



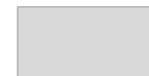
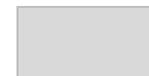
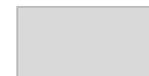
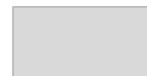
e-mobility NSR

Don't think of an EV

Some lessons from policy sciences applied to electric mobility

Dr. M. (Martijn) van der Steen

Hamburg, September 1 2014





The Interreg IVB
North Sea Region
Programme



INTRODUCING E-MOBILITY: EMERGENT STRATEGIES FOR AN EMERGENT TECHNOLOGY

Ambition, Structure, Conduct and Performance

Summary, Conclusion and Reflection

July 2014

Netherlands School of Public Administration (NSOB)

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Nederlandse School voor Openbaar Bestuur

European Union



The European Regional Development Fund

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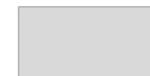
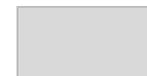
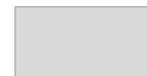
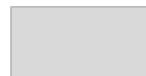


Investing in the future by working together
for a sustainable and competitive region

European Union

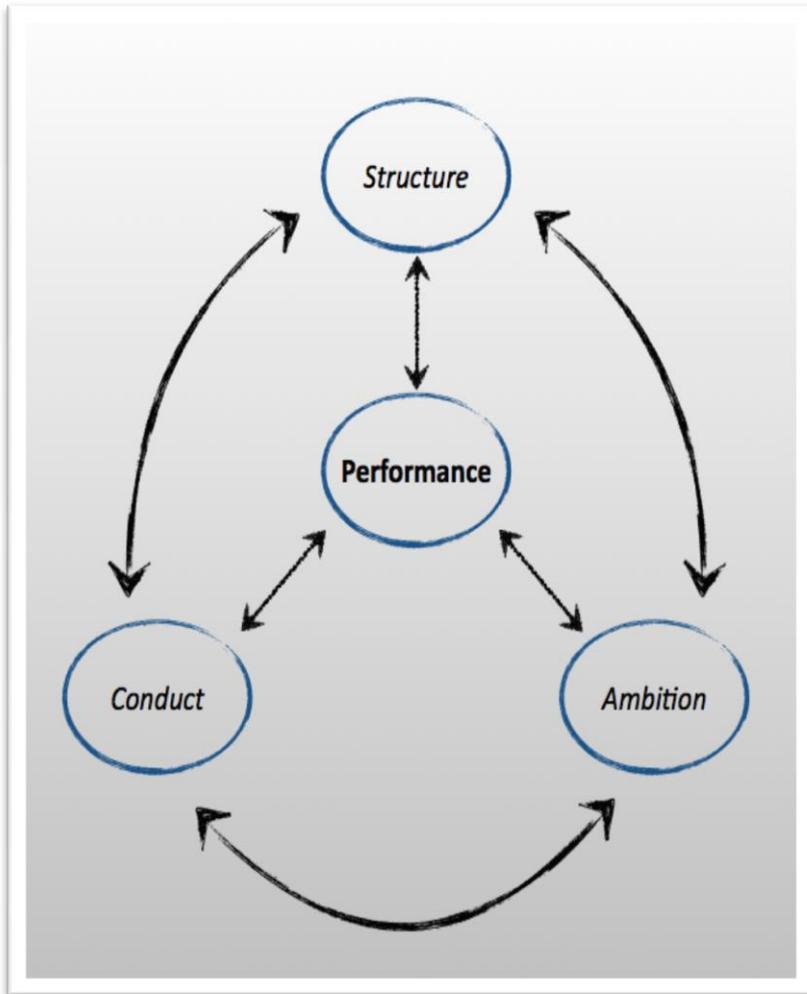


The European Regional Development Fund



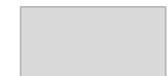
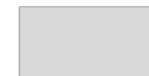
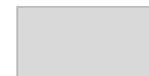
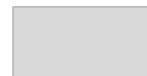


