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Evaluation of European Energy Behavioural Change Programmes

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Working Group on Energy Related Behaviour Change***

heat pump environment municipal sector construction

Introduction

- The BEHAVE Project: Evaluation of Energy Behavioural Change Programmes (Nov 2006 – Apr 2009)
- EU Intelligent Energy – Europe (IEE) Programme
- Project phases:
 1. Analysis of behavioural theories
 2. Meta-analysis of case studies
 3. Preparation of guidelines for energy-related behavioural change programmes
- Meta-analysis of 41 European case studies from 11 countries
- <http://www.energy-behave.net/>



Evaluation viewpoints

- Meta-evaluation of a highly heterogeneous stock of case studies
 - Long-list of 100 cases → short-list of 41 cases covering a multitude of topics and target groups and using a variety of instruments
 - Seeking for the anatomy of a “successful programme”
- Analysis of the monitoring and evaluation carried out within the case studies

Stock of cases

- General climate and energy efficiency campaigns
 - Energy efficiency of new and renovated buildings
 - Household energy use: heating, appliances, lighting etc.
 - School projects
 - Local energy agencies (energy advice)
 - Energy label programmes
 - Renewable energy
 - Others (eco-driving, alcohol traffic awareness)
- Austria 4 cases
 - Bulgaria 2
 - Finland 6
 - France 4
 - Germany 1
 - Greece 1
 - Netherlands 5
 - Norway
 - Spain 7
 - Sweden 5
 - UK 4

Meta-evaluation methods

- Quantitative analysis:
 - Target groups, topics, instruments used, budget, duration, desired behavioural change
- Qualitative analysis:

Five steps of the project cycle:

1. Contextual analysis
2. Planning
3. Implementation
4. Monitoring
5. Evaluation

Three major viewpoints:

- Behavioural theories
- Social marketing
- Project manager insights

Types of behaviour and behavioural factors targeted

- Types of behaviour addressed
 - Investment behaviour
 - Habitual behaviour
 - Energy behaviour in general

	Aimed at change of behavioural factors		
	Motivational factors	Facilitating factors	Reinforcing factors
Number of case studies	37	17	16
Percentage	90%	41%	39%

Steps 1-3

- Step 1: Contextual analysis
 - E.g. energy efficiency barriers, regulatory framework, energy use by consumers/target groups, institutional setting, market structures, climate, natural resources, demography and social context, cultural factors
 - Not often reported explicitly but considerable effort was visible from the case studies
- Step 2: Planning
 - The most important step
 - Most campaigns operated with formal strategic/marketing plans (+)
- Step 3: Implementation
 - The simplest phase: acting upon the plan

Step 4: Monitoring

- Provides:
 - feedback to programme management to allow effective control and
 - performance data for the ex-post evaluation of the programmes
- Performance indicators with target levels
- Monitoring examples in the case studies
 - Materials distributed
 - Activity participants
 - Media monitoring results
 - Web site visitors
 - Market transformation
 - Subsidy applications, subsidies granted, measures taken
 - Contacts with energy advisors
 - Feedback from the target groups

Step 5: Evaluation

- Process evaluations made in 40% of the cases
- Either qualitative or quantitative impact evaluation in 70%
 - ➔ average evaluation frequency is probably much lower
- Third-party evaluations were rare; most were self-evaluations
- Not many cost-benefit evaluations
- Not much analysis on non-participation
- Both bottom-up and top-down approaches

Evaluation techniques used

- Surveys: telephone, mail internet, personal interviews, opinion polls, consumer panels (only after the campaign)
- Comparing the “before” and “after” survey results among participants
- Comparing the “after” survey results with a non-participating control group
- Tests (students, course participants)
- Observing changes in the markets
- Top-down survey investigating multiple campaigns with attribution

Success factors reported by programme managers

- Careful preparation and preparatory phase
- Clear objectives
- Co-operation
- Resources
- Usability
- Simplicity: keep it simple
- Involvement, training and education of partners
- Attractiveness and positive atmosphere
- Stimulation and encouragement
- Rewards
- Backup
- Feedback
- Uniform and informative marketing campaign
- Motivation
- Proponents of change: friends, family, and the local community
 - a campaign challenging the friends (family)
- Locality and familiarity
- Infotainment and fun
 - learning by having fun
- The visible support from society's part
- Good visibility among the target group
- Repetition

Setbacks reported by programme managers

- Deficiencies in planning:
 - too little time allocated for planning
 - unclear programme objectives
 - lack of knowledge on behavioural theories and their application
 - lack of consumer segmentation and needs analysis
 - no testing, risk analysis or advance planning of monitoring and evaluation
- No consulting of interest groups; lack of correct partners; excessive number of partners with conflicting interests and causing coordination problems
- Negative feedback to participants reduces motivation
- Quality requirements of consumers could not always be met
- Inadequate reporting and dissemination of results
- Imbalance between tasks and resources
- Logistical problems
- Bad luck: bad weather during outdoor activities, coinciding "competing" activities

Lessons learned

- Take time to prepare action (programme design, resourcing and implementation)
- Highlight the importance of specific behavioural goals and target market(s)
- Seek synergies through collaboration between departments
- Seek synergies with private and civil sector activities
- Identify what has been done previously that has been effective, in comparable fields (not energy alone)
- Involve appropriate expertise across a range of disciplines

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