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SEAMLESS TRANSPORT CHAINS THROUGH HARMONISATION

Success Stories and Global Perspectives for Rail Freight

Session 2: Rail Freight and Spatial Planning

Moderator:

Alex Puissant, free lance journalist



GRFC 2014 VIENNA



23-26 June 2014

Kurt FALLAST



Present positions:

CEO IBV-FALLAST Transport Planning Consultancy, Graz/Klagenfurt, Austria

CEO STL Solutions for Transport and Logistics, Graz, Austria

Regional Director of the Austrian Traffic Science Society, Styrian Branch

Member of Austrian Association for Research on Road-Rail-Transport (FSV)

Teaching Post „Spatial Planning and Transport“ part of the Master Study for „Traffic Engineering“ at Graz University of Technology

Teamleader for Transport and Infrastructure in ONSS-Project: Oman National Spatial Strategy

From 1980 to 2014: Graz University of Technology

From 2004 to 2014: Deputy Head of the Institute for Transport Planning, Graz University of Technology, Austria



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Freight transport and Spatial Planning - a stronger interplay for increasing synergy

Dr. Kurt Fallast
IBV-FALLAST

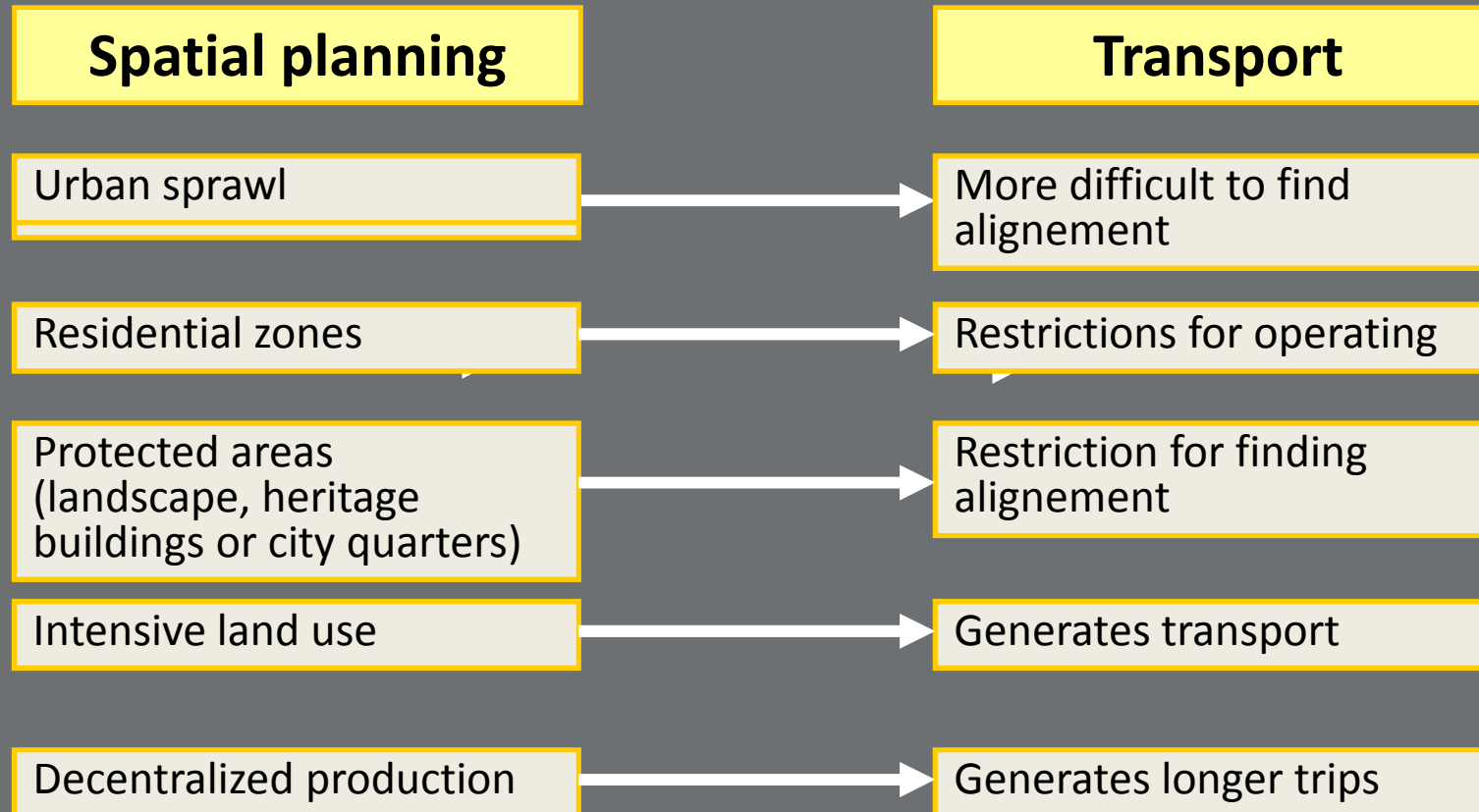


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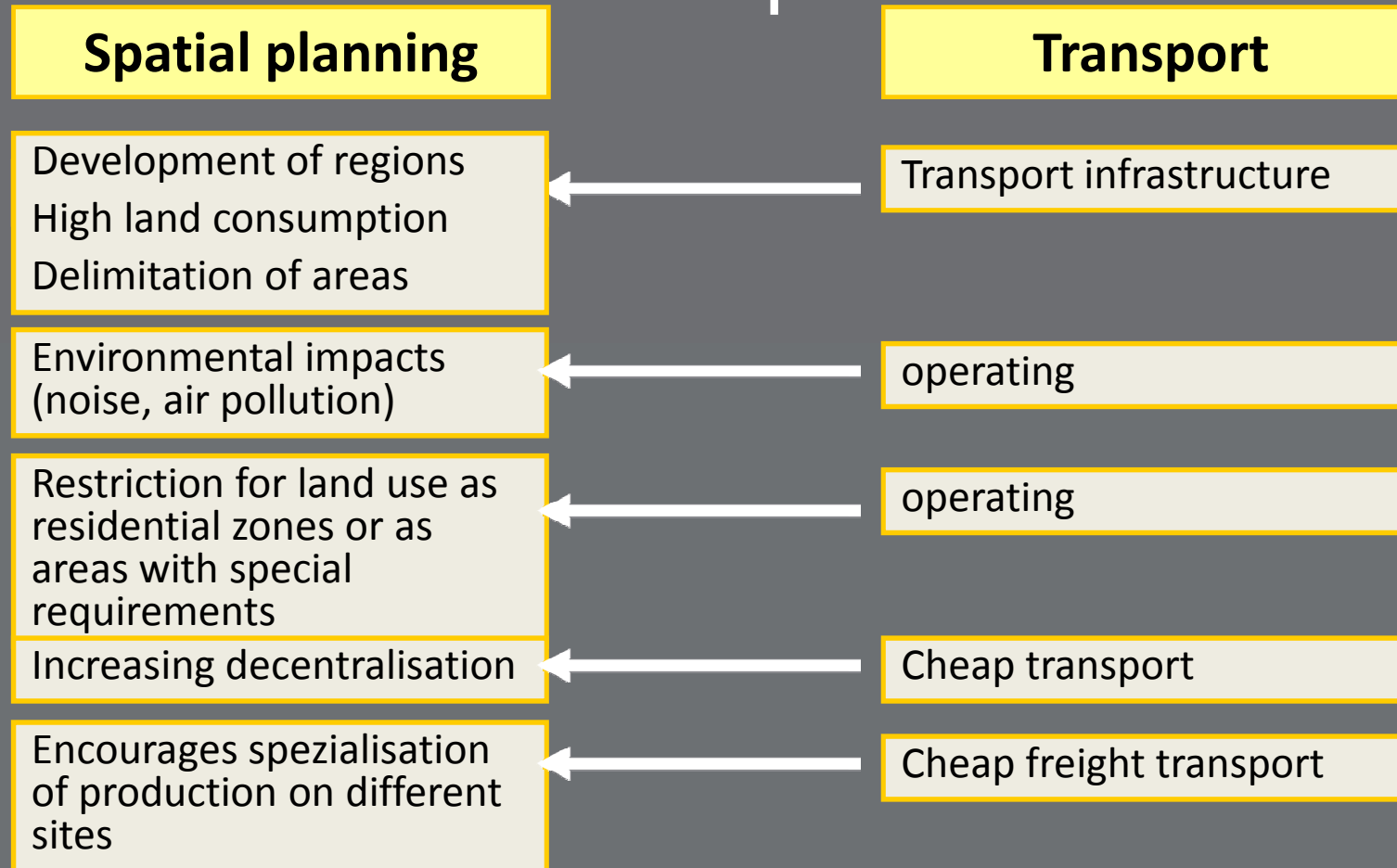


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Spatial planning influences transport



