## Topten



# Dynamic benchmark for the most energy efficient products

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### What does Topten do?

Objective: Support **market transformation** towards higher energy efficiency, based on market transparency. Topten:

•Selects the most energy efficient products available on the market - no prototype – based on regulations

•Shows these products on-line, at the national level, close to the consumer and procurers – Internet search tool

Is independent from manufacturers and retailers

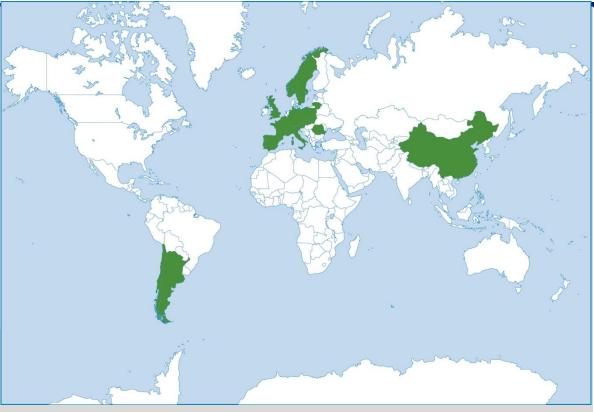
•Publishes its selection criteria online





### Where is the Topten network?

Created in 2000 in CH 2005 in FR / DE / AT 2006 in Europe 2010 in China 2015 in Latin America



- At international level: to transform markets
- At national level: close to consumers



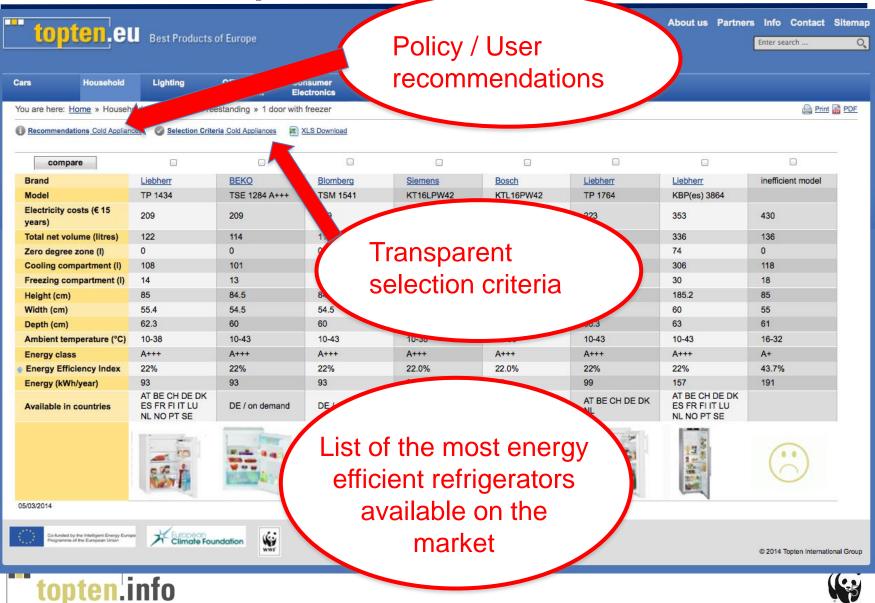
### On which products does Topten work?

- "Plugged-in" products:
- •Appliances: White goods, coffee machines, rice cookers...
- •Electronics: TVs, Monitors, Printers...
- •Lighting: Lamps, luminaires
- •Mobility: Cars, electro bikes, boat engines...
- •Building components: AC, circulation pumps...
- •Professional appliances: Recently started with professional cold products in Europe, motors in China





### What does Topten look like?











### How does Topten make its product selection?



A tool invented in the 20<sup>th</sup> century: •No internet sales

•Start as energy experts working as craftsmen, developed into a network

•Undertaking an "insect work" (constant, tedious work) to maintain an in-depth, specialized knowledge of their market / product

#### Topten staff competencies:

- Product expertise
- Market expertise

- Policy expertise
- Communication expertise





### How does Topten make its product selections?



Next IEA workshop in 2016:

- Jump in the 21<sup>st</sup> century
- Brand new software
- Same objective: energy efficiency
- More automated work
- Still overseen by energy and product experts

- Market data, catalogues, Web data grabbing
- Direct contact with product managers (all brands, all countries)
  - $\rightarrow$  Data analysis
  - $\rightarrow$  Complete / check information
  - $\rightarrow$  Calculate energy efficiency indexes
  - $\rightarrow$  Set and update selection criteria
  - $\rightarrow$  Based on existing regulations
- At least twice a year
- Few product tests
- $\rightarrow$  Topten is a pragmatic tool





### **Impact of Topten**

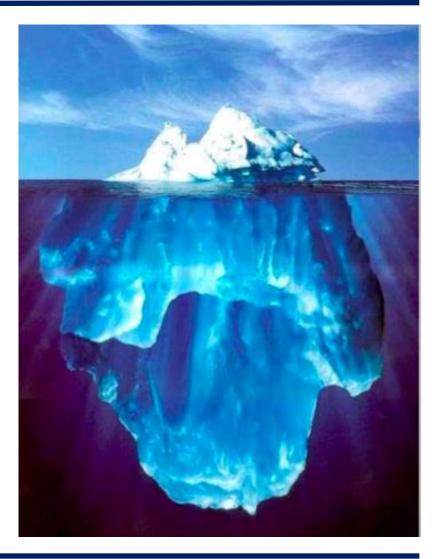
#### Above the water 10%

Websites - Market Transparency

Topten websites Consumer advice

Below the water 90% Market Transformation Market Research Energy labels Testing standards Industry contacts Retail contacts Procurement

Discounts & rebates programmes







Topten – An independent programme supported by

Global level: Global partnership with WWF Regional and national levels:

- European Commission
- European Climate Foundation
- Swiss government
- Many national governments
- Foundations
- Utilities

topten'into

 Partnerships on data exchange, communication, range selection, etc.



Co-funded by the Intelligent Energy Europe Programme of the European Union



Swiss Confederation

Federal Department of Economic Affairs, Education and Research EAER State Secretariat for Economic Affairs SECO

#### ADEME







### **Examples of the many Topten activities**

For each target group, Topten has a unique value proposition:

- Consumers
- Retailers
- Manufacturers
- Large buyers and procurement officers
- Policy makers
- Utilities
- The media
- NGOs and institutions





### **Topten value proposition for Consumers**

- User-friendly interface to identify most efficient products
- Educate consumers on total cost (purchase price + energy bill - incentives) and proper use
- Compare with a "bad" product, also available on the market
- Underline benefits for climate protection

In Europe, 2.5 million visitors per year

A trial in France: **topte** why should energy efficiency be more expensive?



<ul> <li>comparer</li> </ul>							
Marque	Whirlpool	Whirlpool	Electrolux	Liebherr	Siemens	Brandt	Modèle énergivore non conseillé
M	WM1450++W	ARC 140	ERA 30371 W	KB 3864 PREMIUM	KS 38RX31	SF26812 *	
Coût total (achat+15 ans d'électricité en €)	843	832	737	1469	1076	873	1102
Prix moyen d'achat (€)	459 📧	465	509	955	829	475 🐠	245
Facture électrique sur 15 ans (€)	384	367	228	514	247	398	857
Volume total (litres)	248	222	291	336	355	263	237
⊨ (litres)	222	200	291	306	355	237	213
Volume congélateur (litres)	26	22	N/A	30	N/A	26	18
Nombre d'étoiles	4 Etoiles	4 Etoiles	N/A	4 Etoiles	N/A	4 Etoiles	4 Etoiles
Intégrable	Non	Non	Non	Non	Non	Non	Non
Hauteur (cm)	139	133	160	185.2	186	144	125
Largeur (cm)	59.6	55.4	60	60	60	59.5	55
Profondeur (cm)	62.5	62.5	63	63	65	61.5	60
Temp. ambiante conseillée (*C)	16-38	16-38	10-38	10-43	10-43	16-38	16-32
Froid ventilé	Non	Non	Non	Non	Non	Non	Non
Zone 0°C	Non	Non	Non	Oui	Non	Non	Non
Indice d'efficacité énergétique	29.6	29.7	29.7	29,9	29.9	30	71.6
M	A ++	A++	A++	A ++	A ++	A++	в
Consommation électrique (kWh/an)	160	153	95	214	103	166	357
Source : Encodex et fabricants /* plusieurs modèles disponibles				C. S.			

