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CHAIRE DE RECHERCHE ET D'INTERVENTION
UNIVERSITÉ DU QUÉBEC À CHICOUTIMI

Guide to Sustainable Event Management

UQAC

ACKNOWLEDGEMENTS

Eco-advisors are among the first to have implemented sustainable event management. Since the 2005 ACFAS convention held at the University of Quebec in Chicoutimi, other sustainable events that followed have allowed acquiring further knowledge on key elements which make such events successful. Production of this guide was made possible by the contribution of our eco-advisers. We would also like to thank all businesses and organisations that opened their doors to us and wholeheartedly participated in sustainable events.

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CHAIRE DE RECHERCHE ET D'INTERVENTION
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http://carboneboreal.uqac.ca
(french only)

CARBONE BOREAL :
OFFSET YOUR GREENHOUSE GAS EMISSIONS

FIGHTING CLIMATE CHANGE

There are three accountable ways to fight climate change today:

- Reducing greenhouse gas source emissions (e.g. by reducing reliance on fossil fuels).
- Mitigating the impacts of past and/or unavoidable emissions (e.g. by planting trees to offset emissions).
- Adapting to climate change (e.g. by protecting coastal areas).

The forest sector can play a significant role in mitigating global warming. Today, forests capture (sequester) the equivalent of 25 % of human caused emissions. The Intergovernmental Panel on Climate Change estimated that up to 15 % more could be sequestered by forests with moderate efforts.

THE "CARBONE BORÉAL" PROJECT

"Carbone boréal" is both a greenhouse gas offset program, through tree planting, and a research project led by researchers at the Université du Québec à Chicoutimi (Qc, Canada). Any organization or individual can participate in this innovative project.
Each and every contributor allows tree planting to offset the greenhouse gases emitted by their organization, family, activities, etc.

The boreal forest in Québec includes natural open woodlands that do not self-regenerate. The project aims at establishing research forests within these open woodlands, in collaboration with Québec's Ministry of Natural Resources, while respecting forest ecosystems and boreal biodiversity.

THE ADVANTAGES OF INVESTING IN "CARBONE BORÉAL" RESEARCH PLANTATIONS

- Your participation leads to concrete carbon offset.
- You gain reliable and verified carbon credits, at a competitive cost (CAN$28 / ton eq. CO2 or CAN$4 / tree) and fully tax refundable (in Canada).
- You help to establish experimental plantations in the boreal forest, which will be used as long-term university research plots for carbon sequestration related topics.
- You participate in a community-level project.

OTHER PROJECT CHARACTERISTICS

- The "Carbone boréal" plantation network is fully protected from commercial harvesting.
- In order to maximize carbon stock permanence, the experimental blocks will be spatially distributed to decrease the risk of losses by natural disturbances (wildfires, insects, etc.), and a supplemental plantation network will be used as backup.
- Each experimental block that includes the trees associated with individual contributors will be geo-referenced and registered in the "Carbone boréal" documentation, available online at http://carboneboreal.uqac.ca
- The plantations will be verified in compliance with ISO 14064-3 standard by the Bureau de normalisation du Québec, an independent and recognized third party.
- The entire project will be registered in the GHG CleanProjectsTM Registry of the Canadian Standards Association *(http://www.ghgregistries.ca/cleanprojects/index_e.cfm?mode=web).*

FOREWORD

Man is a social animal. We enjoy getting together for all sorts of reasons. Our need to organise meetings, seminars, weddings, international conferences and office parties is a habit that is not about to disappear from our lives. Future generations will also continue to enjoy getting together, if only to wonder what we were thinking of, why on earth we left them such a poorly preserved environment to live in.

Reuniting tens or thousands of people in one location for a short or long time requires preparation, adequate infrastructures and supplies in order to address the specific needs of the assembled masses: drinking, eating, sleeping and, of course, disposing of the waste they generate. Venue managers, convention centres and event managers must be appropriately equipped with disposal systems if they want to optimise the type of waste management such events require. Costs associated with waste disposal are mainly included in general costs and are invisible to participants. After all, we are not reunited to talk trash!

Transportation is another factor to consider when organising events as some participants need to travel very far to attend. Transportation is one of the major sources of greenhouse gas emissions on the planet. With an increase of 120% since 1970, according to the Intergovernmental Panel on Climate Change (IPCC), it is one of the most preoccupying sectors contributing to climate change. The United Nations climate change conferences for the UN Framework Convention on Climate Change (UNFCCC) are a very good example of events that produce impressive amounts of greenhouse gases emissions. For example, the 2005 Montreal conference emitted 25,000 tonnes of CO_2 equivalent. These were offset twice by the partners of the Chair on Eco-Advising.

The idea of planning a zero-waste event was applied on a small scale in many of the events I have organised since 1977. My idea was not taken seriously for a very long time as mentalities where not yet concerned about implementing sustainable development. Evidently, times change and people are now more willing to do things differently. We need to take this opportunity to make sure these behavioural changes last. As you will discover in this guide, it is neither complicated nor costly to organise sustainable events, as long as you can plan ahead. Outcomes can be astonishing. Results obtained from the seminar organised by the seventh cohort of the *Diplôme d'études supérieures spécialisées* (DÉSS) on eco-advising demonstrate that it is possible to deviate 99.7% of waste generated over the event's entire life cycle, resulting in only 190 milligrams of end-waste generated per participant.

Each year, eco-advising students at UQAC are required to organise two events as part of their curriculum, a seminar and an awareness campaign. Since 2002, the teaching protocol requires that students reduce to a minimum the amount of waste generated from these events. From 2004, they were required to quantify greenhouse gas offsets through tree planting, and to promote local products and social economics. Each cohort transfers what they have learned from their experience to the next, and so on. These "collectively acquired" competencies will benefit other event organisers outside the University. Many of our graduated eco-advisors had to organise sustainable events either through their training course or through their professional obligations. This guide is an outcome of their work and we hope it will be a useful tool for all those who want to get together while limiting their ecological footprint!

Claude Villeneuve, Professor
Eco-advising graduate program

INTRODUCTION

"You can't make an omelette without breaking eggs", so the saying goes. All human activity, however insignificant, can have impacts on the environment and incur costs to society. These activities include conferences and seminars, among others. Planning events with a view to decreasing the negative impacts and increasing the positive ones upstream is much more beneficial than simply trying to manage impacts downstream.

The environmental repercussions of events depend on the number of participants, types of activity, the distance travelled by participants, and the quality and type of on-site waste management. However, if sustainable development is to be implemented, the question of what will be the economical and social impacts, and who will be affected, needs to be addressed. There are many ways of organising successful events, but buying locally, redistributing consumable leftovers and involving social economy enterprises make it more interesting for the host venue.

More and more people are aware of sustainable development and want to find better ways to contribute. And one of the ways they can do so is by supporting sustainable events. From words to action, it concerns social mobilising action to which both event organisers and participants can contribute. **Appendix 1** presents a few definitions pertaining to sustainable event management.

Sustainable event management is not a new idea. In the 1990's, such organisations as the *Fondation de la société pour la protection de l'environnement du Collège de Rosemont (SOPECOR)* had already worked at recovering recyclable material from important events like the Montreal Jazz Festival. Businesses with similar interests were even founded following this event. In 2001, the *Réseau québécois des femmes en environnement (RQFE)* published a guide on how to reduce waste when organising public events *(http://www.evenementecoresponsable.com)(french only)*. In 2005, the Chair on Eco-Advising published its own first guide for the organisation of ØØ events (*Guide d'application pour la réalisation d'un événement avec un objectif ØØ : zéro déchet et carbo-neutre*) *(http://ecoconseil.uqac.ca/chaire/documents/guide_00.pdf)(french only)*. The method described in this guide is more systemic and takes into consideration the entire life cycle of sustainable event management, including social, environmental, economical and ethical aspects, hence the four constituent parts of sustainable development taught to eco-advisors.

The Chair on Eco-Advising developed this simple and practical guide from the experience acquired through the management of large- and small-scale sustainable events (from 20 to 4,000 people, indoors and outdoors, on-site and off-site, downtown and in the countryside) where eco-advisors have worked at implementing sustainable development approaches. The methods proposed are derived from practical rather than theoretical methods where measurable and verifiable field data is used. The advice given should therefore be useful to help you organise your own events. It might also help you to determine when to call on an eco-advisor for help!

CHAIR ON ECO-ADVISING AT THE UNIVERSITY OF QUEBEC IN CHICOUTIMI

The Chair on Eco-Advising, a private Chair at the University of Quebec in Chicoutimi, offers professionals (institutions and other entities) leading-edge environmental and sustainable development information, intervention and collaboration. The Chair is involved in projects of innovative nature where up-to-date and relevant data on all aspects of sustainable development and its applications can be integrated into its university program through information sharing with eco-advisors, sustainable development professionals and the scientific community.

See the Chair on Eco-Advising Internet site: http://ecoconseil.uqac.ca/ (french only)

WHO IS THIS GUIDE ADDRESSED TO?

This guide is addressed to all event organisers, promoters or businesses who wish to manage and undertake sustainable events. Whether the activity is a scientific seminar, festival, car show, wedding or school reunion, they all generate a considerable amount of residual material and greenhouse gas emissions. It is up to you to determine how to reduce them! Recent results obtained from eco-advisors are remarkable. The file cards and **Appendix 2** of this guide contain a number of such examples.

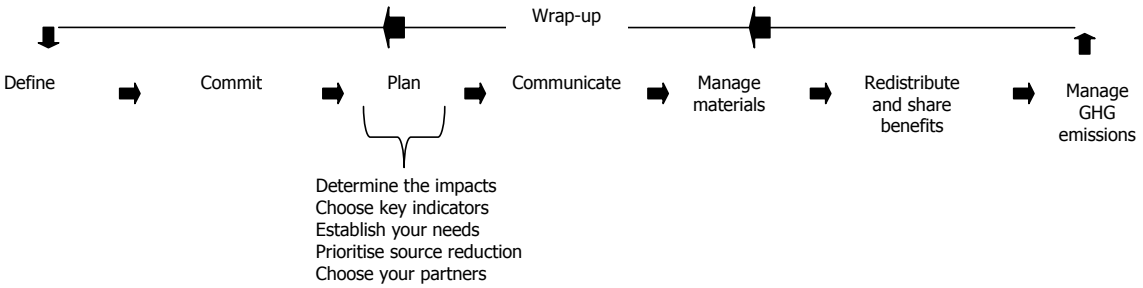
The on-line version of this guide, including calculation sheets and prospective bidder evaluation grids is available at the following address: *http://ecoconseil.uqac.ca/ (french only)* (tab :"chaire" section: "documents" and click on "Guide to Sustainable Event Management).

HOW TO USE THIS GUIDE

This guide is designed to help organisers reduce the environmental and social footprints of their events. PART 1 briefly describes the stakes that justify considering the impacts of event activities, such as the production of residual waste and greenhouse gas emissions. How the implementation of sustainable development in event management can help to reduce these impacts is also explained.

For each stage of an event life cycle, the table of good practices presented in PART 2 summarises key sustainability activities to be undertaken for managing sustainable events. You can use these tables as a guidance check-list to make sure you did not forget anything. Some of these activities may not be relevant to your type of event. However, they may allow you to remember important steps towards achieving your own objectives.

Below is a roadmap of each stage of an event life cycle. Keep it in mind. Each stage refers to specific explanations in the "What to do" file cards (see the next page for details). Do not hesitate to consult them if you need more information.



The ***"What to do"*** file cards are divided into eight files. In these files, you will find what is to be taken into account for the organisation of a sustainable event (from the decision to stage an event to defining your objectives, choosing the type of composting bins, assessing your greenhouse gas emissions, establishing your communication strategy and writing up your final assessment). Depending on your experience and type of event you wish to organise, the file cards can be consulted independently, depending on which section applies to your situation. The most important file is the one which specifies how to plan your event. It is upstream that you are most efficient!

It is important to remember that you should only establish objectives that you can achieve. This guide is designed to be used either in whole or in part. It is better to establish objectives you know you can achieve than to not establish any at all. Never forget to proceed in step-by-step fashion, this will help you to develop a wider view and understanding of the phases involved in such a project, and determine where you can establish higher objectives for your next event (continuous improvement).

BELOW ARE THE BASIC SECTIONS OF THIS GUIDE

PART 1	Briefly describes the stakes that justify considering the impacts of event activities
PART 2	Summarises the key activities associated with sustainable events
« WHAT TO DO » FILE CARDS	Presents what is to be taken into account when organising a sustainable event

PART I

PART I

SUSTAINABLE EVENTS AND SUSTAINABLE DEVELOPMENT

Sustainable development is often referred to as development that "meets the needs of the present generation, specifically those who are less fortunate, without compromising the ability of future generations to meet their own needs". The organisation of various events responds to human needs. Because it is important to leave future generations with significant leeway, sustainable development needs to be implemented to limit negative impacts on the environment and its resources. Furthermore, sustainable development addresses inter- and intra-generation solidarity. We therefore need to distribute benefits while prioritising the less fortunate. This may seem complex, but it is simply another way of thinking, of considering issues and finding original solutions to solve them.

