

Preferred citation style for this presentation

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Determine VTTS for the German Federal Transport Infra-structure Planning

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Structure

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6. Outlook

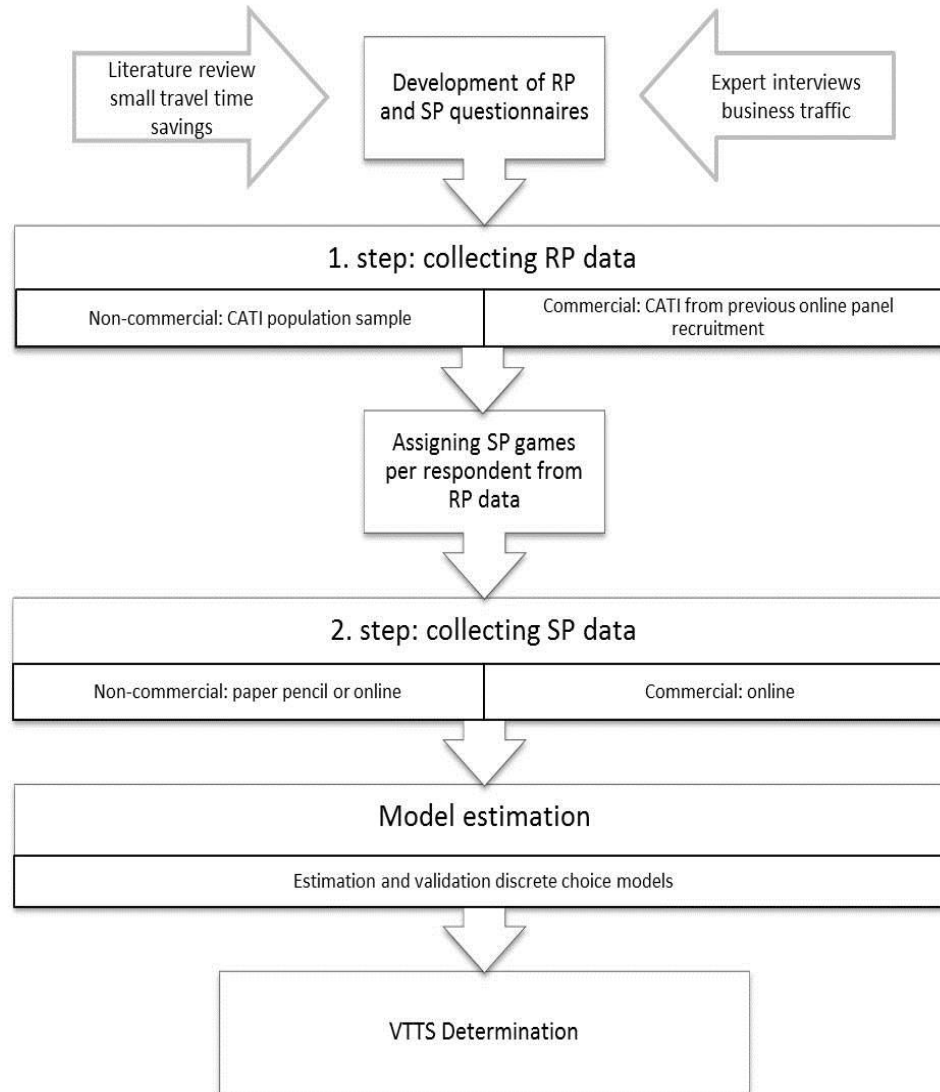
Background information - BMVBS

Initiator:	Federal Ministry of Transport, Building and Urban Development (BMVBS)
Realisation:	IVT ETH Zurich Infratest TU Berlin, Dr. Stephane Hess
Duration:	January 2012 – Spring 2014
Aim:	cover non-commercial and commercial traffic
Sample:	about 3860 (nc) and 1200 (c) interviews
Secondary:	expert interviews, literature review

