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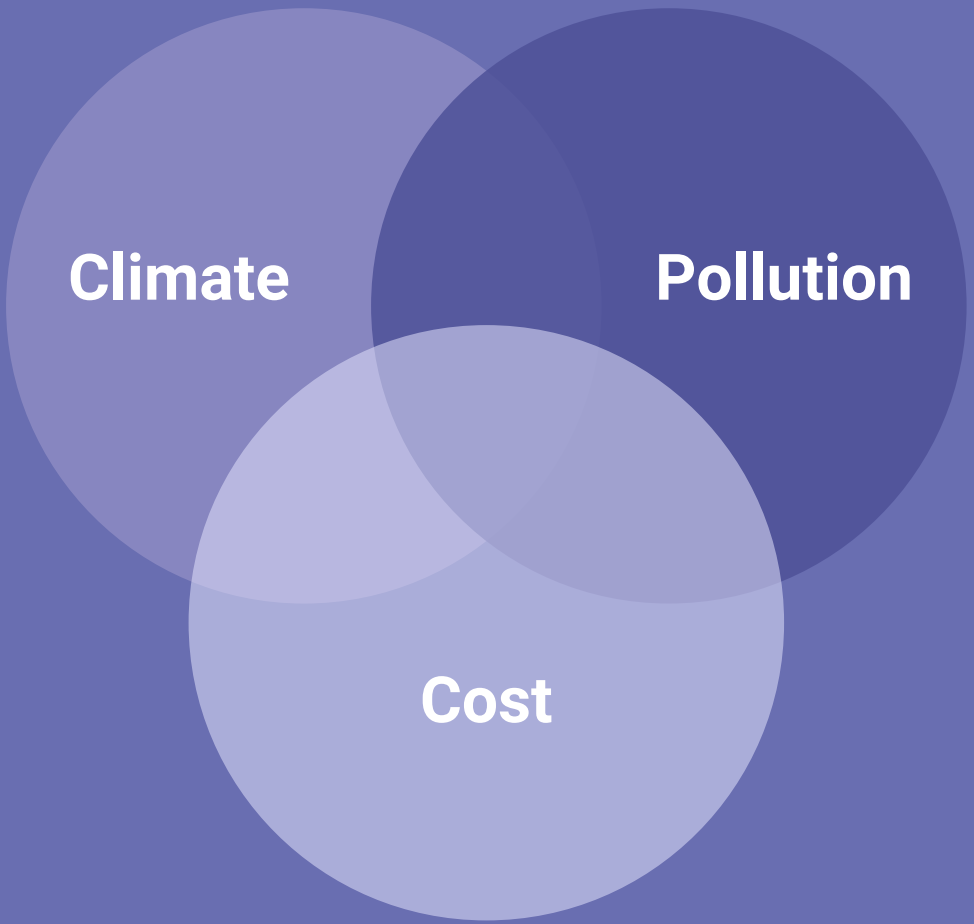
A BEZONED REPORT

# Benefits of commuting less

How working from home cuts emissions, pollution and costs




December 2026

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# The commute we could skip

**What if one of the simplest ways to reduce $CO_2$ emissions, improve air quality and save billions doesn't require new technology, expensive infrastructure or major lifestyle changes? What if we simply drove to work less often?**

Every day, millions of people commute to offices to do work they could equally well do from home. Research suggests that even a modest reduction in commuting offered by remote and hybrid work delivers significant benefits not just to employees, but to the climate, public health and the economy.

## 11–29%

Climate

lower work-related carbon footprint for employees working from home two to four days a week.

*PNAS (2023)*

## 54%

Climate

lower work-related carbon footprint for fully remote employees, compared with working five days a week from an office.

*PNAS (2023)*

## 20.2%

Pollution

lower commuting emissions and 2.2% reduction in nationwide carbon emissions in Germany with 18% lower commuting frequency.

*Borck, Kalkuhl & Lessmann (2025)*

## 182,000

Pollution

premature deaths in the EU in 2023 linked to fine-particle pollution above WHO-recommended levels.

*European Environment Agency (2025)*

## DKK 4.2 bn

Cost

estimated yearly benefit to Danish society from one extra home-working day every two weeks.

*Kraka-Deloitte (2020)*

## DKK 7,360

Cost

annual average savings by one car commuter working from home two days a week.

