

Impact of COVID-19 lockdown on commuting, a multi-country perspective

CiviNet SLO-CRO-SEE Webinar „COVID-19 as a catalyst for change in sustainable transport planning“
Zoom, 13.04.2021, 1000-1300h

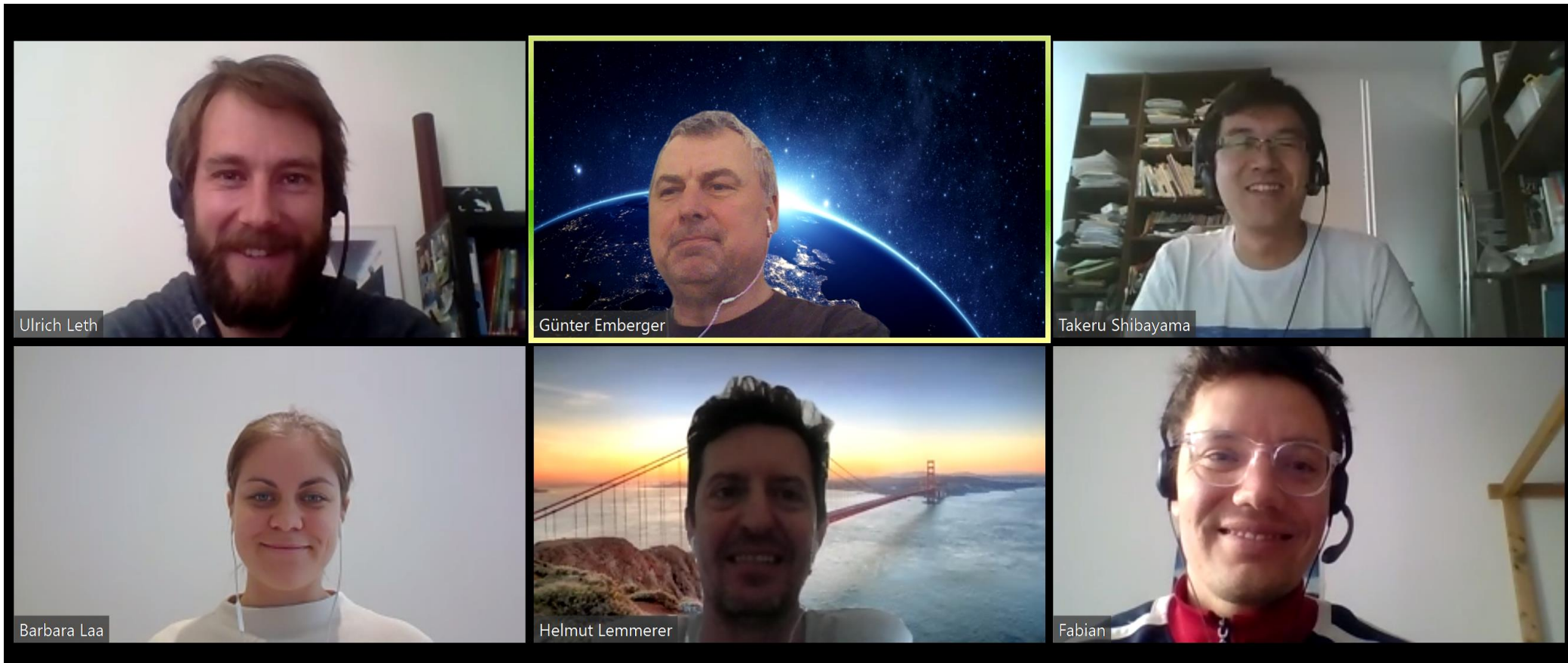
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Focus on: trips to/from places of work, education and grocery shopping
Team for design & analysis

