REAL CORP 2013

Cross border transport modelling in the Region of Aachen

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Outline

1. Introduction
2. Study area and model structure of the transport model
3. Challenges building up a cross-border transport model
4. Conclusion and perspective

Introduction

- Transport models are often used as a basis for the decision-making and planning-process.
- Today:
  - Different stakeholders often use different types of models
  - data kept and used in a wide variety.

    → plausibility and consistency is not always given
- The StädteRegion Aachen, Straßen.NRW and the AAV have awarded the development of standardized and continuing database in combination with a cross-border transport model.

The transport model

- **Aim:** Building up a standardized and continuing database

- The cross-border traffic model is based on the four-step approach

- The 61 municipalities are divided into 1226 traffic analysis zones

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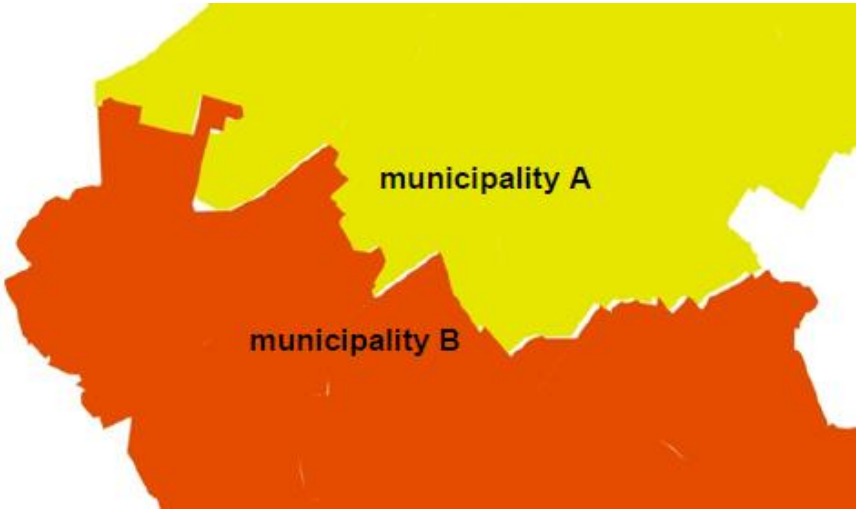
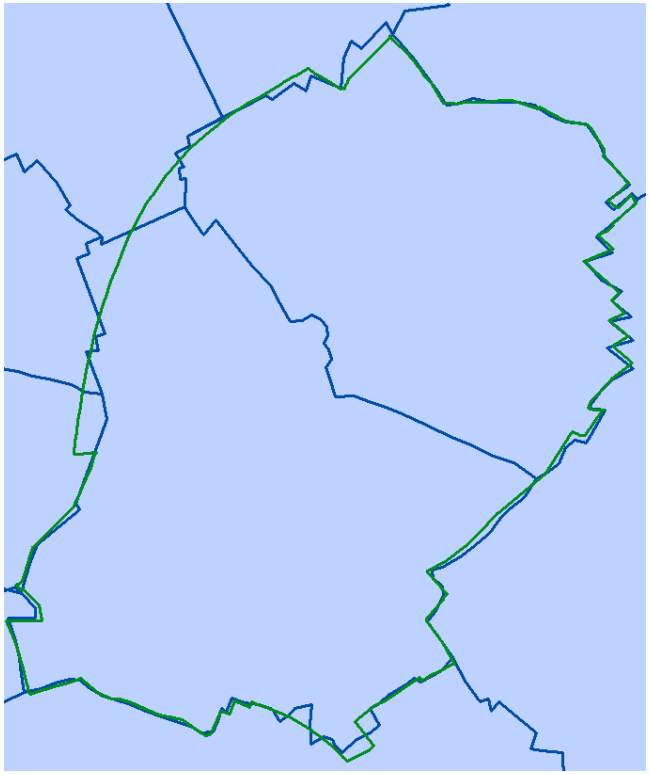
Challenges building up a cross-border transport model

- Data availability, comparability and/or compatibility
- Compatibility of map bases

