



# EnERLIn

*Energy Efficient Residential Lighting  
Initiative*

Supported by

Intelligent Energy  Europe



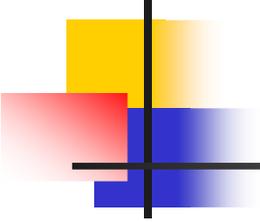
## European Efficient Residential Lighting Initiative

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2006-2008 – IEE - Intelligent Energy Europe program

To develop and validate robust scenarios for **CFL promotional campaigns** in European, national and regional levels

Assuming that there is 150 million households in Europe the energy economy by replacing only one additional 75 W GSL by one 15 W CFL is in the order of **22.5 TWh per annum**, this corresponds to **1.2 Mtonnes** of less **CO2** per annum – EnERLIn proposal



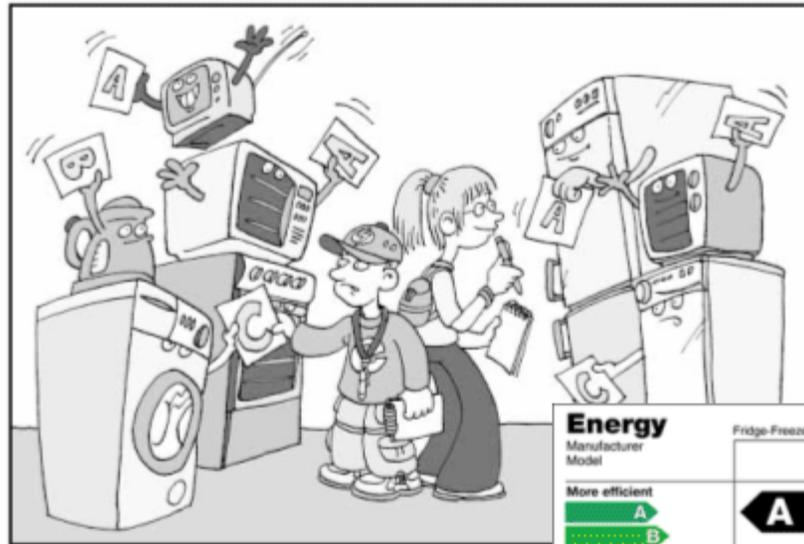
# Objectives of the EnERLIn action

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## Increased penetration of **CFL's in the residential sector**

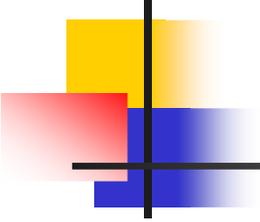
- introducing a CFL Quality Charter that guarantees for the end-user **the CFL quality**
- designing and implementing **CFL promotional campaigns** adapted to each country sensibility

# Helping people to take energy efficient decisions



Cu ajutorul acestor etichete sau a altor etichete emise de Uniunea Europeana, pot fi uidentificate economiile potentiale in fiecare camera a locuintei dumneavoastra.

Energy	
Manufacturer	
Model	
More efficient	
A	
B	
C	
D	
E	
F	
G	
Less efficient	
Energy consumption kWh/year <small>(Based on standard test results for 2005)</small>	325
<small>Actual consumption will depend on how the appliance is used and where it is located.</small>	
Fresh food volume l	190
Frozen food volume l	125
	ENERGY
Noise <small>(dB(A) re 1 pW)</small>	
<small>Further information is contained in product literature.</small>	
<small>From 2011 this label complies with the Energy Label Regulation (EU) 813/2013</small>	