There are three main event repercussions. Firstly, consumption of fossil fuels for **transportation** is one of the major sources of atmospheric pollution. It is important to reduce and to offset greenhouse gas emissions. Secondly, depending on the type of event, significant amounts of **paper** are used. Glass, plastic, and metal are also used to make various types of beverage containers. These materials need to be reduced at the source and recycled after usage. The third repercussion comprises **compostable matter** produced from meal preparation, table leftovers, and prepared food surpluses. These materials need to be collected and upgraded, or distributed to charities. Depending on the carbon content, electricity produced locally could also be a source of greenhouse gas emissions. However, this source makes up only a small portion of greenhouse gas emissions, compared to emissions from transportation, especially air travel. An event also increases economic activity in the area where it is held. Participants spend a lot of money and the spin-offs are greater if they can buy local products and services. These few elements help to understand how sustainable events should be envisioned. When all stages of an event's life cycle are acted upon, from event inception to the disposal of residual material generated, it is possible to do things differently and contribute to changing mentalities.

To better understand how sustainable development can be applied to sustainable events, **Appendix 3** presents a ***Sustainable development analysis grid*** which is already weighted for you by a team of eco-advisors. When planning your event, look for the objectives that are ranked 3 for each sustainable development sector. They are essential and must be prioritised in your event planning. It is also necessary to consider the objectives ranked 2, but you can pay them less attention than those ranked 3. Rank 1 objectives should only be considered desirables at this stage. However, the latter should be reflected on once the other objectives are achieved.

WHY SHOULD WE BE CONCERNED ABOUT WASTE AND GREENHOUSE GASES (GHG)?

First, it is because the waste and greenhouse gases generated by an event have the greatest impact on the environment. Fortunately, these impacts can be significantly attenuated. The effects on the ozone layer, acidification and biodiversity are generally harder to evaluate and the results are not so convincing. As concerns reduction at the source and greenhouse gas emissions, the results are measurable and revealing. For example, large scale events can be held where less than 10 grams of waste is generated per person per day. Imagine, for 1,000 participants, only one ten-kilogram bag of ultimate waste was sent to a landfill site! That is 95% less waste than normally produced by a comparable event.

Modern societies produce more waste than preceding generations. Post-consumption waste is more and more difficult to manage as it occupies a lot of space and its degradation generates a toxic by-product. Garbage is, in effect, wasted resources. If they are non-renewable like plastic and metal, they represent a total loss for future generations unless they are recycled. If they are renewable like paper fibre, we need to exploit more and more land to extract them and use more energy to transform them. Of course, the waste we are leaving behind for future generations may no longer be a problem for us! But what about them? As waste decomposes in landfill sites, leachate and biogas are produced. These consequences need to be acted upon if local aquatic environment degradation and global warming are to be prevented. If waste is incinerated, air quality will be at risk. In both cases, impacts on human health are not to be neglected[1].

To remedy this situation, the Government of Quebec adopted, in September 2000, the Quebec Residual Materials Management Policy, 1998-2008[2]. The goal of this policy was to encourage urban centres and regional municipalities to adopt waste management action plans in order to reduce residual materials sent to landfill sites by 65% before 2008. For industrial, commercial and institutional establishments, the policy foresees an even greater reduction target. It is within these sectors (hotels, schools, convention centres) that events are hosted. Sustainable events with objectives of achieving zero waste are directly linked to the application of action plans for waste management. Through these events, reduction objectives can be put in place and serve as examples on how to manage future events.

In its 2007 report, the International Panel on Climate Change (IPCC) agreed that climate change is mainly caused by human-generated greenhouse gas emissions. Globally, it is the most damaging environmental issue, and every effort must be aimed at reducing emissions in order to hopefully stabilise the planet's climate in the 21st century, so that humanity has time to adapt[3]. The main cause for these emissions is fossil fuel consumption (coal, oil and natural gas), which is needed for transportation and electricity production.

By source-reducing greenhouse gas emissions and offsetting residual emissions, sustainable event organisers tangibly contribute to reducing their ecological footprint. They can also decide to take it a step further and choose the event to be "préventif pour le climat™", that is to say "climate positive". This problem affects all 21st century citizens and through sustainable events, organisers help to raise participant awareness.

There are tools that can lead to success. Some are simple, like the 4-Rs. The 4-Rs represent the first four letters of a strategy that allows us to rethink our consumption habits – Rethink needs, reduce, reuse, and recycle. Their significance is presented below in the order in which the actions should be prioritised:

- Rethink needs: do we really need to print email confirmations?
- Is it possible to meet "electronically" instead of "physically"?
- Reduce at the source, upstream: for example, use less wrapping, use email instead of paper, use reusable cups instead of Styrofoam cups.
- Encourage car pooling.
- Reuse: for example, reuse name tags from previous events, reuse erasable writing boards.
- Recycle: a recycled material becomes a resource (example, plastic that is transformed into fabric for clothing).
- Upgrade: compostable matter is made into compost.

As well as adopting an upstream reduction strategy for resource use, planning a sustainable event with the goal of keeping residual materials and greenhouse gas emissions to an absolute minimum meets the basic principles of sustainable development.

Note 1
For more information, see: Hutchison (2007). Vos déchets et vous, Éditions Multimondes.

Note 2
http://www.recyc-quebec.gouv.qc.ca/upload/Publications/zzPolit515.pdf (french only)

Note 3
For more information, see: Villeneuve, C. et F. Richard, (2007). Vivre les changements climatiques, réagir pour l'avenir, Éditions Multimondes.

PART 2

TABLE OF GOOD PRACTICES

The table of good practices presented below summarises key sustainability activities to be undertaken for managing sustainable events. You can use these tables as a guidance check-list to make sure you did not forget anything. Each action refers to specific explanations in the "What to do" file cards. Do not hesitate to consult them if you need more information.

STAGES	ACTION	CONSULT
Define	Define	"What to do" file card? *Define*
Commit	Commit	"What to do" file card? *Commit*
Plan	Determine the impacts (environment, social, economic)	"What to do" file card? *Plan* *(determine the impacts)*
	Choose key indicators	"What to do" file card? *Plan* *(choose key indicators)* Appendix 4: *Examples of indicators*
	Establish your needs (location, voluntary workers): Choose an area easily accessible by public transportation Favour a venue which has an environmental policy Choose a venue which has sustainable development at heart and let them know it was a motive for your final choice Choose a venue which is already technologically equipped, thus decreasing the need for equipment transportation Anticipate the need for voluntary workers (number of workers will vary according to the number of participants) Identify the location where residual materials will be stored Identify which recycling bins will be needed for residual material management Meet with venue personnel and housekeeping staff to assure their collaboration Use a map to determine the best locations for signs (raise awareness) and recycling bins	"What to do" file card? *Plan* *(Establish your needs)*

STAGES	ACTION	CONSULT
Plan	Prioritise source-reduction (suppliers, upstream communication, material): Plan adequately the quantity of food needed to prevent unnecessary waste. Limit individually wrapped portions Use reusable tableware (coffee break, lunch, dinner) Offer vegetarian meals (less energy consumed) Prefer locally produced foods depending on the season. Replace pastry desserts by fresh seasonal fruit Select suppliers who have sustainable development at heart Include sustainable development clauses in your call for tenders (see Appendix 5 clauses on sustainable development) Manage food surpluses properly (charities, composting) Serve fair-trade tea and coffee Serve tap water Propose alternative ways to solo car travel Give participants material upon their arrival instead of sending it by mail Encourage the use of electronic documents to reduce paper use Make sure speakers are aware that on-line documents are available to them and ask them to post their presentation on-line following the event Use reusable name tags and recover them after the event Use erasable boards so they can be used for future events Prioritise internet sites and emails for event promotion (electronic news bulletin, internet information strips, electronic media publications, electronic event calendar) Print all promotional or other paper material back to back; use recycled paper Choose material that can be easily carried and which can be used for future events Make sure your page design and graphics use minimum space to reduce paper use Reduce the size of entry forms and material given to participants; encourage on-line document consultation Take notes on draft paper	"What to do" file card? Plan (Prioritise source-reduction) Appendix 6 Life cycle of certain products Appendix 7 Example of call for tenders Appendix 8 Prospective bidder evaluation grids Appendix 9 Communication with suppliers (caterers)

STAGES	ACTION	CONSULT
Plan	Choose your partners	"What to do" file card? *Plan* *(Choose your partners)*
Communicate	Communicate: Promote your sustainable strategy on the internet Invite (during the opening ceremony) participants to engage in sustainable development, present sustainable achievements and encourage them to rise to the challenge Invite participants to a symbolic tree planting following the opening ceremony Boast actions undertaken (in the first section of the participants notebook) and let participants know what you expect from them Increase knowledge sharing through contests and prizes Raise awareness among host venue employees Raise awareness among housekeeping staff Set-up an information and awareness stand Put in place a team of voluntary workers to raise awareness among participants, sort and weigh residual material, and recover name tags and other reusable items after the event Raise awareness among your partners (participants, speakers, participants who have displays, accommodation services, food suppliers)	"What to do" file card? *Communicate* Appendix 6 *Life cycle of certain products* Appendix 9 *Communication with suppliers (caterers)*

STAGES	ACTION	CONSULT
Manage materials	Manage materials: Validate with your municipality what residual materials are recyclable and what type of compostable matter can be recovered Ask the host venue to recycle (paper, cardboard, glass and metal) as much as possible all material linked to the event Make sure adequate equipment is available for recycling Determine where recovered material will be stored Obtain a list of all rooms to adequately identify the types and quantities of garbage cans and recycling bins needed according to the type of activity Choose a company for material recovery and plan for material disposal Identify recovery areas Identify garbage containers that are located within the perimeter determined by the organisation; make sure containers are uniform in size and shape Determine location of recycling containers on loading dock Use simple signs and place them near recovery and recycling containers; if possible, have one volunteer nearby who can raise awareness and help to sort recovered material (increases quality of recovered and sorted material) Establish a procedure for weighing recovered material Use a scale for weighing recovered material (located in the kitchen or loading dock) See to liquid management (liquids make it difficult to manage containers and create variances when weighing material)	"What to do" file card? *Manage materials* Appendix 10 *Installation of a sorting station* "Répertoire québécois des récupérateurs, recycleurs et valorisateurs" accessible via the Recyc-Québec internet site: *http://www.recyc-quebec.gouv.qc.ca/client/fr/repertoires/rep-recuperateurs.asp* *(french only)* "Centres de formation en entreprise de récupération (CFER)": *http://www.reseaucfer.ca/fr/index.php* *(french only)* Pictogram examples : *http://www.recyc-quebec.gouv.qc.ca/client/fr/gerer/travail/pictogrammes.asp* *(french only)*
Redistribute and share benefits	Redistribute and share benefits	"What to do" file card? Redistribute and share benefits

STAGES	ACTION	CONSULT
Manage GHG emissions	Manage GHG emissions: Promote sustainable means of transportation (shuttle, public transportation, carpooling, walking) Offer bicycles free of charge to all participants Reduce transportation required for committee meetings Ask participants (on the entry form) their anticipated means of transportation and give them the corresponding GHG emissions; this could raise awareness and encourage carpooling and public transportation Account for greenhouse gas emissions (generated by transportation and event activities); offset them by tree planting or buying CO_2 offsets Identify all transportation during the event Organise collective means of transportation for people coming from different places Suggest videoconferencing or record the event for people who cannot attend; this will keep transportation to a minimum Minimise lighting, heating and air conditioning; favour rooms with big windows for natural lighting	"What to do" file card? *Manage GHG emissions* Appendix 11 *GHG emissions calculation grid* Chair on Eco-Advising Website (calculation sheet for transportation GHG emissions and the number of trees to plant for offsetting): *http://ecoconseil.uqac.ca/chaire/documents/ChaireEcoConseil_CalculateurGES_EER_2009.xls (french only)*
Wrap up	Wrap up: Calculate the quantity of material not sent to landfills or incinerators Hand out an evaluation questionnaire to participants at the end of the event or send it via email Send results to the host venue, participants, suppliers, media, organisers, sponsors, etc. Calculate GHG which will not be emitted Offset GHG emissions	"What to do" file card? *Wrap up*

KEYS TO SUCCESS[4]

Eco-advisors are among the first to have implemented sustainable event management. Since the 2005 ACFAS convention held at the University of Quebec in Chicoutimi, subsequent sustainable events have allowed acquiring further knowledge on the elements which make such events successful. The following are the keys to success identified from these observations:

- Obtaining commitment from the organisation's board of directors is crucial. Availability of human and financial resources is essential for holding a sustainable event.
- Upstream action is much more efficient since it allows for a certain control over the material used and over the people who manage the material.
- Communication is essential for achieving success, as it enables to make participants more accountable for their actions. Hopefully, with time participants will better integrate sustainable actions with events.
- Obtaining participant co-operation will be easier if they feel involved in undertaking positive actions (if tools are readily available to them).
- Work within a controlled perimeter. It is possible to manage residual material in a controlled manner. Success of such operations is therefore dependent upon good control over the activities taking place.
- Always monitor the output from sorting stations.*
- Plan for an adequate number of sorting stations, a minimum of one per 200 participants.
- Plan, for each station, well-identified, separate containers to recover:
    - *Liquids*
    - *Cans, bottles, plastic containers*
    - *Compostable matter*
    - *End-waste*
- Guide participants and help them with sorting to speed up the process (inform volunteers and provide gloves). Plan to have additional workers to help with replacing garbage bags, emptying liquids from containers, cleaning up spills, etc.
- Plan to have a minimum of two volunteers per station, one who guides people and one who manages containers, tableware, etc. One main factor increasing efficiency is where the sorting stations are located in relation to the caterer, tables and exits.
- Locate the sorting stations in order to maximise the natural flow of the crowd (far enough from the tables to avoid disruption and in such a way as to guide people towards the exits without creating jams). Working with the natural flow of the crowd guarantees the best results, whereas trying to control and modify it demands more energy and often results in failure.
- Give participants reusable cups for warm and cold beverages, or ask them to bring their own; if possible, find an easy-to-carry cup system.
- Find ways to eliminate the need for participants to bring their own heavy and awkward equipment (on-site rentals, loans, etc.).
- Mention, as early as possible, examples of actions people can take to make your sustainable approach more concrete (carpooling, back-to-back printing, recycled paper, reusable tableware for meetings, local products, etc). When appropriate, use scheduled activities to rapidly determine common responsibilities and possible interactions.
- Put someone in charge of the event as early as the first committee meeting or at least before the final call for tenders.
- Invite people to question their own ways of organising such events.
- Identify the committee's needs according to sustainable event criteria.
- Meet with the caterer as early as possible to evaluate their motivation to participate in such an event, and discuss with them your plan of action.
- Each site must have someone in charge, to lead the teams, and to oversee the installations and procedures, if necessary.
- Reach an agreement with a local company for recovering compostable matter.
- Meet with the carrier to determine delivery dates and locations.