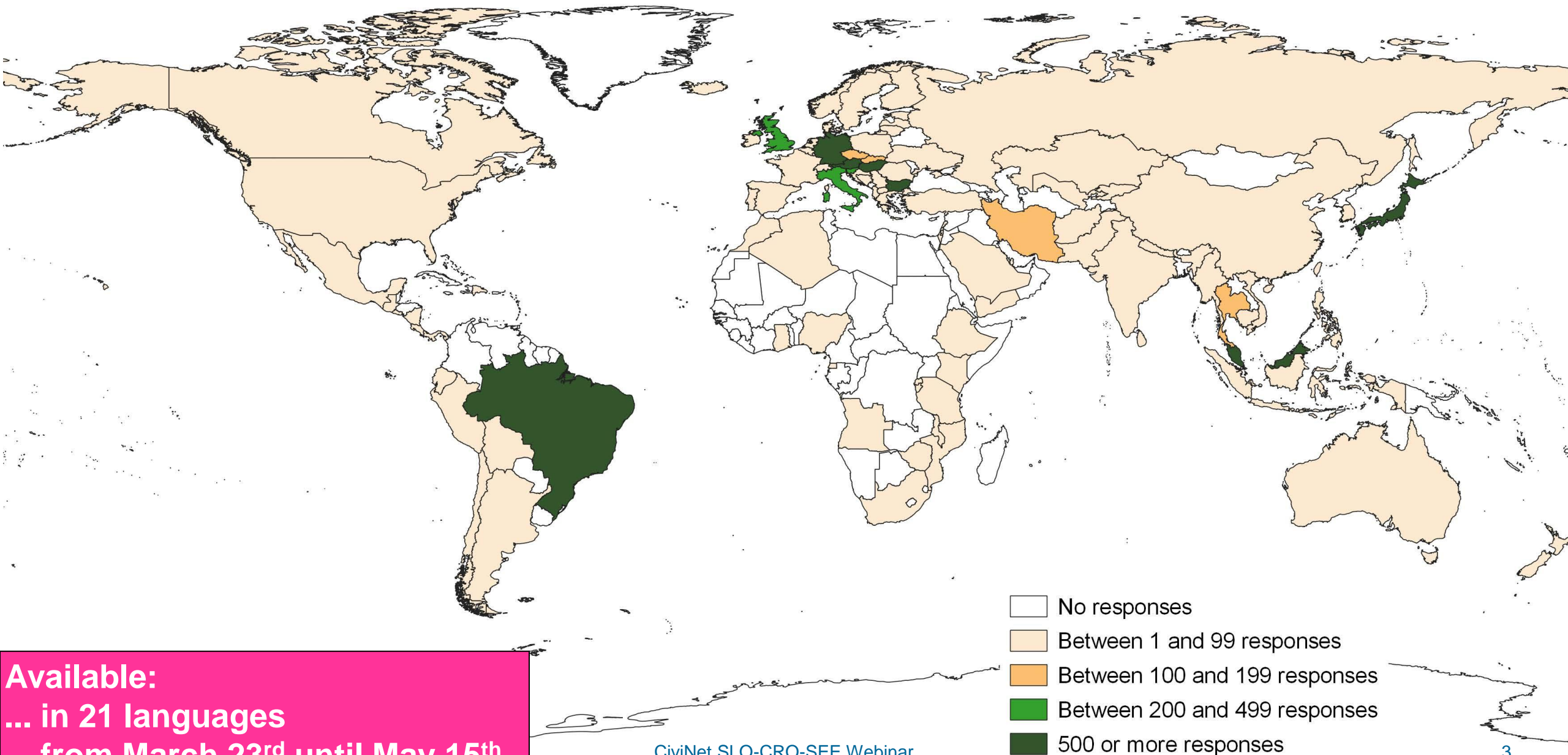


Melissa Kapfenberger



Tadej Brezina

Worldwide participation



Available:
... in 21 languages
... from March 23rd until May 15th

Sample size

- 102 different countries
- $N = 11,555$
- $n_{CRO} = 47$
- $n_{SRB} = 11$
- $n_{MKD} = 3$

Top-14

Austria	3,256
Hungary	1,955
Japan	1,044
Malaysia	821
Germany	644
Brazil	642
Bulgaria	622
Slovenia	415
Italy	269
United Kingdom	259
Iran	183
Slovakia	148
Thailand	145
Czech Republic	121

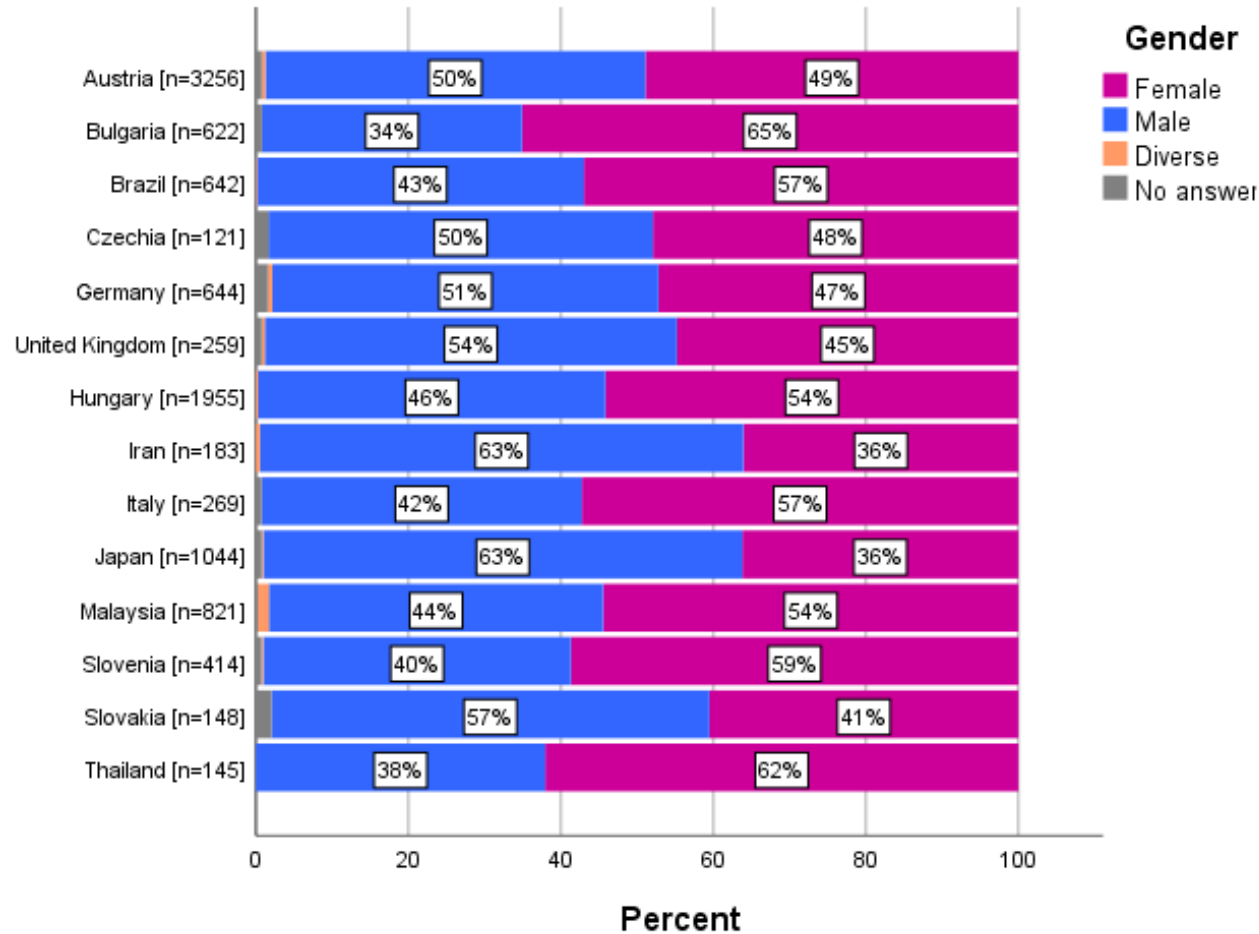
Bottom-11

Bosnia & Herzegovina	1
Mozambique	1
Nigeria	1
Nicaragua	1
Palestine	1
Qatar	1
San Marino	1
El Salvador	1
Tanzania	1
Yemen	1
Zimbabwe	1

