

QUAINT project (Quantitative Analysis of Italian National Transport)
Long-distance passengers transport: market, planning, innovation

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Long distance travel patterns of rail users in Hungary - Findings of the new countrywide Origin- Destination (OD) Survey

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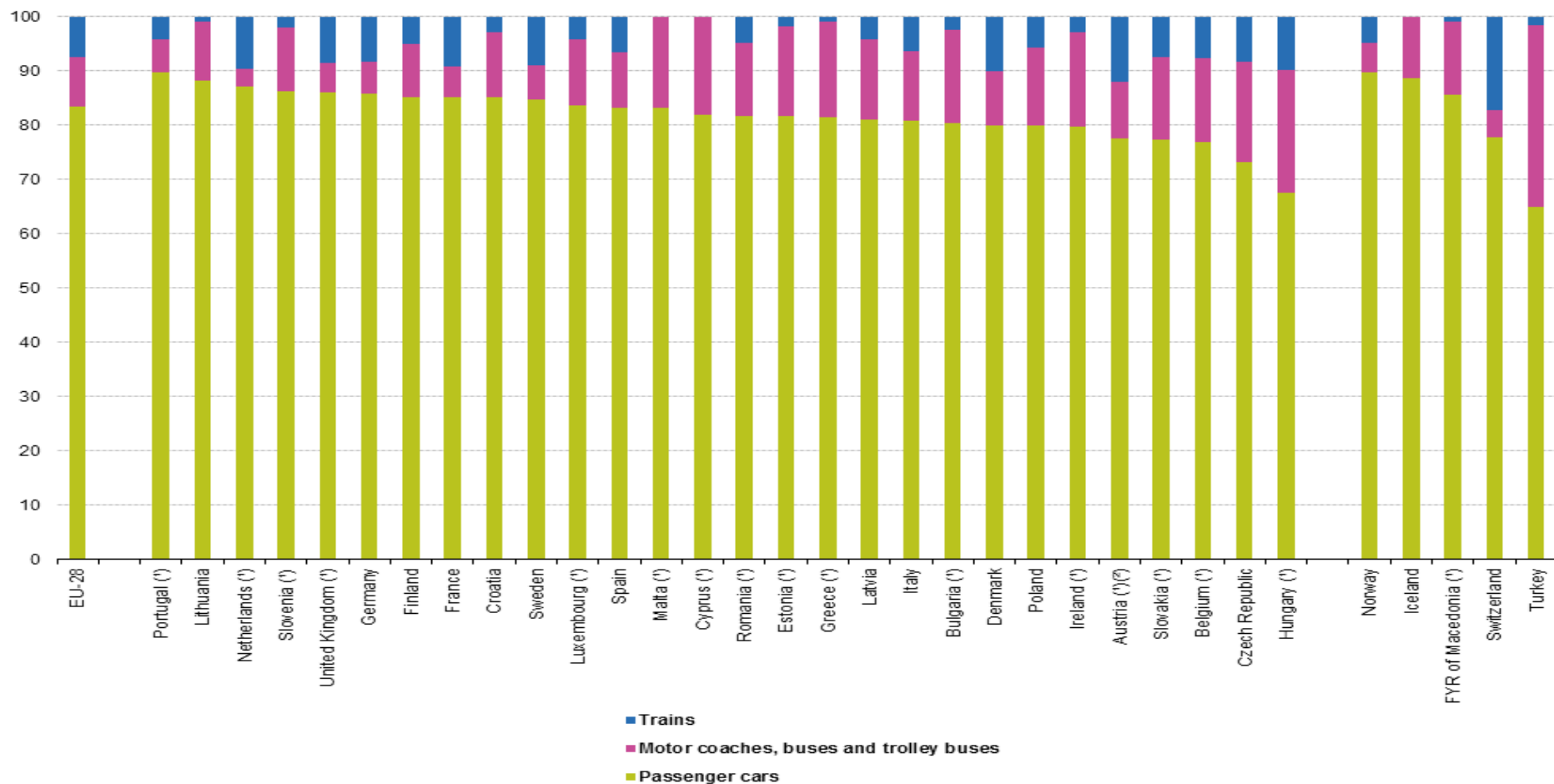


Long-distance definitions

Varies country to country

- Ranges from 50 till 160 kms
- In some survey not distance but time-based also not uniform
- This presentation based on Act XLI of 2012 about Passenger Service – **100+ km**

