SPADE

Assessing the added value from SPAtial Development as a factor in infrastructure planning

Jan Kiel – Panteia

j.kiel@panteia.nl

12 february 2021, CEDR virtual conference

Funded by:

CEDR
Conférence Européenne des Directeurs des Routes
Conference of European Directors of Roads

How to include different perspectives?

How to involve stakeholders?

How to assess integrated infrastructure and spatial plans?

How to consider different effects e.g. economy, societal and environmental ?

SPADE method: an assessment method for the collaborative planning of infrastructure and spatial development

First step: Literature review

Covering 480 reports, guidelines, papers and articles

Effects of spatial planning and infrastructure planning

Costs; accessibility; economy; environment; safety; quality

Spatial appraisal methods

MCA; CBA

Methods for collaborative planning

Delphi method, Future Search, e-Participation, participatory GIS, Bayesian Causal Map, Soft Systems Methodology, …

*How to combine these methods in a single c**ollaborative planning-based assessment method**?*

The SPADE Method

consists of:

Process

Steps to integrate the tool into the planning process and ensures a collaborative planning process

Tool

Assessment methodology facilitating collaborative assessment of measures

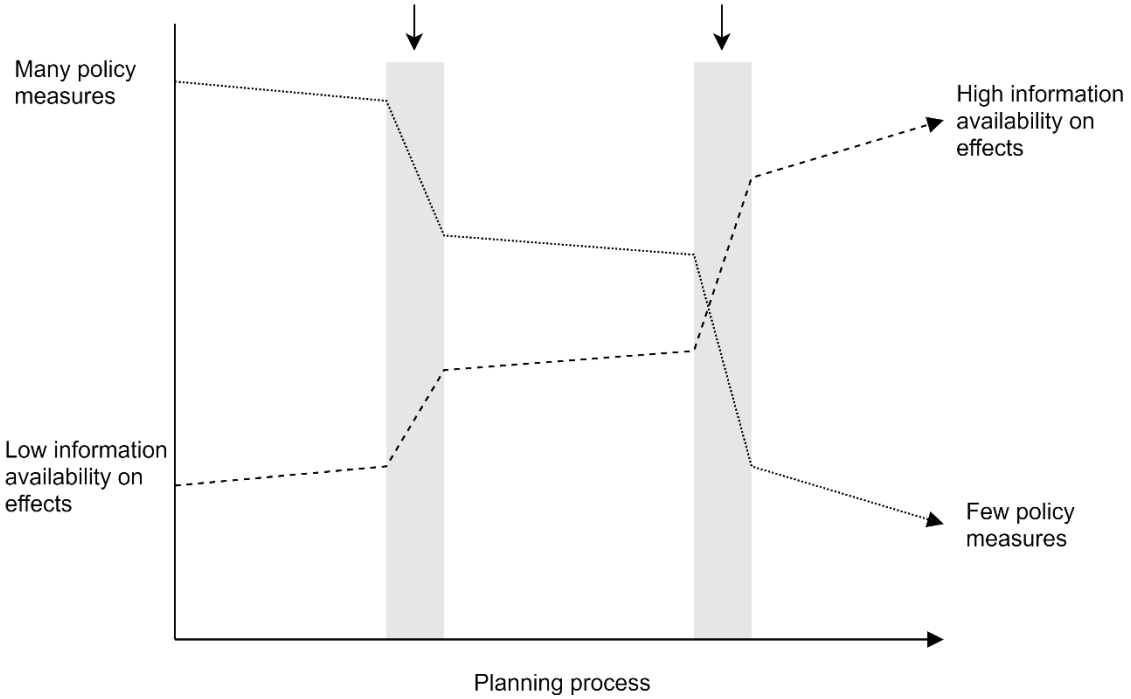
The Tool:

Based on an extensive literature review

Combines CBA, MCA, e-participation and a digital workshop into a single approach

Stakeholders discuss and rate various measures according to various criteria (accessibility, economy, safety…) in a focus group-like setting using a computer-assisted MCA/CBA

