

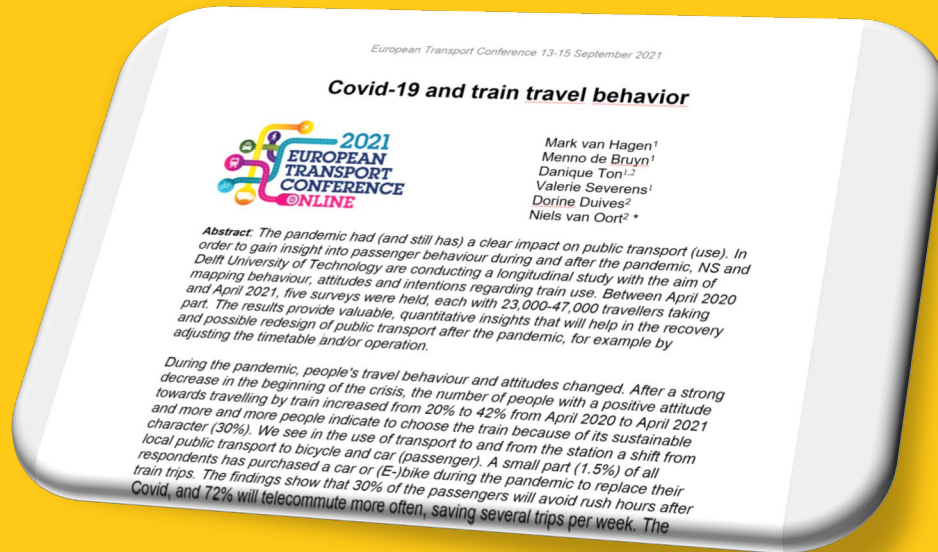
Covid-19 and train travel behavior

Mark van Hagen, Menno de Bruyn, Danique Ton, Valerie Severens, Dorine Duives, **Niels van Oort**