Transport modal split in Europe



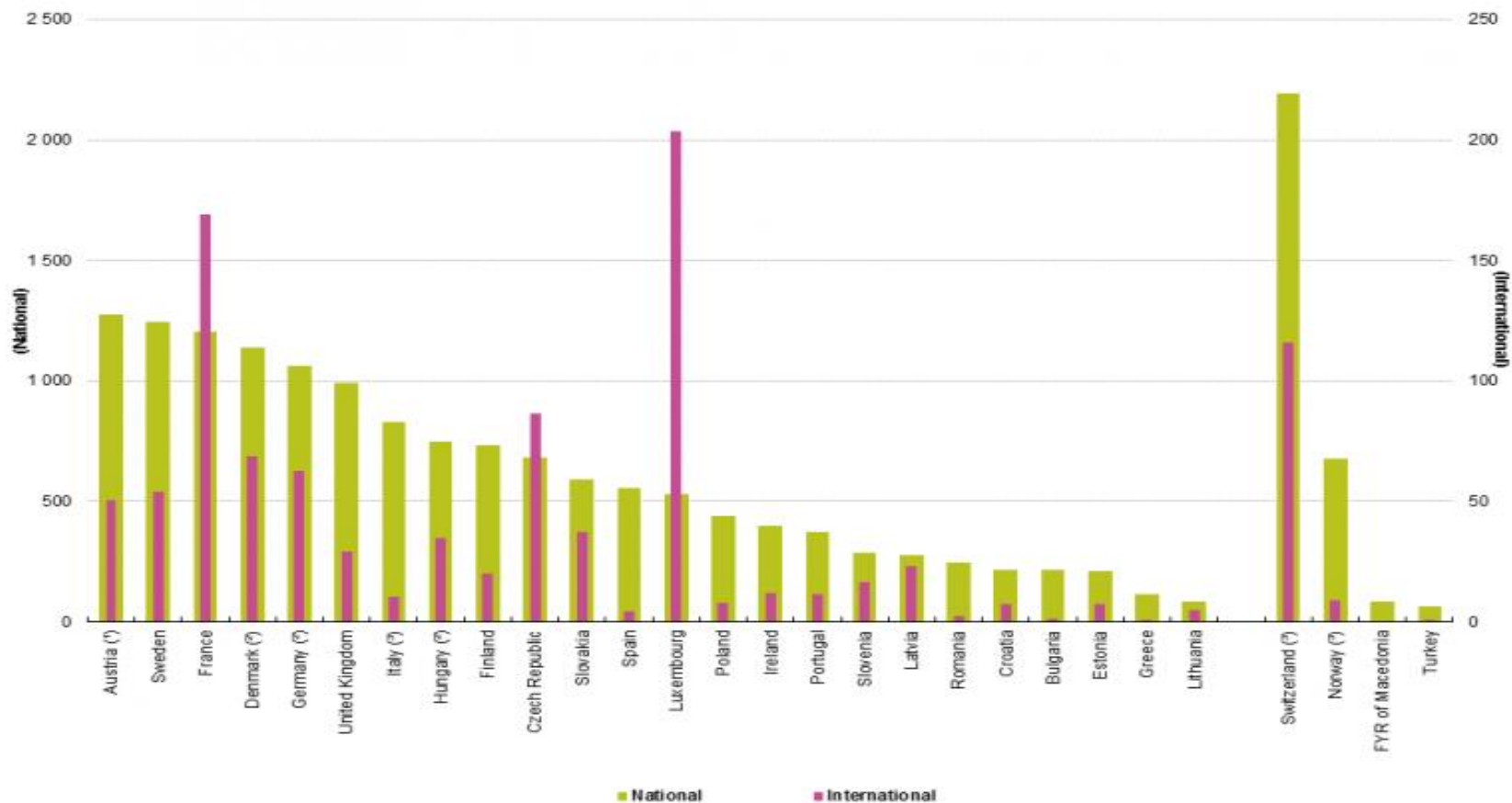
Note: excluding powered two-wheelers. Cyprus, Malta and Iceland: railways not applicable.

(*) Includes estimates or provisional data.

(*) The railway in Liechtenstein is owned and operated by the Austrian ÖBB and included in their statistics.

Source: Eurostat (online data code: tran_hv_psm0d)

Railway Performance per Capita in Europe



Note: Cyprus, Malta and Iceland: not applicable. Belgium and the Netherlands: not available.

(*) The railway in Liechtenstein is owned and operated by the Austrian ÖBB and included in their statistics.

