THE POLICY PACKAGE APPROACH

Elaborating ex-ante knowledge for policy advice through inter- and transdisciplinary assessment

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AGENDA

- Concept of "Policy Package Case Study Approach"
- The phases
  - I. Pathways
  - II. Policy packages
  - III. Assessment
  - IV. Evaluation
  - V. Discourse

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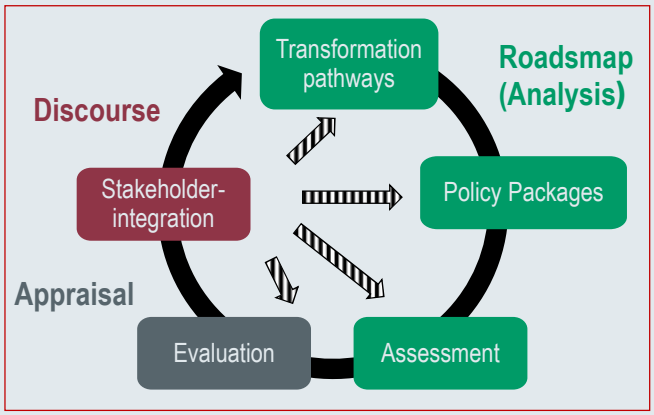
THE POLICY PACKAGE APPROACH AS A CASE STUDY OF „URBAN PASSENGER TRAFFIC“

- Starting point **Policy Packages**
- appropriate to pathways **Multi- & Intermodality** und **Alternative Drive Systems**
- including **measurement related assessment**
- and **integrated evaluation & discourse**
- In the segment of **urban passenger traffic**



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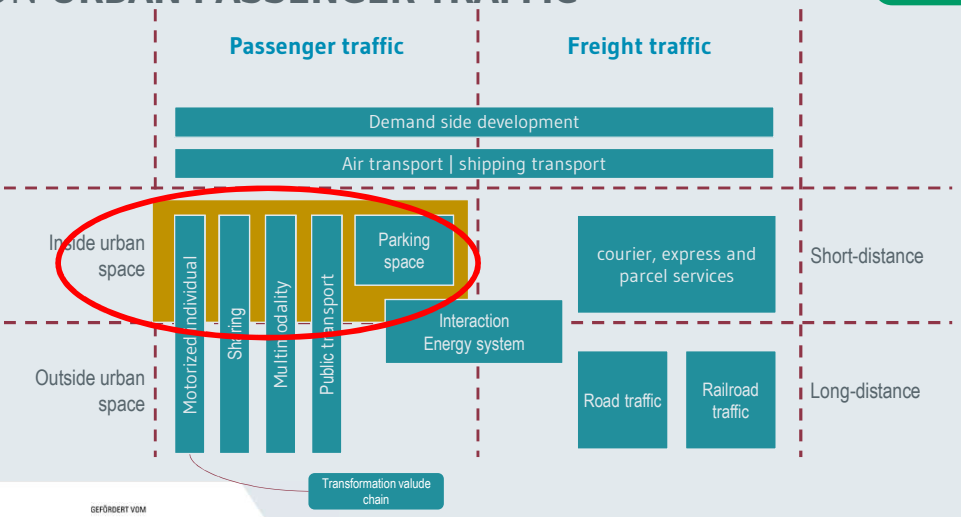
| 3

I. Pathways

FOCUS ON **URBAN PASSENGER TRAFFIC**



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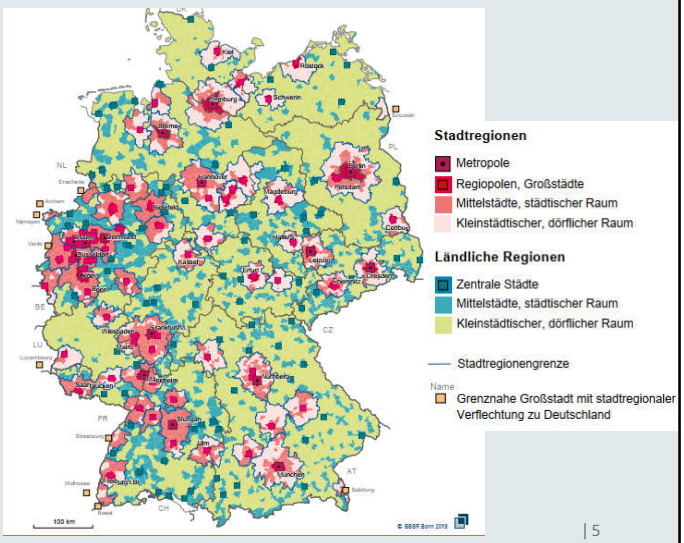
I. Pathways

