

# WIFAS

Assessment of social impacts caused by mission-oriented funding programmes to support transport and mobility research

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Financed by the research programme 'Mobility of the Future' of the Federal Ministry for Transport, Innovation and Technology (BMVIT)

openevaluation2016, Vienna, 24/11/2016

## Goals

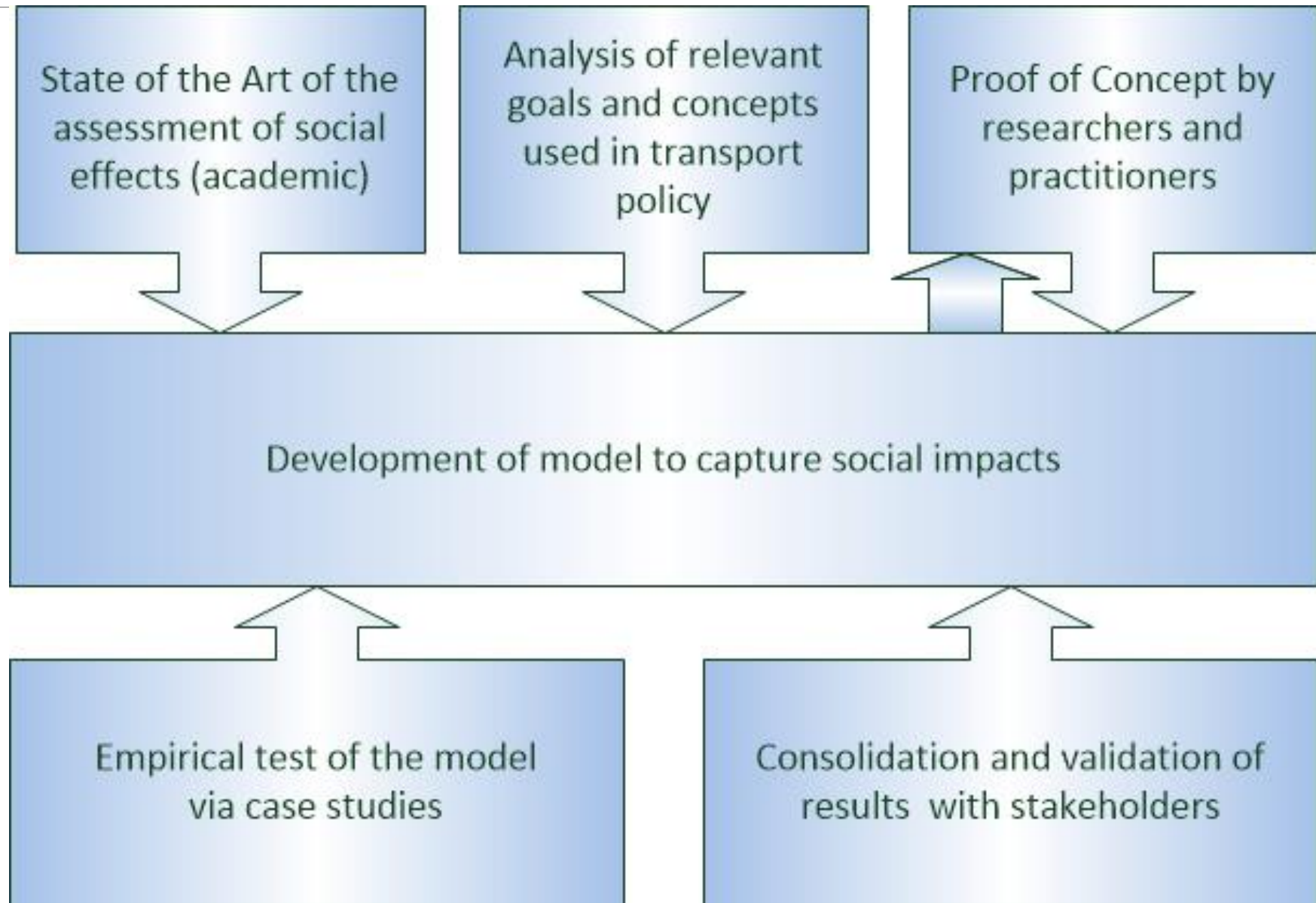
To develop an assessment tool for capturing social impacts caused by mission-oriented funding programmes to support research in the thematic areas „personal mobility“ and „goods transport“.