Note 4
Points 6 to 20 are suggestions from the « Zéro déchet, carbo-neutre à l'Expo-sciences pancanadienne 2006 » report that you can see at the following address: http://ecoconseil.uqac.ca/eco-conseillers/rapport_stage/helene_cote_oct2006.pdf (french only)

** suggestion, see note 4*

CONCLUSION

All individuals and organisations are in a position to organise events in keeping with the principles of sustainable development. It takes the desire to integrate objectives at the planning stage, to establish performance indicators and rigorously apply the approach. The advantages are numerous and experience demonstrates that participants are always willing to apply the changes asked of them during these events. Participants become even more demanding towards those who organise future events. For example, the 2005 ACFAS convention that took place in Chicoutimi adopted actions to achieve a ØØ event and then encouraged other universities holding the event to undertake the same actions *(http://ecoconseil.uqac.ca/chaire/documents/guide_00.pdf) (french only)*. Desjardins has also endeavoured to bring sustainable actions into play at their Annual General Meetings. Large convention centres in Quebec City and Montreal, and smaller ones like the Hotel des Seigneurs in Saint-Hyacinthe, offer their clients ways to generate less waste. The *Bureau de normalisation du Québec (BNQ)*, at the request of the the *Réseau québécois des femmes en environnement (RQFE)* is presently working to establish a standard to outline this type of event. This can be in part attributed to the eco-advisors from the University of Quebec in Chicoutimi, who introduced a systematic and measurable approach for this procedure.

Organising sustainable events equals positive action for sustainable development. It also challenges the competitive spirit of organisers and venues. It encourages suppliers to change their habits which, in turn, means more than simply source-reducing a few tonnes of waste or greenhouse gases. It carries a positive message: we can do something, and we are doing it! Other than the slogans, sustainable development is applied. Your turn to play!

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Villeneuve, Claude, 2007, *Guide d'utilisation de la grille de développement durable pour l'analyse de projets,* Chaire de recherche en éco-conseil, Département des sciences fondamentales, Université du Québec à Chicoutimi.

Villeneuve, Claude, et F. Richard, 2007. *Vivre les changements climatiques, réagir pour l'avenir*, éditions Multimondes, Canada, 449 pp.

OTHER SOURCES AND USEFUL LINKS

Agence de l'efficacité énergétique du Québec *
http://www.aee.gouv.qc.ca/

Centres de formation en entreprise de récupération (CFER) *
http://www.reseaucfer.ca/fr/index.php

Chair on Eco-Advising (Université du Québec à Chicoutimi) *
http://ecoconseil.uqac.ca/

Calculation sheet for transportation GHG emissions and the number of trees to plant for offsetting:
http://ecoconseil.uqac.ca/chaire/documents/ChaireEcoConseil_CalculateurGES_EER_2009.xls

Guide d'application pour la réalisation d'un événement avec un objectif ØØ (zéro déchet et carbo-neutre) : *
http://ecoconseil.uqac.ca/chaire/documents/guide_00.pdf

GHG protocol – calculating CO_2 emissions from mobile sources
http://www.ghgprotocol.org/calculation-tools/service-sector

Pictogram examples *
http://www.recyc-quebec.gouv.qc.ca/client/fr/gerer/travail/pictogrammes.asp

Publication dans la Gazette officielle du Québec *
http://www.recyc-quebec.gouv.qc.ca/upload/Publications/zzPolit515.pdf

Rapport zéro déchet, carbo-neutre à l'Expo-sciences pancanadienne 2006 *
http://ecoconseil.uqac.ca/eco-conseillers/rapport_stage/helene_cote_oct2006.pdf

Répertoire québécois des récupérateurs, recycleurs et valorisateurs *
http://www.recyc-quebec.gouv.qc.ca/client/fr/repertoires/rep-recuperateurs.asp

Réseau québécois des femmes en environnement (RQFE) *
http://www.evenementecoresponsable.com

Tree Canada
http://www.treecanada.ca/calculator/index.htm

Climate Change
http://www.ec.gc.ca/cc/default.asp?Lang=En
http://www.csa.ca/climatechange/Default.asp?language=english

Greenhouse gas offset retailers
http://planetair.ca
http://www.zerofootprint.net/

Agence de l'efficacité énergétique du Québec
http://www.aee.gouv.qc.ca/en/home/

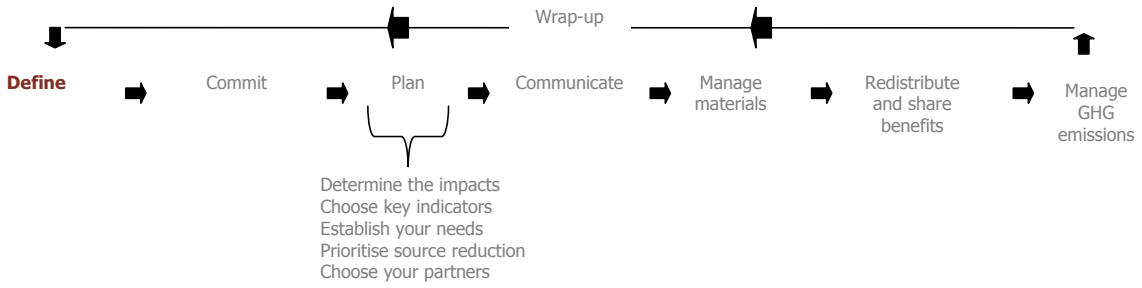
Office of energy efficiency:
http://oee.nrcan.gc.ca/english/index.cfm

* *(french only)*


Consortium
Écho-Logique
Inc.
Récupération
Plastique
Aluminium • Verre

“WHAT TO DO” FILE CARDS

"WHAT TO DO" FILE CARD I



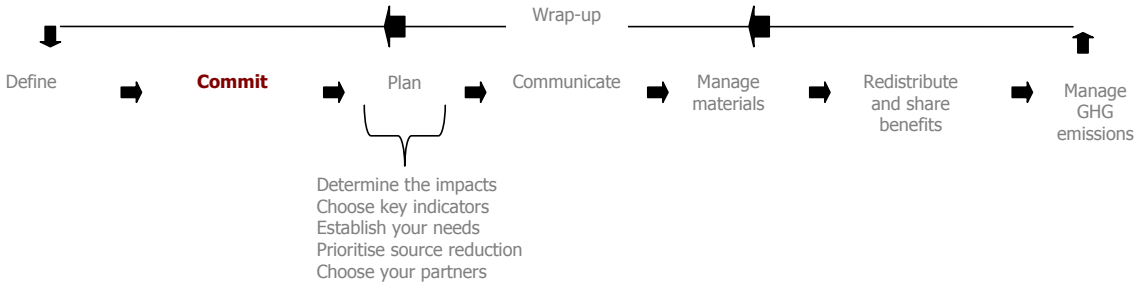
DEFINE

The logic behind this first step is very important. Knowing the type of event taking place, its targeted clientele and its date allow you to establish objectives and anticipate several impacts that will need to be reduced in order to achieve the objectives.

The examples below are among the elements that define the event:

- Define the targeted clientele: To whom is the event addressed? This question is important, especially for the communication methods that will need to be established.
- Identify the stakeholders and potential partners. It is important to know who needs to be convinced.
- Assure stakeholder commitment. Figure out how to convince stakeholders; define an agreement.
- Define the concept. This is important as it allows you to set your reduction objectives.
- Determine what criteria will be used to determine the success of your event.
- Define the organisation's commitment towards sustainable event management.
- Develop the business plan and financial frame for the event.
- Decide early on the dates of the event.
- Find the region or host city
- Find the host venue
- Identify key elements such as:
    - *Transportation plan – on-site transportation and other types of transportation available*
    - *Risk evaluation*
    - *Hygiene, security and medical emergency measures*
    - *Police security plan*
    - *Easy access for individuals with disabilities*
    - *Waste*
- Identify key players (special guests, speakers, musicians, etc.)
- Obtain permits
- Report to your colleagues
- Determine your team's roles, responsibilities and resources for sustainable event management.

"WHAT TO DO" FILE CARD 2

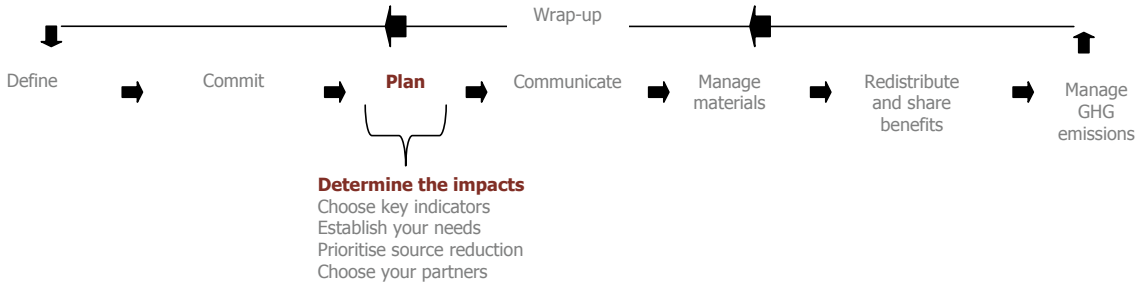


COMMIT

Organising a sustainable event requires financial and human resources which are often not accounted for in the initial budget of a "conventional" event. Once the sustainable event's objectives and impacts have been determined, the business directors promoting the project must commit to these objectives. This commitment will guarantee that financial and human resources will be available in order to reach the established goals.

Full collaboration from the event stakeholders is essential. The caterer, host venue, participants and all others involved with the event must endorse the objectives set by the organising committee. The commitment could be a resolution, a contract or a letter. There are many different ways to secure commitment, find one that is suitable for your situation. Naturally, while oral agreements are fine, it is safer to have them committed to paper, and made public.

"WHAT TO DO" FILE CARD 3



PLAN

It is possible to determine what the event's impacts will be. The questions proposed in the following table will help you to identify the issues involved. You will then be able to establish, upstream, the best reduction objectives.

DETERMINE THE IMPACTS

According to the categories (environmental, social, economic)

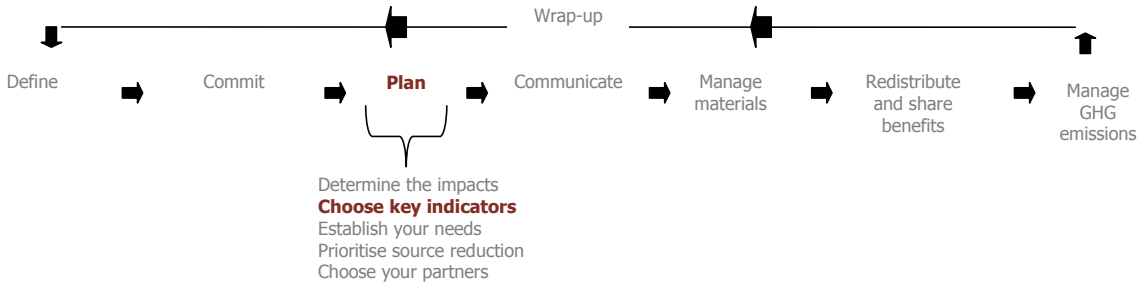
CATÉGORIES	QUESTIONS TO ASK TO DETERMINE WHETHER AN ISSUE EXISTS	WAYS TO REDUCE THE IMPACTS
ENVIRONMENTAL		
Climate change	Will the activity generate energy demands?	Reduce energy use/demand and promote the use of renewable supplies of energy. Offset carbon emissions associated with energy consumption.
	Will the activity generate an increased need for travel?	Reduce the need for transport and promote efficient modes of travel (carpooling, shuttles, public transportation access). Offset carbon emissions associated with transportation.
Air quality	Will the technologies employed for the activity's energy supply and transportation generate air emissions?	Reduce emissions to air by promoting low emission technologies for energy supply and transportation.
Water use	Will the activity require large quantities of water?	Minimise water use and promote water efficiency.
Land use	Will the activity require previously developed land (rather than greenfield sites) to be used?	Optimise the use of previously developed land.
	Will the activity affect its surroundings?	Plan the event with consideration to its surroundings and mitigate negative effects.
Biodiversity	Will the activity affect existing biodiversity resources?	Protect existing biodiversity resources and implement opportunities to enhance habitats.
Archaeology and cultural heritage	Will the activity affect sites of archaeological or cultural interest?	Protect sites of archaeological or cultural interest.
Emissions to water	Will the activity affect the water quality?	Maintain water quality and prevent pollution.
	Will the activity affect the waterways?	Protect waterways and prevent pollution.
Emissions to land	Will the activity give rise to risks of ground contamination at the site?	Minimise risks of ground contamination at the site.

