

Fira Barcelona: Turning Green





Fira Barcelona

Fira Barcelona specializes in the organization of exhibitions and congresses.



With a portfolio of 80 exhibitions, nearly 40.000 exhibitors and 3.5 million visitors.

with its 2 venues:

Montjuïc
155.000m²



Gran Via
200.000m²

is the **largest** exhibition area in Spain.

the growing environmental requirements of
external organizers

+

our commitment in increasing the
sustainability of our events

Launch of an integrated
sustainability

Program
(2007)

Fira Barcelona: Turning Green

3 streams to sustainability

Increase
communication

Reduce 15%
Energy cost

Reduce 80%
Waste management cost



Reduce 80%
Waste management cost

The overall waste of an event can be reduced by three ways:



Prevent:
incentivizing
the use of
sustainable
principles.



Control:
reducing waste
abandoned in
our premises.



Recycling
the waste
that is finally
being left in
the venue.



Prevent:
incentivizing
the use of
sustainable
principles.

Prevention is key: the best way to solve a problem is preventing it from happening.

Waste prevention starts with the **design** of the stands.

We have developed an **eco-design guide** to identify what materials and techniques can increase sustainability.

This guide is available for free to our customers to help them **increase the sustainability** of their events.



Some examples



Prevent:
incentivizing
the use of
sustainable
principles.



Fira Barcelona

Eco-design guide



**Fira de Barcelona's
environmental commitment:
Good Practices Manual**

Minimizing the materials' weight: reduces transportation costs, assembly and dismantling is easier and less waste is generated.

Reducing the number of different materials: Simplifies recycling and reduces waste management cost.

Avoiding using toxic or hazardous materials: Use of wood impregnated with formaldehydes, paints, varnishes, volatile solvents, PVC, etc.

Avoiding multilayer or mixed materials: The use of bonded layers such as products finished with melamine, Formica or polyester is limited.

Using recycled and recyclable materials: the materials' service life is lengthened, the environmental impact is minimized and costs are reduced.



Example of using of recycled cardboard used to build stand structures

Using renewable materials: its scale of regeneration is compatible with the time scale of consumption. Such materials include wood, bamboo, cardboard, cork, cotton, linen, etc.

Using materials that have an ecological label: guarantees the materials' source and composition, and prevents production of toxic waste (solvent-free paints, paper carpeting, FSC certified, wood, cardboard profiles, cellulose fabrics, etc).



Some examples



Fira Barcelona

Eco-design guide



Fira de Barcelona's environmental commitment:
Good Practices Manual

Considering standardized material formats and dimensions in the design: reduces costs and scrap and the quantity of waste.

Using local materials: reduces transport costs.

Using separable, high durability joints: Giving preference to clip or pressure-fit connections over fixed joints such as glues, staples, nails or bolts makes it easier to reuse items without destroying them.

Using multifunctional elements: There are various stand systems that use a single part for many different functions. No distinction is made between uprights and panels, vertical and horizontal, etc., facilitating material assembly and storage.

Using erasable systems that do not generate waste: Panels with a blackboard-type paint finish enable the exhibitor to choose the type of graphic design more freely, and craft values are regained.

Offering grouped or larger stands: With grouped assembly, material use and waste generation is decreased, assembly and dismantling are easier and costs are lower.

De-materializing the stands: The creation of virtual stands using audiovisual systems projected on screens offers maximum material saving and waste reductions.

Applying eco-design criteria to stand floors: refrain from using any carpeting or dais on the floors, eliminating assembly and dismantling. This reduces costs in material purchases and reduces very significantly the volume of wood, carpet and plastic waste. Also the use of floorings that last longer than one event reduces waste.

Promoting the use of modular systems allows selective replacement, makes installation easier and reduces scrap.

Some examples



Prevent:
incentivizing
the use of
sustainable
principles.



Fira Barcelona

Eco-design guide



**Fira de Barcelona's
environmental commitment:
Good Practices Manual**

We created a line of eco-design products that includes as much as possible the eco-design criteria described



Products from the Eco-design portfolio

Making maximum use of concepts such as shape, colour, light, ergonomics, safety, etc. The addition of resources does not necessarily lead to increased communication between the exhibitor and the visitor.

Giving priority to communication over spectacular designs: Theatre set designs are good examples of this.

Better distribution of spaces: The exhibition spaces are distributed and assigned again after each event. Because of this, it is not possible to use a stand for more than one event, which would avoid unnecessary dismantling.

Improving the efficiency of the stand lighting: Using low-consumption lighting. Controlling the use of stand lighting in the assembly and dismantling stages.

Adopting **paperless processes:** e.g. registration using a mobile phone, etc.

Reducing Signage waste: reusing signage elements for different events, promoting the use of electronic signage vs. printed signage.

Transportation: Avoiding trips to the suppliers' warehouses, by creating small temporary warehouses in the venue.



Prevent:
incentivizing
the use of
sustainable
principles.