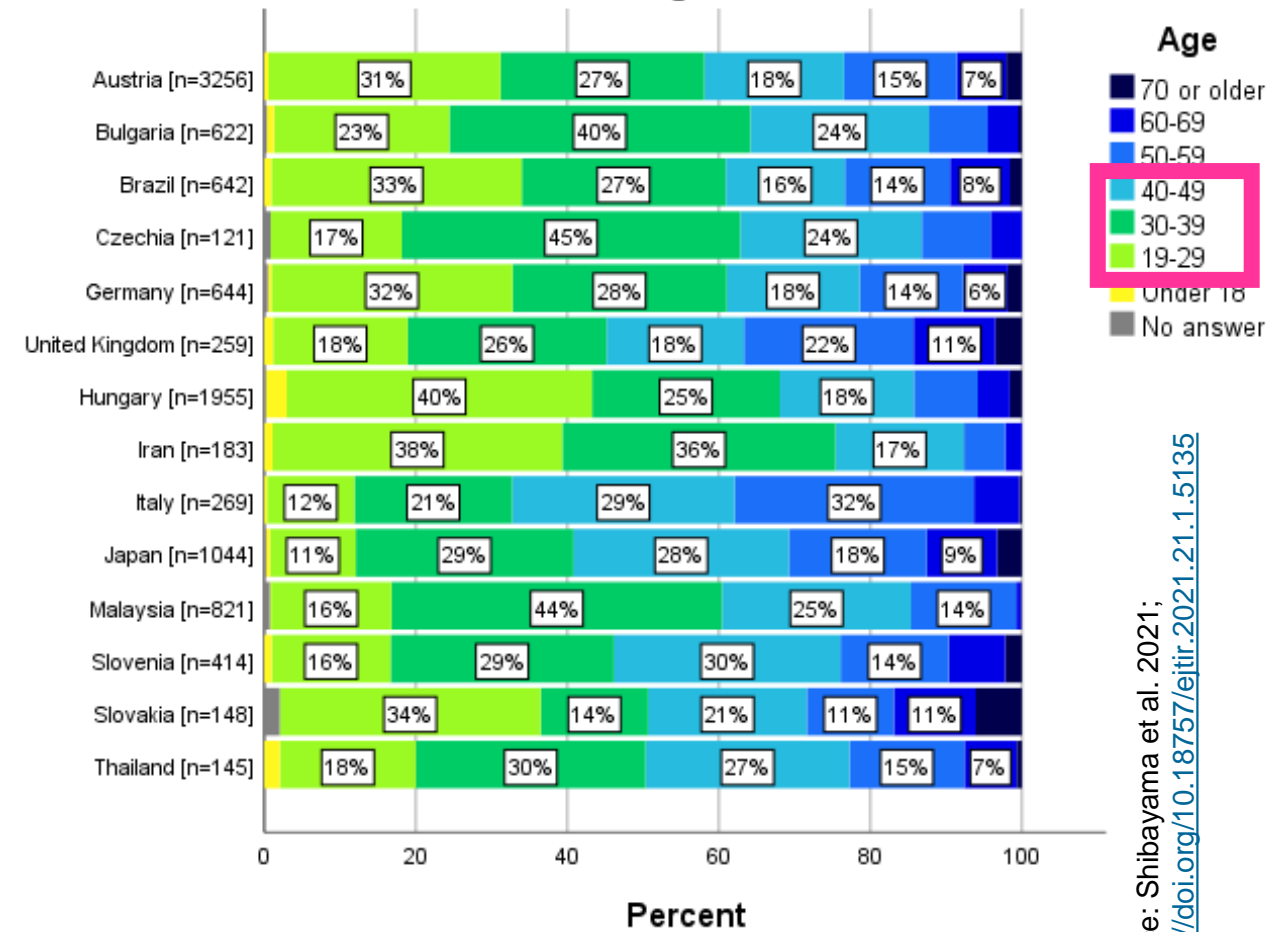
Top-14: Gender and age



Gender

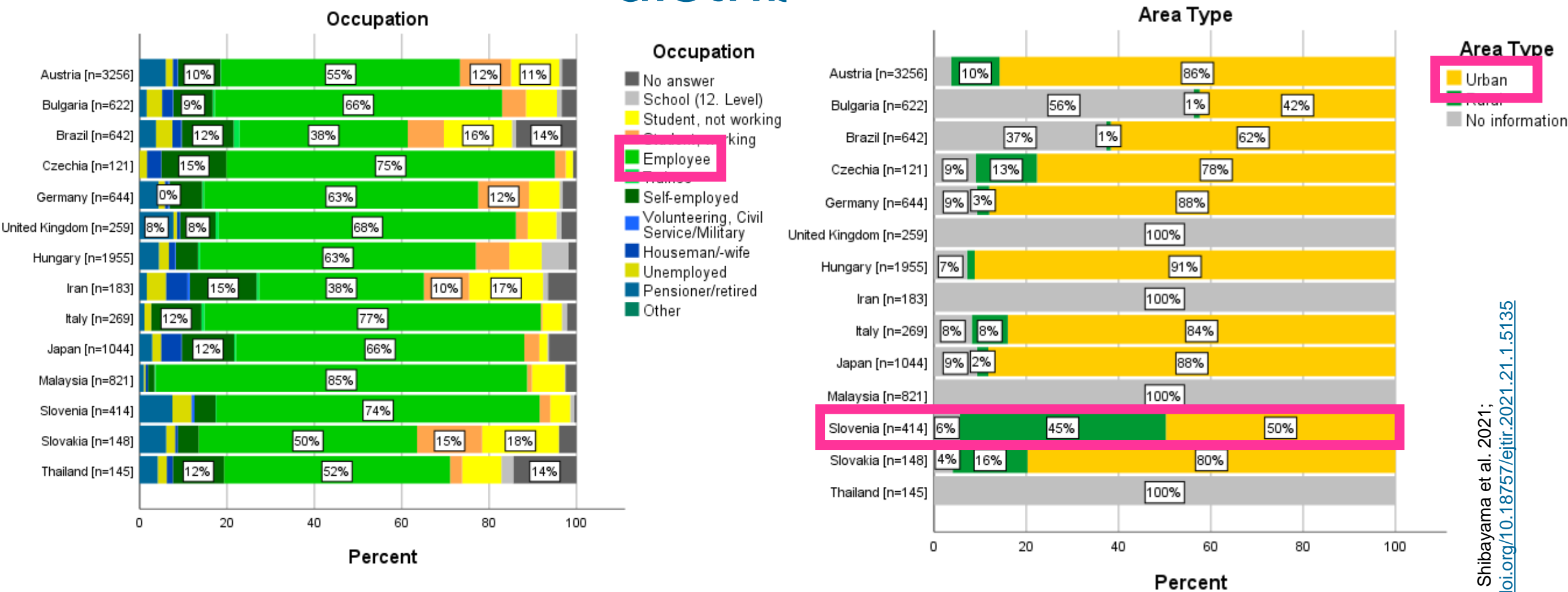


Age



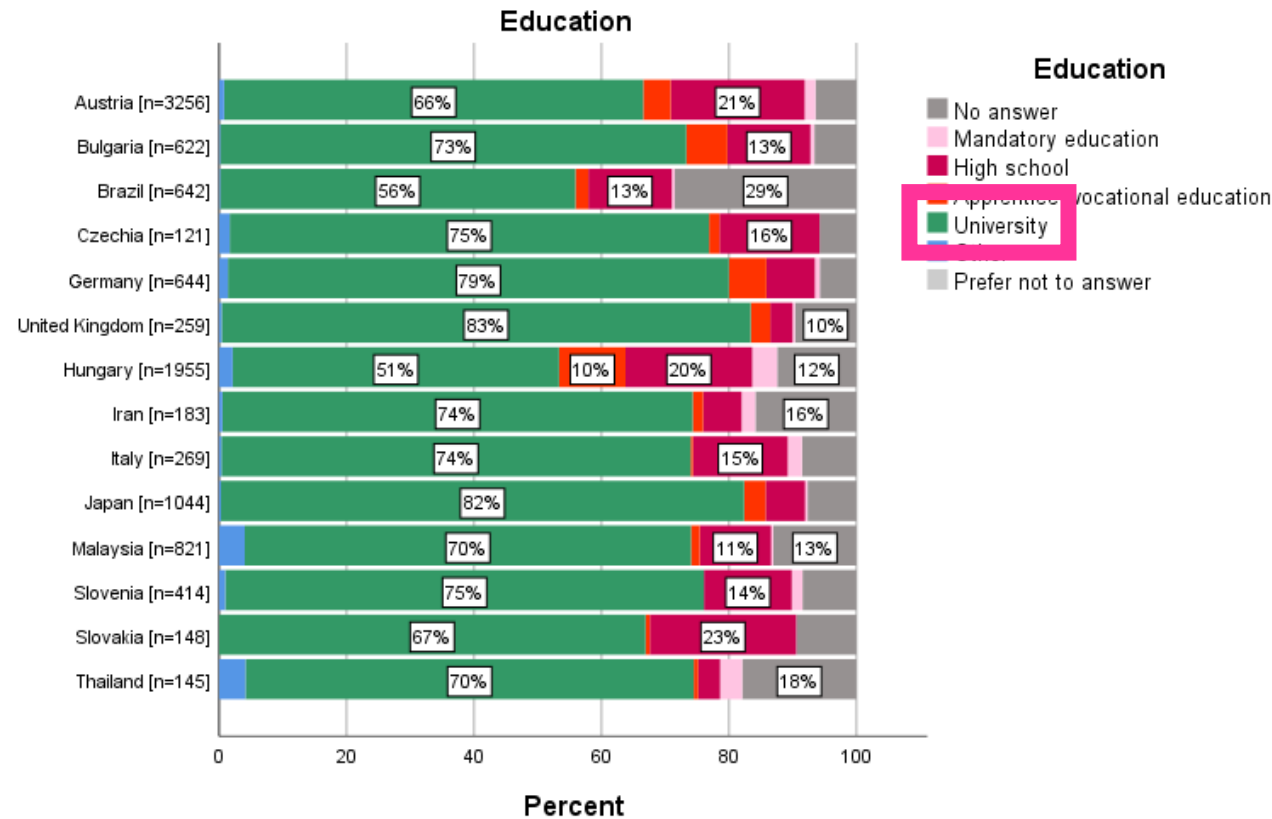
Source: Shibayama et al. 2021;
<https://doi.org/10.18757/ejtr.2021.21.1.5135>

Top-14: Occupation and spatial distribution



→ Geographically classified analysis