02 décembre 2010





## Topten value proposition for large buyers and procurement officers

Thanks to its product selection and market analyses, Topten:

- Supports technical specifications and award criteria
- Proves very efficient products are available, with all associated services:
  - No pilot product
  - Lower risk of unsuccessful calls for tenders
- Reduces operating costs to enhance value-for-money
- Supports the integration of lifetime costing into tender evaluation





### **Examples from Switzerland**

- City of Zurich Owner of thousands of equipped flats
  - New logic: Procurers should buy from the Topten lists, otherwise they must bring a justification
  - Product testing activities
  - Advice for citizens via the local utility
  - Rebate programme based on the Topten lists
- Large buyer Insurance Swiss RE
  - Rebate programme for employees based on local Topten criteria to help them reduce their carbon footprint







### **Topten value proposition for Policy Makers 1/3**

Communicate technical evidence to policy-makers:

- •Evidence on Best Available Technologies on-line
- •In Europe:
  - Policy recommendations regarding product categories, online, 5-10 pages
  - 'Topten Focus' mailings: 1-pager with key findings regarding one product category or a specific policy issue (to 300 experts, free subscription)





### **Topten value proposition for Policy Makers 2/3**

- Provide real-time market data on the "best" products
- Pave the way for new and more stringent standard & label
- Market Analysis of China Energy Efficient Product (MACEEP)



Recommendation: revise generous standards (too many products in grade 1) and adapt subsidy programmes

Leads to 1,000 terawatt hours of electricity saved by 2030 – corresponding to 400 coal-fired power plants

- $\rightarrow$  Several articles in the media
- $\rightarrow$  Presentations to decision makers
- → Standards and subsidy programmes were reviewed

Full report is available on Top10 China, in collaboration with CLASP

http://www.top10.cn/uploads/Reports/MACEEP.pdf







### **Topten value proposition for Policy Makers 2/3**

- Provide real-time market data on the "best" products
- Pave the way for new and more stringent standard & label

Topten market research showed, before the final design of new European **TV** label:

- 50 different models > the A level
- BAT model: 56% more efficient



→ The label design was revised to adapt the energy grade thresholds

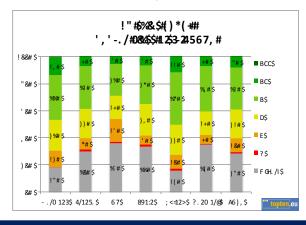


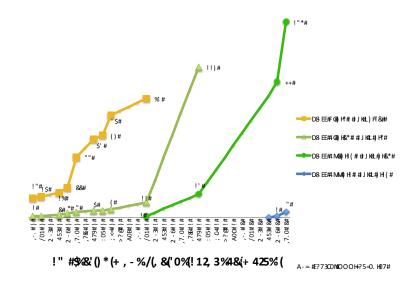


### **Topten value proposition for Policy Makers 3/3**

Systematic market monitoring - Key activity when working on appliances

- "Topten market monitoring reports" based on sound data that can be compared over time and between countries: recent, exhaustive data, including sales information; no need for complex / product data
- → Solid basis for decisions on MEPS levels and Label classes
- → Allows evaluating the measures' effects
- → Helps to revise regulations on time
- → Provides solid data for stock models after several years







### **Topten – links and contacts**

- Global network www.topten.info
- Topten Europe <u>www.topten.eu</u>
- Access to 16 European Topten websites
- •Topten policy recommendations, reports and papers: <u>www.topten.eu/Documentation</u>
- Topten China www.top10.cn
- Topten Chile www.top-ten.cl
- Topten Argentina www.toptenargentina.org

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