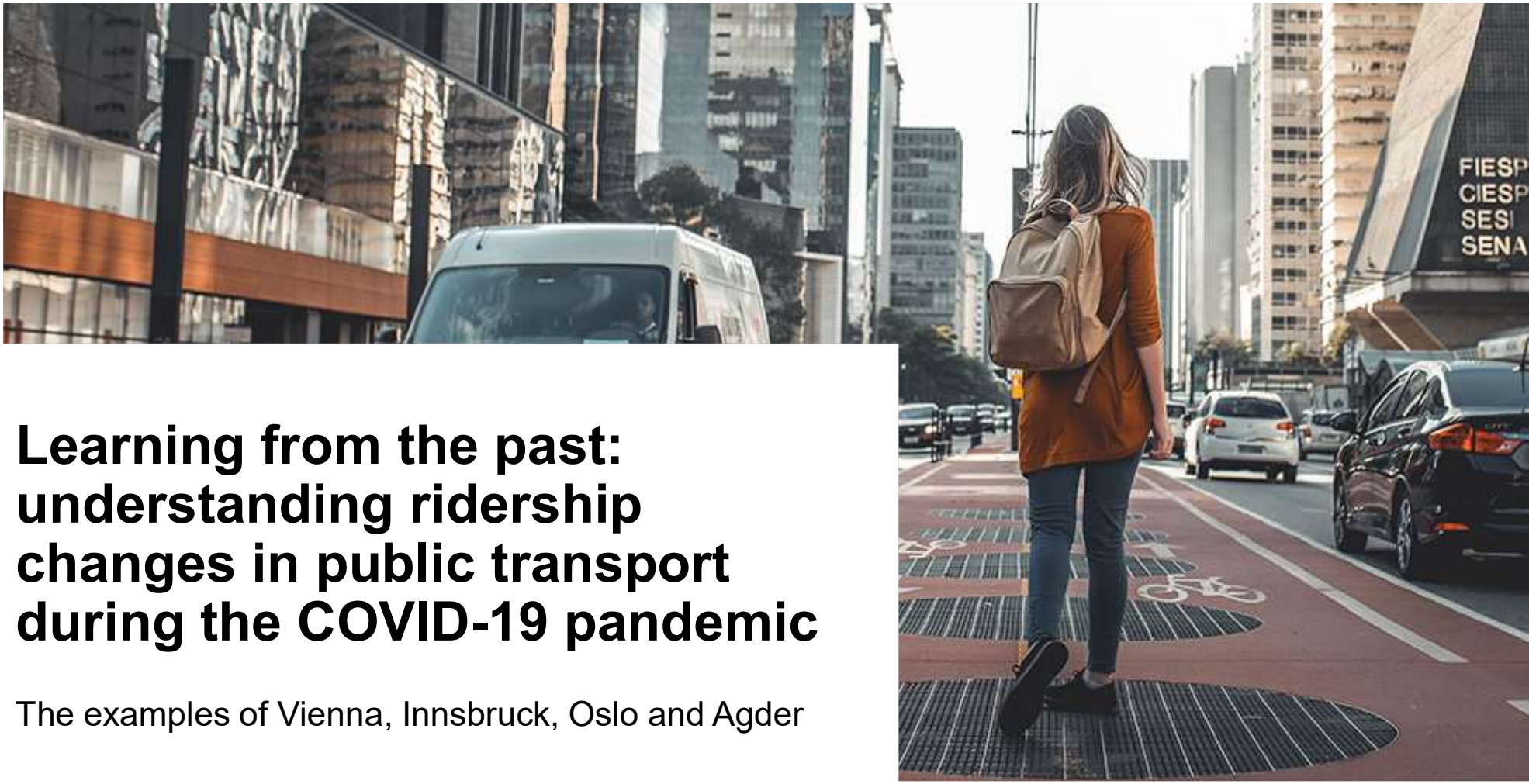


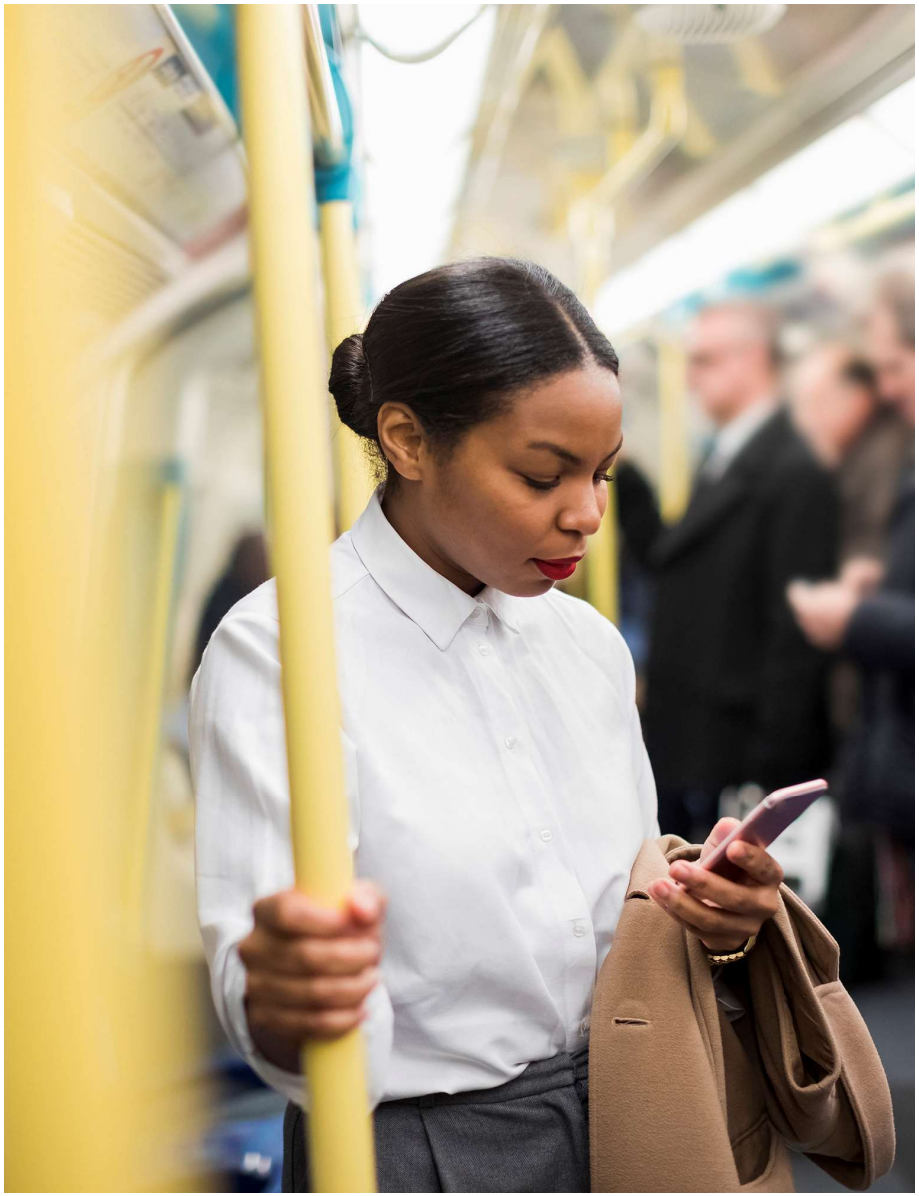
Learning from the past: understanding ridership changes in public transport during the COVID-19 pandemic