September 2021



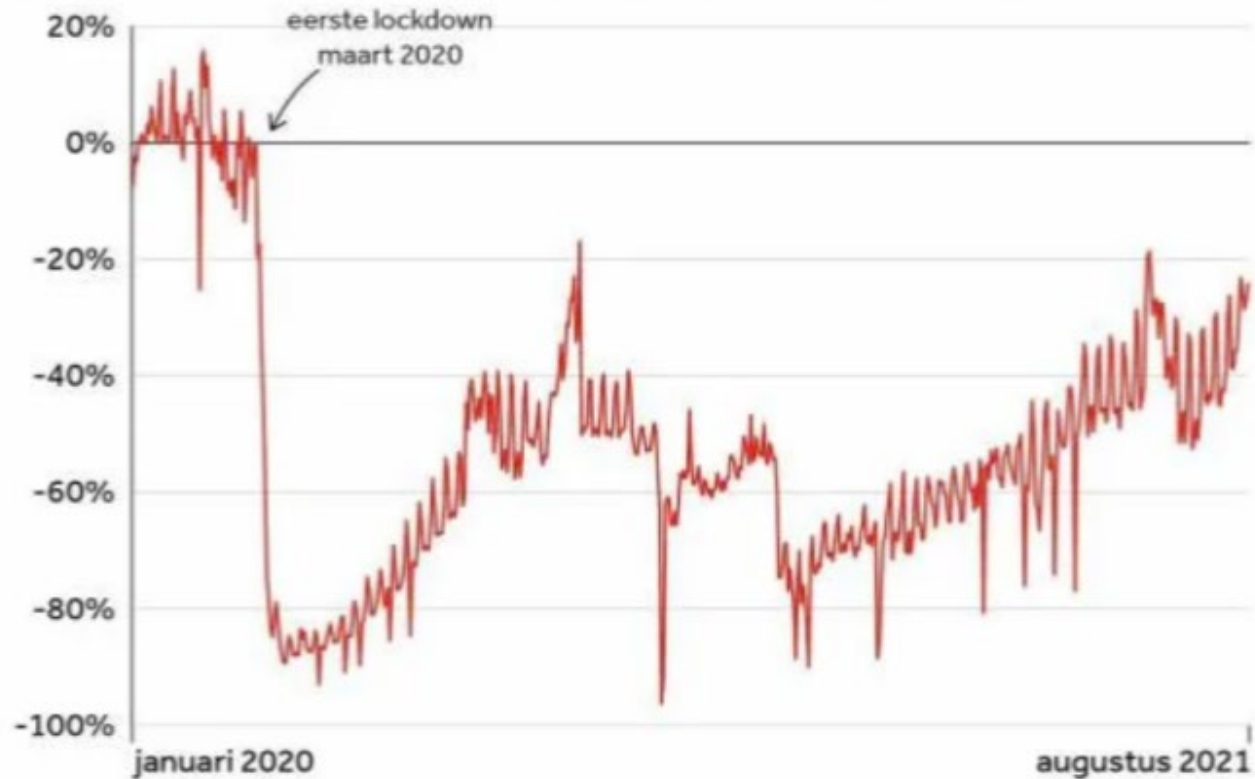
Paper and presentation online



<https://nielsvanoort.weblog.tudelft.nl/>

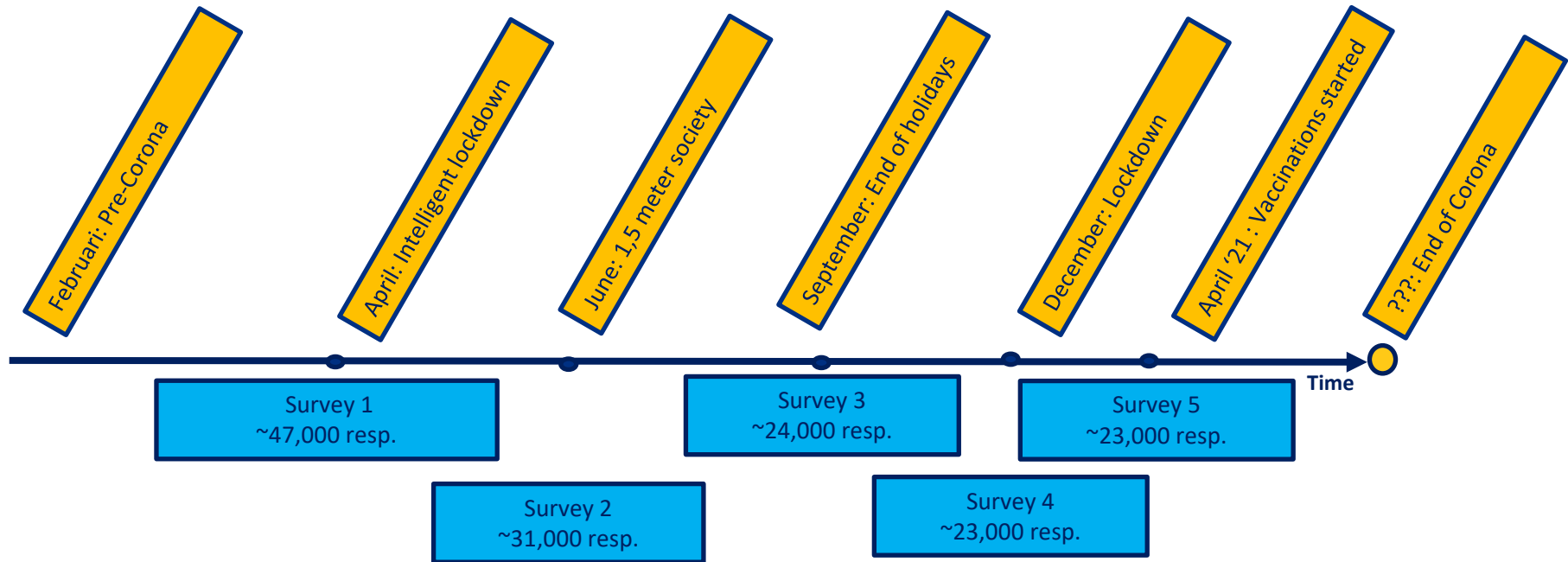


Current train ridership in NL: ~70%



bron: Data Translink

Longitudinal survey train travellers Dutch Railways



TU Delft



Danique Ton



Dorine Duives



Niels van Oort



Koen Arendsen

NS



Mark van Hagen



Valerie Severens



Menno de Bruyn

Four Major changes

1. Less (train) traveling (working from home)
2. Change of departure times (peak avoidance)
3. Modal shift (incl. purchasing new vehicles)
4. Changing perceptions and experiences

What will travel patterns look like after Covid?

All findings:

- <https://nielsvanoort.weblog.tudelft.nl/de-gevolgen-van-de-coronacrisis-op-treinreisgedrag/>