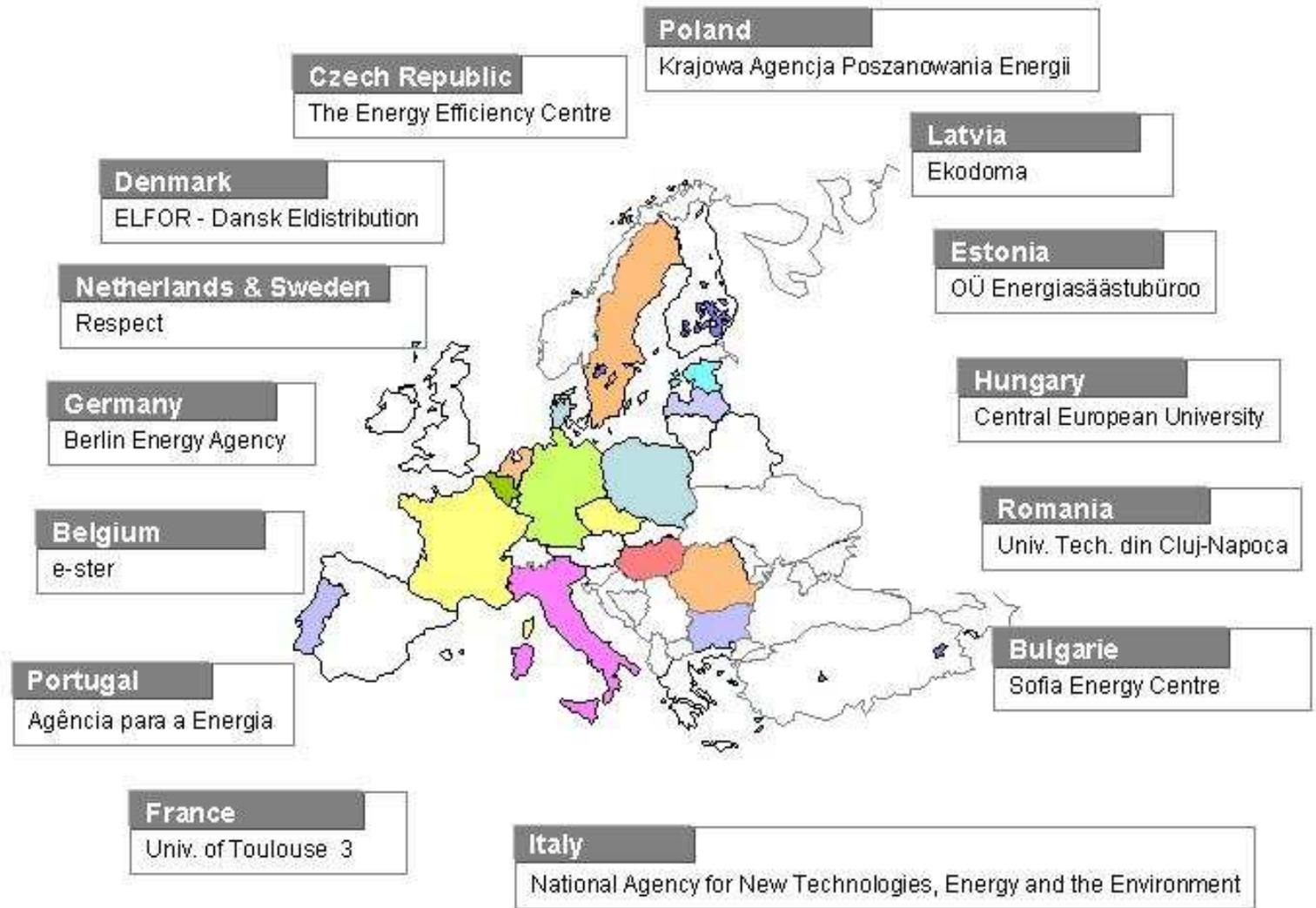
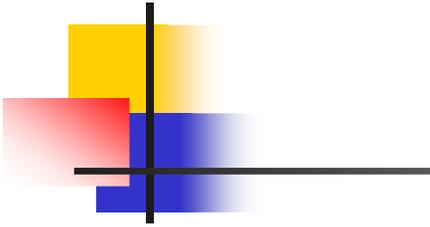


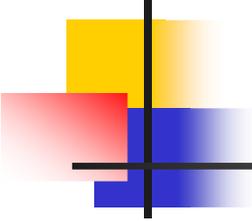
# Why people don't buy CFLs?

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- Price of electricity is subsidized by state
- Price of CFLs is too high
- **People had bad experience with CFLs**
- **Lack of information about CFLs**
- **No energy efficient mentality**

