

Topten: moving with the times to continue delivering energy savings

Abstract

Topten is an international, independent, not-for-profit network of organizations engaged in fighting climate change and promoting sustainable consumption. One of its main tools is a consumer-oriented online search tool presenting the "best appliances" in various categories of products (home appliances, information and communication technologies devices, lighting, cars...) with energy efficiency as the key selection criterion. Topten is independent from producers and retailers and relies on a network of recognized product experts. Topten was first launched in Switzerland in 2000, at a time when:

- Energy efficiency programs were often thought of at the national level.
- Most energy labels as we know today did not exist; the Ecodesign first framework Directive was not yet discussed; standard harmonization was not yet a topic; and resource efficiency and circular economy were barely-known concepts.
- On the digital side, many tools that today condition consumers' habits did not exist: on-line sales; big data and its exploitation; and social networks.

Sixteen years after its launch, Topten is one of the rare non-governmental cooperative programs still active after such a long period: the Topten network is present in 19 countries and constantly adapts to this changing context, moved by the conviction that there are still significant energy savings to be tapped and that independent product experts are needed to support policy makers, professional procurers, individual consumers, institutions and the media.

The paper presents the Topten concept, the program's impacts, and latest initiatives around the world.

Introduction – Topten activities overview

Topten was initiated in Switzerland in 2000. Six years later it was established at the European level (it is present in 16 European countries today) and in China in 2010. In 2015, it started in Chile and later on in Argentina, the last incorporation to the list of countries having a Topten initiative.

Topten is collaborating with different target groups in order to accelerate market transformation towards more energy-efficient products. One of the main activities consists in identifying the most energy-efficient models in a range of domestic products (electrical appliances, gas appliances, cars) and displaying this information in a consumer-friendly way on the web. Based on the Topten website, consumer awareness-raising activities are undertaken. Topten also actively tries to influence policy design by providing recommendations on how to improve regulations regarding energy-efficiency labeling and minimum energy-efficiency standards. Additionally, Topten collaborates with retailers in order to further promote energy-efficient products and with producers of electric appliances, with whom there is a continuous exchange of information. Finally, Topten also provides recommendations to large procurers on products such as energy-efficient printers, computer monitors and lighting.

We can summarize the four main domains of activities within Topten:

1. The Topten websites provide information on energy efficiency for a large number of product categories. Thereby, Topten increases market transparency. As a result, Topten activities support an increase in market share of energy-efficient domestic appliances, cars and other home building components. Besides promoting energy-efficient devices, Topten also disseminates information on energy-efficient usage of appliances, such as washing at low temperatures, avoiding standby mode, or how to select the proper appliance.

2. Topten is also active at the level of policy design by providing up-to-date information on energy-efficient products to policy-makers. Amongst others, this includes provision of information for decision-makers, participation in consultation rounds, development of technical papers and methodologies, and networking with the stakeholders involved. As examples: i) the European Commission, or indirectly by informing other organizations that are actively lobbying for increased energy efficiency. These activities help to achieve more stringent or timely regulations regarding the labeling of energy-efficient products. As these improved regulations are implemented, energy is saved as compared to a scenario without improved regulations; ii) Topten is also actively pushing the introduction of new regulations for products that were not initially labeled in terms of energy efficiency; iii) The Argentinean and Chilean Topten offices have put their respective Ministries of Energy in contact regarding the energy labeling processes, which was detected as a topic that could be better covered if coordinated regionally.
3. Topten collaborates with retailers by providing information on the most energy-efficient products available on the market. As a result, the retailers are able to increase the supply of energy-efficient products, which finally increases the market share of energy-efficient products, and illustrates their "green" image with concrete actions.
4. Topten disseminates recommendations on energy-efficient products to large buyers such as large private companies and public procurers. In addition, in several countries there is a direct collaboration with large buyers, where Topten experts provide specific tailored advice to these professional buyers (but not professional in energy matters).