Background information - VTTS

- CBA to analyze and validate the effects of transport policy measures and investments
- VTTS: large share of utility gains
→ correct economic evaluation essential
- determine VTTS and VOR for Germany's new Federal Transport Infrastructure Plan 2015

Study design - process



Study design – SP example

Situation 3

Zu Fuß	Öffentlicher Verkehr	Auto
Gehzeit 28:29 h	Gesamtzeit 3:09 h	Gesamtzeit 1:48 h
	davon Fahrtzeit 2:48 h	davon fahrend 1:21 h
	davon Wartezeit 0:07 h	davon im Stau 0:09 h
	davon Zugang 0:14 h	davon Zugang 0:18 h
	Umsteigen 4 Mal	
	Kosten 51.9 €	Kosten 51.6 €
	Fährt alle 5 min	
	Anteil verspätet 20 %	Anteil verspätet 5 %
Wahl: <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Study design – types non-commercial SPs

trip	reported mode	mode choice	route choice	reliability	long term
average	walk	walk/put/mpt	--	--	workplace
	walk	walk/put/mpt	--	--	residential
	bike	bike/put/mpt	--	--	residential
	bike	bike/put/mpt	--	--	workplace
	put	bike/put/mpt	--	put 1	workplace
	put	--	put	put 2	residential
	mpt	walk/put/mpt	--	mpt 1	residential
	mpt	--	mpt	mpt 2	workplace
journey	put	bus/put/mpt	--	put 3	workplace
	put	--	put	put 1	residential
	mpt	bus/put/mpt	--	mpt 3	residential
	mpt	--	mpt	mpt 1	workplace
	put	put/mpt/plane	--	put 2	workplace
	put	--	put	put 3	residential
	mpt	put/mpt/plane	--	mpt 2	residential
	mpt	--	mpt	mpt 3	workplace
	plane	put/mpt/plane	--	plane 1	workplace
	plane	put/mpt/plane	--	plane 2	residential

Study design – types commercial SPs

trip	reported mode	mode choice	route choice	reliability
short	walk	walk/put/mpt	--	--
	bike	bike/put/mpt	--	--
	put	bike/put/mpt	--	put 1
	put	--	put	put 2
	mpt	walk/put/mpt	--	mpt 1
	mpt	--	mpt	mpt 2
medium	put	bus/put/mpt	--	put 3
	put	--	put	put 1
long	mpt	bus/put/mpt	--	mpt 3
	mpt	--	mpt	mpt 1
	put	put/mpt/plane	--	put 2
	put	--	put	put 3
	mpt	put/mpt/plane	--	mpt 2
	mpt	--	mpt	mpt 3
	plane	put/mpt/plane	--	plane 1
	plane	--	--	plane 2