- a) What kind of social impacts are associated with personal mobility and goods transport research?
- b) Which approaches, methods (and indicators) are available for identifying social impacts?
- c) How can the programme's specific contribution be estimated?

## Results

Two empirically-verified impact models, translated into a survey tool, as the basis for estimating socially relevant impacts of research funding programmes.

**Potential additional benefit:** Learning effects for a wider range of RTD-Programmes



Different disciplines deal with social impacts (psychology, sociology, economics, etc.) and apply their understanding of the issue in various fields (assessment of infrastructure investments, social impact assessment, social return on investment, etc.)

- **Social impact (SI):** *„intended and unintended social consequences, both positive and negative, of planned interventions and any social change processes invoked by those interventions”* (Vanclay, 2006).
- **SI in mobility and transport:** *„...changes in transport sources that (might) positively or negatively influence preferences, well-being, behaviour or perception of individuals, groups, social categories and society in general (in the future)”* (Geurs et al., 2009).
- Social impacts should be captured via quantitative and qualitative impact dimensions and indicators, but the correct estimation of total outcome of an intervention is hardly possible because *„social change creates other changes”* (Vanclay, 2012).

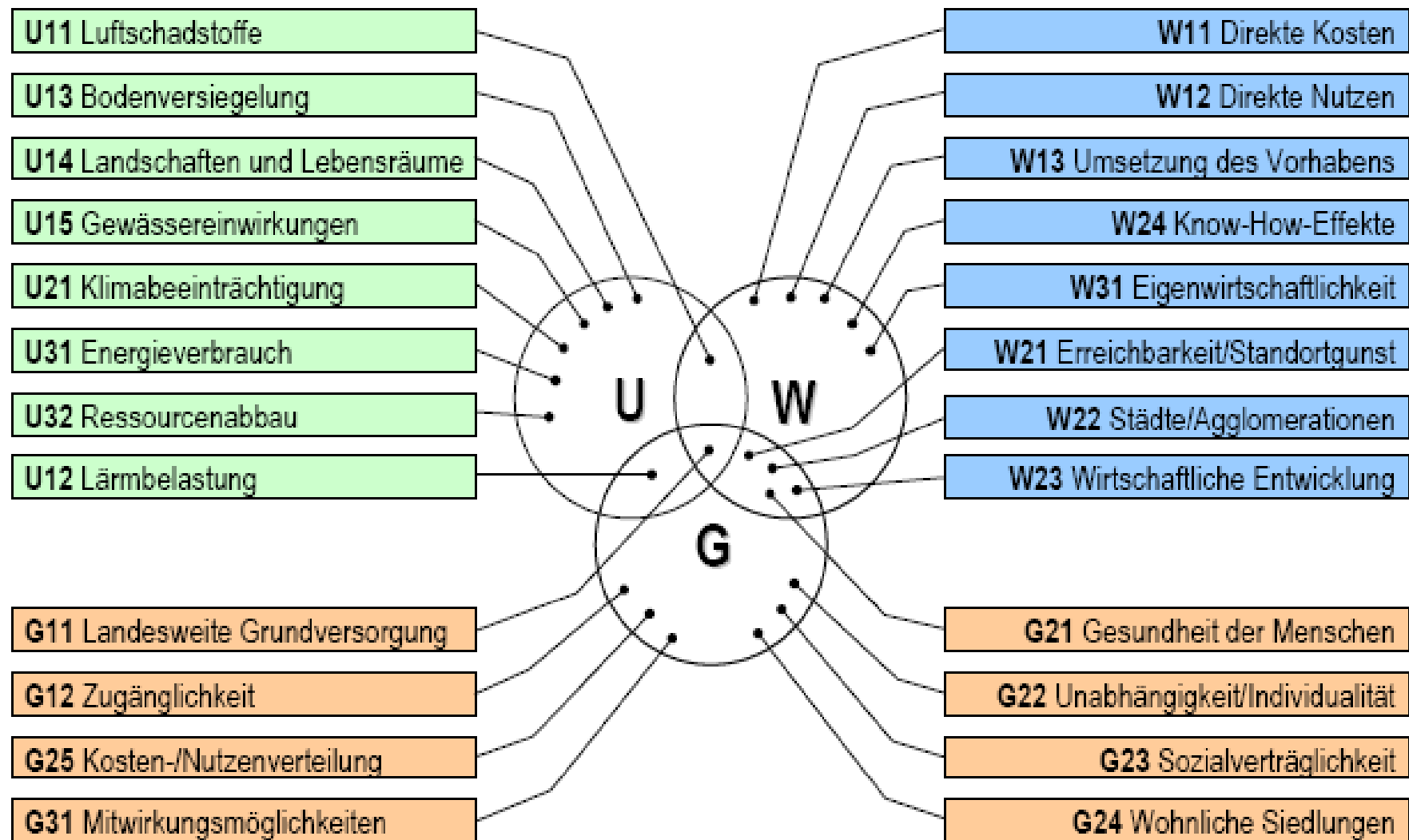
- **Social impacts** attract less policy attention than economic and environmental impacts. 'Social' is often defined as employment and/or distributional impacts only (in transport/mobility and others).
- **Lack of conceptual clarity**
  - a) Which social impacts are caused by interventions and how do they relate to each other?
  - b) As impact dimensions overlap (economic, ecological, social), how should we deal with the overlap?
  - c) Which distributional dimensions should be considered? How can their heterogeneous occurrence (mode and intensity) be captured?

