



Touchpoints for e-mobility

Results from the vehicle purchase process study

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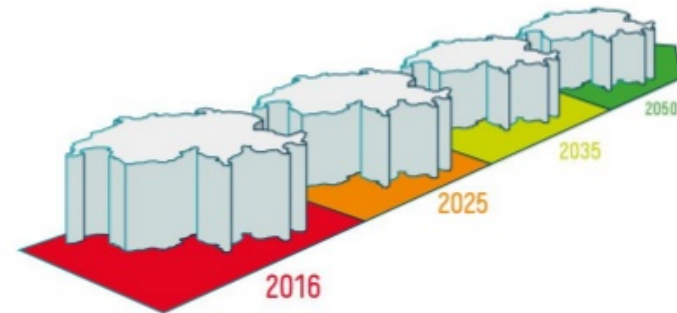
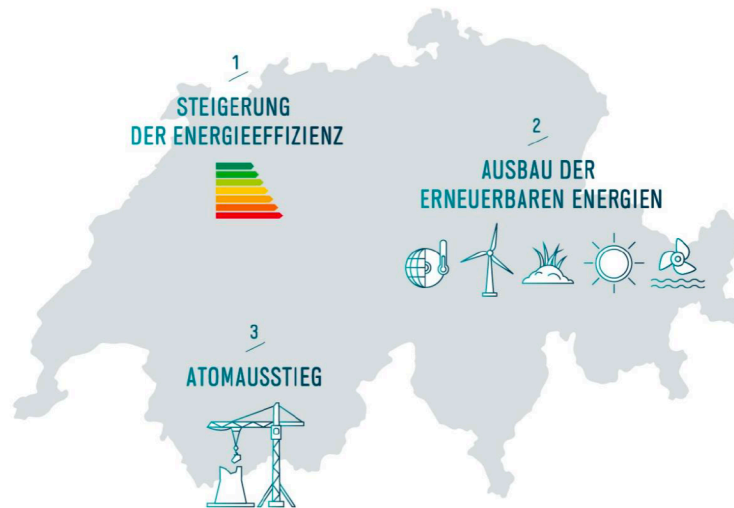
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Agenda

- **Research context**
- **Main results of the survey on the vehicle purchase process**
- **Conclusions and policy recommendations**
- **Questions and discussion**

Research context

- **Energy strategy 2050**
- **BFE funded project:** Applying nudging techniques to promote fuel-efficient cars in Switzerland



Applying nudging techniques to promote fuel-efficient car purchases – State of the field analysis

- Transport sector emitting more than 1/3 of Swiss CO₂ emissions,¹ the share of fuel-efficient cars has to increase to fulfill national climate goals.
- Despite increasing supply and support measures in place, the share of fuel-efficient cars remains only 5,1%.²
- Joint research project has been outlined, investigating and testing the potential of nudging techniques as an alternative support measure.
- First phase analyzing the current state of the field concludes that plurality of actors and alternative support measures are involved.
- For better support of fuel-efficient car purchases, cooperation with the plurality of stakeholders and focus on electric mobility is recommended.

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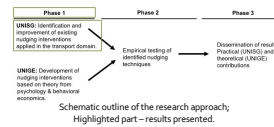
Introduction

With more than one third of Swiss CO₂ emissions resulting from the transport sector (individual mobility being responsible for almost two thirds of them)³, the purchases of fuel-efficient cars have to significantly increase to fulfill national climate and energy goals. Despite their increasing supply and support measures in place, their limited share of 5,1% within Swiss fleet⁴ suggests that more effective tools are needed for their successful penetration. One such possibility is represented by nudging techniques, aspects of choice architecture that alter people's behavior without limiting freedom of choice or significantly changing economic incentives.⁵



Research approach

To understand the potential of nudging techniques to promote fuel-efficient car purchases, a joint, three-stage research project between the University of St.Gallen (UNISG) and the University of Geneva (UNIGE) was outlined. The first phase analyzes the current state of the field, investigating stakeholders involved and interventions implemented (UNISG) and studying relevant theory (UNIGE). Thus obtained results will inform the following stages of the project, namely the testing of identified nudges (Phase 2) and results dissemination (Phase 3).



Research question and methodology

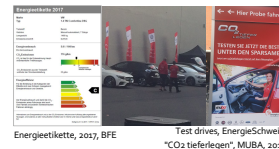
To deliver its goals, the first phase of the project conducted by UNISG has asked the following questions:

1. What is the current state of the field of the fuel-efficient car sector, i.e. what actors are involved and what type of support measures are mainly implemented?
2. What lessons can be learned from these findings to better promote fuel-efficient car purchases in Switzerland?

To answer these questions, a mixed-method research consisting of semi-structured interviews with relevant stakeholders, ethnographic observation at events and qualitative analysis of appropriate documents (online and print) was undertaken.