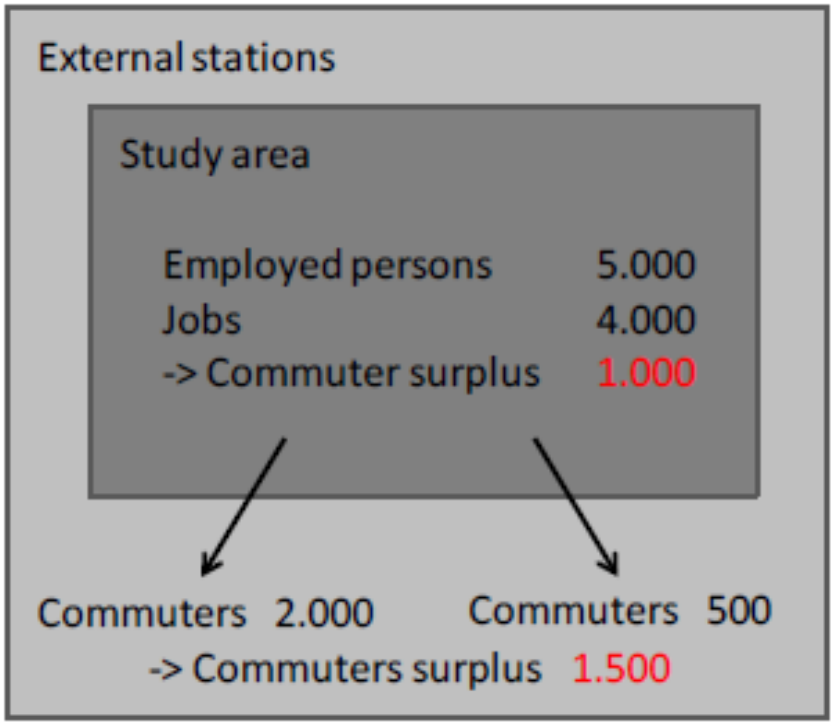
  →Transformation can lead to distortions





- Trip generation is based on commuter and structural Data of land-use and travel behaviour

  → Great differences in the corresponding balances and the level data is collected as well as the availability of cross-border data

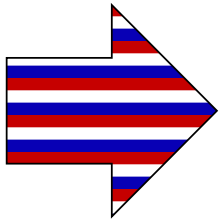


imbalance of commuter and structural data (hypothetical example)

- Cross border commuter data does not show the originating or destinating municipality for foreign countries

nl. Statistic

Noord-Limburg	1.270
Midden-Limburg	755
Westelijke Mijnstreek	15
Parkstad Limburg	2.530
Maastricht & Mergelland	935
Limburg total	5.805

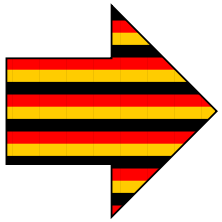


Deutschland

source: Limburgse Pendel (2005)

dt. Statistic

Niederlande



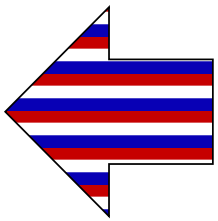
Stadt Aachen	1.311
Kreis Aachen	687
Kreis Düren	155
Kreis Heinsberg	601
Kreis Euskirchen	116
NRW	10.408

source: Landesdatenbank NRW (2006)

- Differentiation in the methodologies recording the commuters
- Different definition for “commuters”

nl. Statistic

Noord-Limburg	2.234
Midden-Limburg	631
Westelijke Mijnstreek	683
Parkstad Limburg	757
Maastricht & Mergelland	708
Limburg total	5.014

