

Transpose - Transfer of Electricity Saving Policies

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2009

transpose

Transfer von Politikinstrumenten
zur Stromeinsparung

The Idea of Transpose

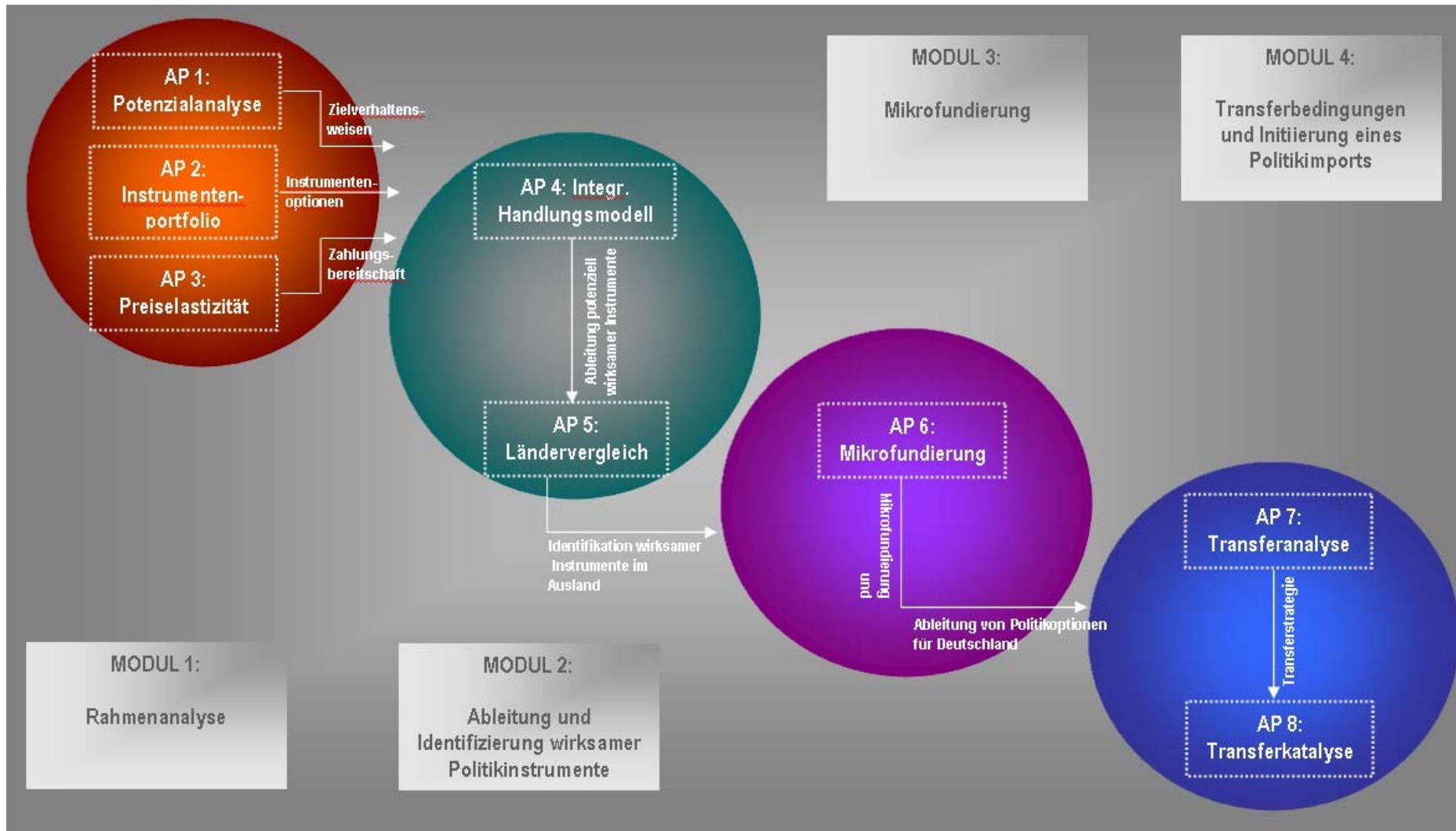
Puzzle:

- Continuously rising consumption of electricity by private households
- Previous research: high potential for saving electricity exists

Argument:

- **Barriers**
 - make it difficult for rationally acting consumers to save electricity
 - perceptions, incentives, available options
- **Political Innovations**
 - can be facilitated through adopting best practices from abroad
 - but: transfer not simple
- **Aim:**
 - identify successful political instruments abroad
 - make these „best practices“ applicable to the German context and facilitate introduction

The Structure of TRANSPOSE



Module 1 - Analysis of Framing Conditions

Electricity Savings Potential (Öko-Institut)

Database of Policy Instruments (FU Berlin, Univ. of Münster)

Analysis of Price Elasticities and Willingness to Pay (Univ. of Münster)

Module 2: Identification of Effective Instruments

Integrated Action Model

- Psychological Model (Univ. of Kassel)
 - Assessment of individual motivations and rationales
- Sociological Integration (FU Berlin)
 - Addition of societal and political levels

Quantitative Comparative Policy Analysis (Univ. of Konstanz)

- Multivariate regression examining effect of policy instruments on electricity consumption in 30 OECD countries

Module 3: Micro-foundation

In-depth Assessment of the Effectiveness of
Selected Instruments (Univ. of Münster, IFZ
Graz)

→ Case study based analysis of how and why
different instruments have worked

Module 4: Transfer Conditions and Policy Import

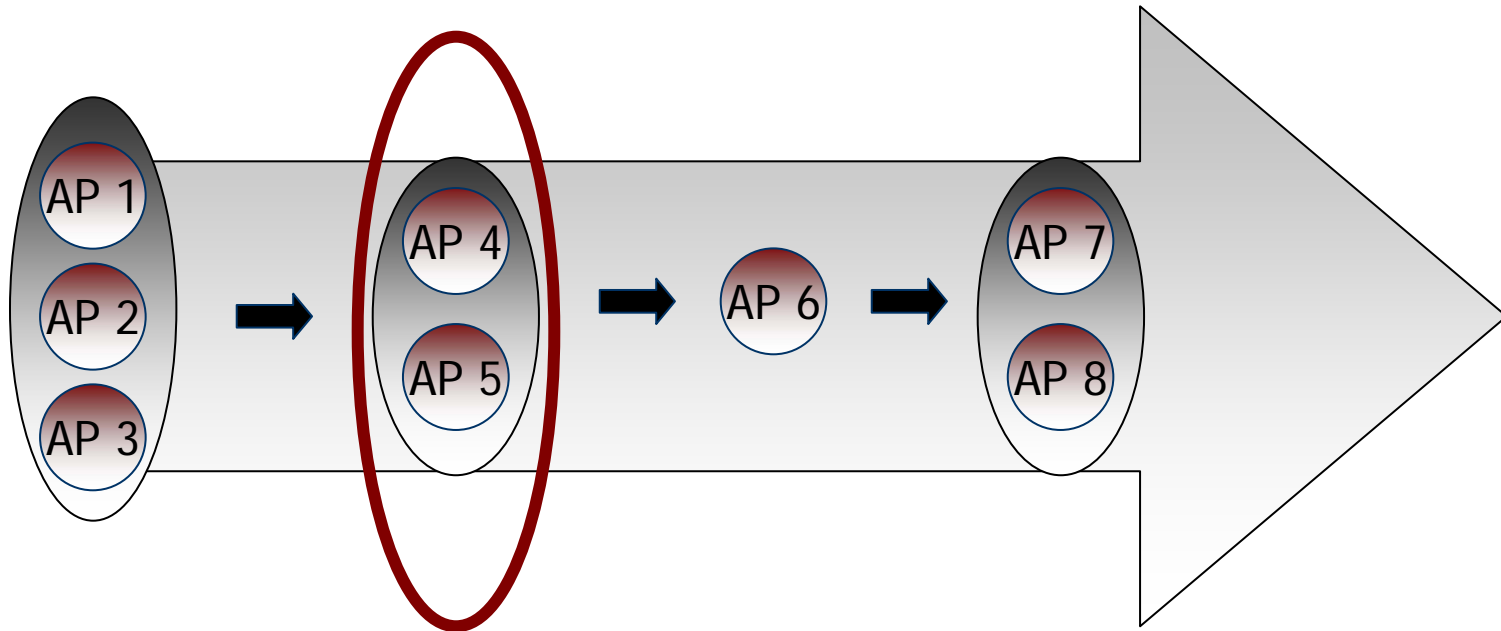
Transfer Analysis (FU Berlin, Öko-Institut, IFZ Graz)