# EnERLI<sub>n</sub> CONSORTIUM





# ELECTRIC LIGHTING ENERGY CONSUMPTION IN THE RESIDENTIAL SECTOR

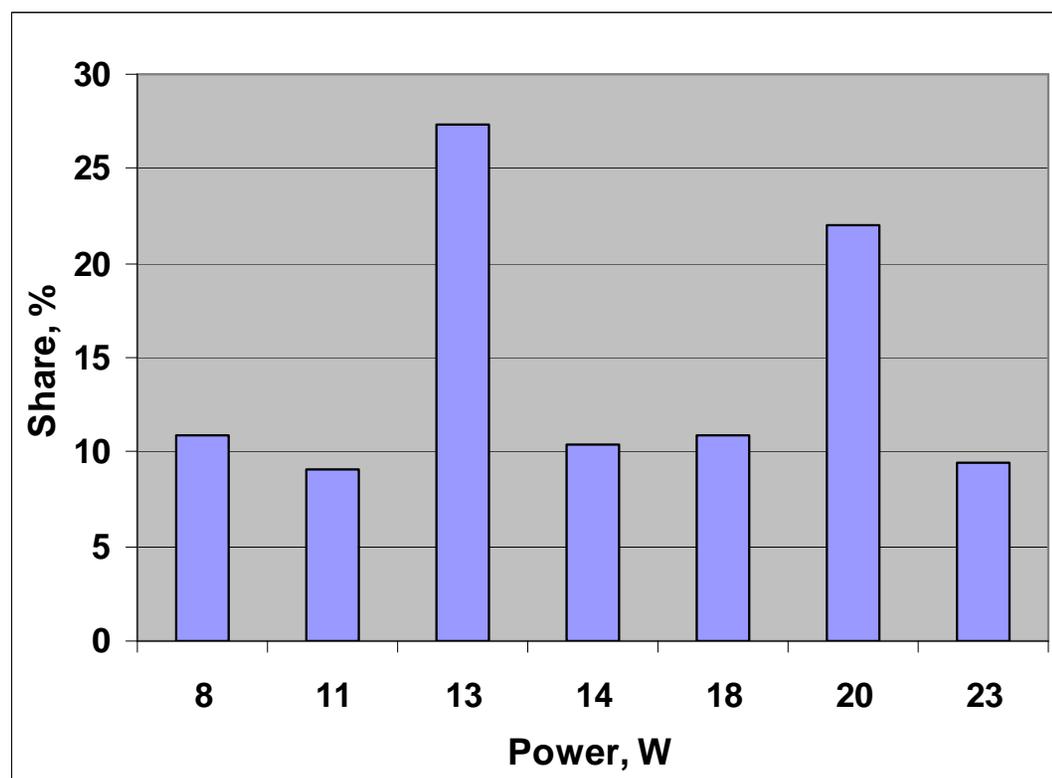
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## The use rate of CFLs per household

- From 0.8 units in Great Britain up to over 3 units in Denmark (2002)
- SAVE programme - a reasonable upper limit to 8 units (2002)
- **EnERLIIn & CREFEN (2008 study) ~ 2,82 units in Romania**
- **Residential lighting consumption in Romania ~ 23% (2000 study)**

# CFL distribution power in Romania

- 545 households



## INFORMATIC SYSTEM FOR ENERGY EFFICIENCY IN RESIDENTIAL SECTOR



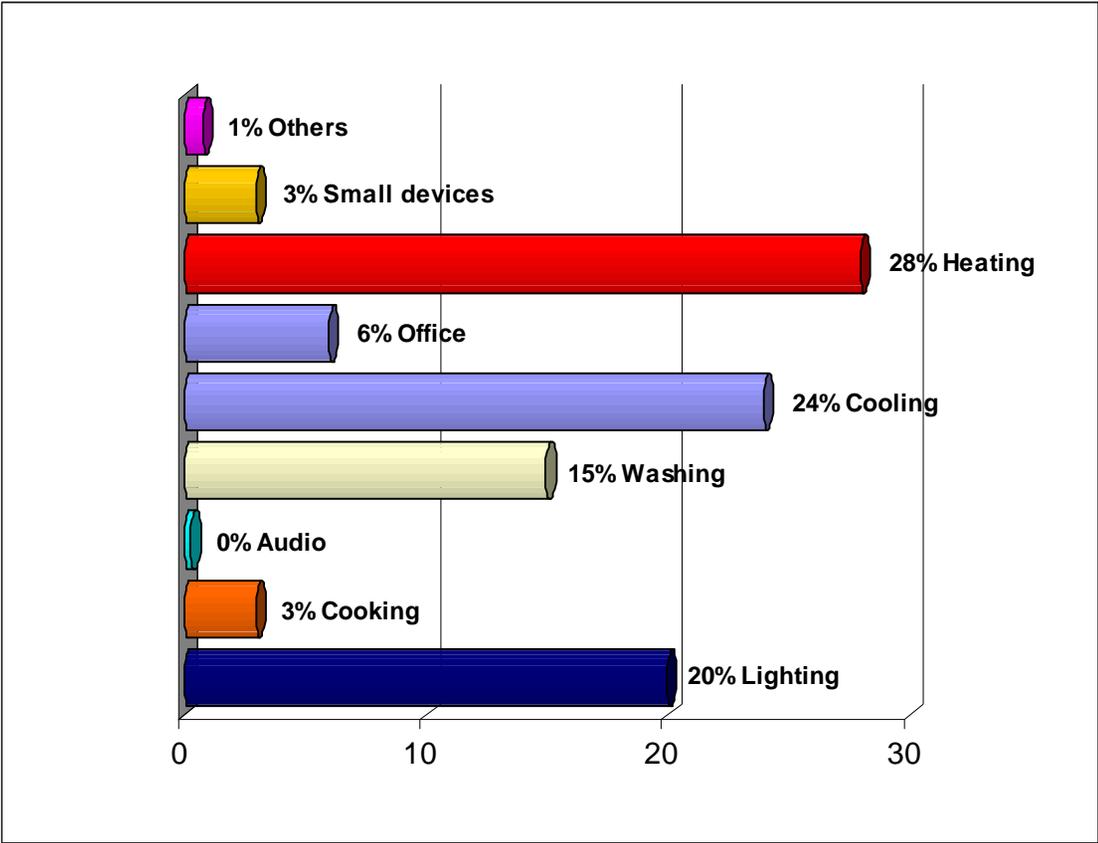
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2006-2008 – Romanian CEEEX Research program