Some examples



Fira Barcelona

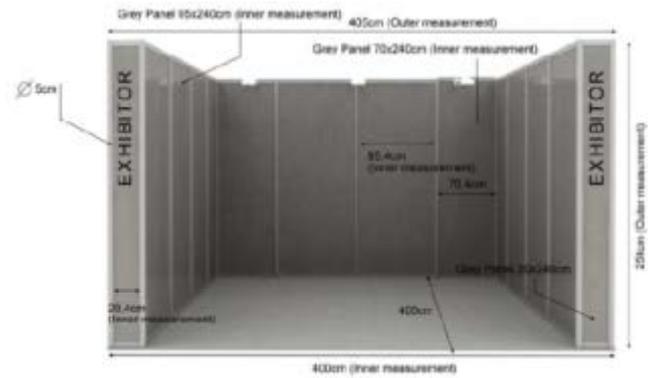
Eco-design guide



**Fira de Barcelona's
environmental commitment:
Good Practices Manual**

Carbon emissions compensation: The carbon footprint of our stands is analyzed, and we have developed a new supplier so that exhibitors can compensate their carbon dioxide emissions.

| Client / Item / Description | Measurements | | | | Weight | | | CO ₂ emissions | | |
|--|--------------|------|------|----------------|-------------------|----------------|---------------|---------------------------|--------------------|--------------------|
| | u | a | b | partial | unitary | partial | total | unitary | partial | total |
| | m | m | m | m ² | kg/m ² | kg | kg | kg CO ₂ /kg | kg CO ₂ | kg CO ₂ |
| Fibreboards | | | | | | | | | | |
| with melamine finish | | | | | | | | | | |
| Fibreboard 8 mm | 10 | 0.98 | 2.45 | 22.60 | 6.24 | 142.27 | | 0.90 | 11.71 | |
| Melamine 1 mm | 10 | 0.95 | 2.45 | 22.60 | 1.65 | 23.94 | | 5.19 | 124.25 | |
| Fibreboard 8 mm | | | | | | | | | | |
| Melamine 1 mm | 2 | 0.70 | 2.45 | 3.35 | 6.24 | 20.97 | | 0.90 | 18.57 | |
| Melamine 1 mm | 2 | 0.70 | 2.45 | 3.35 | 1.65 | 3.53 | | 5.19 | 18.31 | |
| Fibreboard 8 mm | | | | | | | | | | |
| Melamine 1 mm | 2 | 0.20 | 2.45 | 0.96 | 6.24 | 5.96 | | 0.90 | 3.82 | |
| Melamine 1 mm | 2 | 0.20 | 2.45 | 0.96 | 1.65 | 1.01 | 197.26 | 5.19 | 5.23 | 233.88 |
| Vertical, triangular aluminium profiles | | | | | | | | | | |
| | 15 | | 2.45 | 36.00 | 1.37 | 49.32 | | 0.27 | 457.20 | |
| Horizontal aluminium profiles | | | | | | | | | | |
| | 20 | 0.05 | | 19.00 | 1.37 | 26.00 | | 0.27 | 241.00 | |
| | 4 | 0.70 | | 2.80 | 1.37 | 3.84 | | 6.27 | 36.50 | |
| | 4 | 0.30 | | 0.80 | 1.37 | 1.15 | 88.26 | 6.27 | 18.15 | 744.21 |
| Total for carpet | | | | | | | | | | |
| | | | | m ² | | m ² | | | | |
| Polymethylene (PP) 2 mm | 1 | 4.00 | 4.00 | 16.00 | 0.32 | 5.04 | | 2.98 | 14.41 | |
| Labels locking SBR 2 mm | 1 | 4.00 | 4.00 | 16.00 | 1.38 | 20.48 | | 3.05 | 62.45 | |
| Synthetic resin | 1 | 4.00 | 4.00 | 16.00 | 0.12 | 1.92 | | 0.99 | 1.89 | |
| Protective plastic LDP% | 1 | 4.00 | 4.00 | 16.00 | 0.13 | 1.55 | 28.30 | 5.20 | 8.87 | 96.84 |
| TOTAL | | | | | | | 308.31 | | | 1964.14 |



Modular Shell Scheme evaluated and its carbon footprint study

Reducing Catering waste: Using Bio-ware material or reusable materials, avoiding the use of plastic. Promoting the use of local grown raw material, to reduce transport impact.



STOP

Control:
reducing waste
abandoned in
our premises.

A new waste management policy was set to reduce the abandonment of waste

Stand builders are **responsible** for their own waste; either **self-managing** their own waste, or **contracting** waste management to Fira Barcelona or to any other waste treatment company.

Fira de Barcelona **will monitor** and **can impose** the financial **penalties** for **infringements**.

Fira de Barcelona **will regulate** the material left as waste, and also the use of **green skids**, to prevent uncontrolled waste generation.



A new waste management policy was set to reduce the abandonment of waste

The goal was to **incentive** the stand builder to reduce its own waste.

Reserving the right to apply **penalties** in case of infringements, by using credit card guarantees

We eliminated **the skips** that used to be available free of charge

and set **control patrols** with cameras to identify infringements to the policy.





To set up the recycling strategy we analyzed the waste generated in different events...



waste generated per kind of material (%)





Recycling
the waste
that is finally
being left in
the venue.

... and put in place selective disposal and different recycling mechanisms for every different kind of waste. Including:



Disposal area with different containers per each material

- light packaging
- paper/carton
- plastic
- glass
- wood
- other

AREA



Some Examples

Recycling Banners:

transforming used banners into bags, wallets and other elements



Examples of recycling of banners

PLASTIC



Recycling
the waste
that is finally
being left in
the venue.

Some Examples



Carpet: avoiding its use whenever possible, and developing recycling initiatives to convert it in insulating material.



soundproof panels made with recycled carpet



Recycling
the waste
that is finally
being left in
the venue.

Some Examples



Catering surpluses: we work with **NGOs**, so they can pick up daily the surpluses of food.



Recycling
the waste
that is finally
being left in
the venue.

Some Examples

Collection points are located near
the catering areas to recycle
**light packaging
waste**





Recycling
the waste
that is finally
being left in
the venue.

Some Examples

An aerial view of a circular recycling station in a busy venue. The station is a white ring with a black center, containing several people in red shirts and various recycling bins. People are walking around the station, and the floor is dark and reflective.