Study design - characteristics mode choice

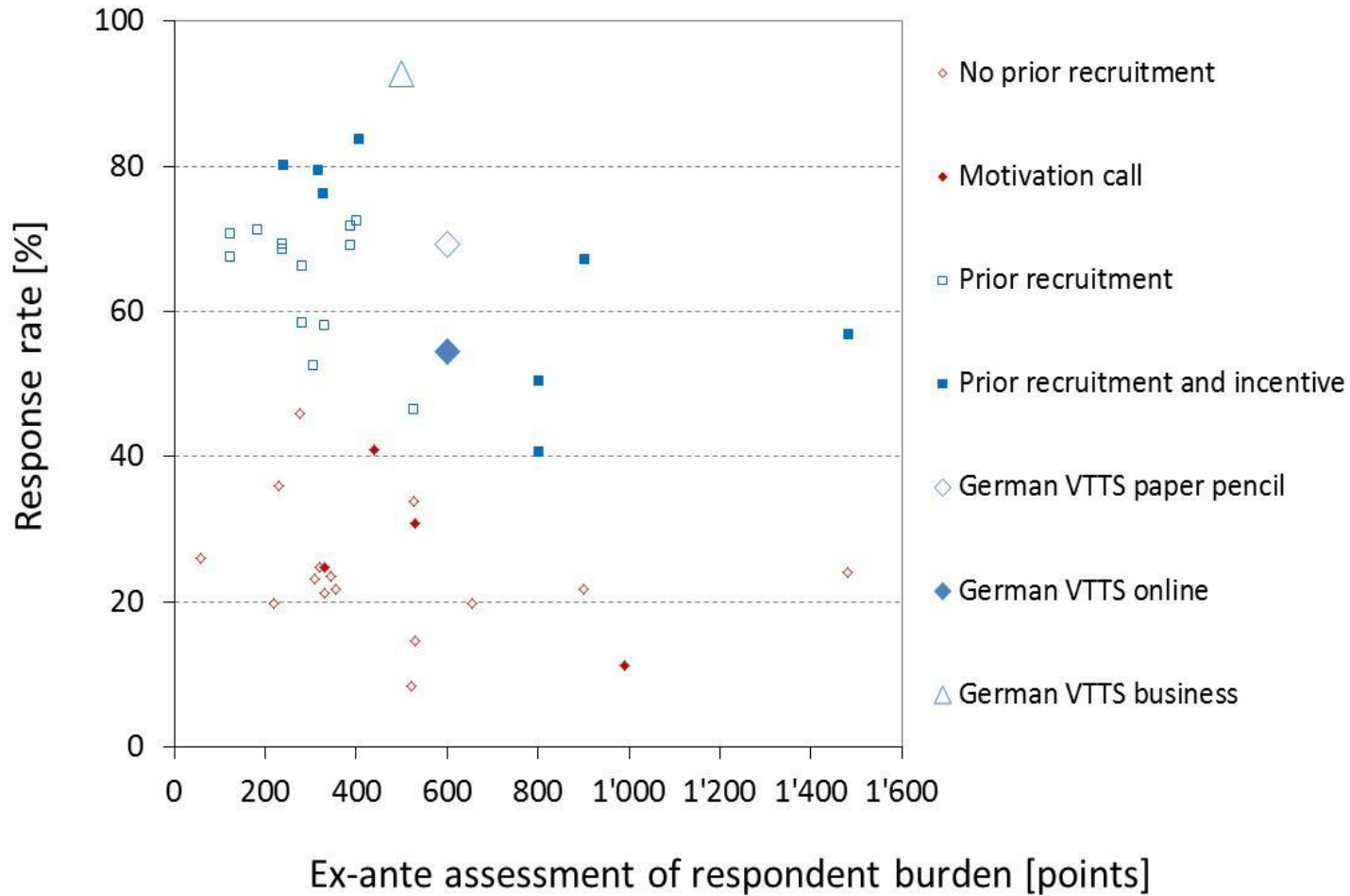
attribute	characteristic
time main mode	-30%, -10%, +20% actual state
time walk	5%, 10%, 20% of travel time
congestion or waiting time	5%, 10%, 20% of travel time
cost	-20%, +10%, +30% actual state
change	-1, +/-0, +1 time
frequency	-1, +/-0, +1 step
share delayed	5%, 10%, 20%