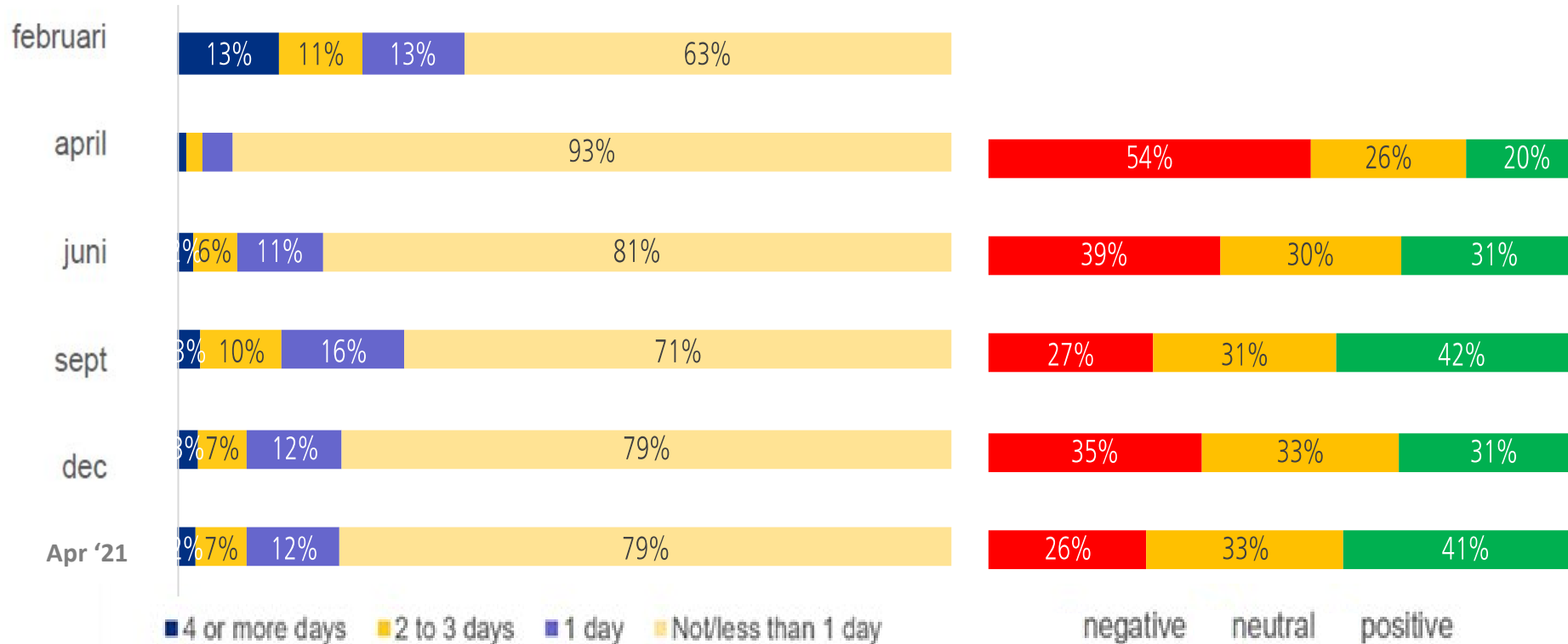
1. Travel frequencies



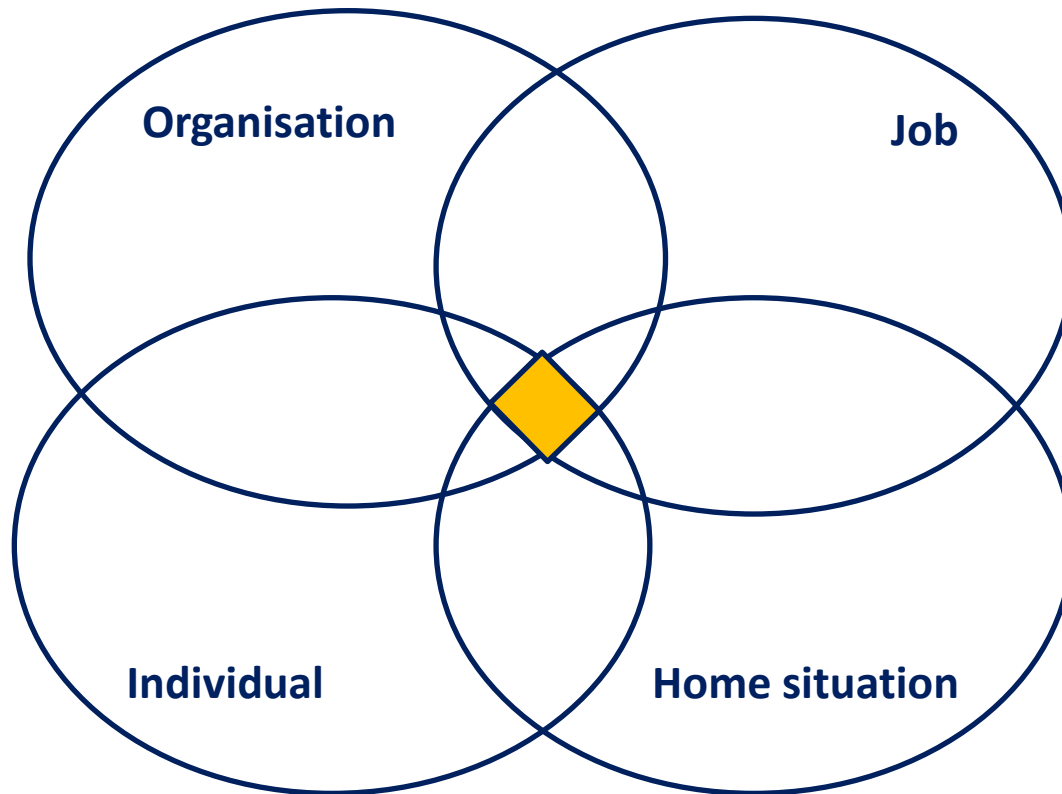
Travel frequencies

Travel days per week

attitude relative to. train travel



Requirements for efficient teleworking



Baruch & Nicholson (1997)

Three groups of teleworker types

- High willingness-to-telework (72%).
 - Employer is prepared, job is suitable for teleworking, people have positive experience
- Low willingness-to-telework (16%).
 - Employers often unprepared, people have negative experience
- Barely affected self-employed (12%).
 - These people have returned largely to their pre-corona behaviour after the lockdown

Teleworker (N = 10,033)

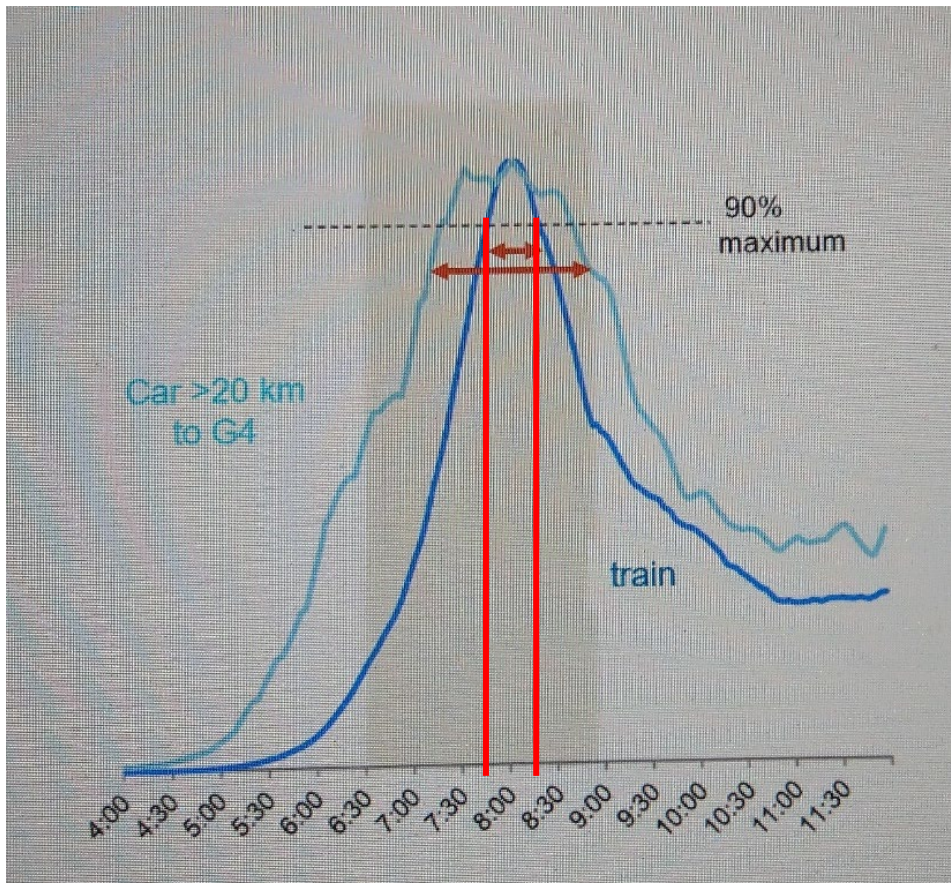
Teleworking frequency > 0 in April 2020 and June 2020

