



EVALUATING TRANSITION – INTEGRATING DIMENSIONS TO MEET THE CHALLENGES

EEEN FORUM
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Agenda

- **Introduction** – Lisa Eriksson, SWEPA
- **Evaluating for transitions: the case of research for energy efficiency buildings in Sweden** - Sofie Sandin, IIIEE
- **Aligning evaluation practices for research and policy instruments – the case of energy efficiency in buildings in Sweden** - Sofie Sandin, IIIEE
- **Evaluation challenges: the case of Swedish subsidies for electric vehicles** - Olena Kashyna, SWEPA
- **Discussion**

Introduction

- This session looks further into evaluating transition from a systemic approach.
- Starting with insights from critical reviews conducted of Swedish evaluations covering both research and policy instruments for energy efficiency in buildings, we then go further into discussing how these experiences can be used in related areas.

Synergies between research and use

- How can the Swedish EPA be better at evaluating transition and at meeting the societal challenges?
- We have been interested in evaluating transition for some years, but where do we start?
- The research project Transition Governance invited us to their reference group for mutual sharing of experiences.
- From this research project we have picked up methods and results that are guiding us when choosing and communicating methodology.



Focus for our analyses at the Swedish EPA in 2018

- *"We produce appropriate analyses to be used as a knowledge base and a possibility for the operations to identify better and more accurate measures, by developing a broader perspective in our analyses that includes more societal goals and takes into account several different perspectives"*

From Transition Governance:

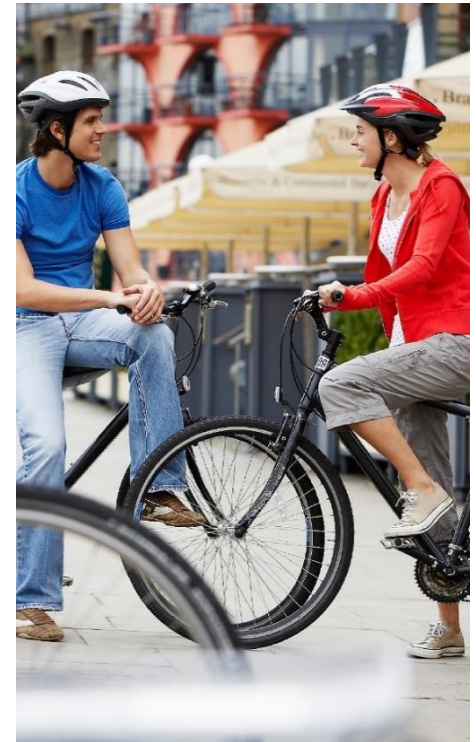
- Evaluating for transitions: the case of research for energy efficiency buildings in Sweden, Sofie Sandin, IIIEE
- Aligning evaluation practices for research and policy instruments – the case of energy efficiency in buildings in Sweden, Sofie Sandin, IIIEE

EVALUATION CHALLENGES - THE CASE OF SWEDISH SUBSIDIES FOR ELECTRIC VEHICLES

Olena Kashyna,
Swedish EPA

The Swedish governmental e-bikes subsidy was launched in 2018

- Aim: “To improve the conditions for commuting and transporting in a climate-friendly mode.”
- Targets two-wheeled electric vehicles purchased by individuals (Swedish residents):
 - Bicycles, motorbikes and mopeds, as well as vehicles intended for people with physical impairments
- Covers up to 25% of the purchase price, up to 10000 SEK (€1000).
- Planned to run between 2018-2020, with the budget of 350 million SEK (€35 million) per year:
 - Money for 2018 has already been allocated
 - 2019-2020 funding depends on the ongoing Swedish government formation



The Swedish governmental e-bikes subsidy in numbers so far*

- 77 488 - number of subsidized vehicles
- 91% of money – paid out for e-bikes
- 4191 SEK (≈407 EUR) – average amount of payment
- 53,5 years - average age of a beneficiary
- 53%/47% - men/women ratio among beneficiaries

**Data as of 2018-10-20*

The scope of the e-bikes subsidy evaluation

- Originally, the e-bikes subsidy evaluation was supposed to be more of a follow-up:

Scope according to appropriation directions:

- Report to the government on how the budget appropriation for the e-bikes subsidy was used and distributed.
- Include the evaluation of results and the description of the progress on how the subsidy is being followed-up.
- Individual-based statistics should, where possible, be presented, commented and analyzed by gender.
- Evaluation to be delivered in spring 2019.