# Ad a) Historic genesis of mobility related ‘social’ impacts

Geurs and Adams (1999)	Forkenbrock and Weisbrod (2001)	Geurs et al. (2009)	Atkins (2010)	Markovich and Lucas (2011)	Litman (2011a and 2014)
material wealth	changes in travel time/ changes in vehicle operating costs	visual quality / use of space	noise	visual quality; experience of traveling	equity/fairness/ access
community relationships	safety	historical/cultural resources; cultural diversity	air quality	historical & cultural resources	health and safety
crime	transportation choice	(community) severance: barriers & diversions	safety	severance / social cohesion	community liveability
road safety	accessibility	social cohesion / inclusion	personal security	SI derived from the provision of transport (infrastructure, vehicles, facilities and activities)	community cohesion
health	community cohesion	noise & soil/air/ water quality	severance	noise & soil/air/ water quality	cultural & historic values
(perceived) environmental quality	noise/visual quality	health (physical fitness)	accessibility	health (physical fitness)	public involvement
democracy	property values	availability & physical access; transp. choice	affordability	availability & physical access; level of service	aesthetics
		safety & security / subjective & objective		safety & security; aversion behaviour	
		intrinsic value of journey		intrinsic value of journey	

## Ad b) Overlapping impact dimensions (econ./ ecol./ social)

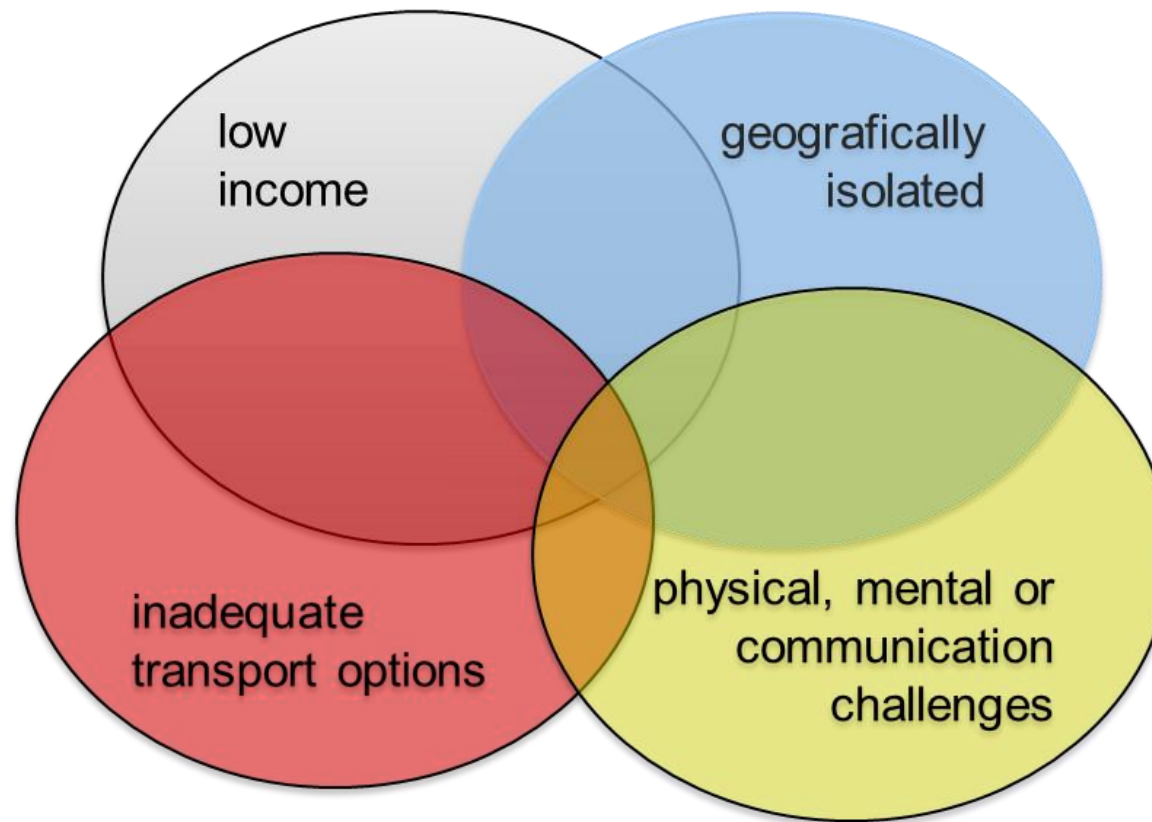
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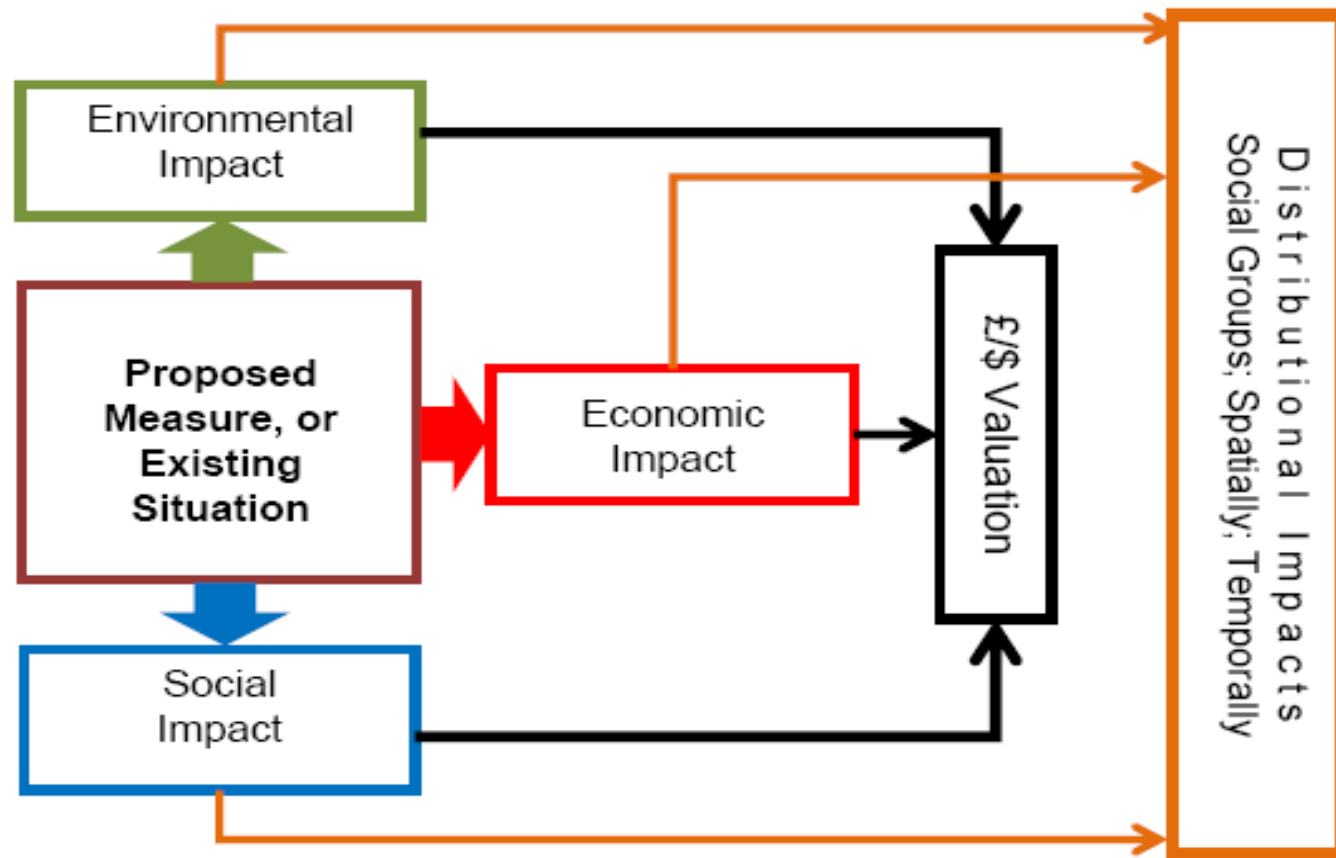
Source: ASTRA (2003)