OVERVIEW ON **URBAN PASSENGER TRAFFIC IN GERMANY**

- **Urban regions**
  - volume (trips/day): ca. 65%
  - performance (km/day): ca. 65%
- **Modal Split: Metropolis cities**
  - walk: 27%, bike: 15%, MIT: 38%, PT: 20%
- **Modal Split: Medium-sized cities**
  - walk: 21%, bike: 10%, MIT: 61%, PT: 8%
- **CO_2-Emissions**
  - 165 Mio t (2016) = 18% overall share
  - Passenger car 61%, trucks: 35%, other: 4%



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I. Pathways

THE PATHWAYS – **TOWARDS A „TRAFFIC TURNAROUND“**

Transformation pathway **„Multi- und Intermodality“**

- Contributes in urban areas in 2050 to a climate friendly/sustainable traffic system
- Shifting traffic from passenger cars towards non-motorized vehicles and public transport
- Pull-Strategy: behavioural change on demand side
- Modal Split 2018 ≠ 2050 > reduction of CO_2, NOx, fine particles

Transformation pathways **„Alternative Drive Systems“**

- Contributes in urban areas substantially in 2050 to a climate friendly/sustainable traffic system
- Vehicle fleet equipped with batteries, fuel cells, synthetic fuels
- Push-Strategy: technology development on supply side
- Shares of drive systems/synthetic fuels 2018 ≠ 2050 > reduction of CO_2, NOx, fine particles

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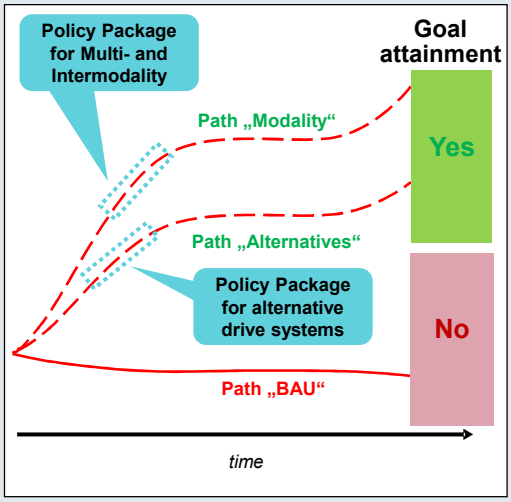
II. Packages

WHAT ARE **POLICY PACKAGES**?

- "a combination of policy measures designed to address one or more policy objectives,
- created in order to improve the effectiveness of the individual policy measures,
- and implemented while minimizing possible unintended effects, and/or facilitating interventions' legitimacy and feasibility in order to increase efficiency"
- (Givoni et al., 2013: 3)



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II. Packages

DEVELOPMENT OF **POLICY PACKAGES**

- **Based on 2 pillars**
  - Literature:
    - Scenario study „Renewbility III"
  - Expert-Participation:
    - Group Delphi Workshop: 9. Mai 2018
    - Stakeholder-Workshop: 17. Mai 2018

PP „Multi- und Intermodality
• CM I: promote public transport
• CM II: integrated area management
• SM I: information campaigne
• SM II: intermodal services
• SM III: restricted access
PP „Alternative Drive Systems"
• CM I: CO_2-emission targets for cars (60 g/km until 2030)
• CM II: CO_2-price for fossil fuels
• SM I: reform of vehicle tax
• SM II: intelligent charging stations
• SM III: manual parking fees
• SM IV: info-campaigne for electric mobility

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II. Packages

EXAMPLE OF CORE MEASUREMENTS

alternatives

CM 1: CO_2-emission targets for cars 60 g/km until 2030

- **What:** Setting CO_2-emission target for newly registered passenger cars in Europe starting with 95 g/km in 2020 down to 60 g/km in 2030; closing the actual gap between standard values and real values (ca. 40%)
- **When:** preparatory work to set limiting values for in between years in order to guarantee a trouble-free transition in 2021
- **Who:** regulated on EU-level via Trialogue-Processes with EU Commission, EU-Parliament and EU-Council
- **Objective:** Increasing passenger car supply equipped with alternative drive systems
- **Type:** regulatory policy approach

modality

CM 1: promote public transport

- **What:** establishing a low/no ticket cost public transport system in order to promote public transport and ease switching from cars to busses/trains. Vienna subscription model: 1 day / 1 € (annual costs: 365 €),
- **When:** from now on
- **Who:** Local public transport providers, municipalities in cooperation with federal government and federal states
- **Objective:** increase share of public transport in modal split
- **Type:** funding policy approach