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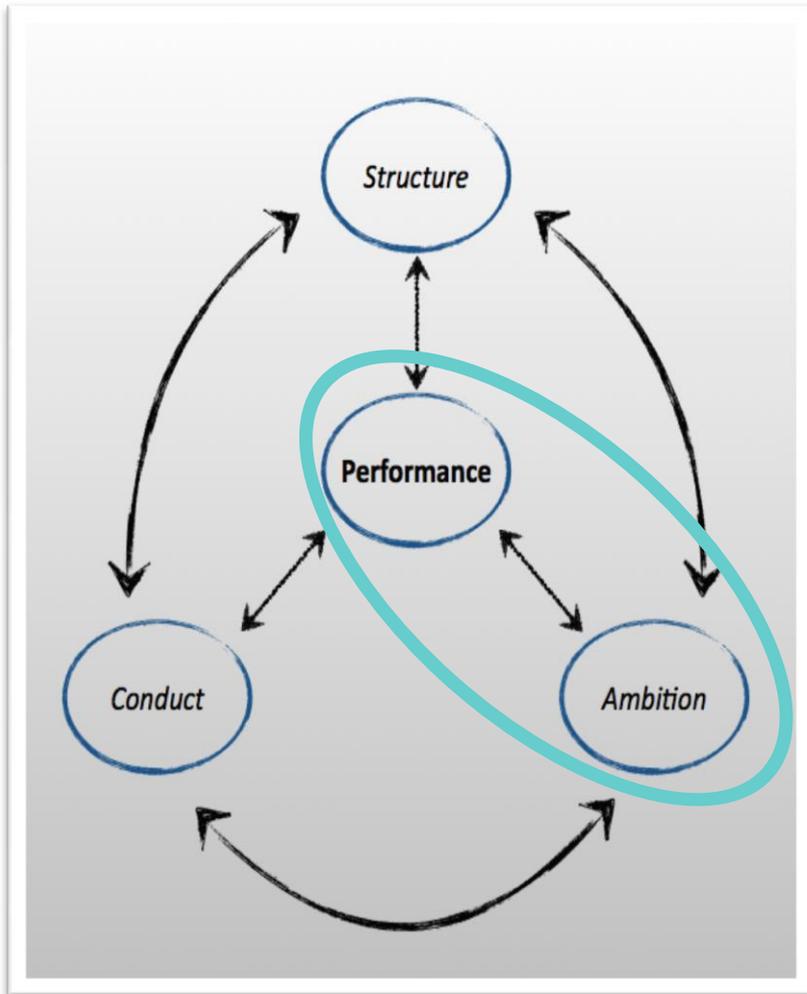
• *Policy results* as the interplay between three factors:

- Ambition
- Structure
- Conduct

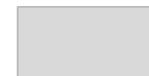
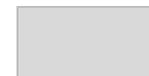
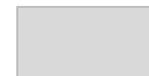
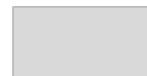




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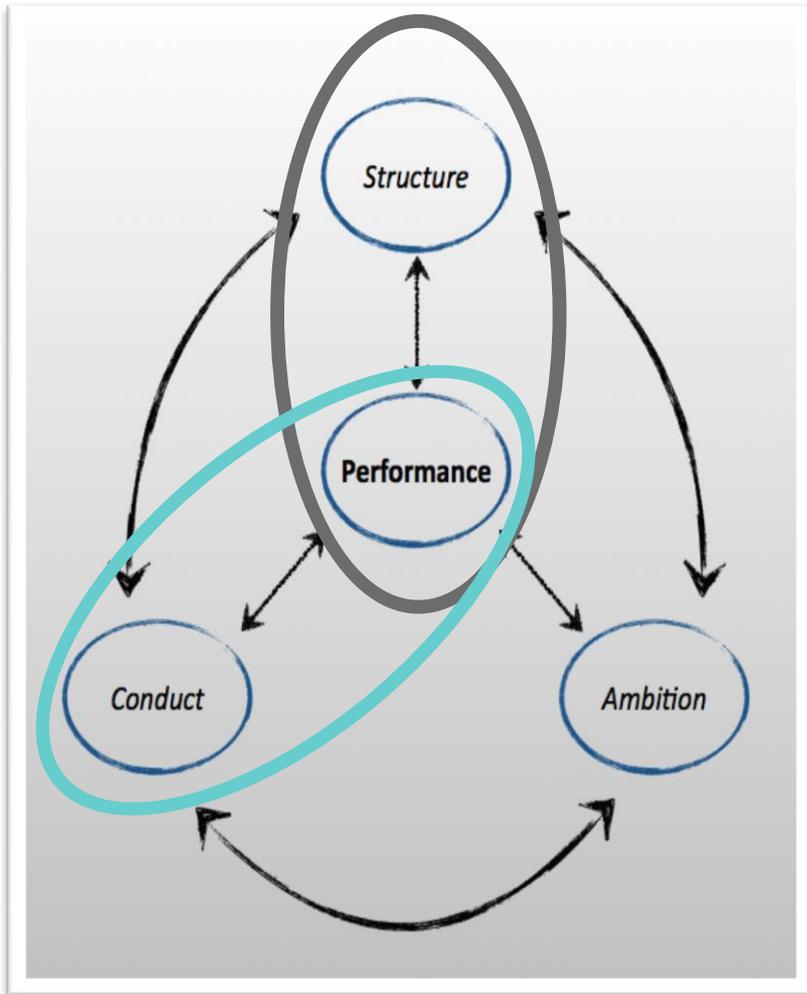


- *On track*
- Many countries are on track for achieving their 2015 goals
- Performance is keeping track with ambitions





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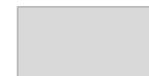
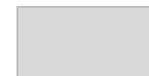
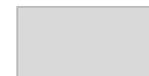
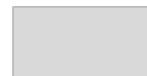


- Structural conditions:

- Netherlands, Norway, Denmark, Cities/Regions

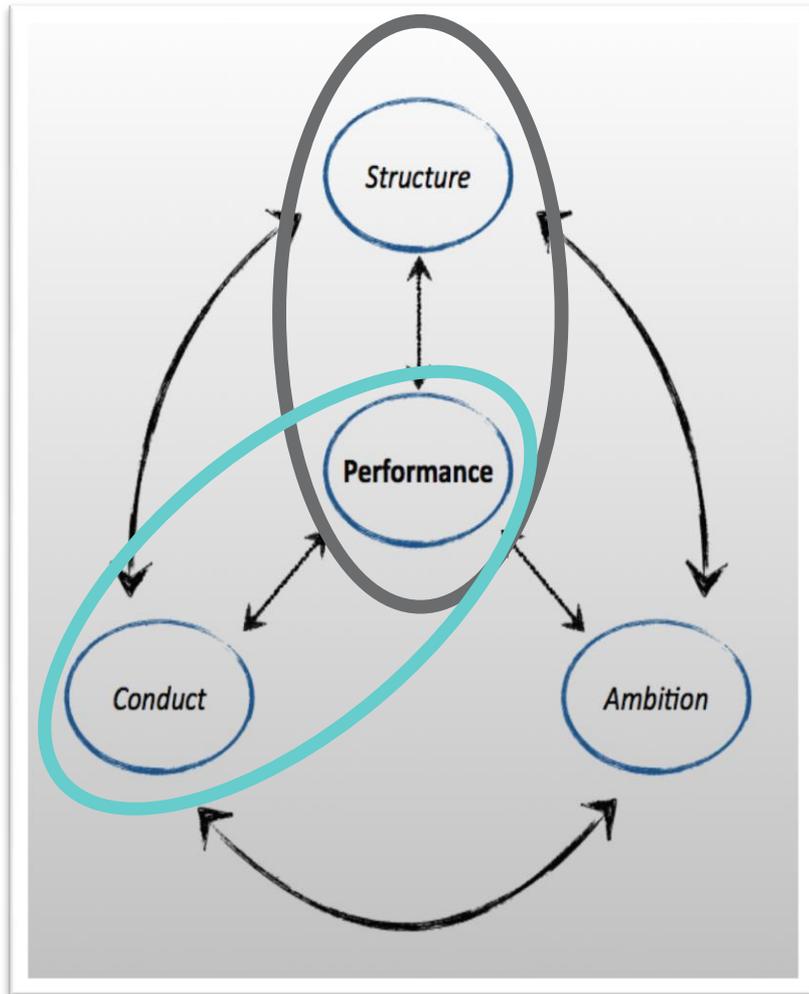
- Policy measures:

- Subsidies
- Regulatory measures
- Promotion



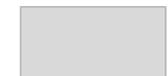
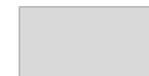
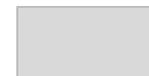
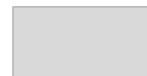


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• Problem 1:

- Ambition, Structure and Conduct do not explain why some countries are doing well and others are not...

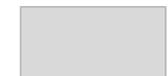
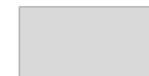
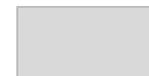
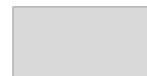
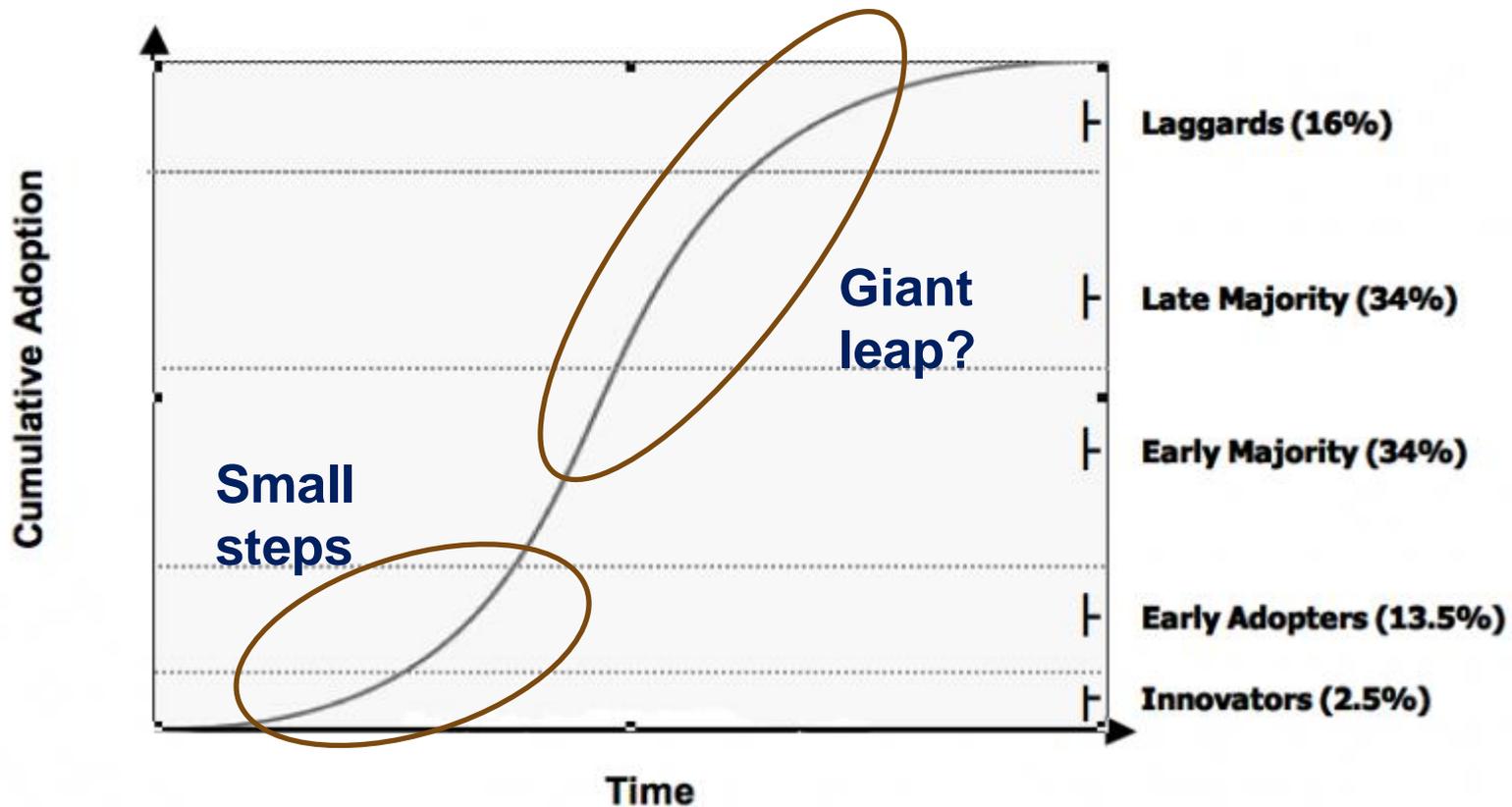


