

Cross-border public transport

Best practice examples and future challenges in the Euregio Meuse-Rhine

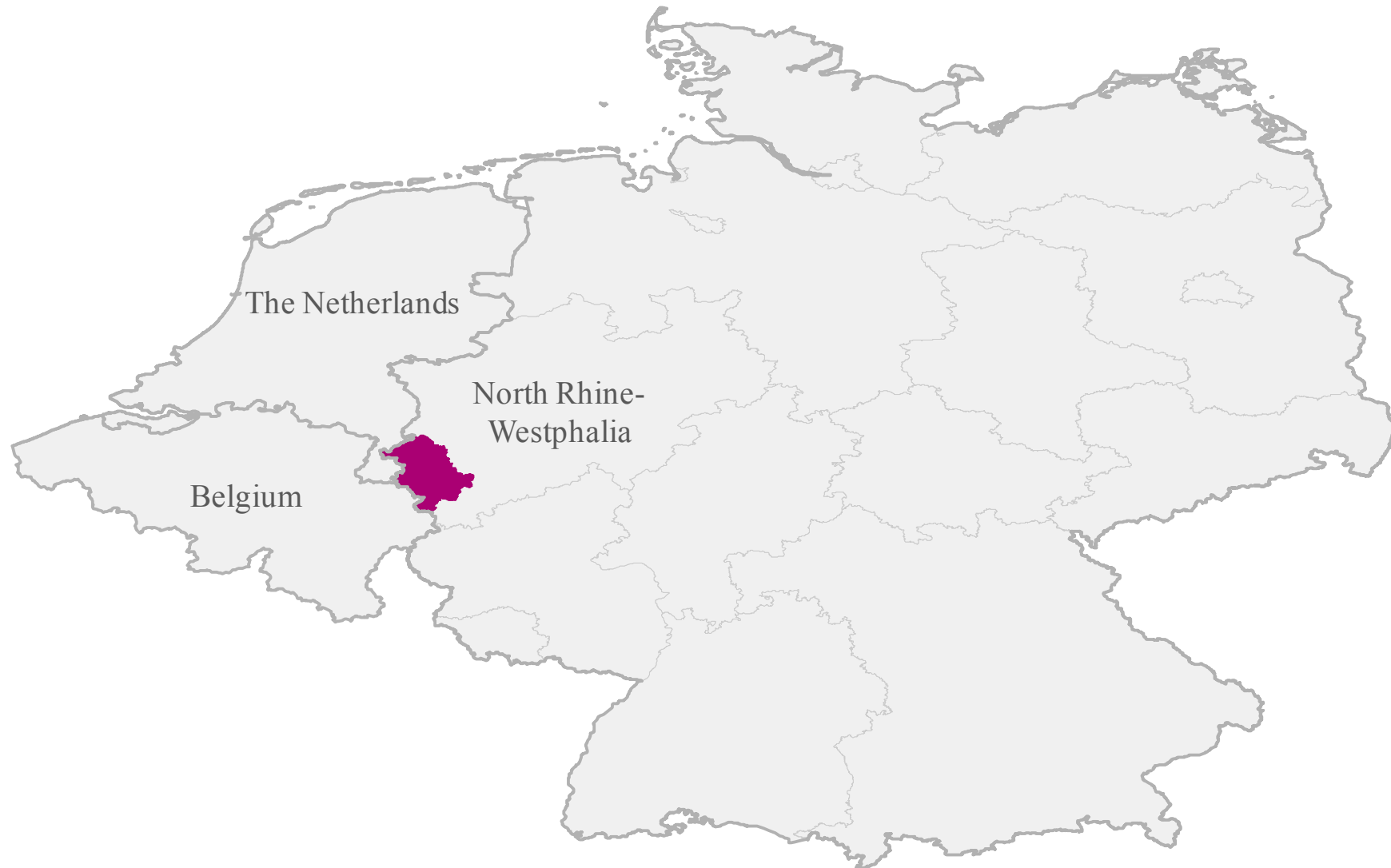
Dominik Elsmann & Andreas Warnecke
Maastricht, 1st June 2017



