The status of efficient domestic lighting in Hungary and the challenges to improve it

CENTER FOR CLIMATE CHANGE AND SUSTAINABLE ENERGY POLICY

CENTRAL EUROPEAN UNIVERSITY

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EnERLIn

Energy Efficient Residential Lighting Initiative

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About the project

Goals of the ENergy Efficient Residential Lighting INitiative (ENERLIN) project:

- to study the penetration level of energy efficient lighting (mainly compact fluorescent lights – CFLs) in households, and to understand influencing, encouraging and obstructive factors
- to analyse the effectiveness of previous campaigns, and to run and evaluate pilot campaigns
- to develop a new CFL quality charter and disseminate it among stakeholders.

Project consortium: 14 countries – ESCOs, universities, research institutes, energy agencies, independent consultancies.

Hungary:

1. Review of previous CFL market studies;
2. Overview of previous campaigns, factors for success and failure;
3. Nation-wide consumer survey;
4. Generation of ideas for test-campaigns based on the findings;
5. Running a small-scale test-campaign

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Importance of the research

- -EU 27: constantly growing residential electricity consumption (2000 to 2005: 2%/year)
- -Hungary: since 1990 residential electricity consumption grew by 21%, households were responsible for 35% of total final energy consumption as of 2000
- -main factors for this growth: increasing apartment size and number of apartments, penetration of household appliances
- -10-25% of household electricity consumption = lighting
- -penetration of CFLs is still low in many EU states
- -EU 27: penetration of CFLs is c.50% (min. 1 CFL/household), number of CFLs is 2.7 on average
- -EU 25: changing the most used incandescent light bulbs could save 11TWh energy (=electricity consumption of the residential sector in Hungary)

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Research methods

Overview of past campaigns:

-desk research, interviews

Consumer survey:

-7 blocks, 32 questions: knowledge, use, experience, information, purchase, price sensitivity and demographics

-data collection: Gallup Institute, 2007

-Sampling frame: +18 years adults, head of the household

- Number of households: 500

Campaigns

-overview of 5 CFL campaigns post-2000, their impacts and implications for future campaigns

1. Efficient Lighting Initiative (ELI) (www.eli.hu/)
2. The Light of Our Eyes (Szemünk Fénye) (www.szemunk.fenye.hu/index.html)
3. Energy School (Energia Suli) (www.energiasuli.hu/)
4. Forgó Morgó (www.energiakalkulator.hu)
5. Energy money-box (Energiapersely) (www.energiapersely.hu)

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Factors for effective campaigns

- Timing (late autumn)
- Prior market research
- Communication focussed on target group(s)
- Good logo, simple message
- Multipliers (e.g. schoolchildren > families; shop assistants > customers)

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CFL penetration - history

- Technology has long been available in Hungary, and easily and moderately cheaply since the 1990s
- The penetration rate* at the beginning of 1995: ca. 5% (Ürge-Vorsatz and Hauff (2001),
- Penetration rate 19% by 1997 (ELI project Final Report) – this is considered to be due not to campaigns but other factors, such as for instance:
  - new producers entering the market, thus the previous monopoly set prices were reduced by competition,
  - electricity prices were on the other hand increasing,
  - interest in "modernising" and new technologies increased among the public
  - Campaigns were launched by new entrants as well as Tungsram (the Hungarian producer)

* Penetration rate indicating the number of households with at least 1 CFL installed

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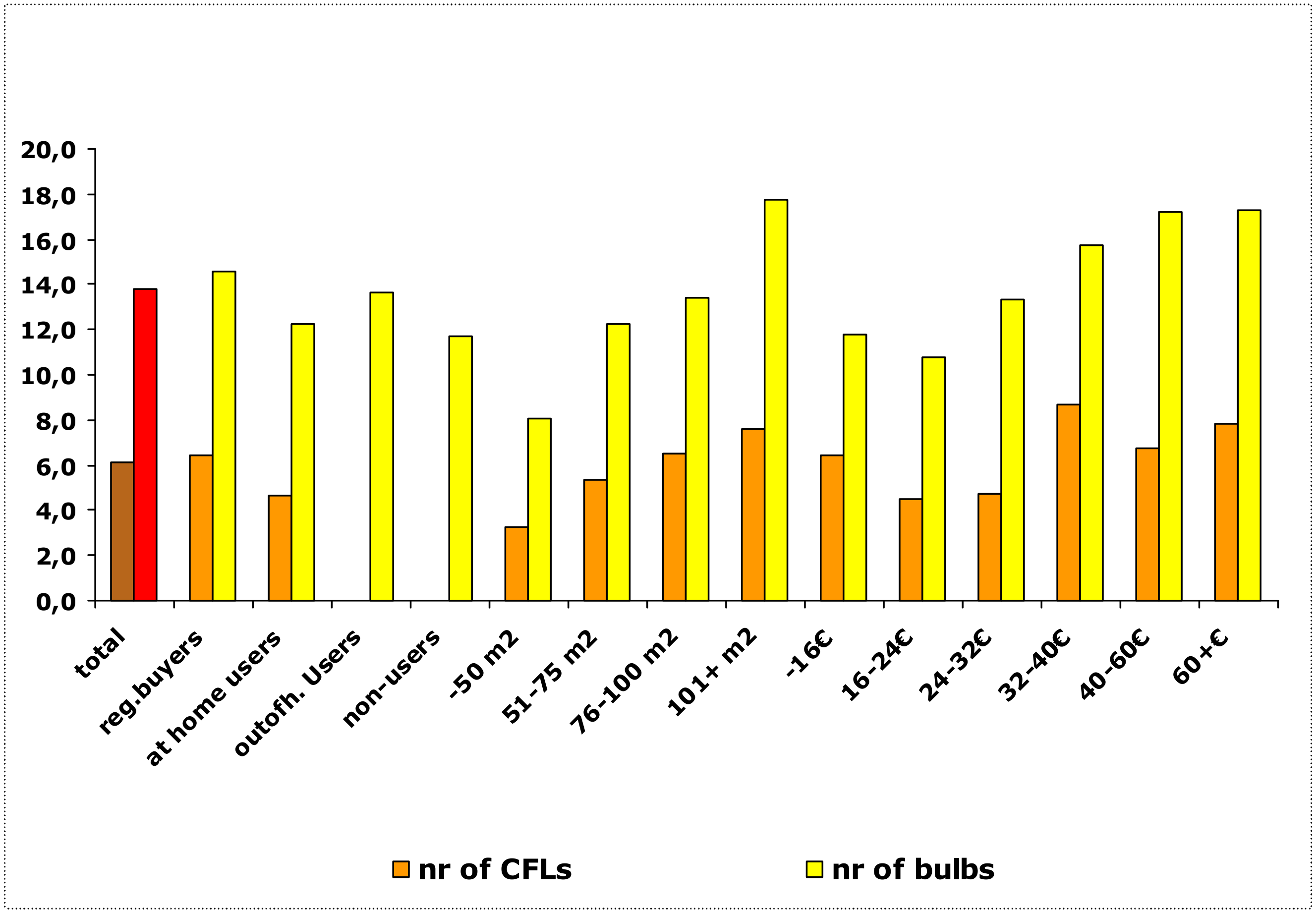
CFL penetration – our survey

