

SPADE

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

Ivo Hindriks – Panteia

i.hindriks@panteia.nl

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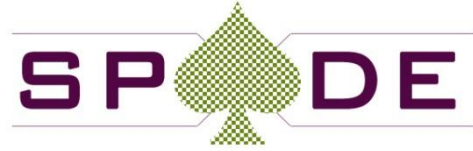
Session: Strategic Transport

Session chair: Jan Kiel

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● Lack of different perspectives

● Lack of stakeholders involvement

Decision-making in infrastructure planning is problematic

● Lack of integrated development

Leading to low quality infrastructure projects



• How to include different perspectives?

• How to involve stakeholders?

How to **assess** integrated infrastructure development plans?

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

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



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:

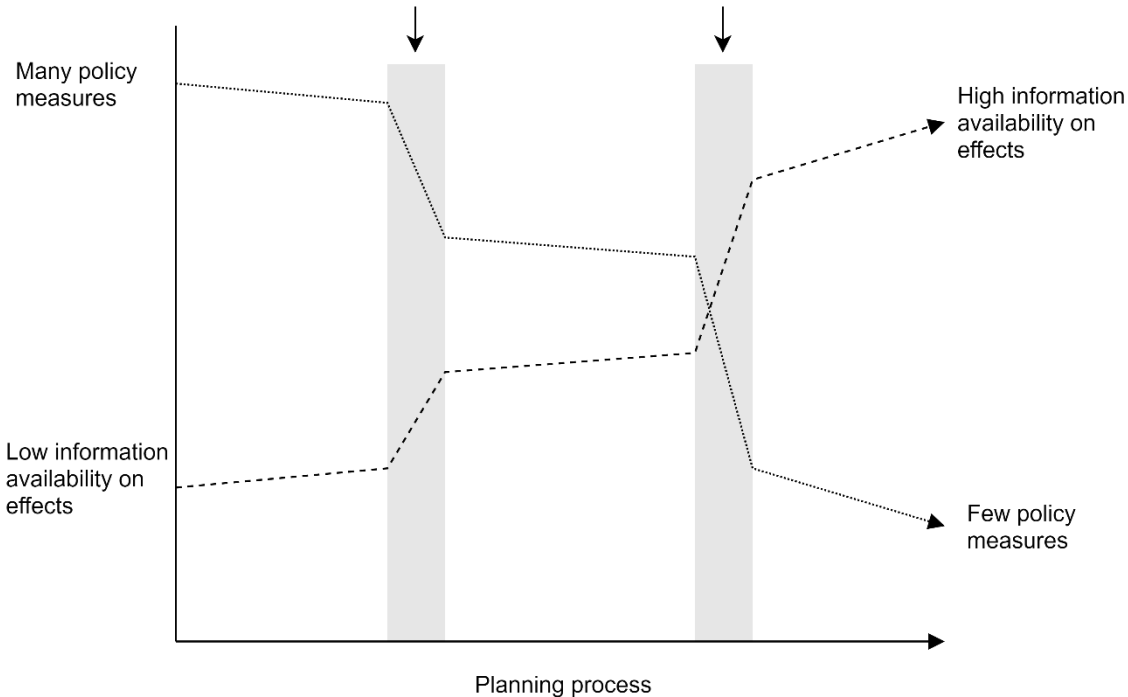
Based on an extensive literature review

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 process

- Reduces the number of potential policy measures

- Increases understanding of potential effects

- Gains stakeholders support through involvement



SPADE Tool Assessment Methodology:

Diagram illustrating the SPADE Tool Assessment Methodology:

- Measures** (Grouped by bracket) lead to **Assessment criteria** (Grouped by bracket).
- Assessment criteria** lead to **Costs & benefits** (Grouped by bracket).
- Costs & benefits** lead to **Final score** (Grouped by bracket).

Measures	Costs	Accessibility	Economy	Environment	Safety	Quality	Interaction	Total benefits	Relative Benefits	Relative Costs	QCBA ratio	QCBA score
1. Smart Mobility	1.0	0.3	0.1	1.2	0.3	0.6	0.1	2.6	1.2	1.0	1.2	4.2
2. Improving rail services	5.0	0.5	0.2	1.0	0.2	0.7	0.1	2.5	1.0	5.0	0.2	1.0
3. Better Utilization	1.3	0.6	0.1	1.0	0.2	0.7	0.1	2.7	1.8	1.3	1.4	5.0
4. Deil and Empel 2x4	4.2	1.5	0.5	0.3	0.8	0.1	0.3	3.5	5.0	4.2	1.2	4.2
5. 's-Hertogenbosch 2x3	2.4	1.2	0.4	0.2	0.5	0.1	0.3	2.8	2.1	2.4	0.9	3.1