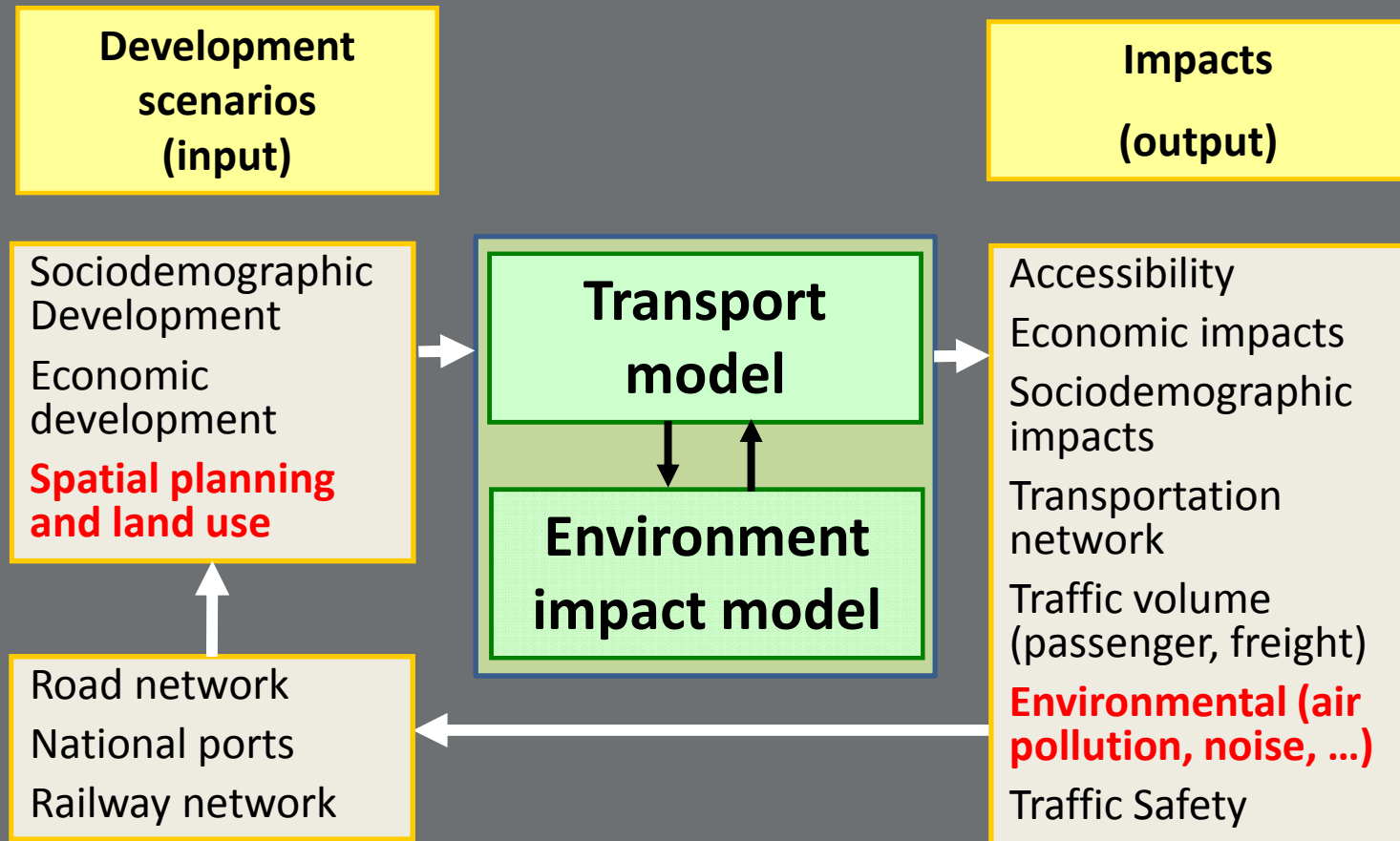
Spatial planning is influenced by transport



How to evaluate these impacts?



Spatial planning in Transportmodel

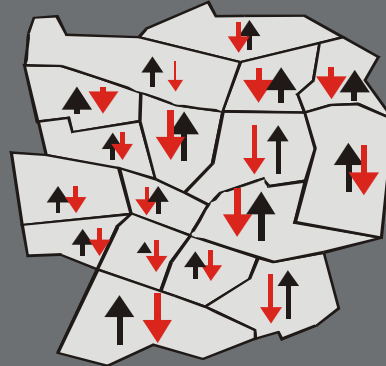


The 4-step Transport model

Step 1: Traffic generation

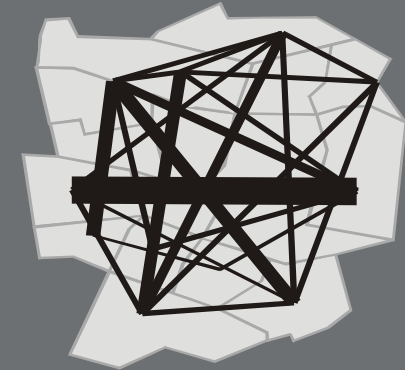
How many trips?