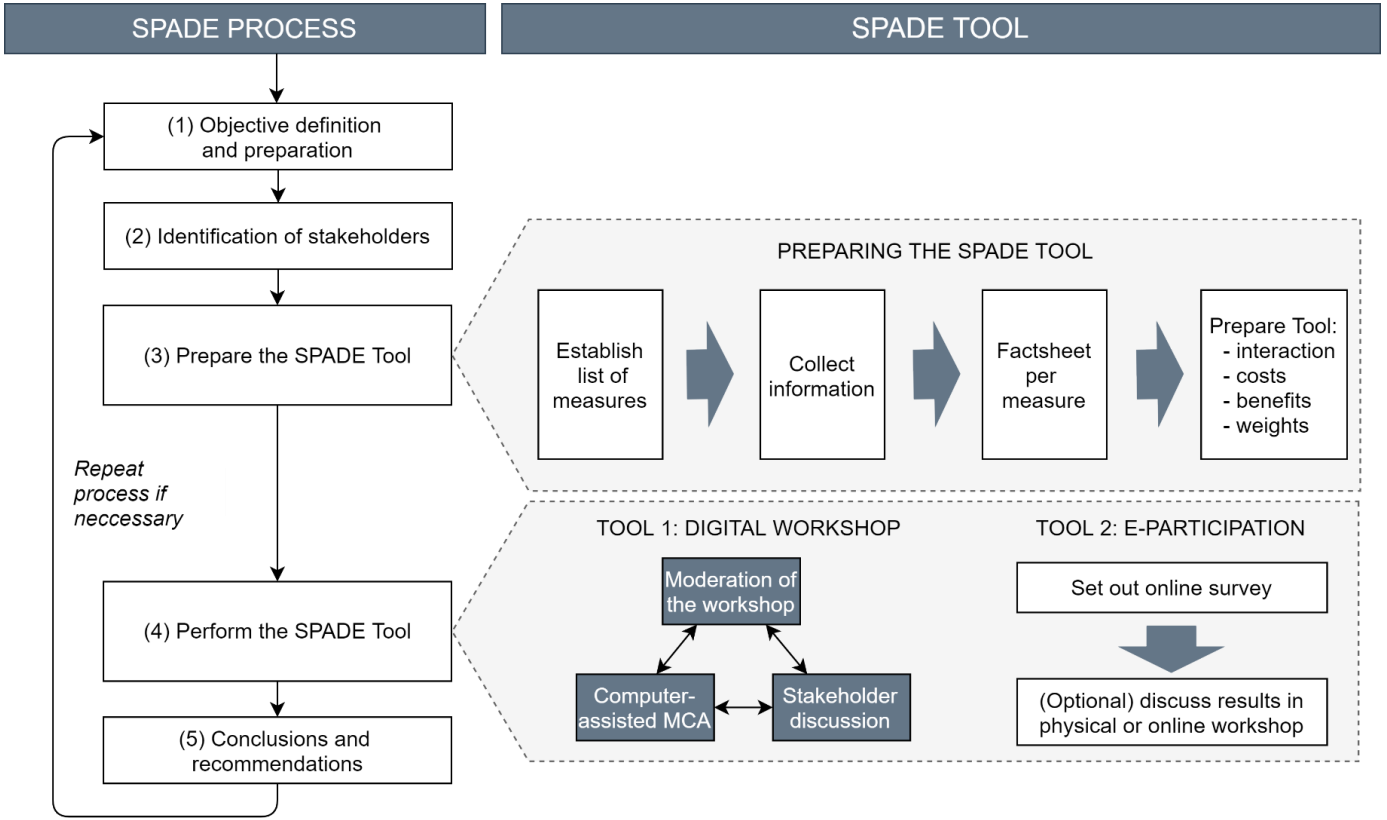
Application moments of SPADE in the planning process



Advantages:

- Speeds up the decision-making proces
- Reduces the number of potential policy measures
- Increases understanding of potential effects
- Gains stakeholders support through involvement

The SPADE Process:



Panteia
Research to Progress

Two ways to carry out SPADE:

Tool 1: Digital Workshop

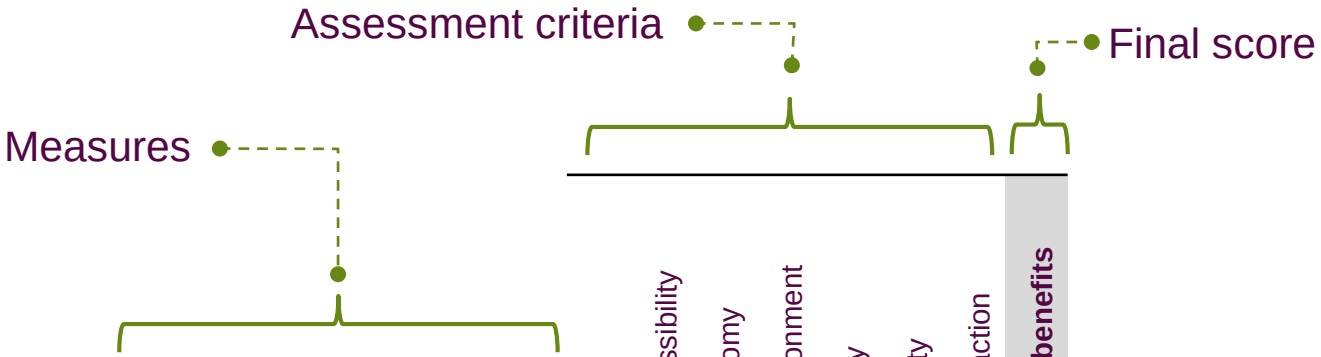
- +/- 10 attendants from different backgrounds.
- Focus group based on democratic discussions.
- Measures are rated live by the stakeholders using a computer.
- Each attendant contributes *actively.*
- Discussions about the rating.
- Requires good moderation.

Tool 2: E-participation

- > 10 attendants from different backgrounds.
- Measures are rated using an online survey.
- Results are discussed with stakeholders afterwards in an physical or virtual meeting.
- Results can be analysed before being discussed with stakeholders.

Panteia
Research to Progress

SPADE Tool:



Measures	Costs	Accessibility	Economy	Environment	Safety	Quality	Interaction	**Total benefits**
1. Smart Mobility	1.0	0.3	0.1	1.2	0.3	0.6	0.1	**2.6**
2. Improving rail services	5.0	0.5	0.2	1.0	0.2	0.7	0.1	**2.5**
3. Better Utilization	1.3	0.6	0.1	1.0	0.2	0.7	0.1	**2.7**
4. Deil and Empel 2x4	4.2	1.5	0.5	0.3	0.8	0.1	0.3	**3.5**
5. ‘s-Hertogenbosch 2x3	2.4	1.2	0.4	0.2	0.5	0.1	0.3	**2.8**

*The purpose of the assessment method is to **spark a discussion** about the planning issue*

Case 1: Netherlands

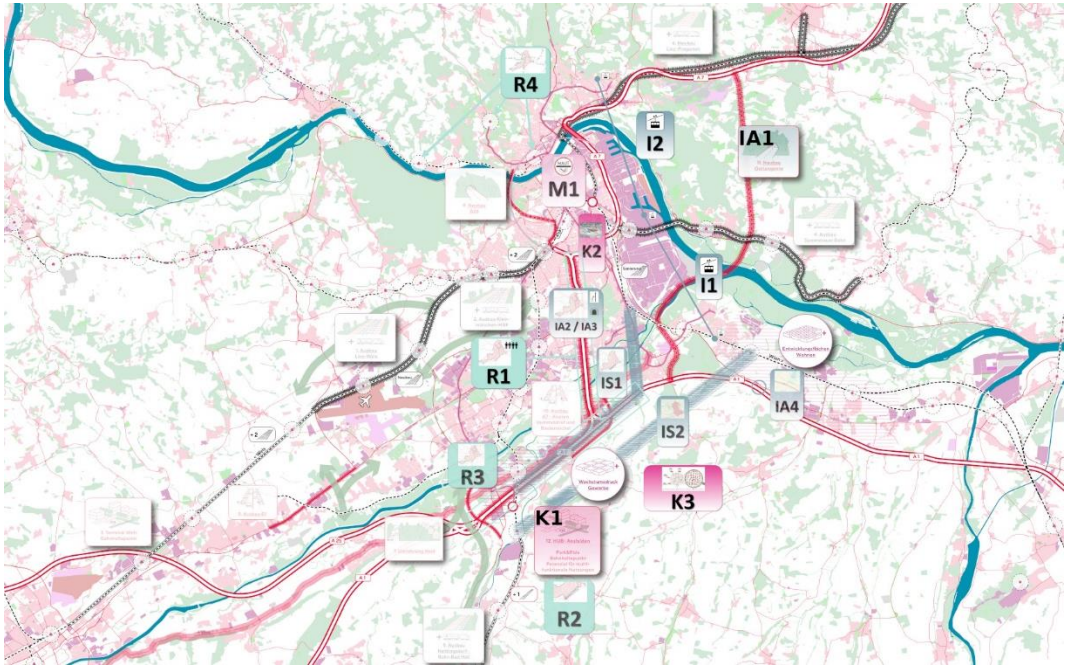
A2 highway between interchange Deil and ‘s Vught – 5 measures