*to achieve an integrated software system tools for  
assessing, prognosis and training the specialists  
and consumers*

# Consumption of household appliances –

## CREFEN survey





Caracteristici ale Lămpilor Fluorescente Compacte:  
Un consum redus de energie cu până la 80% mai mic comparativ cu lămpile cu incandescență.  
Durata de viață de 8 ori mai lungă.  
Durata medie de viață a lămpii în aplicațiile de interior este de 5 ani.

**Programul EnERLIIn**  
**European Efficient Residential Lighting Initiative**  
Inițiativa unui iluminat rezidențial eficient energetic  
prin promovarea Lămpilor Fluorescente Compacte în locuințe

**Obiectivele EnERLIIn:**

Cresterea substanțială a eficienței iluminatului rezidențial într-un număr de state membre și candidate UE.  
Promovarea unei oferte largi de LFC ieftine care să răspundă unor necesități diversificate privind dimensiunile, formele, redarea culorii și conexiunea.

**Directori program:**

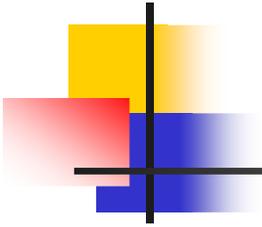
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**Coordonator program:**

Prof. Georges ZISSIS, Universitatea Paul Sabatier, Toulouse Franța



# Student Poster Contest Winner



# Promotional Poster and Leaflet




Universitatea Tehnică  
din Cluj-Napoca  
Centrul de Ingineria  
Illuminatului



S.C. EnergoBit S.R.L.



S.C. PRAGMATIC COMPREST S.R.L.

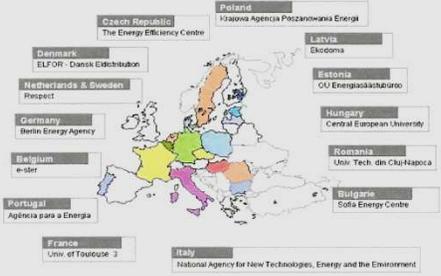


S.C. Filiala de Distribuție și Furnizare  
a Energiei Electrice  
ELECTRICA TRANSILVANIA NORD S.A.



**Programul EnERLIn - European Efficient Residential Lighting Initiative**  
**Inițiativa unui iluminat rezidențial eficient energetic**  
 prin promovarea Lămpilor Fluorescente Compacte în locuințe  
Grant EIE/05/176/SI2.419666 (2006-2008)

**Consortiul programului**



**Obiectivele EnERLIn**

Creșterea substanțială a eficienței iluminatului rezidențial într-un număr de state membre și candidate UE

Promovarea unei oferte largi de Lămpi Fluorescente Compacte ieftine care să răspundă unor necesități diversificate privind dimensiunile, formele, redarea culorii și conexiunea

Director program  
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**Tipuri de corpuri la care se folosesc Lămpi Fluorescente Compacte**



**Tipuri de Lămpi Fluorescente Compacte**



**Caracteristici ale Lămpilor Fluorescente Compacte**

- un consum redus de energie cu până la 80% mai mic pentru același flux luminos emis comparativ cu lămpile cu incandescență
- durata de viață de 8 ori mai lungă comparativ cu lămpile cu filament
- durata medie de viață a lămpii în aplicațiile de interior este de 5 ani (la 3,3 ore funcționare/zi)
- au soclu de tip E14, E27 sau B22
- multiple aplicații posibile datorită gamei largi disponibile
- temperatura de culoare este de 2700, 3000, 3500, 4000 și 6000 K (alb cald, intermediar și rece)
- sunt disponibile în variante de puteri de 6, 9, 11, 16 și 20 W, echivalent cu puteri de respectiv 25, 40, 60, 75 și 100 W pentru lămpi cu incandescență
- sunt plasate în clasele de energie A și B în cadrul sistemului european de marcare a randamentului energetic