*BeZoned calculation, see page 6*

**We don't all have to work remotely five days a week to make a difference**

Even a modest shift in our work pattern adds up across millions of commutes. And the effect is immediate!

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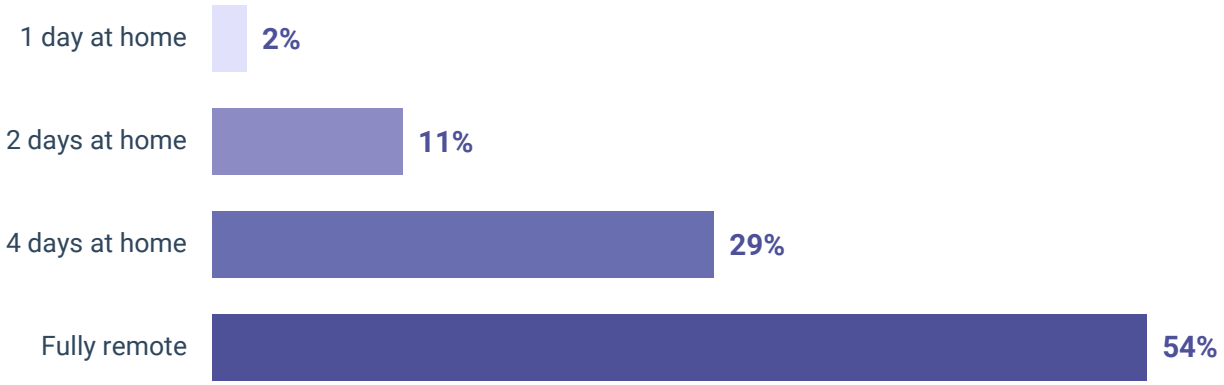
# Fewer commutes, a smaller carbon footprint

In 2023, researchers published a study in the Proceedings of the National Academy of Sciences (PNAS) on the environmental impact of working from home. They looked beyond commuting and included energy use at home and in office buildings, technology, and changes in personal travel.

Their findings were striking. Compared with five office days a week, the potential cut in work-related emissions grows with every day at home, reaching 54% for fully remote employees.

### Potential reduction in work-related carbon footprint




*Source: PNAS (2023). Modeled US scenarios, not measured Danish averages. Includes commuting and home and office energy use.*

### When does working from home pay off?

For car commuters, working from home cuts $CO_2$ when the trip to work is longer than about 6 km (IEA, 2020). Across a year, the energy saved on commuting is about four times the extra energy used at home. The gain shrinks if people move further away, drive more in their free time or increase heating of their homes. The gain increases if companies are ale to cut office space and energy consumption.

### Hybrid work already makes a difference

Two days at home a week is enough to cut the work-related carbon footprint by an estimated 11%.

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# Cleaner air could also mean healthier lives

Commuting less doesn't just help the climate. Fewer car journeys usually mean reduced exhaust emissions and less wear on tires, brakes, and roads. All of it reduce fine particles to the air we breathe.

**182,000**

premature deaths in the EU in 2023 were attributable to fine-particle pollution above WHO-recommended levels.

*European Environment Agency (2025)*

**Up to 25%**

fewer particle emissions from travel in Dublin, and up to 35% less $CO_2$, if half of office workers worked from home and a third of cars were electric.

*Stefaniec et al. (2024)*

### A German study: effects of an 18% reduction in commuting frequency




*Source: Borck, Kalkuhl & Lessmann, CESifo (2025). Model for Germany, not Danish measurements. The percentages have differentbases and can't be compared directly.*

### The picture for local air quality is mixed

A French study found that working from home raised fine-particle levels in some areas, because extra home heating outweighed the drop in traffic (Briole & Lavaine, 2026). Cleaner heating and more efficient homes help maintain the benefit.