Topten Impacts

Topten covers a wide range of activities, from detailed market and technical studies to dissemination to various target groups including the general public [1]. This versatility offers many keys for evaluation. A city modifies its procurement policy; a utility decides on a rebate program; policy makers favor ambitious regulations; NGOs communicate on energy savings in homes in order to link individual behavior and climate change issues; retailers choose to adopt energy-efficient positioning and revise their product range; manufacturers develop new efficient models and strongly market them; consumers' demand for efficient models grow – Though these decisions depend on the strategies stakeholders decide to adopt, Topten may weigh, more or less explicitly, in all of these decisions transforming markets.

Within the market transformation toolbox, Topten is considered as a "soft measure", a measure that definitely impacts the market on crucial aspects: it is a market shifter, a facilitator, an education tool, a decision-making aid. The resulting number of saved kWh can be best quantified in the framework of a structured and comprehensive evaluation project. Several evaluation studies have been carried out in order to evaluate Topten's multiple impacts. The latest study that primarily aimed to quantitatively assess the impacts of Topten activities on electricity consumption and CO₂-emissions from usage of energy-efficient electrical appliances was commissioned by WWF Switzerland to the specialized company INFRAS [1].

The impact assessment is confined to the time period 2006 -2014 and the most robust data concerns Europe (impacts from improved regulations cannot be confined to particular countries, as the regulations are implemented in all EU-countries).

Cumulative electricity savings and CO₂-emission reduction

Based on the quantitative assessment, over the time period 2006-2014 cumulative electricity savings thanks to Topten amount to about 15 to 18 TWh, depending on whether a more conservative or a more optimistic scenario is assumed. With more than 70% of the total impact, activities related to the

policy-making process contribute with the largest share, the rest coming from activities intended to raise consumer awareness.

The corresponding impact in terms of reduced CO₂-emissions amounts to about 7.5 Mio. tCO₂ under conservative assumptions. When assuming an optimistic scenario the reduction amounts to about 9 Mio. t CO₂. As in China, fuel-based production of electricity is more prevalent, and the impacts in terms of reduced CO₂-emissions are higher in China as compared to Europe.

Annual electricity savings at the regional scale

Based on the quantitative assessment, Topten activities in Europe had an impact on the order of about 4 – 5.4 TWh in terms of annual savings. This results in savings of electricity costs of 800 to 1 000 million Euros. These impacts can be put into relation with annual electricity consumption of households in EU-27, which amounts to 1 000 TWh in 2015. Thus Topten contributes to an annual reduction of the total electricity consumption by an order of about 0.4% - 0.54%.

Particular new developments

On the old continent: Topten Europe maintains and develops its activities

The 16 European Topten websites work together currently under the umbrella of the Topten ACT project¹, which runs since March 2015 and is funded by the European Commission (under its R&D program Horizon 2020). Besides a digital deployment planned for 2017 and using affiliate-marketing techniques (see below), a new development concerns the work on plug-in professional appliances that are starting to be regulated in Europe. Eight European Topten countries joined the "ProCold" project² (starting in 2015) to stimulate the market for efficient professional and commercial refrigerators using green refrigerants.

Regarding the input to the policy process, Topten makes explicit and transparent the *status quo* of efficient technologies on the European market and thus serves as the European reference on energy efficiency to further negotiate with governments and manufacturers. Though the policy process in Europe has been largely frozen while revising its framework laws on energy labeling and Eco-design requirements, notable Topten inputs are being included in two regulations to come. The first regulation, a major one as it frames the whole labeling system in Europe, is the revision of the Energy Label framework Directive. Many important aspects that Topten has been supporting for years (e.g. through publications³) will probably be included in the new Directive: an A to G label (as opposed to A+++ to D scale) with regular rescales once a majority of products are in the top classes, and inefficient classes that have been banned from the market greyed out on the Label. After rescales, the top class(es) should be empty to offer an incentive for further improvement. Since 2013, Topten has also been advocating for systematic market monitoring in the EU and a mandatory product registration with a public database. The new Labeling framework will introduce a product registration with a database, most information of which will be publicly accessible and the database will be searchable. This product database will fundamentally improve market transparency and has the potential to support systematic, horizontal improvement of all products and Labels in the future. It will provide an overview on the models in the market and their performance to consumers and policy makers, allowing the former to choose products based on more information and the latter to design

¹ <http://www.topten.eu>

² <http://www.topten.eu/english/pro-cold>

³ <http://www.topten.eu/documentation>

effective Labels and MEPS (Minimum Energy Performance Standard). Furthermore, it will facilitate the work of Market Surveillance Authorities (MSA) and the international exchange and use of test results, and thus strengthen the Label's credibility.