www.avv.de

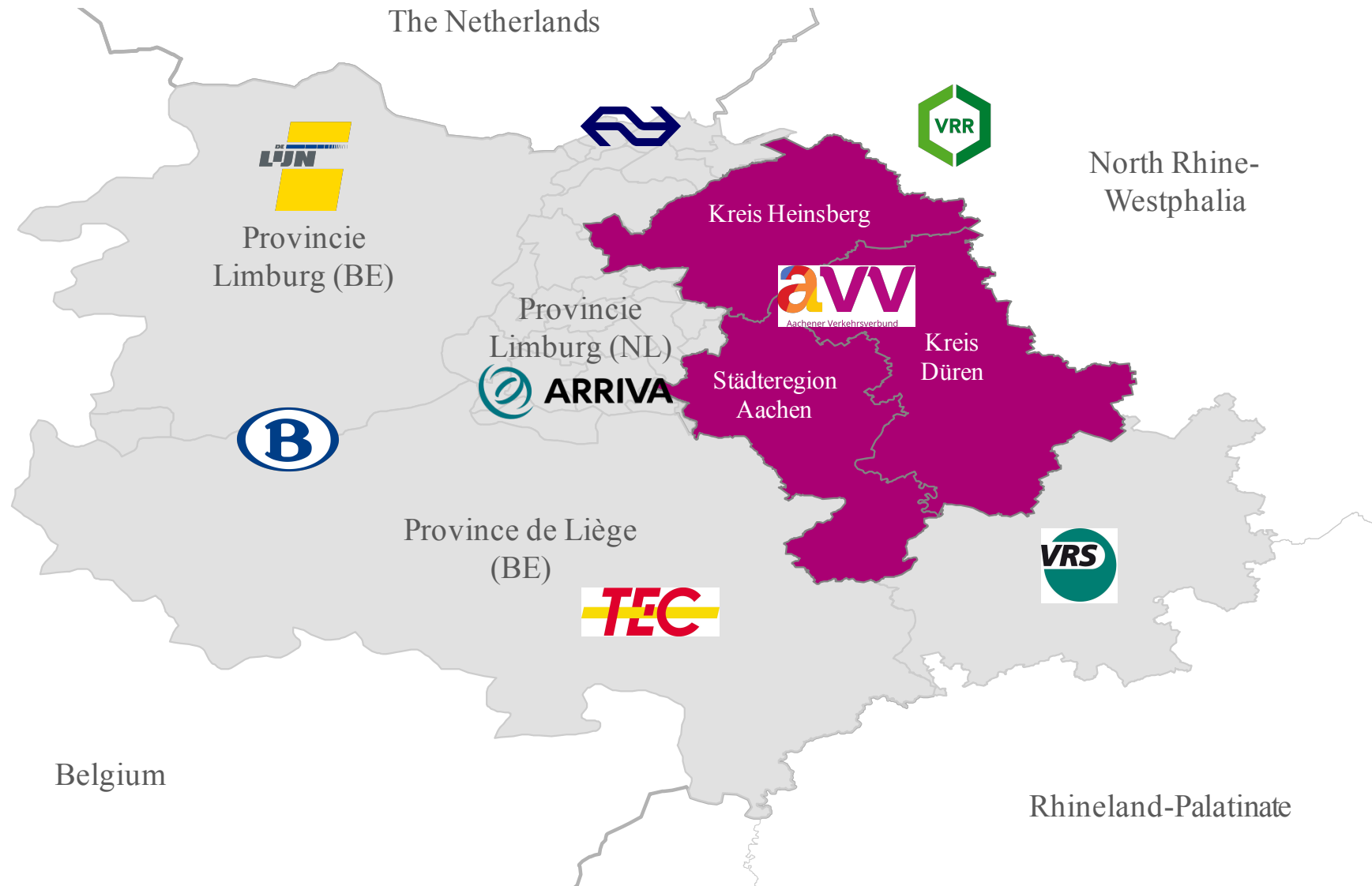
AVV – administrative area

Location in a border region



AVV – administrative area

Within the Euregio Meuse-Rhine



AVV – administrative area

Facts and figures



- Population: 1,1 Mio.
- Area: 2.277 km²
- Population density : 479 / km²
- Rail passenger services: 11
- Cross-border: 2
- Bus lines: 229
- Cross-border: 12
- Train stations: 77
- Bus stops: 2.848
- Rail passenger network: 392 km
- Bus network: 4.663 km



Euregionale Koordinierungsstelle

Cross-border coordination unit



- Cross-border public transport services
- Coordination in the field of infrastructure development
- Improvement of cross-border tariffs
- Marketing and customer information
- Acquisition and implementation of EU funded projects:



Barriers for cross-border public transport



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Motorised private transport doesn't face any barriers in border regions, whereas cross-border public transport has to **overcome borders** in various ways.