- Analysis of transfer conditions for the development of contextual policy strategies

Transfer Catalysis (Univ. of Münster, FU Berlin)

- Facilitation and initiation of implementation of policy innovations in Germany

TRANSPOSE - Where are we now?



Transpose Midterm Conference

Münster

November 5, 2009

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transpose

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WP3 - Price Elasticities and Willingness to Pay

The Experiment

→ Aim of the experiment:

- electricity price \leftrightarrow willingness to pay for energy-efficient products

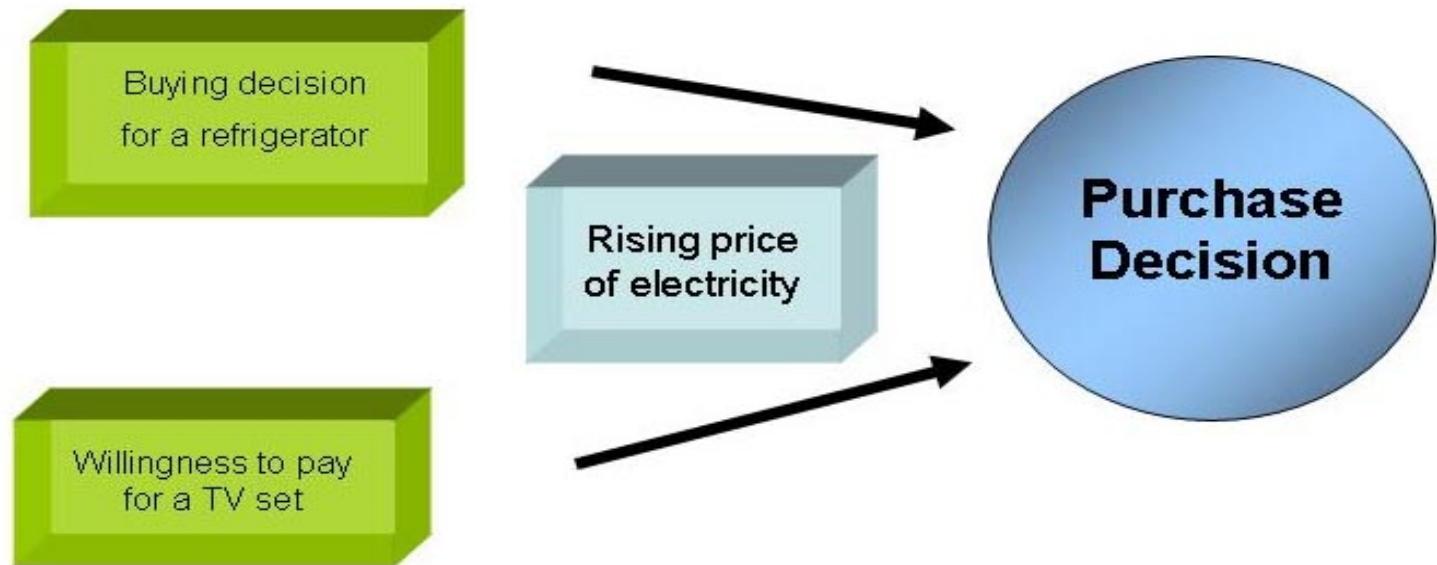
→ Method:

- field experiment
- with an added survey

Core Results

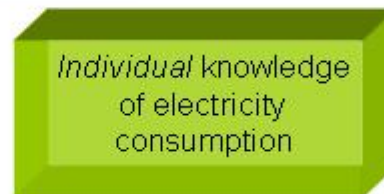
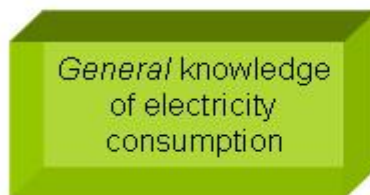
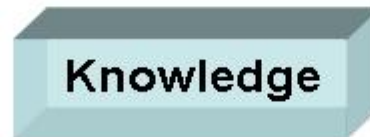
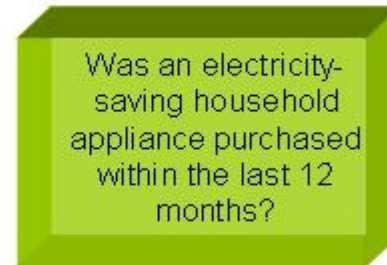
- increase in price of electricity
 - small effect at the most (and only in the long run)
- premium programmes
 - good, especially for low income households
- information about the watt usage
 - increases the willingness to pay for energy-efficient products

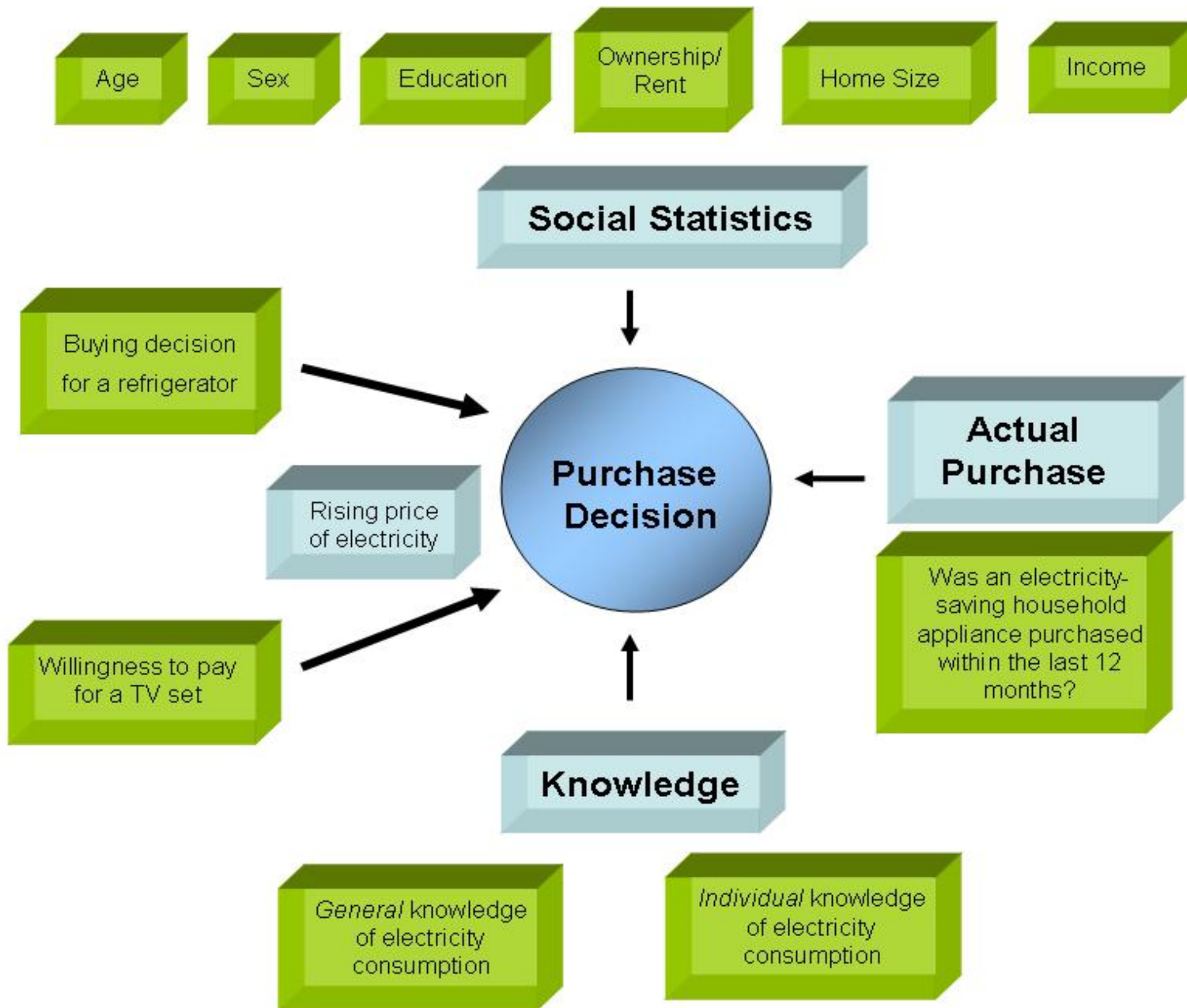
The Purchase Decision



Field Experiment







Findings I

→ Economic incentives matter!

(Differences between the experimental group and the baseline)

→ Low price elasticity (0,24 - 0,42)

→ Information about the watt usage is important

Findings II



Appendix

The individual work packages



Analysis of electricity savings potential (WP1)

→ Question:

- Which electronic appliances offer the biggest technical and economic potential for saving electricity in private households?

→ Method:

- Estimation of savings potential based on statistical data

→ Result:

- Four behavioural patterns with the greatest potential for electricity savings: Electricity based heaters, cooling appliances, TVs, power strips



Portfolio of policy instruments (WP2)

→ Question:

- Which policy instruments are implemented in OECD-countries?

→ Method:

- Identification and systematization of policy instruments according to types of barriers (Consumers/Consumption Environment)

→ Result:

- Structured overview of policy instruments
- Necessity of combination
- Difficulty of directly regulating consumer behaviour



Analysis of price elasticity (WP3)

→ Question:

- Does electricity consumption decrease with rising electricity cost?
- What is the willingness to pay for electricity saving appliances?

→ Method:

- Analysis of macrodata about electricity prices and consumption
- Experiments regarding purchase decisions (refrigerators/TVs)

→ Result:

- Low price elasticity of electricity consumption