The examples of Vienna, Innsbruck, Oslo and Agder

Sinziana Rasca-University of Agder, Norway

Karin Markvica- Austrian Institute of Technology, Vienna

Bernd Peter Ivanschitz- Wiener Linien, Vienna



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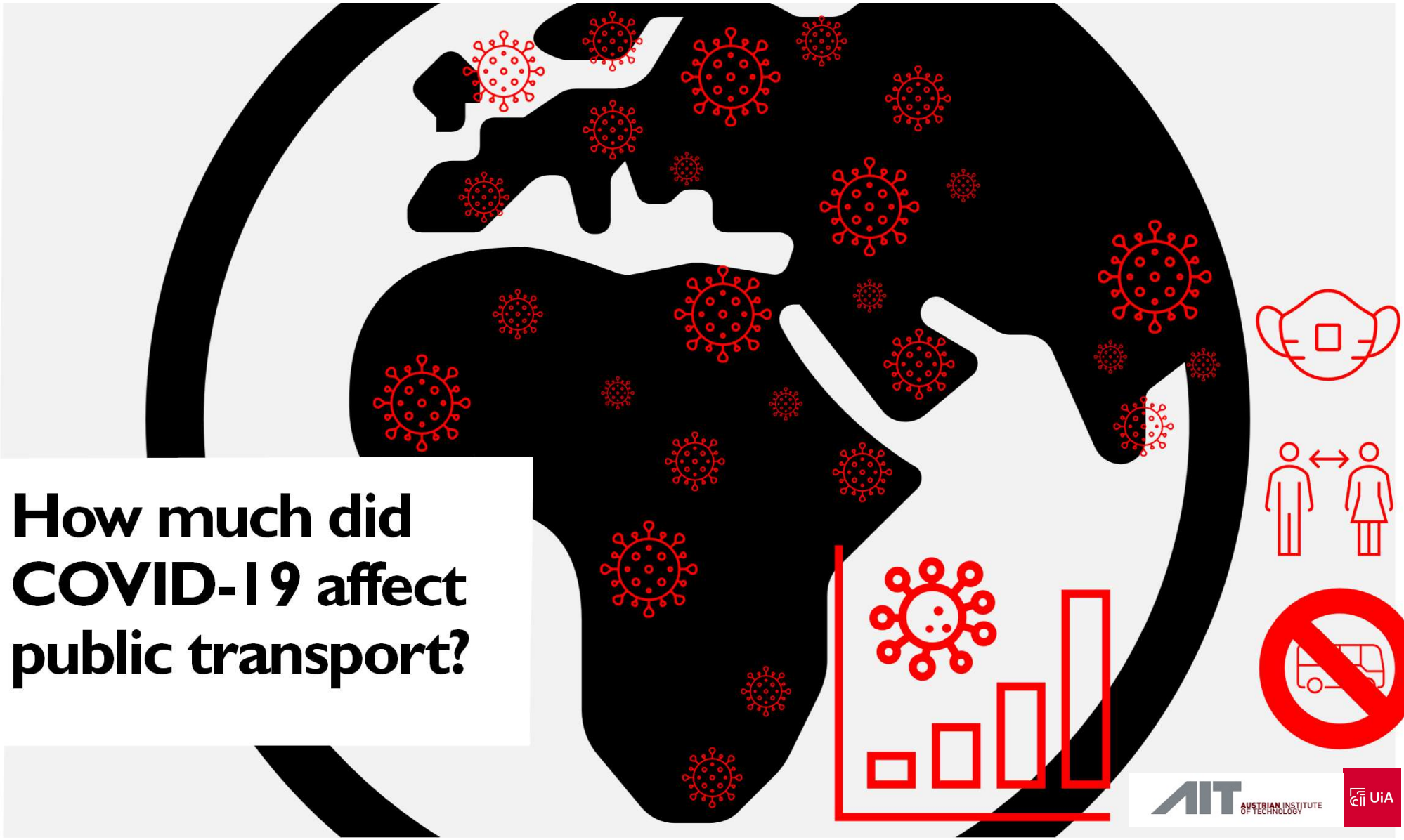
How much did COVID-19 affect public transport?



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One Europe, many rules…

- How did different European countries manage the pandemic?
- Were the regulations effective?
- How was public transport affected?

- Similarities and differences between two European countries: Austria and Norway