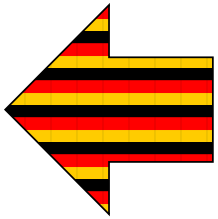


Deutschland

source: Limburgse Pendel 2005

dt. Statistic

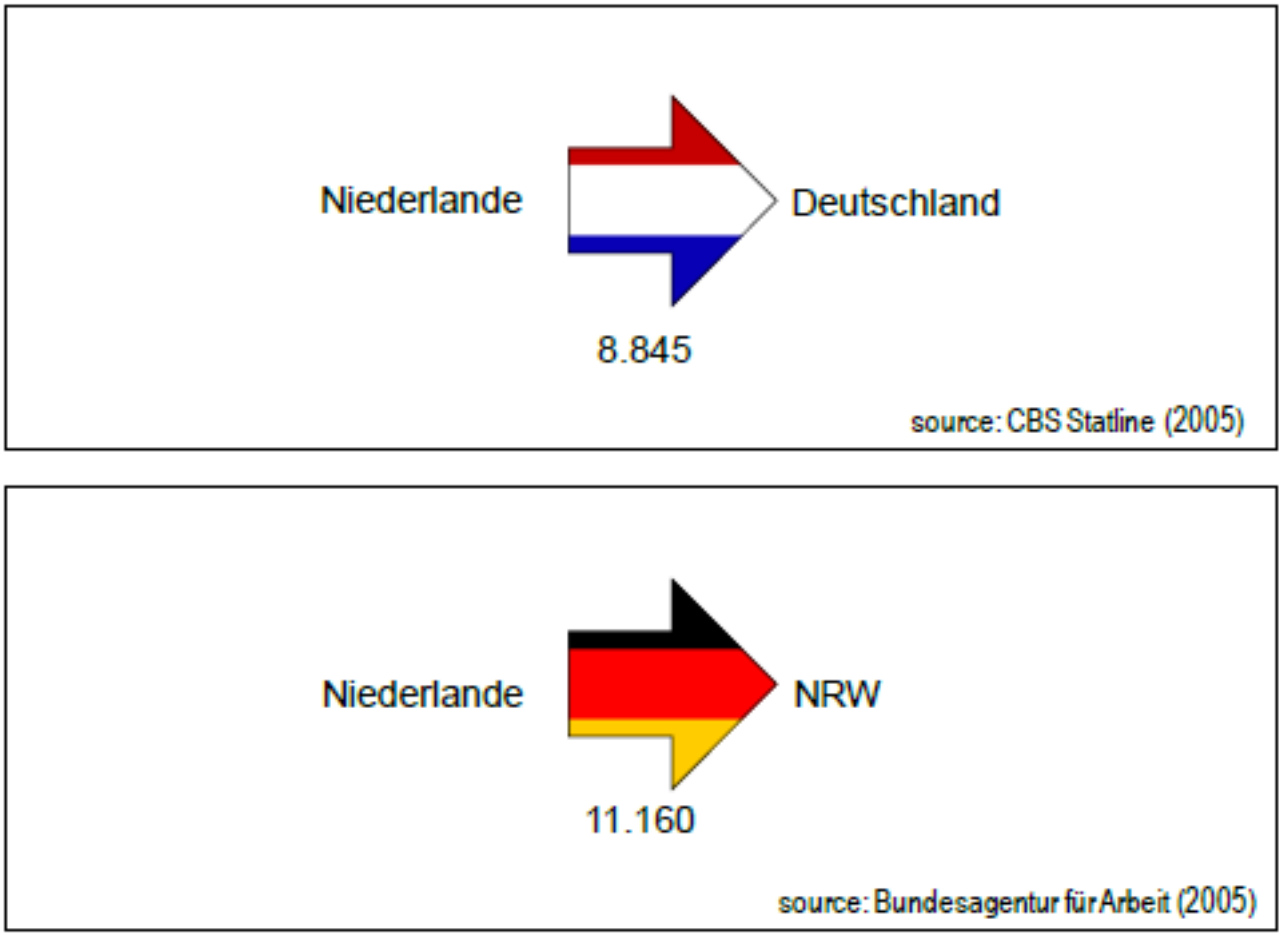
Niederlande



Stadt Aachen	???
Kreis Aachen	???
Kreis Düren	???
Kreis Heinsberg	???
Kreis Euskirchen	???
NRW	???

source: Landesdatenbank NRW (2006)

- data about the commuting transport differs between Germany and the Netherlands



ig. 6: Commuters from Netherland to the Germany in German and Dutch commuter statistic

- Travel behaviour in the inland is different to the travel behaviour in the border areas
- To estimate mobility indicators the surveys MiD and MON have to be compared

→ difficult due to different survey methods

Mobiliteitsonderzoek Nederland 2007 (MON)		Mobilität in Deutschland 2008 (MiD)	
Work (Van en naar het werk)	16,4	Work (Arbeit)	15,7
Business trip (Zakelijk bezoek in werksfeer)	2,6	Official purchase (Dienstliche Erledigungen)	1,3
Official/ private supply (Diensten/persoonlijke verzorging)	3,6	Private purchase (Private Erledigungen)	13,1
Shopping (Winkelen, boodschappen doen)	20,7	Shopping (Einkaufen)	20,8
School/ apprenticeship (Onderwijs/cursus volgen)	8,9	Education (Ausbildung)	6,7
Visit (Visite/logeren)	16,7	Leisure (Freizeit)	33,4
Relaxation (Sociaal recreatief overig)	13,8	Company (Begleitung)	9,1
Tour/ Walk (Toeren/wandelen)	9,5		
Others (Overige)	8,2		

- Differences in counter values for border crossings

Dutch counting station
AWDT: 14.220 vehicles (2008)

approx. -8%

German counting station
AWDT: 13.155 vehicles (2008)

Source: Provinz Limburg 2011

Source: BASt 2011, OpenStreetMap

AWDT: average weekday daily traffic

Conclusion

- Difficulties:
  - Different stakeholders are involved
  - Data and Information is kept and used in wide differentiation
  - Collected data and results have to be discussed may times
- New methods and concepts are developed with stakeholders in a broad communication process
- The cross-border data platform and the cross-border transport model are an important step for consistent regional planning