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Experimental statistics with Hungarian Telekom data



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Utilization of mobile cell data

- Handbook on the Use of Mobile Phone Data for Official Statistics;
<https://unstats.un.org/bigdata/task-teams/mobile-phone/MPD%20Handbook%2020191004.pdf>
- Mobile positioning data used in research and pilots applicable for statistics
 - **Tourism and event statistics**
 - Population statistics
 - **Migration statistics**
 - Commuting statistics
 - Traffic flow statistics
 - Employment statistics on border and seasonal workers
- Experiences of members of the European Statistical System (ES, NL)

Hungarian Telekom



- Three mobile telephone provider in Hungary
- Hungarian Telekom affiliate of German Telekom
- Market share of approx. 40 %
- Telekom ready to cooperate (Data Monetization Squad)
- Long process
- First datasharing: 2024

Scope of cooperation

- Internal migration
- International migration: entry / exit data
- Aggregated data
- Reference period of test data: May 2022 – April 2023
- Data of SIM cards in cell phones, other type of phones or tablets
- Duration of stay variable: 7 different values (14+ highest)
- For internal mobility: value < 1 (no data between 12 am and 4 am) & data 14+ are available for use

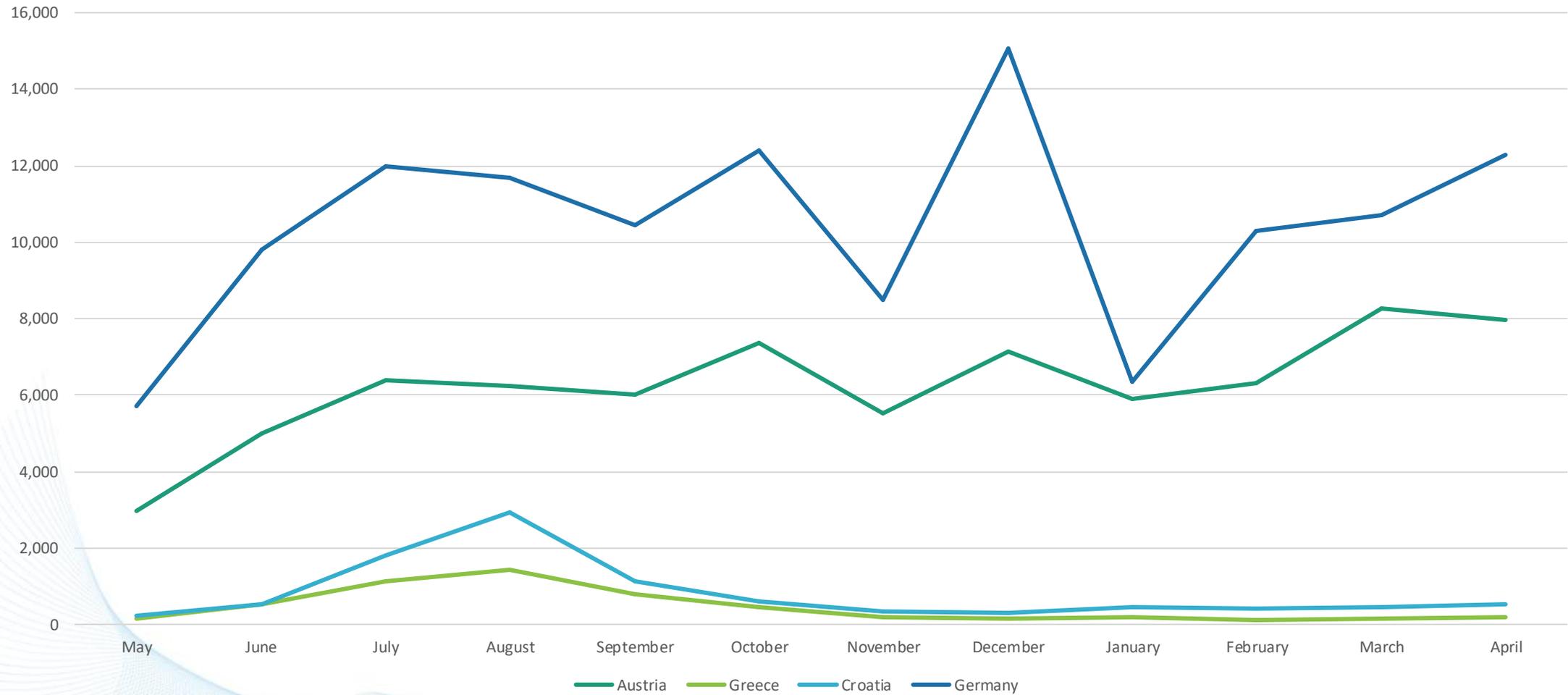
Experience

- Benefits of project
 - building cooperation between privately held data owners and official statistics
- Limitation of data
 - coverage issue (only Telekom data are available)
 - one person can own more than one SIM card
 - purchase of cell phone from local provider
 - Base Station Subsystem coverage (close at border)

Future plans

- Cooperation with privately held data owners
- Incorporate data of other mobile providers
- Use for official statistics?
- Validation of official statistics
- Publication as experimental statistics
- Duration of stay extended categories

Outflow of Telekom SIM devices



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Thank you for your attention!