We installed 40
ecological islands
in areas with high visitors
flow, to recycle **paper waste**
(leaflets, press, brochures, etc.)



Reduce 15%
Energy cost

Energy consumption can be reduced in four main areas

Lighting



Power



Air
conditioning

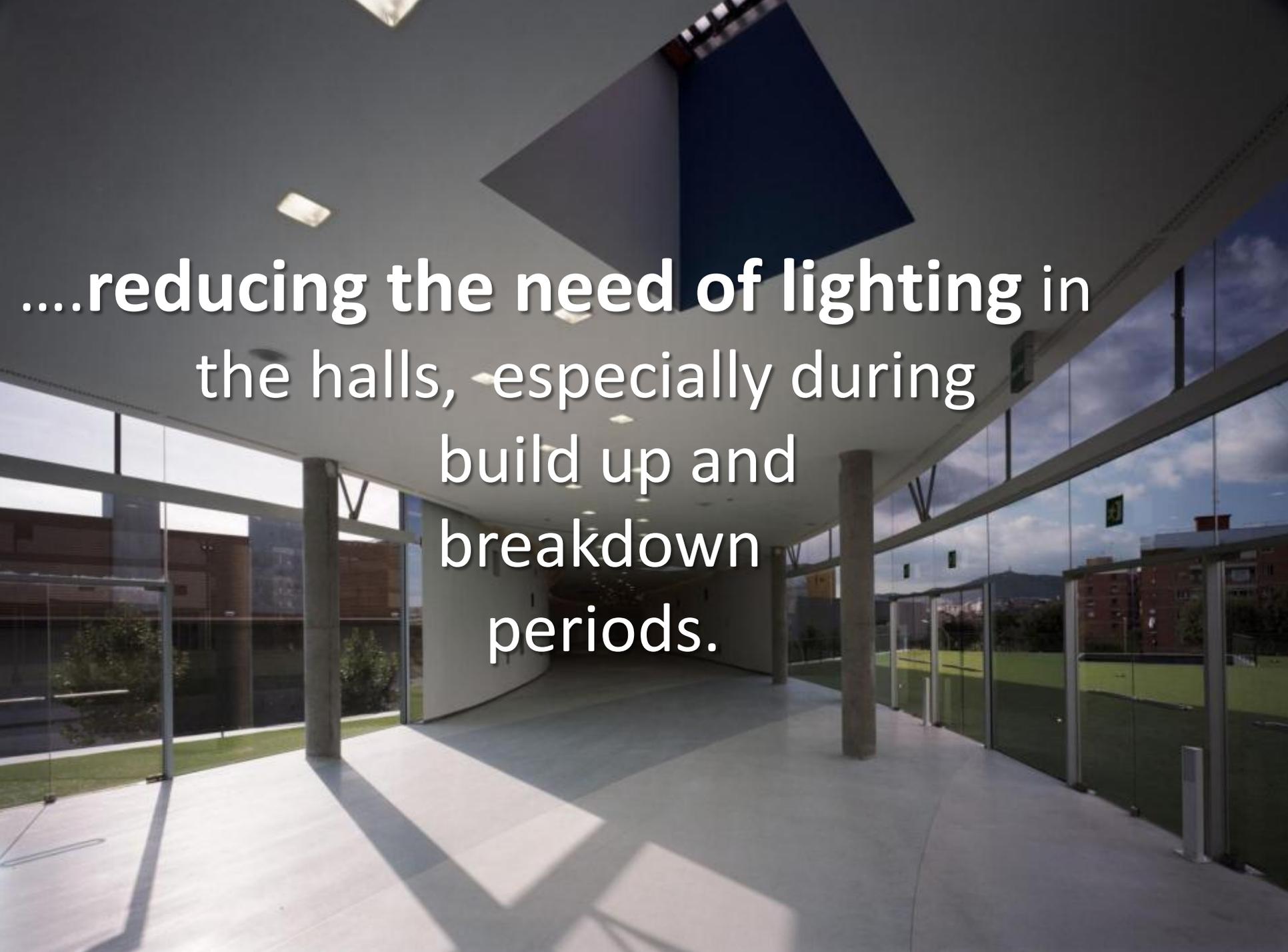


Water

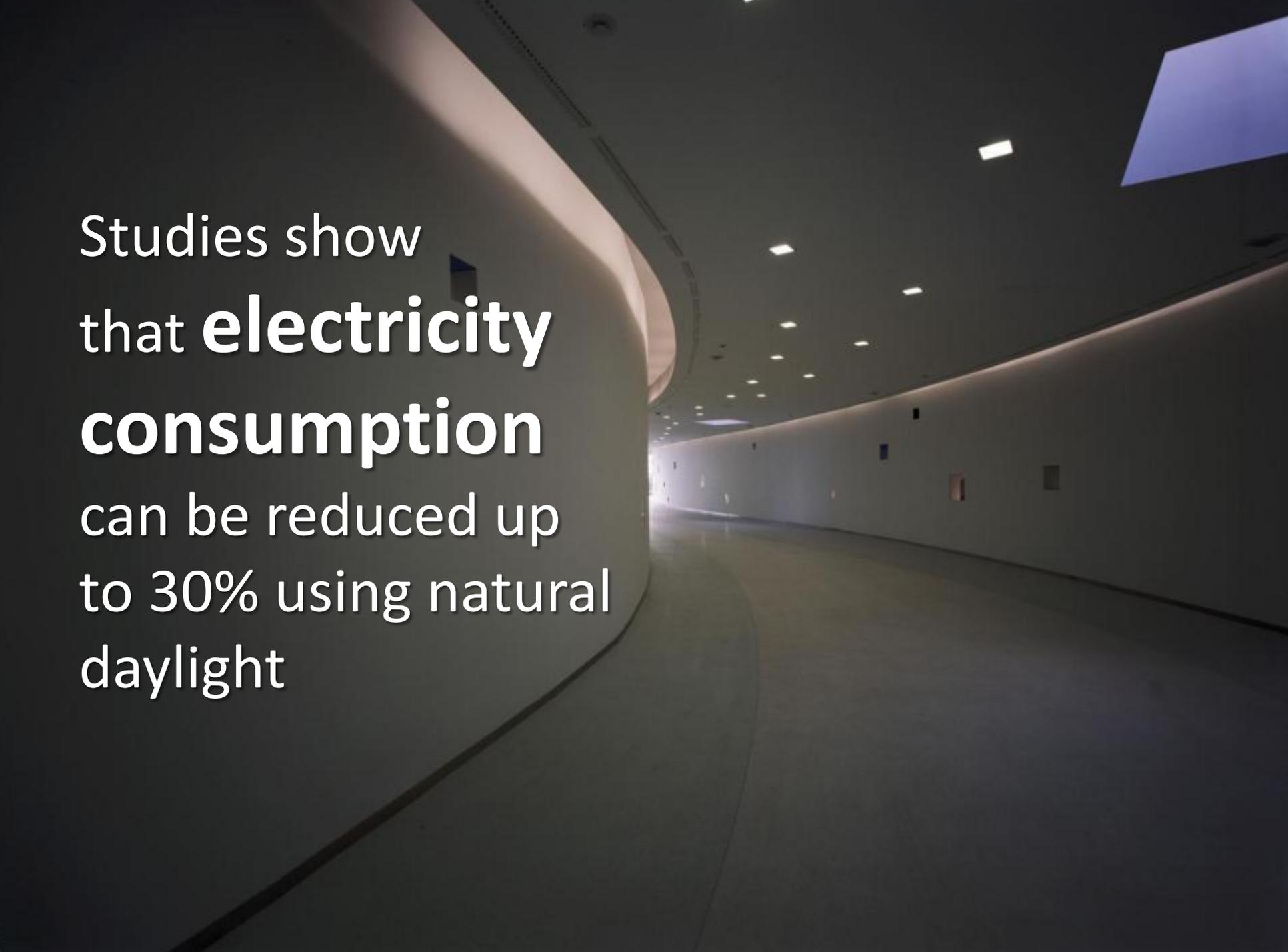


The image shows a modern architectural interior with a curved glass railing and a view of a construction site through a large window. The text is overlaid on the image, describing the design's focus on maximizing natural daylight.

The design of the newest parts of the venue have been done in a way that maximizes the **entrance of natural day light**

A wide-angle shot of a modern, brightly lit hallway. The space is characterized by large glass windows on both sides, allowing natural light to flood the area. The ceiling features several large, dark, rectangular skylights. The floor is a light-colored, polished material. The hallway is supported by several thick, cylindrical concrete pillars. The overall atmosphere is clean, bright, and spacious.

**....reducing the need of lighting in
the halls, especially during
build up and
breakdown
periods.**



Studies show
that **electricity
consumption**
can be reduced up
to 30% using natural
daylight

We also reduced 857 MWH/year by **defining new lighting scenarios**, automatically switching off lights when not needed: service galleries, outdoor areas, offices...



Incandescent lighting was replaced by
low consumption lights
in almost all of the halls
(and offices, restaurants,
conference rooms,
toilets, etc.)



Setting “Closed down venue configuration”