Solid waste management	Will the activity generate waste materials?	Minimise the amount of waste materials produced and encourage reuse, recycling, reduction and recovery of waste.
Procurement – Product stewardship	Will recyclable or re-useable waste be generated from the activity's purchased products?	Purchase reusable products or products with a recycled content.
	Will the activity give rise to ethical or environmental issues from the procurement of products?	Promote ethical and environmental issues in the procurement of products.
	Are the contractual terms fair?	Ensure fair contract terms with suppliers.
	Will those employed during the activity have fair terms of employment?	Promote fair terms of employment for those employed during the event.
	Will products/services required for the activity be sourced locally?	Promote the use of locally sourced products and services to reduce transport impacts and support the local economy.
SOCIAL AND ÉCONOMIC		
Health, safety and comfort	Could the activity impact negatively on the health, safety and comfort of event stakeholders?	Ensure health, safety and comfort.
Security	Could the activity give rise to security issues?	Maximise security and the sense of well-being of visitors, exhibitors and speakers.
Equal opportunity and diversity	Will the activity ensure fairness for all?	Ensure fairness for all individuals associated with the event.
Community and local employment	Will the activity create local employment?	Encourage investment in local employment.
	Will the activity disrupt the local community?	Avoid nuisance to the local community.
Amenity	Will the activity provide suitable amenities to enhance visitor experience?	Provide suitable amenities to enhance visitor experience.
Viability	Will the activity be viable financially?	Ensure the financial viability of the event, including security of funding.
MANAGING DELIVERY		
Governance	Will there be an appropriate governance framework for the activity in terms of sustainable event delivery?	Implement an appropriate governance framework to manage sustainable delivery of the event.
Risk	Are sustainability risks associated with the activity adequately managed and minimised?	Identify key sustainability issues in order to minimise and manage sustainability risks (prepare a contingency plan).
Communication, stakeholder commitment and awareness raising	Will there be regular communication with stakeholders throughout the activity to encourage improved sustainability performance?	Communicate with stakeholders regularly to encourage improved sustainability performance.
Monitoring and reporting	Will performance results be shared and reported?	Note and measure activity performance results.

The best solution for sustainable management is based on a strategy that allows for achieving the event's objectives (the event's main objective being to organise a social gathering) while respecting responsibility objectives and sustainability.

Adapted from British Standards Institution (2007)

CHOOSE KEY INDICATORS



Key performance indicators provide a means of measuring the success of an event in achieving its goals. Objectives can be set which are relevant to the number of estimated participants and make it possible to measure the event's performance with the number of participants who actually attended. Sustainable management objectives which are easy to measure and to communicate and key performance indicators can also be set. The organisation should identify and define indicators and targets relevant to projected waste and greenhouse gas emission reductions.

For each objective, a target should be set based on the following broad scale, with the aim of achieving the highest performance level and the greatest improvement practicability possible, based on the following three performance levels:

a) Legal compliance;
b) Current best practices;
c) Capacity to surpass current best practices.

In Great Britain, current best practices define a 50% reduction in greenhouse gas emissions. If the theme of the event is climate change, the organisation may wish to go beyond a 50% reduction and therefore achieve the objective "beyond current best practices". In Quebec, it is thought that the standardisation of sustainable events will provide different best practice performance levels. Until then, **Appendix 2** demonstrates a few results achieved during events organised by eco-advisors.

By acknowledging a range of targets, the organisation can adapt its strategy by setting higher performance targets for those objectives that it has the greatest capacity to address. At the same time, the organisation should build expertise and capacity to achieve continuous performance improvement by setting higher targets through successive øø events. In the words of Jean-Pierre Ferland "toujours plus haut, toujours plus loin" (aim higher, reach farther).

There is no requirement for organisations to meet the same performance level for each objective. Organisations should set more challenging goals in areas where they feel they have the greatest capability to meet them and, conversely, to set less demanding objectives where there is less capability. They should also identify those areas where capability needs building in order to reach higher goals in the future.

It should be recognised that performance indicators will change with time as legislation changes and evolves; targets should also follow this evolution. Research undertaken to build the knowledge base to determine the targets for one event should be transferable to subsequent events. Performance indicators should be compared to a *status quo* scenario. Considering that practices change over time, there is no merit in doing what everyone else is doing. For example, to calculate GHG emission reductions from personal transportation, the average consumption of a fleet of vehicles in the year of reference is used for comparison, and not fuel consumption from ten years ago. For residual material, performance can be measured by the quantity of waste generated in a similar event without reducing at the source (in the same hotel) or the quantity of waste not sent to landfills in relation to the total amount of material generated by the event. These are key elements when it comes to communicating results and performance evaluation.

Examples of realistic objectives:

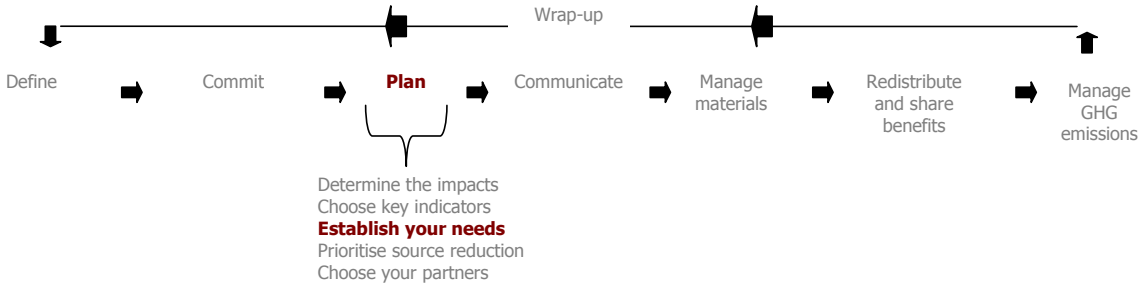
- Reduce GHG emissions by 30%
- Offset GHG emissions by tree planting
- Reduce paper consumption by 50%
- Reduce waste by 50%, by using reusable tableware

Examples of performance indicators:

INDICATORS	MEASUREMENTS
Quantity of kWh used	Energy consumption (kWh)
Quantity of paper used	Paper consumption per day per participant

See Appendix 4 - Examples of indicators

ESTABLISH YOUR NEEDS



VENUE *(infrastructures)*

Criteria for choosing the venue hosting the event must be established. For a "zero waste" event, it is important to determine if the host can manage all the waste that will be generated by the event. Can they recycle paper? Cardboard? Glass? Compostable matter? These questions are very important as they will determine what needs to be implemented for the upcoming event. If the host cannot respond to your needs, you will need to contact local businesses offering complementary services *(see the Recyc-Québec Website: http://www.recyc-quebec.gouv.qc.ca/client/fr/repertoires/rep-recuperateurs.asp)(french only)*.

For a "carbon neutral" event, the host venue should have a maximum of services offered on-site, audio-visual equipment, kitchens, lodgings, in order to reduce transportation and GHG emissions.

PERSONNEL AND THEIR RESPONSIBILITIES

Enticing participation and raising participant awareness during øø events is a very important task that must be accomplished upstream and throughout the event. To achieve success, volunteers can help participants with waste sorting. This team is called the Green Brigade. The number of volunteers will vary according to the number of participants. It is essential to discuss the presence of this team during the planning stages of an event.

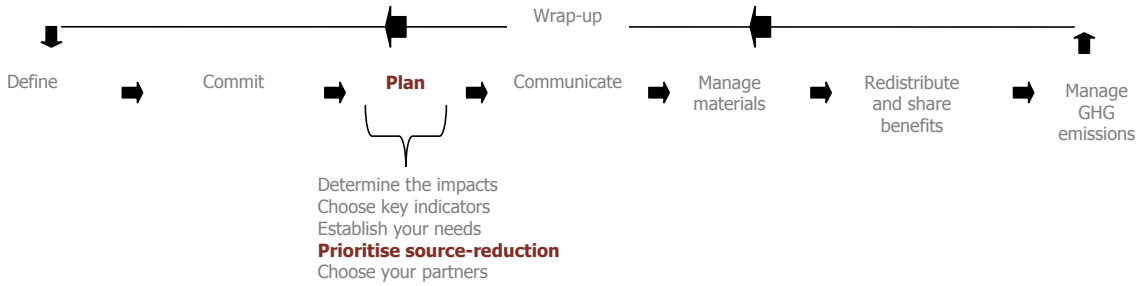
EXAMPLE OF THE DESJARDINS ANNUAL MEETING

During the 2007 Desjardins sustainable annual meeting, Desjardins and the Chair on Eco-Advising had put together a team of volunteers who raised participant awareness and helped them to sort their waste in the appropriate containers.

According to observations gathered by eco-advisors responsible for the Desjardins annual meeting, only one person should be responsible for an event's logistics. This person will also communicate with all venue logistics.

To increase efficiency, a list of all the names and telephone numbers of people on-call was available (concierge, venue director or manager, caterer and others who were identified upstream). This list proved very useful when the eco-advisors where faced with a locked door where the recovered material was stored.

PRIORITISE SOURCE-REDUCTION



SUPPLIERS

Waste reduction should occur upstream in an event's life cycle. When planning for a "conventional" event, the caterer or the restaurant service must be chosen; when planning for a sustainable event, caterer selection criteria accounting for achieving the objective "zero waste" should also be considered **(see Appendix 5 - *Clauses on sustainable development*)**.

Companies competing for an event catering contract will comply with conditions of the contract **(see Appendix 7 - *Example of call for tenders*)**. A concise call for tenders will properly inform suppliers and enable you to stay within your budget. We suggest you send the weighted evaluation grid along with the call for tenders **(see Appendix 8 - *Prospective bidder evaluation grids*)**. Suppliers know which criteria are topmost for contractors.

UPSTREAM COMMUNICATIONS

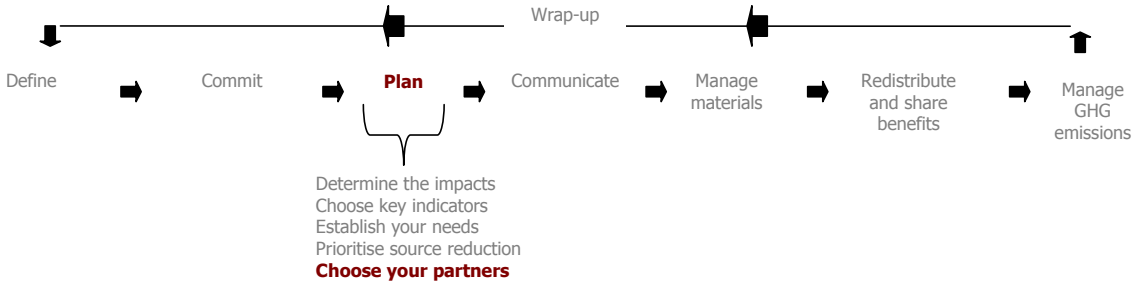
Communicating your objectives upstream (in invitations sent to participants, sponsors, suppliers, partners and to the media) allows you to share your objectives and targets.

You can suggest that participants bring their own bags or eco-tote bags to carry the material handed out during the event. Why not organise a "best bag" contest? It is also during this initial message that you can propose alternative transportation methods (instead of travelling solo) by providing information on public transportation or providing a list of participants to promote carpooling.

As for the media, they are especially interested in actions favouring sustainable development. These events are relevant to journalists and their articles contribute to the event's exposure. This is where the message becomes important, because it will have an impact on its readers. Media influence is unquestionable when it comes to influencing public opinion. The message you want to get across when organising a sustainable event must therefore be well understood by journalists.

See Appendix 6 - *Life cycle of certain products, and Appendix 9 - Communication with suppliers (caterers)*

CHOOSE YOUR PARTNERS



With a good team behind you, you are always a winner. It is necessary to choose partners that will support your approach when it comes to recycling or upgrading residual material, hospitality and catering. Select your partners not only based on prices, but also on their experience and reputation. When possible, select social-economy enterprises since their economic spin-off will benefit the less fortunate. To help you choose your partners, **Appendices 5 and 7** provide ideas as to the criteria to consider and define clauses on sustainable development to include in you call for tenders.

HOTEL

Choose hotels and reception rooms that already offer services.

CATERER

See Appendices 5, 7, 8 and 9.

