

**Guide to
organising
more
sustainable
congresses**

Barcelona is one of the European and world cities that hosts the most international congresses. The organisation of congresses has become an increasingly important sector of tourism within the city, and thus contributes to the image of the city of Barcelona, both in Spain and abroad.

This sector, like society as a whole, is growing increasingly aware of sustainable development. In recent years, environmental criteria have therefore gradually been introduced and it is thus increasingly commonplace to refer to sustainable or green events.

The organisation and holding of congresses is an inherent feature of today's knowledge society. Every day sees the organisation of a broad range of events, congresses, seminars, symposia, and conferences, etc., at which the professionals from a specific sector come together to discuss and deliberate a particular theme. Such processes yield numerous benefits of socialisation, exchange and creation of knowledge, which enable society to advance on a daily basis.

The challenge set by this guide is for these congresses, as processes that consume resources and generate environmental impacts, to integrate sustainability in their organisation. Such a greening process can prompt numerous benefits, as it will reduce environmental impact while contributing to participants' awareness.

This new environmental education guide is intended to provide information, advice and practical tools that are of use to all those agents involved in the organisation of congresses and similar events. It also features both a series of good environmental practices, which have already been put into practice at many of the congresses organised in the city, and examples of international initiatives.

The guide is an innovative product, which we hope will be of use to all of us who are working towards a more sustainable city.



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Introduction 1

Tourism in Barcelona is a valuable asset for the city and accounts for a considerable volume of the service sector. Its positive repercussions are numerous as it has significant associated social and economic impact and is a driving force for the city of Barcelona.

Tourist activities, however, give rise to some environmental impacts that require consideration. These activities need to incorporate the sustainability criteria that govern city policy and thus contribute to the model of Barcelona as a sustainable city.

A significant and growing area of tourism is business tourism, to which this guide refers. This guide is specifically intended to provide practical tools so that promoters may organise more sustainable congresses.



1.1 BACKGROUND TO THE PROMOTION OF SUSTAINABILITY IN THE EVENTS ORGANISED IN BARCELONA

The city of Barcelona is committed to the environment and for years has been working to encourage sustainability in the city's festive and cultural acts and events. Barcelona's experience in this area dates back to 2002, when sustainability criteria were first introduced at large events such as the Feria de Abril, the festive events of different districts, and the 2004 Universal Forum of Cultures. In recent years it has also worked to reduce the environmental impact of conventions and congresses.

1.2 DEFINITION OF EVENTS AND CONGRESSES: SCOPE OF APPLICATION

A congress is a meeting that brings together a certain number of people in order to discuss and deal with a specific, previously established subject.

Although this guide is mainly focused on the organisation of congresses, the good sustainability practices described are also applicable to other types of similar events such as conventions, conferences, technical symposia and fairs.



1.3

BARCELONA: CITY OF CONGRESSES

Barcelona is one of the European and world's cities that hosts the most international congresses, and appeared in fifth place in the ICCA (International Congress and Convention Association) ranking of 2007, with a total of 106 meetings, and in second place for attendee numbers. Many leading multinationals choose Barcelona for their conventions and product presentations. In 2007, congress and business trip activity rose by 33.5% over and above the previous year and the city welcomed a total of 629,704 visitors.

In recent years, Barcelona has emerged as one of Europe's most attractive and dynamic cities, which has made it a favourite destination for incentive trips. Barcelona is a cultural, avant-garde, well-communicated Mediterranean city that enjoys a temperate climate throughout the year. It has a very plentiful and diverse range of services available for the organisation of congresses and large- and small-scale meetings, exhibitions and product presentations at modern and well-equipped facilities. It also offers a high number of modern hotels. All these characteristics make Barcelona a city of congresses.



Congresses and sustainability 2

The concept of sustainability has been introduced into different areas of our society, and into different spheres of business activity and the service sector. This trend has also been extended to the field of congress organisation and a growing demand has been discerned in society for this field to incorporate sustainability criteria in its operations.

Congresses have a great capacity to prompt change and to create a new sustainability culture. The main objective when introducing sustainability criteria in an event is to minimise the environmental impact that arises from holding it. The introduction of good sustainability practices nonetheless also acts as an example and enhances the awareness of attendees at the event.

2.1

ENVIRONMENTAL IMPACTS THAT ARISE FROM HOLDING CONGRESSES

The staging of any congress generates environmental impacts arising from travel, from the consumption of resources and from the materials necessary to hold the event. It is important to identify these impacts and act to minimise them.

If three areas of influence are considered, the main environmental impacts are:

- **Arising from the use of sites:**

Holding an act on any site involves the consumption of energy resources (mainly fossil fuels) to produce the energy necessary for climate control, the lighting of rooms, and the operation of electrical and electronic apparatuses. The consumption of these energy resources involves the atmospheric emission of greenhouse gases, which cause global climate change. Another natural resource that is consumed on the sites is water (both for cleaning the sites and in the bathrooms), which generates waste-water.

- **Arising from the use of materials:**

Holding an event always involves the consumption of natural resources both to produce printed material and to prepare meals and gifts, etc. Consumption of these products has some environmental impacts associated with the life cycle of these products, in other words, from the purchase of the raw materials, to their production, use and consumption. This use or consumption of materials prompts generation of waste, which must be managed properly to minimise environmental impact.

- **Arising from mobility:**

Events normally bring together considerable numbers of participants (speakers, attendees, and organisers) who travel from their towns of origin to the congress venue. This travel has different impacts on the environment, which depend on the means of transport used and the distance covered. Most means of transport, however, consume energy, be it in the form of fossil fuels, as in the case of driven vehicles or aeroplanes, or of electricity, as in the case of trains. Consumption of this energy gives rise to atmospheric emissions that contribute to global climate change.

How much CO₂ can an international congress generate?

The international EcoProcura congress (held in Barcelona in September 2006) was attended by a total of 352 people from 50 different countries. Holding the congress gave rise to the emission of **644 tons of CO₂**. 99.8% of emissions were generated by attendee travel, while the remaining 0.2% corresponded to trips for technical visits and to the energy consumed in the lighting and climate control of the areas where the event was held.

How much waste can a congress generate?

The **First Latin American Congress on Corporate Responsibility** held in Asturias in June 2006 and attended by 350 participants, generated **300 kg of waste**, which was properly recycled.



2.2

BENEFITS OF INTRODUCING SUSTAINABILITY CRITERIA

The introduction of sustainability criteria into the organisation of a congress provides for a reduction in the environmental impact of the event, as it prompts numerous environmental and economic benefits, and other advantages such as improvements in international image and projection. The main benefits are listed below:

ENVIRONMENTAL BENEFITS

- Rationalisation of the consumption of natural resources
- Reduction in the generation of waste and application of the proper treatment of the waste generated
- Decrease in the pollution load in waters
- Rationalisation of energy consumption with energy efficiency measures
- Reduction in the emissions of pollutant gases into the atmosphere because of a rational consumption of energy
- Reduction in noise generated, to prevent discomfort for attendees and the neighbouring population
- Reduction in the environmental impact associated with transport and the prioritisation of collective means of transport
- Enhancement of awareness and improvement in the habits of attendees at the event, by means of specific informative measures to communicate good environmental practices

ECONOMIC BENEFITS

- Reduction in energy costs
- Reduction in the costs of raw materials
- Reduction in the costs of waste treatment

OTHER BENEFITS

- Improvement in relations with the local community
- Improved international competitiveness
- Improvement in the image of the congress and of the organising entities
- The attraction of a public that is increasingly aware and demanding in sustainability matters
- Easier access to credit lines and sponsors

2.3

GENERAL PRINCIPLES FOR ORGANISERS

When setting out to organise a more sustainable event, the sustainability project must be a priority in order to implement it successfully. The directors of the congress must assume a commitment from the start to ensuring that the established sustainability premises are complied with. The greening project must be linked with the whole organisation process of the congress itself. The organisers must work according to the following premises:

- Assumption of the event's sustainability project at all organisational levels, particularly by the senior managers of the event.
- Destination of human and economic resources necessary to achieve the established objectives.
- Designation of a manager to ensure compliance with the sustainability criteria.
- Involvement in the project of all the agents associated with it (personnel from maintenance, the catering service, site managers, and the technical office, etc.).
- The initiatives undertaken must be visible and participants informed about them.
- Involvement of attendees in the congress greening project.
- Devotion of effort to enhancing awareness of participants of environmental aspects and problems.



Being sustainable saves money

In accordance with the **Convention Industry Council of Canada**, the simple act of recovering and reusing attendees' ID badges at an event attended by 1,300 congress participants yields a saving of 680 euros.

At the **Environment and Energy Conference** held in Toronto in 2007, the implementation of the Zero Waste Event programme ensured that 98% of the reusable materials did not end up on a dump.

At the **Greenbuild 2004** conference, organised by US Green Building Council, bulk liquid dispensers and compostable cups were used. This initiative prompted a saving of 25,000 dollars and prevented the generation of 48,000 plastic bottles as waste.