As an example of product regulation, Topten has recently provided input to the Electronic displays Ecodesign regulation and the current draft includes many of Topten's recommendations, such as extending the scope from TVs to other electronic displays; defining new, more ambitious MEPS levels; shifting from a linear efficiency approach to a progressive one that will make it more challenging for large, high-consuming displays to reach good efficiency levels; resource efficiency requirements applying to all display types; and including the 'quick start' function into the Standby power requirements. Comparison of the MEPS levels with information from Topten show that even tier-3 levels are already met by the best products today. More ambitious MEPS levels could be considered. Other key recommendations by Topten concern the scope of the energy efficiency requirements and Standby power requirements.

China: Top10 label paved the way to the digitalization of the mandatory label

The total energy consumption of China accounts for 22% of the world's whole consumption. In 2014, household energy consumption in China was 693 TWh, an increase of 2.2% compared to 2013 [3]. Since 2004, China has a mandatory 'China Energy Label' which covers 34 products categories, most of which are household appliances, such as: air conditioners, televisions, washing machines, refrigerators, water heaters, etc.



Figure 1. First version of Topten Energy Saver sticker (2013)

But 9 years after the implementation of this label, in 2013, after a survey covering more than 10.000 consumers that was carried out by Top10 to better understand Chinese consumers' decision-making process, Top10 China realized that there was still a great number of consumers that weren't aware of the energy label or didn't completely understand it.

The outcomes of this research indicated that 65% of consumers never checked the data on an energy label because they couldn't understand it; and that, at the same time, 85% of consumers would consider life cycle cost if they were told about it. They've also encountered some basic confusion such as: 25% of consumers thought if a product has an energy label, it means that it's an energy-efficient product; and that 27% of consumers couldn't tell which product was more efficient on the label's efficiency scale.

With this information, Top10 China started to design Top10 energy saving stickers (Figure 1). The aim of the sticker was to be a useful complement of the Energy Label, easy to read, focused on best-efficient products, and covering life-cycle costs. Stickers were updated along with market changes, every six months.

The same year, the sticker was produced and applied, covering 5 product categories: TVs, refrigerators, washing machines, air conditioners and water heaters. In each category, Top10 selected around 20 products (the most efficient models) to which to apply the sticker.

This sticker provided the following information to consumers in addition to the mandatory label:

- Product information
- Energy consumption in 5 years (In RMB, not in kWh, since it's easier to understand and more direct for consumer)
- Energy savings in 5 years (also in RMB)
- Sufficiency information (suitable for what sized household and room, etc.)

To make this sticker was visible and useful for consumers, Top10 signed a MOU with Gome, which is China's largest household appliances store chain with more than 1 700 stores, and the sticker was deployed in 300 flagship stores in megacities. Also, this contract included practical studies of Top10 stickers in 300 flagship stores in the four biggest cities in China: Beijing, Shanghai, Guangzhou and Shenzhen from March 2013 to December 2014.

At the same time, training programs were designed and in-store salesmen were trained to better explain the sticker and answer consumers' questions. A small-scale face-to-face survey was carried out with 40 Gome salesmen, who have first-hand experience dealing with consumers in-store. They gave a lot of practical suggestions, such as: in the sticker, a product's total energy consumption within 5 years was calculated but, for consumers, annual energy consumption might make more sense; for some products, this was changed in the second version of the sticker. 32 salesmen thought this sticker is helpful to both sell products and help consumers (see Figure 2).