2. Departure times



Hyper peak

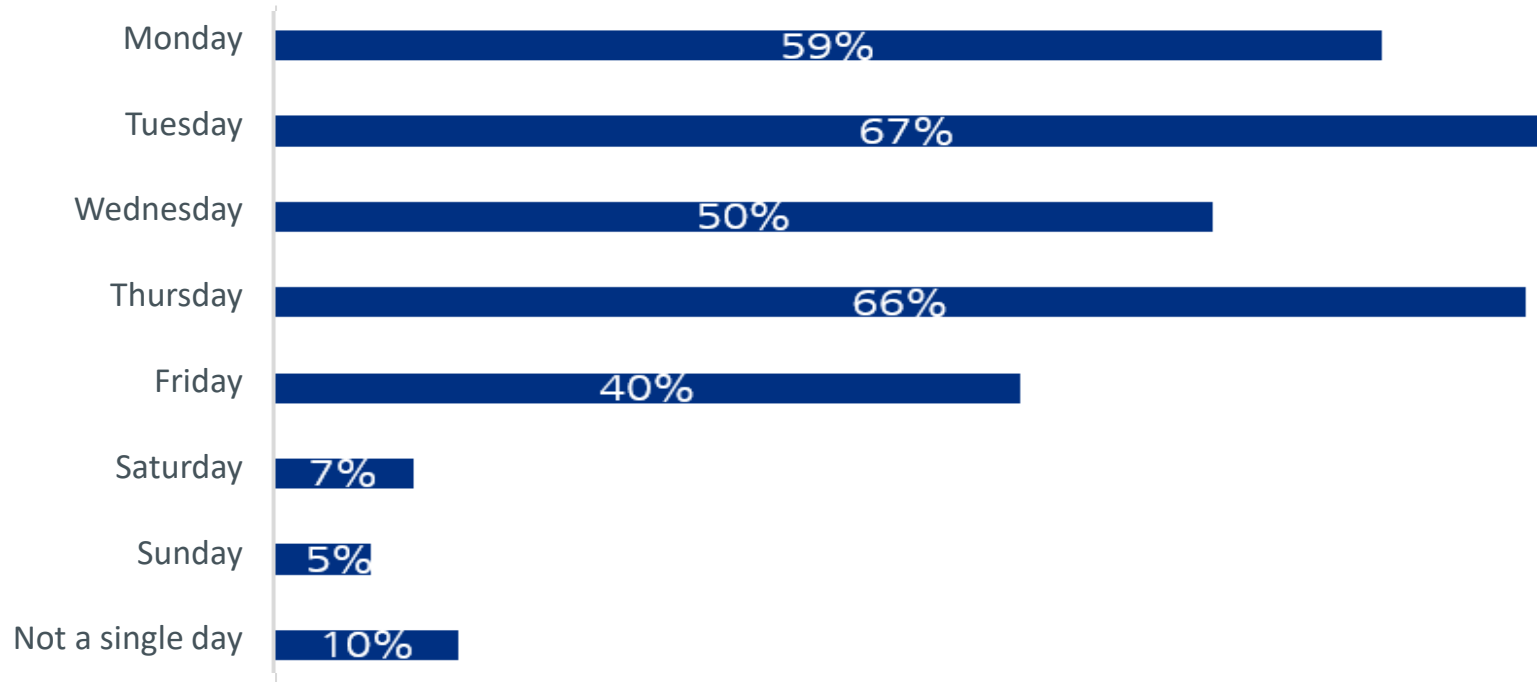
- 30 % wants to travel outside the peak hours



A. Mastebroek, 2021

Most popular travel days are Tuesday, Thursday and Monday

On what day do you expect to travel to work after COVID? (commute only)



Actions of employers and educational institutes?

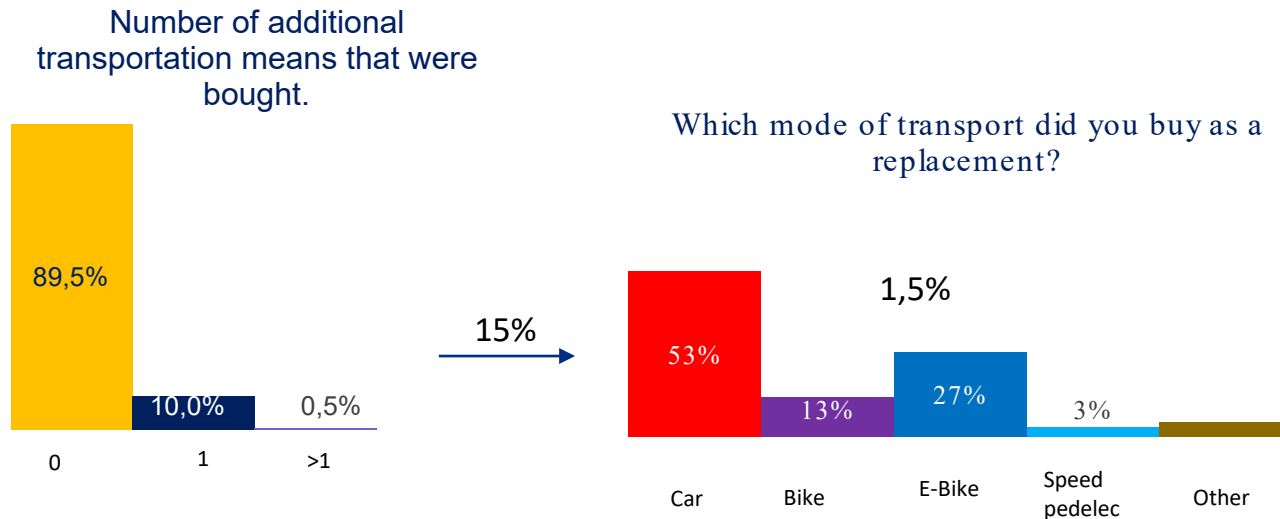
3. Modal Shift



Buying alternative modes of transport

Little more than 10% has bought an alternative mode of transport:

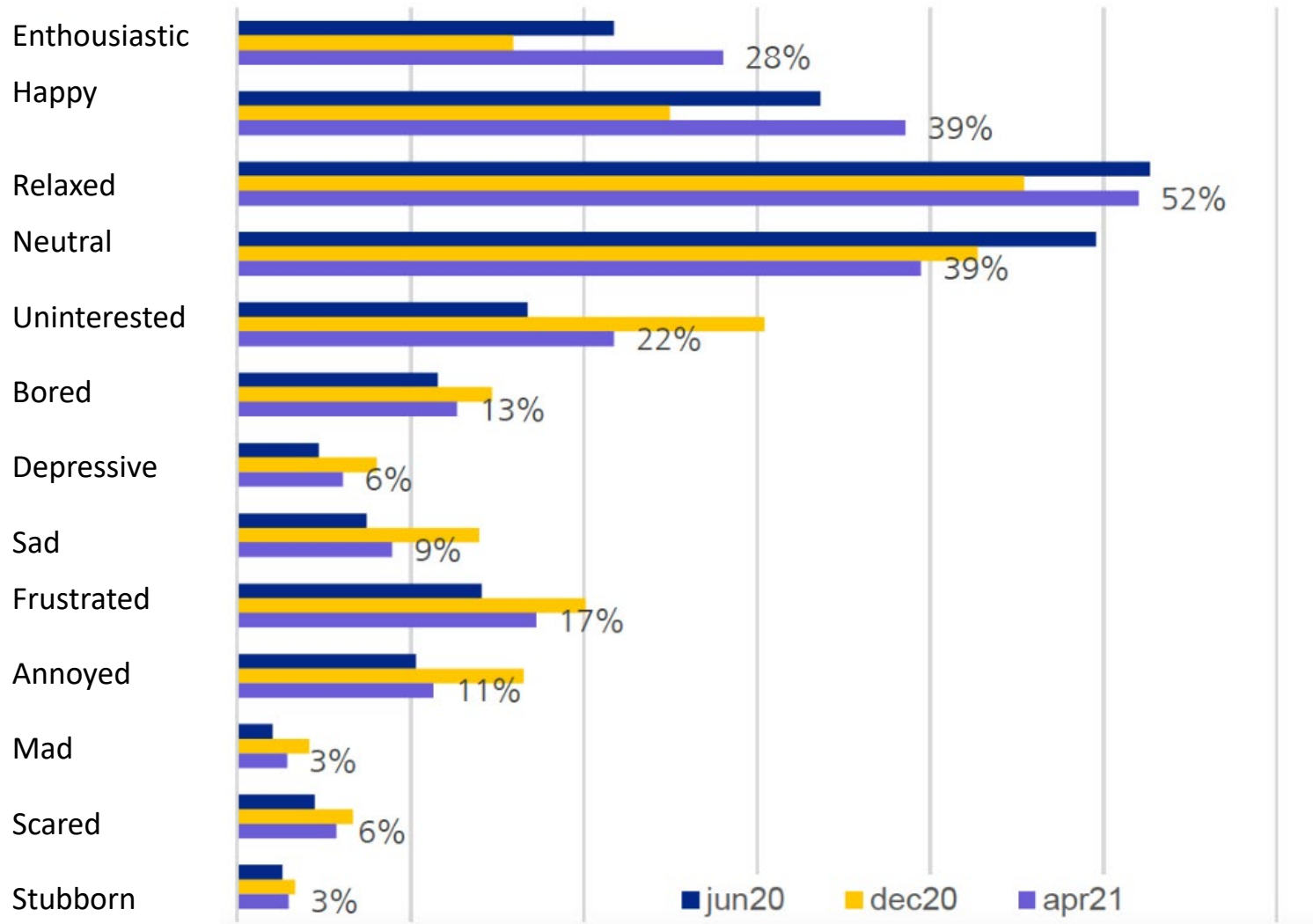
- Especially cars, bicycles and e-bikes
- **15% (of 10%) has as purpose to replace PT**
 - Car and e-bike most often replacement of train trips