2.4 AGENTS INVOLVED IN HOLDING A CONGRESS

The organisation of a congress involves many different agents, ranging from the promoters of the event to the attendees, and including the managers of the sites where it is to be held, the catering company, the managers of the hotels where congress participants are staying, sponsors, and suppliers, etc. All these agents involved must also collaborate in the organisation of a sustainable event. It is therefore important that they are informed about the greening project and that the organisers define the tasks and responsibilities of everyone as specifically as possible in order to ensure the success of the environmental initiatives performed.

In the city of Barcelona, the main agents associated with the organisation of congresses, to whom the guide is addressed, are:

- **Turisme de Barcelona:** comprises the Barcelona Convention Bureau, which attracts congresses to the city, provides information on the congresses held in Barcelona, and gives advice and resources to assist organisation. It has 350 members, all of which are companies that specialise in providing services to congresses.
- **Barcelona City Council:** offers logistics and the services necessary for a congress to operate properly (transport, waste collection, and street cleaning, etc.).
- **Fair and convention sites in Barcelona:** the city has different sites specialised in staging fairs and conventions. The main sites are: Fira de Barcelona (that runs the ServiFira service, which advises and offers services to organisers), the Catalonia Palace of Congresses and the Barcelona International Convention Centre.



- **Barcelona Hotel Association:** a business association that represents the tourist accommodation establishments of Barcelona and its surrounding area.
- **Barcelona Restaurant Association:** a business association that represents different types of establishments such as restaurants, bars, cafeterias and catering companies.
- **Professional Congress Organisers (PCO):** companies that organise congresses and conventions, etc.
- **Travel agencies (Catalan Association of Travel Agencies):** association of travel agencies and companies associated with tourism. There are agencies specialised in the organisation of congresses, conventions and incentives.

Good practice

French congress professionals agree on commitment to sustainability.

Upon the initiative of the **ANAé** (Association des Agences de Communication Événementielle), French associations and professional unions in the organisation of events have agreed to work together to promote sustainability in the organisation of events and to encourage specific tools and solutions.

This project has involved the publication of *l'Éco-Guide - carnet de route vers un événement éco-responsable*, a guide that gathers together specific tools and solutions to promote sustainability aimed at sector professionals.

Further information:

www.eco-evenement.org



Sustainability **3** criteria at congresses

To encourage the process of introducing sustainability criteria at congresses, it is important to work with consideration for the different stages involved in holding an event and establish the sustainability measures that need to be performed in each stage.

The first part of this chapter of the guide features a description of the four stages that characterise an event, which are the following:

- Planning
- Organisation
- Celebration
- Disassembly and evaluation.

This chapter also presents the good sustainability practices that must be applied in the different areas of operation in each of the four stages:

- Administration and logistics
- Sites and facilities
- Mobility and transport
- Responsible consumption and environmentally friendly materials
- Minimisation and management of waste
- Restaurant and catering services
- Publicising the congress, printed material and signage
- Communication of sustainability initiatives and awareness

Some advice:

· When you decide to opt for a more sustainable congress, we recommend that rather than introducing all the good practices featured in this guide suddenly, you should instead start by incorporating just some; starting with those that might be easier and that are more visible to attendees. In forthcoming editions you may incorporate others, particularly those that are more logistically complex.

· The list of good practices presented in this guide is not exhaustive. It features some of the most important; those which have greater environmental repercussions that the authors of the guide have put in practice at an event or have had successful experiences at other events. As well as any of the sustainability criteria proposed, there might be other good practices that may be applied to ensure compliance with the environmental criteria. We encourage organisers to design and apply new environmental practices.

3.1

THE FOUR STAGES OF THE CONGRESS

Stage 1: planning

This is the initial stage of the congress and the time at which the most significant decisions, which will determine the possibility of introducing subsequent environmental measures, are taken.

This initial stage must feature a definition of the sustainability policy, the measures that must be undertaken, and the objectives to be met. The manager or managers who ensure compliance with environmental commitments must be appointed.

This is the moment at which to decide whether it is necessary to hold an attended meeting or whether the event may be staged using lower impact formats such as videoconferences. It is also important to choose the best time of year for the meeting. If it is held in months when it is neither very hot nor very cold, the energy costs arising from climate control can be reduced.

This stage must include definition of the most emblematic measures performed, such as the organisation of a carbon neutral congress that will determine the strategy to be followed in the sustainability project. Some important decisions that, to a large extent, will affect the event's environmental impact, such as the choice of site where the event is to be held, may also be taken.

Stage 2: organisation

In this second stage prior to holding the congress, the most specific aspects of the congress are defined: development of the publicity materials, and the hiring of services and suppliers, etc.

This stage involves taking decisions with potential environment impact such as the hiring of services and suppliers, and the production of invitations and the programme, etc. Decision taking should incorporate environmental considerations. During the organisational stage it is very important for all the agents involved to be aware of and take part in the sustainability project.



Stage 3: celebration

During the celebration stage, all the measures planned in the two previous stages are put into practice.

During this stage participants should receive all the information related to the sustainability project. Monitoring should also be performed to detect whether it is working properly or to identify shortfalls in the environmental initiatives that have been introduced. Monitoring will depend on the size and scope of the event and the sustainability strategy that has been followed. Some important aspects that should nonetheless be monitored and for which data should be collected are:

- The means of transport
- The quantity of CO₂ emissions
- The quantity of waste generated

Stage 4: disassembly and evaluation

Completion of the event is followed by the work of disassembly and the cleaning the sites used. This stage also includes production of publications and reports on the results of the congress.

Once the congress has finished it should be guaranteed that during disassembly, the waste generated is properly treated and that materials which may be reused other events are recovered.

It is also the time to assess whether the established environmental objectives have been met, and to inform all the agents involved in holding the event of the results.

Summary table

For ease of presentation and subsequent application, the good practices are summarised in a double-entry table, organised according to sustainability criteria (rows) and the stage in which the good practice should be applied (columns).

3.2

ADMINISTRATION AND LOGISTICS

During the organisation and celebration of a congress, tasks of administration and logistics account for much of the organising team's effort. These tasks, which are performed at the offices where an event is being organised, albeit less visible, have numerous environmental repercussions and must also be considered in the sustainability project.

Where?

It is necessary to consider the work areas for the administrative tasks necessary for the organisation of the congress:

- Technical offices of the organising committee
- Professional congress organiser offices
- Technical office at the congress site
- Offices of the fair sites

What?

Sustainability criteria in administration and logistics:

- Application of good environmental practices in administrative tasks
- Minimisation of the use of paper and printed materials
- Encouragement of the use of new technologies to reduce the consumption of paper and also to reduce the number of journeys made by attendees

How?

Good practices that should be implemented to ensure compliance with sustainability criteria:

STAGES OF THE EVENT

Stage 1: planning

STAGES OF THE EVENT		
Stage 1: planning		
CRITERIA	Good environmental practices in administrative tasks	<ul style="list-style-type: none">• Train technical office members with regard to the environmental characteristics of the congress and the initiatives that must be performed.
	Minimisation of printed material	
	Use of new technologies to reduce travel	<ul style="list-style-type: none">• Minimise the number of attended meetings held and prioritise more sustainable formulas such as videoconferences.

Stage 2: organisation	Stage 3: celebration	Stage 4: disassembly and evaluation
<ul style="list-style-type: none"> Minimise the consumption of fungible material. Always use recycled or chlorine-free paper. Minimise the printing of documents and always print on both sides. Use reusable office products (rechargeable batteries, propelling pencils, refillable markers, etc.) If electronic material is purchased, prioritise that with proven energy efficiency. Prioritise materials with an environmental quality label. 	<ul style="list-style-type: none"> Use environmentally friendly materials in offices. Provide containers in offices for selective collection of the waste generated. 	
<ul style="list-style-type: none"> Encourage attendees to register and obtain credentials using electronic and online means. Confirm registrations by e-mail or by telephone and avoid the use of written means. Request speakers to submit their communications on USB sticks. 	<ul style="list-style-type: none"> Provide the communications and information of interest on the website and avoid printing this material. 	<ul style="list-style-type: none"> If any publication or document resulting from the congress is produced, issue it using electronic means.
<ul style="list-style-type: none"> Minimise the number of attended meetings held and prioritise more sustainable formulas such as videoconferences, particularly at congresses where members of the organising or scientific committee are from different countries or regions. 	<ul style="list-style-type: none"> Encourage alternative means of participation and following the congress to attended conferences (Internet videoconferences, providing virtual forums and communities on the congress website). 	

You may find further information on environmentally friendly office material in Barcelona City Council's **Green Office** guide in the section on office material of the website of the more sustainable Council project: www.bcn.cat/mediambient

Where has this been done?

At the **ICLEI Local Action Oceania** congress held in Melbourne (Australia) in May 2007, attendees were given a *Green Stick* (memory stick) with information on the programme, communications, and summaries of prior sessions, etc., to replace the conventional file of documents. The organisation also prioritised electronic means for publicising the event and for organisational procedures, and all printed documents were on 100% recycled paper.

At the **EcoProcura 2006** international congress, held in Barcelona, an effort was made to minimise paper consumption. Registrations were thus performed online and pre-presentations were uploaded onto the congress web page in electronic format. Documentation issued to attendees, which was always on recycled paper printed on both sides, was also minimised.

At the **EMSU 2008: A New Knowledge Culture** international congress, virtual participation was encouraged to minimise the number of attending participants and also to reduce the environmental impact by minimising travel. An EMSU virtual community with over 170 members was established. Along these lines, processes associated with the congress were also organised at different points in the world at which working seminars associated with the subject of the congress were held.