Source: Shibayama et al. 2021;
<https://doi.org/10.18757/ejtr.2021.21.1.5135>



Summary

- **Balance** between **male** and **female** respondents, with some biases:

- E.g. Japan: > 55 % male

- **Young** respondents

- **University degree**

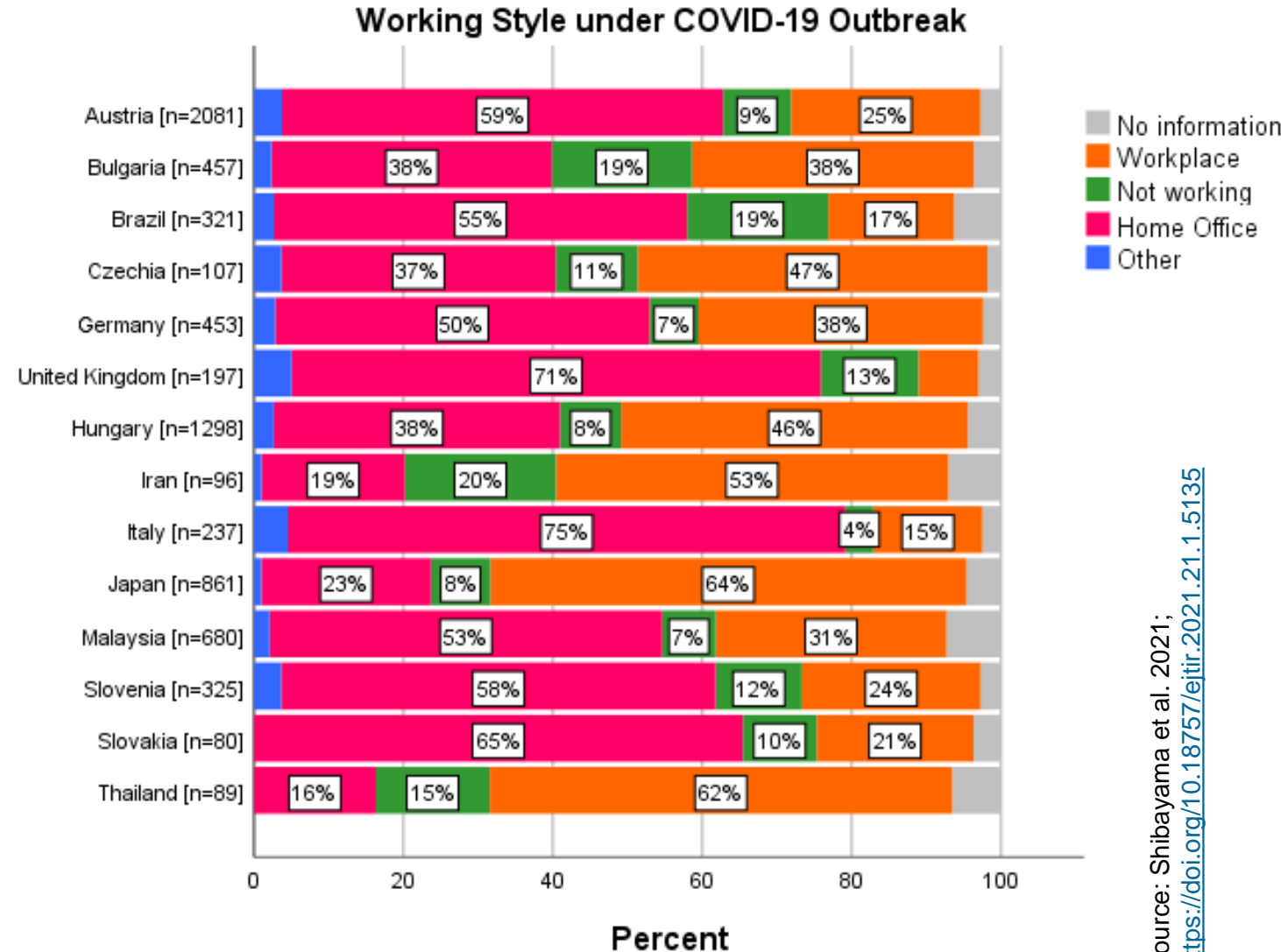
- **Urban** respondents

- **Employees**

Commuting (among employees)