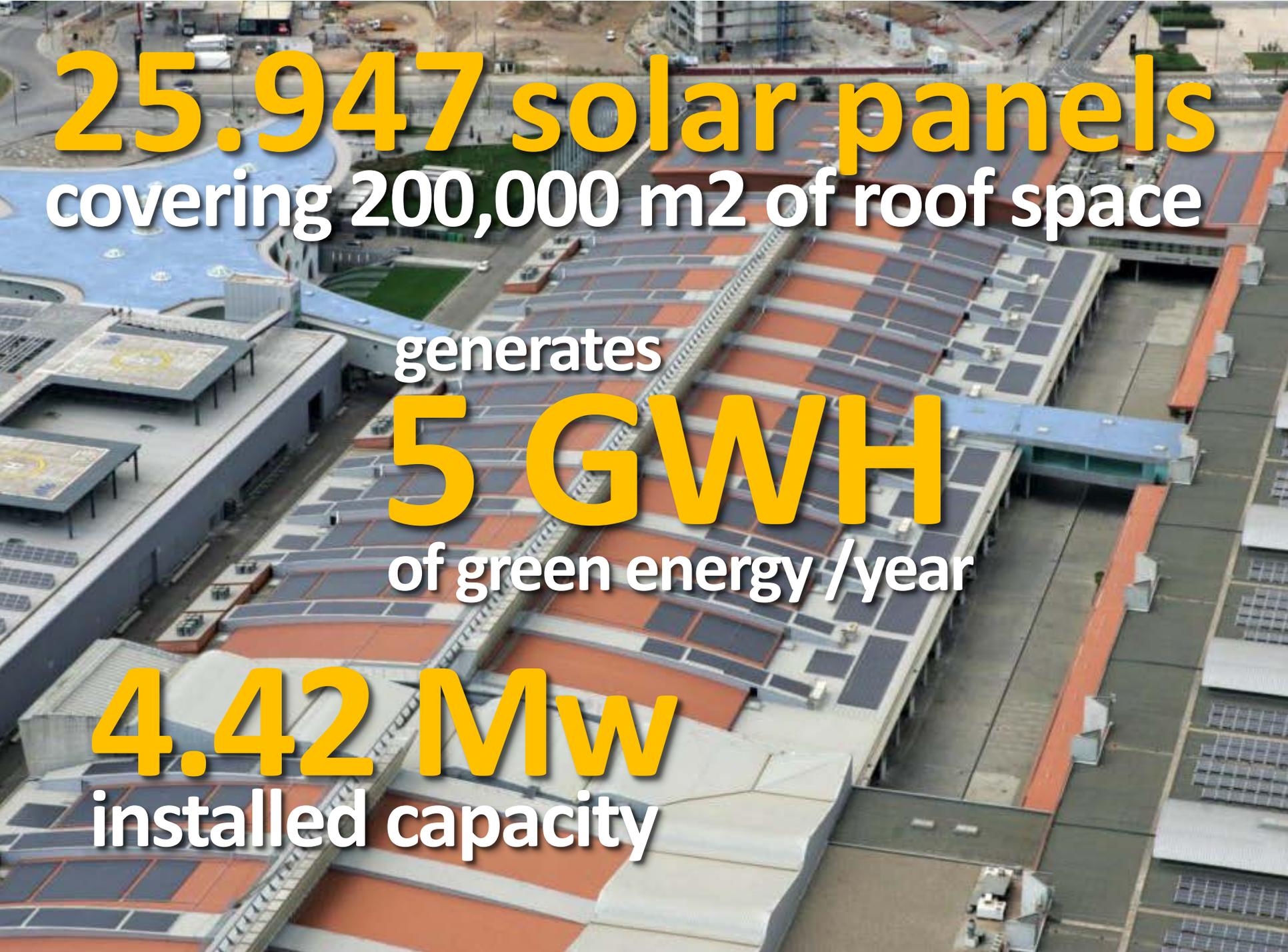
By turning off transformers during long periods of inactivity, eliminating power losses.



An aerial photograph of a large, multi-story industrial building with a flat roof covered in solar panels. The building is surrounded by other industrial structures and parking lots. The text is overlaid on the image.

A **photovoltaic plant**
was installed in 2008

Together with
a system to
**heat water
through
solar cell
panels**



25.947 solar panels
covering 200,000 m² of roof space

generates

5 GWH

of green energy /year

4.42 Mw

installed capacity



Architectonical double skin

Was installed in new halls (2007-2011): Allowing the entrance of day light and isolates the building.