Good sustainability practices aimed at professional congress organisers (PCO)

- Environmentally friendly materials must be used in offices, i.e. they must be reusable, easily recyclable, and/or have some type of environmental quality credentials, etc.
- Minimisation of paper consumption, prioritising electronic media, both in internal tasks and in interaction with attendees.
- Encouragement of the purchase of electronic devices with energy efficiency credentials.
- Rational use of energy, switching off electronic appliances when not in use (not leaving them in stand-by mode) and switching lights off when leaving sites.
- Prioritisation of low-pollution means of transport in daily travel (public transport, travel by bicycle and on foot, etc.).
- When hiring services and seeking suppliers, negotiating and establishing contractually, or in the books of specifications, the environmental measures that must be performed while the event is taking place.

3.3 SITES AND FACILITIES

The choice of sites where a congress is to be held is a strategic and essential decision from an environmental perspective, as many aspects such as energy consumption or travel depend on the chosen site. It is therefore very important to consider a series of factors with regard to accessibility and sustainability when choosing where the event is to take place.

Where?

The different sites that are used during a congress must be taken into consideration:

- Congress site
- Places where complementary activities are held (reception, dinners, etc.)
- Hotels where speakers and congress participants are accommodated

What?

Sustainability criteria that must be complied with on the sites:

- Sites that are well connected with the public transport network and on foot
- Universal accessibility to sites (there should be no architectural barriers)
- Efficient use of the energy used for climate control and for lighting
- Efficient use of water
- Use of sites that implement good environmental practices and have some type of environmental certification or equivalent

How?

Good practices that should be implemented to ensure compliance with sustainability criteria:

STAGES OF THE EVENT

Stage 1: planning

STAGES OF THE EVENT		
Stage 1: planning		
CRITERIA	Sites that are well connected with the public transport network and on foot	<ul style="list-style-type: none"> · Choose sites that are well integrated in the public transport network.
	Universal accessibility to sites (there should be no architectural barriers)	<ul style="list-style-type: none"> · Choose sites with accesses adapted for people with reduced mobility.
	Efficient use of the energy used for climate control and for lighting	<ul style="list-style-type: none"> · Site size should suit the number of participants to ensure efficient use of resources. · Choose sites that allow for sector-specific lighting and climate control in different areas. · Use low power consumption lighting. · Choose sites where good use is made of natural light. · Areas such as toilets should be equipped with presence detectors.
	Efficient use of water	<ul style="list-style-type: none"> · Choose sites that have mechanisms for making efficient use of water (saving mechanisms, dual flush cisterns, etc.).
	Use of sites that implement good environmental practices	

Stage 2: organisation	Stage 3: celebration	Stage 4. disassembly and evaluation
<ul style="list-style-type: none"> · Choose hotels near the event site and/or that are well connected by public transport. 	<ul style="list-style-type: none"> · Encourage the use of public transport and inform attendees about public transport coverage. 	
<ul style="list-style-type: none"> · Signpost the routes that must be taken by people with reduced mobility to access the compounds where the event is being held. 	<ul style="list-style-type: none"> · Provide services such as translation into sign language if there are attendees with special sensory needs. 	
<ul style="list-style-type: none"> · Agree with site maintenance technicians on matters such as switching lights on and off, and the temperature of areas, etc., and inform them about congress energy saving criteria. · Establish a comfortable temperature in rooms (20-24°C in winter and 23-26 °C in summer). 	<ul style="list-style-type: none"> · Ensure maintenance of the established comfort temperature while the event is being held. · Use lighting rationally, switching on lights solely when there is not enough natural light. 	<ul style="list-style-type: none"> · Calculate consumption of energy and of associated emissions.
	<ul style="list-style-type: none"> · Water consumption points such as toilets should feature posters providing information about the good environmental practice of saving water and indicating how water may be saved at the facilities where the event is being held. 	
<ul style="list-style-type: none"> · Choose hotels that have some type of environmental certification or that implement environmentally beneficial practices.* · Inform attendees at the event of the environmental characteristics of the different hotels at which they are staying.* 	<ul style="list-style-type: none"> · If plant decoration is used on the sites, use species that are native and have low-water requirements and potted plants rather than cut plants. 	<ul style="list-style-type: none"> · Ensure that the plants used as decorative items are transplanted or that they are properly treated (composting). · Ensure that decoration materials are recovered for future events.

*Consult the *More Sustainable Hotels* guide where there is information on hotels in Barcelona with environmental quality certification. The guide also features an explanation of good practices and other resources to enable hotels to implement proper environmental management.



Where has this been done?

In 2007, the **Sydney Convention and Exhibition Centre** was awarded certification as a Green Globe Benchmarked Convention Centre. This certification was established by the World Travel and Tourism Council in 1993 and is applied to the tourism sector worldwide. The Sydney Centre was the second convention centre to be awarded this certification after the Kuala Lumpur Convention Centre. This accreditation is proof that proper sustainability management is implemented in different areas such as the consumption of energy and water, the use of paper and chemical products, waste management and in the sustainability policy. Some of the outstanding initiatives in Sydney include the implementation of a waste reduction and a green purchasing programme, the waste recycling system (which has prompted an increase from 10% to 76% in the amount of waste recycled in four years), and the installation of intelligent lighting control systems. Further information: www.scec.com.au

The **Edinburgh International Conference Centre (EICC)** has promoted the sustainability of its premises and of the events that are held there since it opened in 1995. Effort has been made to improve energy efficiency and the waste collection circuits of buildings. The EICC also has a “sustainable team” to give advice and provide practical tools to organisers of events with regard to the choice of environmentally friendly suppliers, and how to stage a carbon neutral event, etc. The Centre was certified with ISO 14001 in 2002, and received a Gold award from VisitScotland’s Green Tourism Business Scheme in 2001. With these initiatives the centre has succeeded in reducing its energy bill (with a saving of £60,000), its consumption of paper (a 46% reduction) and its generation of waste (a 23% reduction) and has achieved other environmental benefits and savings. Further information: www.eicc.co.uk



Good sustainability practices for fair sites in Barcelona

On account of high attendee numbers, the creation and destruction of stands, and the production of waste, the fair sector has one of the greatest environmental impacts in the area of events and congresses. It is therefore important that fair sites should incorporate good environmental practices, some of which are listed below:

- Environmental certification or credentials that guarantee environmentally friendly management.
- Encouragement of the use of reusable materials and structures (material for covering the floor, stands, and signage material, etc.), to reduce the quantity of waste generated.
- Informing and enhancing the awareness of staff and clients about the environmental policy and good practices being implemented.
- Incorporation of environmental and ethical criteria in purchases and in the hiring of services.

- Efficient management of water through the use of mechanisms to reduce consumption (flow reducers, and dual flush cisterns, etc.).
- Introduction of saving and energy efficiency criteria by means of initiatives such as the installation of lighting and climate control sensors and timers.
- Encouragement of renewable energy sources in fair site buildings.
- Implementation of a waste reduction and minimisation programme.
- A circuit for the selective collection of different waste fractions.

Examples of good practices

In 2002, the **SEXI project (Sustainable Exhibition Industry Project)**, promoted by different fair sector associations, was initiated in the United Kingdom. The project is intended to reduce the waste generated at exhibitions and fairs, which amounts to a total of 120,000 tons of waste a year with an associated cost of £40,000,000.

3.4

MOBILITY AND TRANSPORT

In holding a congress, particularly one with an international scope, attendee travel is the main source of the CO₂ emissions generated at the event. It is therefore of prime importance to introduce good practices that encourage more sustainable mobility.

Where?

All travel, from the moment the organisation of the congress starts to its end, should be taken into consideration.

- Travel of speakers and of members of the organising and scientific committee
- Travel of attendees
- Travel for technical visits and parallel activities during the congress
- Internal travel of goods and of logistics services

What?

Sustainability criteria in mobility and transport:

- Encouragement of travel on public transport
- Encouragement of travel on foot or by bicycle
- Promotion of private collective transport
- Use of low-pollution vehicles

How?

Good practices that should be implemented to ensure compliance with sustainability criteria:

STAGES OF THE EVENT

Stage 1: planning

STAGES OF THE EVENT		
Stage 1: planning		
CRITERIA	Encouragement of travel on public transport	· Choose sites that are well integrated in the public transport network.
	Encouragement of collective private transport	
	Use of low pollution vehicles	
	Encouragement of travel on foot or by bicycle	

Stage 2: organisation	Stage 3: celebration	Stage 4. disassembly and evaluation
<ul style="list-style-type: none"> · Inform attendees about public transport options and coverage. · Organise technical visits on public transport. 	<ul style="list-style-type: none"> · Distribute public transport tickets to attendees. · Use public transport on technical visits. 	<ul style="list-style-type: none"> · Monitor the means of transport used.
<ul style="list-style-type: none"> · Provide, on the website for example, shared transport for attendees from the same point of origin. 	<ul style="list-style-type: none"> · If there is not sufficient public transport coverage, establish a shuttle or collective coach service. 	
<ul style="list-style-type: none"> · Provide information on the closest gas stations that sell biodiesel. · If a transport service is contracted, make sure its vehicles are electrical or use low-pollution fuels. 	<ul style="list-style-type: none"> · If public buses are used, prioritise those that use low-pollution fuels. · Use biofuels in internal and official vehicles whenever possible. 	<ul style="list-style-type: none"> · If vehicles are used for disassembly, ensure that they use biofuels or are electrical.
<ul style="list-style-type: none"> · Ensure short distances among the different sites where congress activities are being held. · Ensure enough bicycle parking spaces and if there are not sufficient, create provisional spaces. · Provide a secure place to leave folding bicycles. 	<ul style="list-style-type: none"> · Organise parallel activities by bicycle. · Provide information on route times on foot and by bicycle among different sites. · Provide information on options available in the city for hiring bicycles. 	