Problem 2:



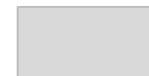
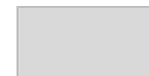
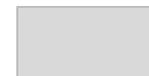
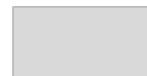
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What works now is not what is needed next



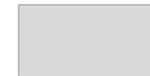
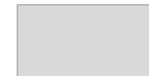
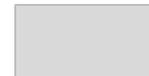
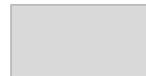


Let's take one step back and look again at what we have seen





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What is working?

The case of the Outlander PHEV



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- Favorable incentives for “lease drivers” (company cars), to be terminated in 2014
- Run to the dealer by the end of the year: register before 31/12!!!
- Mitsubishi Outlander PHEV and Volvo V60 PHEV “Sold out”
- People were even offering cash to dealers to be prioritized
- Then: a drop in sales in January/February 2014 (and recovery in Q2)
- First thought: “lost sales”, policy failure
- “*Subsidishi Outlander*”
- Second thought: *maybe not that simple...*



What is working?

The case of the Outlander PHEV



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1. The run on the PHEV began at the end of the subsidy, although the amount was the same for over 2 years
2. Advantages were persistently counted as “monthly benefits”
3. 400 euro gain, or the fear of a 200 euro loss?
4. Nice to have for yourself, but even more painful to see your peers walk away with
5. A PHEV without compromise: “you can even pull a caravan...”
6. Seeing is believing: “this is a very *ordinary* car”



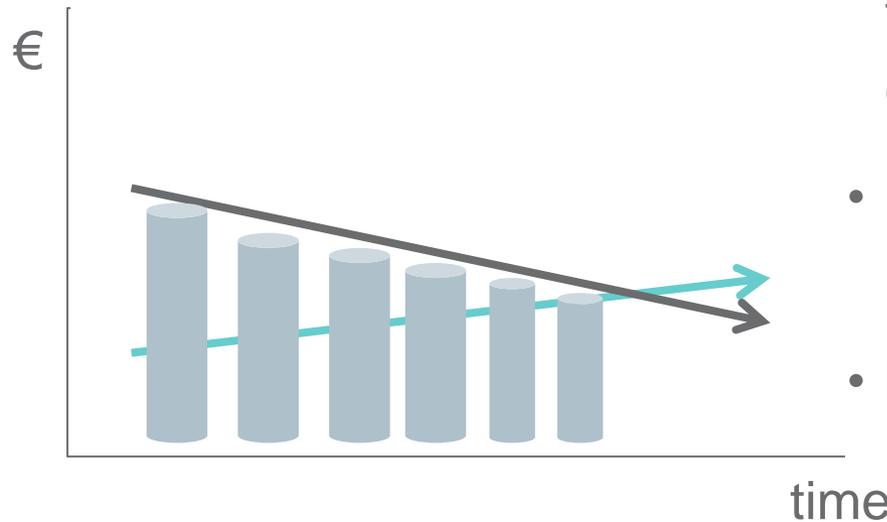
Two concepts of policy

policy as *piling*



e-mobility NSR

- Pile advantages and incentives up high enough so that they overcome the gap between supply and demand
- Each incentives adds a stack to the pile, the overcome the fixed gap
- Linear causality: *a* causes *b*