1. **Sociodemographic:** age, gender, employment status, income, education, ethnic, family status, handicap, specific user-groups
  2. **Spatial:** rural/urban (distances), topography
  3. **Temporal:** impacts need time to unfold: on traffic volume, etc.
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- The combination of factors causes mobility related social inclusion or exclusion.
  - The more challenges groups face, the more likely they are to be excluded.





Source: Litman (2003: 7)



Source: Jones und Lucas (2012: 5)

# Guidelines / manuals for the assessment of social effects

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	International organisations and NGOs	EU und national level
(Social) Impact Assessment	<p>Social Impact Assessment: Guidance for assessing and managing the social impacts of projects (IAIA Guidance 2015)</p> <p>Policy Assessment: The State of Art (Adelle und Weiland 2012)</p>	<p>Impact Assessment Guidelines (EC 2009) and Better Regulation Guidelines (EC 2015)</p> <p>Social impact measurement for social enterprises (European Union/OECD 2015)</p> <p>Methodological Guideline for Impact Assessment (Simsa et al. 2014) – FP 7 Project IMPACT</p> <p>Handbook Wirkungsorientierte Folgenabschätzung (Bundeskanzleramt 2013)</p>
Sustainability (Impact) Assessment	<p>Guidance on Sustainability Impact Assessment (OECD 2010)</p> <p>Strategic Environmental Assessment: The State of Art (Tetlow und Hanusch 2012)</p>	<p>Assessing the Social and Environmental Impacts of European Research (EC 2005)</p> <p>Measuring Social Sustainability: Best Practice from Urban Renewal in the EU (Colantonio 2007) und Measuring Socially Sustainable Urban Regeneration in Europe (Colantonio et al. 2009, financed by the European Investment Bank)</p> <p>A variety of different approaches at national levels...</p>
Transport- related (social) impact assessment	<p>Social Analysis in Transport Projects: Guidelines for Incorporating Social Dimensions into Bank-Supported Projects (World Bank 2006)</p>	<p>Guidebook for Assessing the Social and Economic Effects of Transportation Projects (Forkenbrock and Weisbrod 2001) USA</p> <p>Guidance for Transport Impact Evaluations - Choosing an evaluation approach to achieve better attribution (Hills and Junge 2010) UK</p>

- Assess social effects to support the project-related valuation of RTD impacts, both ex-ante and ex-post, without using highly aggregated quantitative methods,...
- but instead use a framework that integrates qualitative and quantitative dimensions / indicators.
- To ensure replicability of findings, you can define the assessment process:
  - Multi Criteria Analysis
  - Social Impact Assessment (IAIA 2015)
  - Impact assessment guidelines (EC 2009)
  - Etc.

## Multi Criteria Analysis

(1) Describe project and alternatives, (2) Identify effects and indicators, (3) Impact assessment, (4) Normalisation, (5) Criterion weighting, (6) Visualisation and interpretation, (7) Sensitivity Analysis, (8) Communicate results

## Social Impact Assessments (IAIA 2015)

- (1) Understand the issues
- (2) Predict, analyse and assess the likely impact pathways
- (3) Develop and implement strategies
- (4) Design and implement monitoring programs