This is a decisive **competitive disadvantage**.

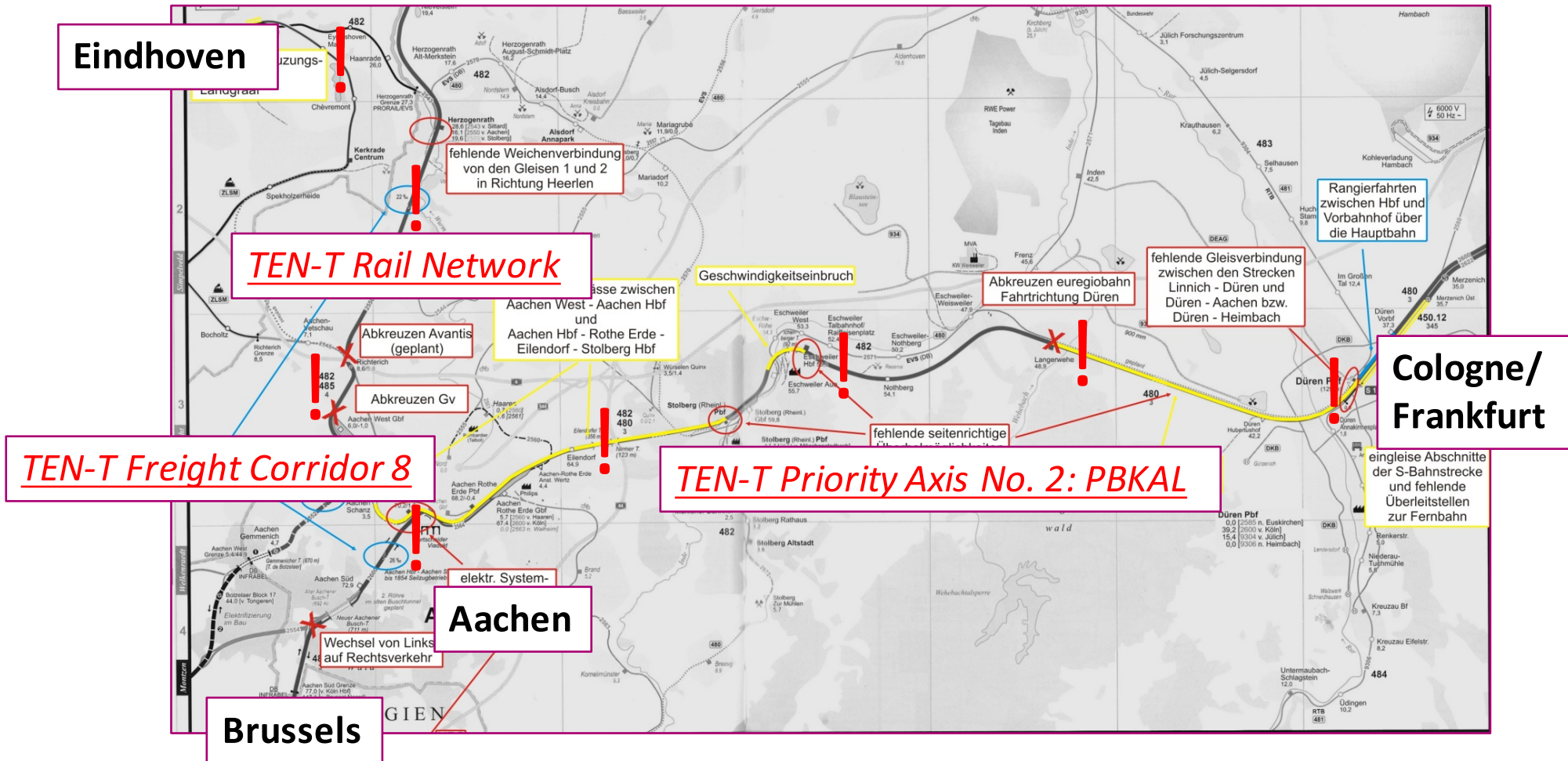
- **Infrastructure** (e.g. power and signaling systems)
- **Operation** (e.g. timetabling, tendering)
- **Tariffication** (e.g. differing tariff systems)
- **Ticketing** (e.g. interoperability of electronic tickets)

Passengers want to travel worry-free and seamless, even across national borders!