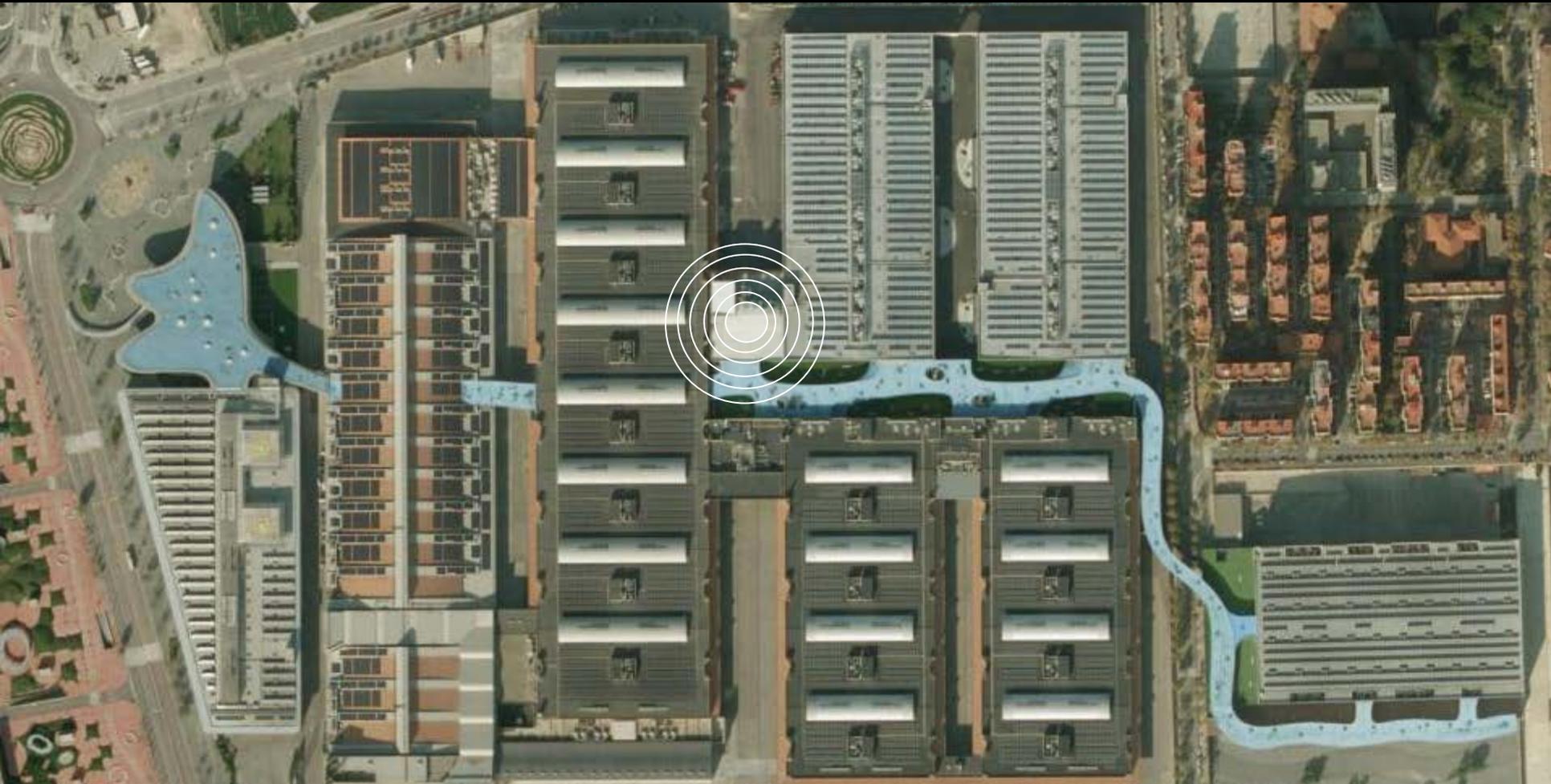
Together with

Bio-climatic outdoor areas

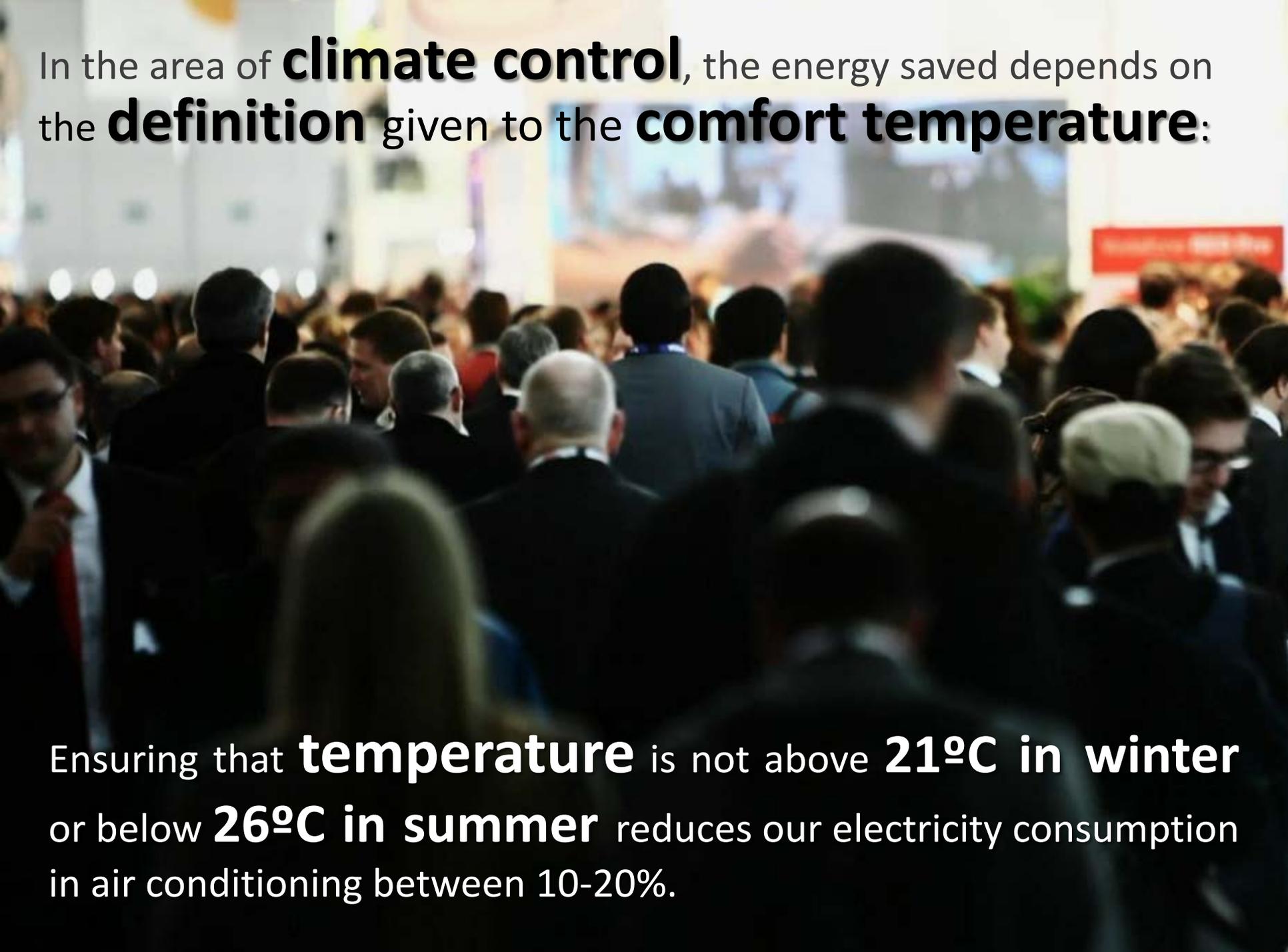
1. designed to take the maximum advantage of the hours of daylight
2. helping in the temperature control of the halls and reducing the need of lighting
3. while providing an excellent space to comfort

“District Heating and Cooling”

has been installed in the Gran Via venue



Three generation plants supply **hot** and **cold** water to the venue and to other clients, increasing the overall efficiency.



In the area of **climate control**, the energy saved depends on the **definition** given to the **comfort temperature**:

Ensuring that **temperature** is not above **21°C in winter** or below **26°C in summer** reduces our electricity consumption in air conditioning between 10-20%.

An **energy management system** was implemented to gain detailed **knowledge** of the **energy demand**, and to help us **reduce** overall consumption.