78% of households have used or are using a CFL. These households have on average 14 bulbs all together, 6 of them are CFLs - significant increase



overrepresentated in CFL use are:

- Budapest and county rank cities, bigger cities

- university graduates

- electricity bill under 16€ and between 32-40€

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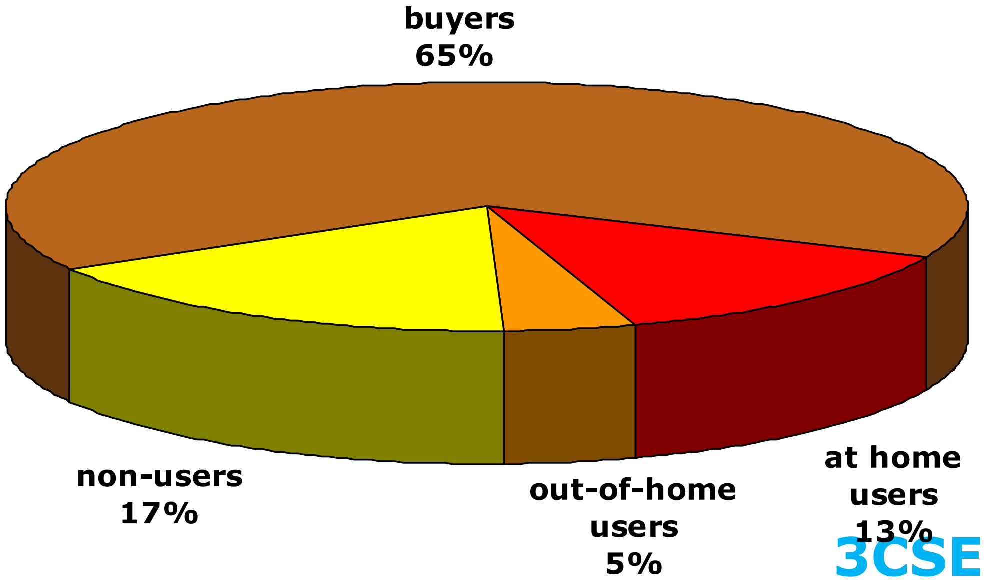
Survey results

Segmentation

- Regular **buyers**: using CFLs at home and already bought CFL(s);
- **At home users**: using CFLs at home, but never bought one personally before;
- **Out-of-home users**: never used a CFL at home, but used or are using at other places (e.g. workplace);
- **Non-users**: never bought or used a CFL.



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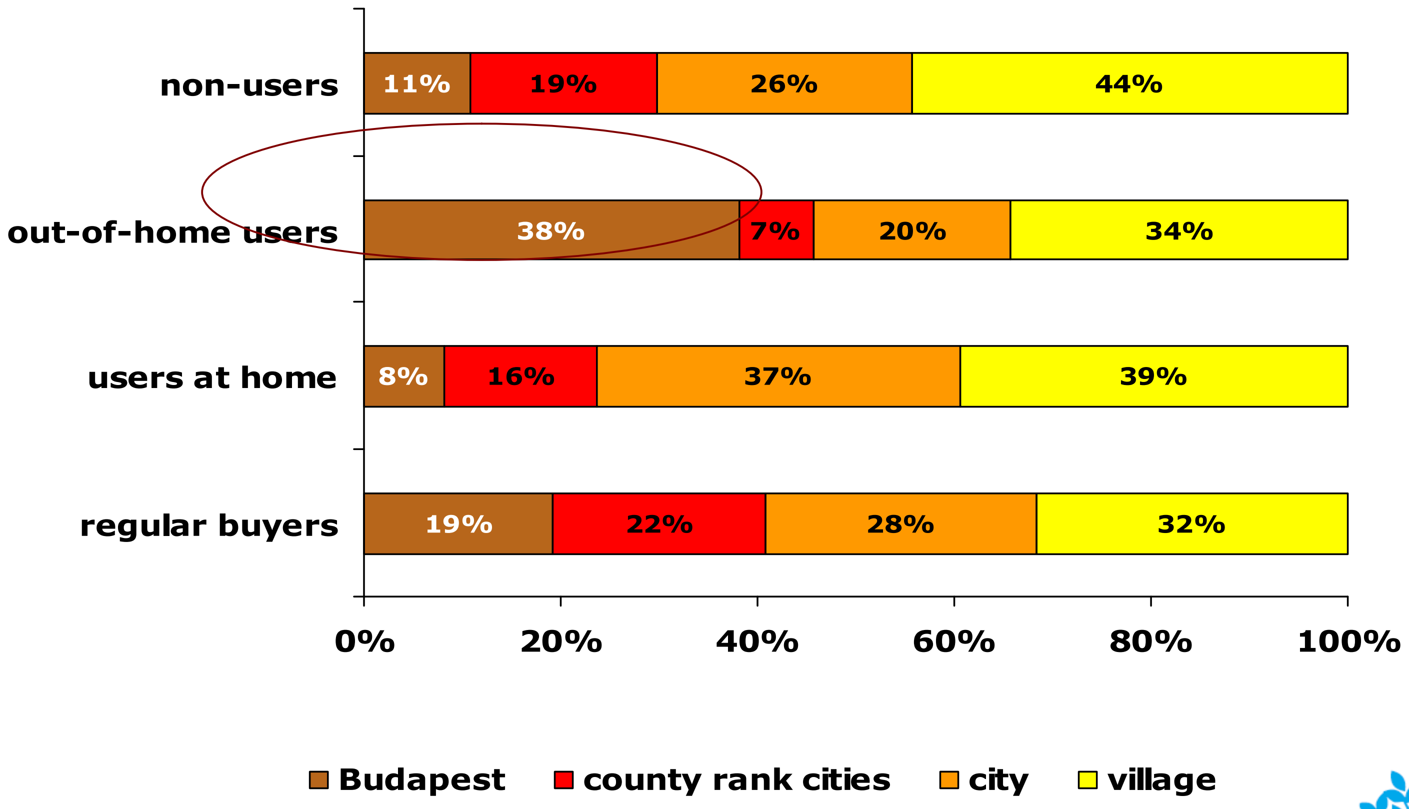
Segments – geographic location