These demands can only be met if all partners in cross-border region
cooperate intensively!

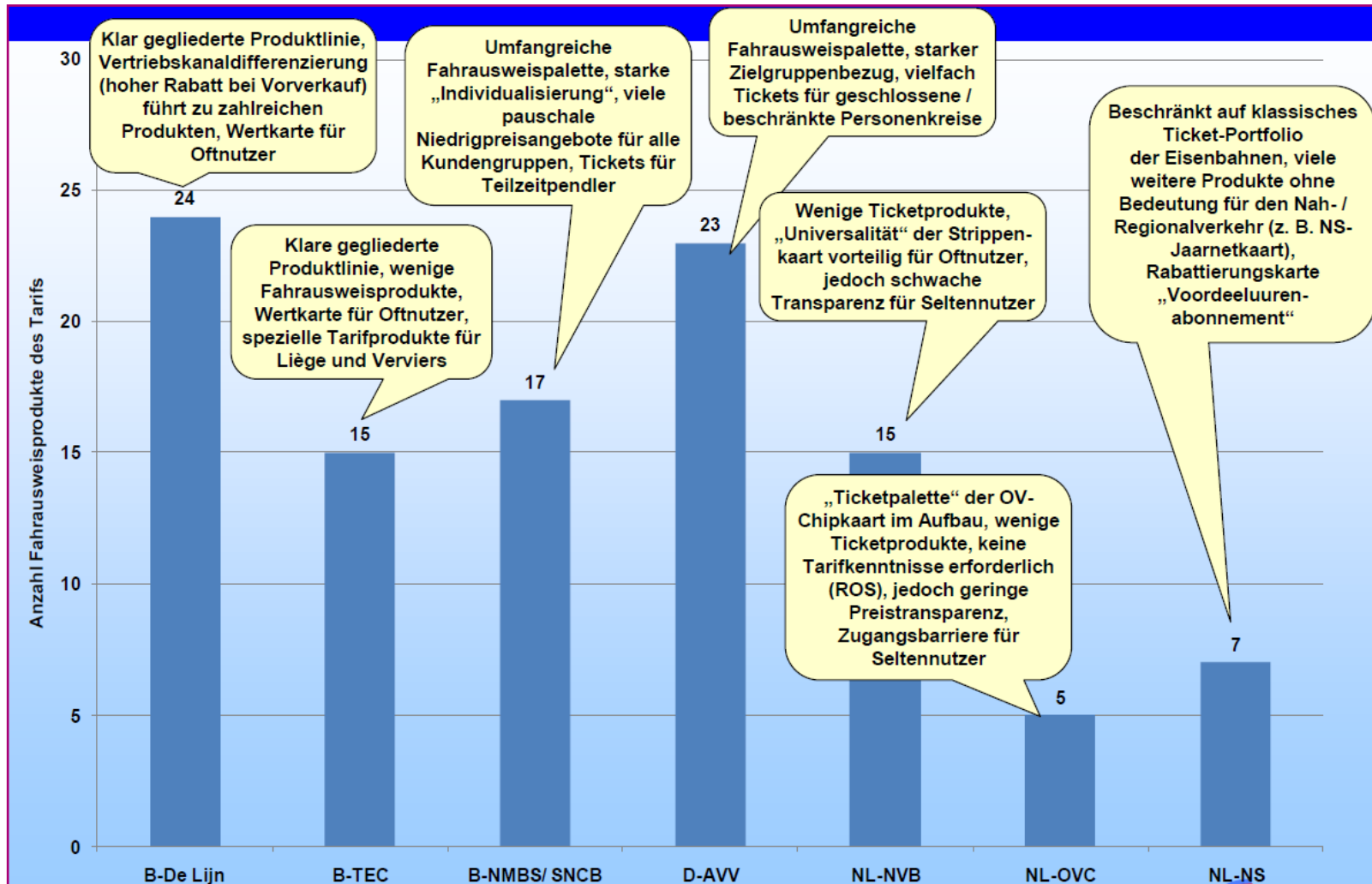
Barriers for cross-border public transport