### Beyond fuel and $CO_2$

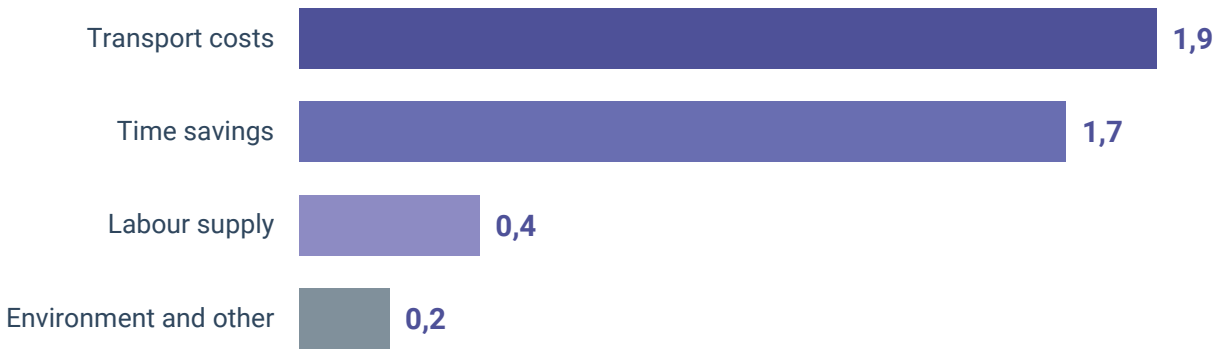
Fewer commutes can also contribute to cleaner air and healthier communities.

# Billions in potential economic benefits

Perhaps the most overlooked benefit is financial. In 2020, Kraka-Deloitte analysed what would happen in Denmark if employees who could work from home did so slightly more often: just one extra home-working day every two weeks.

The estimated benefit to society was DKK 4.2 billions a year, mostly from lower transport costs and time saved commuting.

### Estimated yearly benefit to Danish society, DKK billion




*Source: Kraka-Deloitte (2020), 2020 prices, rounded. A gain to society, not a saving in public budgets: the value of saved time is not cash for the state.*

## For public finances: gains and costs

### Possible gains

- Less congestion and fewer traffic accidents
- Lower health burden from traffic pollution and noise
- Less road wear over time
- Possibly lower costs for public offices

### Possible costs

- Lower fuel tax revenue
- Fewer public transport ticket sales
- Fixed road and transport costs continue
- Activity shifts from city centres to residential areas

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# What it means for one commuter and one company

Commuting distance and hours saved are the most tangible gains. Here is what two home-working days a week could mean for one person who drives to work by car.

## One car commuter, one year

Assumes 40 km of driving and 45 minutes of travel per office day, two home days a week, 46 working weeks and DKK 2 per km.

**3,680 km**
less driving

**DKK 7,360**
saved on driving

**69 hours**
of time freed up

**662 kg**
of $CO_2$ avoided

*An illustrative example, not a Danish average or a full life-cycle calculation. Assumes 180 g $CO_2$ per km. Extra home heating and electricity, changes in commuting tax deductions and extra leisure driving are not included. Fixed car costs aren't necessarily saved.*

**72 min**

of travel time saved per home-working day on average across 27 countries. The figure varies widely between people and countries.

*Aksoy et al. (2023)*

**One third**

fewer resignations among 1,612 Trip.com employees who worked from home two days a week, with no measurable drop in performance or promotions.

*Bloom, Han & Liang, Nature (2024)*

### What employers can gain

- Lower recruitment costs
- Better retention
- Less office space needed

*Office savings need real changes to space or operations. Home-working days alone are not enough.*

# Making remote work feel less remote

The environmental, economic and societal benefits of working from home are too significant to ignore. Yet so are the benefits of working together in an office. The challenge for business leaders is not to choose between the two, but to create a working environment that delivers the advantages of both..

> **If we can reduce unnecessary commuting while keeping people connected and productive, why wouldn't we?**

The challenge is making remote work feel less remote. When colleagues can easily see who's around, have spontaneous conversations and work together through the day, physical distance becomes less of an obstacle. The future isn't about choosing between the office and working from home. It's about making the most of both.

## How BeZoned helps

BeZoned is designed to address this challenge by bringing the essential qualities of a physical office into the remote and hybrid work environment.




**Maintain visibility, connection and engagement**
A shared online office gives employees and leaders a real-time sense of who is around and available, strengthening team cohesion and creating a sense of working together, regardless of physical location.

**Maintain alignment and keep work flowing**
Easy access to colleagues and leaders enables continuous dialogue, faster decision-making and alignment as work happens, reducing the reliance on scheduled meetings and formal communication.

**Preserve creativity and innovation**
By enabling the spontaneous encounters, informal conversations and exchange of ideas that occur naturally in a physical office, BeZoned helps create the conditions for knowledge sharing, creative problem-solving and innovation across teams and locations.

**Start free**
Work together in the office – from anywhere

bezoned.com

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*Figures are reported as published by each source. Several are modeled estimates, and actual results depend on local commuting patterns and energy use.*