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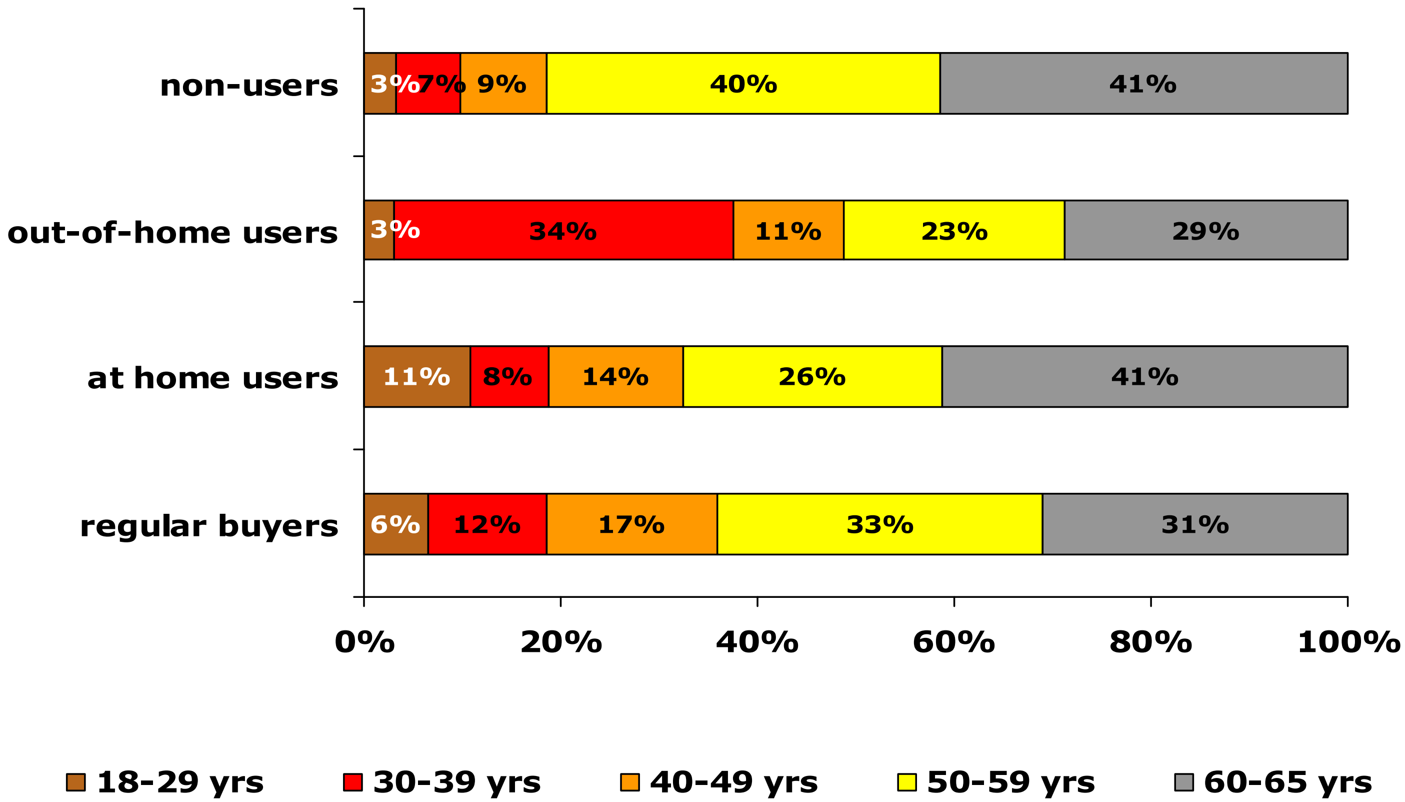
Segments – age groups



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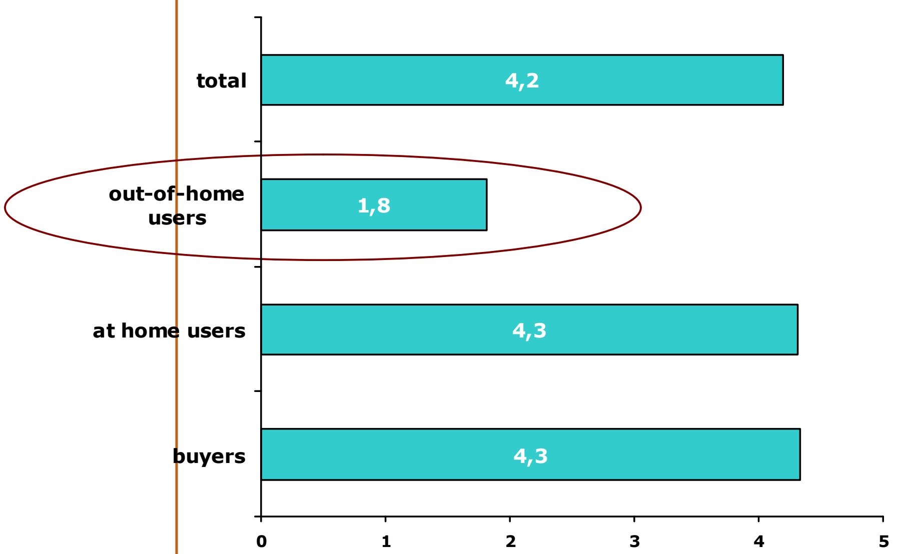
Experience

The majority of respondents (nearly 70%) experienced quality difference among CFLs.

Are you satisfied with CFLs used so far?