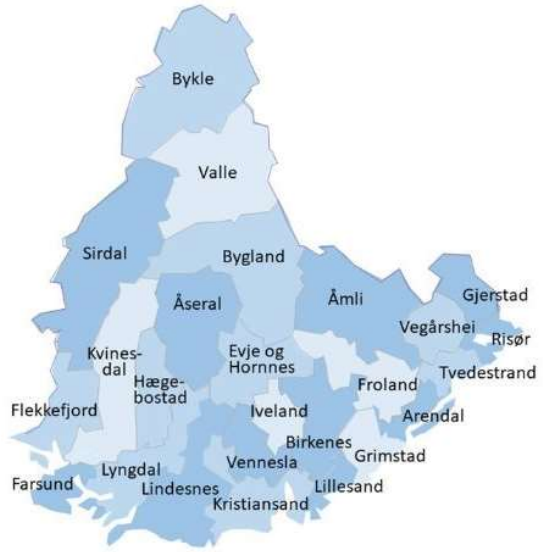
  - regulations

  - impact on patronage in urban settlements of different sizes

  - lessons learned

Networks of small cities and towns

Agder Norway



Approx. 300 000 inhabitants

18.25 persons/km2

Kristiansand – 112 000 inhabitants

Greater Innsbruck Austria

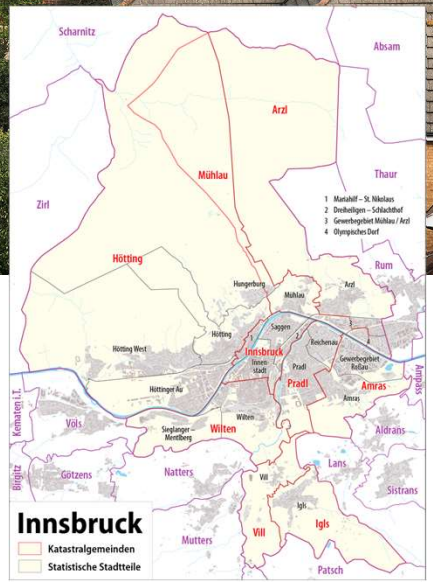


Image source: https://en.wikipedia.org/wiki/Innsbruck#/media/File:Karte_Innsbruck_-_Katastralgemeinden_und_Statistische_Stadtteile.png

Approx. 300 000 inhabitants

Denisty of 2 859 persons/km2

Innsbruck city – 132 000 inhabitants

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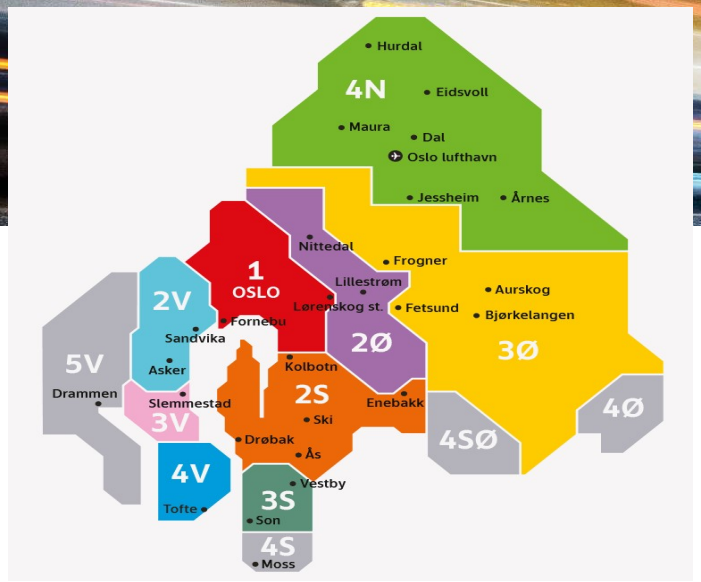
European metropolises