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



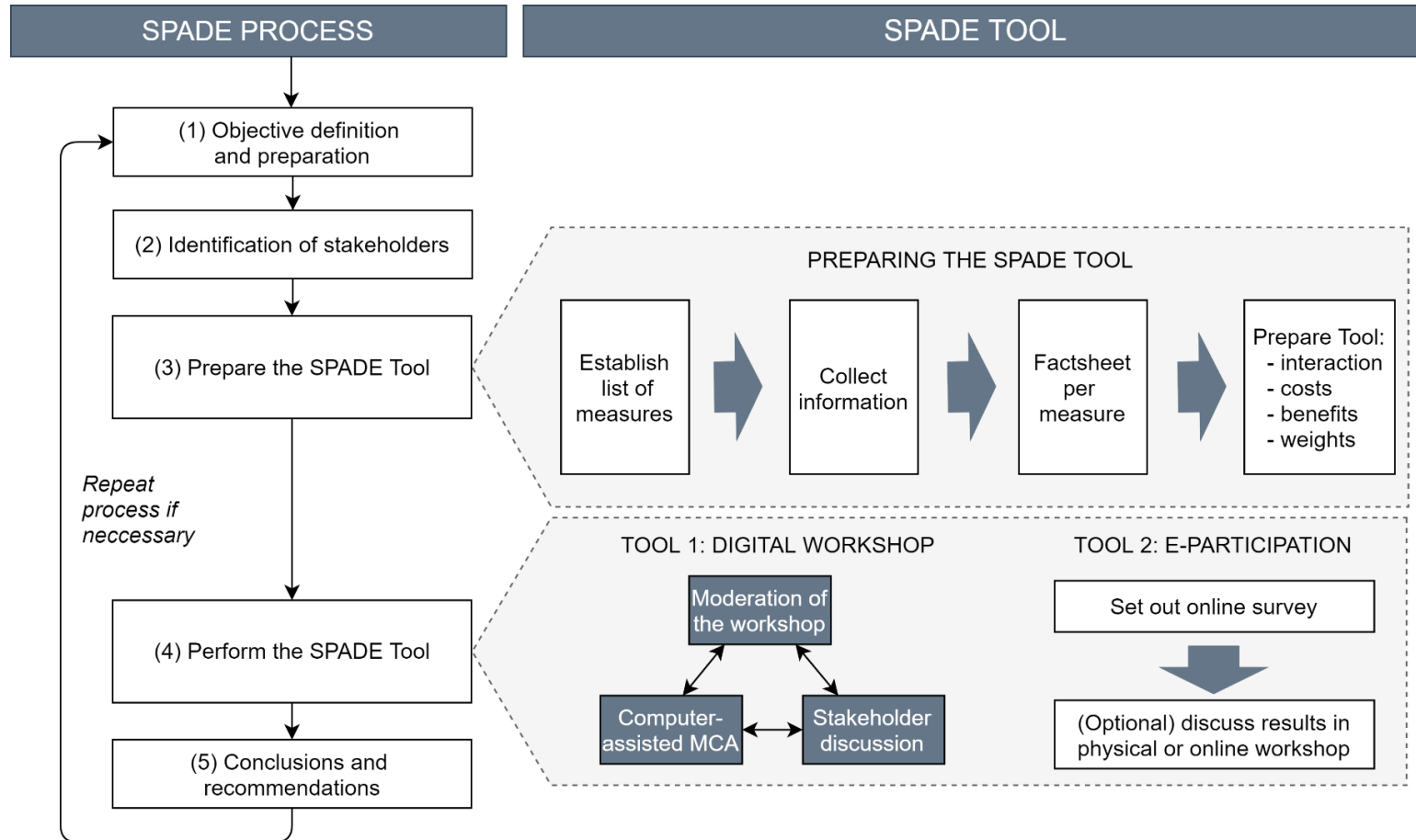
Intergration of the tool in the planning process:

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.