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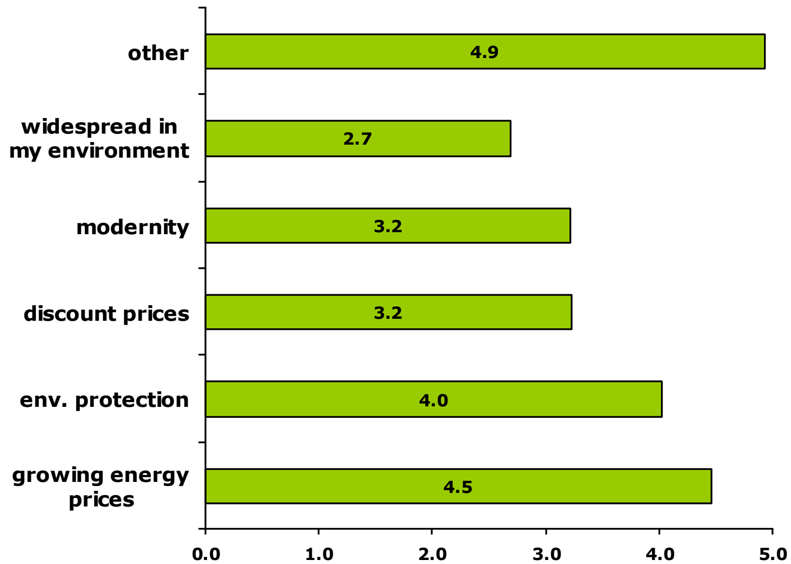
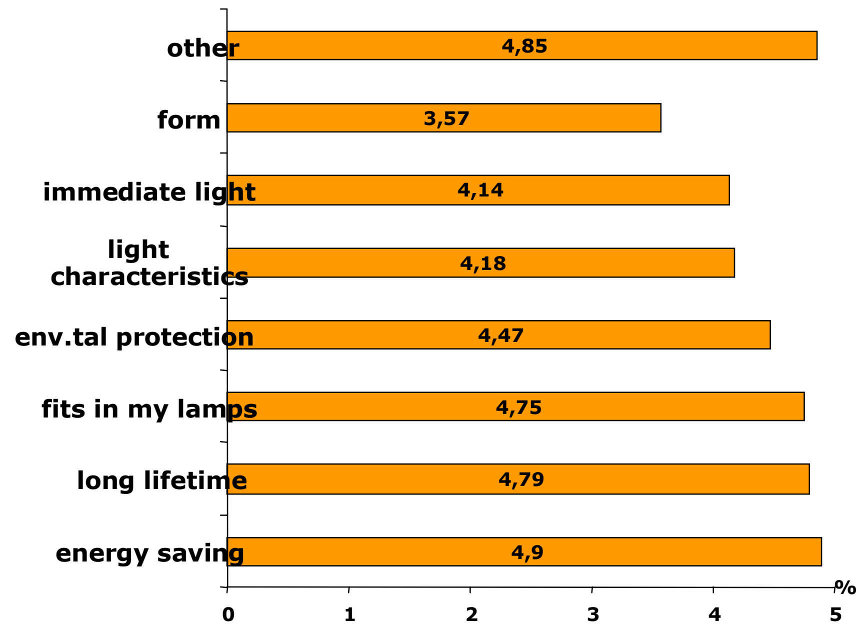
Reasons for the use of CFLs

Importance of factors that influence purchasing (5-point scale)



Importance of CFL features influencing purchase (5-point scale)



In case of “at home users” the importance of the prevalence of CFL among their peers is significantly higher (3.5) than on average (2.7).

Out-of-home users: least interested in environmental protection and light characteristics, but extremely important to have immediate light

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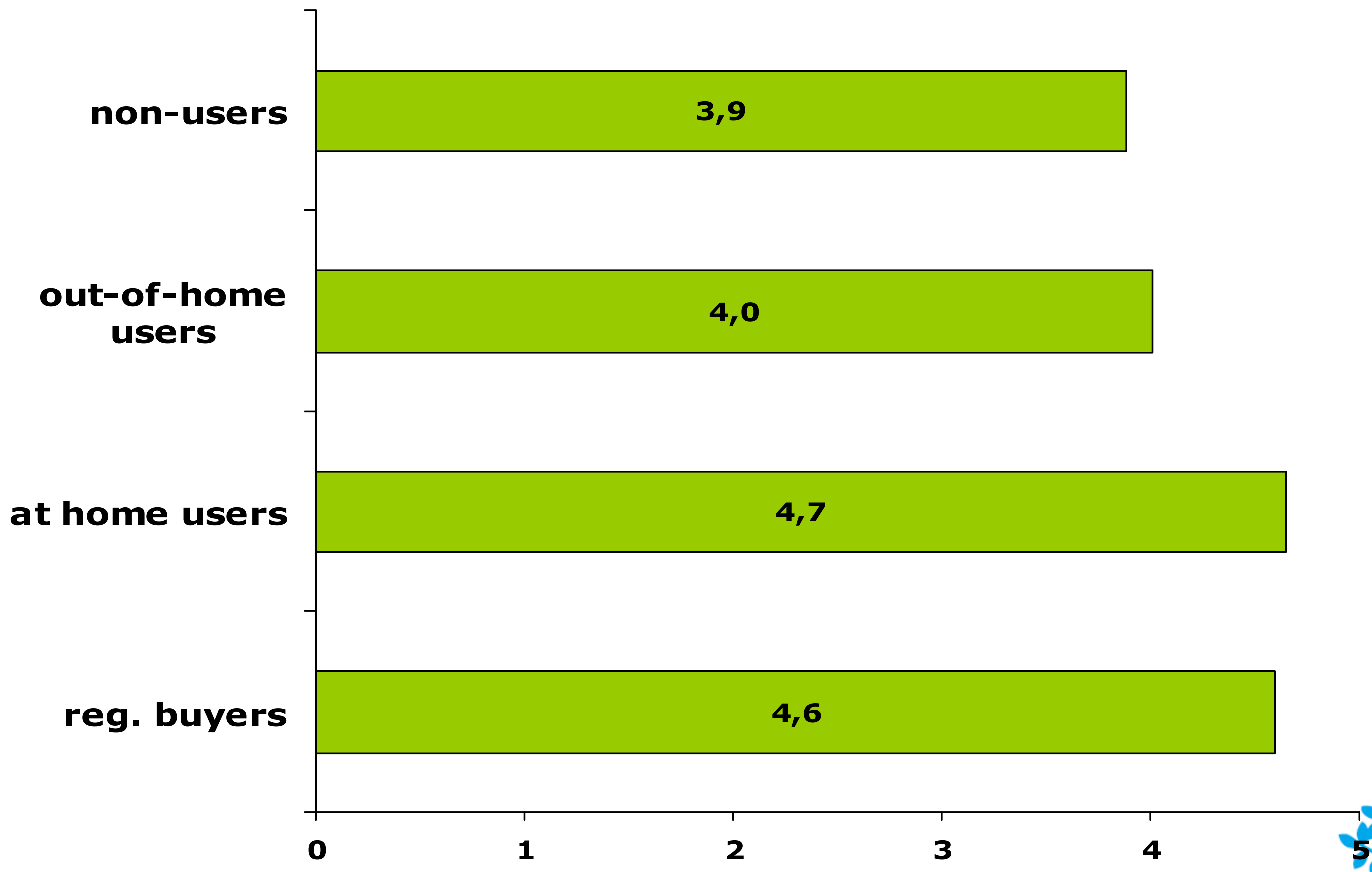
Reasons for non-purchase