Where has it been done?

The **Convention of Barcelona Agenda 21 Signatories (2005)** featured an activity in which all attendees who came by bicycle did so together. Extra cycle parks were installed in front of the convention site to ensure that everyone could park them securely. The convention also contracted a messenger service that used electric vehicles (Trévol).

At the **COP11 United Nations Climate Change Conference (Montreal, 2005)**, a fleet of 65 coaches powered by biodiesel was provided to cover the travel of 10,000 attendees on technical visits, at official meals and on parallel activities. 4,743 public transport tickets were also distributed among delegates with a discount of 30% on the original price.



Good environmental practices for travel agencies

Travel agencies also play an active role in the organisation of congresses and should also introduce good environmental practices both in their daily operations and in the products they offer.

- Definition of a sustainability policy, in which their commitment to the environmental, socio-cultural and economic aspects of their activities, products and services is established.
- Implementation of an environmental management system in the company.
- Training of workers and other personnel associated with the travel agency.
- Establishment of criteria of purchasing and hiring of suppliers that include sustainability criteria.
- Use of environmentally friendly fungible products (such as recycled paper) in offices.

- Minimisation of the consumption of paper and of other products.
- Performance of selective collection of the waste generated.
- Efficient use of energy and of water.
- Informing and enhancing awareness of clients on how to reduce environmental, social and cultural impact at destinations.
- Advertising of their products in a way that does not have a negative impact on natural and cultural heritage.
- Provision of support and collaboration in the development of skills and development of programmes at destinations where they operate.
- Prioritisation of low-pollution means of transport and public transport.
- Provision of information on the environmental management of the hotels where clients may stay, and prioritising those hotels that implement good environmental practices.
- Provision of information on the opportunities available to offset CO₂ emissions arising from clients' plane, bus and train journeys.



3.5

RESPONSIBLE CONSUMPTION AND ENVIRONMENTALLY FRIENDLY MATERIALS

Holding a congress involves the consumption of many materials that may, depending on their nature, have a great impact on the environment. Both in the purchasing processes of these materials and in the hiring of services, it is therefore very important to consider environmental criteria.

Where?

The areas in which materials are purchased and acquired must be considered:

- Technical offices (office material)
- Materials issued to attendees
- Catering and restaurant services
- Logistics services

What?

General criteria in matters of responsible consumption:

- Use of environmentally and ethically correct office material
- Environmentally friendly materials issued to attendees
- Hiring of services that incorporate sustainability and ethical criteria

How?

Good practices that should be implemented to ensure compliance with sustainability criteria:

STAGES OF THE EVENT

Stage 1: planning

CRITERIA	
Use of environmentally and ethically correct office material	
Environmentally friendly materials issued to attendees	<ul style="list-style-type: none">· If a gift item is given, it must have a use and not become waste at the end of the congress.
Hiring of services that incorporate sustainability and ethical criteria	<ul style="list-style-type: none">· Inform possible suppliers of the sustainability policy and objectives.

Stage 2: organisation	Stage 3: celebration	Stage 4. disassembly and evaluation
<ul style="list-style-type: none"> · Acquire and use environmentally friendly office material (see section entitled “Administration and logistics”) · Prioritise materials with an environmental quality label. 		
<ul style="list-style-type: none"> · If a document holder is issued, it should be a bag made of cloth or similar material that can be used later. 	<ul style="list-style-type: none"> · Avoid issuing writing material and paper, or give them only to those people who ask for them. · If writing material is issued, it should be reusable (propelling pencil type) or made with Mater-Bi®. · Attendees’ ID cards should be made from cardboard and the name should be written on a sticker so it may be reused. 	<ul style="list-style-type: none"> · Recovery of writing material and document holder. Donating this material to a charitable association may be studied. · Recover the ID cards of attendees for future events.
<ul style="list-style-type: none"> · Introduce environmental clauses in terms and conditions for hiring when necessary. · Hire the services of social and work reintegration companies (catering, preparation of material and gifts, etc.). · Encourage promoters to share the project’s sustainability objectives. Specific financing can be found to perform certain initiatives. · Contracted suppliers and companies should be local to reduce the environmental impact of transport. 	<ul style="list-style-type: none"> · Ensure that companies comply with commitments acquired. 	<ul style="list-style-type: none"> · Ensure that companies comply with commitments acquired.

Where has this been done?

At the **EcoProcura** international congress (Barcelona, 2006) attendees were given a PVC document holder made from recycled advertising banners. The bag was manufactured on a prisoners' social rehabilitation project. The Multiple Sclerosis Federation prepared the materials in the bags.

At the **COP11 United Nations Climate Change Conference**, held in Montreal in 2005, free second-hand coats were provided by a social economy company to delegates from warmer countries. At the end of the conference the coats were donated to a charitable organisation.

Good practices for the Barcelona Convention Bureau (BCB)

The BCB is an organisation that advises the organisers of congresses and conventions held in Barcelona. As a support service to the organisation of congresses, it is a key agent in making events in the city more sustainable.

- Promoting the organisation of congresses on the basis of sustainability criteria.
- Internalising good environmental practices in offices and in their daily routines.
- Informing organisers on more sustainable options when choosing sites, travel, and catering services, etc. when requested.
- Promotion of parallel activities and incentive visits that encourage sustainability and are aimed at enhancing attendee awareness.





park

3.6

MINIMISATION AND MANAGEMENT OF WASTE

Appropriate measures need to be taken to minimise and properly manage the waste generated at the congress.

Where?

The areas in which waste is generated need to be taken into account:

- Congress activities and sites
- Catering and restaurant services
- Materials issued to attendees

What?

Sustainability criteria in matters of waste:

- Minimisation of waste generation
- Selective waste collection

How?

Good practices that should be implemented to ensure compliance with sustainability criteria:

STAGES OF THE EVENT

Stage 1: planning

STAGES OF THE EVENT	
Stage 1: planning	
CRITERIA	Minimisation of waste generation
	· Implement a programme to minimise waste at origin.
	Selective waste collection
	· Plan a selective collection circuit for the waste that is expected.



Stage 2: organisation	Stage 3: celebration	Stage 4. disassembly and evaluation
<ul style="list-style-type: none"> · Minimise printed documentation by encouraging electronic media. · Minimise disposable materials by prioritising those that are reusable 	<ul style="list-style-type: none"> · Minimise the documentation issued to attendees. · Minimise materials issued to attendees (writing material, bags, gifts, etc.). 	<ul style="list-style-type: none"> · Monitor and evaluate the quantity of waste generated.
<ul style="list-style-type: none"> · Ensure there are enough containers for different fractions in all the places where the production of waste is expected (coffee areas, meeting rooms, etc.). 	<ul style="list-style-type: none"> · Inform attendees about selective collection and about different fractions that are collected separately. · Monitor proper waste management by the agents involved (catering services, cleaning services, attendees, etc.). 	<ul style="list-style-type: none"> · Ensure that during disassembly all waste is properly managed, collect the different fractions separately, and recover materials that may be reused at future events.

Where has this been done?

The **First Congress of Corporate Social Responsibility**, held in Asturias in June 2006, featured the design of a selective collection system at the congress site and at hotels. The quantities of waste generated both at the site and at the hotels were monitored and throughout the congress attendees were kept informed about the quantities produced. In addition to recycling, a great effort was also made to minimise the generation of waste at origin.

Source: Environment Office (UAB)

The **Fira de Barcelona** has selective collection wastebaskets, distributed throughout the fair sites for attendees to deposit the waste they generate.

The wastebaskets have three differentiated sections for refuse, packs and paper.

3.7

RESTAURANT AND CATERING SERVICES

Catering and restaurant services are some of the main generators of waste and are very visible for attendees. It is therefore important for these services to take sustainability criteria into consideration.

Where?

Services associated with meals and catering for the event must be considered:

- Catering services
- Restaurants

What?

Sustainability criteria in restaurants and catering:

- Minimisation of waste generation in catering services
- Recycling of the different fractions of waste generated
- Encouragement of local, seasonal or fair trade food and drink products

How?

Good practices that should be implemented to ensure compliance with sustainability criteria:

STAGES OF THE EVENT

Stage 1: planning

CRITERIA	Minimisation of waste generation in catering services	<ul style="list-style-type: none">· When catering services are hired, agree on the initiatives and nature of the service.
	Recycling of the different fractions of waste generated	
	Encouragement of local, seasonal or fair trade food and drink products	<ul style="list-style-type: none">· When catering services are hired, agree on the initiatives and nature of the service with suppliers.