SPONSORS

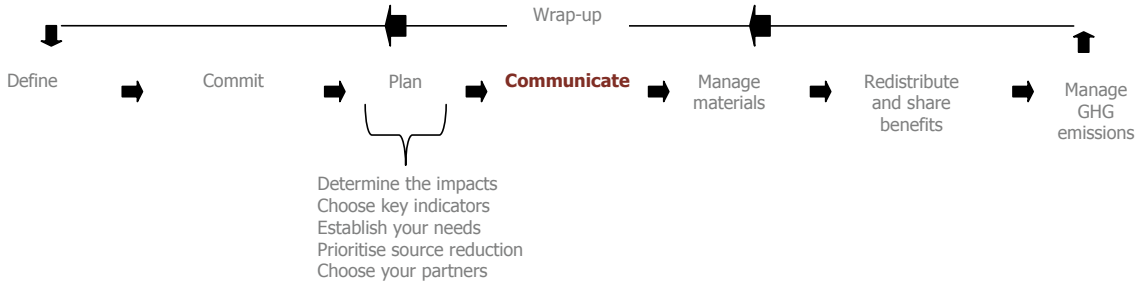
It is important to think about promotional material. See the ***Prioritise source-reduction*** *"What to do" file card*.

RECYCLING WASTE HANDLERS

In most Quebec regions, many companies recover waste for recycling. A list of those companies is available on the Recyc-Québec Website *(http://www.recyc-quebec.gouv.qc.ca/client/fr/repertoires/rep-recuperateurs.asp)(french only)*. However, some companies may not be listed, so you will also need to consult local resources. The people who work at the *Centre de formation en entreprise de récupération* (CFER) (Type CFER into your search engine to obtain information on recycling waste handlers in Quebec) and at social economy enterprises are a good source of information. Communicate with them to establish your recycling plan.

Example: to see how UQAC planned its sorting system, a video on waste recovery at UQAC is available at the following address: *http://ecoconseil.uqac.ca* click on "Chaire" and on "document" *(french only)*.

"WHAT TO DO" FILE CARD 4



COMMUNICATE

Posters and banners are an excellent way to get your message across; it is therefore very important to choose that message carefully. Be clear and concise, especially with signs indicating where to deposit waste for recycling and composting. You do not need a great many signs, but they do have to attract attention. There are no specific rules, but common sense is always the best principle. Volunteers from the Green Brigade can also transmit your message and are therefore an important element to consider in your communication strategy.

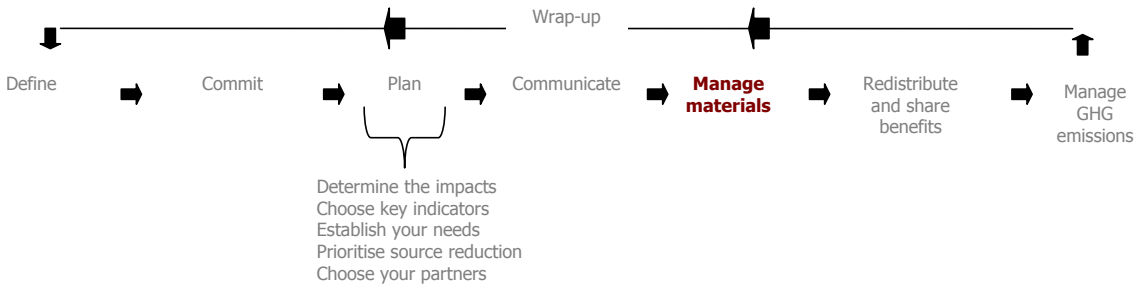
Raising awareness is an essential factor directing you towards achieving a "zero waste" sustainable event. Internal communications, the event's calendar and external communications (press releases) are all upstream communication tools. The following example describes other on-site methods used to raise participant awareness. An example of communication with the supplier (caterer) which can lead to a successful event is shown in ***Appendix 9 - Communication with suppliers (caterers).***

Example of the Desjardins annual meeting:

- Raising awareness (during the opening ceremony) to recycling waste and posting awareness signs above recycling containers.
- Making a banner giving relevant information on the annual sustainable event.
- Producing a reusable poster (for subsequent events) indicating that the event is sustainable and describing the actions taken to achieving goals.
- Creating an animated document (PowerPoint presented via 2 computers located at the sustainable stand) introducing key elements of the Desjardins sustainable event and its partners.
- Presenting the life cycle of certain products such as glass, aluminium and plastic.

See Appendix 6 - Life cycle of certain products, and Appendix 9 - Communication with suppliers (caterers)

"WHAT TO DO" FILE CARD 5



MANAGE MATERIALS

An event, whatever its purpose (content and scope), is a result of a series of activities having many objectives. Bringing together a group of people in one location is however the most common one. These meetings inevitably generate waste and greenhouse gas emissions. The challenge of sustainable events is to reduce these impacts as close as possible to the "zero waste" or "carbon neutral" objectives.

SORTING AND RECOVERING

If the host venue does not have a recyclable waste collection system already in place, a temporary facility will need to be installed. To do so, identify the busiest areas, where people have their coffee breaks and meals, and the registration area (find out where waste containers are usually located).

The majority of sorting stations are equipped with sorting bins for paper, containers (plastic, glass and metal) and end-waste. If possible, you can add a container for recovering compostable matter (verify what type of compostable matter can be recovered with your local recovery company) *(http://www.recyc-quebec.gouv.qc.ca/client/fr/repertoires/rep-recuperateurs.asp)(french only)*. Place the bins side by side and place a sign with the appropriate pictogram above each one *(http://www.recyc-quebec.gouv.qc.ca/client/fr/gerer/travail/pictogrammes.asp)(french only)*. You can use the same size of sorting bins as those used for the end-waste (avoiding potential overloads). Remember that the presence of volunteers near the sorting stations will raise participant awareness and increase your chances for success.

MANAGING LIQUIDS

Managing liquids (water and juice bottles, cans, coffee) can be a real problem. Participants do not always think of emptying their containers before recycling them!

- **Station for managing liquids**
  You can purchase sorting containers equipped with a funnelled recipient to empty leftover liquids from beverage containers (water and juice bottles, cans, coffee) before placing them into the recycling bin. This liquid sorting container is made of stainless steel and is very expensive. For more information, visit the Gaudreau company Website at *http://www.gaudreauenvironnement.com/ (french only)*.

- **Other possibilities**
  The best solution is to place a conventional container near a sink. This method is less costly and you avoid having to manage the liquids. With the liquid sorting container, you have to empty the recipient to prevent overloads and spills. If at all possible, encourage participants to empty their containers (toilets, fountains) before recycling them, this will make your job a lot easier. Raising awareness throughout the event is therefore essential. However, if you use a liquid sorting container, it is preferable to place it near a sink and to connect the hose to a drain.

STORING, WEIGHING, SITE PREPARATION

The scale used for weighing the recycling containers must have a convenient holding capacity and be robust (a container used for recovering compostable can weigh up to 100 kg). Awareness signs placed strategically (where volunteers will not be present) will help you to maximise your results. If you want to recover bottles and cans and not plastic bags (non-recyclable), it is best to write "bottles and cans" instead of "plastic, glass, metal". Bins with round holes are now recognised by most people; participants will not likely dispose of plastic bags and other unwanted objects.

- Take care when filling up a recycling container as they can be heavy and difficult to handle.
- Weigh each recycling container before filling it up. The weight of each container differs according to its colour, presence or absence of a cover, residue left at the bottom, humidity, etc. Weigh and identify each container.

HOUSEKEEPING STAFF

It is crucial to establish good communication with the housekeeping staff or their superior so that each weighing and sorting activity corresponds with their schedule. In order to avoid accidentally sending recyclable material or compostable matter to landfill sites, it is important to obtain exact information on recovery (pick-up) times and locations. Weekends are a challenge especially when setting up for the event. You need to plan for everything because key persons can be hard to reach.

COMPOSTABLE MATTER

Compostable matter should be regularly recovered as bad odours can cause problems. Storage containers (such as rolling bins) must be washed regularly with water and biodegradable soap after each pick-up (to avoid bad odours and insects). From our observations, handling compostable matter can engender various difficulties. For example, space can be a limiting factor in small restaurants located downtown. It is best to place the rolling bins in a cool area or guarantee daily pick-ups. You should also regularly clean the rolling bins (you can avoid cleaning the bins by using compostable bags as liners).

For more information on compostable bags, see « *L'avis technique de Recyc-Québec, sacs dégradables : propriétés et allégations environnementales (2005)* » at *www.recyc-quebec.gouv.qc.ca in "le centre de documentation" under "plastique" (french only).*

A 120-litre (or 240-litre) rolling bin is recommended for compostable matter (this type of bin is easier to handle for heavier loads).

COSTS (2007)

Approximate costs according to format and quantity:

120 litres = $75
240 litres = $125
360 litres = $135

USING PLASTIC BAGS

- Using plastic bags along with bins considerably reduces the number of times the bins will need to be washed.
- Verify with the compostable matter recovery company to find out if plastic bags are permitted. The problems associated with bags are transferred to the composting facility (separation and disposal of the bags).

Centralized composting involves the collection and transportation of compostable matter to a special facility for upgrading and processing into compost. These facilities can process the majority of biodegradable waste generated by the municipality (and waste produced by your event). They are capable of processing large amounts of matter as well as a great variety.

For more information on what types of compostable matter are accepted in centralized composting facilities, see: MICHAUD, L. 2007. Tout sur le compost : le connaître, le faire, l'acheter et l'utiliser. Éditions MultiMondes. Canada, 212 p.

Example of a data collection sheet for the quantity of residual materials generated

Sample (bag)	Type of material	Quantity of material (kg)	Quantity of unwanted material (kg)	Volume (litres)
1	Compostable matter	50 kg	5% (visual estimate)	30 litres
2	Plastic/glass/metal	30 kg	5 kg	240 litres
3	Paper/cardboard	40 kg	3 kg	240 litres
4	End-waste	20 kg	----------	50 litres
5	Returnable cans	30 kg	6 kg	120 litres
6	Returnable glass bottles	80 kg	4 kg	120 litres
7				

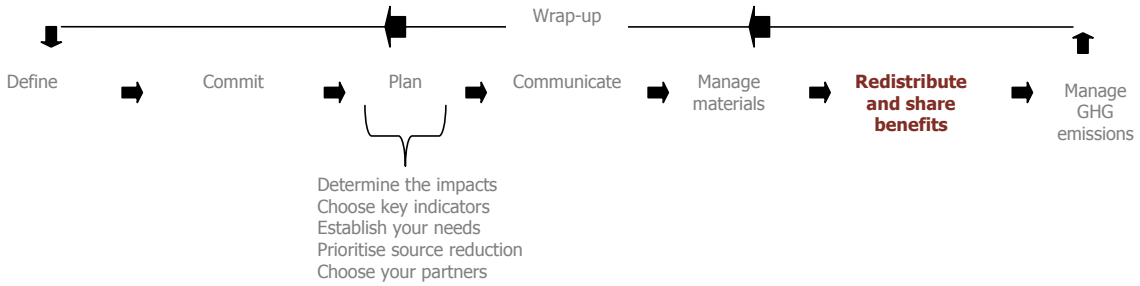
Each sample is represented by a bag and each bag represents a type of material. The sample is emptied on a table where sorting takes place and the unwanted material is removed. Waste is weighed and all the waste found with the recyclable material or with the returnable material is considered as unwanted material. The compostable matter is weighed but not sorted as this type of matter contains too much water. Nevertheless, a visual estimate of unwanted material (%) is always made.

REMEMBER:

Hard fact of life: people want to eat three times a day no matter what. It never stops! At this rate, a small team tires very quickly! Plan to have as many people as possible for rotation!

A trash can is a trash can… do not expect people to follow the rules when no one is watching. There will always be outsiders attending the event who are not aware of the recycling system. Respecting where each type of waste is meant to go gets harder and harder the more the event is public. Plan to have a room for stocking material until pick-up day.

"WHAT TO DO" FILE CARD 6



REDISTRIBUTE AND SHARE BENEFITS

The saying goes "one's trash is another's treasure". This also applies when a resource is upgraded instead of being sent to landfill or incineration. When planning your event, communicate with local charities or social-economy enterprises and make sure they are willing to accept any material that you do not need. Frequently, too many meals are prepared (either because some people do not attend or simply to avoid running out of food portions) and food and beverages are found in too large quantities for the number of people actually there. These meals can make someone very happy if you take the time to redistribute them.

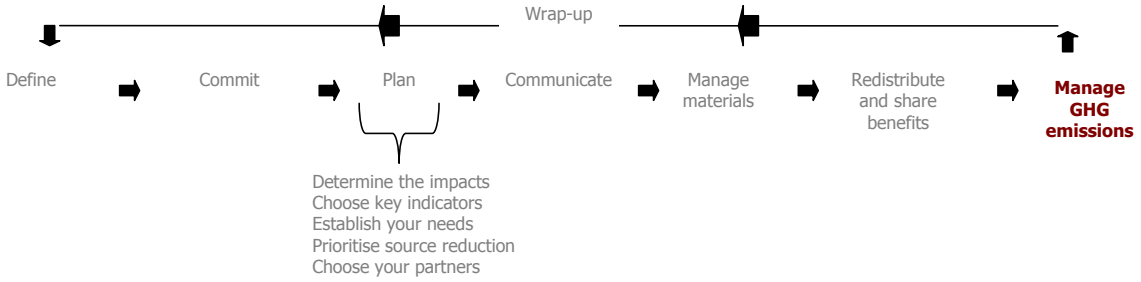
Example: During the Desjardins annual meeting, surplus food was sent to a local community organisation. The organisation used the food surplus in their recipes and fed 40 people over two weeks.