To what extent would you agree with the following statement: Through longer lifetime and lower energy consumption of CFLs their higher purchasing cost will be recovered? (5-point scale)



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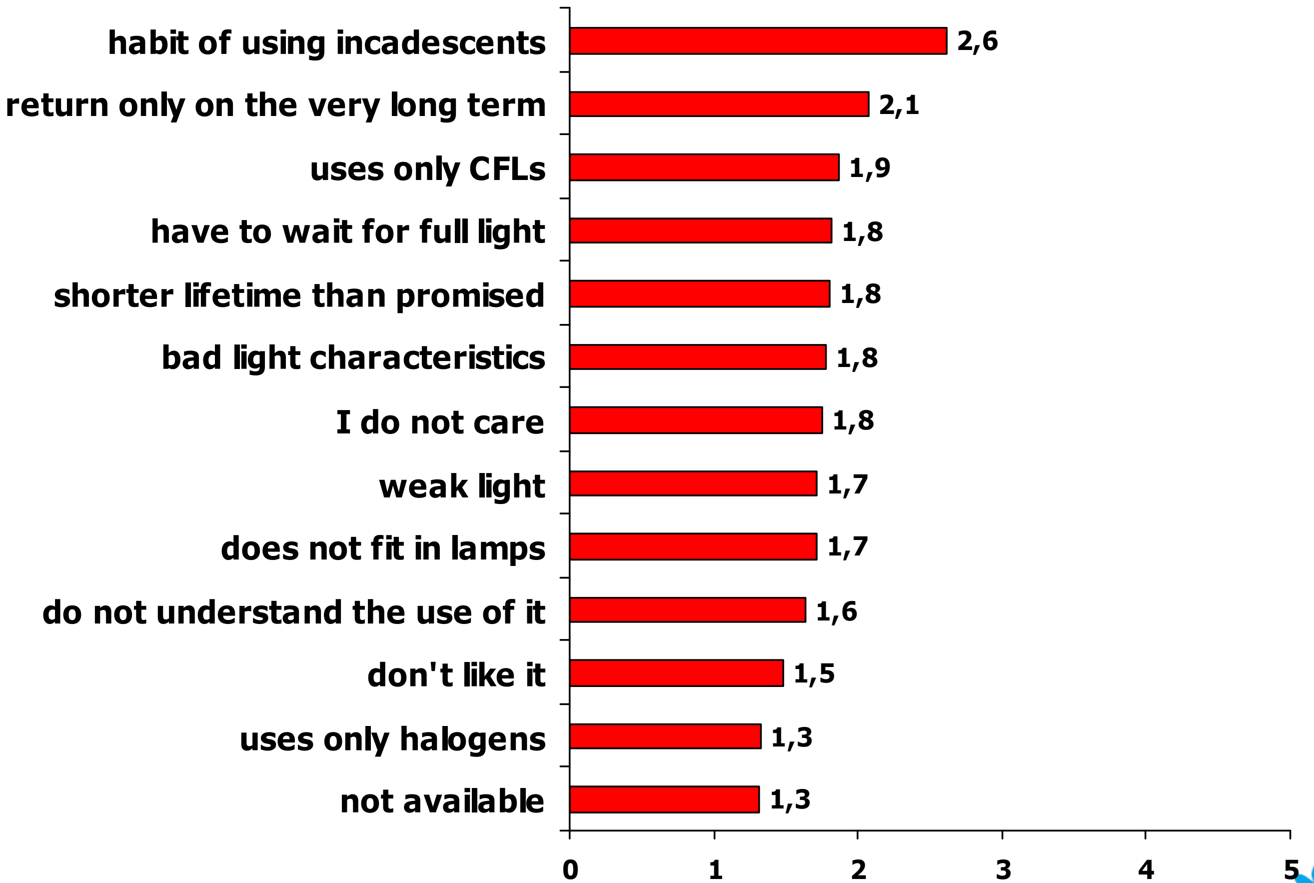
Reasons for non-purchase

Importance of factors for non-purchase (5-point scale)