## Impact Assessment Guideline (EC 2009)

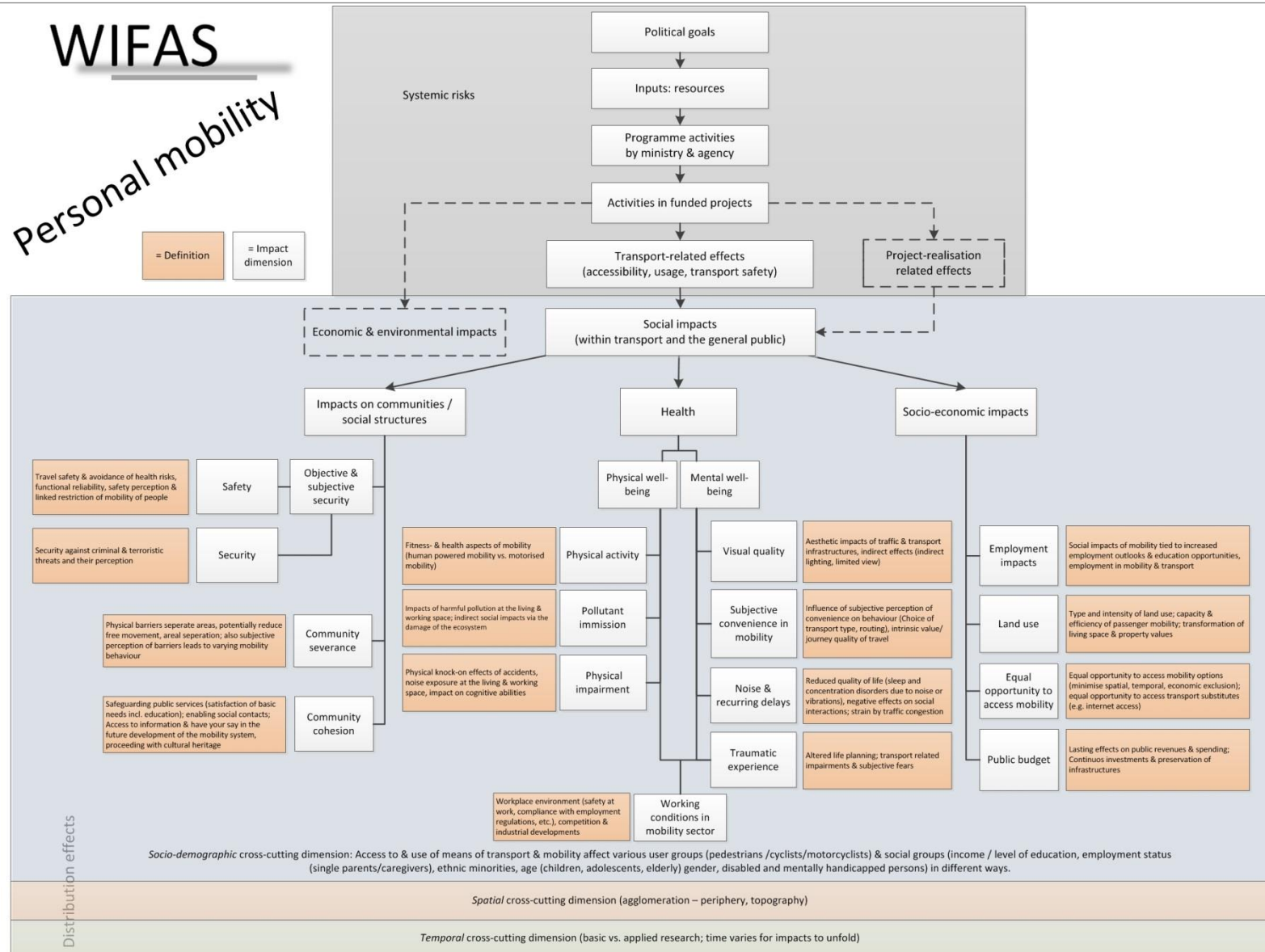
- (1) Identify the economic, social and environmental impacts
- (2) Assess the more significant impacts qualitatively
- (3) Analyse the most significant impacts in-depth, either qualitatively and quantitatively