Inadequate rail infrastructure in the border area, especially on the German side

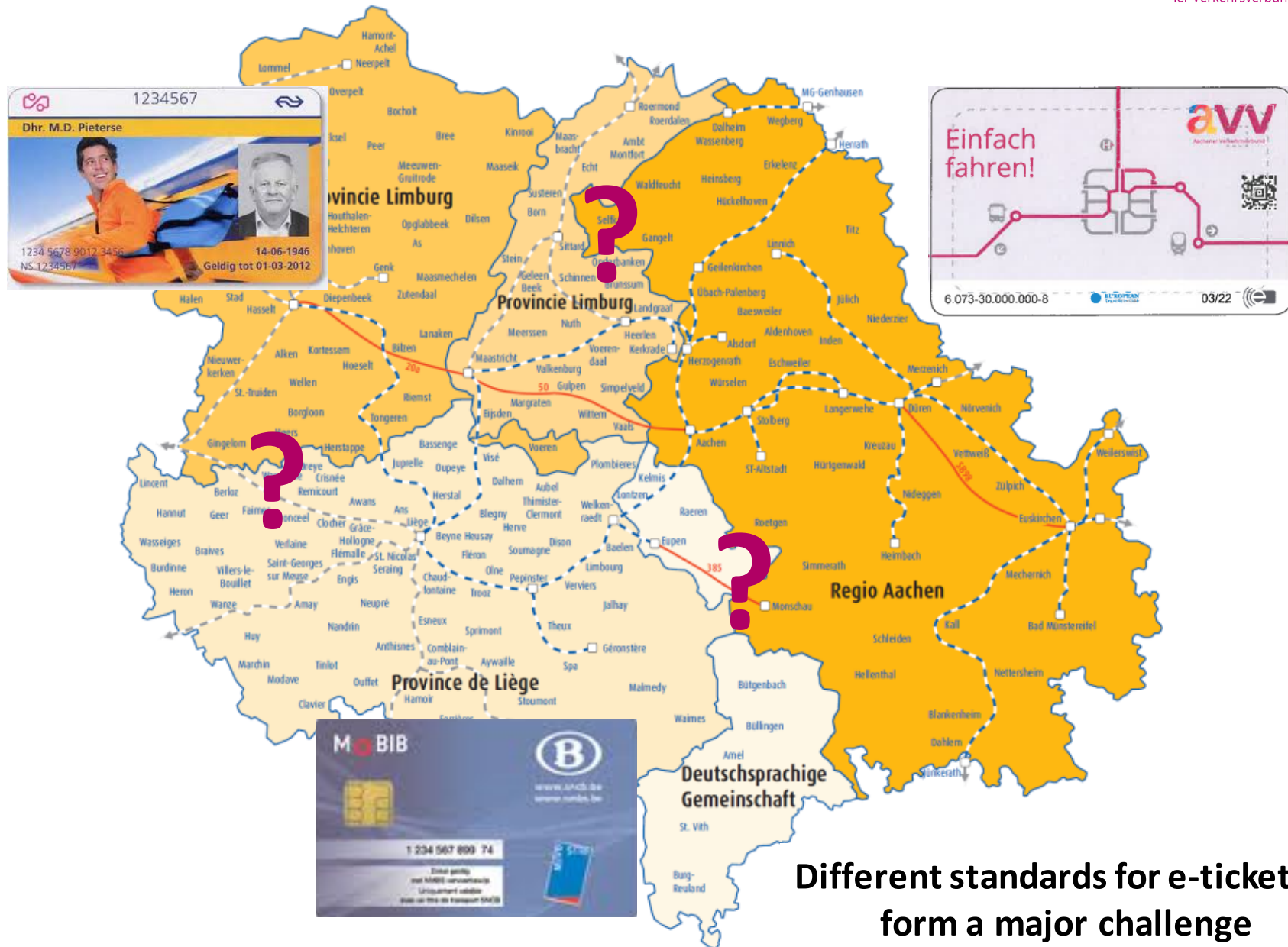


Barriers for cross-border public transport

More than 100 different tickets in the Euregio Meuse-Rhine, only a few valid for cross-border journeys



Barriers for cross-border public transport



The map displays the Aachen region, divided into several administrative areas: Province Limburg (orange), Province de Liège (light yellow), and Deutschsprachige Gemeinschaft (yellow). Major cities like Maastricht, Aachen, and Düren are marked. Three large purple question marks are placed on the map, highlighting the lack of e-ticketing interoperability between these regions. Inset images show a Dutch OV-chipkaart (top left) and a German MOBIB card (bottom center). A QR code for the AVV system is shown in the top right inset.

