

Will remote work permanently affect office markets post the Covid-19 pandemic?

DNB Markets presentation for NIBM

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Remote work

Working from home

Is it heaven,



....or is it «very challenging»



The pre-Covid-19 stigmas surrounding working from home

.....the unspoken 'truth'....

Mondays...



Weekdays (the handyman is over)



Weekdays (Sick kids)



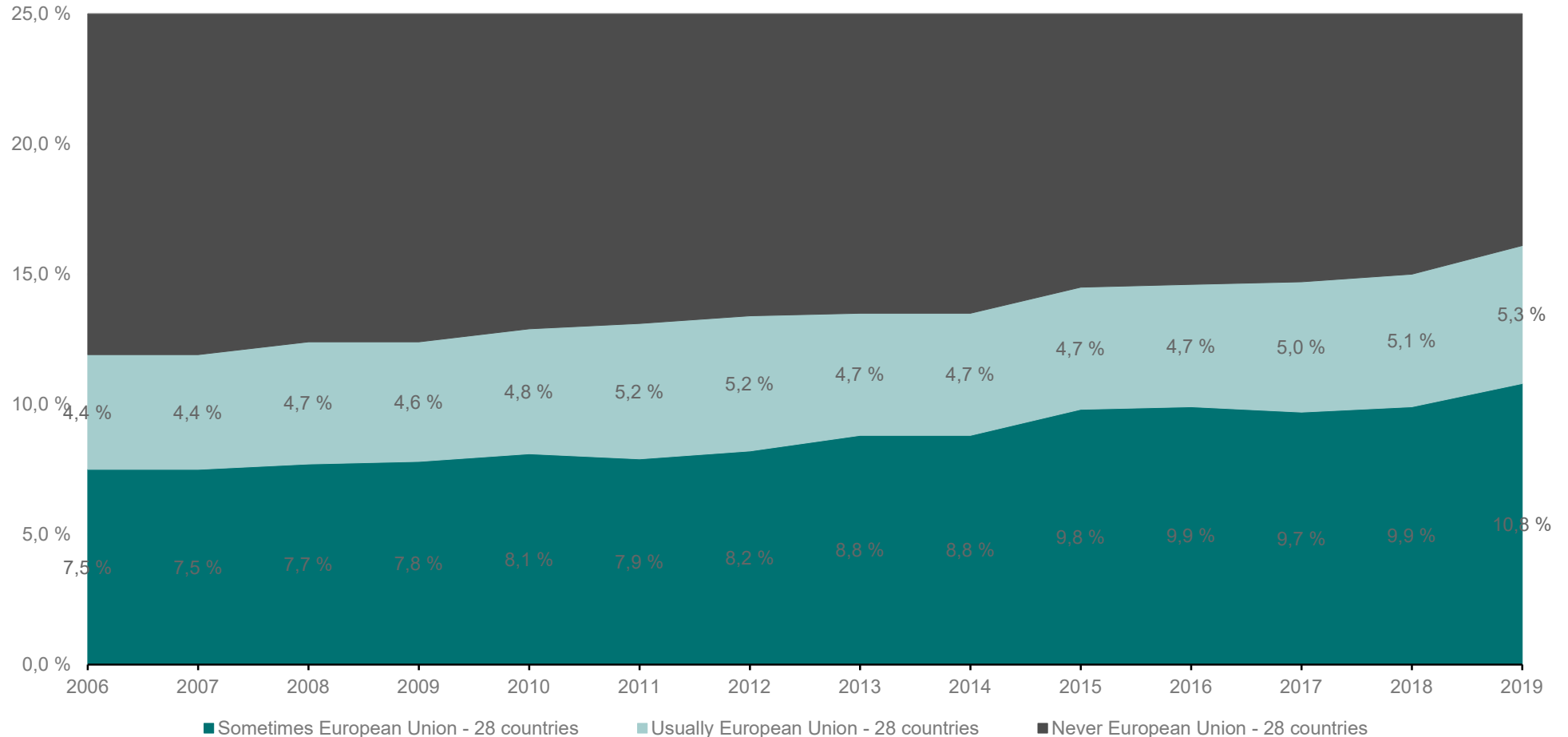
Fridays... (after lunch driving to the cabin?)



Working from home was already a trend pre-Covid-19

Eurostat: Employed persons 'usually' or 'sometimes' working from home
(as a percentage of total employment (%))