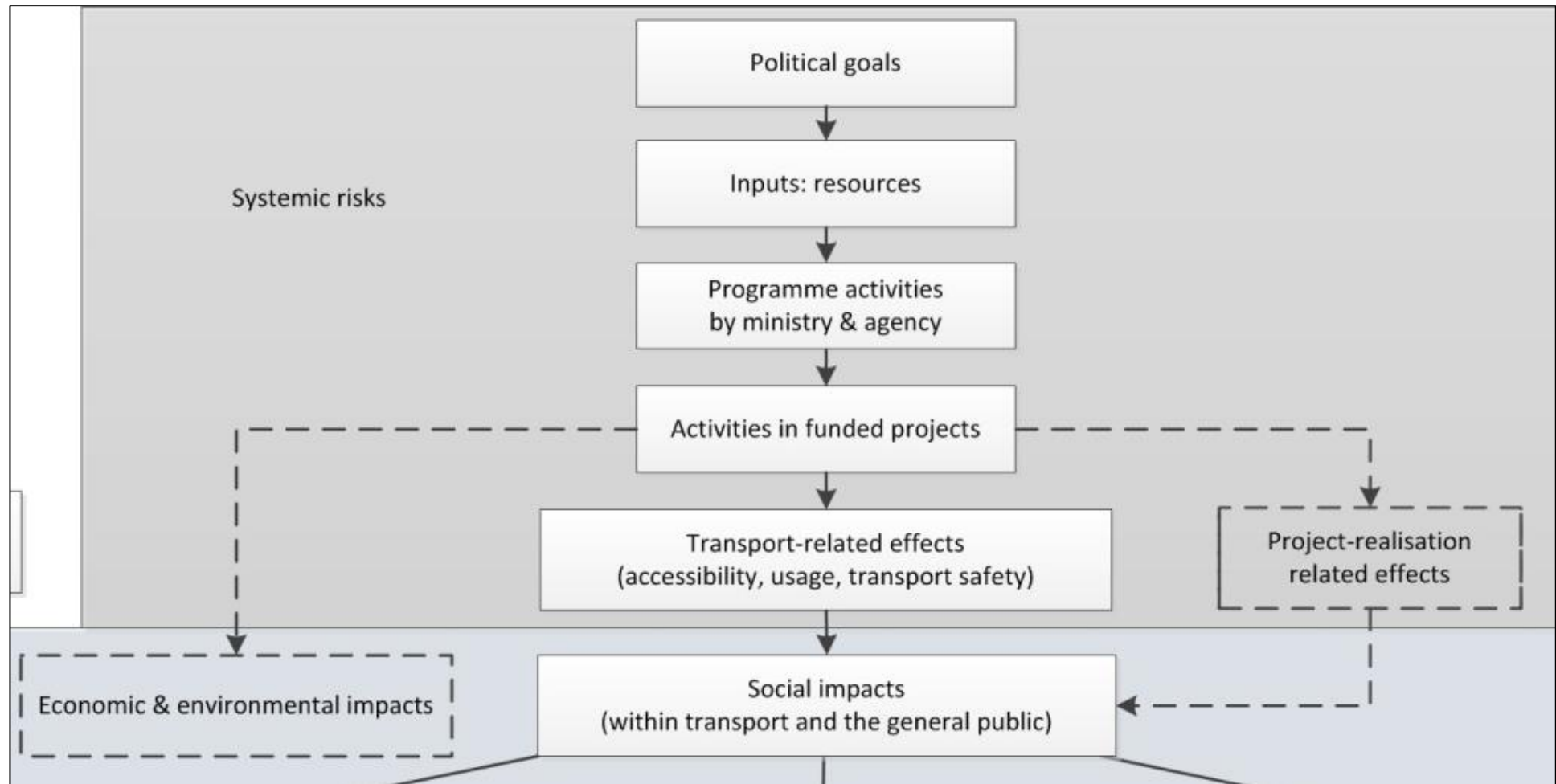
The model shall...

- Not determine definite impact indicators due to heterogeneous foci of RTD-projects  
-> these are partially project specific.
- Be applicable for basic research as well as applied research projects.
- Cover net effects (positive and negative impacts).
- Can aggregate results not only at project levels but for thematic areas and the entire funding programme as well.
- Be able to differentiate between the different impact dimensions (econ/ecol/econ)
- Explicitly display potential weightings.
- Be able to incorporate projects with very specific and general impact patterns.
- Define the temporal dimension of social impacts assessed.
- Be pragmatic overall (principle of proportionality), but not an imitation of prior/ existing solutions.