This is an example that has more meaning than recycling paper to make paper or recycling plastic bottles to make polar wool clothing. Our events generate many of these resources that can be useful to neighbouring community organisations.

Example of recovered material, treatment, destination:
Recycling, reusing or upgrading (Desjardins annual meeting)

MATERIAL	TREATMENT	DESTINATION
Paper/cardboard	Recycling	Les marronniers
Plastic/glass/metal	Recycling	Les marronniers
Compostable matter/ Biodegradable cups	Composting	Conporec
Unused biodegradable cups	Reuse or redistribution	RQFE
Unused name tags	Reuse or redistribution	RQFE
Surplus foods	Redistribution	Le centre NAHA

"WHAT TO DO" FILE CARD 7



MANAGE GHG EMISSIONS

GHG offsets affect many sectors of an activity (transportation, consumption, production, distribution). GHG offsetting is necessary to make an event "ø carbon" or "climate positive".

You should focus on maximum reduction of emissions and offset for what you cannot reduce. Offsetting your emissions will contribute to limiting climate change. By reducing your GHG emissions and raising population awareness through your event's impacts, you will also contribute to limiting climate change.

Financing GHG emission reduction projects (renewable energy and energy efficiency) or carbon sequestration (tree planting) are two methods that can offset your GHG emissions. It is important to choose the right project with a guarantee of its efficiency in order to assure offsetting. Therefore, tree planting must be verifiable, established in locations where carbon sequestration can be documented, and must anticipate tree replacement in case of fire or insect devastation. Renewable energy credits must replace fossil fuels (and be easily certifiable) and not simply be added to an already existing network.

The carbon portion of your event plans to sequester CO_2 emissions from participant transportation. It will also recommend how to reduce your GHG emissions (upstream and during the event). Atmospheric reductions in GHG emissions will decrease the impact of the latter on climate change.

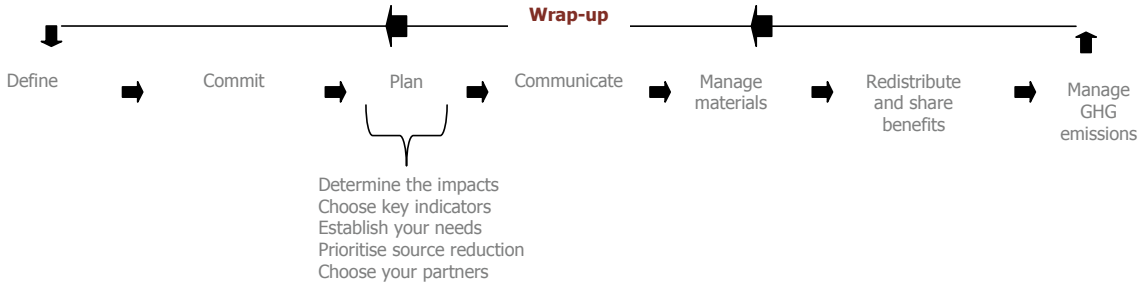
By knowing the quantity of CO_2 emitted by your event, it will be possible to calculate the number of trees to plant and the number of CO_2 offsets to buy to offset your emissions (**see Appendix 11 *GHG emissions calculation grid***).

Source:
See the Chair on Eco-Advising Website (calculation sheet for transportation GHG emissions and the number of trees to plant for offsetting): http://ecoconseil.uqac.ca/chaire/documents/ChaireEcoConseil_CalculateurGES_EER_2009.xls (french only)

CO_2 LUMBER? HOW DOES IT WORK?

A young coniferous and deciduous forest accumulates a large quantity of carbon due to its rapid growth rate, which occurs between its second and eighth decade of growth. In the boreal forest, this is followed by a deceleration. For example, a black spruce forest located in Abitibi can sequester between one and two tonnes of CO_2 per hectare per year for its first twenty four years of growth. This quantity decreases by a third each following decade and the trees, as they start to decay (around 120 years), begin slowly to release carbon into the atmosphere. Therefore, when a forest aged between 80 and 100 years is harvested and the wood is used for construction (lumber, boards, two-by-fours, panels), these materials represent sequestered carbon for the whole time they are being used. If the area is then reforested (naturally or artificially by tree planting), carbon sequestration will proceed again. A sustainably and well managed forest produces durable goods and encourages the capture of atmospheric CO_2, the main GHG responsible for climate change.

"WHAT TO DO" FILE CARD 8



WRAP-UP

It is sometimes difficult to evaluate a ØØ event. This is mainly due to the fact that the same objectives can be found in more than one sector of sustainable development. For example, it is sometimes hard to evaluate which objective goes into the social sector or into the environmental sector.

To evaluate the economic performance of an event you can review the savings generated by using less paper, carpooling and public transport, etc. A detailed list of possible indicators to be used for evaluating your event is proposed in ***Appendix 4 - Examples of indicators.***

For an environmental evaluation of your event, you need to calculate the quantity of raw material that was neither sent to landfills or incinerators because it was replaced by renewable, recyclable or reusable material (reusable tableware instead of Styrofoam, etc.). To know the weight of waste deviated from landfills or incinerators, you need to weigh the recovering containers and waste containers and note your results. You must also compute the prevented GHG emissions. The results from your calculations will be information media can use and forward to create exposure for your organisation.

Asking participants to fill-in a questionnaire can help you to evaluate the social spin-offs of your event. This questionnaire will review the level of participant awareness, jobs created, participant satisfaction, and new contacts and networks created by your event.

The evaluation will serve as a framework for your event wrap-up and will also be very useful for subsequent events. It will have an even larger impact if the results are sent to participants, suppliers, media, present or future sponsors, host venue, and others…

For a large public outreach, results can be distributed by press releases, thank you letters, articles and publications, emails, internet sites.

Using metaphors can help visualise the information and is an excellent strategy for communicating your results: "The end-waste generated by an event hosting 750 participants could fit inside a shoe box" (evidently this example is exaggerated but you get the picture, right?) Or even "each participant produced the equivalent of a roll of pennies in end-waste!" This one strikes home too!

APPENDICES

APPENDIX I

A FEW DEFINITIONS

SUSTAINABLE EVENT

A sustainable event[5] is a gathering which is planned according to sustainable development principles. Event organisers must demonstrate (in a quantifiable and verifiable way) that they have reduced, at each stage of an event's life cycle[6], impacts on the environment and society. Economic, environmental and social spin-offs must be maximised so that the host venue and the less fortunate can benefit from these efforts. Event organisers must compare their performance results to a pertinent reference event.

Planning sustainable events consists in evaluating environmental repercussions of event activities at all stages of an event's life cycle, from the planning stage to the disposal of end-wastes (including participant transportation). Furthermore, an evaluation grid for activities occurring before, during and after each event can be used.

In any case, event organisers can choose, among many options and according to set objectives, to engage in the following:

- Decrease present and future environmental impacts by implementing the 4-Rs when managing materials.
- Avoid unduly increasing costs.
- Involve goods and services suppliers (upstream and downstream).
- Include social and ethical aspects of sustainable development.

Ø WASTE EVENT

A Ø waste event is a gathering which is planned to achieve (as close as possible) a zero waste objective. When managing resources, a zero waste objective can be accomplished by integrating, at all stages of an event's life cycle, the 4-Rs. This requires reassessing needs in an effort to source-reduce consumption, reuse salvageable items (draft paper can be used for taking notes), recycle material that would otherwise become end-waste, and upgrade compostable matter for composting. In a Ø waste event, the quantity of material deviated from landfills can be measured by distinguishing reused, recycled and upgraded material from end-waste.

Ø CARBON EVENT

A Ø carbon event is a gathering which is planned to reduce and offset greenhouse gas emissions (throughout an event's life cycle) from the planning stage to participant transportation (including their return home). Quantification of greenhouse gas emissions must be as relevant as possible and must be carefully calculated using verifiable references. Offsets must reduce the quantity of greenhouse gas emissions calculated, either by verified reduction emission projects or by verifiable sequestration projects.

ØØ EVENT

An event combining Ø waste and Ø carbon objectives (as described above).

Note 5
The term sustainable event is a generic term including "zero waste", "carbon neutral", ØØ, and "climate positive" events.

Note 6
See Appendix 6 - Life cycle of certain products to see the importance of holding ØØ events.

"PRÉVENTIF POUR LE CLIMAT™" OR 'CLIMATE POSITIVE' EVENT

This type of event is a Ø carbon event where final greenhouse gas emissions are offset twice in order to consider inter-generation equity. The term "Péventif pour le climat" is a Canadian trademark belonging to the Chair on Eco-Advising. Only those who have received written permission from the Chair can use this term.

"PÉVENTIF POUR LE CLIMAT/CLIMATE POSITIVE™"[7] EVENT

During the summer of 2005, the Chair on Eco-Advising developed the "Péventif pour le climat/Climate Positive™" concept. This term is applied to a project or event which offsets twice its final greenhouse gas emissions. A "Péventif pour le climat/Climate Positive™" approach complies with sustainable development principles. It offsets for emissions for which it is directly responsible, it considers past emissions and postpones the doubling of atmospheric CO_2 concentrations, and therefore provides future generations with significant leeway to adapt to climate change.

PRECAUTIONARY PRINCIPLE

The precautionary principle is an essential element to sustainable development. It states that in the absence of scientific consensus and considering present scientific and technological knowledge, we should not postpone adopting potential actions preventing the risk of major environmental degradation[8].

RESPONSIBILITY PRINCIPLE

An individual, group, business or government whose activities cause disruption (environmental, social or economical) must be accountable for their actions and consequences. They can also choose to minimise the effects. This principle is sometimes referred to as polluter-pays or user-pays principle.

SUBSIDIARY PRINCIPLE

Actions and decisions are taken (as close as possible to) where the consequences will have the greatest impact. For climate change, it is impossible to predict where emissions will have the greatest impact. This principle is therefore applied to the choice of solution which is most appropriate for GHG offsetting. Offsetting actions must (if possible) be linked to local or regional projects.

Note 7
The terms "Péventif pour le climat ™" and "Climate Positive™" are a trademark belonging to the Chair on Eco-Advising (*http://ecoconseil.uqac.ca) (french only)*. No one can use them without written authorisation and without conforming to specifications which verify that offsets are correctly calculated and that actions have the potential to achieve set objectives.

Note 8
Dictionnaire du développement durable, Collectif, Éditions Multimondes, 2004, p. 178-179

APPENDIX 2

EXAMPLE OF SUSTAINABLE EVENTS

Sustainable Events (Université du Québec à Chicoutimi 2005-2008)

Theme	Date	Attendants	Zero Waste Objective					
			Plastic Glass Metal	Fibres Paper Cardboard	Refundable	Organic matter	Recycling and upgrading ratio	End-Waste
Acfas 2005: Innovations durables	May 9-13 2005	3800	0,0%	0,0%	0,0%	94,7%	94,7%	5,3%
2006: L'adaptation énergétique	January 19 2006	74	39,0%	0,0%	0,0%	52,0%	91,0%	9,0%
2007: EcoCitoyenneté	January 18 2007	112	9,0%	0,0%	0,0%	74,0%	83,0%	17,0%
2008: Santé et DD	January 18 2008	69	0,0%	14,9%	0,0%	84,8%	99,7%	0,3%

Theme	Date	Attendants	Zero Carbon and Offsetting Objective						
			Plane	Car	Others	Kg CO2/ Person	Tonnes	Carpooling	Offs Trees needed
Acfas 2005: Innovations durables	May 9-13 2005	3800	53,8%	44,7%	1,5%	232,9	885,0	43,0%	3315
2006: L'adaptation énergétique	January 19 2006	74	55,0%	44,0%	1,0%	44,6	3,3	55,0%	12
2007: EcoCitoyenneté	January 18 2007	112	9,0%	83,0%	8,0%	35,7	4,0	17,0%	10
2008: Santé et DD	January 18 2008	69	85,0%	15,0%	0,0%	17,4	1,2	unknown	5

Sustainable Events

Theme	Date	Attendants	Zero Waste Objective					
			Plastic, Glass Metal	Fibers, Paper Cardborad	Refundables	Organic matter	Recycling and udgrading ratio	End-waste
Acfas 2005: Innovations durables	May 9-13 2005	3800	0,0%	0,0%	0,0%	94,7%	94,7%	5,3%
30ième Association internationale de Limnologie (SIL)	August 14-18 2007	1400	78,0%	Unknown	0,0%	18,2%	96,2%	15,9%
21ième Congrès de l'Association Qc maîtrise de l'énergie (AQME)	May 1-4 2007	230	17,5%	8,0%	0,0%	70,0%	95,5%	4,5%
Assemblées générales annuelles Des Caisses Desjardins	March 30-31 2007	2107	9,1%	5,2%	0,0%	79,2%	93,5%	6,6%
États généraux de l'aménagement du territoire et d'urbanisme au Qc	October 18-20 2006	550	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown

Theme	Date	Attendants	Zero Carbon and Offsetting Objective						
			Plane	Car	Others	Kg CO2/ Person	Tonnes	Carpooling	Offs Trees needed
Acfas 2005: Innovations durables	May 9-13 2005	3800	53,8%	44,7%	1,5%	232,9	885,0	43,0%	3315
30ième Association internationale de Limnologie (SIL)	August 14-18 2007	1400	95,4%	0,8%	3,8%	1196,1	1674,6	unknown	6271
21ième Congrès de l'Association Qc maîtrise de l'énergie (AQME)	May 1-4 2007	230	4,5%	95,3%	18,0%	136,5	31,4	34,6%	117
Assemblées générales annuelles Des Caisses Desjardins	March 30-31 2007	2107	9,9%	88,7%	1,4%	57,4	121,0	unknown	452
États généraux de l'aménagement du territoire et d'urbanisme au Qc	October 18-20 2006	550	4,7%	92,1%	3,2%	70,9	39,0	34,0%	146

APPENDIX 3

SUSTAINABLE DEVELOPMENT ANALYSIS GRID

Project analysis with respect to sustainable development is not governed by any law nor any established practice. The Chair on Eco-Advising developed, over the course of a few years, a sustainable development analysis grid. The grid encompasses a wide range of activities. The objective of the grid is to weigh and assess the viability of a project or activity while considering the four constituent parts of sustainable development (economically efficient, socially acceptable, ethically accountable and ecologically viable) and to propose ways on how a specific project can be improved. For further information on how to use the grid, see the "*Guide d'utilisation de la grille d'analyse de développement durable pour l'évaluation de projets*" at *http://ecoconseil.uqac.ca/chaire/documents/analyse_dev_dur_2007.pdf (french only)*

A pre-weighted grid is available to help you plan your event upstream and hence integrate sustainable development. The grid was weighted for you by a team of eco-advisors from the Chair on Eco-Advising. Keep in mind the following: Rank 1 objectives should only be considered as desirables, Rank 2 objectives should be considered, and Rank 3 objectives are essential and must be prioritised in event planning.