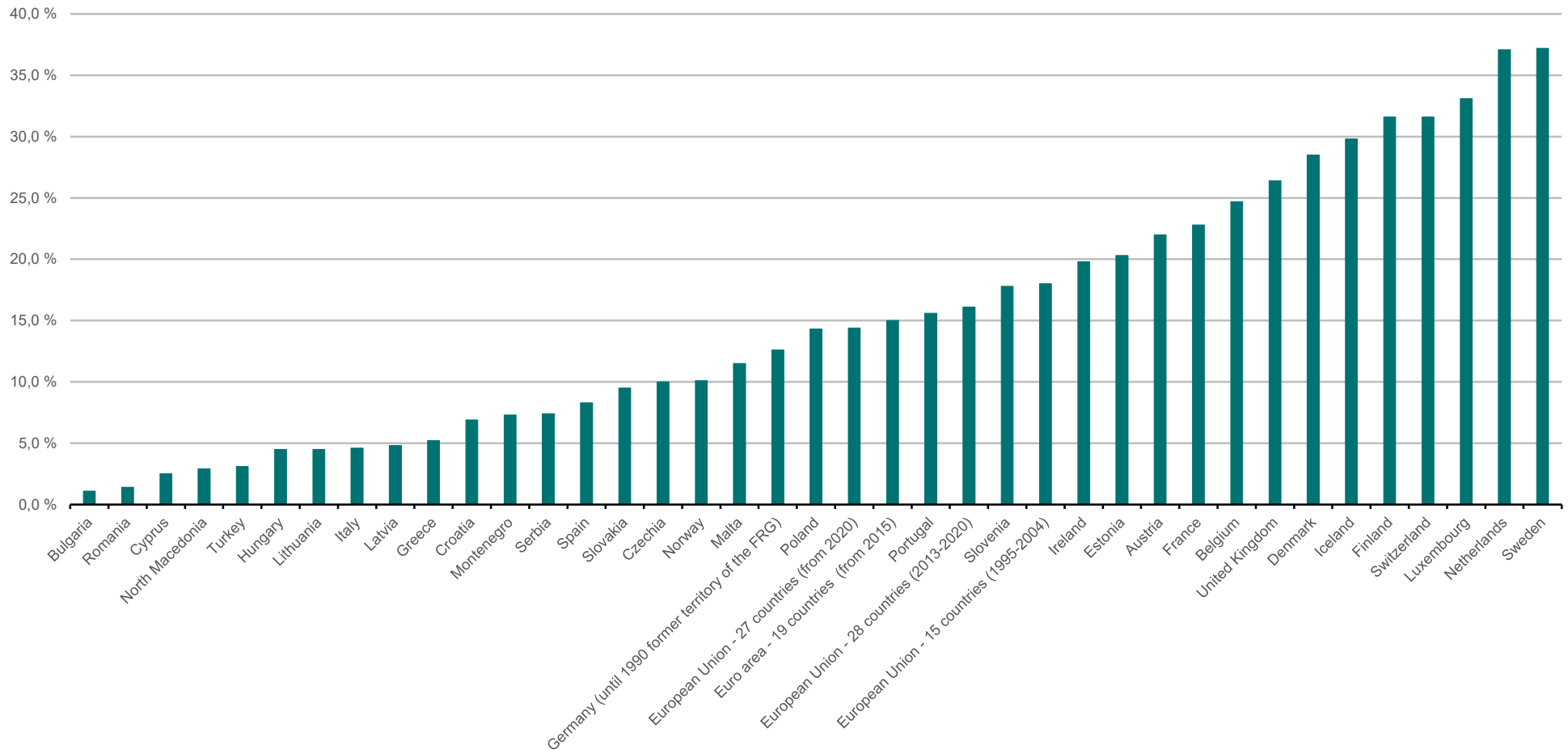
2006–2019



But there were large geographical and cultural deviations

Eurostat: Employed persons 'usually' and 'sometimes' working from home – **Regional 2019**
(as a percentage of total employment (%))

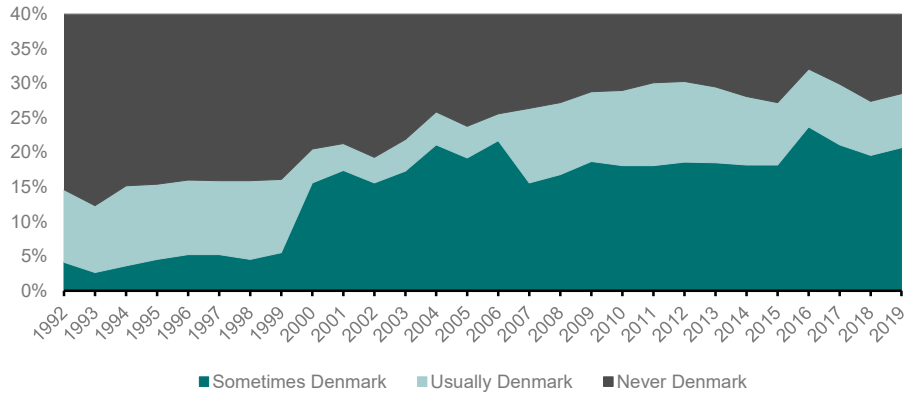
2019



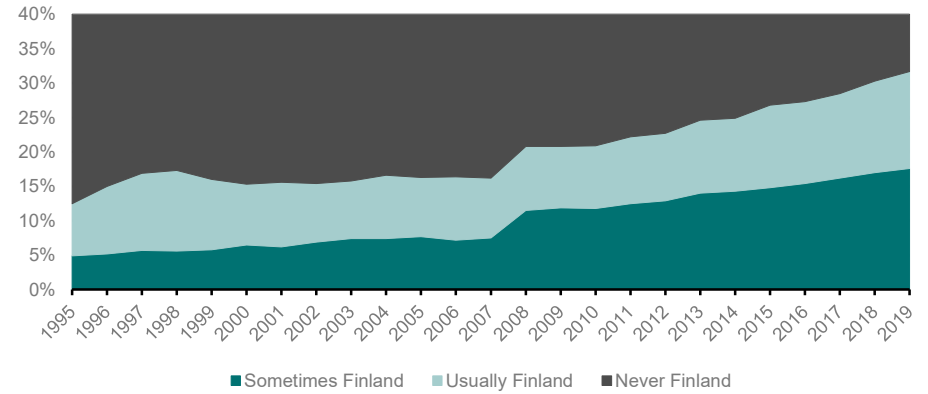
Employed persons usually or sometimes working from home