4. Passenger perceptions

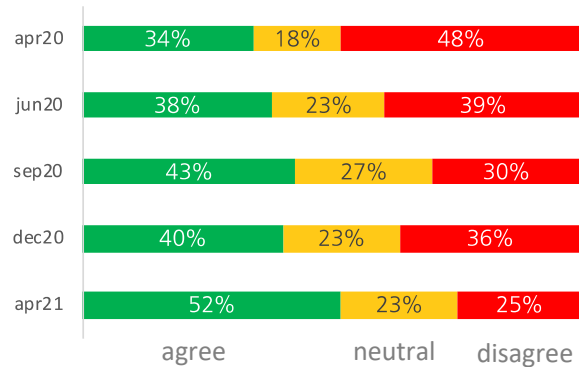


Emotions

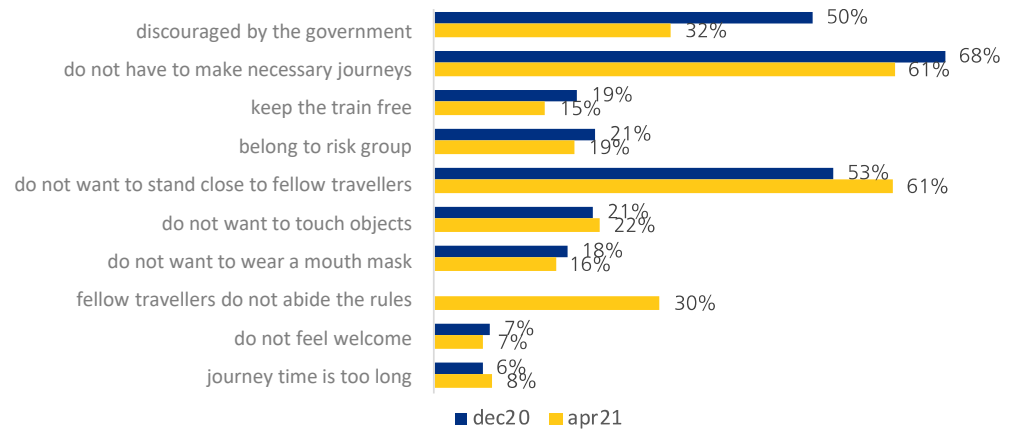


Attitude towards train travelling

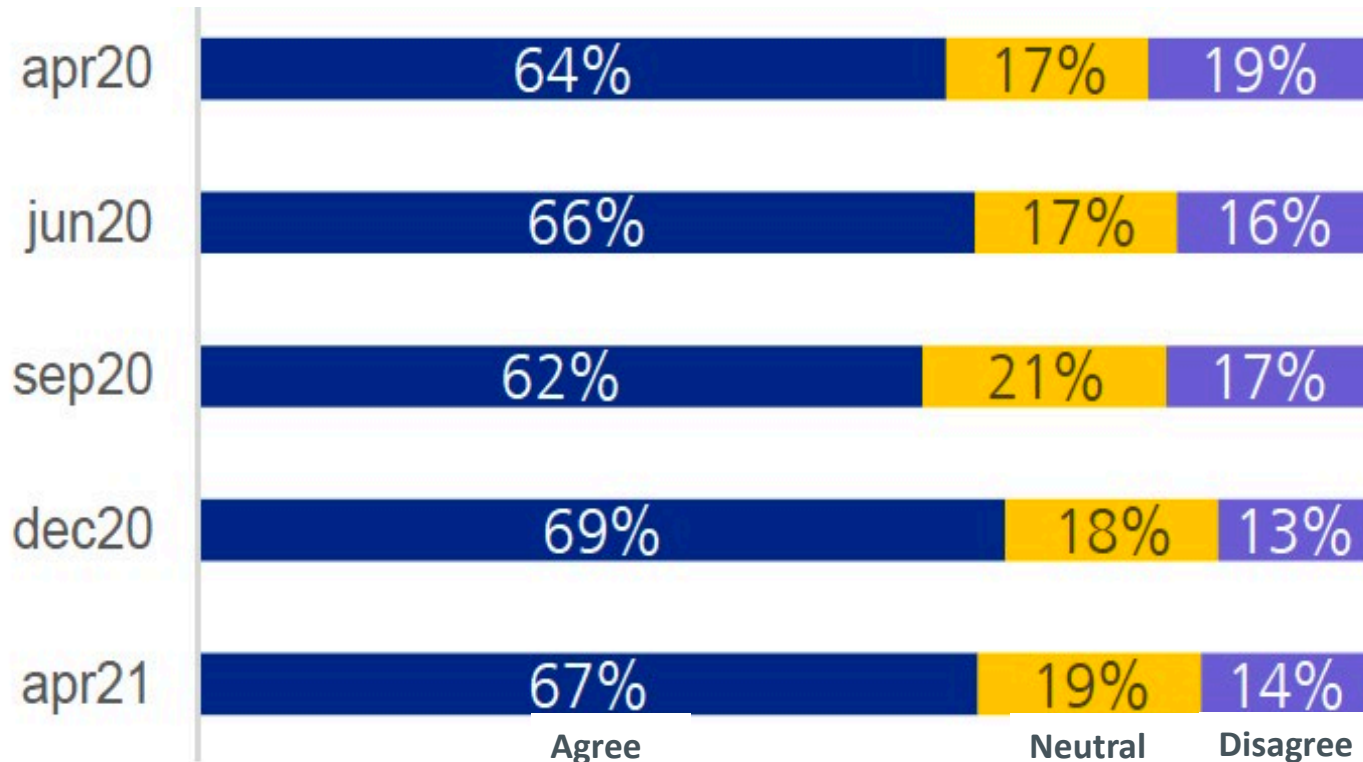
I like to travel by train



Reasons for not liking to travel by train now

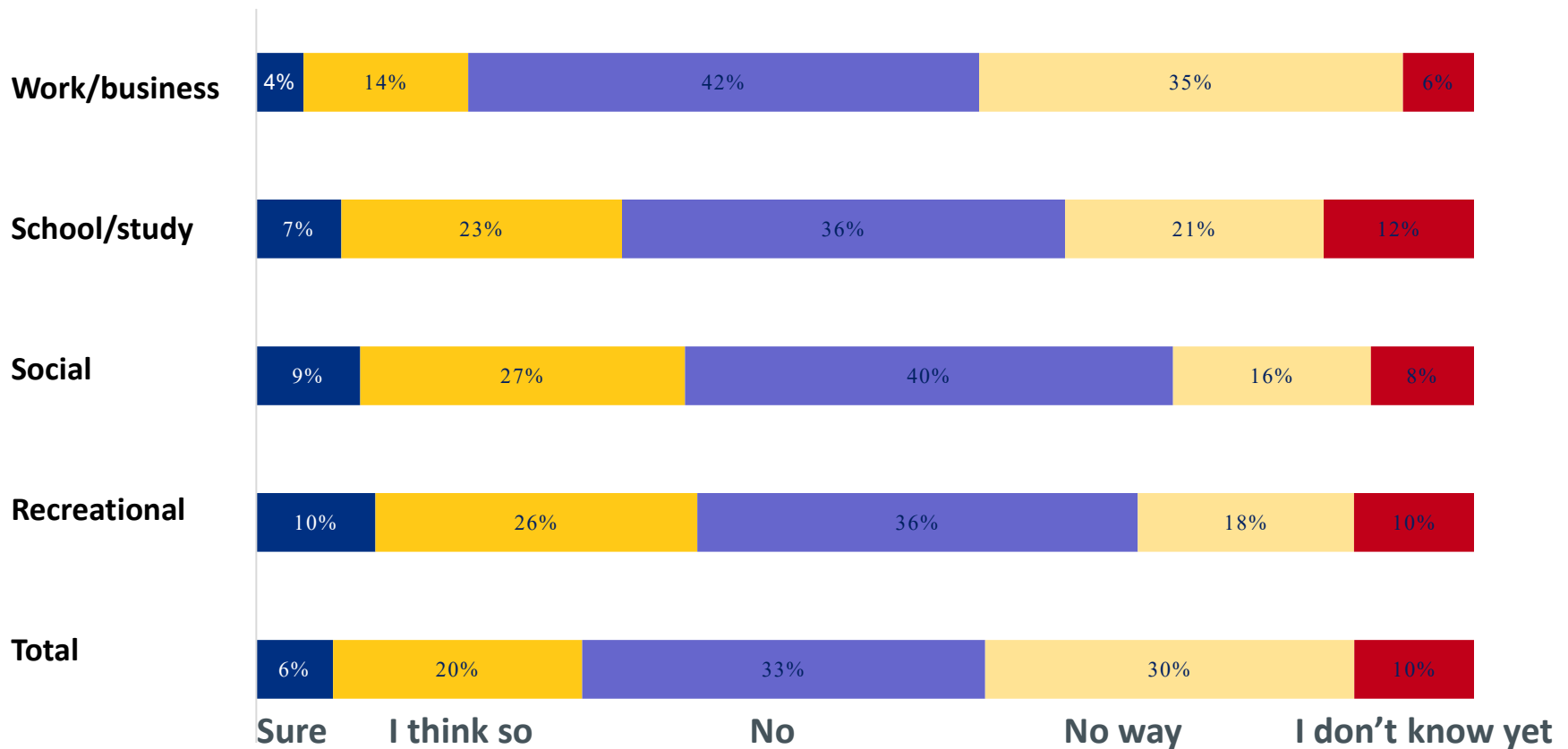


Expectations that traveling will be similar to pre-Covid



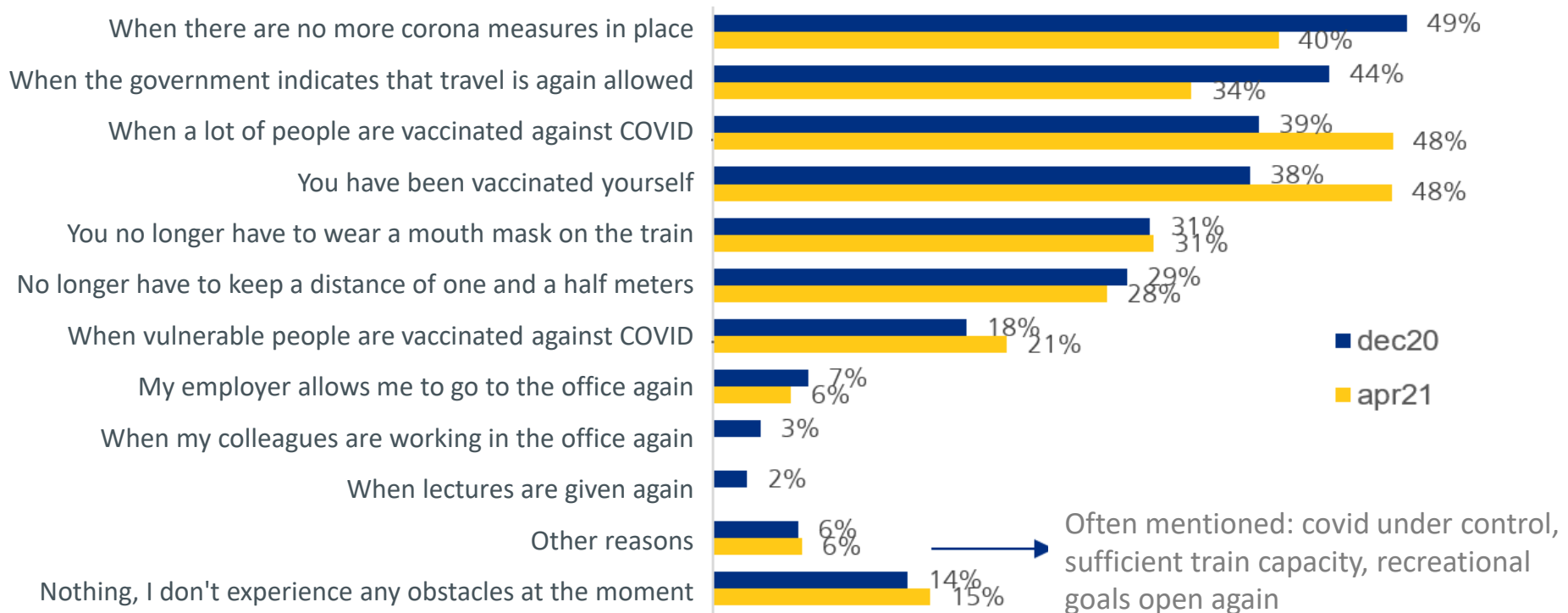
Post-Covid Expectations

Imagine that you will soon be able to travel without restrictions again. Do you think you will then temporarily take more trains to make up for delayed journeys?