Results

1. Support of fuel-efficient vehicles is significantly increasing. Electric cars experience special momentum, with the majority of measures and car manufacturers focusing on this technology.
2. Besides regulatory and market-based instruments, the promotion of fuel-efficient cars mainly merges marketing and nudging techniques. The most common interventions are provision of information and test drives.



3. A plurality of stakeholders (public as well as private) is involved, ranging from traditional transport sector actors (car manufacturers, importers and dealers) to actors from related fields. This is particularly relevant for electric mobility, with actors from energy (electric utilities), finance (insurance companies), real estate (property owners) and many other fields involved.

Sector of activity	Type of actor	Sub-type
Public governance	Public	Federal level
		Cantonal level
		Municipal level
Transport	Private	Car manufacturers
		Car dealers
		Car importers
		Charging stations operators
		Associations
Research	Public	Associations
		Academia
Energy	Private	Electric utilities
Suppliers	Private	Electric hardware providers
Finances	Private	Banking and insurance
Property market	Private	Property owners

Actors involved - schematic outline

Recommendations

For more effective support of fuel-efficient car purchases, consideration of the plurality of stakeholders involved and recognition of their diversified interests is necessary. Considering the current momentum of electric cars, further measures to promote fuel-efficient car purchases could focus primarily on this technology.

The identification of information provision and test drives as main non-regulatory, non-market based support measures of fuel-efficient car purchases provides information for the second phase of the project, in which selected nudging techniques (purchase convenience, power of free, information provision via labeling - attribute measurement and touchpoint analysis), will be empirically tested. Thus obtained results will provide data on which nudging techniques would most effectively promote fuel-efficient car purchases in Switzerland.

References

1. Bundesamt für Umwelt (BAFU). (2018). Emissionen von Treibhausgasen nach revidiertem CO₂-Gesetz und Kyoto-Protokoll, 2. Verpflichtungsperiode (2013-2020).
2. EnergieSchweiz. (2018). *Energieeffiziente Fahrzeuge, Markttrends 2018*.
3. Thaler, R. H., & Sunstein, C. R. (2008). *Nudge: Improving decisions about health, wealth, and happiness*. London: Penguin Books.

Partners

Problem recognition

Technology



Attitudes



Sales



Research question

➔ To understand the vehicle purchase process

- Individual stages
- External influences
- Decision processes
- Barriers and enablers

➔ To identify the “touchpoints” for e-mobility, the most effective measures to promote EV sales in Switzerland