Water consumption has been reduced
installing **water-free toilettes...**

and **feeding** the
fountains of the venue
with **groundwater**



A photograph of a modern building with a curved glass facade and a paved plaza with white benches. The building has a curved roof and large glass windows. The plaza is paved with light-colored bricks and has several white, curved benches. There are young trees and a tall, thin light pole in the foreground. The sky is overcast.

Increase Communication



We started a **communication campaign**
of all these initiatives:

a) to gain the **support**
of the rest of the
organization,

b) to make ourselves
visible and

c) to help us **attract**
new clients to Fira
Barcelona

Sharing the program with organizers:

- to help them **promote** the sustainability of our venue as the sustainability of **their event**.
- and to establish **joint green initiatives** in their events (paperless, Green stand award, etc)

A photograph of a television studio set. In the foreground, a man in a dark suit is seen from the back, looking towards the right. To his right, a camera operator wearing headphones is operating a professional video camera mounted on a tripod. The background is filled with studio equipment, including a large softbox light on a stand and another light fixture. The scene is dimly lit, with the primary light source being the studio lights, creating a professional and focused atmosphere.

promoting this
program in a **TV**
show sharing all the
recycling activities applied
to one of our biggest
shows



We have also used the **signature of agreements** with different entities as a good opportunities to promote the benefits of this program to our visitors and stakeholders; (by using press conferences, and other media resources...



... such as press inserts (P.eg. Referring to our **light packaging** recycling initiative).

Fira de Barcelona recicla con Ecoembes

SUPERVISIÓN DEL SERVICIO/ El gestor de residuos, participado por El Corte Inglés, Mercadona y Carrefour, entre otros, controlará los procesos de reciclaje de envases de la institución ferial durante los próximos cuatro años.

Expansión. Barcelona
Ecoembes, sociedad sin ánimo de lucro que opera en el campo de la gestión de envases, se encargará durante los próximos cuatro años de supervisar los procesos de reciclaje de envases de Fira de Barcelona. Esta iniciativa mejora el sistema de recuperación de envases de la entidad, que hasta ahora se encargaba ella misma de coordinar la recogida de estos productos para, posteriormente, reciclarlos.

Tras la firma del convenio, Ecoembes, participada por compañías como Carrefour, El Corte Inglés y Mercadona, implantará un sistema de recogida selectiva en los recintos feriales de Montjuïc (Barcelona) y Gran Vía (L'Hospitalet de Llobregat). En la presentación del convenio, el director general de Fira de Barcelona, Agustín Córdón, desveló que, gracias a este proyecto, se calcula que, durante el primer año, se reciclarán más de 200.000 kilos de envases ligeros (plástico, latas y briks) y envases de cartón y



La mayoría de los residuos de los envases se generan durante la fase de celebración del congreso.

La institución espera reciclar más de 200.000 kilos de envases en el primer año de convenio

papel. De no llevarse a cabo estos procesos, prácticamente la totalidad de estos productos acabarían en un vertedero.

Según un estudio realizado por Fira de Barcelona y que ha definido las infraestructuras necesarias para la realización de la recogida selectiva, la mayoría de los residuos de los envases se genera durante

la fase de celebración de un salón o congreso y, en menor medida, durante el montaje y desmontaje. Es por este motivo que la entidad ya ha puesto en marcha una campaña de sensibilización. "Tenemos que concienciar a nuestros visitantes de que ellos también deben colaborar en esta tarea; su participación facilita mucho la labor de recogida", ex-

Claves del acuerdo

- 1** Ecoembes se encargará de supervisar el proceso de reciclaje de Fira de Barcelona durante los próximos cuatro años.
- 2** Fira de Barcelona seguirá realizando la separación de envases en el interior de sus recintos feriales.
- 3** La sociedad gestora de residuos se encargará de transformar los productos reciclables en materia prima secundaria.

plican fuentes de la institución.

Proceso

En total, los recintos feriales contarán con 155 puntos de recogida: 35 espacios para envases y papel y cartón, 80 papeleras con varillas en las zonas de restauración y 40 contenedores amarillos con una capacidad de 1.100 litros.

La primera fase de separación de residuos la continuará realizando Fira de Barcelona, a través de su servicio de limpieza externalizado. La institución no tiene un número exacto de personas trabajando en este servicio, sino que varía en función de la feria. "El número de visitantes y de actividad no es el mismo en eventos como Alimentaria o el Mobile World Congress que en otros salones", explican desde Fira. Estos dos congresos requieren de un personal de limpieza de en torno a las 200 personas.

Y aquí es donde comenzará a operar Ecoembes, que se ocupará de la clasificación y el reciclaje de los residuos, así como de su transformación en materia prima secundaria para la fabricación de nuevos productos.

La vertiente ecológica de Fira de Barcelona no es nueva. En 2008, la institución colocó un parque fotovoltaico de 135.000 metros cuadrados sobre el recinto de Gran Vía, que evita la emisión anual de 2.000 toneladas de CO₂.

A Good Practices Manual

was developed, to promote the program and to act as as a guide for other entities planning to go green.