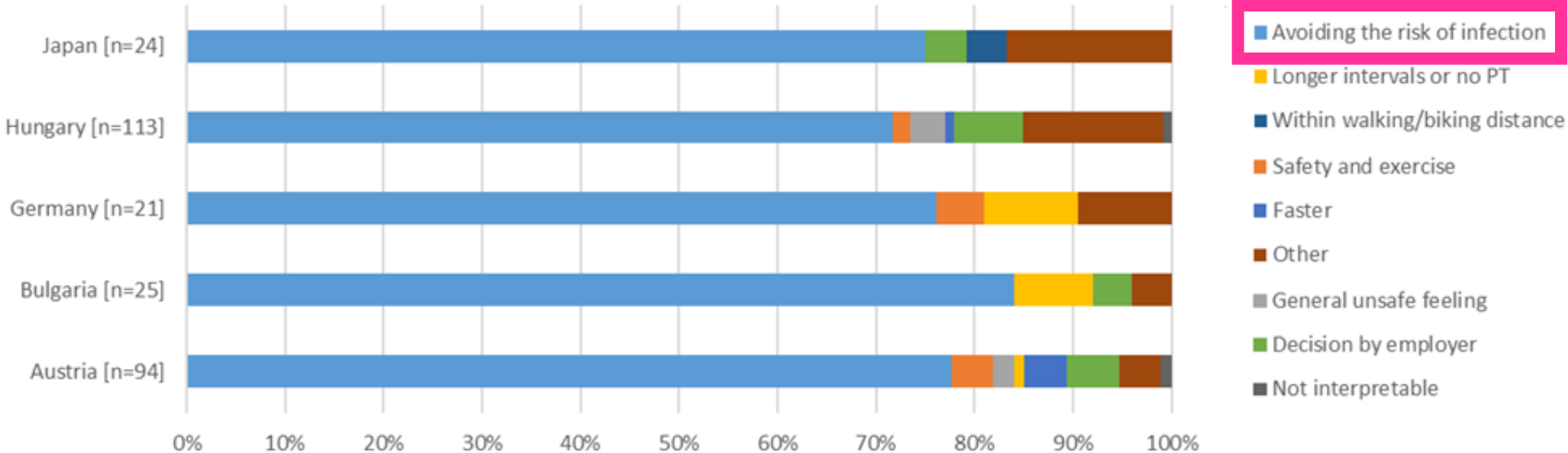
- **Home office**
 - 40-60 % in many countries
 - High percentage in UK and Italy
 - Low in Japan and Thailand
- **Commuting**
 - High in Japan and Thailand
- **Not working**
 - High in some countries



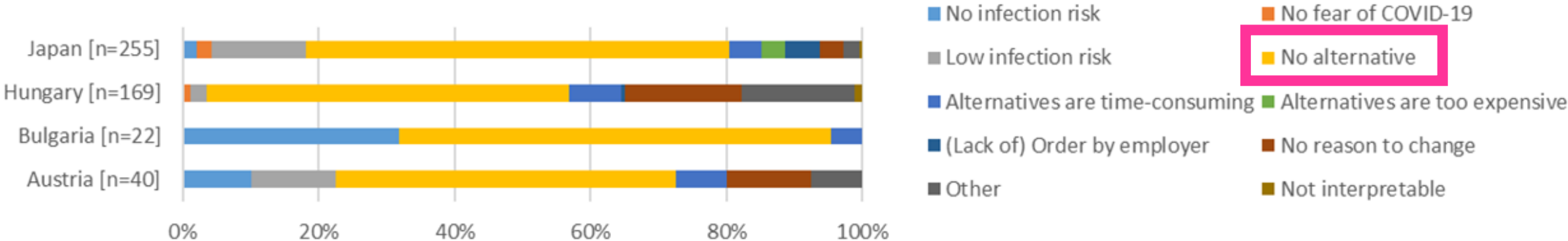
Source: Shibayama et al. 2021;
<https://doi.org/10.18757/ejtr.2021.21.1.5135>

Change from PT to other modes

PT to other modes



Continue to use PT



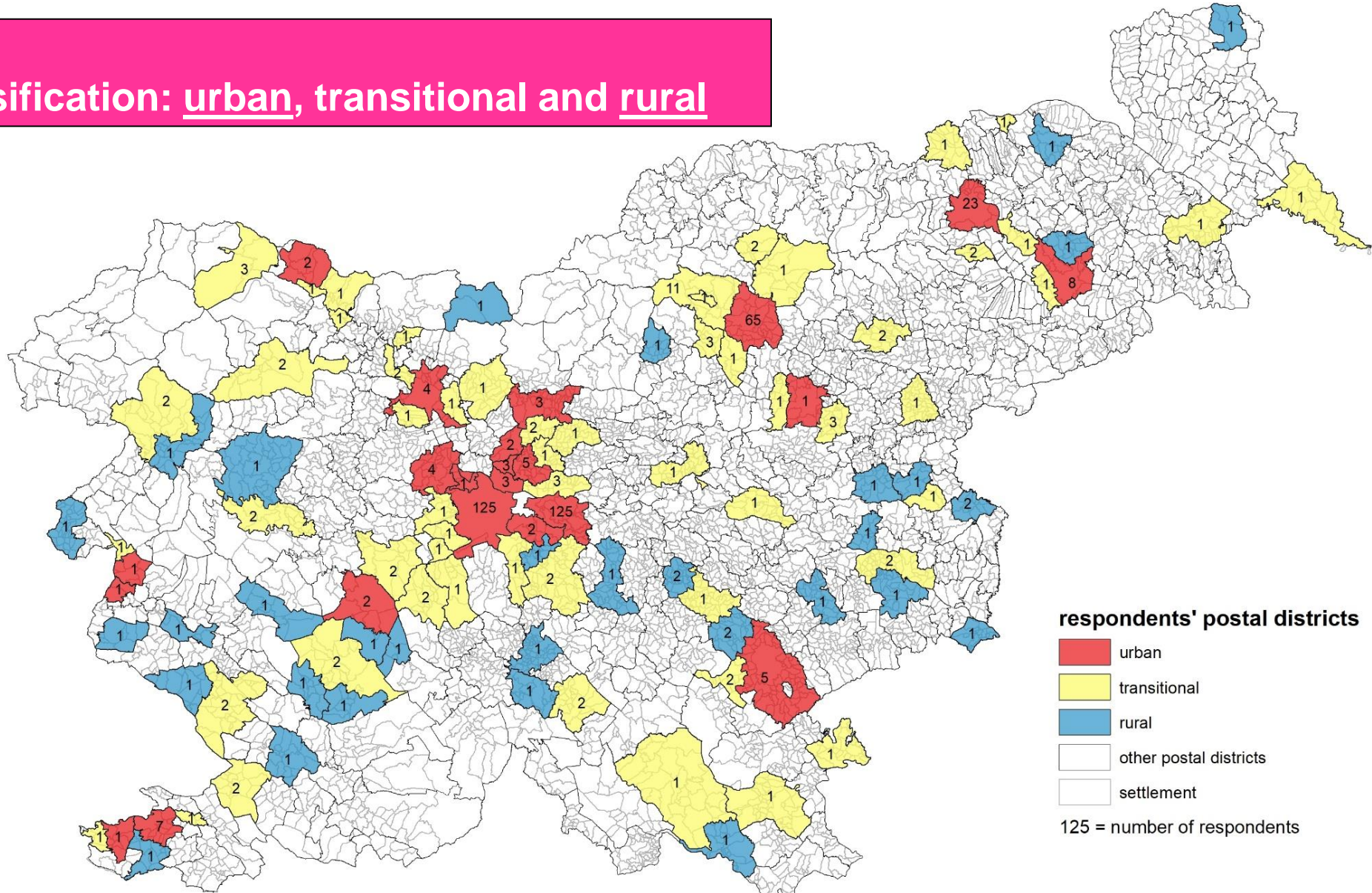
Source: Shibayama et al. 2021;
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SLO: Results by geography



