal): an increase in typing speed, an increase (11.3%) in reading speed, a reduction in the number of typos and fewer mouse mistakes (-2.4%). Scientists even demonstrated that test subjects could save a quarter of an hour of working time per day.

#### **WORK & MOVE helps develop rhythm**

The ultimate rhythm for performance appears to be dependent on the task and the individual, although there is a strong indication that productivity and state of mind are optimal when people do not work for more than 1.5 hours continuously and schedule regular pit stops. It is recommended that office workers who predominantly work with DSE should stand for at least two hours per day, combined with light physical activity (Buckley et al., 2015). But how do you organise this?

The use of software to drive behavioural change has proven effective. Research (KL.7, 2017) shows that reminders to alternate between standing and sitting bring about a twofold increase in the time spent standing: from 36.6 to 79 minutes per day. Other research (Slijper, 2007) also shows that software facilitates increased levels of compliance with pit stops: from 25% to at least 57%.

*A software "nudge" has proven effective in driving a "rhythm of performance".*

# Unique aspects of WORK & MOVE™ PitStops

**WORK & MOVE™ PitStops is a personal coach that ensures sufficient variation between concentrated DSE work and mental and physical exercise. Based on individual need, the software advises the optimal work pit stop rhythm and helps the user master this rhythm.**

By building in periodic mental and physical exercise, the user remains concentrated and energetic, makes fewer mistakes, and quality of work improves. WORK & MOVE ensures the user gets more done during the working day and has more energy at the end of the working day.

Via dynamic pop-ups and timing that can be adjusted individually, adapted to real-time behaviour, WORK & MOVE™ PitStops promotes the learning of healthy and effective behaviours on the shop floor in a non-intrusive, personalised way. WORK & MOVE takes (current) exercising habits into account and only gives tips when required.

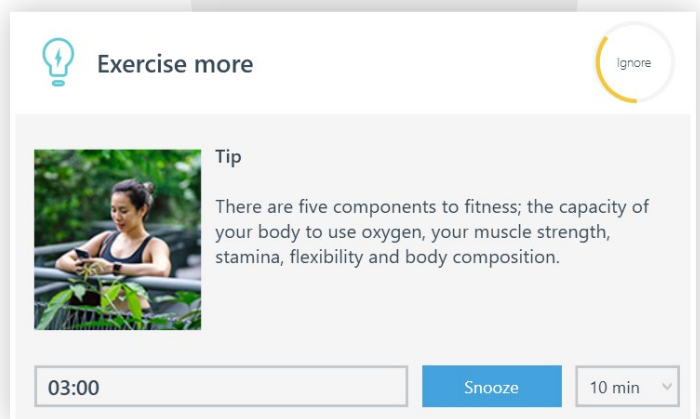
The added value of WORK & MOVE is that it uses 'nudging'. This means the employee is given a sub-conscious push to encourage healthy behaviour.

## Energisers and Concentration boosts

One's concentration span cannot remain optimal continually. Based on time management principles, WORK & MOVE encourages periodic mental and physical exercise to support concentration.

Different kinds of exercise and recovery breaks are available in WORK & MOVE™ PitStops: life hacks, motivational quotes, burn out facts, healthy working environment, ergonomic tips, situational awareness, diet tips, sleeping tips, stress-reducing messages, shortcut keys, creativity tips, pro-social behaviour on the shop floor, agile tips, Acceptance and Commitment Therapy tips and tips on circular living and working.

All this content and advice is presented in the form of Energisers and Concentration boosts. An Energiser is a short breather that gives the employee extra energy. A Concentration boost takes (a little) longer. Taking a mental break of at least 3 minutes every hour prevents the employee's concentration from slackening.