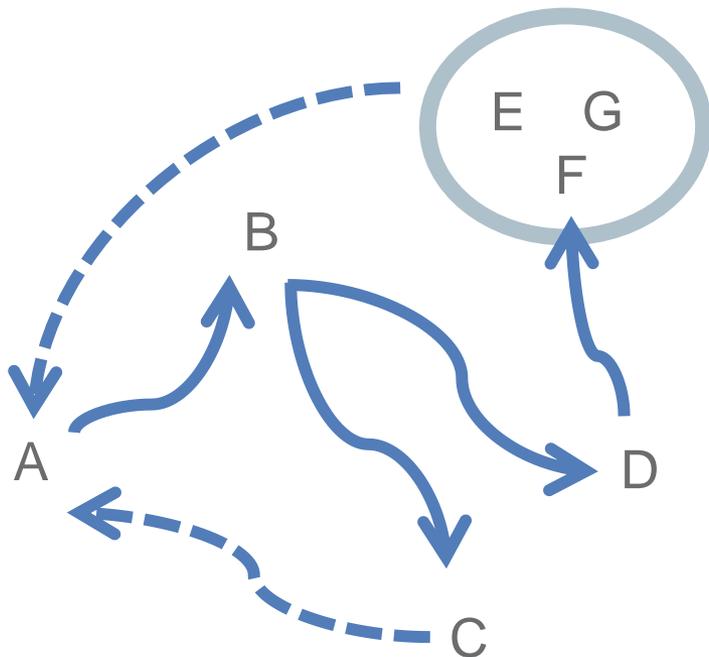


Two concepts of policy

policy as a chemical reaction



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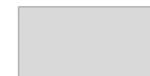
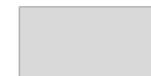
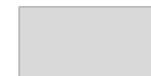
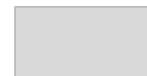
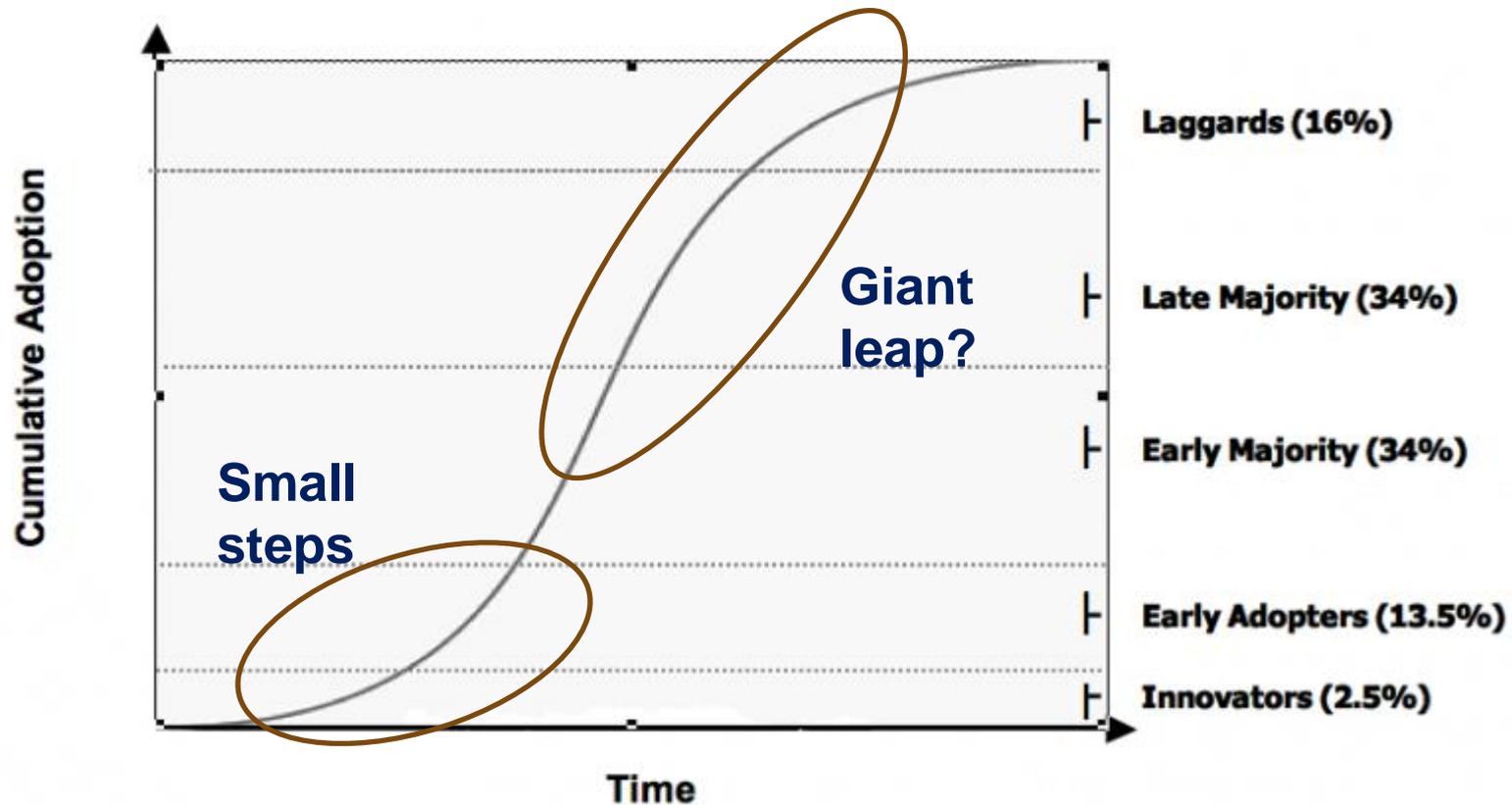
- Policies interact, amplify or balance each other, in complex, emergent and dynamic patterns
- Virtuous or vicious loops, self-propelling dynamics
- Circular causality: *a* initiates a series of events that end up causing *e*, *f* and *g*