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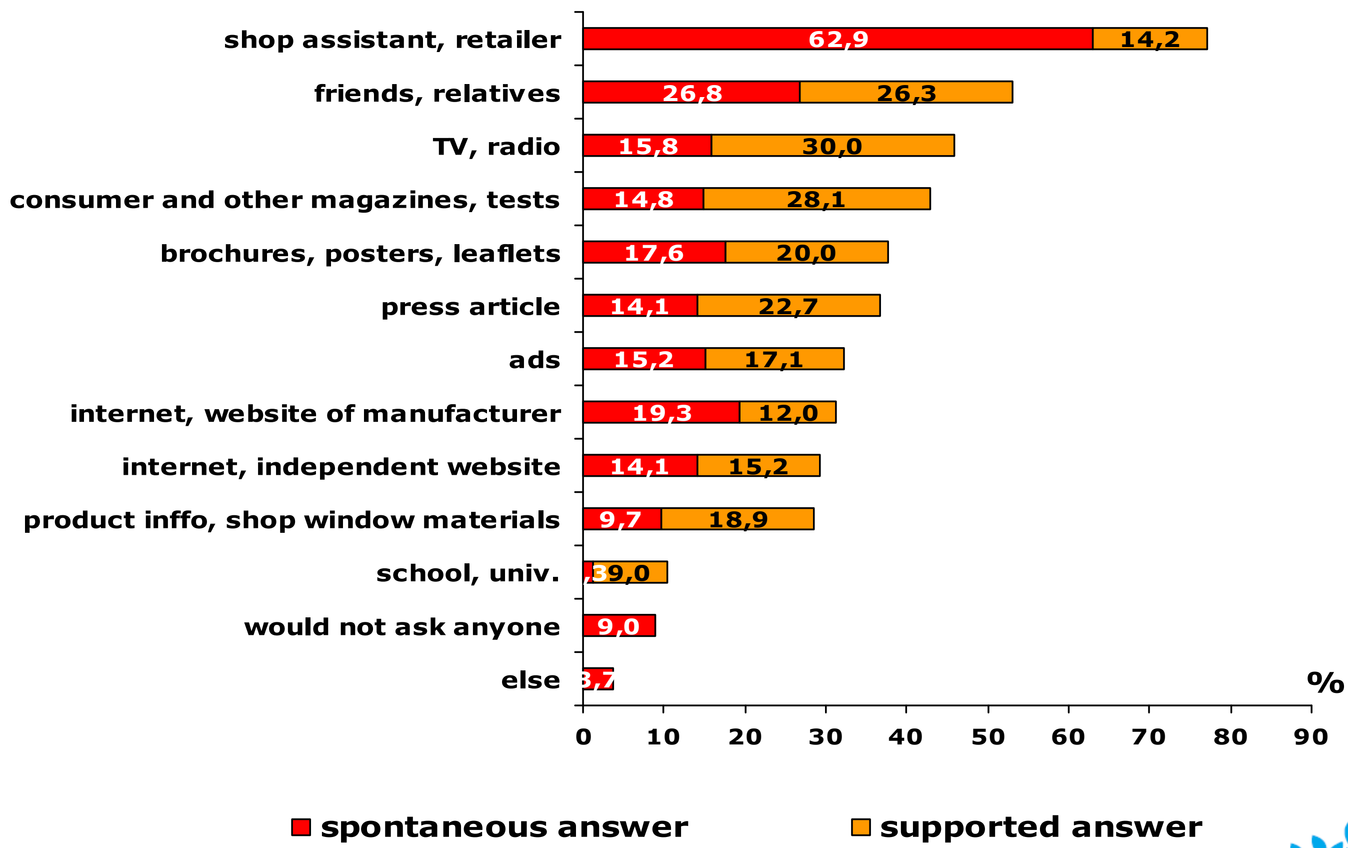
Where would you like to get info?

Information sources



Users at home: friends, relatives

Out of home users: shop assistants, internet, TV, radio

Non-users: friends,shop assistants, magazine articles

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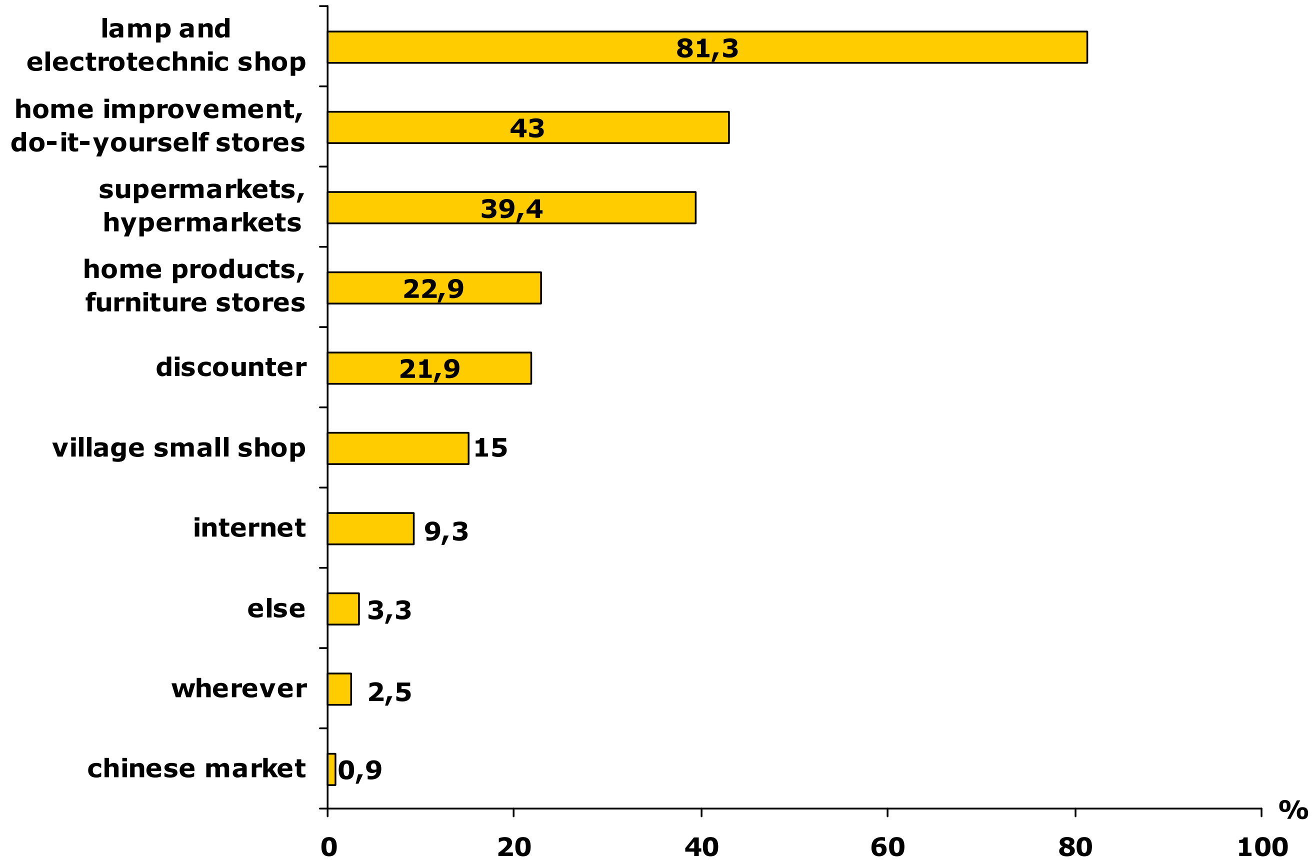
Where would you like to buy?