You will find attached a weighted grid (in table format) for sustainable indoor and outdoor events. To view this grid, see the Chair on Eco-Advising Website at *http://ecoconseil.uqac.ca* tab : "chaire" section: "documents" (click on "Grille prépondérée d'analyse de développement durable")*(french only)*. Using the two grid versions (indoor and outdoor) you will be able to evaluate your project. The following paragraph explains how projects are assessed.

EVALUATING YOUR PROJECT

For each objective you must answer the following question: How does our project relate to this objective? You can answer by using percentages (from 0% to 100%). A project not considering a specific objective will be given a 0% score; a project slightly considering a specific objective will be given a score between 1 and 25%; a project where many suggestions for improvement are supplied will be given a score between 26 and 50%; a project where only a few adjustments are required will be given a score between 51 and 80%; and a project where an objective is achieved will be given a score between 81 and 100%.

Evidently, your first try could be difficult. Keep in mind that the purpose of this analysis is to remind you of the objectives to consider, to prioritise the objectives ranked 3 and to note which ones need to be improved.

Example of an evaluated objective

Ecological part: quality of the environment and resource durability Principle: maintain ecological life support systems								
Directing objectives	Weighting	Eval 1 (%)	Eval 2 (%)	Eval 3 (%)	Eval 4 (%)	Eval 5 (%)	Present and future actions	Improvements
Prioritise renewable resources and respect environmental threshold								
Plan to judiciously use renewable resources	3	10					Only back-to-back printing	Use recycled paper, raise participant awareness to reduce printed documents, serve cold foods (energy savings)

It is possible to use an electronic version of the grid which had not been weighted. It is up to you to weigh it according to your type of project. To view this grid see the Chair on Eco-Advising Website at *http://ecoconseil.uqac.ca* tab :"chaire" section:"documents" (click on *"Grille d'analyse de développement durable")(french only)*.

	Indoor event (weighting)
	Outdoor event (weighting)

ECOLOGICAL FOCUS

OBJECTIVE	EXPLANATION	WEIGHTING	
Plan to judiciously use renewable resources	Efficiently use renewable resources (water).	2	3
Evaluate the possibility of substitution	Evaluate the possibility of using resources other than non-renewable ones.	2	2
Evaluate the volume available in relation to the depletion rate	Depending on the non-renewable resource depletion rate, plan to establish exploitation rate adjustment mechanisms.	1	1
Qualify the importance for maintaining life	A resource which is essential to living organisms must be carefully managed compared to resources which are not essential to the biological cycle.	1	2
Determine if recycling is accessible	A recycled resource must be used as often as possible to reduce its depletion rate and environmental impacts (due to extraction and purification).	3	3
Plan to judiciously use energy	Use energy efficiently by harnessing the right type of energy at the right location in order to keep wasted energy to a minimum.	2	2
Acquire knowledge on the supporting capacity of the surroundings	Constantly acquire knowledge (even regarding non-exploited areas or areas not affected by your activity) and plan for future generations.	3	3
Measure output impacts on the surroundings	With this follow-up you will acquire useful knowledge helping you to avoid mistakes or to better assess possible sustainable development interventions.	3	3
Reduce outputs	By reducing human activity outputs, negative impacts (waste disposal in natural surroundings) are avoided.	3	3
Reduce impacts	Prevent negative impacts by applying appropriate mitigating measures.	3	3
Evaluate the population of species used	Using species from a specific surrounding requires you to periodically assess their abundance and their state of health.	1	1
Identify endangered species and establish ways to protect them	Rare or endangered species indicate if changes to their surroundings took place (past or present) and indicate the fragility of their environment.	1	2
Follow-up on the species that reflect the quality of the surroundings	Species or populations specific to one area (not accounting for their abundance) represent a good indicator to environmental changes and a source of knowledge on the evolution mechanisms of living organisms.	1	3
Contribute to maintaining landscape diversity	Landscape diversity (including those modified by human activity) is an element indicating biodiversity maintenance. In a man-made surrounding, architectural design must be considered and integrated.	1	2
Call to attention species with symbolic value	Certain species with symbolic value for native peoples or designated as emblematic have the power to attract public attention and therefore serve as examples of conservation.	2	2
Reduce greenhouse gas emissions or greenhouse gases already present in the atmosphere	By source-reducing greenhouse gas emissions or by sequestering them in another part of the ecosphere, we contribute to decreasing their rate of accumulation in the atmosphere and hence slow down climate change.	3	3
Reduce emissions affecting the ozone layer	The increase in ultraviolet radiation (linked to the thinning ozone layer) increases genetic mutations in living organisms and is associated with the depletion of animals that are sensitive to these changes.	1	1
Reduce persistent organic pollutants	The release of these pollutants is a poisoned heritage for future generations. It is best to avoid producing and releasing them into the environment, and to safely destroy them (if possible).	1	2

SOCIAL FOCUS

OBJECTIVE	EXPLANATION	WEIGHTING	
Improve or maintain the population's state of health	Prioritising the population's state of health will improve their quality of life and sense of autonomy.	2	2
Prioritise preventive health measures	A project should involve educational measures to prevent or detect certain pathologies.	2	2
Establish ways to assure individual and collective feelings of security	Organising activities encourages the expression of one's feelings and self-realisation.	2	3
Establish prevention mechanisms to guarantee security	Prevention mechanisms can be indicative or dissuasive in character. They may be obligatory (or not) depending on their estimated level of risk.	2	2
Provide basic education on security issues	Making individuals responsible for their own physical integrity reduces the need for regulation, sanctions and control, and also improves the feeling of individual freedom.	1	1
Ensure that everyone has access to professions	The project should promote the integration of people into professions (paid or unpaid) allowing them to fulfil their material needs and encourage their social integration.	2	2
Offer the possibility for long-term personal investment (in a specific activity)	Individuals who invest in long-term activities will be more fulfilled and will have more chances of getting the attention they deserve within their community or business (encourages personal accomplishments).	2	2
Facilitate community integration	Sustainable development projects should reduce disparity (quality of life and state of health between native and non-native populations) where differences exist.	3	3
Education should be accessible to everyone (depending on their desired level of education)	It is important to mention that the level of education ideally reflects the need identified for and by the individual.	3	3
Functional education should be accessible to everyone	A minimum level of basic education is required for an individual to achieve personal goals within their social context.	2	2
Provide access to education and continuing education	In order to encourage personal evolution and allow for individuals to maintain their qualifications level up to date, a sustainable development project should promote (using various methods) continuing education.	1	1
Encourage freedom of action and individual expression	The feeling of freedom is a key element defining the quality of life for the majority of human beings.	2	2
Promote democracy	Actions promoting democracy such as public consultation are part of the sustainable development principles.	2	2
Allow for multiple beliefs	By favouring multiple beliefs instead of unique dogmas, we develop tolerance, respect and an open mind regarding others within society.	2	2
Give populations to have access to leisure activities and relaxation	By increasing access to leisure activities and relaxation, cultural development, physical health and personal accomplishment are promoted.	2	2
Allow for the development of self-confidence	Self-confidence encourages you to go beyond your personal objectives and undertakings, and fosters communication between human beings.	3	3
Encourage native cultures and territorial identity	By favouring the expression of native cultures, by educating people on the traditional use of resources, their language roots and customs and by raising awareness on their spirituality and their relation with the territory and its resources, we can favourably influence cultural diversity, develop harmonious relations with tenants having different resource exploitation methods and open new perspectives for using living resources (reflecting their different potentials such as pharmacopoeia, etc.)	1	1
Optimal population distribution on the territory should be prioritised	Optimal population distribution corresponds to the capability of local ecosystems to support population concentrations, the capability of cities (urban densities) to be properly managed and where education services are maintained and public transportation is accessible, the capability of rural populations to have access to proper communication tools.	2	2
Encourage communication	This objective encourages the exchange of information and dialogue between individuals within a community or between communities and national and international cultures.	3	3
Increase feeling of belonging	The feeling of belonging to a group, region or territory can be used to make individuals accountable for their actions and encourage them to invest in activities instead of engaging in destructive action.	3	3
Encourage personal accomplishments	Acknowledging individual performances (when their objectives have been attained) creates emulation, motivates personal development and inspires future generations.	2	2
Promote the achievement of performance objectives	When individuals or groups achieve their targeted objectives (using acceptable methods), we should share this information, promote emulation and describe the methods used.	2	2

ECONOMIC FOCUS

OBJECTIVE	EXPLANATION	WEIGHTING	
Offer the possibility to accumulate goods	This objective refers to the importance of avoiding fluctuations in the abundance of certain resources and implies that reserves can be established to prevent potentially negative impacts caused by fluctuations. Goods are resources which have been transformed (or not) and are considered by a community or individual to be their property and contribute to their security.	1	1
Offer to all the possibility of using individual and/or collective goods	Having potential exclusive and/or collective use of goods contributes to quality of life by satisfying our material needs and hence increasing our feeling of security.	3	3
Look for procedure optimisation	Procedure optimisation uses less material and produces less waste, for a consumer price which is more realistic in terms of actual costs.	3	3
Assure adequacy between products and needs	This is one of the most important criteria that can categorize project sustainability. In our economy, many products and services are developed based on demand or to "encourage consumption". A project must adequately respond (in a qualitative and quantitative manner) to demand. In certain cases, growth anticipation can be a reason to justify developing a project. However, we must be aware of the criticism related to certain growth models.	3	3
Assure product durability	The more and the longer a product has been used to satisfy a need, the more this product will have attenuated the negative impacts (on resources and quality of the area) caused by its fabrication. Disposable products must not be used, unless they are required for health & safety reasons.	2	2
Assure that human activity promotes exchange values	All human activity should be valorised according to the value of the product it contributes to transforming.	2	2
Make sure the exchange value corresponds to the capacity of responding to a person's material needs	All who contribute (via their activities) to the creation of wealth should receive sufficient exchange value to satisfy their material needs.	2	2
Assure adequate values and people management	Sustainable development principles indicate that values must be confined to institutions capable of conserving and optimising them (with a view to leaving them to future generations). People must be protected and supported by an institution which contributes to satisfying their needs (and the needs of the greatest possible numbers).	3	3
Offer sharing opportunities	Wealth sharing mechanisms between individuals and communities increase solidarity and decrease disparity between individuals. All resource exploitation projects (where wealth is created) should favour local and regional spin-offs (as close as possible to the area of resource exploitation). When consumption markets are far from production areas and where on-site secondary transformation is not profitable, royalties should be distributed to local populations.	3	3
Assure a redistribution mechanism	It is important to put in place redistribution mechanisms to make sure individual material needs are met and thus avoid the destitution of certain groups or individuals.	2	2
Encourage access to capital	Capital remuneration must be maintained within reasonable limits so as to not restrain access to means of creating wealth for the majority. For example, micro-credit offered to populations in developing countries who do not have access to standard credit.	1	1
Promote qualification maintenance	Human qualifications acquired through an activity must be maintained and enhanced, and transferred to future generations.	3	3
Promote qualification sharing	Acquired qualifications must be shared between the largest number of individuals as possible using proper educational methods and according to their fields of interest, thus enabling them to satisfy their own material needs and be self-reliant.	3	3