Eurostat: Nordics

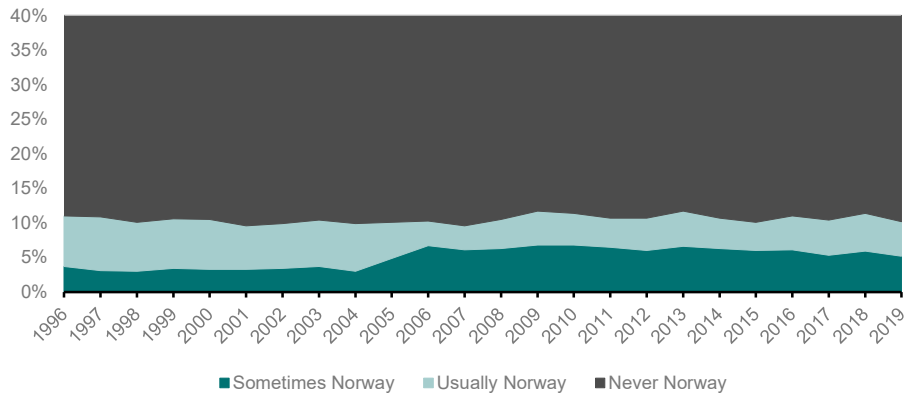
Denmark



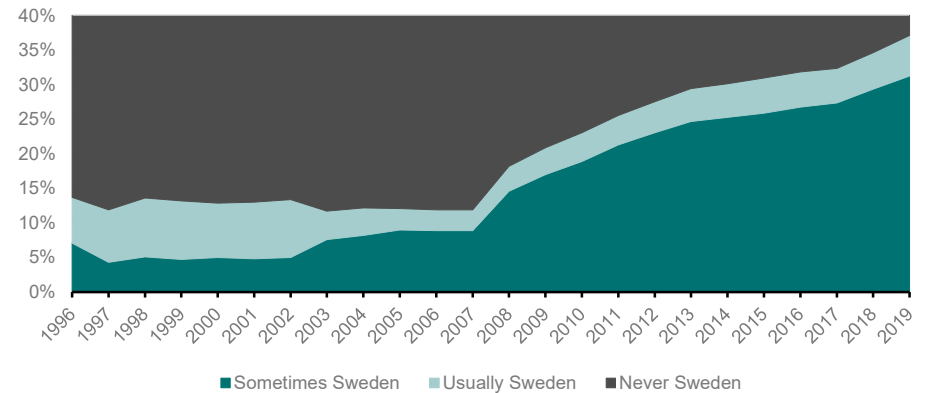
Finland



Norway



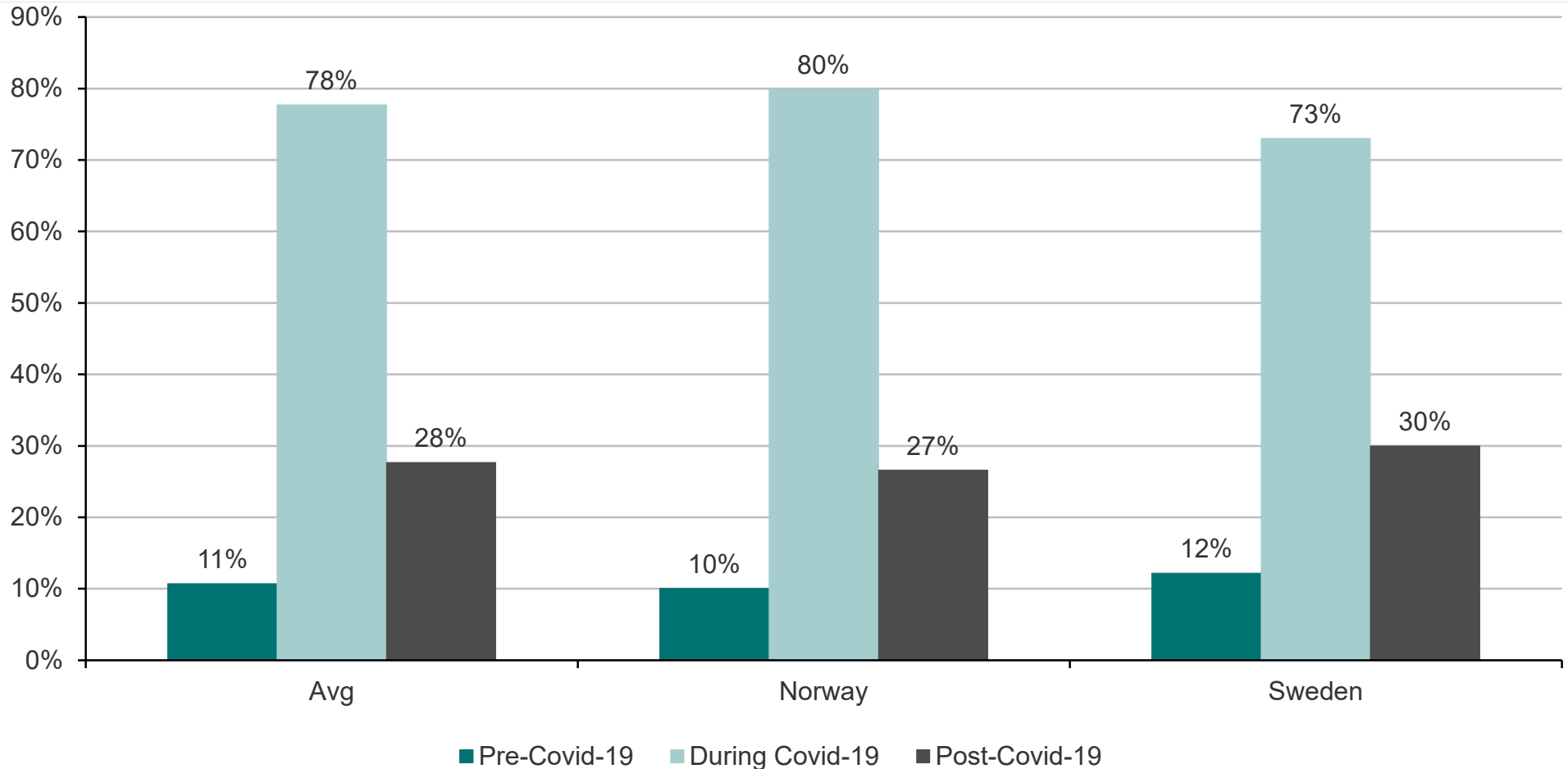
Sweden



DNB study: Remote work

Office work (hours) performed peer week from remote locations:

How much of the work done by the staff in your company/division was performed from remote locations/home offices
1) Pre-Covid-19 2) During Covid-19 lockdown 3) expectations post Covid-19