- However, this policy instrument turned out to be very politically charged and has drawn a lot of media attention



- SWEPA needs to perform a deeper analysis, taking into account a larger number of stakeholders. **The challenge is to make it quick.**

Challenges in the e-bikes subsidy evaluation

- Perform a solid evaluation under the preconditions of the short time frame, media interest, political controversy and a large number of stakeholders.
- Evaluate the subsidy against the aim set up by the government: *“to improve the conditions for commuting and transporting in a climate-friendly mode”*, trying to answer questions such as:
 - Have the retail prices for vehicles gone up?
 - Are vehicles being used or are they left in the storage?
 - Are they used instead of cars or ordinary bicycles?
 - Can we identify any rebound effects?
 - How do we approach emissions reduction criterion?
- Understand how and whether this policy instrument contributed to the transition towards a more sustainable society.
- Design the evaluation in a way that it in itself can contribute to transformative changes towards sustainability.



Transition theory offers new perspectives in evaluations

System	- How are systems (actors, institutions, technological factors and their interactions) delineated, in time and space?
Scale	- Do we get the same results at different levels (geographical/temporal)?
Multi-actor	<ul style="list-style-type: none">- Which actors and stakeholders are affected by or hold a stake in the policy instrument?- Which ones does the evaluation target, which ones are left out?
Visioning	- What is the vision that we are evaluating against, which components does it include? What is our long-term evaluation strategy, how does this particular evaluation fit in?
Experimentation	- Does the policy instrument support experimentation? Are innovative methods used for evaluation of the policy instrument?
Learning and reflexivity	- How can the evaluation results be distributed and conveyed to improve the knowledge base? How do we reflect upon policy goals, reference scenarios in relation to a transition? Does it provide an opportunity to challenge path dependence?

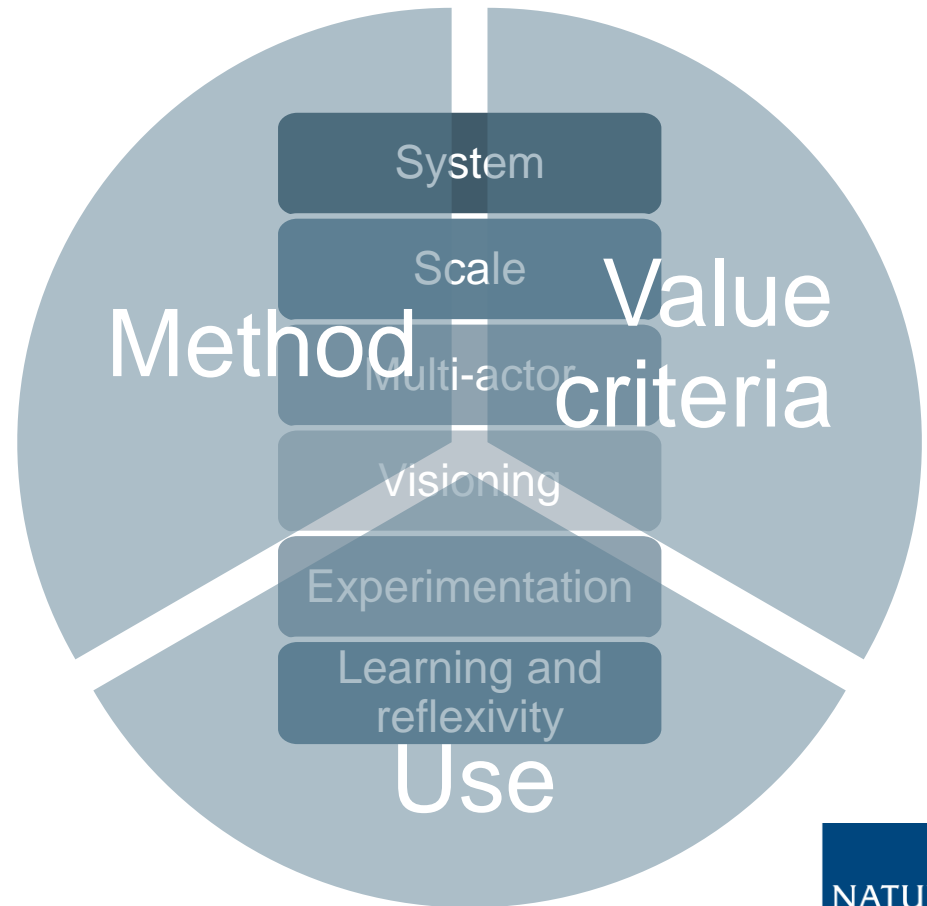
Applying transition theory perspectives in the evaluation of e-bikes subsidy