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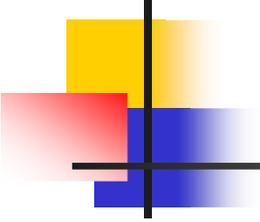
# CFL luminaires contest



# CFL insert in weather forecast

<del>BEC INCANDESCENT</del>	BEC FLUORESCENT
<del>1,2 lei</del> Pret	12 lei
<del>75</del> Puterea consumata (in Wati)	20
<del>1.200</del> Lumina produsa (in lumeni)	1.200
<del>1.500</del> Viata (in ore)	10.000
<del>24 lei/an</del> Cost pe an (cu 4 ore/zi functionare)	6 lei/an
<del>25</del> TOTAL COSTURI (in lei)	18

BRIE FRANTA A SOLICITAT STATUT DE MEMBRU CU SOCIAZA CU MARIUS CROITORU TRANSFERUL DE LA STEAU



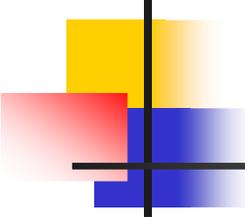
# EnERLIn consortium questionnaire campaign

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## Up to day EnERLIn consortium identified the following fundament reasons

- Consumer dislikes classic CFL shapes, and, CFLs misfit often to “design” luminaries
- Consumer dislikes colour temperature & rendering of CFLs
- Good quality CFLs are still expensive, and, inexpensive CFLs are not reliable
- Return time is short but “diluted” and directly observable
- Plug & Play CFLs are not dimmable (this concerns the large majority of existing products)
- Consumer need all light instantaneously but CFLs need time to warm-up
- CFL dislikes rapid (or random) ON-OFF cycle and is incompatible with presence detectors
- CFL power supply dislikes mains voltage fluctuations

**Efficient CFL-promotional campaigns should take into account theses negative arguments and find the way to demonstrate valid solutions to end-users**



# Incandescent lamps shift-out

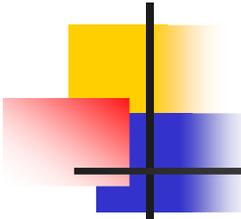
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- On December 8 The European Union experts approved the European Commission's proposals for a regulation progressively phasing out incandescent lamps starting 2009 and ending 2012
- Italy will ban the sale of incandescent light lamps as of 2010.
- Switzerland banned the sale of incandescent lamps class F and G
- In Ireland the government proposes to ban traditional incandescent light bulbs in January 2009.
- On the 27 September 2007, the government in the United Kingdom announced plans to phase out the sale of incandescent light bulbs by 2011. Under the plan, retailers will voluntarily decline to stock 150 Watt bulbs from January 2008, 100 watt bulbs from January 2009, 40 Watt bulbs in 2010, and all remaining bulbs by 2011.

# RECOPLAMP – used lamp collection



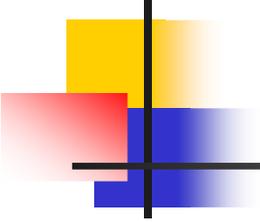
Started in 2008



# NEW CFL QUALITY CHARTER

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- This year the European Commission, through Joint Research Centre, is preparing a new European Compact Fluorescent Lamps Quality Charter. In the introduction is mentioned that *“total domestic lighting consumes about 86 TWh in the Union and it is predicted to raise to 102 TWh by 2020. Compact fluorescent light bulbs (CFLs) use at least 60% less electricity than the traditional incandescent lamps while lasting ten to twelve times as long and can therefore deliver substantial savings in terms of both electricity and money.”* The idea of this quality charter is to promote CFL for the remaining 95% of the residential lamp market, but with minimum quality criteria in order to increase consumer confidence.
- The main modifications are related to stabilised light output (time to 80% of stabilised light output, after switch-on from cold, at normal room temperature, shall be less than 60 seconds and 30% of stabilised light output after switch-on from cold, at normal room temperature, shall be less than 2 seconds) and comparison CFL/GLS (instead of previous 1:5 ratio a new 1:4 is indicated).



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**This CFL campaign prefigure  
the next LED campaign**

**Thank You!**



**The Light Brigade**