Reasons to travel by train again

What would it take for you to be able to travel by train freely again without experiencing obstacles?

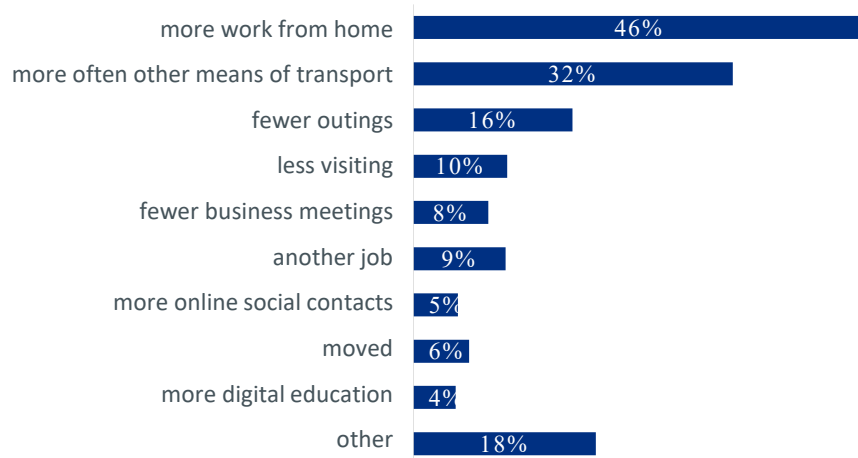


More or less travelling by train

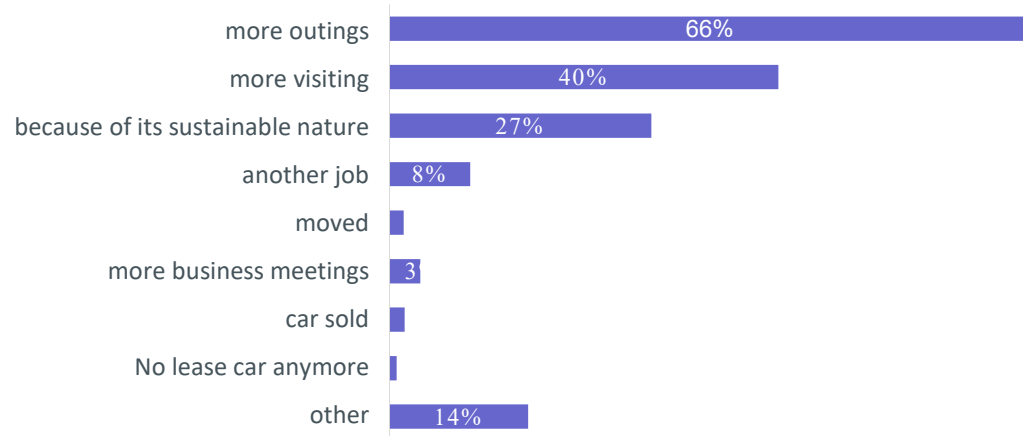
Intention train travel after COVID



Less train travel



More train travel



Sustainability

december 2020

april 2021

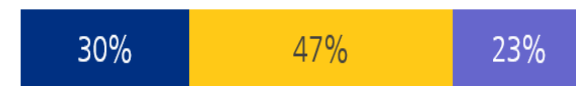
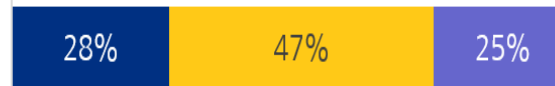
Covid increased the importance of sustainability for me