Where would you like to buy your future CFL most?
(multiple response)



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Implications for the test-campaign

-the penetration of CFLs increased significantly in the last 10 years (from 20% to nearly 80%), but there is still potential for further increase in the domestic sector

-primary target group: out-of-home users; secondary target group: users at home and regular buyers

-primary information sources: retailers, shop assistants, internet

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Test campaign features

- Ran in November 2008 in 3 Budapest stores:
  - 1 specialist lighting/electrical store (Tungsraum)
  - 1 DIY store (Bauhaus)
  - 1 hypermarket (Cora)
- 2 for 1 CFL offer sponsored by GE (500 free CFLs)
- Purchasers had to fill in a questionnaire giving basic demographic information and purchasing history

Test campaign results

- Variable take-up in the different locations (150 in Tungsraum, 60 in Bauhaus, 7 in Cora)
- Variation may be due to differences in shop assistant time, motivation, knowledge
- 83% had previously bought CFLs (cf. 65% in survey) so the campaign did not fully reach the main target group
- 80% asked shop assistants for more information and 93% who did so found the information they received helpful – supports survey findings that shop assistants can be an important and trusted source of information
- more preparatory work is needed for campaigns in larger stores

Thank you for your attention!

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Supplementary slides

Center for Climate Change
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Campaigns

Name of the campaign	Target group	Timeframe	Main campaign elements	Results
ELI Efficient Lighting Initiative	Lower income and lower education group of the population; target group were school children	2002-2003	Local TV and radio, school presentations, ads and quiz games, press conferences, ads and articles, retail campaign (POS, electrometer, ELI logo)	-800 presentation, 40 press articles, 14 quiz games, 300 spots, presence in 50 big retail units, several professional articles.
Light of Our Eyes	Public institutions (children, families indirectly)	2006-	Renovation of buildings	2200 buildings
Energy School	Primary shool children	2006	Fizibus	Na
Forgo Morgo	Population	2007-	Encouragemnet for changing incadescents to CFLs, website, TV and local retail campaigns	Na
Energy money-box	Population, SMEs	2007-	Website	Na

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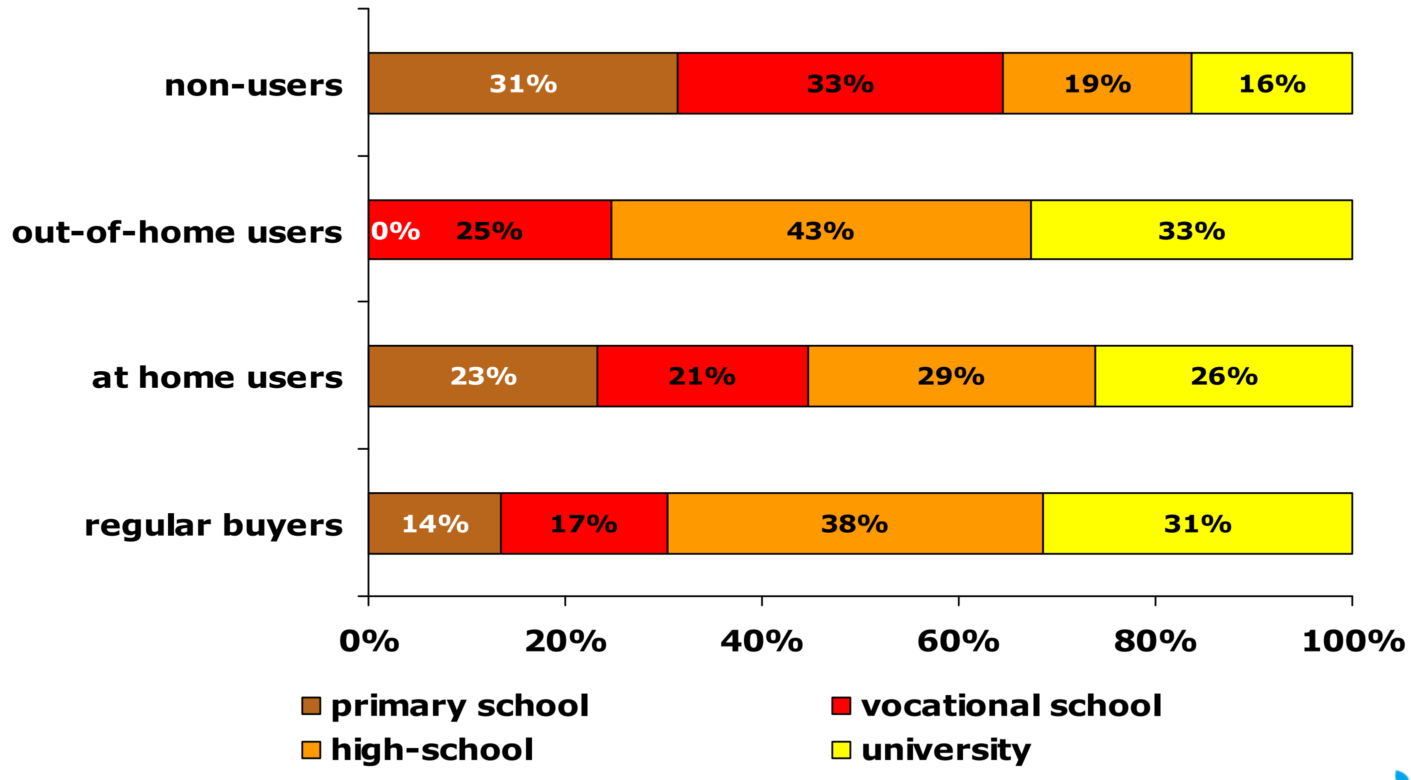
Segments – type of education