System	<ul style="list-style-type: none"> - Institutions: prevailing rules and norms – how does the subsidy relate to other policies; to transportation preconditions/preconceptions/norms. - Technological factors (health, mobility, road safety, infrastructure) - Actors (who designs, distributes, uses the subsidy)- see multi-actor below
Scale	<ul style="list-style-type: none"> - Effects of the subsidy on the individual / local / national /international level - Effects from time perspective
Multi-actor	<ul style="list-style-type: none"> - Authorities, beneficiaries, existing and new resellers and manufacturers (of e-bikes, but also of substituting products/services), others
Visioning	<ul style="list-style-type: none"> - Which vision to evaluate against: Sweden's climate goal? Sweden's environmental objectives? Agenda 2030?
Experimentation	<ul style="list-style-type: none"> - Is the subsidy more than just an opportunity to buy an e-bike cheaper? - Was the subsidy experimental in its design?
Learning and reflexivity	<ul style="list-style-type: none"> - Support of the new technology on the market/new practices in the society. - What can Sweden/other countries learn from the Swedish subsidy introduction, demonstration effects of this particular policy instrument? - How well-targeted was the subsidy?

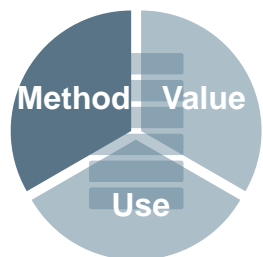


Framework for systemic evaluations

- Integrating transition theory in the traditional evaluation framework



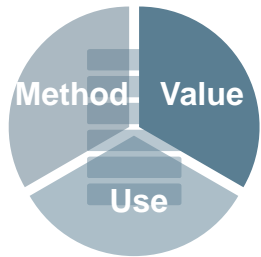
Using the framework to design evaluation of the e-bikes subsidy: methods (1/3)



- **Data analysis:**
 - Subsidy applications data
 - Retail sales data
- **Survey(s):**
 - How does behavior change after the purchase of e-bike?
 - Who's buying (age, income levels, gender) and why (price, environmental considerations, early adopters etc.)?
- **Travel diary**
 - Provides observed instead of perceived behavior
- **In-depth study (interviews)**
 - Specific individuals' motivations, attitudes & driving forces

To consider: side effects and rebound effects

Using the framework to design evaluation of the e-bikes subsidy: value criteria (2/3)

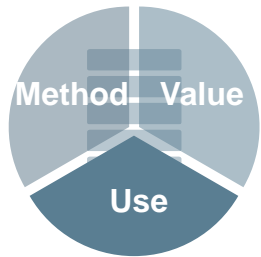


- **Effectiveness:**
 - CO₂ emission cuts
 - Effects on health (particles, air quality/noise/traffic safety)
 - Effects on mobility: are beneficiaries able to access places within longer distance from home?
- **Efficiency:**
 - CO₂ emissions cuts per SEK; compare to other subsidies in transportation, e.g. subsidies to "green cars" or biofuels
 - Resource efficiency (LCA-perspective)
 - Transportation efficiency, infrastructure investments
- **Accessibility** of the subsidy, e.g. to people with different income levels
- **Long-term effects:** on behavior change of beneficiaries, on the transition from car use towards e-bikes use
- **+other criteria**, to be defined

Using the framework to design evaluation of the e-bikes subsidy: use (3/3)

Use of the evaluation:

- Multiple stakeholders:
 - Government
 - Bike associations
 - Retailers
 - Researchers
 - International stakeholders
 - Internal stakeholders at SWEPA etc.
- Exactly how we engage different stakeholders, how we facilitate use and promote use beyond “intended use by intended users” is to be defined



Swedish subsidies for electric vehicles: Q&A

- Do you have any experience in evaluating policy instruments similar to e-bikes subsidy?
- Do you have any comments or input on the specific aspects of framework that were presented, in the context of e-bikes subsidy?

Please, let us know:

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EVALUATING TRANSITION – INTEGRATING DIMENSIONS TO MEET THE CHALLENGES

Discussion

Evaluating transition – integrating dimensions to meet the challenges: discussion

- **Results and effects of the evaluation:**
 - Evaluations as a means of choosing political direction vs evaluations as a knowledge base: do you see any potential conflicts or synergies?
 - What is the role of research in developing this kind of policy instruments?
 - Is it important to have a vision to evaluate against? How and by whom can it and should it be formulated?
- **The role of commissioners on scope:**
 - What is the role of evaluations' commissioners?
 - How to manage constraints on evaluation scope?