- Willingness to pay for electricity saving appliances generally low; differences based on education, income, gender, and age

Integrated Action Model (WP4)

→ Question:

- Which are the important intervention points from an individual and societal perspective?

→ Method:

- Large scale survey plus qualitative modeling

→ Approach:

- Adaption of existing action models to the context of electricity utilization
- Addition of the societal and political levels

Quantitative Comparative Policy Analysis (WP 5)

→ Question:

- Which policy instruments have proven particularly effective abroad in terms of reducing electricity consumption in private households

→ Method:

- Data collection on policy instruments and multivariate regression

→ Approach:

- focus 30 OECD countries
- conducted by an international network of researchers

Micro-Foundation (WP6)

→ Question:

- Why and how have the most effective policy instruments worked in the relevant countries?

→ Method:

- Process tracing based on document analysis, focus groups and expert interviews

→ Approach:

- Selection of particularly effective policy instruments
- In-depth case studies of the conditions of their implementation and effectiveness
- Identification of truly effective instruments which might be transferable to the German context

Analysis of transfer conditions (WP 7)

Aim:

develop specific policy recommendations for the transfer of electricity saving instruments in private households

Method:

Ex-ante policy evaluation through theory and stakeholder based case studies

Approach:

→ Identify necessary conditions and evaluate options for transfer to German context (redesign)

„Transfer-catalysis“ (political marketing, WP 8)

Aim:

Initiation of political implementation processes

Method:

Theory-praxis-transfer using the cooperation platform „Sustainability and Energy“ of the *Wittenberg Center for Global Ethics* (Stakeholder- and/or expert workshop, pilot project)

Approach:

- a) Identification of relevant actors (**Multiplikatoren**)
- b) Networking and mobilization
- c) Pilot project (optional)