Stage 2: organisation	Stage 3: celebration	Stage 4. disassembly and evaluation
<ul style="list-style-type: none"> · Adapt the quantity of food to suit the number of people registered as much as possible. 	<ul style="list-style-type: none"> · Use reusable ceramic crockery. If it cannot be reused, make sure it is compostable. · Avoid the use of plastic packs and packaged products. · Serve drinks in glass recipients. · Provide water in bulk containers. · Use reusable tablecloths and napkins. If this is not possible, they should be in recycled paper. 	<ul style="list-style-type: none"> · Give excess food to a charitable organisation. · Avoid the use of environmentally hazardous cleaning products.
<ul style="list-style-type: none"> · Provide containers in catering zones for the generation of all the fractions that are expected. 	<ul style="list-style-type: none"> · Collect waste selectively. · In meal and coffee break zones and in kitchens, containers must be visible and appropriately labelled. 	
<ul style="list-style-type: none"> · Prioritise local, seasonal and organically-grown foods. · Provide menus for vegetarians. · Serve healthy foods and drinks (juices, fruit). · Serve fair trade products (coffee, sugar, etc.). 	<ul style="list-style-type: none"> · Ensure that suppliers comply with the agreed criteria. · Inform attendees about the ecological or fair trade features of the foods served. 	



Where has this been done?

The **VII Conference of the City Educational Project (Barcelona, 2006)** served seasonal fruit (mandarins) and fair trade coffee.

At the third session of the **United Nations World Urban Forum**, held in Vancouver in June 2006, fair trade coffee and organic milk and sugar were served, reusable crockery and biodegradable cups were used, and bulk packs were prioritised. All organic waste generated was composted and 15,000 bottles of Earth Water, made by a company that donated 100% of the profits to the United Nations Refugee Agency, were served.



Good environmental practices for catering companies and restaurants

Catering companies and restaurants, which provide services when congresses are held, are a potential large generator of waste. It is therefore important that they implement good environmental practices.

- Definition of a sustainability policy that establishes their commitment to sustainability in activities, products and services.
- Implementation of an environmental management system in the company.
- Training of workers and other associated personnel in environmental matters.

- Provision of meals that incorporate local, seasonal, organically farmed, fair trade and responsible products.
- Use of reusable towels and napkins (cloth) and, if this is not possible, use of towels and napkins in recycled paper.
- Avoidance of the generation of waste, minimizing the consumption of packaged products.
- Use of reusable (ceramic) crockery and, if this is not possible, the use of recyclable crockery.
- Serving of drinks in reusable bottles and in bulk containers.
- Ensuring the segregation of different fractions of waste both in the company and kitchen itself and in outside catering companies, and subsequent collection and treatment at proper recycling plants.

3.8

PUBLICISING THE CONGRESS, PRINTED MATERIAL AND SIGNAGE

When a congress is held, numerous materials are produced to publicise the event (promotional posters, leaflets) and to inform attendees (programme, maps, etc.). The publication of these products should be adapted to the quantity necessary and they should be distributed responsibly and selectively to the audience that is potentially interested in receiving them.

Where?

The following considerations must be taken into account for publicity and signage materials produced:

- Publicity and advertising prior to the congress
- Informative material for attendees
- Signage at sites
- Others: exhibitions, letters, invitations, etc

What?

Sustainability criteria in printed material and signage:

- Use of new technologies for more efficient and sustainable communication
- Minimisation of the quantity of printed material
- Printing and issue of written material in accordance with sustainability criteria
- Lasting and reusable signage and publicity materials

How?

Good practices that should be implemented to ensure compliance with sustainability criteria:

STAGES OF THE EVENT

Stage 1: planning

STAGES OF THE EVENT		
Stage 1: planning		
CRITERIA	Use of new technologies for more efficient and sustainable communication	· Define electronic media as the main channel of communication throughout the congress.
	Minimisation of the quantity of printed material	· Print only those documents that are strictly necessary.
	Printing and issue of written material in accordance with sustainability criteria	
	Lasting and reusable signage and publicity materials	

Stage 2: organisation	Stage 3: celebration	Stage 4. disassembly and evaluation
<ul style="list-style-type: none"> · Maximise online information and procedures (registration, programme, etc.). · Request speakers to bring their presentations on USB sticks to avoid the use of non-rewritable CDs. · If you wish to produce material to give to attendees, a CD is preferable to printed material. 	<ul style="list-style-type: none"> · Run videoconferences to avoid travel by speakers. · Broadcast conferences on the Internet to encourage online congress participation and monitoring and to minimise travel. 	<ul style="list-style-type: none"> · Publish communications, reports or information of interest on the website (rather than printing it).
<ul style="list-style-type: none"> · Adapt the amount of materials to the number of attendees. · Always print on both sides of the paper. · Design the content of documents and pagination to reduce the number of sheets printed. 	<ul style="list-style-type: none"> · If leaflets or informative leaflets are issued, provide a tray where this material can be left once it has been consulted. · Avoid indiscriminate distribution of documentation. 	<ul style="list-style-type: none"> · Provide a place at which to recover leaflets or other elements once the event has finished.
<ul style="list-style-type: none"> · Use recycled paper. · Print using organic plant-based inks. · Print in black and white whenever possible. · Print on both sides, optimising space to minimise the use of paper. 		<ul style="list-style-type: none"> · If any documents are printed after the congress, print them in accordance with sustainability criteria.
<ul style="list-style-type: none"> · Use alternative media such as cardboard, rather than plastic or PVC. · Reuse materials by avoiding the use of dates so they may be reused at future editions of the event. If dates are featured, apply them using adhesives. 		<ul style="list-style-type: none"> · Recover signage material for future events.

Where has this been done?

At the **VII PEC Conference (Barcelona, 2006)**, signage was made from cardboard and plant-based inks were used to print signs. Posters did not feature dates so that the material could be reused at future editions of the event.

3.9

COMMUNICATION OF SUSTAINABILITY AND AWARENESS INITIATIVES

Effectively notifying attendees of initiatives to improve the sustainability of a congress is just as important as complying with them. The fact that congress participants can see these initiatives makes the project educational and enhances awareness, therefore extending the environmental benefits beyond the duration of the congress, and providing for positive repercussions in the everyday life of attendees.

Where?

Three stages at which it is important to communicate these initiatives to participants should be considered:

- Publicity prior to the congress
- Publicity during the congress
- Publicity after the congress

What?

Sustainability criteria in communication and awareness enhancement:

- Communication of the sustainability initiatives implemented at the congress
- Involvement of attendees in the processes of communication and dissemination

How?

Good practices that should be implemented to ensure compliance with sustainability criteria:

STAGES OF THE EVENT

Stage 1: planning

- Communicate the sustainability policy of the congress from the very start (press releases, search for sponsors, etc.).

CRITERIA

Communication of the sustainability initiatives implemented at the congress

Involvement of attendees in the processes of communication and dissemination

Stage 2: organisation	Stage 3: celebration	Stage 4. disassembly and evaluation
<ul style="list-style-type: none"> · Inform attendees in advance of the sustainability characteristics of the congress. · Include information on the event's sustainability initiatives on the event website. 	<ul style="list-style-type: none"> · State the commitment of the organisation to sustainability in speeches at the main events (opening, closing ceremonies, etc.). · Publish poster-type informative material with information on the sustainability project. · Include sustainability initiatives in the congress materials (programme, notebook, etc.). 	<ul style="list-style-type: none"> · If post-congress material is produced, include sustainability matters in final reports and communications. · Publicise the agents involved (companies, suppliers of services, attendees, the media, etc.) and the environmental results of the congress (data on waste generated, CO₂ emissions generated, etc.).
<ul style="list-style-type: none"> · Give attendees the chance to make proposals or suggestions with regard to the sustainability initiatives (on the website for example). · Create a group of volunteers to support tasks associated with the sustainability of the congress, and particularly information for attendee participation tasks. 	<ul style="list-style-type: none"> · Organise interactive activities with attendees about the sustainability initiatives 	<ul style="list-style-type: none"> · Ask for opinion (in a survey for example) from attendees about their perception of the sustainability of the congress.

Where has this been done?

At the Convention of Barcelona Agenda 21 signatories, held in October 2005, the management team of the convention's sustainability project used a visual presentation to inform attendees about CO₂ emissions generated during the day and involved public participation.

Good environmental practices aimed at attendees

Attendees play a crucial role in ensuring the sustainability of a congress. Below is a list of good practices that attendees at congresses can perform to improve the event's sustainability.



- Attendees should be informed about the environmental policy of the congresses they attend and take part in their initiatives.
- Staying at hotels that implement good environmental practices or have some type of environmental quality certification.
- Switching off lights and electronic apparatuses when they leave their hotel room.
- Separating different types of waste generated so that they may be easily recycled.
- Registering by electronic means and printing only essential documentation.

- Carrying writing material (pens and paper).
- Using public transport, travelling on foot or by bicycle whenever possible.
- Offsetting CO₂ emissions generated in travelling to the congress.

To enable attendees to act environmentally correctly while the congress is being held, it is essential for organisers to inform them how they may act in such a way by explaining the sustainability initiatives and giving attendees advice on their participation.