Figure 2: 3rd version of Top10 energy saving sticker (2014)



Figure 3: China Energy Label of a washing machine showing a QR code

The third version of the sticker, applied in 2014, added a QR code. With this improvement, consumers can scan the QR code and be directed to the Top10 website to check more details of the products they're interested in purchasing. They've also made the money savings more visible on the sticker, as this was the information they'd identified as most important to consumers.

Analysing the sticker's impact, the feedback of salesmen, the consumer survey results and sales data, can show us how the sticker works for consumers. It is a fact that the Top10 sticker is a useful tool for consumers to identify best products and to make sufficient and efficient purchases. Also, people think it's very important to have a third-party independent voice beside the mandatory Energy Label. The sticker also helps to sell products, but the influence is not very significant.

Measuring the impact in sales is not easy because of business confidential considerations, which makes the detailed sales data difficult to obtain from retailers. But they've provided sales ranking lists before and after the sticker period. In total, 55% of Top10 labelled products' ranking has increased, 43% has decreased and 2% remains the same. This result is also influenced by market change, seasonal promotion and other elements.

One of Top10's problems with having an impact on sales is that it focuses only on the most efficient products and selects around 20 market-available product models from each category, while in the actual stores, it is highly unlikely to have all the 20 models displayed because space is limited.

Manufacturers will only choose what they want to promote the most to display in the stores, so branch stores' display preferences may vary a lot, and they don't use energy efficiency as a marketing strategy. This can be blamed on the manufacturers not being encouraged enough. Since in Chinese household appliance retailer stores, manufacturers send their own staff to sell products in stores along with retailer salesmen, and the cooperation was between Top10 and retailer, there was no direct communication between Top10 and brands. If manufacturers were more involved and gave focused displays or special promotion to products with Top10 stickers, the influence would have been emphasized.

In conclusion, the Top10 sticker is a useful tool for consumers to identify the best energy-efficient and sufficient appliances, and it's a complement for mandatory Energy Labels. It's helpful for retailers because it's a new selling point with third-party endorsement and it's useful for consumers because it provides easy and unbiased recommendations. How to involve manufacturers and how to select products needs to be developed in the future.

The Top10 sticker also had an impact on energy labelling regulations. Since two years after the implementation of the QR code in the Top10 sticker, the Chinese official 'China Energy Label' decided to take the same path and added a QR code on each product label. This QR code directs consumers to a platform showing the product's information along with how to choose, use and replace appliances.

For example, if you scan the QR of a washing machine (Figure 3) you will find more information about washing machines in general, like: 'How to choose washing machines?' and 'How to use washing machines wisely?'. The information for these two sections is provided by Top10 China and also displays its logo, which illustrates the success of Top10's work with the Chinese energy authorities.

Chile: Online shopping and software development

Top-Ten Chile was the first South American Topten platform, launched in August 2015. Top-Ten Chile is managed by Fundación Chile and supported by the Ministry of Energy and WWF-Chile to promote energy-efficient products.

Chile can be considered a dynamic consumer economy, with a dominant and growing middle class that has now over 50% of the population. Today, the Chilean consumer is better informed, selective and competitive. The population in Chile is 18 million, and the number of households is 5.5 million. Consumers buy about 300 000 electricity/gas-consuming products and 400 000 motor vehicles per year. Since 2010, household electricity cost has increased by 20%. Consumer awareness on the use of energy-efficient products is slowly increasing. Over 50% of the national residential electric energy consumption comes from: refrigerators (29%), lighting (16%) and TVs (12%). In order to go forward, the government has established several programs, agencies, laws and targets in respect to the energy sector and in particular to Energy Efficiency, including energy labelling, MEPS and the Top-Ten Chile project.

Top-Ten Chile covers six products categories and 19 subcategories, including cars. What's new in the software development of Top-Ten Chile is that through a "where to buy" button (Figure 4), the user gets the opportunity to know the actual prices of each product in the different online stores where it is being sold, and can be redirected to their web pages after they've evaluated the best option for purchasing.