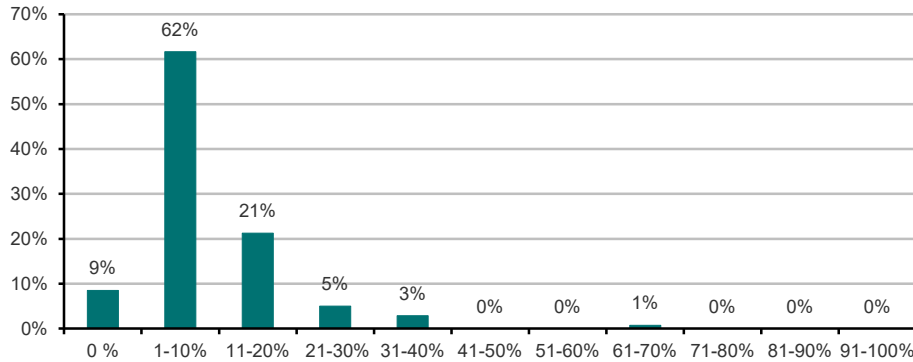


DNB study: Remote work

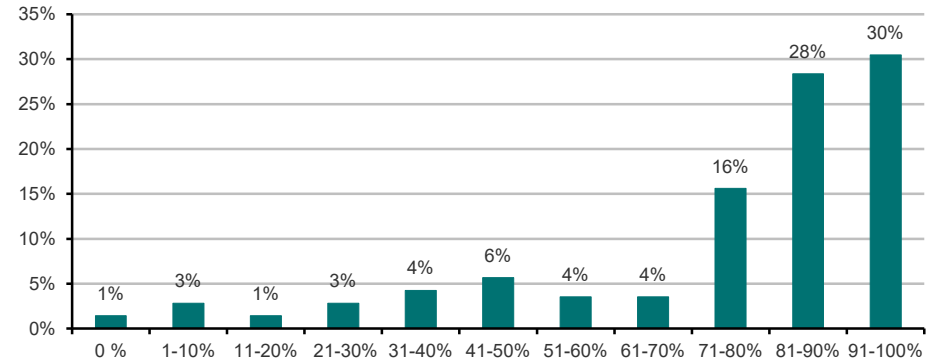
Office work performed from remote locations (divided into 10% intervals)



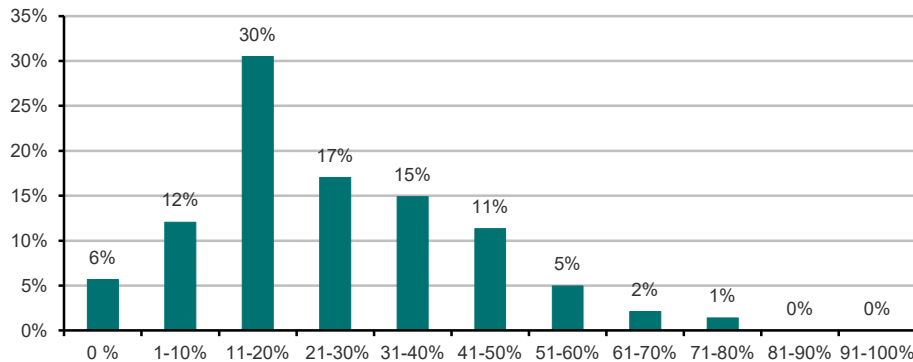
Pre-Covid-19 – divided (all answers)



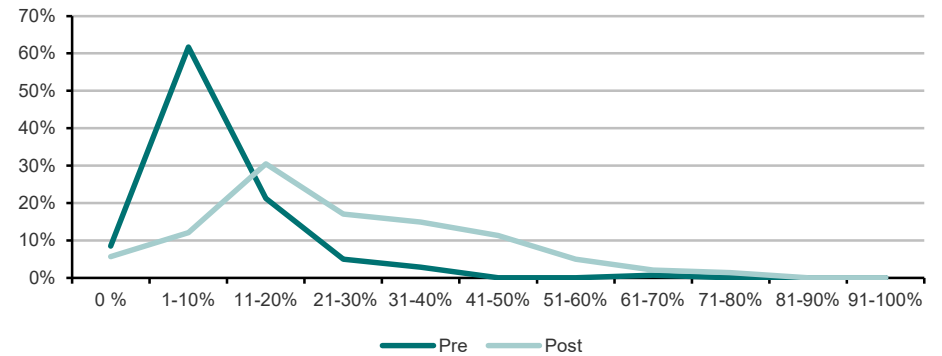
During Covid-19 – divided (all answers)



Expectations post-Covid-19 – divided (all answers)