Case 2: Norway

The E6 main access road to the Oslo suburban area – 2 measures

Case 3: Linz

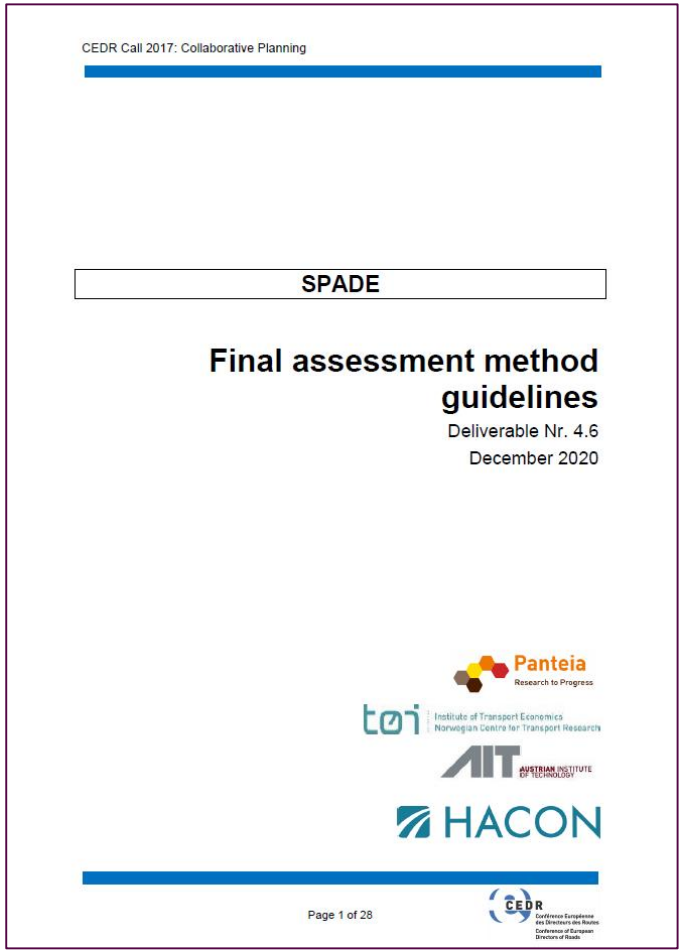
Future of the Greater Linz area – 16 measures



Main findings

Usage of the method

- SPADE is flexible and applicable in many different situations
- Provides a structure for discussions about infrastructure planning and spatial development
- Offers direction when little information is known
- Provides stakeholders insight in the more promising and less promising measures
- Method enables combining different criteria, depending on what is relevant for the planning process
- Can use qualitative and quantitative data
- Using quantitative analysis reduces human bias



Main findings

Further development of the method

- SPADE is more suited in the earlier stages of the planning process, when little is known about the impact of measures.
- How to deal with weighting of criteria – this can be political question
- Measures should be at similar stage in the planning process
- Good moderation, a transparent evaluation system and clearly defined measures and criteria will avoid length methodological discussions

Improvements to the method are presented in the **SPADE Guidelines**

Panteia
Research to Progress

Key facts & Contact

Duration: 27 months
09/2018 – 12/2020

Website: www.spade-project.eu

Contact: Jan Kiel
Panteia BV
E: j.kiel@panteia.nl

Project Partners: Panteia Research to Progress; toi Institute of Transport Economics Norwegian Centre for Transport Research; HaCon; AIT Austrian Institute of Technology

Funded by: CEDR Conférence Européenne des Directeurs des Routes Conference of European Directors of Roads