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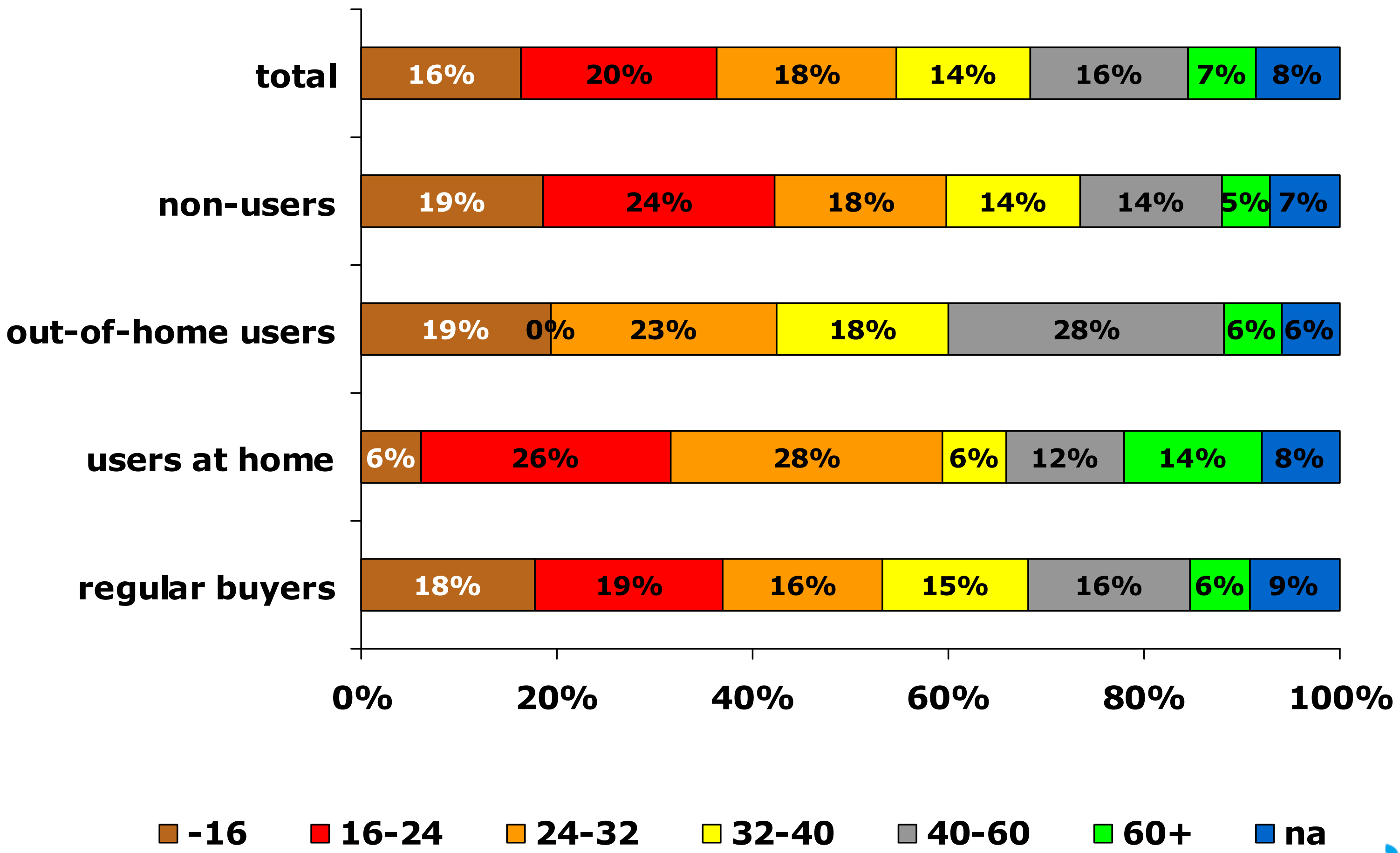
Segments and electricity bill (€)



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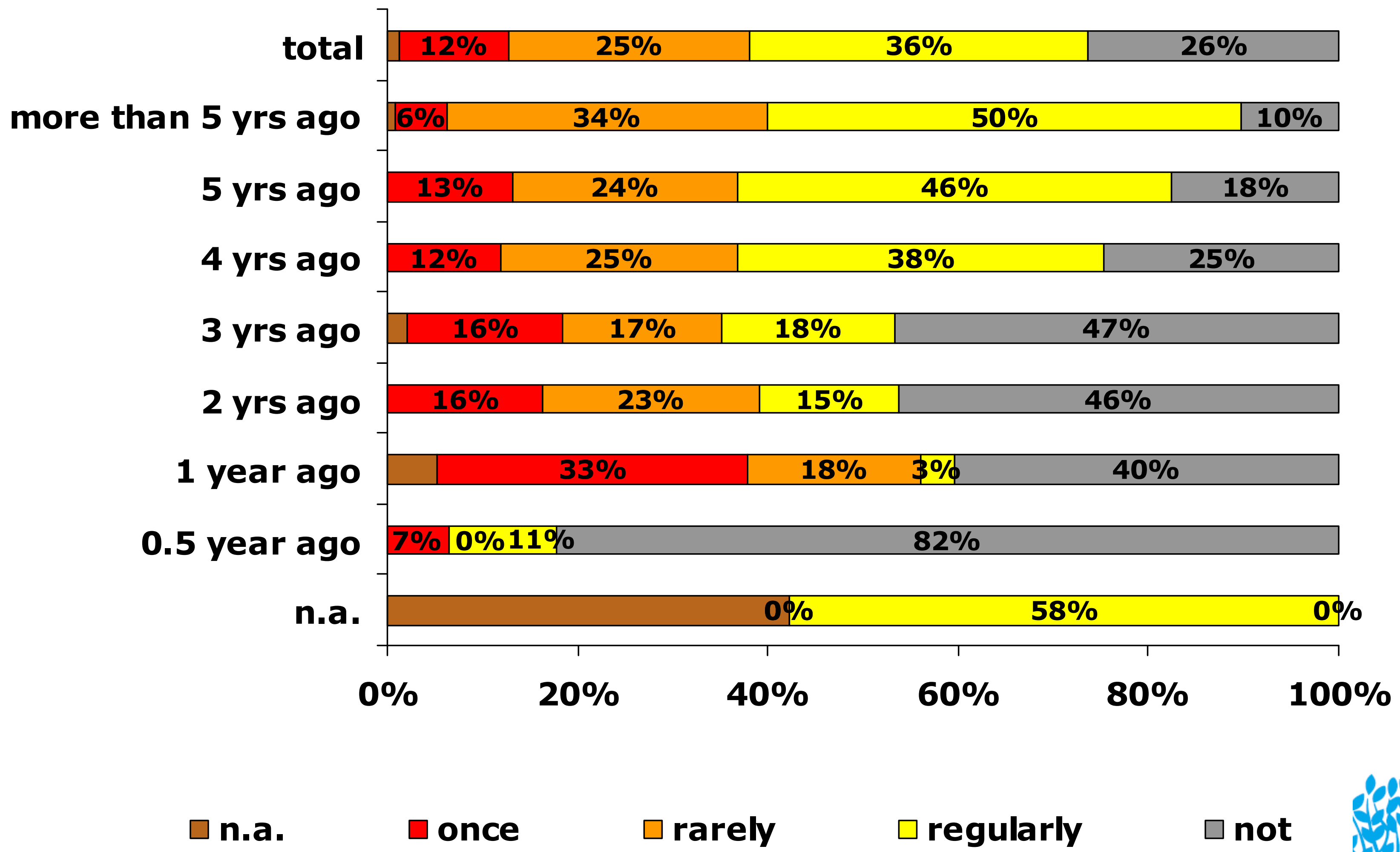
Purchasing experiences and past

Time of first purchase



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