Foto del producto	Especificaciones generales	Capacidad del aparato	Eficiencia energética	Precio de compra (\$)	Ahorros (\$)
	General Electric GKCS2LDFSS <ul style="list-style-type: none"> Refrigerador side by side Sistema de deshielo : Automático 	Capacidad Refrigerador 379 Lts Capacidad Congelador 170 Lts	Clase de eficiencia energética A++	\$662.990	\$224.400
	Paris		Último precio online:	\$662.990	
	Falabella		Último precio online:	\$699.990	
<input type="checkbox"/>	Sodimac		Último precio online:	\$699.990	
<input type="checkbox"/>	La Polar		Último precio online:	\$879.990	
<input type="checkbox"/>	Ripley		Último precio online:	\$899.990	

Figure 4. Top-ten Chile's "where to buy" option for a refrigerator, showing the different online stores where it's being sold and the different prices.

Top-Ten Chile's partner on this is Solotodo, a company that makes a database of Chile's most important online stores, the products they're selling and their prices. This database is updated every day, and due to the automatization between Top-Ten and Solotodo's work, the prices and market availability shown in Top-ten's web are also updated every 24 hours, keeping the information on the web real and dynamic and very easy to obtain.

Adding the "where to buy" option allows consumers to buy the product directly from Top-Ten's web. This tool provides a direct connection between informing the user about the most efficient products on the market and the user buying these products, which increases Top-Ten's impact and making it, indeed, more efficient.

This new feature gives Top-Ten the opportunity to work together with retailers and stores, and can end in settling new ways for funding or opening new communication channels. For example, in order to make Top-Ten Chile better known, the team has done important work to develop an automatic Top-Ten sticker saying "product selected by Top-Ten.cl, opt for energy efficiency" than can be implemented in retail websites: if a product is Top-Ten, the sticker appears on the collaborating website and if it is not, the logo won't be shown. This tool is very powerful to start working with retailers and brands because it is a concrete and very simple action. It is already present in Solotodo's web (Figures 5 & 6).

Top-Ten Chile's software developments were so successful that they've been invited to work on the new Topten International platform.

National communication campaign and website traffic

Since November 2015, Top-Ten Chile has been creating contents related to energy efficiency, sustainability and recycling, among others. The development of these issues is made through articles where the main concepts are explained using a simple and clear language and writing closer to the ordinary user. The articles published on the website and the posts shared on social networking are a nexus to bring information that was previously related to technical content.



Figures 5 & 6. Top-Ten's logo on price comparator Solotodo's web (left) and Top-Ten virtual sticker design reading “selected by Top-Ten.cl, go for the energy efficiency” (right)

Broadcasting platforms: There are currently 2 content sections: “Noticias” (News) and “En La Prensa” (In the press) where Top-Ten Chile publishes weekly articles related to energy efficiency and contents that talk about what is happening in Chile and around the world at that stage. These articles are shared on our social networks (Facebook and Twitter) with the objective of generating continuity between the development of contents and Top-Ten's users and followers. These publications helped achieve more than 4'700 followers in Facebook and 641 in Twitter.

In addition, as it is a concrete and simple tool to help in the purchase decision of private users, companies and public purchasers, Top-Ten is often invited to several seminars and conferences in order to give lectures on “how make an efficient procurement?” and so Top-Ten Chile has been presented in several events lately. These opportunities enable to disseminate about the platform and help as well in the increase of website traffic.