The ⁴ environmental legacy

An event's environmental legacy may be the infrastructures or services that have been built or set in operation to provide service to the event and remain in operation once it has finished. It may also be the environmental impacts that arise locally and globally and are left for future generations, an example of which is the emission of greenhouse gases that contribute to climate change. These two aspects of environmental legacy are dealt with in this section.

4.1

INFRASTRUCTURES

Ephemeral architecture

Ephemeral architecture refers to constructions that have a brief lifespan and that are normally built on a site outside companies, such as at fairs and exhibitions.

Structures that may be reused at different editions and events should be prioritised in order to decrease the quantity of materials consumed and the quantity of waste generated. Some of these elements could be:

Stands

- There are modular stands that are easily assembled and disassembled, are reused and usually generate a very low amount of waste (compared to stands with personalised designs that tend not to be reusable).
- The quality and durability of the material should be enhanced, and the reuse and maintenance of stands and furniture should be encouraged. When these options are not possible, it must be ensured that the waste they generate is recyclable.
- Separable or reversible joints (clip-type, rather than glue or welding) should be used to facilitate disassembly, both for the purposes of reuse and for separation for recycling. These systems reduce costs and installation time.
- Fold-up furniture should be designed for ease of transport and to reduce economic costs and emissions of gases into the atmosphere arising from transport.
- Multifunctional furniture should be prioritised. There are many companies that hire out furniture, an option that favours reuse and minimises the waste generated.

Carpet

- Whenever possible, floorboards and carpet should not be used to cover the floor.
- If carpet is used, conventional carpet made from plastic should be substituted by other alternative covering systems such as cellulose or coconut fibre carpet, etc., or reusable floor tiles in recycled PVC, recycled rubber, or polylactide, etc.
- Use carpet with a high percentage of recycled and recyclable plastic fibres.
- Do not use irreversible carpet adhesion systems (such as glues).

If other elements such as displays or signage elements are used, the material must be reusable and should not bear dates so that it may be used at future editions.

Large infrastructures

In some cases, large-scale events involve the construction of new infrastructures that will remain as a legacy in the city. If these infrastructures are built in accordance with sustainability and bio-construction criteria, they may contribute to the sustainability of the city. Such infrastructures could be buildings, renewable energy installations, etc.

Example: Initiatives for more sustainable fairs

At the **2005 Pollutec Fair in Paris** reusable and totally recyclable carpet was used in the entire fair site. The carpet, manufactured by the company Sommer Needlepunch, was subsequently recovered and turned into plastic components for the automobile industry. The use of the carpet prevented the generation of 18 tons of carpet waste (approximately 15% of the fair's waste).

Earls Court Olympia, one of the United Kingdom's most important exhibition centres, in 2004 began working with the company InterfaceFLOR on the development a modular carpet system to cover the floor. This carpet may be cleaned periodically onsite and can last up to four years, thus reducing the carpet waste generated. This innovative floor coverage system was installed in January 2006 and featured a total of 30,000m² of modular carpet. In 2010, the carpet will be removed and properly treated by the same company.

Examples:

Universal Forum of Cultures, Barcelona 2004

The Forum of Cultures involved the creation of a new urban site, the Barcelona 2004 Forum compound. It is located on a 30-hectare site on the seafront of Barcelona between the municipalities of Barcelona and Sant Adrià de Besòs. The Forum zone features environmental infrastructures such as an urban wastewater treatment plant, which serves six municipalities, and an urban waste incinerator. A large photovoltaic panel of 10,500 m² was also built on the Forum site.

The Congress Centre building and the Forum Building, which were designed to become Barcelona's main conventions and congress site, were also built. These buildings were constructed in accordance with sustainable architecture criteria.

Turin 2006 Olympic and Paralympic Games

The organising committee of Turin obtained EMAS (Eco-Management and Audit Scheme) environmental certification for the planning and construction of the 29 sites where the sporting competitions were held, including training areas and the Olympic Village. In the second stage, eight municipalities that offered activities at the Games were also EMAS certified. One of the emblematic sustainable architectural constructions was the main Olympic Village. This included 39 buildings for 2,500 athletes and was built in accordance with sustainable criteria (solar panels, south-facing glass surfaces, low consumption lighting, the use of rainwater to irrigate green areas, etc.). Also of note was the main media headquarters, which currently has a European Ecolabel and after the games has been used as a student residence. It is thus an example of how to make sustainable use of facilities once an event has finished.



4.2

CARBON NEUTRAL CONGRESS: CO₂ OFFSETTING

A carbon neutral congress is one at which the eventual balance of CO₂ emissions is zero. It is important to neutralise emissions as they represent the most global environmental impact of an event. Assuming responsibility for CO₂ emissions means contributing to the environmental legacy, or climatic legacy, which is the environmental legacy left by current generations for future generations.

Where do CO₂ emissions come from?

The main origins of emissions generated at a congress are:

- Travel of attendees from their town of origin to the congress site.
- Travel of speakers and of organisers.
- Travel for technical visits and activities during the congress.
- Travel of logistics services (catering, infrastructure supply companies, etc.)
- Energy consumed for the climate control and lighting of the congress site and other buildings used during the event.

How are CO₂ emissions reduced, calculated and offset?

1. Reduction of CO₂ emissions.

Before considering offsetting, effort must be made to minimise the emissions generated. By applying the sustainability criteria detailed in the above sections, energy costs and travel in higher pollution vehicles, etc. can be decreased, thus reducing associated CO₂ emissions.

2. Calculation of emissions.

Once CO₂ emissions have been reduced as far as possible, the quantity of CO₂ emitted during the congress should be calculated. It is often possible to estimate the quantity of CO₂ prior to holding the congress.

· **Travel of attendees:** normally, and particularly at international events, such travel is the largest source of emissions. To determine these emissions, organisers must ask attendees their town of origin and the means of transport used. To facilitate the process and avail of these data before the congress is held, the information may be requested on the registration form.

· **Travel of speakers and of organisers:** travel of the members of the organising and scientific committee and speakers must also be accounted for. As in the case of attendees, the town of origin and means of transport used must be known.

· **Internal travel for technical visits and festive activities:** the organisers should account for trips made, distances travelled and the means of transport used.



· **Energy consumption:** the energy consumption of the sites where the congress is to be held must be known. This data may be real and verified (based on meter readings) or estimated and deduced (based on the historical consumption data of the building where the event is being held). It is very important in both cases to contact the maintenance managers of the buildings so they may provide organisers with these consumption figures. Once travel type and distance and the energy consumption of the sites are known, there are numerous ways of converting these consumption figures to tons of CO₂. For travel, aerial and land calculators that calculate the quantity of CO₂ for a specific route (some examples are listed in the section on offsetting emissions) may be used. To calculate the emissions associated with the sites, quantities of energy consumption (m³ of natural gas and kWh of electricity) must be converted using the appropriate conversion factors.

3. Offsetting emissions.

Once the quantity of CO₂ emitted has been calculated, these emissions may be offset by investing the equivalent amount of money in a project that prompts savings in emissions. There are different types of projects such as reforestation, and the implementation of clean energies, etc.

In Barcelona there is an initiative known as **ZeroCo2** (www.ceroco2.org) that allows for the calculation and offsetting of the CO₂ emissions generated. This initiative provides for investment in clean development projects

that help to reduce CO₂ emissions into the atmosphere and encourage more sustainable development in developing countries. Many of these projects have CDM (Clean Development Mechanism) certification from the United Nations, which verifies and quantifies the reductions in greenhouse gases produced by a project.

Some of these may be consulted at www.ecopass.fr, www.carbonneutral.com, www.myclimate.org, and www.atmosfair.de.

There are different formulas for offsetting. As far as who offsets the CO₂ is concerned, the organisers of an event must decide whether the organisation will assume responsibility for offsetting all the emissions or only a part. If the organisers decide that attendees should assume responsibility for offsetting its emissions, it will have to establish the offsetting procedure, and determine whether it will be voluntary or compulsory through the application of a tax in the registration fee.

Where has this been done?

Offsetting the emissions generated by the EcoProcura 2006 international congress

At the Ecoprocura international congress, calculations were made of the CO₂ emissions generated by the travel of attendees (using details of origin from registrations), the energy consumption of the building, and transport for technical visits. It was estimated that the congress would generate a total of 644 tons of CO₂.

In the three days that the congress was being held, a mechanism enabled attendees to offset emissions on site through the Zeroco2 project. A world map was produced upon which those congress participants who wished to offset marked their town of origin (using a colour code based on the means of transport used).

Other carbon neutral events:

The **2002 Johannesburg Earth Summit** emitted 290,000 tons of CO₂. The provincial government encouraged governments and delegates to offset the emissions emitted as a result of their stay and travel. Offsetting, which was totally voluntary, amounted to 40,000 tons of CO₂.

At the **2006 Football World Cup** held in Germany, FIFA implemented the Green Goal initiative to offset the 20,000 tons of CO₂ generated through clean development projects.

The **ICLEI World Congress 2006** featured a tax of 50 euros in the registration fee to offset the emissions calculated. The price was established in accordance with the average travel distance of all participants.

and companies are also carbon neutral

Radisson SAS Hotel in Edinburgh has a CO₂ offsetting programme for its clients and for events organisers. The hotel offsets its environmental impact by promoting a Green Rate. The hotel recommends that clients and events organisers should make their stays neutral by making a donation to the Carbon Trust initiative (www.carbontrust.co.uk).