Curves: pre-Covid-19 versus post-Covid-19

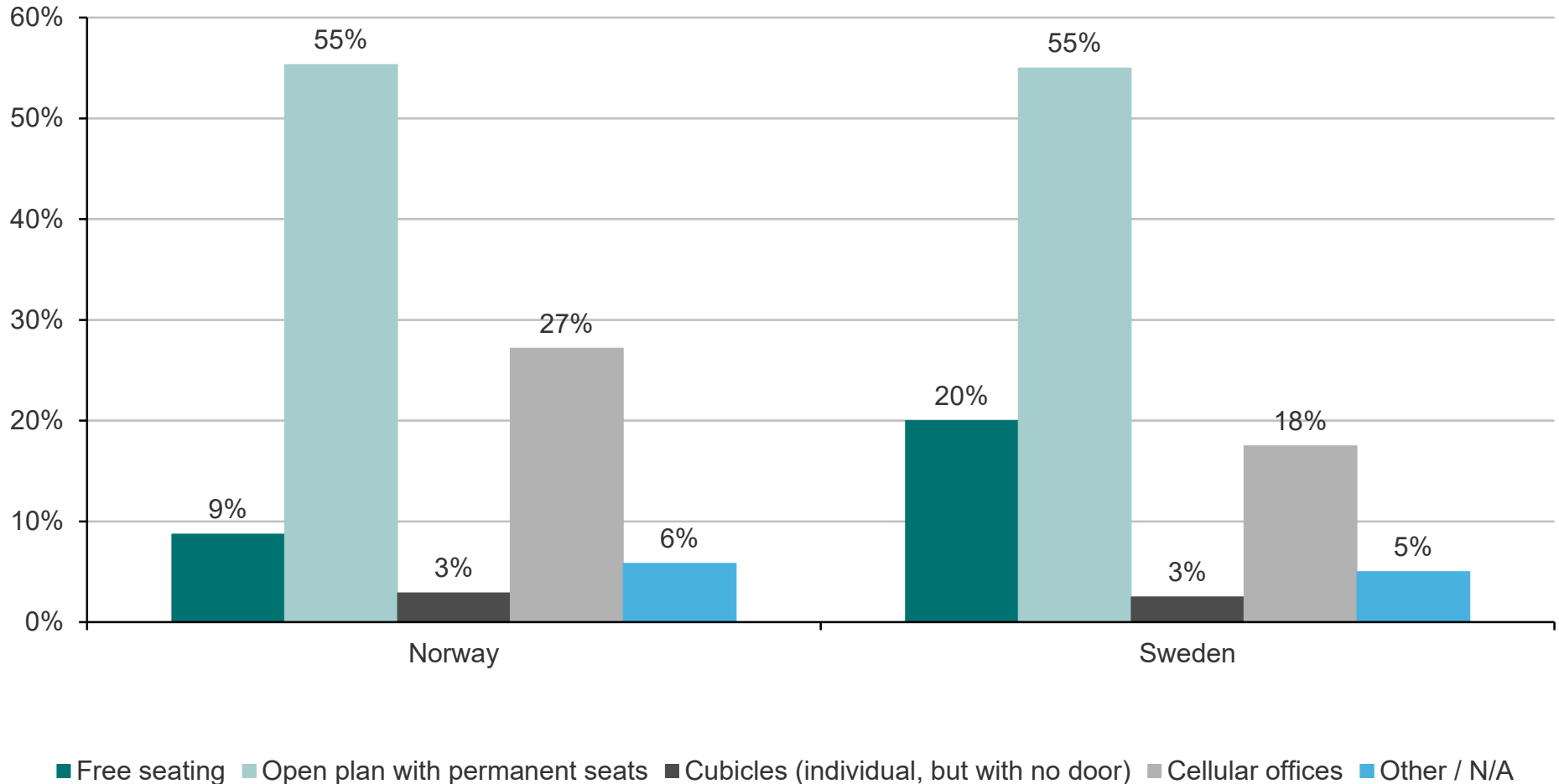


The responses show the most narrow range for the 'pre'-answers (standard deviation of 9%-points) while the 'during'-answers have the widest range (standard deviation of 24%-points) and the 'post'-answers fall into the middle with a standard deviation of 17%-points and is the category most like a 'normal distribution'-curve.

DNB study: Remote work

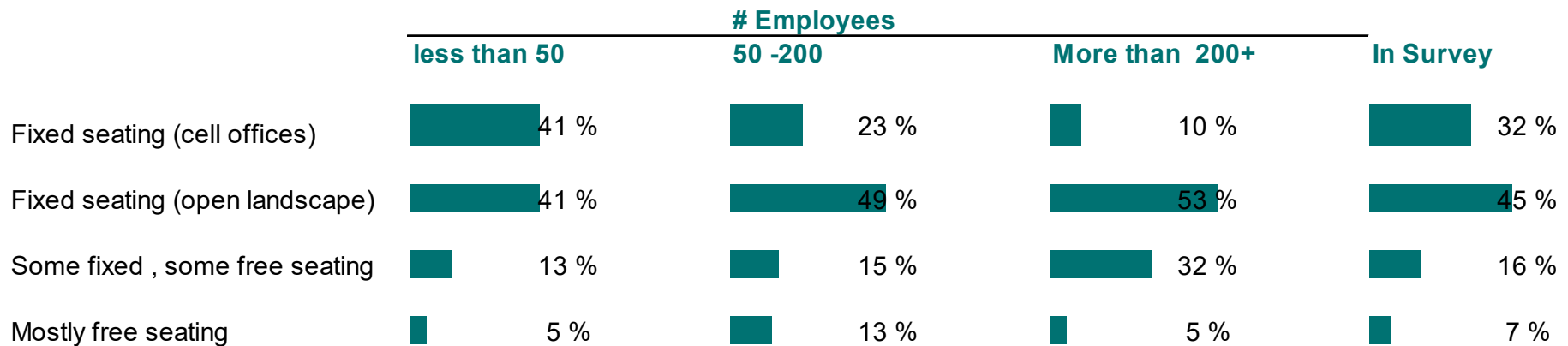
Free seating is the key to a structural decline in office space demand

How is your office mainly planned at present?



Free seating is the key

Malling Survey (Oslo): Small companies use more cell offices than large companies



The more away, the lower demand (Hoeffding's inequality formula):

- How does working from home affect office demand (free seating)?

How much space reduction versus one seat per employee assuming max. overbooked 6 days/year

Office space needed Days / Week (remote)	# Employees										
	1	10	20	40	60	80	100	150	200	500	
0.0	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %
0.5	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	96 %
1.0	100 %	100 %	100 %	100 %	98 %	96 %	94 %	91 %	90 %	86 %	86 %
1.5	100 %	100 %	100 %	93 %	88 %	86 %	84 %	81 %	80 %	76 %	76 %
2.0	100 %	100 %	95 %	83 %	78 %	76 %	74 %	71 %	70 %	66 %	66 %
2.5	100 %	100 %	85 %	73 %	68 %	66 %	64 %	61 %	60 %	56 %	56 %
3.0	100 %	90 %	75 %	63 %	58 %	56 %	54 %	51 %	50 %	46 %	46 %