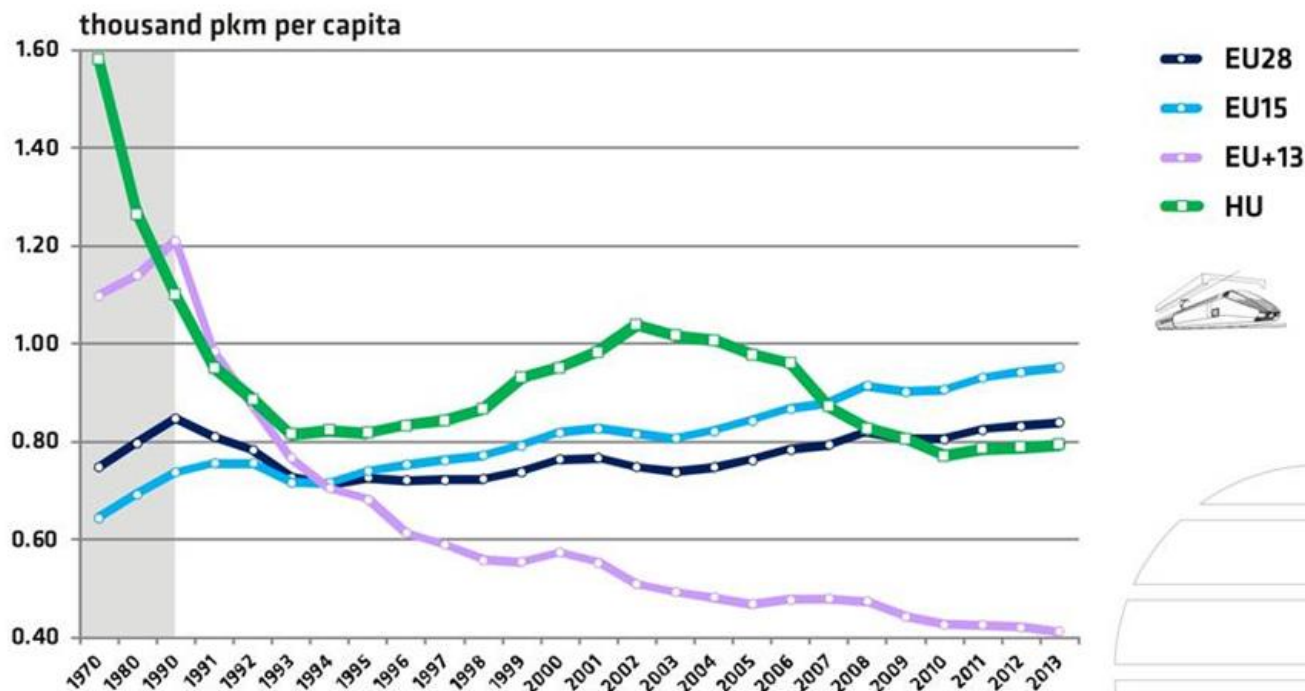
(*) 2014.

(*) Provisional.

Source: Eurostat (online data codes: rail_pa_typepkm and demo_gind)

Passenger railway performance between 1970 and 2013

Passenger Transport Performances per Capita in EU and Hungary
- RAILWAY



Data sources in Hungary

- OD Travel Survey (OCF) of Hungary in 2008 & 2016 (KTI)
- General data (Census commuting data from 2011, operator's performance) of Central Statistical Office (KSH)
- Mobility Surveys (KSH) from 2009 and 2012
- Travel surveys on road and rail transport
- Ticket/pass sales data from PT Companies

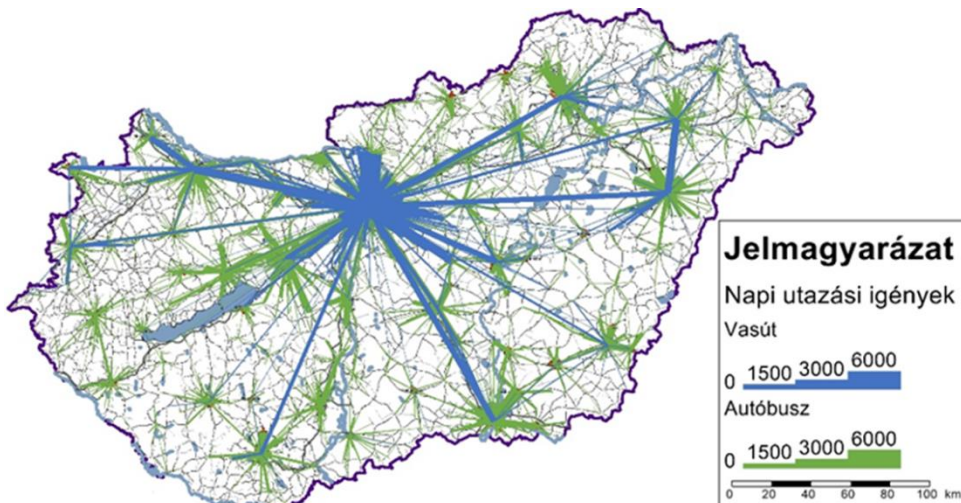
OD Travel Survey (OCF) of Hungary

- Includes all modes for both passenger and freight for an October weekday in 2016
- Rail passenger OD data elaborated from ticketing, on-board travel survey (N=33,733) ca. 7 % representative (slightly higher in regional and long-distance)
- Adjustment was necessary for pass users, socially free of charge passengers, Budapest pass users, aggregation to settlements