(residential, work places, education, shopping, leisure)



Step 2: Origin-Destination-Matrix

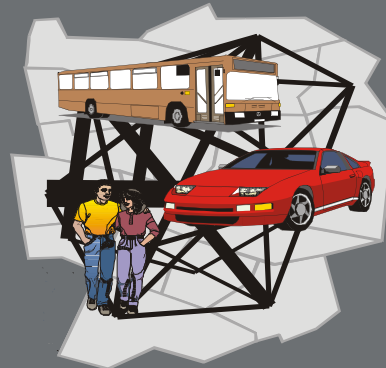
Distribution of trips (from Origin to Destination)



Step 3: Modal Split

Mode of the trips?

- Walking
- Bicycle
- Public Transport
- Private cars
- Freight by truck
- Freight by rail

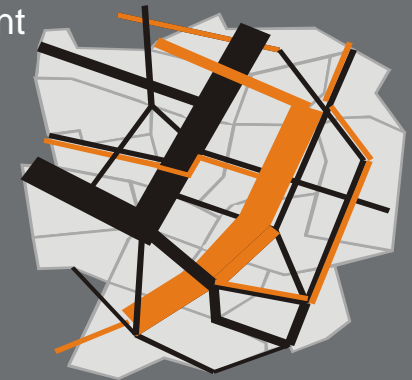


Step 4: Traffic assignment

Which route?

Criteria:

- travel time
- costs
- accessibility
- safety
- comfort



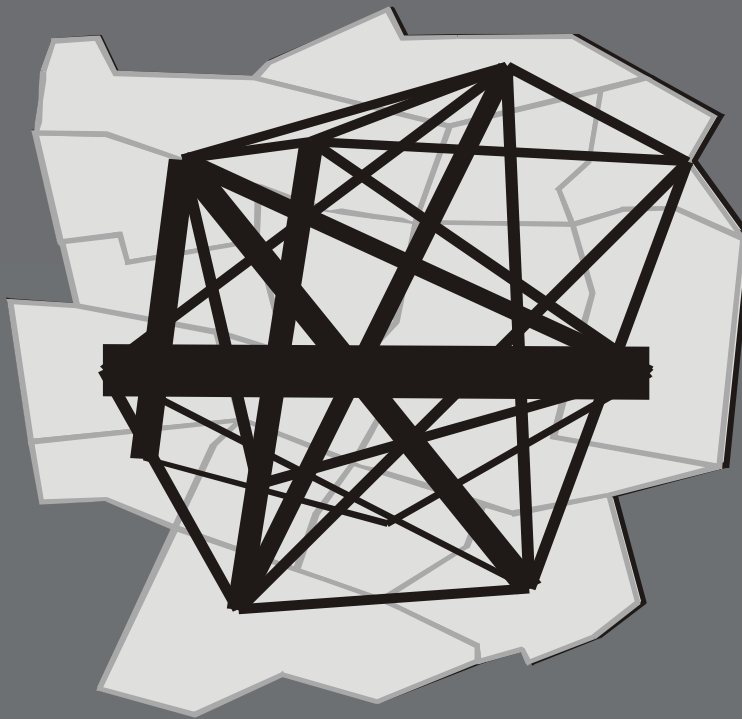
Step 1: Trip generation



How many trips?

- Intensity of land use
- Zoning (industry, trade, economy)
- Number of work places
- Shopping facilities
- Leisure facilities

Step 2: Trip distribution



Origin / Destination Matrix

- Intensity of land use
- Zoning (industry, trade)
- Number of working places
- Shopping facilities
- Leisure facilities

Step 3: Modal Split



Which mode?

- Costs
- Trip length
- Type of goods
- Multi modal facilities
- Restrictions (night time, weekend, holidays)
- Restrictions (emissions)
- Weight limits

Step 4: Traffic assignment



Which route?

- Costs
- Transport time
- Traffic conditions
- Transport network
- Restrictions (night time, weekend, holidays,..)
- Restrictions (emissions)
- accessibility

Rail freight transport

- Rail freight transport needs large-scale spatial planning
- Rail freight transport needs regional spatial planning to secure space for intermodal facilities (terminals),
- Rail freight transport needs long-term spatial planning with vision

Criteria for industrial sites

- Connection to rail network
- Closeness to intermodal facilities
- High density of land use
- Sustainable « mobility of short trips » also for freight transport
- Concentration of industrial sites

Let's straighten things out!



Improved rail infrastructure and operating in coordination with spatial planning





Transport planning consultancy

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