Different standards for e-ticketing form a major challenge

Best practice examples and future challenges in the Euregio Meuse-Rhine

(E-)Ticketing

Horizon 2020 project: European Travellers Club (ETC)



EUROPEAN Travellers Club

www.europeantravellersclub.eu



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 636126.

(E-)Ticketing

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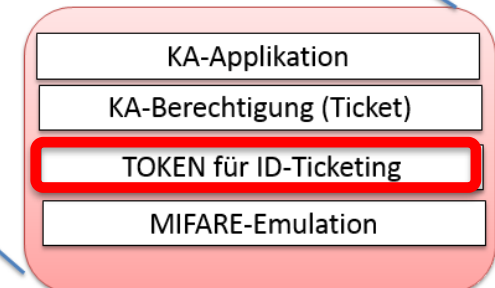
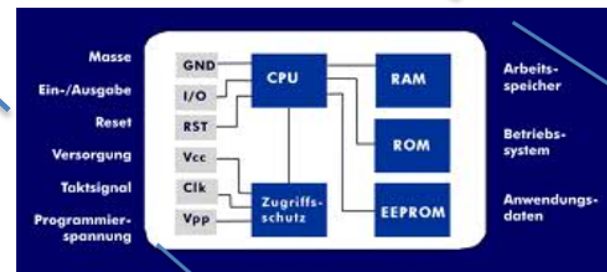
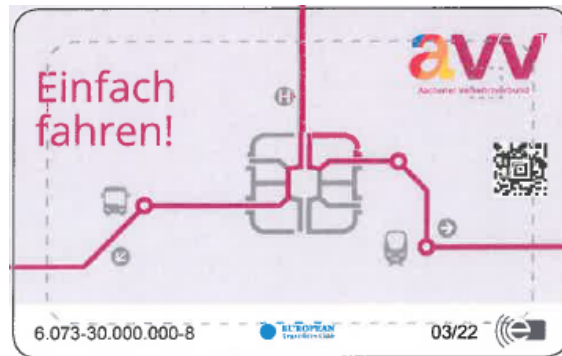
- There is a risk of developing isolated EFM systems in cross-border public transport
- The challenge is to enable interoperability between nationally divergent standards
- The Horizon 2020 project “European Travellers Club” (ETC) is taking on this challenge
- A token-based technology for the interoperable use of different e-ticket standards is being developed as part of the project



(E-)Ticketing

Horizon 2020 project: European Travellers Club (ETC)

Token-based ticketing:

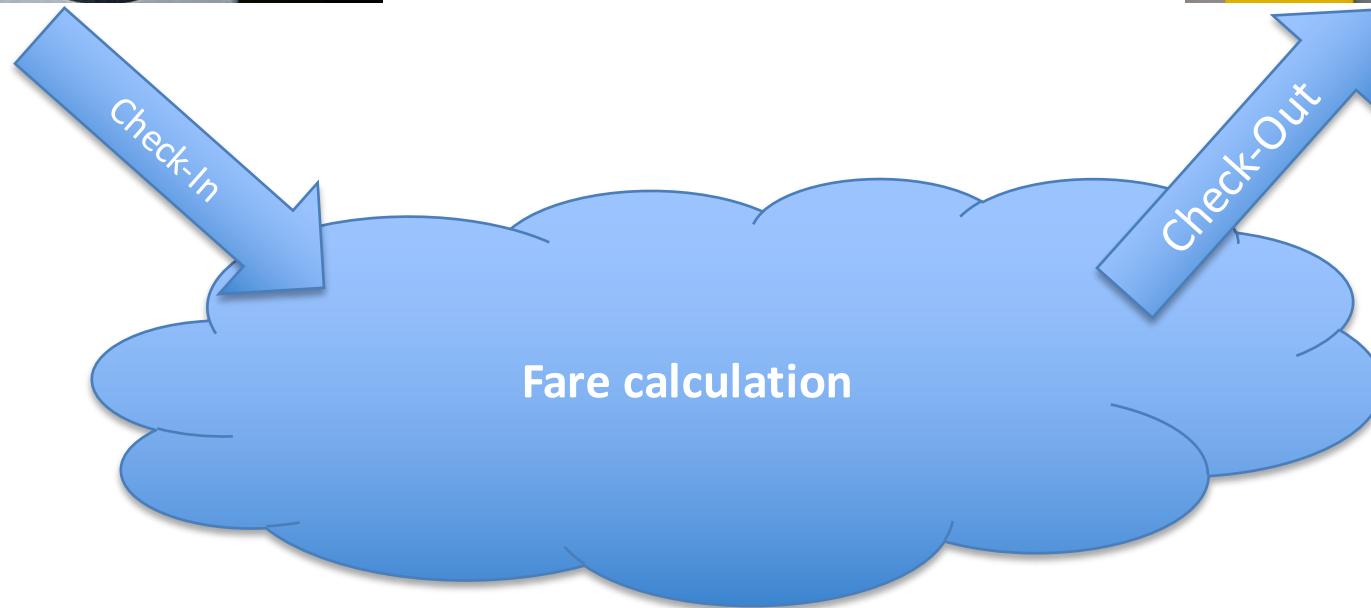


TOKEN = definite alphanumerical identification number

(E-)Ticketing

Horizon 2020 project: European Travellers Club (ETC)

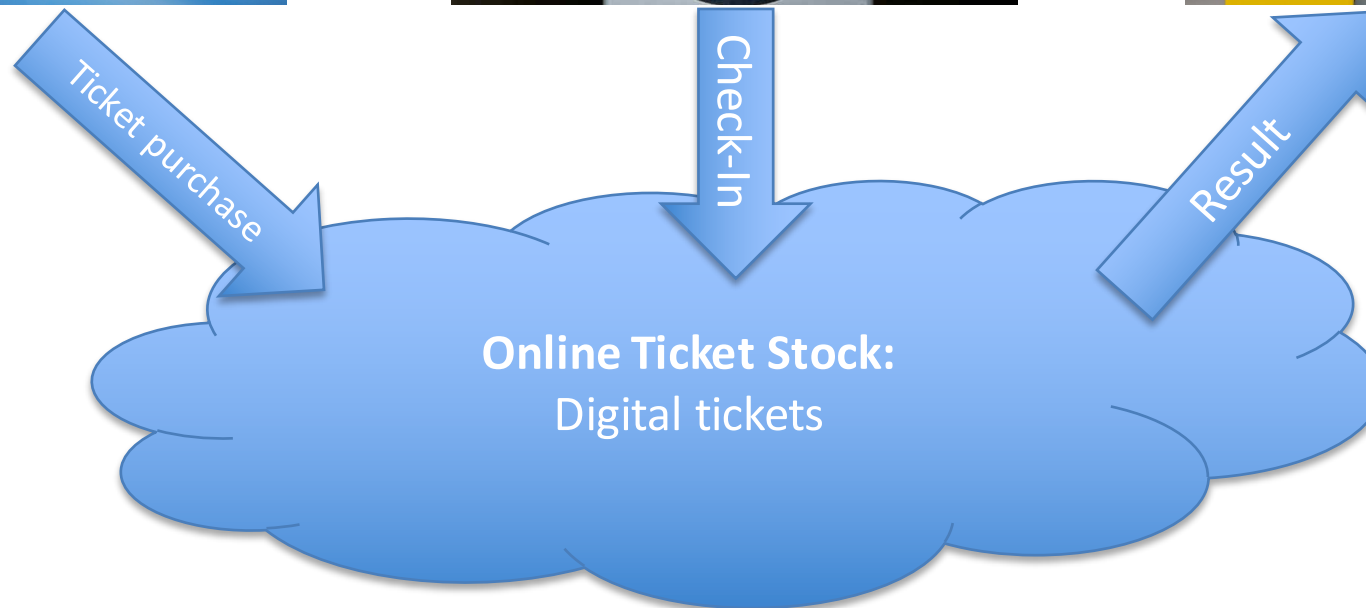
A German passenger in a Dutch train or bus



(E-)Ticketing

Horizon 2020 project: European Travellers Club (ETC)

A Dutch passenger in a German train or bus



(E-)Ticketing

Horizon 2020 project: European Travellers Club (ETC)

- Interoperable solution for cross-border public transport without changing existing national standards:



- Flexible in terms of user medium (chip card, smartphone, ticket to print etc.):



- Potential for integration of multimodal offerings (e.g. car sharing):



We are on the right way...

...but there is still a lot to do!

- International metropolitan regions (e.g. EMR) require very good public transport services across national borders
 - EU guidelines are required
 - European funding is needed
 - Cooperation between euregional partners is indispensable an key to success
- Some targets have already been achieved
- **But:** There is still need for action!



Thank you for your attention!

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