Small steps: towards a giant leap?



e-mobility NSR



Designing policy

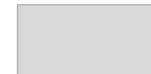
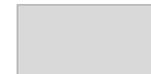
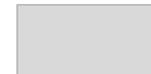
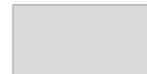


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Raising the pile, or initiating the loop ?

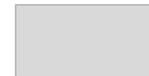
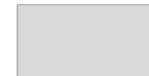
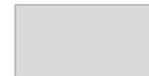
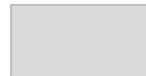
Looking back at policy research in NSR-countries:

- Policy is often designed and discussed as a pile: *“is the pile high enough?”*
- However, actual developments are recognized as a dynamic interplay between factors: *“is the mix working?”*
- Rethink individual measures and their mix: **lessons from public administration theory and policy sciences**





A behavioral look on EV-policy





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- Take aim!
 - We know the fly is not real, aiming is pointless, yet toilets are cleaner
 - Everyone aims, few deliberately choose to do so
 - After aiming, it is very hard to deviate from the original aim







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• Do the right thing?

- We know the stairs is better for our health
- We do not love elevators
- We pay for fitness-centers and diets
- We follow the presented route, even though we prefer the alternative





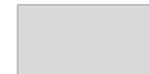
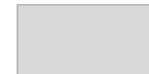
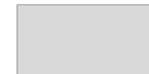
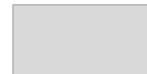
e-mobility NSR



An Insatiable Greed

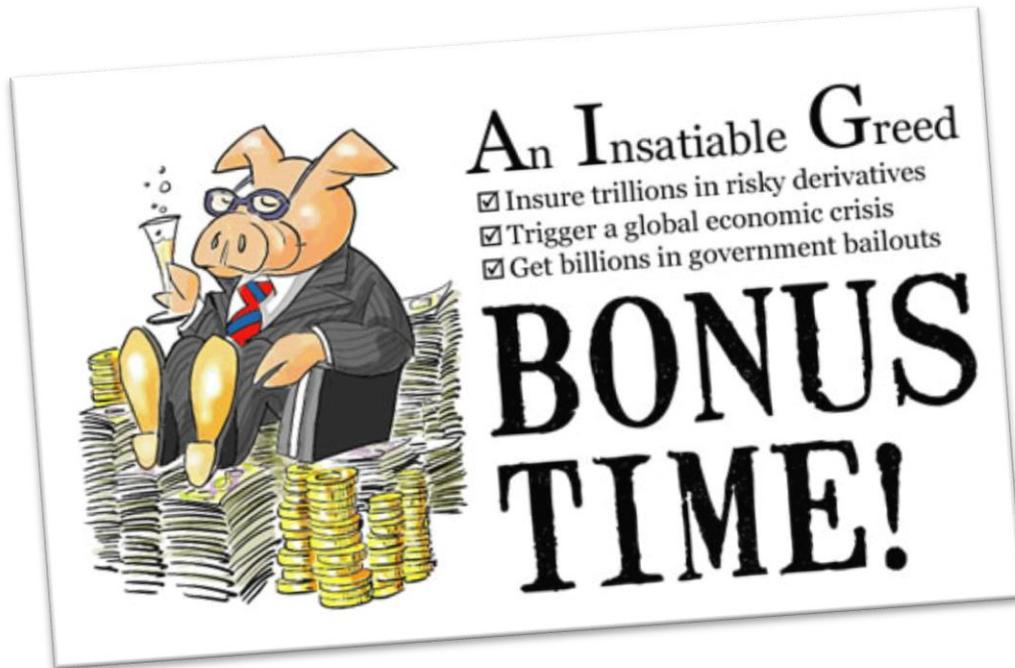
- ☑ Insure trillions in risky derivatives
- ☑ Trigger a global economic crisis
- ☑ Get billions in government bailouts

BONUS TIME!