I consider to chose to travel with NS more frequently due to its sustainable characteristics



I actually chose to travel with NS more frequently due to its sustainable characteristics



Agree

Neutral

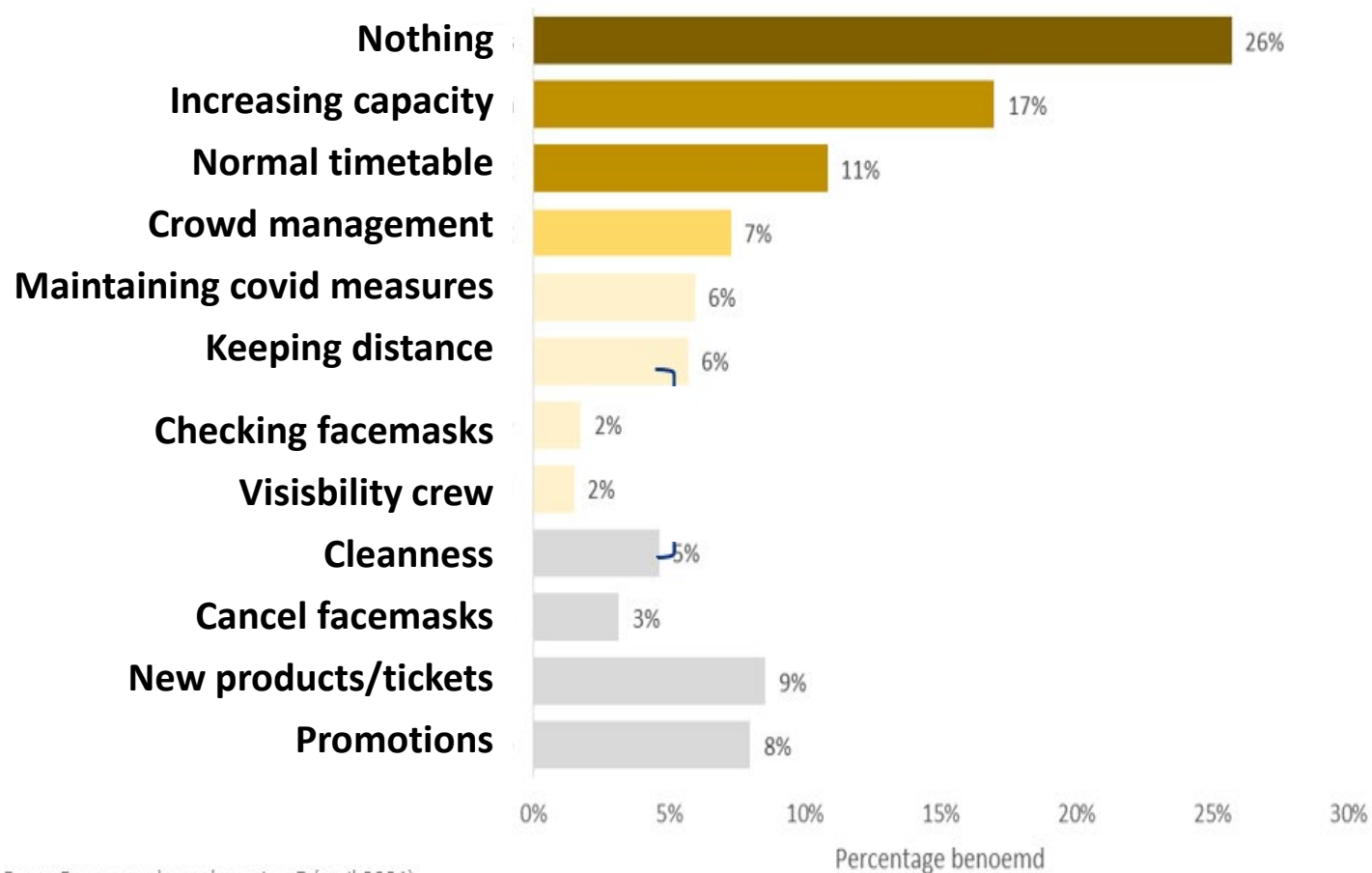
Disagree

Agree

Neutral

Disagree

What should NS do (extra) coming period?



Bron: Corona onderzoek meting 5 (april 2021).
Vraagstelling: Wat kan NS doen voor de reiziger.
n = 17.212

Disclaimer: Voor deze resultaten zijn alleen de open antwoorden gebruikt die met acceptabele nauwkeurigheid konden worden toegewezen aan een onderwerp.

Questions/more info?



European Transport Conference 13-15 September 2021

Covid-19 and train travel behavior



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Abstract. The pandemic had (and still has) a clear impact on public transport (use). In order to gain insight into passenger behaviour during and after the pandemic, NS and Delft University of Technology are conducting a longitudinal study with the aim of mapping behaviour, attitudes and intentions regarding train use. Between April 2020 and April 2021, five surveys were held, each with 23,000-47,000 travellers taking part. The results provide valuable, quantitative insights that will help in the recovery and possible redesign of public transport after the pandemic, for example by adjusting the timetable and/or operation.

During the pandemic, people's travel behaviour and attitudes changed. After a strong decrease in the beginning of the crisis, the number of people with a positive attitude towards travelling by train increased from 20% to 42% from April 2020 to April 2021 and more and more people indicate to choose the train because of its sustainable character (30%). We see in the use of transport to and from the station a shift from local public transport to bicycle and car (passenger). A small part (1.5%) of all respondents has purchased a car or (E-)bike during the pandemic to replace their train trips. The findings show that 30% of the passengers will avoid rush hours after Covid, and 72% will telecommute more often, saving several trips per week. The

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More findings: <https://nielsvanoort.weblog.tudelft.nl/de-gevolgen-van-de-coronacrisis-op-treinreisgedrag/>