In total and thanks to all of these communication actions, here is the evolution of website traffic:

Visits to www.top-ten.cl

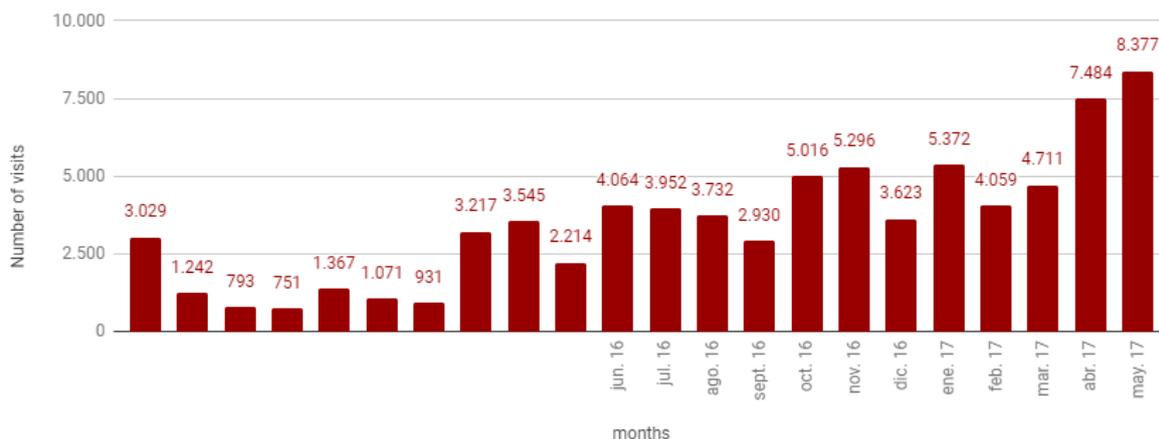


Figure 7. Evolution of the monthly website traffic since the launch of Top-Ten Chile in August 2015 thank s to all the communication actions.

The different steps are:

- August 2015: Top-Ten Chile launch
- December 2015: Launch of the Top-Ten Chile communication campaign
- March 2016: Launch of the paid campaign in social network and Top-Ten event on March 8th.

- During the last 8 months: average of 3.580 visits per month, whereas at the end of 2015 and the beginning of 2016 it was 1'000.
- October 2015: 5'016 visits reached in one month thanks to a great impact due to the published articles.
- February 2017: Summer period where a lot of Chilean people are on vacation.
- March 2017: New increase of the visits to Top-Ten.
- Since April 2017, Top-Ten Chile has been present in 3 main national events (feria FEMER, seminar "Creo en Chile" and an ASHRAE seminar) in which has given a lecture. These events has enabled to bring new visitors to www.top-ten.cl and more professional users.

In total, since the launch of the website and until the end of June 2017, we have the following figures: **61'000 visits** to www.top-ten.cl, viewing 296'644 pages! 83% of the Top-Ten visitors are new users, so it shows that the number of users is increasing.

Establishing partnerships with cities

Following the successful example of the collaboration between Topten and Energy City in Switzerland, Fundacion Chile started to collaborate with *Comuna energética*, a management tool and an accreditation process for municipalities in Chile, to implement a financial incentive program for EE products. *Comuna energética* defines an energy management programme with goals and objectives providing interdisciplinary plans and actions (technological, educational, etc.) as well as short-, medium- and long-term processes to improve energy management in the municipality.

In Chile and in general in the world, some of the main barriers for energy efficiency promotion are: lack of public awareness; high initial investment costs of efficient products; and the lack of information channels that provide confidence to users about available technologies and suppliers.

In this framework, Topten Chile has worked on a project to articulate the bulk purchase of high-efficiency LED bulbs for hotels and restaurants in the city of Temuco, a touristic area part of the CE initiative. In addition, a fund was obtained to install LED lamps in four social institutions of the town as well. This gave visibility to the Top-Ten initiative and website.

In total, thanks to that massive purchase, Top-Ten achieved to group the purchase of 1.000 units of different LED lamps and providers offering very interesting prices for the LED technology (up to 60% discounts). This project was a great first initiative and it enabled different buildings to change all their lighting installations for efficient LED products. The global energy savings will be up to 50.000 kWh (equivalent to the annual electricity consumption of 40 houses in Chile) and the payback period will be less than a year.

Additionally, Top-Ten Chile continues to develop its network working with more manufacturers and starting collaboration with retailers. Finally, this year, Top-Ten Chile has initiated its work with the Government about policy recommendations, developing a proposal for a new energy label for lighting, and a market study about the electronics appliances to provide evidence of the need of an updated energy label.