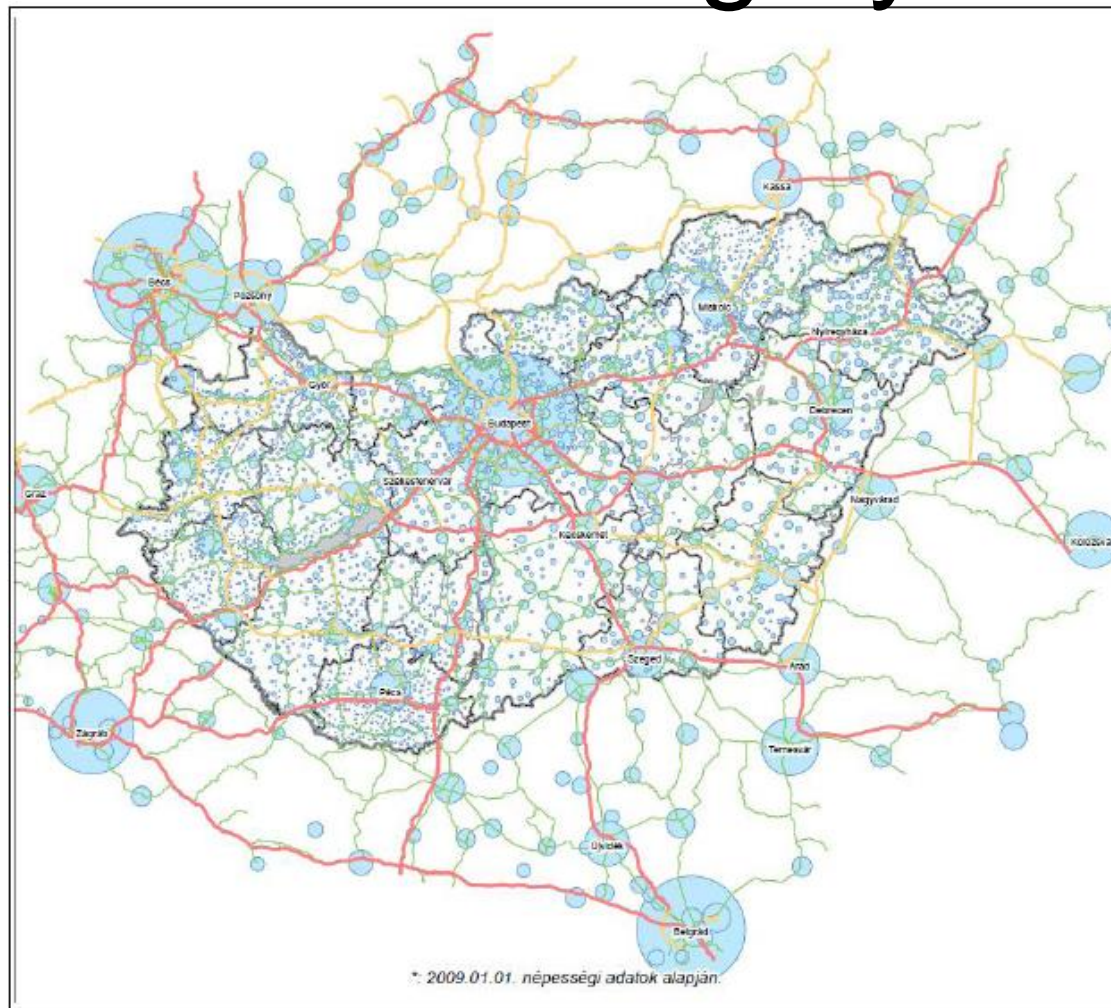
Long-distance rail users' share

- Based on the ticketing statistics 14.7 % travels over 100 km while 55.8 % under 30km

- Ca. 26k of 46k OD 100+ km
- 433 OD relations 10+ pass./workday/direction
- 294 OD relations (67.9 %) of them originates/ends in Budapest
- TOP30 with 200+ pass. Only Budapest related
- TOP75 with 100+ pass.