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III. Assessment

ASSESSMENT OF POLICY PACKAGE „INTER- UND MULTIMODALITY“

Working Package		1	2	4		6					8	9
CM I:	promote public transport	x	x	x	x	(x)	(x)		x	x		x
CM II:	Integrated area management	(x)			x	(x)	(x)			x		(x)
SM I:	Information campaigne	(x)				x	(x)			x		
SM II:	Intermodal services	x		x	x	x	(x)	x	x	x		
SM III:	restricted access				(x)		(x)	x		x		(x)
OTHER											x	
Discipline		Governance	Technology	Institutions, Law		Sociology: Innovation, behaviour					Energysystem	Digitization

Policy Package „Lead Cities clean air“

Technology development public transport vehicles

Financing system & distribution system & legal evaluation

- **Innovation narrative „Mobility as a Service“: niche vs. regime**
- **Behavioural costs & environmental attitude with a case study on car sharing**
- **Mobility services and offers: shifting from to demand shuttle systems**
- **Analysis of mobility decision‘s determinants**

Effects on energy system: changing traffic demand

Consumer agent based modelling: decision-making

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III. Assessment

OVERVIEW SINGLE ASSESSMENT STUDIES

Objective
Measure: 1. promote public transport
• **Nabitz (1):** Analysis Promoting the design and implementation of public transport in three model cities of the "Clean Air" programme • **Gizzi (1):** Economic analysis of potential objectives, possible financing options and the influence of urban and municipal characteristics on the suitability of free public transport • **Albert (1):** Evaluation of legal framework conditions and scope for action of the actors for a reduction of public transport fares • **Becker (1):** Obstacles and willingness to change from monomodal car use to public transport use in different action scenarios • **Bobeth (1):** Combined promotion of electric cars and public transport via a card for local and long-distance public transport with a budget cap • **Mielke (1):** Effects of measures for "promoting public transport" via a transport model
Measure: 2. land management
• **Becker (2):** Changes in the mobility behaviour of car users* due to a shortage of parking space, using Berlin and Potsdam as examples
Measure: 4. intermodal offers
• **Gizzi (2):** Technical, organisational and institutional design of an intermodal distribution system • **Albert (2):** Public law framework of a mobility centre as a networked institution and/or provider of information and services for personal mobility • **Arnold (1):** Exploration of future intermodal mobility services based on expert knowledge • **Henn (1):** Environmental attitudes of Car-Sharing users in selected cities as a quasi experiment • **Mack (1):** Factors influencing the choice of transport mode between private cars, public transport and a new mobility service (On-Demand Shuttle) • **Beckers (3):** Switching from car users* to intermodal use of public transport in combination with car or bicycle in measures for restricted inner-city car use
Measure: 5. access restriction
• **Albert (3):** Legal examination of the scope for a city toll as a (monetary) access restriction • **Becker (4):** Change in the mobility behaviour of car users* if a city centre toll of €7 per entry to the city centre would apply with immediate effect • **Becker (5): Would the** mobility behaviour of car users* change if a driving ban on their cars were to apply immediately? • **Mack (2):** Literature review on variants and acceptance of access restrictions