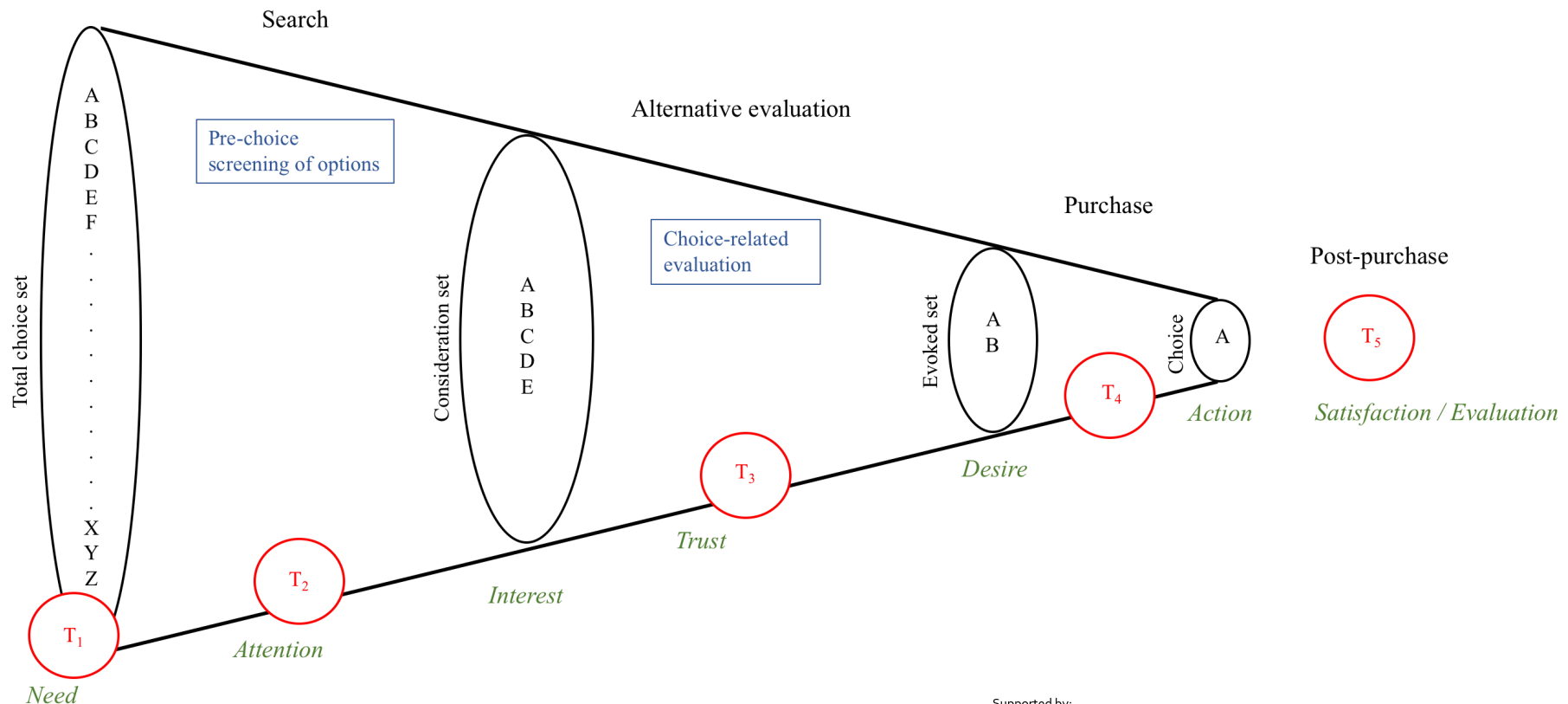
Vehicle purchase process study

- **Method of study**
 - **Online survey**
 - December 2018
 - 553 Swiss respondents
 - **Study of the relevant literature**
 - Consumer behavior, marketing literature, role of car dealers

Vehicle purchase process study – Results

I. Vehicle purchase process very complex

Problem recognition



Supported by:

Vehicle purchase process study – Results

II. Car dealers are the most important external influence

1. 94% of respondents have been to a car dealer

- 64.9% - 1 car dealer they trust
- 57.7% - consulted car dealer for the last vehicle purchase

2. Main purchase channel

- 73% of vehicles were purchased at a car dealer

Vehicle purchase process study – Results

3. Main information channel

- Given information source seen as very important

Information sources	Respondents	
	General information search	Alternative evaluation
Test drives	42.3%	52.1%
Personal discussions with car dealers	29.3%	38.7%
Promotional materials from car dealers	3.6%	7.6%
Website of the car brand	21.3%	24.1%
Swiss EnergieEtikette	14.6%	17.0%
Online car configurators (Verbrauchskatalog etc.)	14.1%	16.1%
Friends and family	16.3%	16.1%

Vehicle purchase process study – Results

II. Car dealers are the most important external influence

1. Influence across all vehicle purchase process stages

- Need creation – via promotional materials
- Main information channel
- Main purchase channel
- Post-purchase – service and maintenance

Vehicle purchase process study – Results

III. Car dealers – represent a barrier to EV sales

1. **Hesitant to offer EVs:** Only 5.3% of respondents were offered an EV during their visit of a car dealer related to the purchase
 - Statistically significant association: EV consideration – EV being offered by car dealers

		Car dealers		
		EV offered at the last visit	EV not offered at the last visit	Do not remember if EV was offered
Customers	Consider EV	13.8%	82.5%	3.7%
	Do not consider EV	0.5%	94.8%	4.7%

Vehicle purchase process study – Results

III. Car dealers – represent a barrier to EV sales

2. Lock-in customers in ICEs

	Same car brand	Different car brand
Good experience with a car dealer a reason to purchase a vehicle	42.6%	11.2%

