

Assessing Transport Infrastructure Sustainability

*Reviewing practices and identifying issues together with
knowledge gaps*



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Aim of study

- What are the current best practices in sustainability assessment of transport infrastructures?
- Are there any lessons to be learned?
- What are the current issues and knowledge gaps in connection to these practices?



A foundation for collaboration between...
Chalmers University of Technology
Norwegian Public Roads Administration



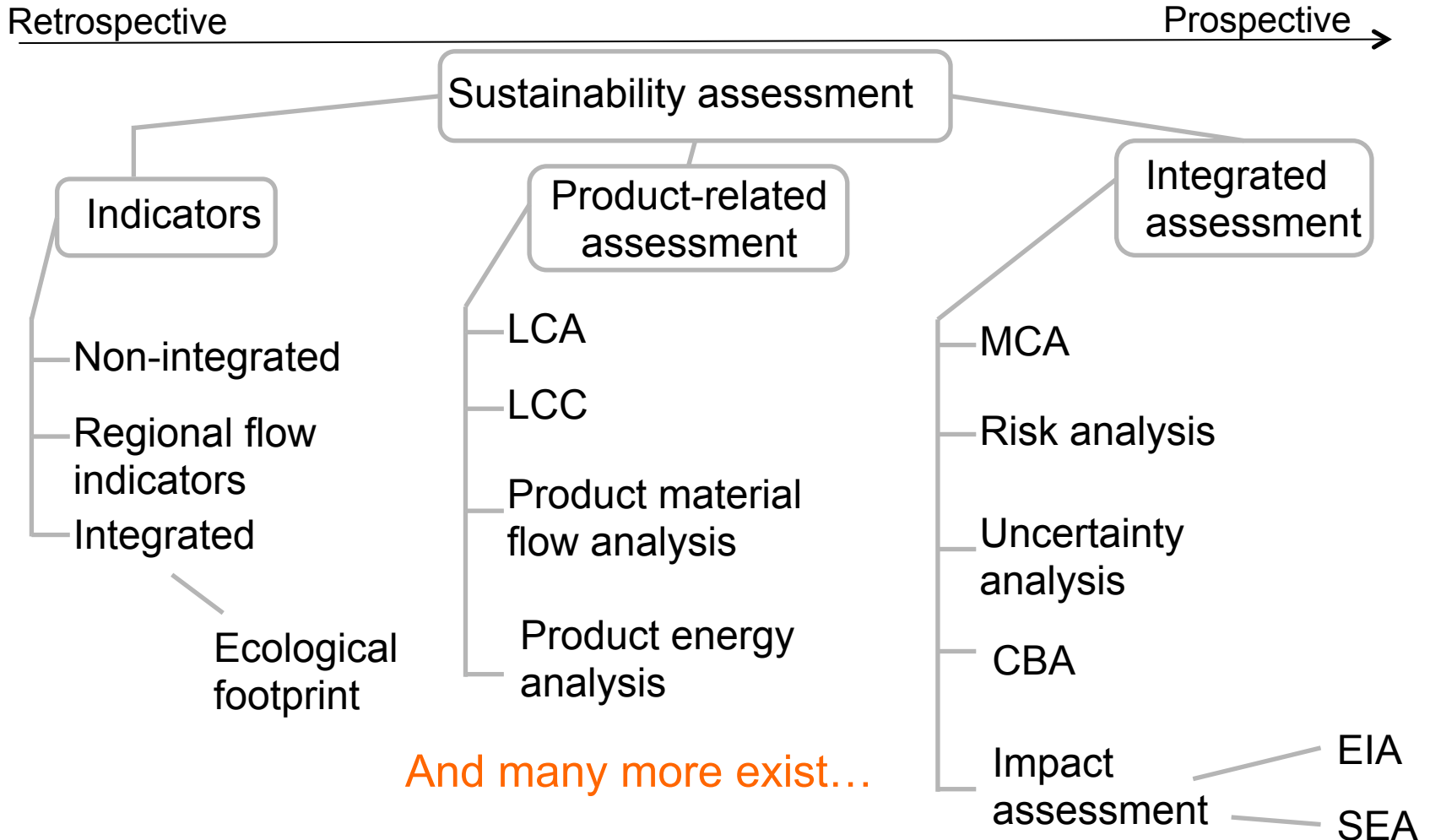
Scope of study

- Reviewing scientific literature
 - Published between 2000 and 2014
- Main sources of information:
 - Databases: *Scopus* and *Web of Knowledge*
 - Selected journals: *Environmental Impact Assessment Review* and *Impact Assessment and Project Appraisal*
- Target terms:
 - “Sustainability assessment”, “transport”, “infrastructure”, “road” and “strategic environmental assessment”



Reviewing
almost 100
articles

Best practices – Many tools for sustainability assessment...



Best practices - Relations between transport assessment tools



Possibly integrated in EIA (and SEA) procedures...

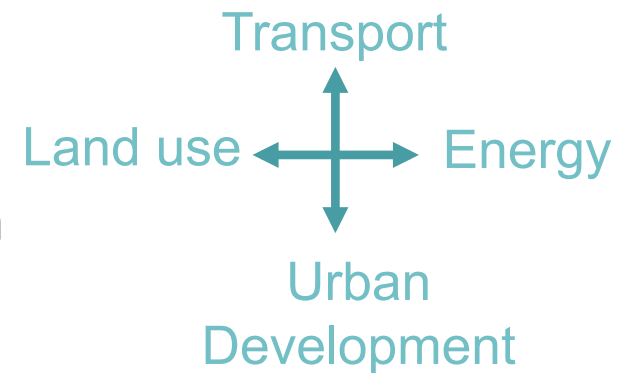
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However, there are many limitations with these current best practices...there are some lessons to be learned.



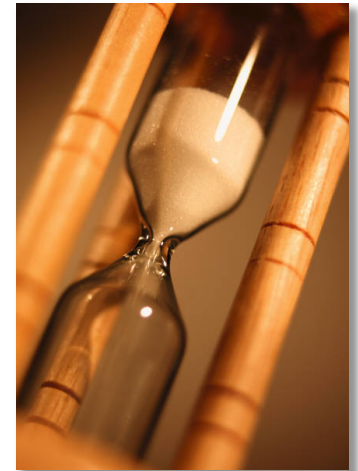
Lessons to be learned – For the procedure

- **Incorrect estimation of environmental impacts**
 - Only considering direct effects
- **Restricted stakeholder participation**
 - Initiated too late, after decisions are already made
- **A need for collaboration and communication**
 - Between planners in different fields
- **Insufficient or absent monitoring and follow-up**
 - Insufficient monitoring of socio-economic but also environmental effects



Lessons to be learned – A need for wider perspectives

- **Consideration of alternatives**
- **A need to combine knowledge**
 - From different fields
- **Inadequate consideration of cumulative environmental effects**
- **Limited understanding of indirect effects**
- **Limited coverage of social aspects**



Take home lessons – Procurement of assessment

Ask for...

- Evaluation of alternatives
- Inclusion of a wide range of stakeholders to be involved in the early phase
- Evaluating with different/wider geographical and temporal perspectives
- Provide alternatives for how monitoring and follow-up could be managed
- Connection between steps in the procedure of assessment but also with other fields and procedures



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