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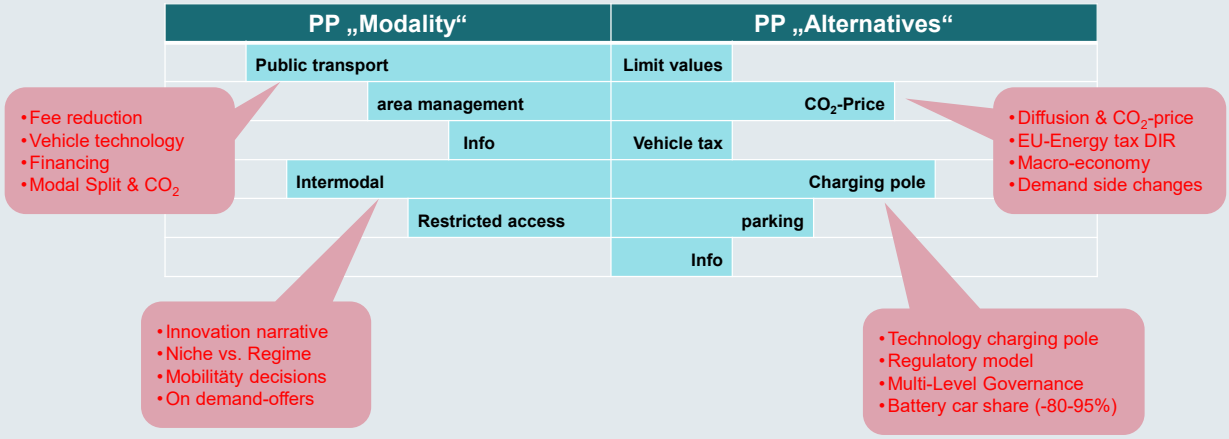
III. Assessment

ASSESSMENT OVERVIEW



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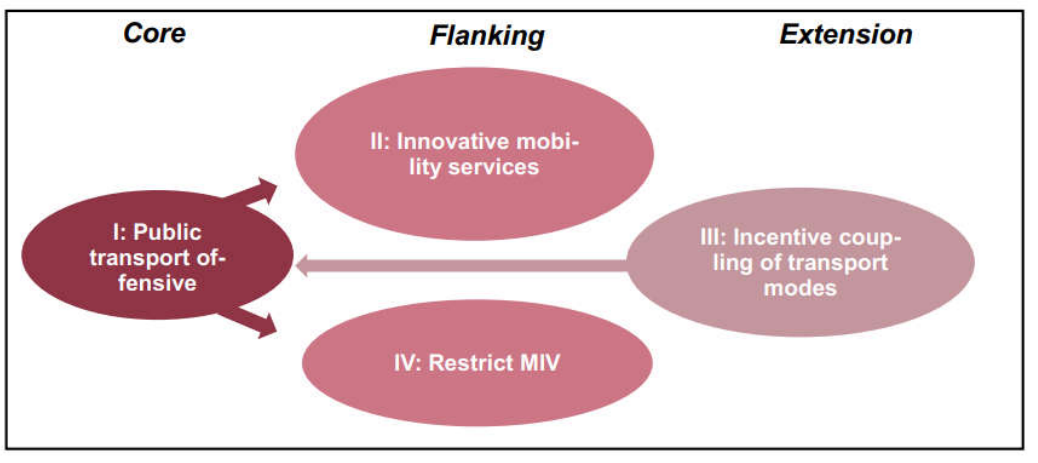
SPECIFICATIONS OF MEASURES IN THE POLICY PACKAGE "PROMOTING PUBLIC TRANSPORT"

IV. Evaluation



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IMPACT MATRIX OF THE POLICY PACKAGES

IV. Evaluation

Variable	1: Public trans-port offensive	2: innovative mobility ser-vices".	3: Coupling of modes of trans-port	4. MIV restric-tions
Category I: Technology development				
Mobility services	◉	◉	-	-
Category III: Environmental influences				
Emissions to air, water, soil	○	○	○	○
Greenhouse gas emissions	○	○	○	○
Category IV: Social resonance				
Readiness for acceptance	●	●	●	○
Change in consumption/ invest-ment behaviour	◉	●	◉	○
Category V: Institutional factors				
Legal barriers	◉	○	◉	○
Political barriers	●	○	●	●
Spatial barriers	◉	○	○	○
Economic barriers	●	◉	◉	◉

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POLICY PACKAGE DESIGN & ASSESSMENT EVALUATION

V. Stakeholder-integration

3 Workshops

- **Policy Packages:** Group Delphi-WS & Stakeholder-WS; **Assessment:** Practice-Science Dialogue-WS

Objectives

- to present the current research results from ENavi for the design and impact assessment of packages
- reflect the results on the basis of different perspectives (ecological, economic, technological, social etc.)
- to discuss how measures can be designed, flanked and implemented over time in a targeted manner

Recommendations

- Creating a socially acceptable traffic turnaround
- Create suitable conditions by trial and error
- The promotion of electric cars must be embedded in the transport turnaround
- Turnaround in urban areas must be accompanied by a promise of mobility for rural areas

THANK YOU!

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