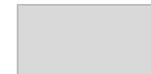
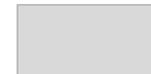
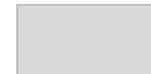
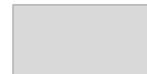




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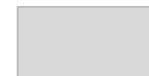
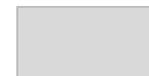
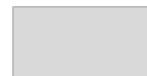


- What's in a name?
 - We care about our budget and make deliberate choices about personal finances
 - Restitution = “save for later”
 - Bonus = “party-time!!!!”
 - The same amount *framed* differently





e-mobility NSR

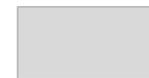
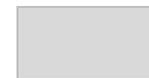
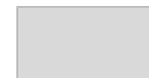
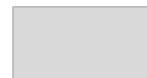




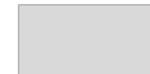
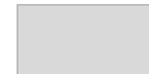
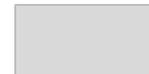
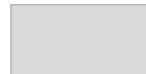
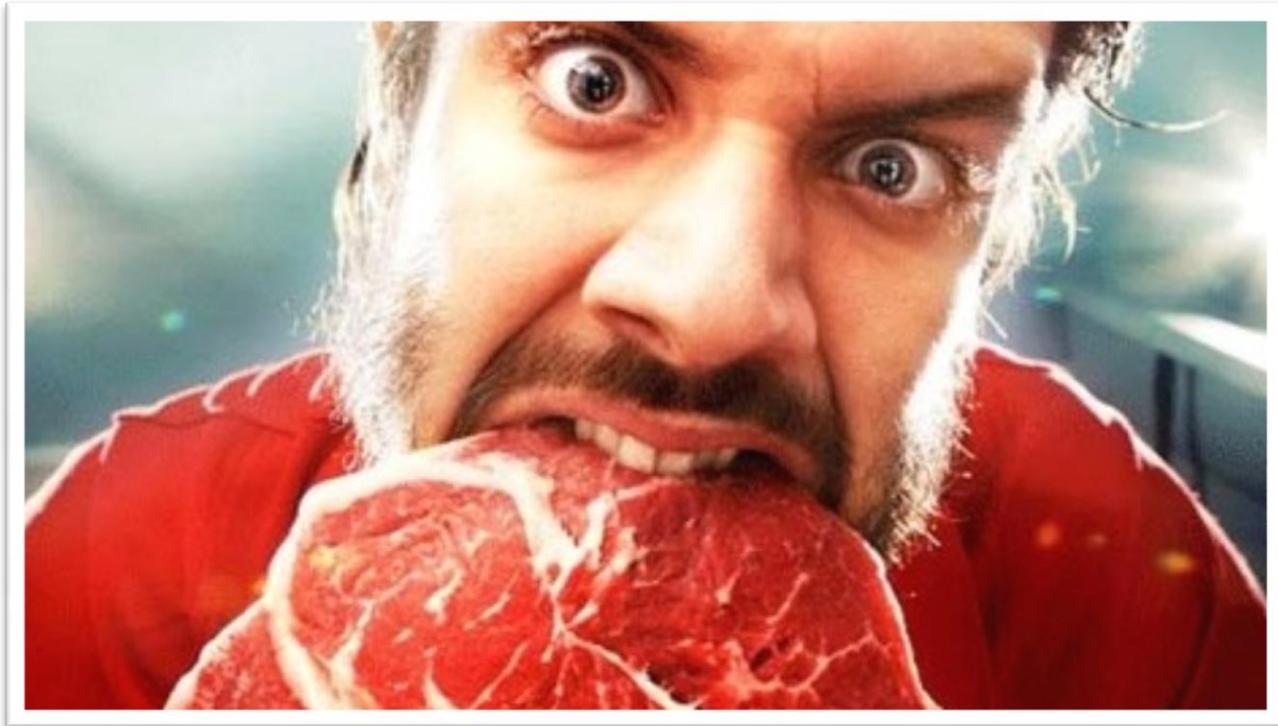
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• It's all about the money!

- Money is considered a positive incentive: more money, more action
- But money may just as well interfere with other reasons to act
- If it requires payment, there is probably something wrong
- Most things we do are not at all about money....



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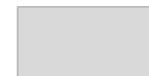
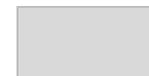
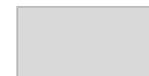
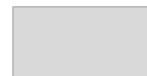