The **Swedish Electrolux group**, which manufactures apparatuses for household and professional use, has implemented a calculator type of internal tool so that its workers may calculate the CO₂ generated on their business trips. When they make an online booking for an aeroplane ticket on the company intranet, they receive a report in kilograms of the volume of CO₂ their trip will generate.

Other initiatives: hotels



4.3 KNOWLEDGE TRANSFER

The experience acquired in the process of organising a sustainable event can provide training for many agents from different areas (catering companies, PCOs, material publishing companies, etc.), who may then incorporate this knowledge and new initiatives in other events, or even incorporate good practices in the day-to-day running of their company.

The bonds created among different agents, and the learning and exchange of knowledge and good practices among sectors are also very important.



Resources in the city of Barcelona

5

The city of Barcelona has a long track record in environmental management and has the infrastructure and logistics necessary to provide environmental services, thus encouraging the implementation of sustainability measures by congress organisers.

5.1

ENVIRONMENTAL MANAGEMENT OF THE CITY: ANOTHER ASSET FOR CONGRESSES

Some of the most outstanding examples of the city's environmental resources are:

Circuits for the selective collection of wastes of all types

In the city of Barcelona there are different circuits for the selective collection of different fractions of waste: paper and cardboard, glass, packs, organic and refuse. Each fraction is taken to the corresponding plant where it is properly treated. The city also has special circuits for commercial waste, or waste generated by large producers such as shops, hotels, bars and restaurants, offices and other services for schools, and hospitals, etc. Barcelona has different Recycling Points where all the waste that cannot be discarded in household waste containers may be taken.

Complete and efficient public transport network.

Barcelona has an extensive public transport network (train, bus, tram) that covers all areas of the city and provides different ticket types that can be very useful for moving around the city on specific days.

The city of Barcelona has worked hard to introduce low-pollution fuels to the fleet of public transport vehicles. There are therefore buses that operate with natural gas and hydrogen.

A city in which to cycle.

Cycling is an original and different way of discovering the city. The city has well-organised bicycle lanes and bicycles can be ridden around the city's open areas and parks. These facilities and the city's gentle climate encourage the use of this alternative means of transport.

For locally held events, people from Barcelona can use Bicing, a public transport service that has been warmly welcomed by the public, subscribers to which can use its bicycles and different bicycle stations that are connected to the main public transport stations. If the target public are citizens of Barcelona, they should therefore be notified of the Bicing stations near the areas where the congress is being held.

For events at which attendees are from outside the city, there are numerous bicycle hire companies.



5.2

TOURISM ACTIVITIES IN THE CITY

Many congresses feature a programme of parallel activities for accompanying parties, and tourist and cultural activities aimed at enhancing the stay of congress participants and allowing them to get to know the city. These activities provide a good opportunity to promote a more responsible attitude to the environment.

Barcelona is a city with a broad range of tourist activities that promote the values of sustainability.

Different itineraries can be taken to discover the city using sustainable means of transport.

- **Barcelona Walking Tours:** Turisme de Barcelona runs different guided visits on foot that enable visitors to discover the history of the city while walking through the Barri Gòtic, L'Eixample or the Ciutat Vella, etc.

- **Barcelona on the Bus Turístic:** the bus provides an easy, comfortable and sustainable way of discovering the city. The Bus Turístic has three routes: the North Route, the South Route and the Forum Route. Purchase of a ticket for the bus provides many discounts on visits to places of interest.

- **Bicycle tours through Barcelona:** different specialised companies, equipped with modern fleets of bicycles, offer historical and architectural circuits around the city. The routes explore Les Rambles, and Ciutadella park, etc. Sightseeing on two wheels allows access to spots that cannot be reached by coach or by car. The relief of the city centre, which has no great differences in height, makes cycling viable for visitors.

Visits to discover a more sustainable Barcelona

Fàbrica del Sol Centre periodically organises guided visits that introduce different aspects of the city (to its green areas, the city's fountains, and water circuits, etc.). The inclusion of such visits on a congress programme could be of great interest for attendees to discover the city from a different, sustainable perspective.

Visits to discover Barcelona's infrastructures and environmental projects

The city of Barcelona has numerous innovative facilities and infrastructures such as the Forum photovoltaic pergola, and waste treatment plants, etc., a visit to which could be a good complementary activity for congresses and enhance attendees' knowledge.





Checklists

6

This chapter features practical checklists that organisers may use at different stages of the organisation of congresses in order to introduce environmental initiatives.

To facilitate their use in the different phases, these checklists are presented by stages and indicate the area to which each measure belongs, in accordance with the classification that appears in the guide.

PLANNING

Aspect / initiative	Area	√	NA	Observations
A sustainability policy is defined		<input type="checkbox"/>	<input type="checkbox"/>	
A sustainability project manager is appointed		<input type="checkbox"/>	<input type="checkbox"/>	
The members of the organising committee are trained in the sustainability project	Administration	<input type="checkbox"/>	<input type="checkbox"/>	
The possibility of holding non-attended organising or scientific committee meetings is considered	Administration	<input type="checkbox"/>	<input type="checkbox"/>	
The sites are accessible using public transport	Sites	<input type="checkbox"/>	<input type="checkbox"/>	
The sites comply with the principles of universal accessibility	Sites	<input type="checkbox"/>	<input type="checkbox"/>	
The sites are of an appropriate size for the number of attendees	Sites	<input type="checkbox"/>	<input type="checkbox"/>	
There is sector-specific lighting	Sites	<input type="checkbox"/>	<input type="checkbox"/>	
There is natural light in the sites	Sites	<input type="checkbox"/>	<input type="checkbox"/>	
There are presence detectors	Sites	<input type="checkbox"/>	<input type="checkbox"/>	
Climate control systems are controlled according to sector	Sites	<input type="checkbox"/>	<input type="checkbox"/>	
The distances between sites are short (apt for travel on foot or by bicycle)	Mobility	<input type="checkbox"/>	<input type="checkbox"/>	
The gift object is environmentally friendly and is useful	Responsible consumption	<input type="checkbox"/>	<input type="checkbox"/>	
Suppliers are informed about the environmental policy	Responsible consumption	<input type="checkbox"/>	<input type="checkbox"/>	
A waste minimisation programme is designated	Waste	<input type="checkbox"/>	<input type="checkbox"/>	
There is a selective waste collection circuit	Waste	<input type="checkbox"/>	<input type="checkbox"/>	
Electronic media are used	Dissemination	<input type="checkbox"/>	<input type="checkbox"/>	
Printed documents are minimised	Dissemination	<input type="checkbox"/>	<input type="checkbox"/>	
The sustainability policy is communicated	Awareness enhancement	<input type="checkbox"/>	<input type="checkbox"/>	

ORGANISATION

Aspect / initiative	Area	√	NA	Observations
Recycled paper is used	Administration	<input type="checkbox"/>	<input type="checkbox"/>	
Environmentally friendly office products are used	Administration	<input type="checkbox"/>	<input type="checkbox"/>	
Registration is performed online	Administration	<input type="checkbox"/>	<input type="checkbox"/>	
Registration is confirmed by telephone /online	Administration	<input type="checkbox"/>	<input type="checkbox"/>	
Hotels are close to the conference site (within walking distance)	Sites	<input type="checkbox"/>	<input type="checkbox"/>	
Routes for people with reduced mobility are signposted	Sites	<input type="checkbox"/>	<input type="checkbox"/>	
The comfort temperature is agreed with site technicians	Sites	<input type="checkbox"/>	<input type="checkbox"/>	
The hotels selected have some type of environmental certification	Sites	<input type="checkbox"/>	<input type="checkbox"/>	
The sites where activities are being held are accessible by public transport	Sites	<input type="checkbox"/>	<input type="checkbox"/>	
The sites comply with the principles of universal accessibility	Sites	<input type="checkbox"/>	<input type="checkbox"/>	
The dimensions of the site suits the size of the event	Sites	<input type="checkbox"/>	<input type="checkbox"/>	
Lighting on sites used is sector-specific	Sites	<input type="checkbox"/>	<input type="checkbox"/>	
Low power consumption lighting is used on sites	Sites	<input type="checkbox"/>	<input type="checkbox"/>	
There is natural light on the sites used	Sites	<input type="checkbox"/>	<input type="checkbox"/>	
Climate control is sector-specific	Sites	<input type="checkbox"/>	<input type="checkbox"/>	
Attendees are informed about public transport options for accessing sites	Mobility	<input type="checkbox"/>	<input type="checkbox"/>	
Technical visits are made using public transport	Mobility	<input type="checkbox"/>	<input type="checkbox"/>	
A car sharing service is encouraged (website)	Mobility	<input type="checkbox"/>	<input type="checkbox"/>	
Low pollution vehicles are used	Mobility	<input type="checkbox"/>	<input type="checkbox"/>	
There are sufficient bicycle parking places	Mobility	<input type="checkbox"/>	<input type="checkbox"/>	
The writing material issued is durable	Responsible consumption	<input type="checkbox"/>	<input type="checkbox"/>	
The document holder bag is environmentally friendly and durable	Responsible consumption	<input type="checkbox"/>	<input type="checkbox"/>	