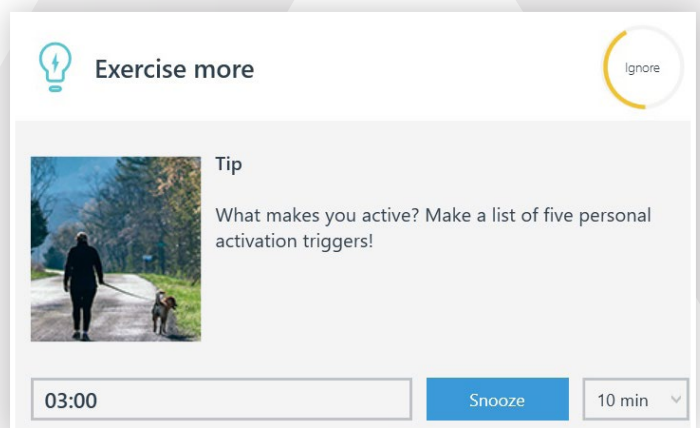


**Exercise more** Ignore

**Tip**

There are five components to fitness; the capacity of your body to use oxygen, your muscle strength, stamina, flexibility and body composition.

03:00 Snooze 10 min



**Exercise more** Ignore

**Tip**

What makes you active? Make a list of five personal activation triggers!

03:00 Snooze 10 min



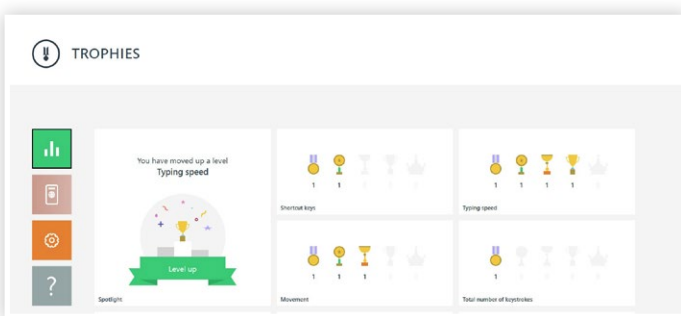
## Gamification as an incentive

Gamification is a way of making an existing product or service (more) attractive with gaming elements. This increases participation, motivation, engagement and loyalty to the product or service. There are numerous studies looking at gamification, which show that the addition of gaming elements have a positive effect on the behaviour and performance of individuals (Hamari et al.,2014).

Gamification has often been used to improve the productivity of employers. In 2015, Microsoft used a software programme for call centre workers. The software responded to engagement, satisfaction and retention by rewarding employees for good performance with 'next level', new badges and higher scores. The elements proved effective in exploiting the employees' need for validation and passion for collecting.

We see that many fitness applications and activity trackers take full advantage of gamification. This motivates users far more than 'finger pointing'.

WORK & MOVE™ PitStops make clever use of the human predisposition to challenge, reward and collecting. The user receives a pat on the back in the form of a trophy after reaching specific milestones (for example, the number of successive pit stops). Naturally, the proud employee sees the trophies on his/her personal dashboard.

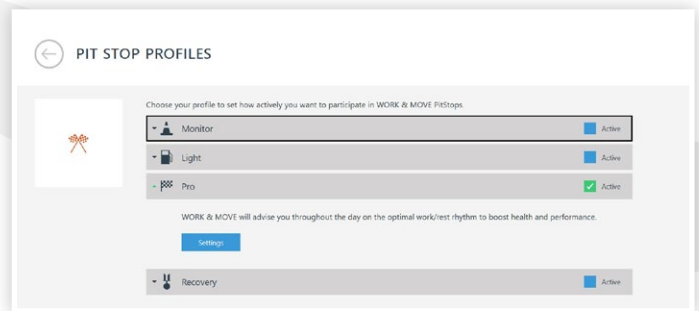


*Gamification exploits the personal need for 'scoring' and the passion for collecting.*

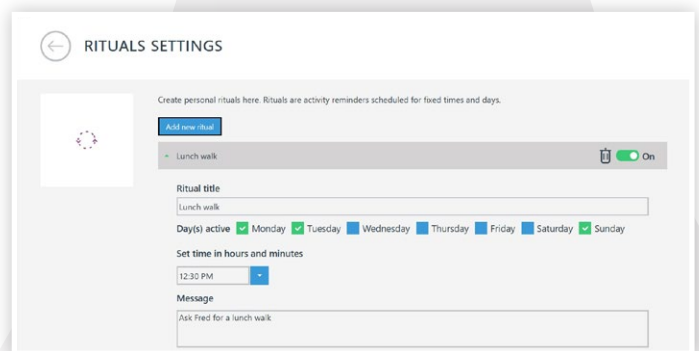
## Personal coach

WORK & MOVE is easy to personalise and customise. The software is able to assign different objectives to each employee and then make them measurable. Employees can decide how 'sportily' (or fanatically) they participate in WORK & MOVE via a personally adjustable profile based on personal requirements.