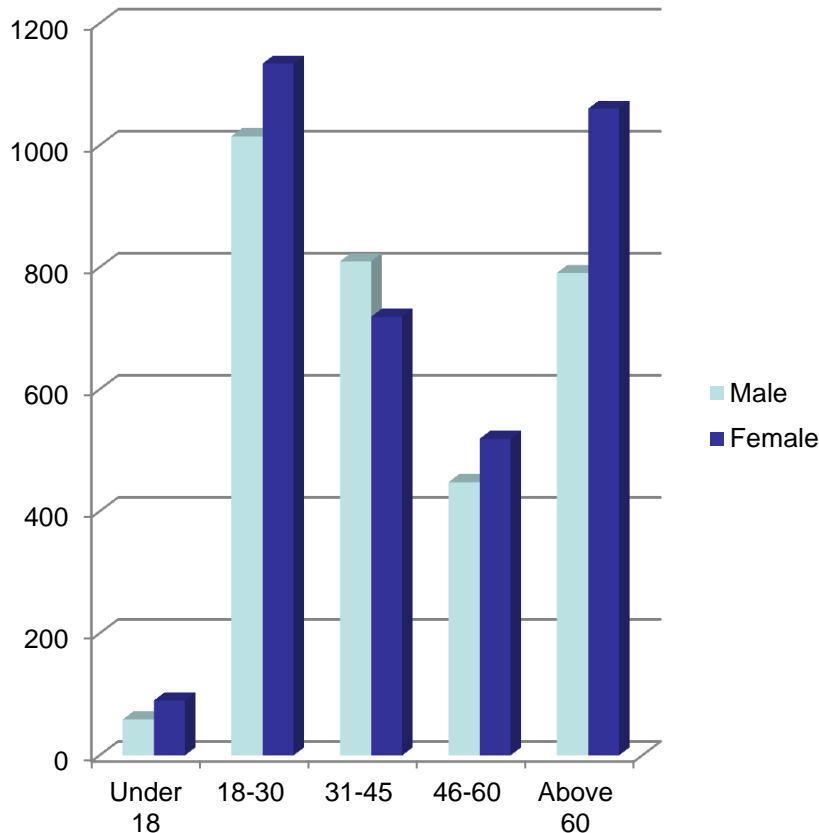


Population potentials in and around Hungary



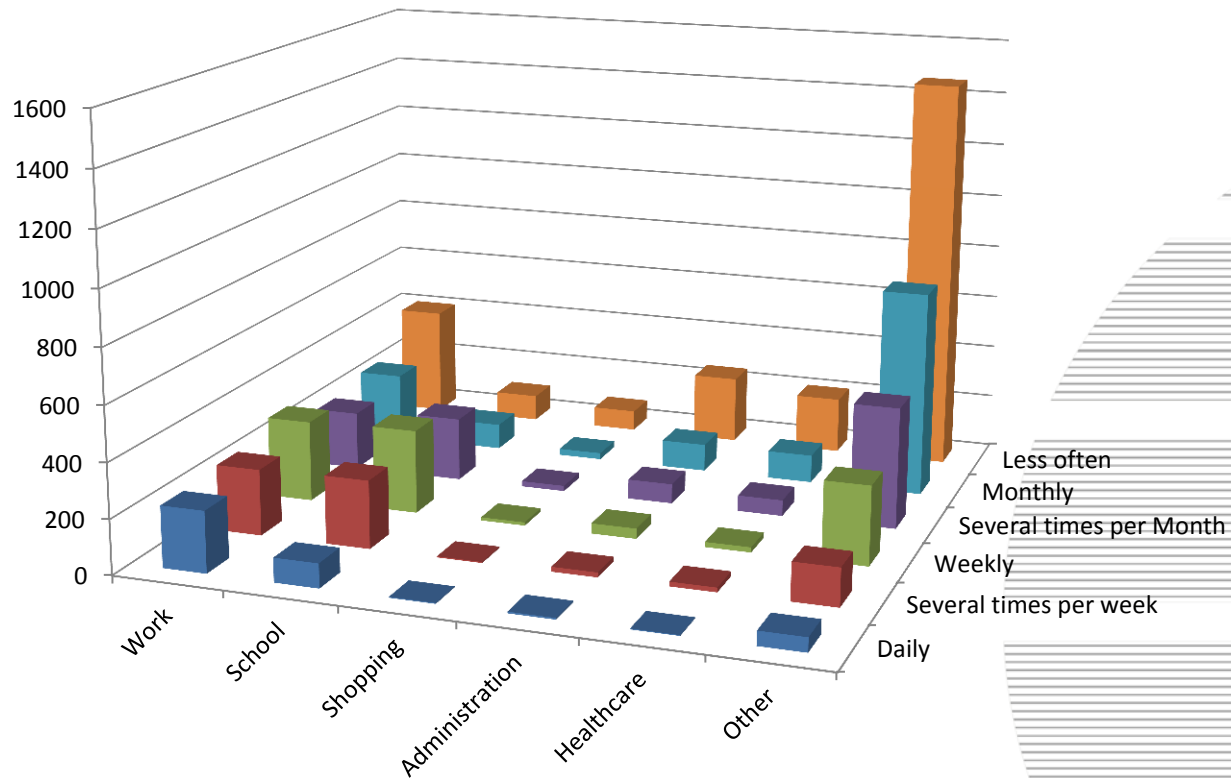
Source: MoT, 2009

On-board travel survey results

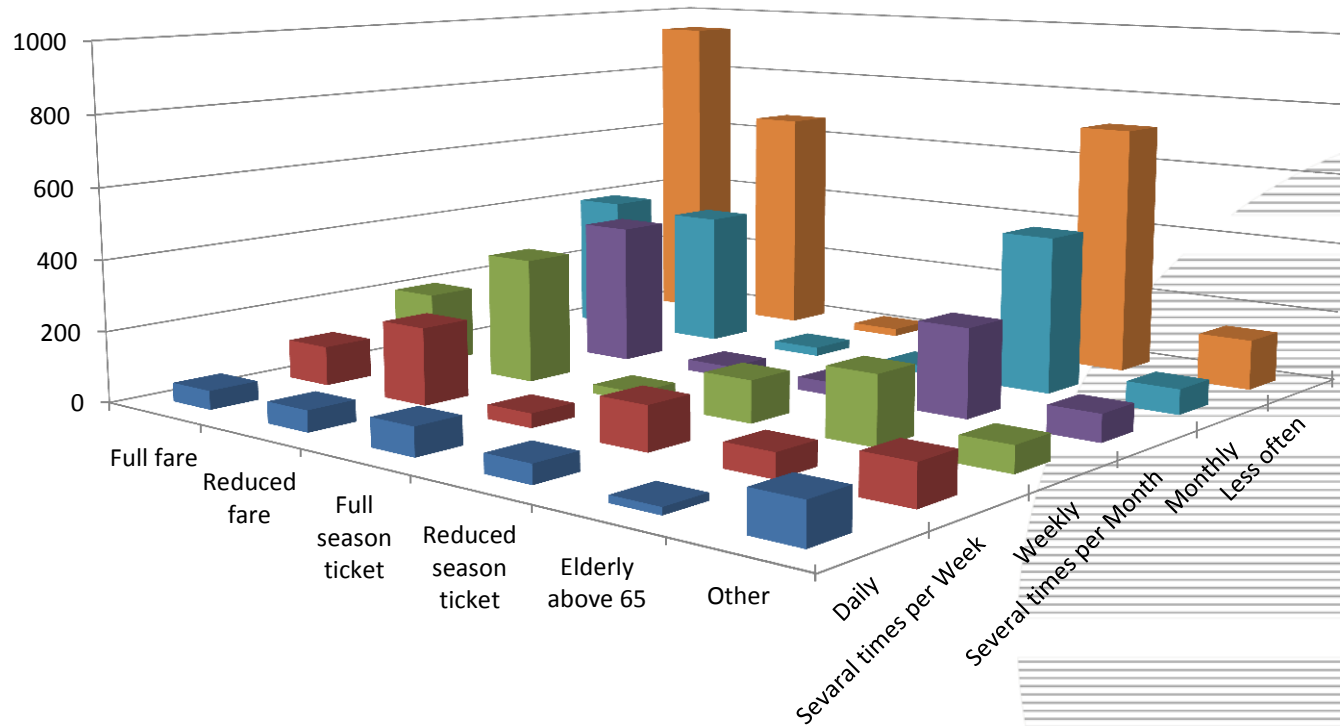


- 6,954 trips (20.6 %) 100+km