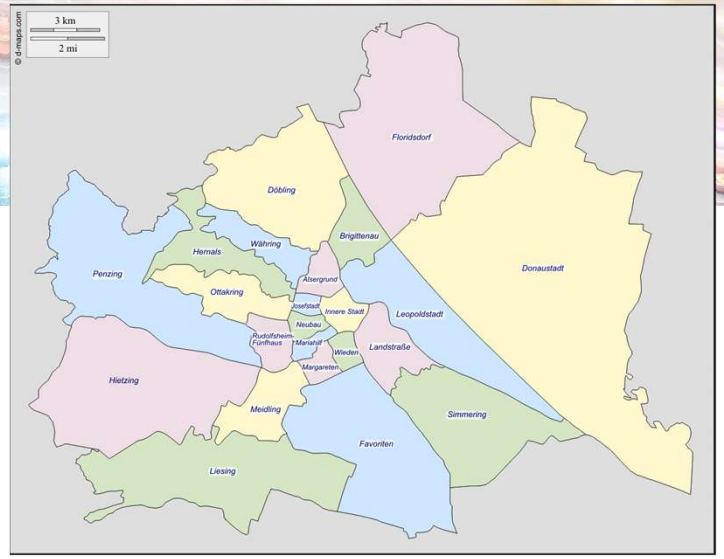
Oslo Norway



1 million inhabitants

2 347 persons/km2

Vienna Austria

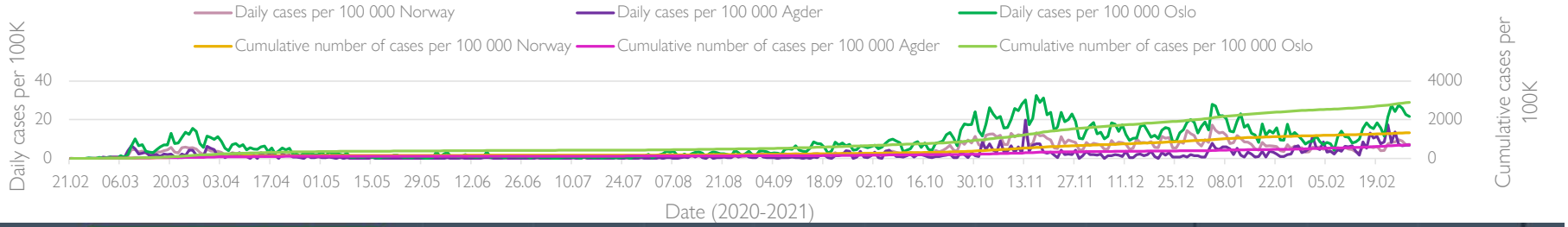


2.87 million inhabitants

6 925 persons/km2

https://www.vienna-unwrapped.com/vienna-districts-best-neighborhoods/

NORWAY



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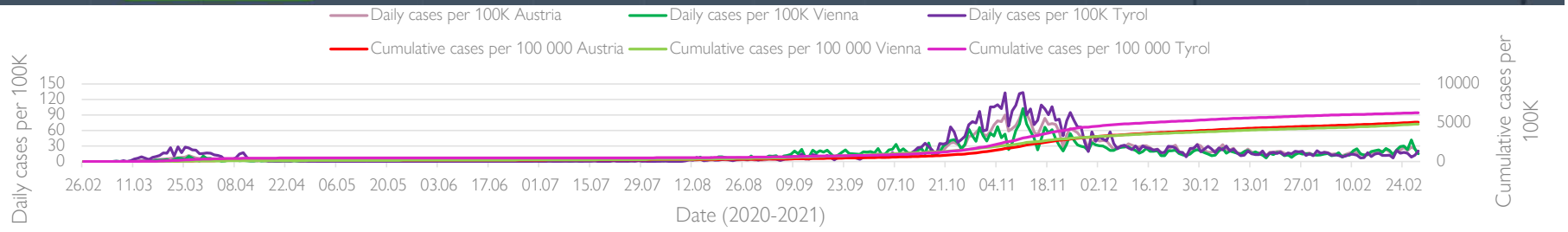

Public transport measures

NORWAY

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Deep cleaning
Automated door opening
No tickets sold onboard