e-mobility NSR

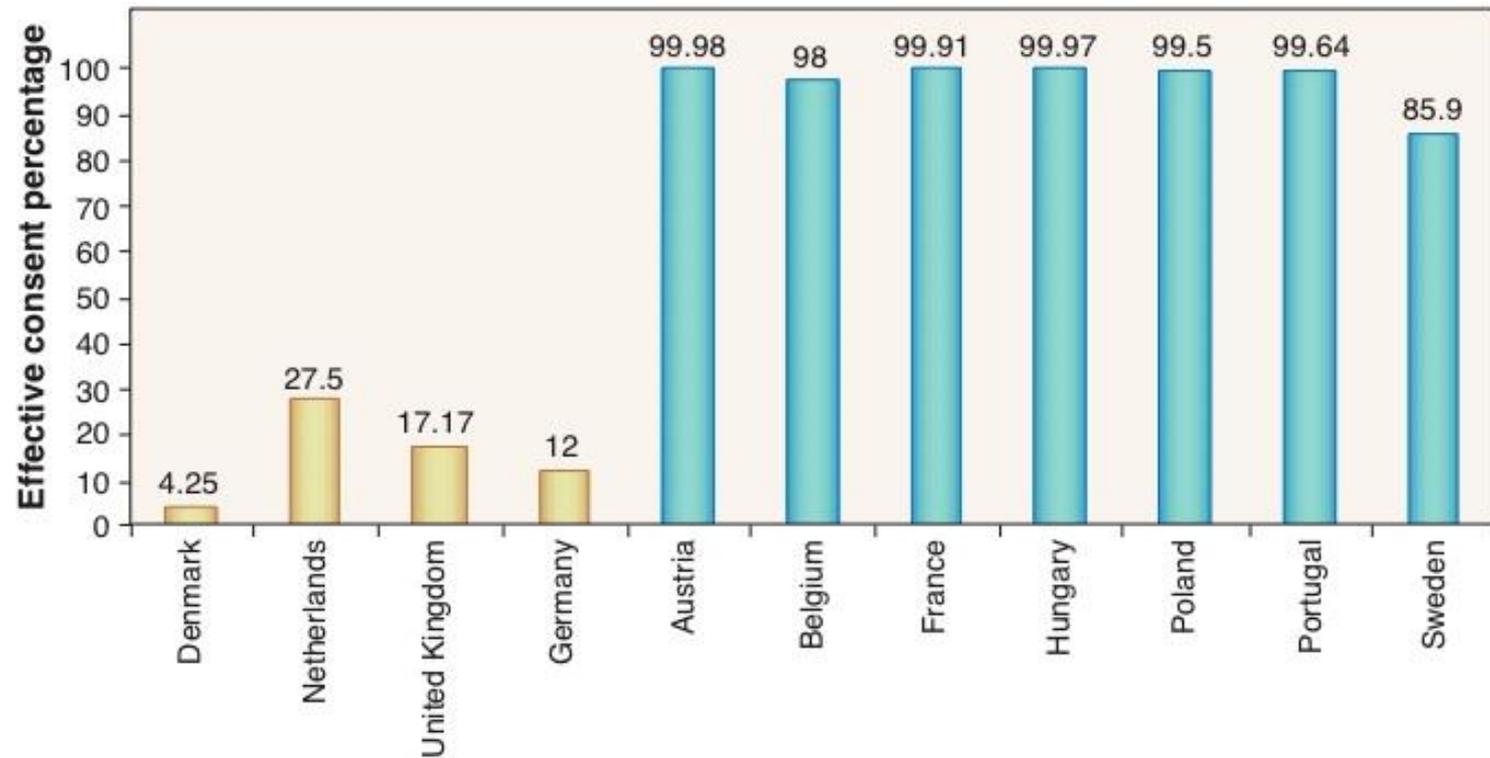
- I am a carnivore

- People like meat, but most people are not passionate about meat
- It takes a deliberate deviation to be vegetarian
- Turning the default around changes our behavior

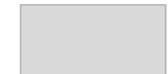
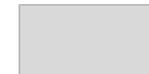
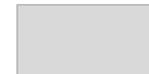
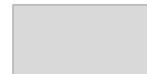




e-mobility NSR



Effective consent rates, by country. Explicit consent (opt-in, gold) and presumed consent (opt-out, blue).



Behavioral mechanisms

how we decide before we know it



e-mobility NSR

Anchoring	First impression (or first aim) decides further interpretation and action
Halo effect	Recent experiences <i>and</i> deeply rooted beliefs fill interpretation gaps
Default versus deviate	Do what is considered normal, follow the standards as they are (even if they are self-imposed)
Status quo bias	Fear of disappointment, stick to what you have
Follow the herd & fear of being left behind	Follow the group, for either positive or negative reasons



A systemic look on EV-policy

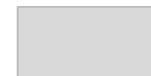
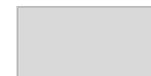
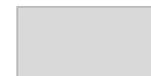
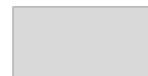
Understanding loops



Circular dynamics loops, not lines



- “*Tell me where the button is...*”
- Policy initiates *dynamics* in a system: not random, but complex and emergent
- All policy is local: effects are made in real time, in interaction with local actors and factors; *learning by doing*
- Dynamics cannot be made, but it can be initiated, helped, guided, steered
- Systems are self-organizing, but organizing capacity can be promoted by government policy





What's next?

Options for a next generation of EV-policy

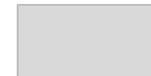
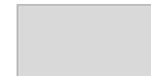
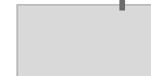
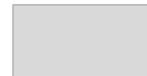


Next steps for policy

Governing a giant leap



- *How do we organize a system in such a way that it engages in self-reinforcing loop towards e-mobility?*
- **Principles for Steering on Societal Energy:**
 - A. Be Ambitious
 - B. Reset the Defaults in the system
 - C. Redesign the Choice Architecture of policy measures
 - D. Adjust and adapt policy to real time developments



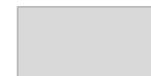
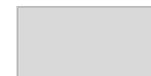
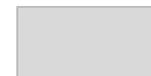
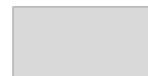
Next steps for policy

Governing a giant leap



Some bold ideas for a next generation of EV-policy:

1. Adopt a systems' approach to EV-policy
2. Position the EV as the *default* instead of deviate option
3. Redesign the way costs are calculated
4. EV as *standard* in spatial planning and design
5. Safeguard market dynamics, keep the arena open
6. If e-mobility is no longer painless, it is therefore *political*





e-mobility NSR

Thanks!

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