- Slightly higher than 14.7 % of the tickets
- In some long-distance services nearly 80 % of passengers interviewed
- High share of 60+ age group
- Low share of active passengers aged 46-60

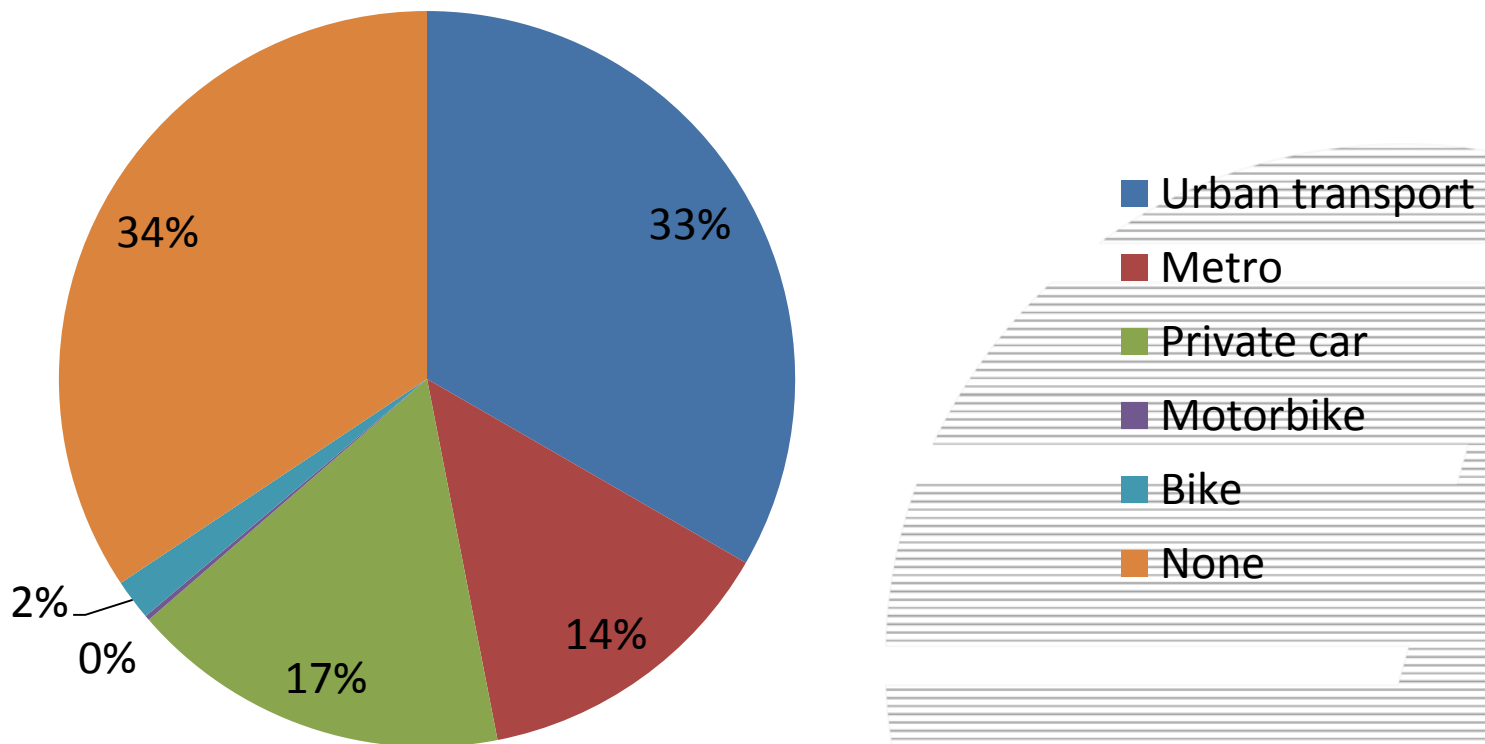
Travel purpose and frequency of the trips