Use PT only if necessary

Physical marking of blocked seats

Masks in Oslo

Avoid PT for weekend trips and leisure

Masks in Agder

feb mar apr may jun jul aug sep oct nov dec jan feb mar

2021

Masks in Tyrol and Vienna

Masks in Vienna

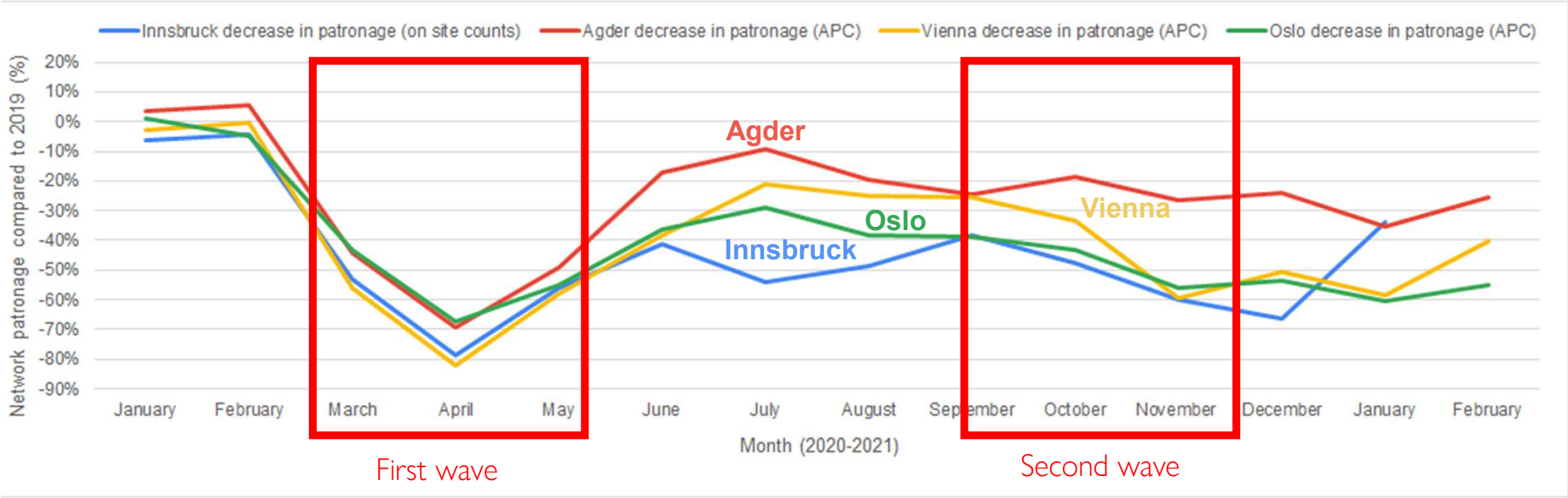
Free parking
Reduced schedule

Masks in Tyrol

FFP2 Masks in all Austria

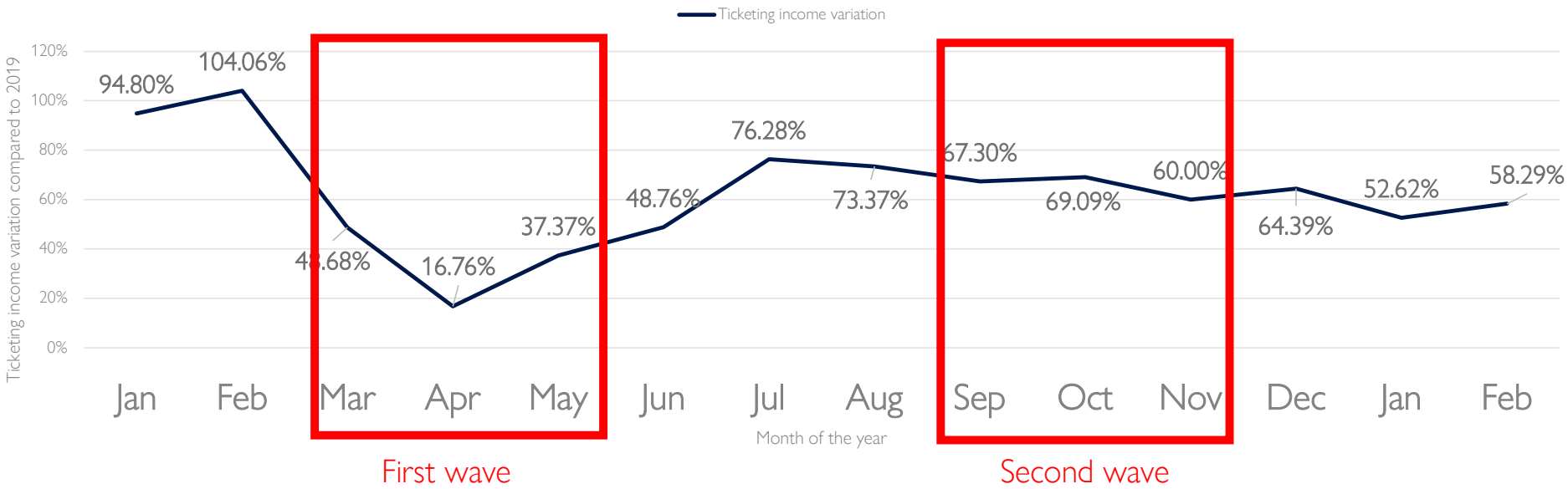
Deep cleaning
Automated door opening

Patronage variations



Data provided by: Agder Kollektivtrafikk (Agder), Ruter (Oslo), AVB (Innsbruck) and Wiener Linien (Vienna).

Monthly ticketing income variation Agder



Conclusions

- No one size fits all recipe exists.
- Low density small urban areas show faster recovery in patronage
- The impact of the “fresh fear” and “lingering fear” effect should be planned for in the future
- Data on mode choice shifts - essential to understand reasoning behind renouncing public transport

- Main limitation - availability of detailed, standardized data sets
- Gap in research on wearing facial masks and the perception of safety from contagion in public transport

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THANK YOU!

Full study available at link below:

https://www.sciencedirect.com/science/article/pii/S259019822100083X?via%3Dihub