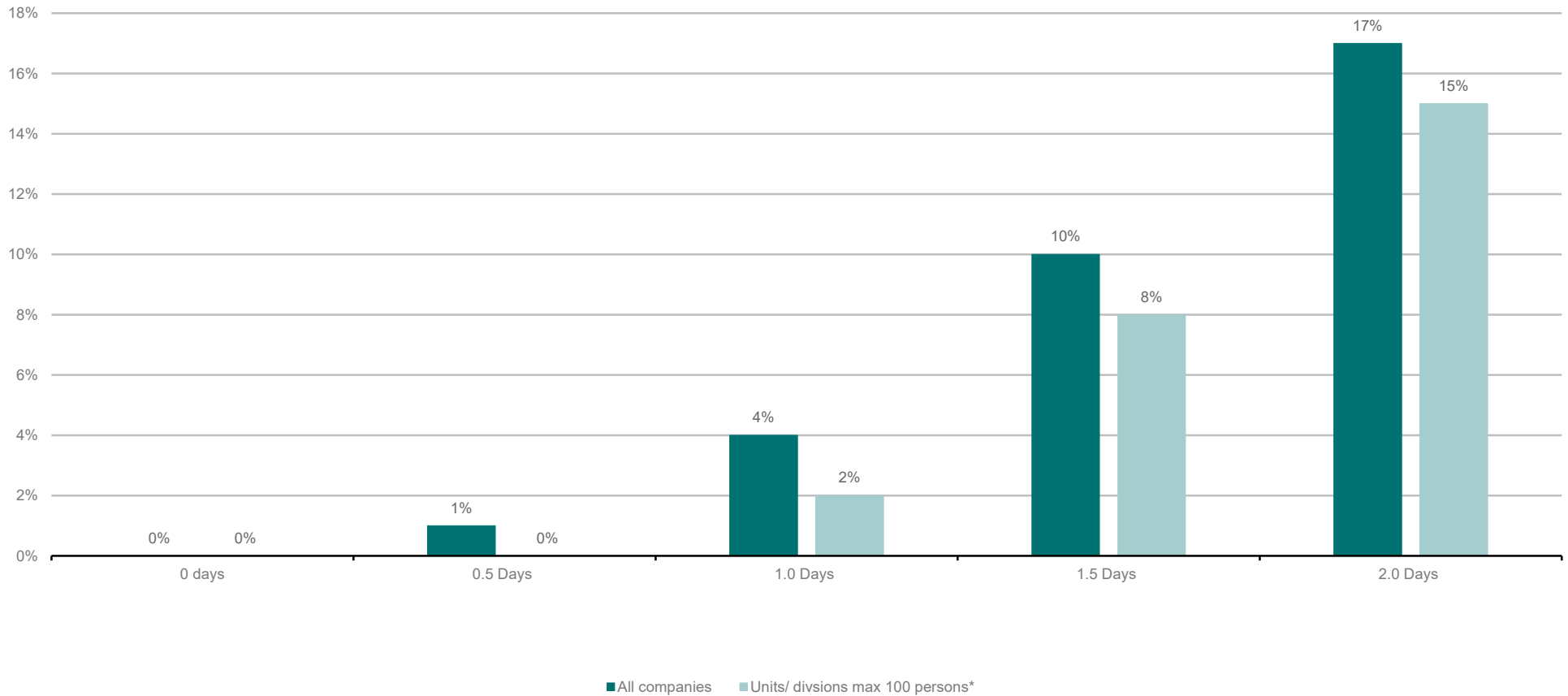
How much space reduction versus one seat per employee assuming max. overbooked 12 days/year

Office space needed Days / Week (remote)	# Employees										
	1	10	20	40	60	80	100	150	200	500	
0.0	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %
0.5	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	99 %	96 %	96 %
1.0	100 %	100 %	100 %	100 %	97 %	94 %	93 %	90 %	89 %	86 %	86 %
1.5	100 %	100 %	100 %	90 %	87 %	84 %	83 %	80 %	79 %	76 %	76 %
2.0	100 %	100 %	90 %	80 %	77 %	74 %	73 %	70 %	69 %	66 %	66 %
2.5	100 %	90 %	80 %	70 %	67 %	64 %	63 %	60 %	59 %	56 %	56 %
3.0	100 %	80 %	70 %	60 %	57 %	54 %	53 %	50 %	49 %	46 %	46 %

Adapting Hoeffding's inequality formula to market demand

Oslo, adjusted for average size of companies, etc.

Reduction of demand in rental markets versus remote work days / week* (6 full days per year)