# The personal mobility model

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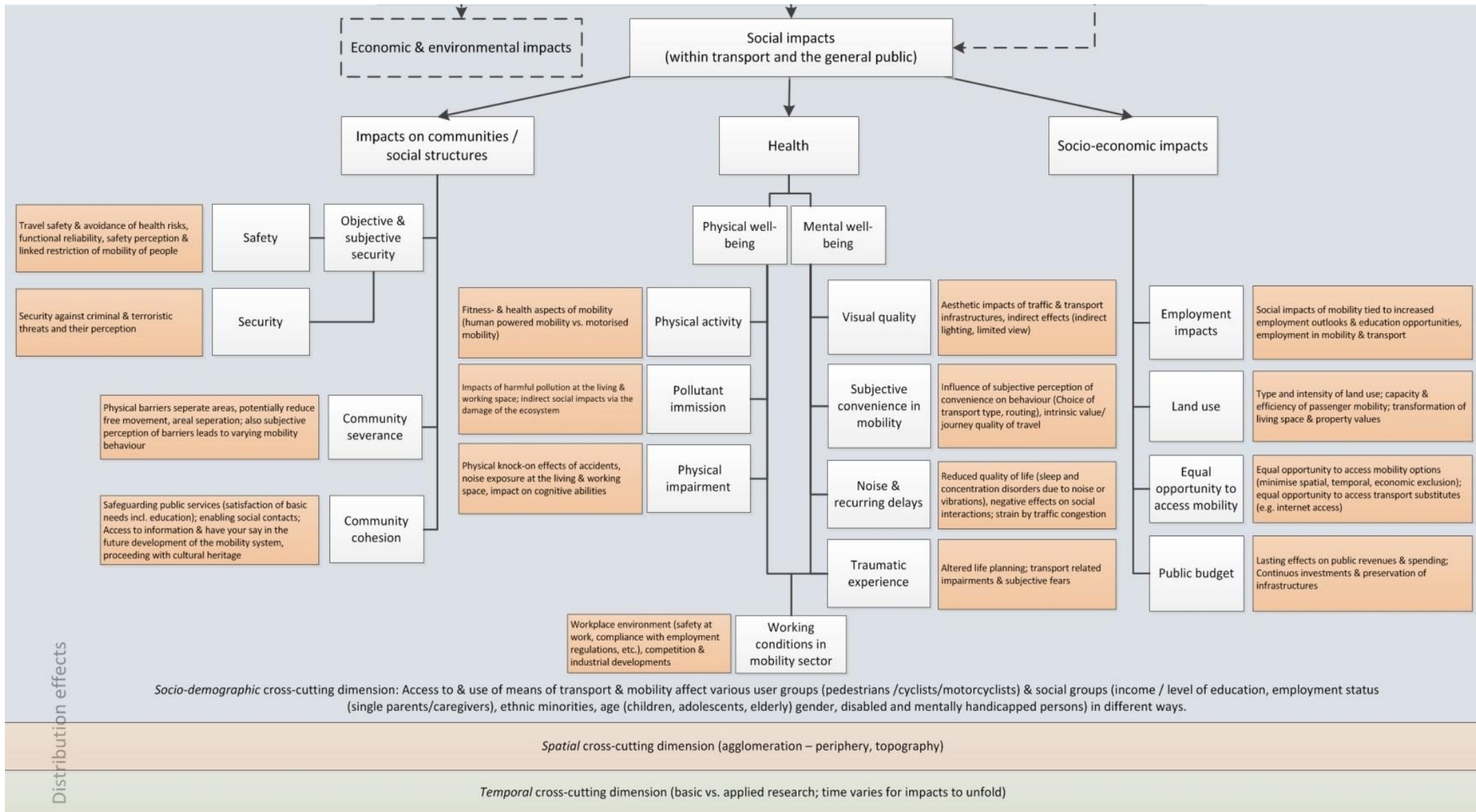






# The personal mobility model

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# Form of assessment at different levels

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Type of assessment	Levels			
	Programmes ex-post	Thematic areas ex-post	Projects	
			ex-ante	ex-post
Yes / No	✓	✓	✓	✓
Verbal Description	✓	✓	✓	✓
Scaling	✓	✓	✓	✓
Quantitative Indicators	(✓)	(✓)	-	(✓)

## **Ex-ante**

- Define specific social impacts in future calls for proposals to attract certain kinds of projects
- resp. to ensure that these kinds of impacts are already respected in the project design stage

## **Methodological approach**

- (1) Incorporate social criteria in calls for proposals
- (2) Incorporate social criteria in the appraisal of project proposals

## Ex-post

- Assess potential or factual social impacts at programme level and in thematic areas
  - Where do we need to know more?
  - Where do we now enough, and there is a need for action?

## Methodological approach

- (1) Identify impacts: survey up to 4 years after RTD project to screen potential and factual impacts.
- (2) Qualitative assessment of impacts
- (3) In-depth analysis of the most important impacts

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WIFAS final report:  
<http://www.bmvit.gv.at/mobilitaet/publikationen/>

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