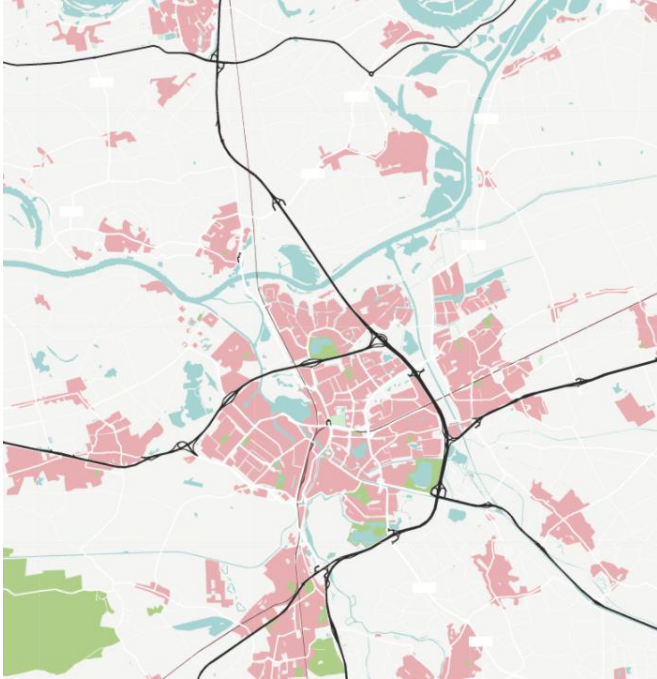
Tool 2: E-participation

- > 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.

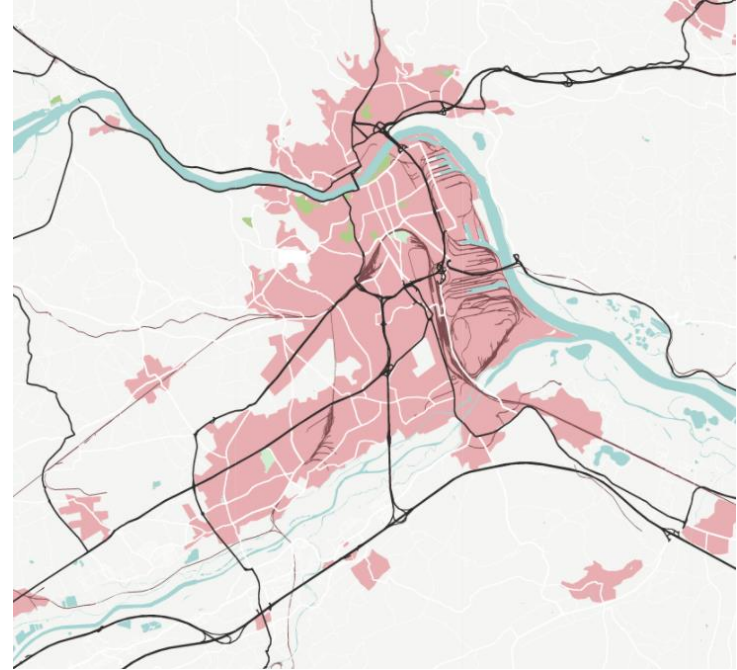




Case 1: Deil-Vught A2 Programme



Case 2: Linz Greater Area





Case 3: Using SPADE to develop a policy roadmap

From:



Leveraging Big Data to
Manage Transport Operations

Policy actions

Rating indicators

Disagreement

Final
score

Title	Description	Indicator				Disagreement			MCA score
		Urgency	Impact	Interaction	Feasibility	Urgency	Impact	Feasibility	
PA09 - Data sharing obligations public tendering	Impose data sharing obligations through public tendering. Public authorities can set requirements on the usage of data through public procurement, for example by setting requirements for data standards and data sharing.	Med	High	Low	High	High	High	Low	Med
PA10 - Data sharing obligations legislation	Impose data sharing obligations through legislation. Such legislations are usually sector-focused and provide for an array of rights and obligations in relation to specific types of data in particular circumstances.	Med	Med	Low	High	High	High	Low	Med



Preliminary findings:

- Allows for combining a diverse set of measures and criteria
- Provides stakeholders insight in the more promising and less promising measures
- Method enables combining different criteria, use different types of qualitative and quantitative data and make measure comparable
- Flexibility of the SPADE method is an important feature
- Using quantitative analysis reduces human bias
- The method needs to be simple so as to not raise too many methodological questions

What's next?



More testing



Develop SPADE
guidelines



Duration: 24 months
09/2018 – 10/2020

Website: www.spade-project.eu

Contact: Ivo Hindriks
Panteia BV
E: i.hindriks@panteia.nl

Project Partners:  **Panteia** Research to Progress  **toi** Institute of Transport Economics Norwegian Centre for Transport Research  **HaCon**  **AIT** AUSTRIAN INSTITUTE OF TECHNOLOGY

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