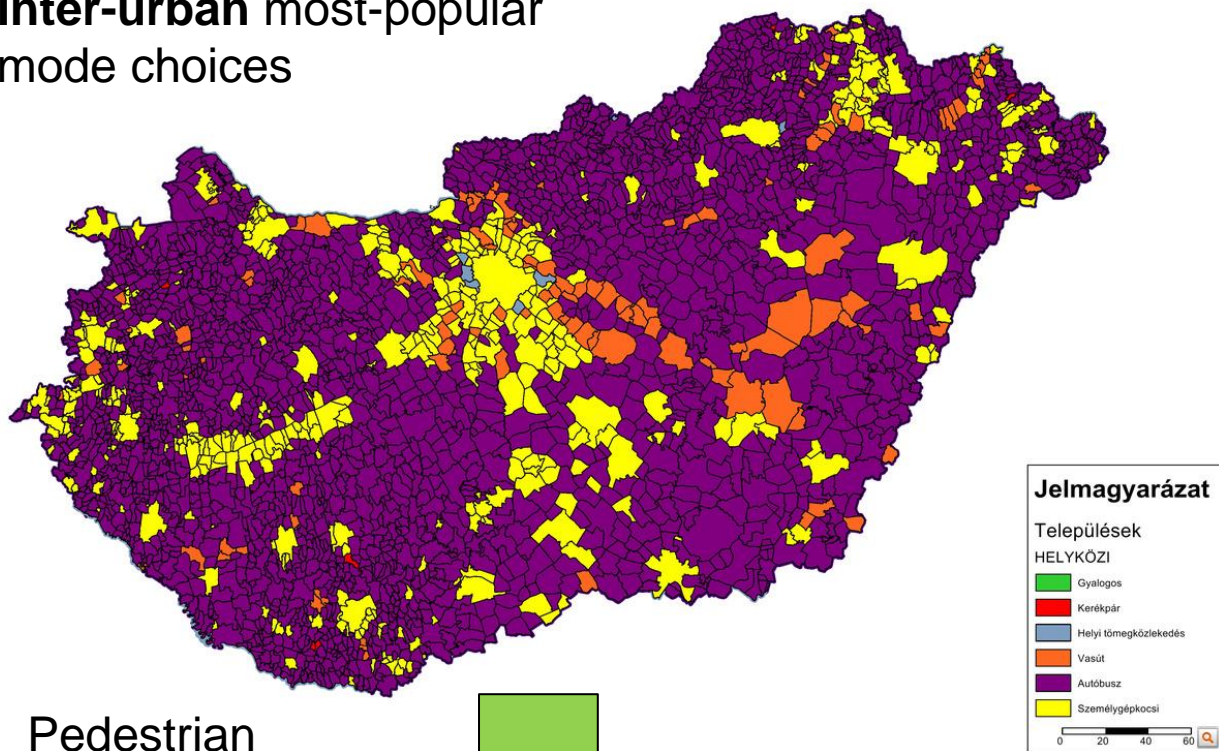
Tariff discounts and frequency of trips



Access mode



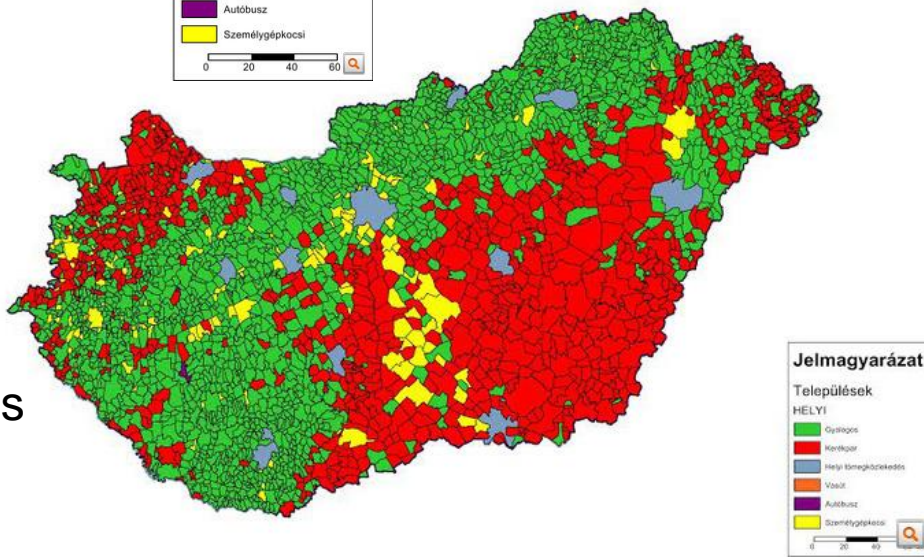
Inter-urban most-popular mode choices



Pedestrian
Cycling
Local PT
Railway
Regional bus
Private car



Intra-urban most popular modal choices



Source: KSH-NKS, TRENECON, 2011

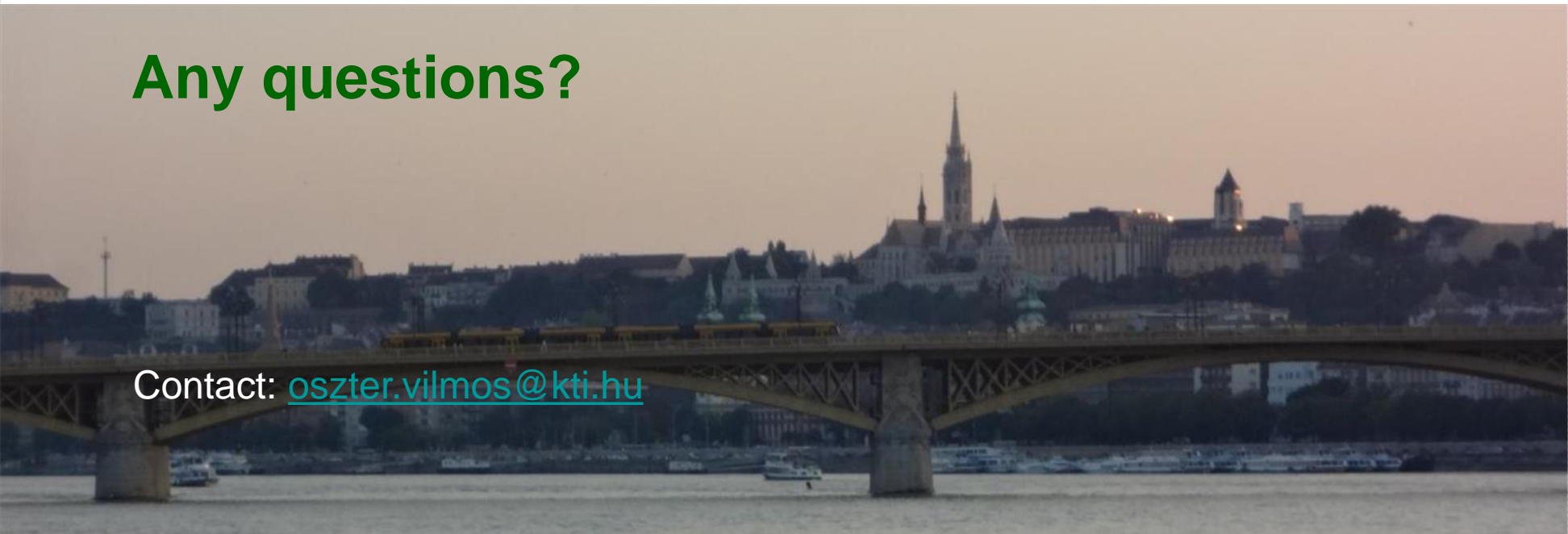
Conclusions

- Role of the distance is significant
- Economic potential and administrative boundaries
- Specialization within the urban network
- Less homogenous infrastructure than in Western Europe (gaps in the network)
- Very centralized flows, low interaction in transversal directions
- Different constraints for short and long distance travel
- Passenger and freight patterns completely differ
- Future Research: Strength, Symmetry, Structure of the system

GRAZIE!
THANK YOU FOR YOUR ATTENTION!

Any questions?

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A wide-angle photograph of a city skyline at dusk. In the foreground, a large, multi-arched bridge spans a body of water. A yellow train is visible crossing the bridge. In the background, a city skyline is visible, with a prominent church spire (St. Stephen's Basilica) standing out against the twilight sky. The water in the foreground has some small boats.