Study design – SP example

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Response rate



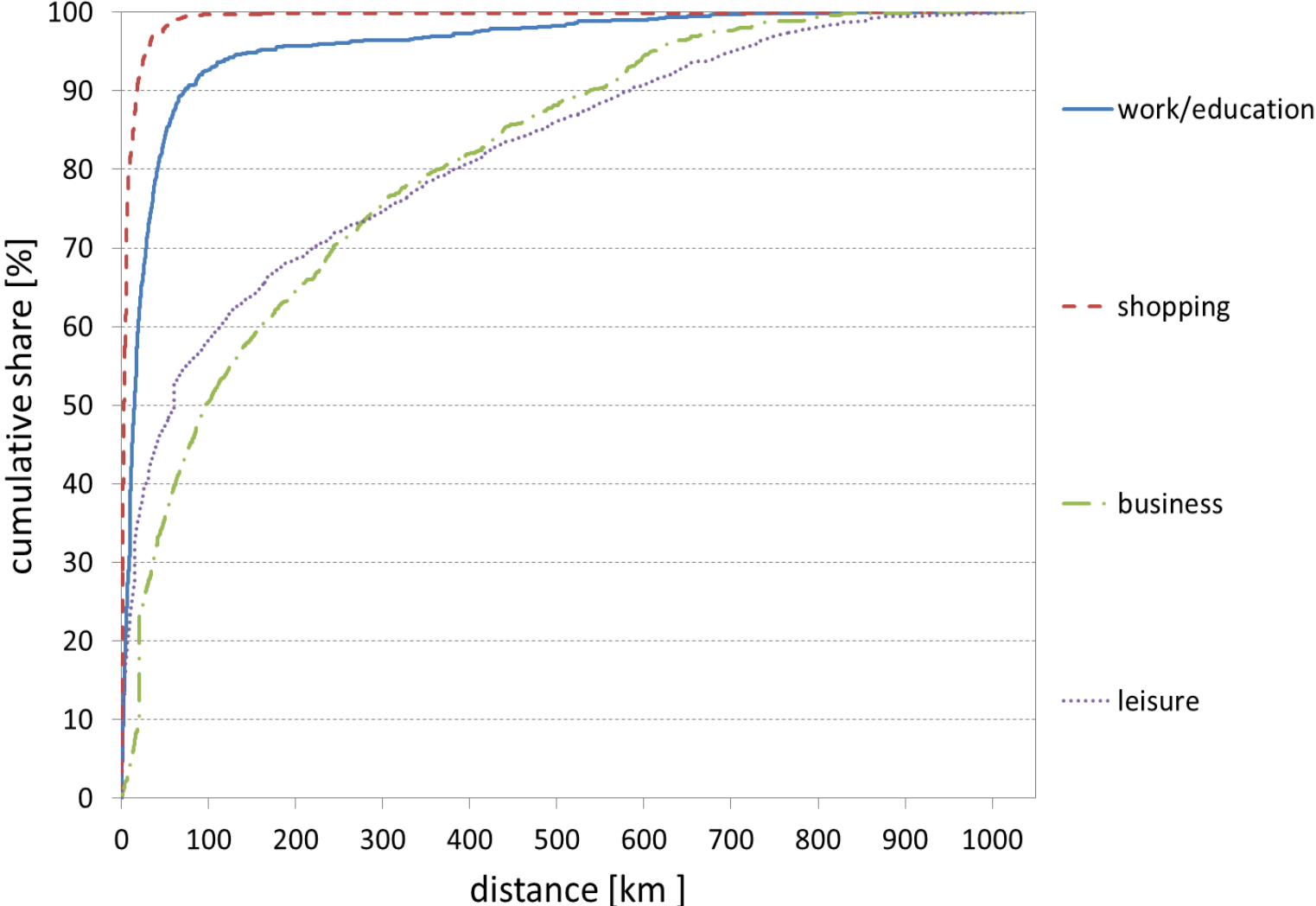
Small travel time savings

- Utility gain clearly decreases if small travel savings are not taken into account
 - Controverse discussion
 - Different approaches suggest different treatments
 - Serveral problems occure defining and distinguishing small
- Literature review in preparation of German VTTS study
- state of the art: treat all time savings equally.
- collected data would be sufficient if additional analysis desirable

Expert interviews

- main mode car (80%)
 - mobility concepts are optimized to time and cost
 - about 20% of employees of a company are mobile and travel rather alone than in groups
 - route choice is a free decision of the employee
 - mode choice is a joint decision
- it is plausible to ask the employees

Outlook – trip distance



Outlook - Modelling

- Estimating discrete choice model
 - mode choice, route choice, combined
 - long term (residential and workplace)
 - non-linear effects (interaction between variables)
- calculating VTTS and VOR
- synthesis, report and recommendations

Thank you very much!

Questions?