Argentina: Media campaign, social media and strategic partners

In Argentina, the residential sector is the second biggest consumer of energy, having in the last ten years overtaken the industrial sector. The energy consumption in homes keeps rising sharply, making the residential sector the one with the highest energy consumption increase index per year. The most used type of final energy at homes is natural gas (65%), with electricity consumption far behind (24%). Although there is a huge savings potential, energy-efficiency policies and regulations for the residential sector in Argentina come at a slow pace. Energy labeling has taken a big part but it has still a way to go, with other appliances to bear mandatory labels.

Topten Argentina was launched in December 2015 and currently shows five product categories with eleven subcategories. It is implemented by Fundación Vida Silvestre Argentina, a non-profit organization founded in 1977 and associated with WWF. Currently, Topten Argentina is being supported by the Ministry of Energy and Mining and has been working together with the Sub-secretary of Energy Savings and Efficient use of Energy.

Since the launch of Topten Argentina's website, establishing relationships and working together with manufacturers, retail stores, press and governmental entities has been the key to a successful communication campaign.

Manufacturers' media channels allowed Topten Argentina to reach millions of people for free. Brands are key partners when it comes to reaching the public, since the market's ferocious competition sets the perfect mood for them to look for new ways to promote their products. The green movement has already been established in marketing strategies and its impact on consumers' decisions keeps growing, making Topten an attractive publicity.

During the days after the launch of Topten Argentina, at least six of most Argentina's biggest brands shared on their Facebook and Twitter accounts which of their products were selected by Topten, along with Topten Argentina's link. The power of social networks these days allows a simple press release to have a significant impact reaching millions of people in no time, which makes it an excellent way to get the initiative known.

Coming as a surprise, the support of celebrities had a huge impact too. 24 famous personalities freely shared information about Topten Argentina on Twitter, with a potential of eight million people reached and generating lots of retweets and sharing.

Also, a more traditional media joined the launch: as a result of the work undertaken by the Topten Argentina relationships team, Clarin (the most-bought newspaper of Argentina) published an ad for two consecutive days for free. In addition, a Topten Argentina radio spot was broadcasted on 13 radio stations also for free.

Retail stores also showed interest on spreading Topten's initiative. This key ally interacts directly with people looking to buy a new product, so it has the highest impact on people's decisions of purchasing. Topten Argentina was invited to host an event in one of Carrefour's stores, where the team played a trivia with energy efficiency and energy saving questions with the public. This retail store, which is one of the biggest chains in the country, also had a Topten Argentina spot playing in 99 stores for one month.

The press took an important part in this campaign too, sharing the news of Topten's launch while taking the opportunity to talk about Argentina's current energy situation. With the country's energy prices rising quickly due to the elimination of subsidies for energy, the people's interest in saving energy is therefore increasing. Topten Argentina's coordinator was invited on television panels and interviewed by radio and virtual newspapers. Talking about energy efficiency and rational use allowed him to introduce the initiative and speak about Topten.

Recently, Topten Argentina has implemented Google Ads and Facebook Ads, which helps maintain the pages' views constant, while there is no media campaign taking place - it shows great results each month (Figure 8).