n = 415

Spatial classification: urban, transitional and rural

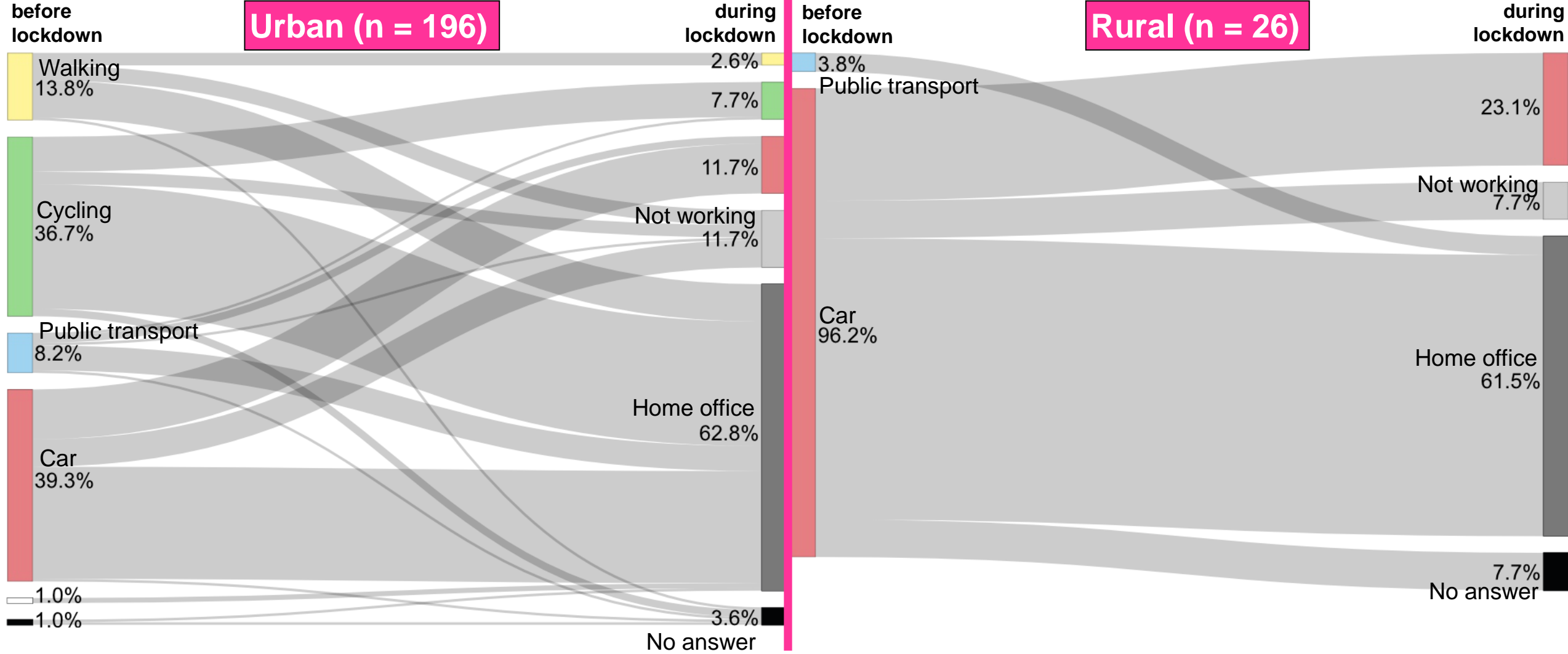




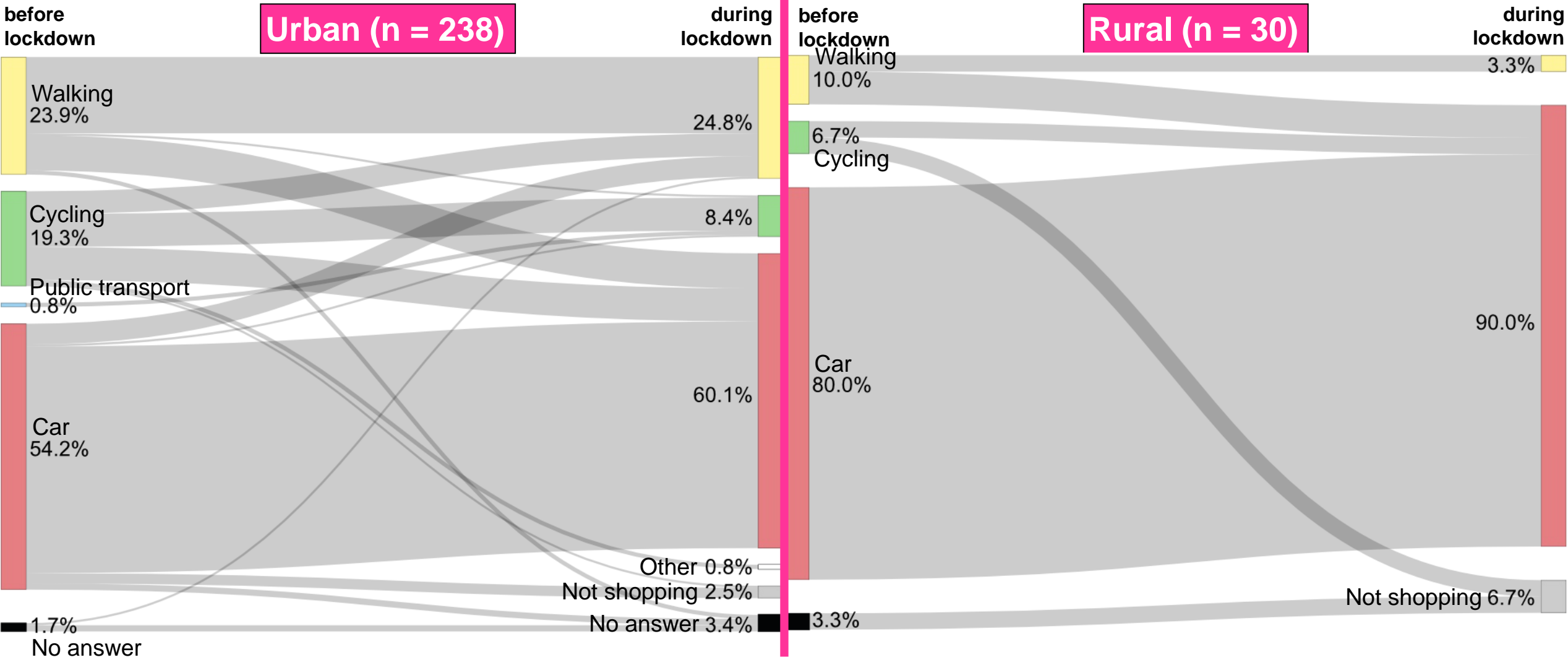
Sankey diagrams

Urban (n = 196)

Rural (n = 26)