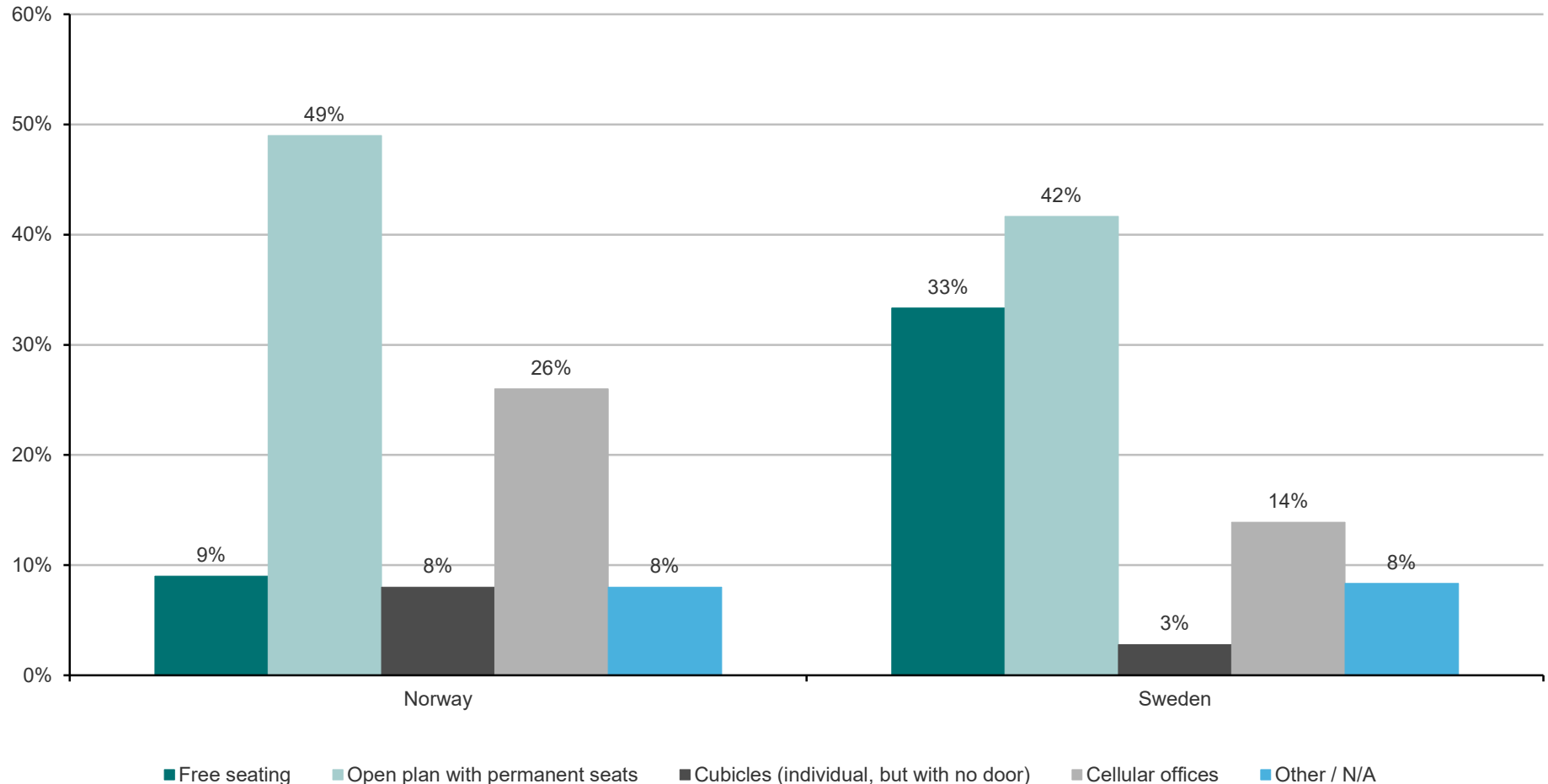


However, this assumes 100% free seating in all companies

DNB study: Remote work

Free seating is the key to a structural decline in office space demand

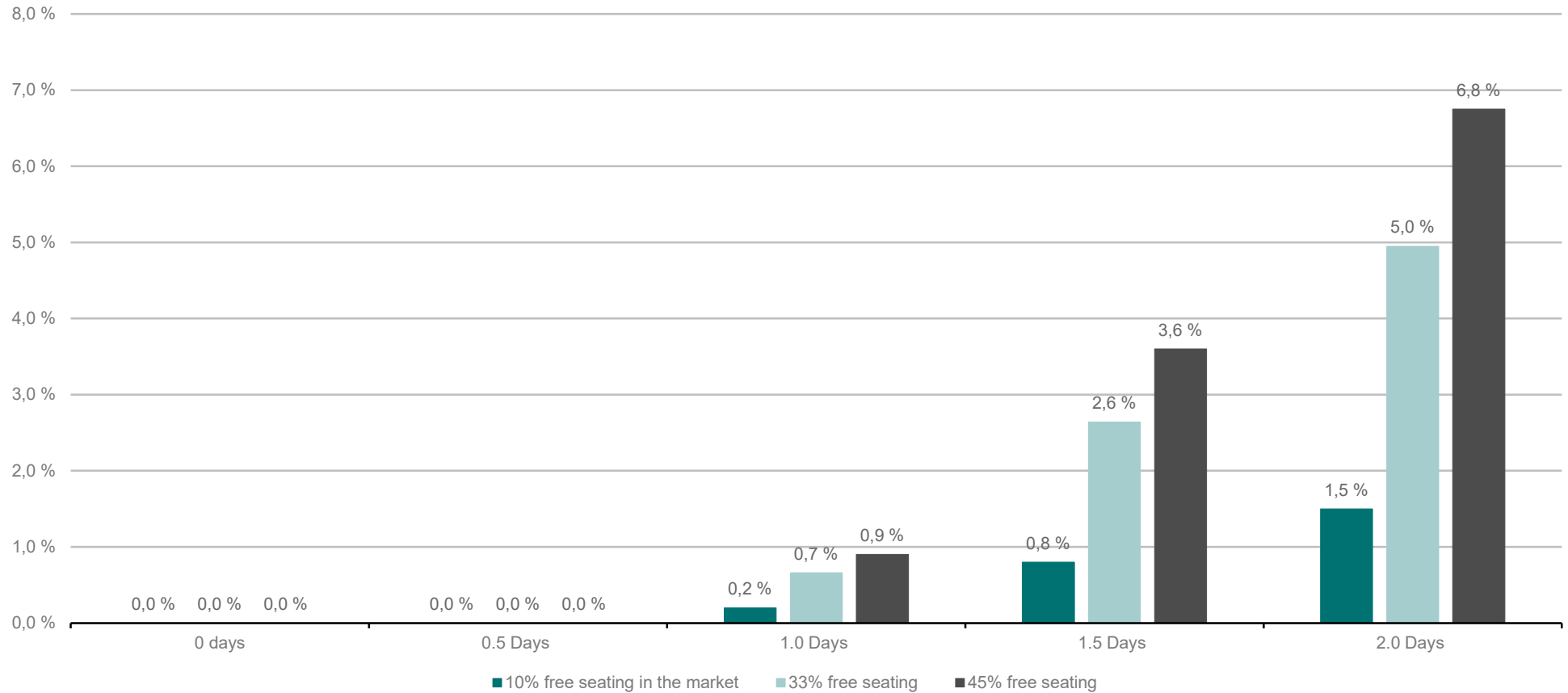
How do you expect your next office to be planned?



Adapting Hoeffding's inequality formula to market demand

Office demand Oslo , adjusted for average company size, work from home and free seating

Reduction of market demand (% of total market demand in rental markets)



Office worker life post-Covid-19 pandemic

- Employees and employers have learned what works from a remote location
 -And what does not work
- Large companies benefit more than smaller companies
- Free seating crucial to reducing 'office demand' due to working from home