There are four profiles available in WORK & MOVE™ PitStops:



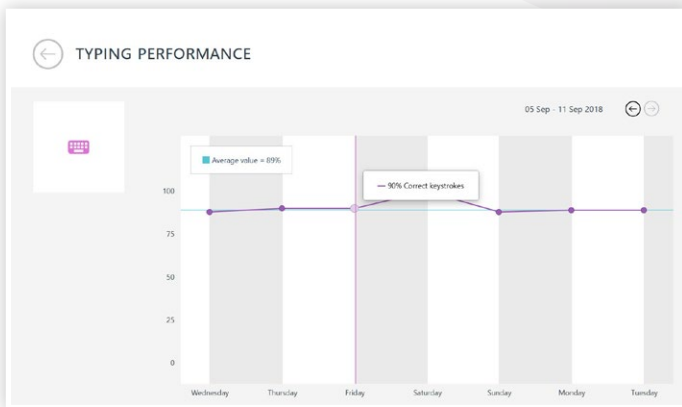
In addition to a personal choice of four profiles, you can also establish and link personal rituals to a specific day and time via 'Rituals'. For example, a lunchtime walk, taking the stairs, drinking water, eating fruit and doing physio exercises:



## Insight and feedback

WORK & MOVE gives employees an insight into their personal habits at work and their learning and productivity curve. Both in terms of health (mouse use, time spent on computer, amongst others) as well as computer proficiency (typing speed, use of shortcut keys, amongst others).

The software facilitates reflection on personal health and skills indicators every day. Analysis of these indicators offers a great deal of self-insight and reflection.



## Workstation passport

Employees can establish their personal workplace settings in the WORK & MOVE workstation passport. They therefore always have access to a workstation with optimal settings.

The screenshot shows the 'WORKPLACE PASSPORT' settings interface. It includes a diagram of a person at a workstation with various measurements labeled: 45 (chair seat height), 55 (chair back height), 35 (desk height), 36 (armrest height), 80 (desk height), and 80 (screen height). The settings are as follows:

Chair height	45 cm	Chair type	Standard
Armrest height	36 cm	Desk type	SE-stand desk
Desk height	80 cm	Screen height	35 cm
Screen height	35 cm	Viewing distance	55 cm

Employees can carry out a workstation assessment (survey) themselves in WORK & MOVE. They receive a personal report with advice about the workstation set up after answering various questions.

The screenshot shows a survey question titled '5/13 Monitor height' with the sub-question 'How is your monitor set?'. It asks the user to 'Select the image that best suits your current situation.' and provides three images of a person at a desk with different monitor heights. The first image shows a low monitor, the second shows a medium monitor, and the third shows a high monitor. 'Previous' and 'Next' buttons are visible at the bottom.

# WORK & MOVE for your organisation

Are you curious about what WORK & MOVE can do for your organisation? Would you like to experience for yourself how the software gets your employees or colleagues moving?

**Download a free 30-day trial version** [www.bakkerelkhuizen.cm/software](http://www.bakkerelkhuizen.cm/software)

Or contact us via [info@bakkerelkhuizen.com](mailto:info@bakkerelkhuizen.com) for more information on various pilot options.

## **Privacy guaranteed**

The WORK & MOVE software is GDPR compliant. Only individual employees themselves have access to their WORK & MOVE data. Supervisors and managers have no access whatsoever to the personal WORK & MOVE details of individual employees.

# About BakkerElkhuizen

## Contact information

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BakkerElkhuizen develops excellent products for making computer use healthy and efficient. Products from BakkerElkhuizen display the perfect combination of function, ergonomics and design.

BakkerElkhuizen advises and helps companies equip their workplace, including offices that use telecommuting and flexible working, so that each workstation receives the right solution and the right accessories.

BakkerElkhuizen bases this on four workstation concepts:

- permanent workstation
- mobile workstation
- flexible workstation
- home workstation

The point of departure is that an employee must be able to perform his or her computer work comfortably, healthily and efficiently wherever he or she works. People come first in everything that BakkerElkhuizen does, whether it concerns developing new products, performing research or cooperating with suppliers, resellers and customers.

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