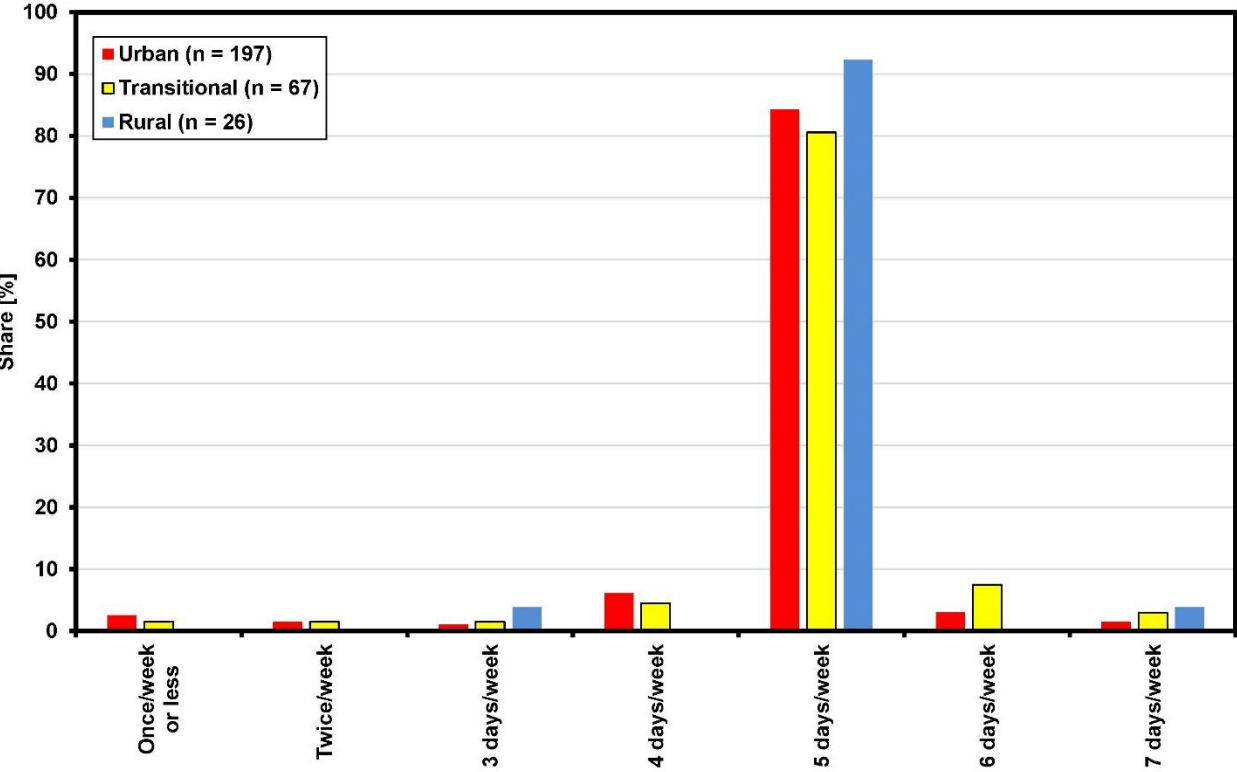


Sankey diagrams



Before

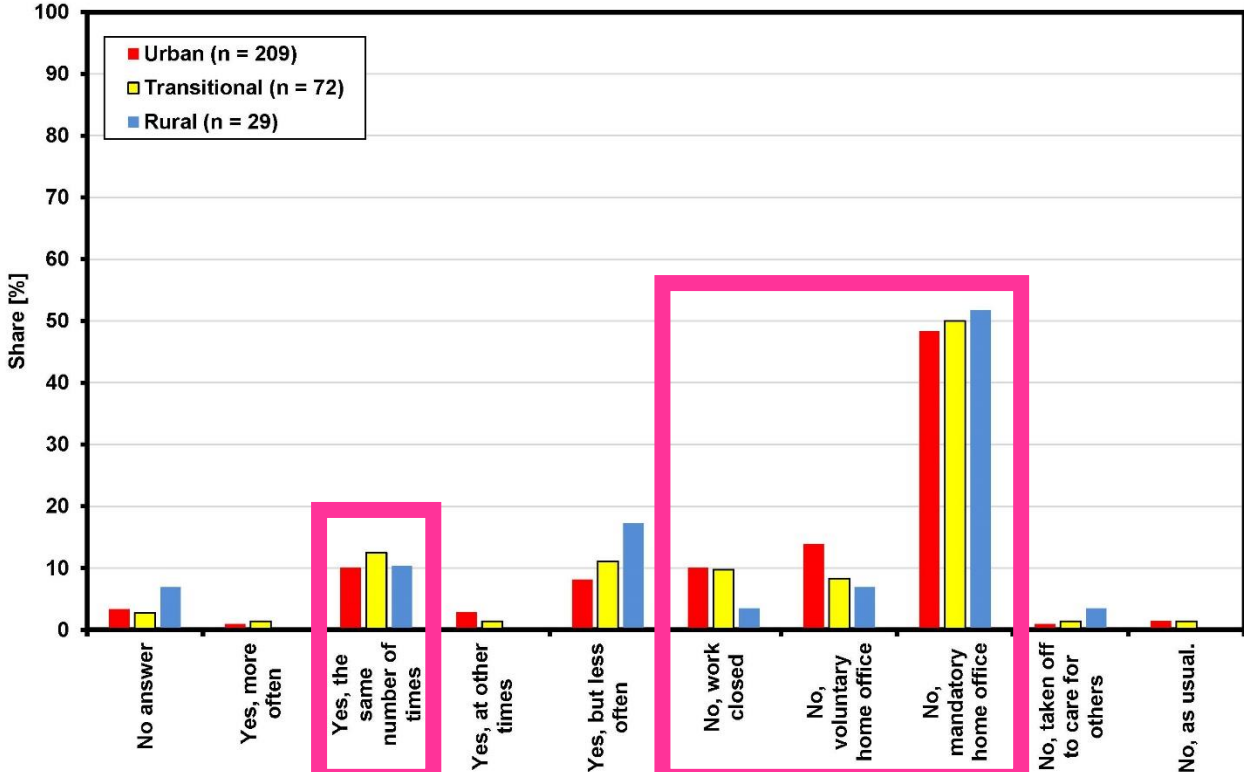
Commuting frequency before COVID-19



**80-90 %
5 days/week**

During

Commuting under COVID-19 lockdown



**~10 %
same**

**~70 %
not commuting**

- 21 languages → capturing changes in comm. mobility in 14+ countries
- Results confirm: home office used more often with more affine workplaces, such as office workers and teachers
- Home office possible: typically for 40 to 60 % of workers (if strong measures imposed)
- Commuters who change from public transport to others, most often mention reason: infection risks in PT
- COVID-19 pandemic demonstrated: within a few days or weeks, human mobility behaviour can be adapted to (health care) requirements
- SLO, outside urban areas: Lockdown policies in SLO highlighted car dependency and the need for strong sustainable alternatives

- Research center blog: <http://blog.fvv.tuwien.ac.at>
 - Results & publications
 - Link to Open-Access data set
- Feel free to analyse the OA data yourself!