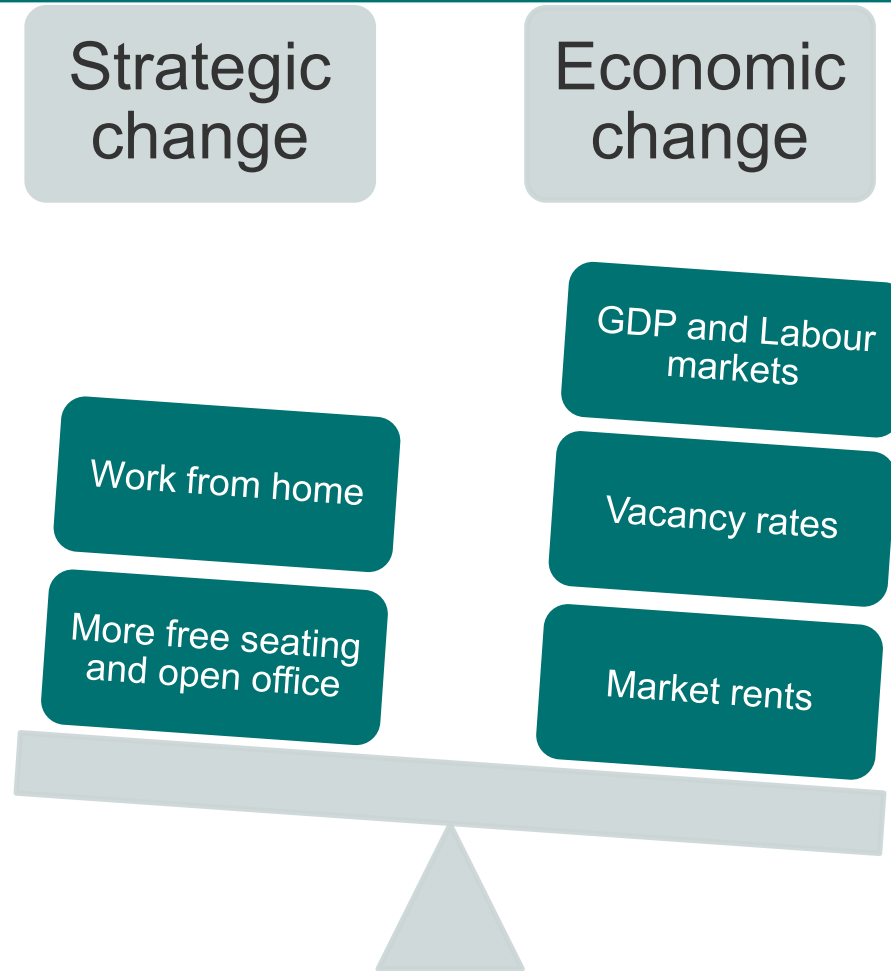
Our findings and forecasts

- Our early phase office tenant survey indicates the degree of home/remote working is expected to permanently more than double after the Covid-19 pandemic, from 11% to 28%.
- If this structural change occurs, we believe it could have a large impact on vacancy rates and market rents in the office segment.
- However, we would expect this to take a few years to materialise (long WAULTS in real estate).
- We believe the structural increase in work from home/remote could in affect office demand (thus the vacancy rate) by as much as c4–6% (assuming 1.5 days per week, working from home; trend of more tenants using free seating / activity-based working (ABW) office layouts)

Working from home

Separate the strategic from the economic effects of the Covid-19 pandemic

DNB markets expects economic factors to override long-term strategic factors for the next 2–3 years
.....but there will be a long-term shift, in our view



Working from home

Not for all sectors

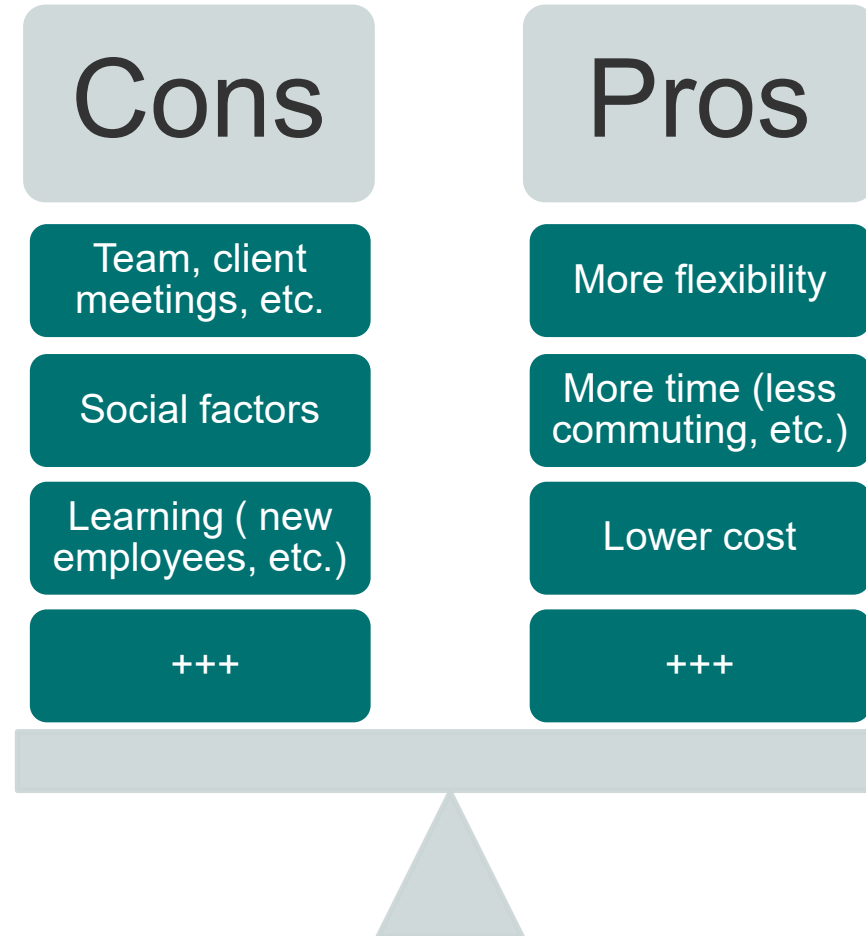
Government: work from home
Construction workers: Not possible!



Working from home

The pros versus cons for the employee

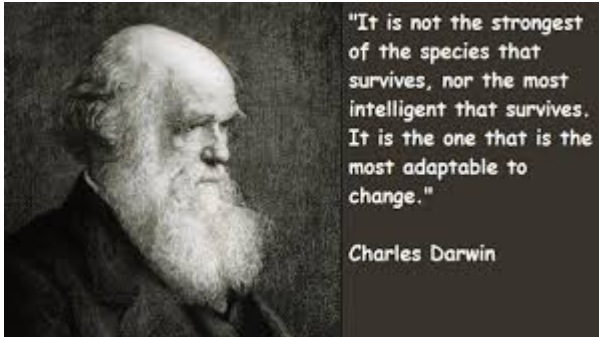
Working from home



Remote work is not going to be a 'Yes' or 'No' question

The question is how much, and how companies and property owners can adapt

Asset owners must adapt



We forecast continued growth for ABW offices



Modern and flexible offices



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