Extracts from the Good Practices Manual





← we used our
internal meetings
(yearly, quarterly, monthly) to
share the initiatives that had been
accomplished regarding green initiatives.

and we have included the **information** of this program on our **website** for **organizers.**

4:15 PM

Fira Barcelona

ENGLISH

BARCELONA GRAN VIA MONTJÚIC **ORGANIZERS** CONTACT

Exhibitor's Services

Catering

Technology & Communications

Green Policies

Green Policy

In recent years, Fira Barcelona has developed a Good Environmental Practices Manual in conjunction with the Catalan Regional Government and the Catalan Waste Management Agency. The aim is to improve sustainability criteria and the protection of the environment. **The Fira's strategy is based on four key elements:**

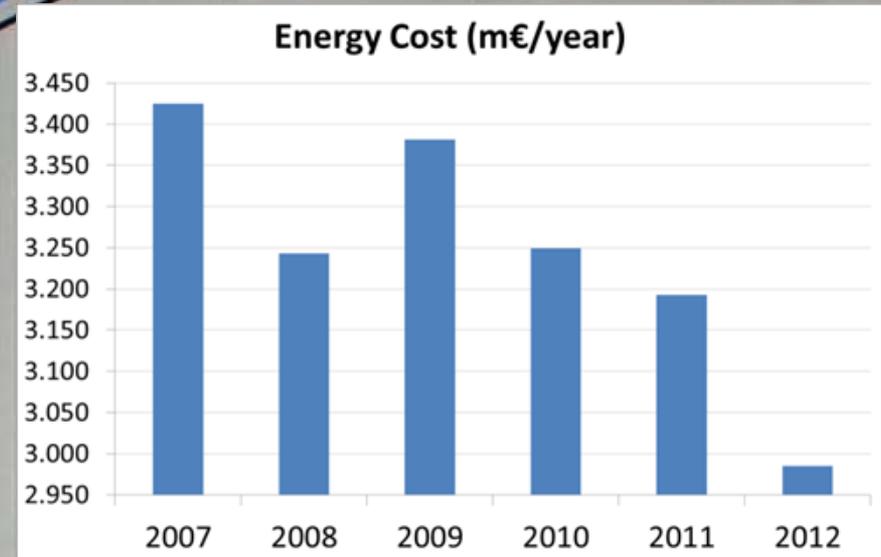
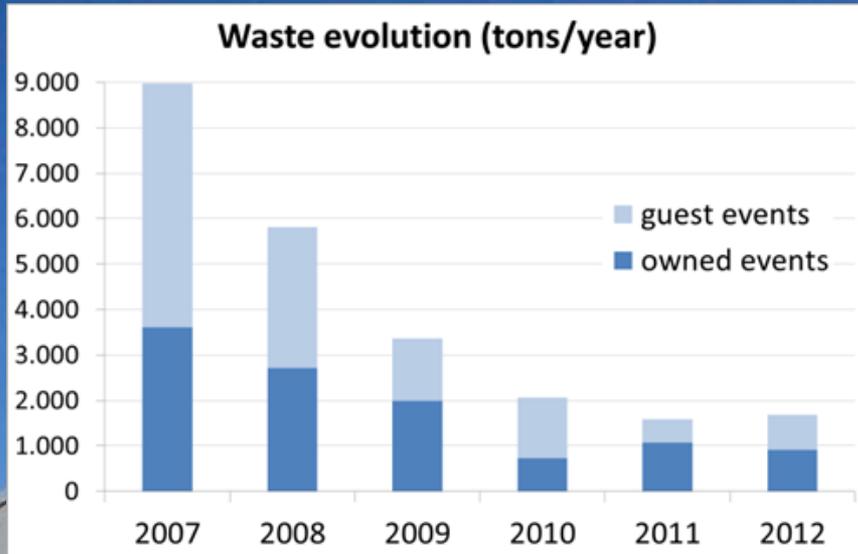
- ✓ **Waste management**
Reduction of waste volume, selective waste collection, and on-site paper compacting machines are some of the goals we have achieved thus far.
- ✓ **Use of renewable energies:**
Gran Via venue has 138,000 sqm. of photovoltaic solar panels which generate 3.3 GWh of electricity per year, avoiding the annual emission of 2,047 tonnes of CO₂ to the atmosphere.
- ✓ **Energy efficiency**
Low-consumption lighting systems have been installed, additionally, by adhering to the Ministry of Industry's definition of the optimum comfort temperature our climate control systems have managed to save energy and minimize the impact on the environment.
- ✓ **Eco-design**
With regard to eco-design, the fact that we work with reusable stands and recyclable structures has considerably reduced the volume of waste and CO₂ emissions.

© 2013 Fira de Barcelona
Legal / Privacy

A black, curved sign with the word "Results" written in white, bold, sans-serif font. The sign is positioned on the left side of the frame, with a thin black pole visible at the bottom left. The background is a clear, bright blue sky.

Results

After 5 years since the beginning of this initiative the results have shown the **SUCCESS** of the program in its 3 streams:



Waste reduced **79%**
(from 9.000 to 1.700 tons)

Energy cost reduced **13%**
(from 3.425m€ to 2.985m€/year)



We
have
reduced
2,288 tons
of **CO₂** emissions
into the atmosphere

And we have **gained visibility:** both in the industry and to our clients, being recognized through **awards** and **certificates.**



The joint work with
GSMA led them
to win the **Acció
Agenda 21**
awards,

for applying
**sustainability
Practices** to
the Mobile World
Congress, held at
Fira Barcelona.



This program was part of the **Biosphere candidacy** for the city of Barcelona, in responsible tourism, finally **awarded** with this **certification** in 2011.



Conclusions



Elements for success are:

- Include **sustainability** in the **design**.
- **Communication is crucial:** involve from the beginning as much **stakeholders** as possible.
- **Some initiatives work better** than others.
- The benefits **overcome** all the difficulties that might appear.

Next Steps:

We are working to implement **ISO20121** in **Sustainable development**, for some of our guest events.

And attended to the **Sustainable Events Summit** (London 2013) to find partners to develop this certification.



SUSTAINABLE
EVENTS SUMMIT

Excellence

Fira Barcelona: Turning Green