Aspect / initiative	Area	√	NA	Observations
Social rehabilitation companies are hired for different services	Responsible consumption	<input type="checkbox"/>	<input type="checkbox"/>	
Suppliers of services are from the zone close to where the event is being held	Responsible consumption	<input type="checkbox"/>	<input type="checkbox"/>	
Local, seasonal and organically grown foods are supplied	Catering	<input type="checkbox"/>	<input type="checkbox"/>	
Meals for vegetarians are served	Catering	<input type="checkbox"/>	<input type="checkbox"/>	
Healthy food and drink is served (juice, fruit)	Catering	<input type="checkbox"/>	<input type="checkbox"/>	
Fair trade foods are served	Catering	<input type="checkbox"/>	<input type="checkbox"/>	
There are selective waste collection containers on all sites and selective collection of the different fractions is agreed with city's cleaning companies or services	Waste	<input type="checkbox"/>	<input type="checkbox"/>	
Information on the sustainability policy of the congress is available on the website	Dissemination	<input type="checkbox"/>	<input type="checkbox"/>	
Printing of necessary material is in black and white and on both sides of the paper	Dissemination	<input type="checkbox"/>	<input type="checkbox"/>	
Signage elements are durable and on sustainable media	Dissemination	<input type="checkbox"/>	<input type="checkbox"/>	
Attendees are informed about sustainability characteristics prior to the congress	Awareness enhancement	<input type="checkbox"/>	<input type="checkbox"/>	
There is a team of environmental volunteers	Awareness enhancement	<input type="checkbox"/>	<input type="checkbox"/>	

CELEBRATION

Aspect / initiative	Area	√	NA	Observations
Environmental criteria are followed in office tasks	Administration	<input type="checkbox"/>	<input type="checkbox"/>	
There are selective collection containers in offices	Administration	<input type="checkbox"/>	<input type="checkbox"/>	
Communications and information of interest are published on the website	Administration	<input type="checkbox"/>	<input type="checkbox"/>	
The congress is broadcast on the Internet	Administration	<input type="checkbox"/>	<input type="checkbox"/>	
A sign language translation service is available	Sites	<input type="checkbox"/>	<input type="checkbox"/>	
The comfort temperature of meeting rooms is regulated	Sites	<input type="checkbox"/>	<input type="checkbox"/>	
Lighting is used rationally	Sites	<input type="checkbox"/>	<input type="checkbox"/>	
Locally grown potted plant ornamentation is used	Sites	<input type="checkbox"/>	<input type="checkbox"/>	
Public transport tickets are distributed among attendees	Mobility	<input type="checkbox"/>	<input type="checkbox"/>	
Public transport is used on technical visits	Mobility	<input type="checkbox"/>	<input type="checkbox"/>	
Low pollution vehicles are used on technical visits or for logistics services	Mobility	<input type="checkbox"/>	<input type="checkbox"/>	
Bicycles are used on technical visits or attendees' leisure activities	Mobility	<input type="checkbox"/>	<input type="checkbox"/>	
The issue of writing material, if unnecessary, is avoided	Responsible consumption	<input type="checkbox"/>	<input type="checkbox"/>	
ID badges are made in cardboard and are reusable	Responsible consumption	<input type="checkbox"/>	<input type="checkbox"/>	
Attendees are informed about selective waste collection	Waste	<input type="checkbox"/>	<input type="checkbox"/>	
Waste segregation is monitored	Waste	<input type="checkbox"/>	<input type="checkbox"/>	
There are waste containers in catering zones	Catering	<input type="checkbox"/>	<input type="checkbox"/>	
Attendees are informed about the nature of the foods served	Catering	<input type="checkbox"/>	<input type="checkbox"/>	
Catering services comply with agreed criteria	Catering	<input type="checkbox"/>	<input type="checkbox"/>	
Videoconferences are run	Dissemination	<input type="checkbox"/>	<input type="checkbox"/>	
There is a tray for collecting printed material for reuse	Dissemination	<input type="checkbox"/>	<input type="checkbox"/>	

Aspect / initiative	Area	✓	NA	Observations
The sustainability project is explained during the congress	Awareness enhancement	<input type="checkbox"/>	<input type="checkbox"/>	
Material is published with an explanation of the sustainability initiatives	Awareness enhancement	<input type="checkbox"/>	<input type="checkbox"/>	
Attendees are involved in congress sustainability measures	Awareness enhancement	<input type="checkbox"/>	<input type="checkbox"/>	

EVALUATION AND DISASSEMBLY

Aspect / initiative	Area	✓	NA	Observations
Reports and documents produced subsequently are in electronic (not printed) format	Administration	<input type="checkbox"/>	<input type="checkbox"/>	
CO ₂ emissions are calculated	Sites	<input type="checkbox"/>	<input type="checkbox"/>	
CO ₂ emissions are offset	Sites	<input type="checkbox"/>	<input type="checkbox"/>	
Writing material is recovered	Responsible consumption	<input type="checkbox"/>	<input type="checkbox"/>	
ID badges are recovered	Responsible consumption	<input type="checkbox"/>	<input type="checkbox"/>	
Documents bags are recovered for a charitable association	Consum responsible	<input type="checkbox"/>	<input type="checkbox"/>	
Excess food is given to a charitable association	Catering	<input type="checkbox"/>	<input type="checkbox"/>	
Waste from disassembly is properly treated	Waste	<input type="checkbox"/>	<input type="checkbox"/>	
Printed material and signage material are recovered for future events		<input type="checkbox"/>	<input type="checkbox"/>	
The results of the sustainability project are publicised	Dissemination	<input type="checkbox"/>	<input type="checkbox"/>	

MONITORING THE ENVIRONMENTAL IMPACT OF A CONGRESS

Energy consumption of sites

	Electricity (kWh)	Natural gas (m ³)
Congress site	<input type="text"/>	<input type="text"/>
Others	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>

Means of transport used by attendees

Plane	<input type="text"/> %	Bus	<input type="text"/> %	Other	<input type="text"/> %
Car	<input type="text"/> %	Bicycle	<input type="text"/> %		
Train	<input type="text"/> %	Foot	<input type="text"/> %		

CO₂ emissions generated (quantity and sources)

Attendee travel	<input type="text"/>	tons of CO ₂	
Energy consumption	<input type="text"/>	tons of CO ₂	
Internal travel	<input type="text"/>	tons of CO ₂	
CO ₂ emissions offset	<input type="text"/>	tons of CO ₂	<input type="text"/> % total of CO ₂ emitted
Paper consumption	<input type="text"/>	kg	<input type="text"/> % recycled paper

Fractions of selectively collected waste and quantity		Segregation quality				
<input type="checkbox"/>	Refuse	<input type="text"/>	kg	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Paper and card	<input type="text"/>	kg	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Glass	<input type="text"/>	kg	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Packs and plastic	<input type="text"/>	kg	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Organic matter	<input type="text"/>	kg	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Further information

In this section you are provided with addresses at which to obtain further information on the subjects dealt with in this guide.

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Websites of interest

French website of the association of professional event organisers upon which the good environmental principles and practices promoted by the association are detailed.

www.eco-evenement.org

Website of the United States Green Meeting Industry Council
www.greenmeetings.info

Initiative of different agents and led by the Oceans Blue Foundation, with offices in Vancouver (Canada) and Seattle (USA), that works to encourage good environmental practices in all sectors of the tourism industry.
www.bluegreenmeetings.org

Website of sustainable events of the United States Environment Protection Agency (EPA)
www.epa.gov/oppt/greenmeetings

Website of the United States Association for Green Meetings and Events
www.agmeinc.org

The Collection of Environmental Education Guides

- 1: **Composting**
- 2: Let's make biogas
- 3: Sustainable mobility
- 4: **Reducing waste**
- 5: The green office guide
- 6: **More sustainable celebrations**
- 7: Water and the city
- 8: The less noise, the better
- 9: From the city to nature
- 10: Let's green up associations!
- 11: Good trade union practices
- 12: Use your motorbike properly
- 13: Energy saving
- 14: Sustainable gardening
- 15: Trade union action
- 16: Household eco-products
- 17: Learning from the Prestige
- 18: Sustainable diet
- 19: Barcelona by bike
- 20: Youth X change
- 21: Pets
- 22: More sustainable mobility
- 23: **Birds of Barcelona**
- 24: The beaches of Barcelona
- 25: The green office for companies in the office sector
- 26: Companies and corporate social responsibility
- 27: Ethical financing and sustainability
- 28: **Become a friend of the forest**
- 29: 21 recommendations for a sustainable residence
- 30: **Council+sustainability**
- 31: 21 visions of change
- 32: 10 strategies for preventing waste - Consumer guide
- 33: Let's change code - Fair trade
- 34: **We are what we wear**
- 35: **More sustainable congresses**

The collection of environmental education guides may be consulted on the website www.bcn.cat/mediambient

You can also find them at the Documentation Center of Environmental Education (Nil Fabra 20, baixos) or at the Fàbrica del Sol (Salvat Papasseit, 1)

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Goal 9

To increase public awareness of sustainability through environmental education and communication

Citizens' Commitment towards Sustainability - Agenda 21 Barcelona