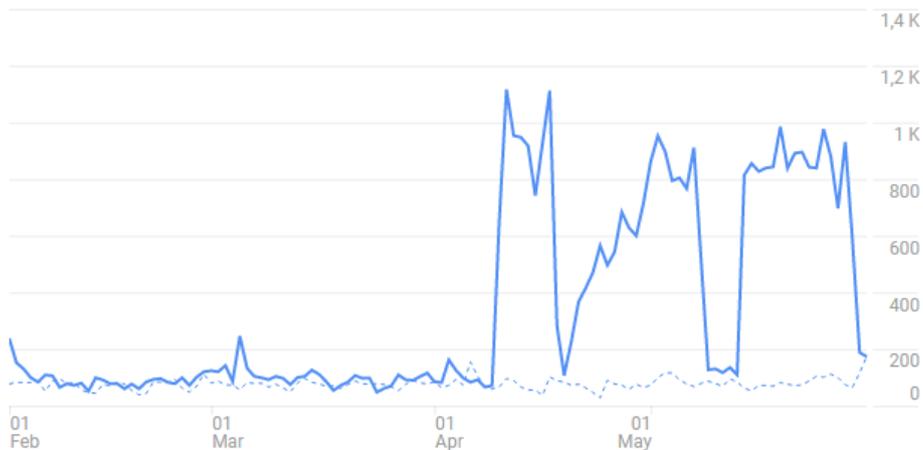


Figure 8. Topten Argentina pages' views register, showing two periods in 2017: Feb-Mar with 5,4 K total visitors and Apr-May, when the Google Ads and Facebook Ads' campaigns started, with 32 K total visitors. The dotted line shows the same periods in 2016. Source: Google Analytics.

Topten Argentina's sticker

Another goal in working with brands was the development of a Topten Argentina's sticker, meant to be shown on displayed products to identify those that comply with the Topten selection criteria. This started with the marketing team of LG Electronics being interested in promoting their Topten products. Topten Argentina's stickers are still displayed on LG's Topten air conditioners (see Figure 9), refrigerators and washing machines.



Figure 9. Topten Argentina's sticker on a display LG air conditioner (left) and the new Topten Argentina's logo (right).

After seeing these stickers on LG's products, other brands came to Topten Argentina asking for them. The competitiveness of the market makes this an excellent strategy to get the interest from manufacturers and brands.

Finally, this year with the support of the Ministry of Energy, Topten Argentina will develop a Market Survey including the five categories of products to better understand the relation between energy efficiency levels, prices, sizes, etc. In addition, a Survey will be conducted in the main four cities of the country to reveal the perception of consumers on the energy-efficiency label, in order to find ways to improve its understanding and the label's impact.

Conclusions

Overall, the quantitative and qualitative impact assessment shows that Topten contributes to an increased market share of energy-efficient appliances and thereby account for a substantial reduction in electricity consumption and related CO₂-emissions. With more than 70 % of the total lifetime electricity savings, policy advocacy work constitutes the main contribution. Impact increased strongly since 2011 and, based on the on-going activities, impacts are expected to continue to rise in the near future.

The Topten program proves its relevance both in countries where the energy-labelling framework is being constructed and extended (e.g. Latin America), and in countries where it needs to be revised to reflect market evolutions (e.g. EU, China). There are still large energy savings potentials laying in the improvement of domestic appliances, without reducing comfort levels. They are relatively easy to reach in a global context – the Paris Agreement on mitigating climate change – making a duty to track each kWh that is not strictly necessary.

The Topten network has gained in flexibility and adaptation capacities thanks to new initiatives developed in the countries that joined Topten in recent years (China, Chile and Argentina); they have nurtured the program, improving its diversity with new tools that adapts the program to different realities.

Several characteristics of the Topten program lead to these strong results and long-lasting activities:

- Topten's capacity to deal with all stakeholders in an independent way gives it a broad vision of the whole system and enables detecting weaknesses and possible ways to solve them. Very often stakeholders do not speak to each other, or they do it with other objectives than energy efficiency. In these cases, Topten helps to knit a stronger fabric on efficiency.
- Topten's connectivity between countries and regions allows Topten to gather and share the experience obtained by several countries in different regions, which helps the program to evolve faster.
- Topten's possibility to develop and adapt specific tools for different countries.
- Its up-to-date information gives Topten the opportunity to follow the dynamic of the market, selecting and showing the most efficient products rapidly. Energy labelling processes take several years to adapt to the new technology environment. Topten can skip many of these processes, highlighting those efficient products almost immediately and giving manufacturers an incentive to progress before national labelling systems do it. These activities provide a strong incentive for producers to invest in the development of products with improved energy efficiency and they facilitate the introduction of innovative products on the market, thereby accelerating market transformations towards more energy-efficient technologies.

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