- Article together with T. Shibayama, F. Sandholzer and B. Laa in **European Journal of Transport and Infrastructure Research**
<https://doi.org/10.18757/ejtir.2021.21.1.5135>
- Article together with B. Laa, M. Ogrin and J. Tiran in **Acta Geographica Slovenica** (under review)



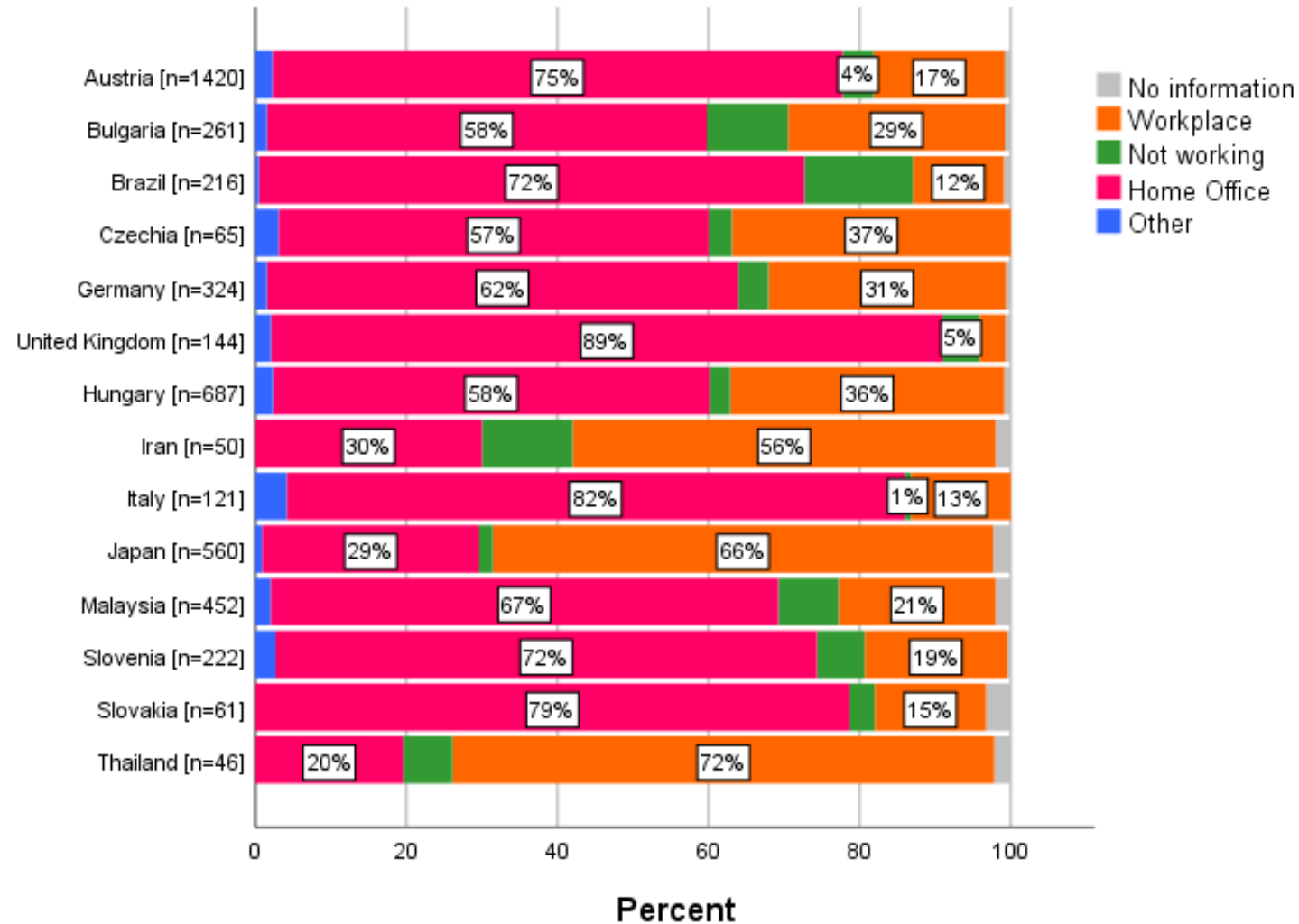
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- Workplace type that can be transferred to home office with ICTs
 - Office, lecture rooms, etc.
- **High % of home office**
 - In particular, UK, Italy, Slovakia, Austria
- **Low % in commuting**
 - Except for Japan, Thailand, Iran
- **Low % in not working**
 - Slightly higher in Brazil, Iran

Work Style under COVID-19 Outbreak [Workplace Type: Home Office Possible]



- **On-premise work**
 - Shops, customer counters, factory, warehouse, farms, etc.
- **Low % in Home Office**
 - Except for Italy
- **High % in commuting**
 - Japan, Thailand, Hungary, Czech Republic
- **% in Not-working**
 - Higher compared to “Home Office Possible” group