Vehicle purchase process study – Results

IV. Respondents who consider EVs – see a plurality of information sources as more important than people who do not

Information source seen as very important

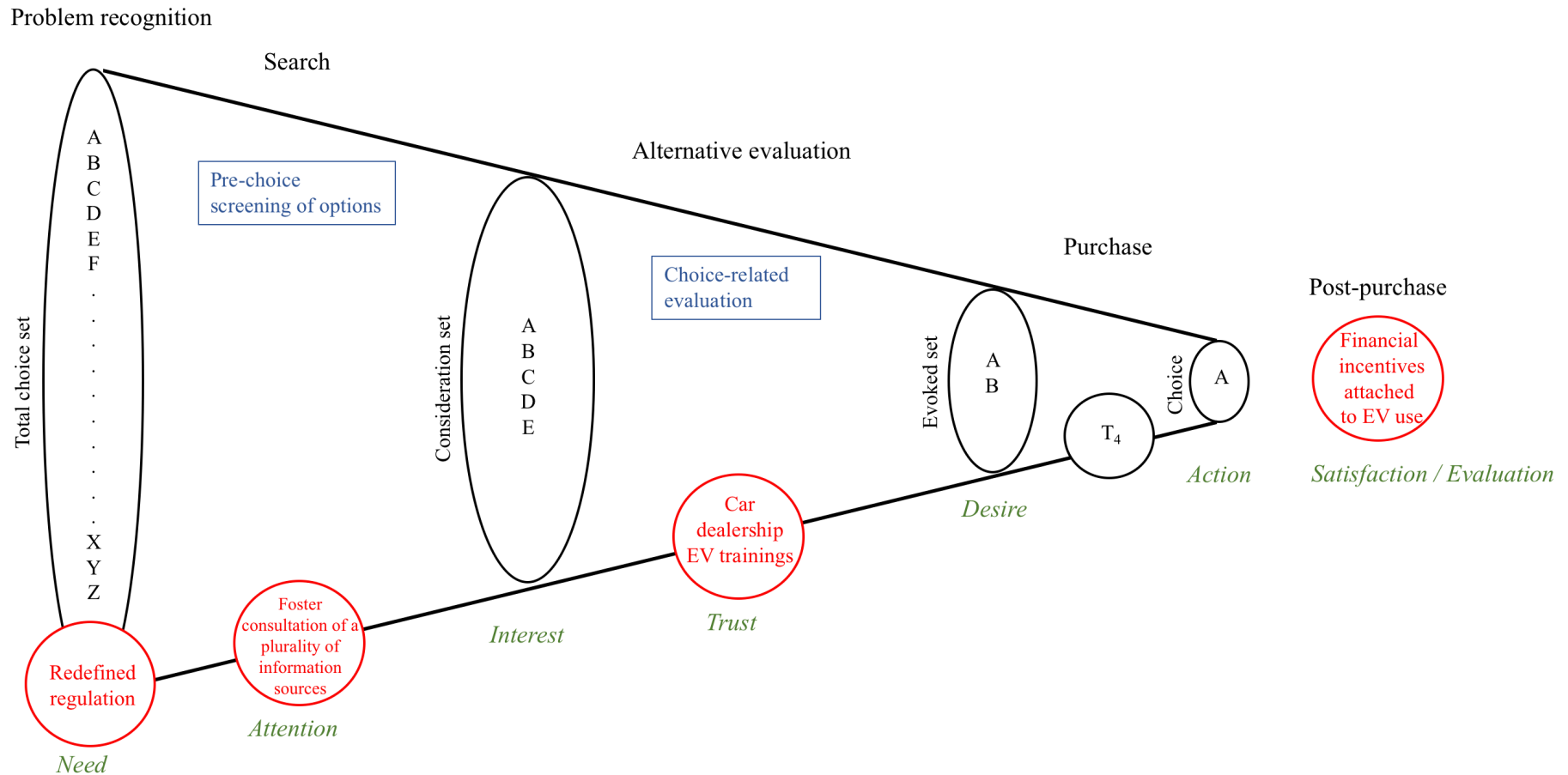
Information sources	Consider EV		Do not consider EV	
	General information search	Alternative evaluation	General information search	Alternative evaluation
Test drives	42.5%	59.1%	42.2%	48.7%
Personal discussions with car dealers	36.5%	36.5%	30.6%	39.8%
Promotional materials from car dealers	2.8%	6.1%	4.0%	8.3%
Website of the car brand	26%	29.3%	19.1%	21.5%
Swiss EnergieEtikette	20.4%	23.8%	11.8%	13.7%
Online car configurators (Verbrauchskatalog etc.)	19.9%	19.3%	11.3%	14.5%
Friends and family	19.9%	18.8%	14.5%	14.8%

Conclusions

- Vehicle purchase process complex
- Role of external influences - especially car dealers
 - Influence across all vehicle purchase process stages
- Car dealers represent a barrier to EV sales
- Respondents who consider purchasing an EV see a plurality of information sources as more important

➔ How to leverage these findings to promote EV sales?

Touchpoint recommendations



Conclusions



«Sie wollen das Billett nicht mit der App kaufen? So viel Zeit hätte ich auch gerne.»



Schluss mit Ausreden:
Das Billett schneller mit Touch-Fahrplan kaufen.
Jetzt umsteigen auf SBB Mobile.



Supported by:

A green tag with a white outline of a power cord and a plug. The tag has a hole on the left side with a white string. The text "Thank you!" is written in a large, bold, black font, and "Any questions?" is written in a smaller, italicized black font below it.

Thank you!

Any questions?

Annex - Survey data

Characteristics		Survey sample (N=553)	Swiss average
Gender	Female	51.5%	50.4%
	Male	48.5%	49.6%
Age	21-30	11.6%	18.7%
	31-40	18.3%	21.2%
	41-50	20.4%	21.5%
	51-60	20.8%	22.4%
	61-70	28.8%	16.3%
Language region	German	72%	70.65%
	French	25%	24.72%
	Italian	2%	4.3%
	Rhaeto-Roman	1%	0.3%
Education	Primary education	14.1%	12.2%
	Secondary education	41.3%	45.2%
	Tertiary education	44.7%	42.6%