ETHICAL FOCUS

OBJECTIVE	EXPLANATION	WEIGHTING	
Set restoration objectives	All projects should have restoration objectives for the impacts their activities may have on resources. In the case where industries have, in the past, reduced the biosphere's life-supporting capacity, measures should be taken to make sure their activities include restoration objectives.	1	3
Implement actions favouring the less fortunate within the community	A project helping the less fortunate promotes sustainable development since it reduces inequalities between individuals and groups. Projects favouring women and native issues or aiming at international solidarity are of particular interest here.	2	2
Implement actions favouring the less fortunate outside the community	A project helping the less fortunate (outside the community) promotes sustainable development since it reduces inequities between individuals and groups. It reduces absolute poverty, encourages community cohesion and cultural exchanges, and reduces migratory pressures linked to desperation.	2	2
Develop partnerships	Developing partnerships is an important element to sustainable development since each partner has something to gain. There are more chances that one's weakness is compensated by another's strength and that the project will be stronger through tough times. Partnerships force promoters to better define and explain the relevance of their objectives. This can lead to suggestions on what can be improved and helps to avoid costly errors.	3	3
Improve people's autonomy	A person or community who depends on systems (located outside the community) to satisfy their needs will be more vulnerable to market fluctuations or to unexpected events. Actions to encourage autonomy do not necessarily mean they have to be completely self-sufficient. It simply states that they can access to alternative ways of satisfying their needs.	3	3
Respect human rights	Respecting human rights is imperative when it comes to satisfying people's needs. Actions restricting the practice of fundamental rights may lead to resistance and revolt (which is not compatible with long-term development).	2	2
Assure fair distribution of advantages within the population	Promoting collective use of goods and services and redistributing direct and indirect advantages (resulting from projects) throughout the population increases the feeling of belonging and mutual respect between beneficiaries.	2	2
Promote native cultures	The lack of knowledge about native culture is an exclusion factor and a source of dispute between communities. Native cultures have a long history of interactions with natural systems. They can be a good source of knowledge, attitudes and values that can benefit sustainable development projects. Recognized native values are respect, mutual aid and sharing.	1	1
Diversify the options	To satisfy human needs, the project should explore new options reducing pressure on existing resources or should use new resources.	3	3
Innovation potential	The ability to innovate can be a determining factor leading to technological change and better usage of resources, as well as finding better ways of fulfilling people's needs.	3	3

APPENDIX 4

EXAMPLES OF INDICATORS

- Paper consumption (number of sheets) (per day, per individual, over the course of the event).
- Avoided costs (paper consumption).
- Paper quality (recycled content, % of post-consumer fibre content).
- Number of reusable cups and containers distributed (per day, per individual, over the course of the event).
- Number of cups used (per day, per individual, over the course of the event).
- Number of coffees distributed (per day, per individual, over the course of the event).
- Number of waste bags used (per day, per individual, over the course of the event).
- Total weight of waste (kg) (per day, per individual, over the course of the event).
- Number of bags of recovered material.
- Weight of bags of recovered material (kg).
- 1,200 kg of compostable matter sent to a landfill site = 1,000 kg of CO_2 equivalent emissions:
    - *ICF Consulting, 2001, determination of the impact of waste management activities on greenhouse gas emissions, report submitted to environment Canada by ICF Consulting, 32 pp.*
- Number of recovered cardboard boxes.
- Number of recovered name tags.
- Participant carpooling ratios.
- Ratio of travelling via public transport.
- Ratio of fuel-efficient vehicles.

IN THE QUESTIONNAIRE, INCLUDE THE TYPE OF VEHICLE USED

- GHG offsets or offsetting twice.
- Number of trees planted.
- Number of participants.
- Local economy spin-offs.
- Benefits from these actions on sustainable development.
- Number of articles or interviews (media).
- Number of sponsors, the sum of money.
- Number of people who were intrigued by your event and who want to apply these actions to their own events.

APPENDIX 5

CLAUSES ON SUSTAINABLE DEVELOPMENT

RESTAURANT AND CATERING SERVICES SHOULD:

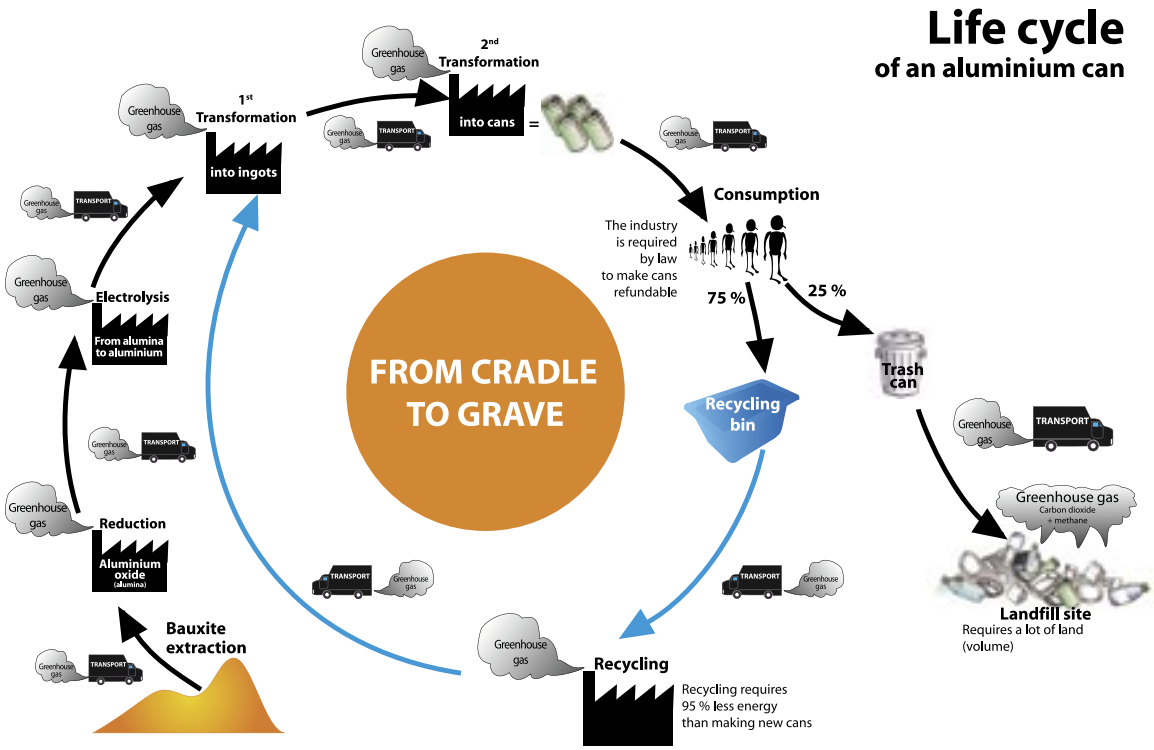
- Use sustainable tableware (the word "sustainable", in this context, signifies reusable or reused items during or after the event), and table covers for mealtimes and coffee breaks.
- If, however, plastic material is used, only PET (polyethylene terephthalate) plastics will be considered.
- Use water fountains and juice and water jugs.
- Avoid, if possible, using individually wrapped portions.
- Specify which products can be individually wrapped in your calls for tenders.
- During on-site preparations, sort the material to be disposed of in the appropriate containers or bins.
- Prioritise, if possible, regional, biological and/or fair-trade products.
- Indicate product status and origin in your calls for tenders.
- Plan to redistribute (within reasonable time limits) food surpluses to local charities.

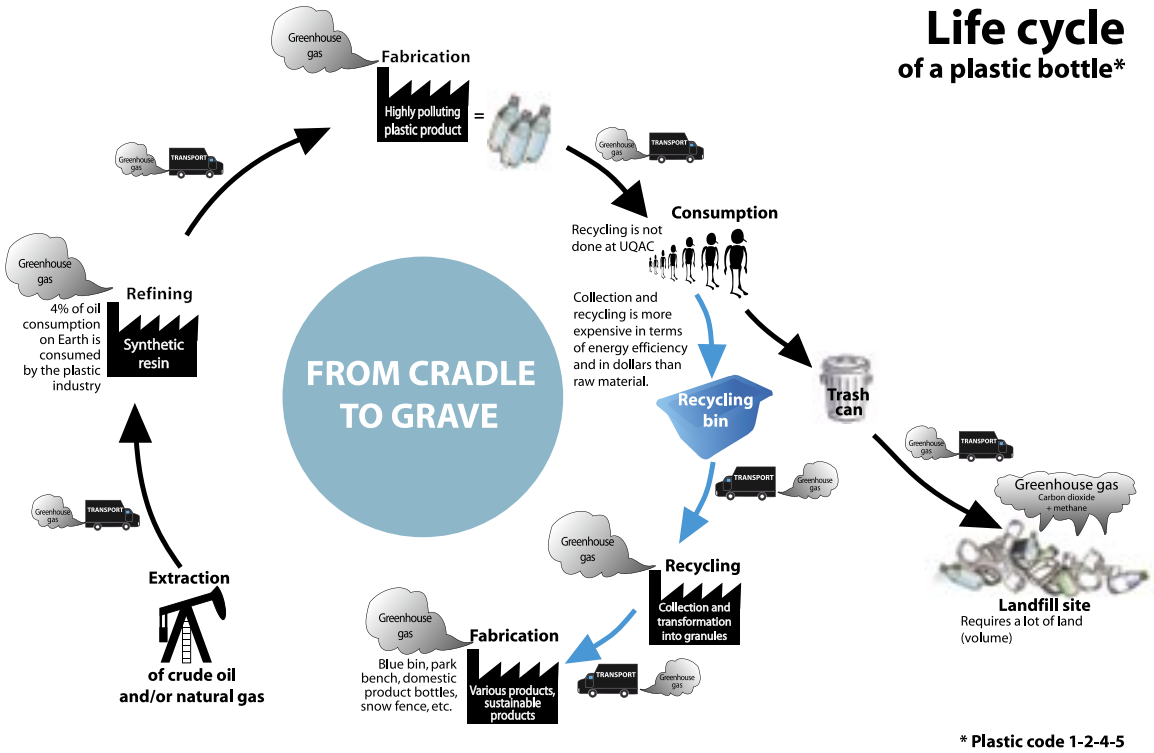
FACILITATING THE WORKLOAD FOR SELECTED SUPPLIERS

- Event organisers will have all the necessary equipment for sorting and disposing of residual materials (for the restaurant and catering service).
- Event organisers will distribute reusable cups for warm and cold beverages to all participants.
- Event organisers will provide (to bidders), in their calls for tenders, all necessary information regarding sustainable development criteria.

APPENDIX 6

LIFE CYCLE OF CERTAIN PRODUCTS





* Plastic code 1-2-4-5

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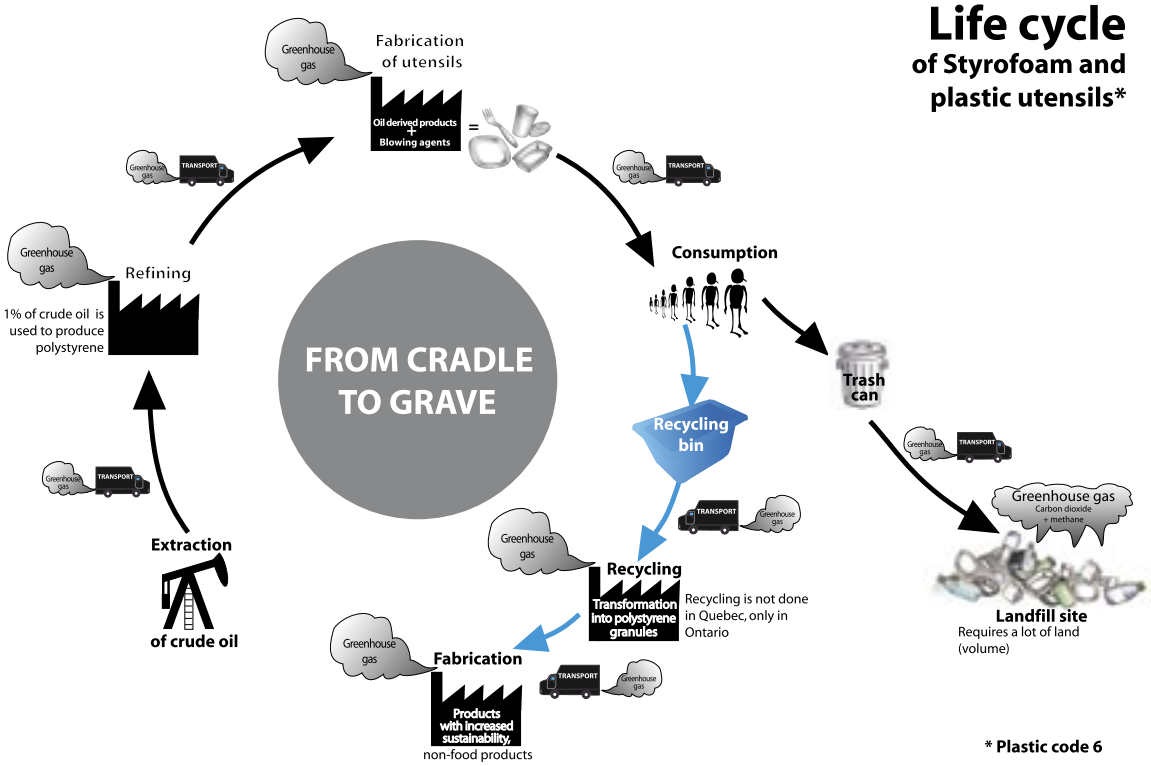
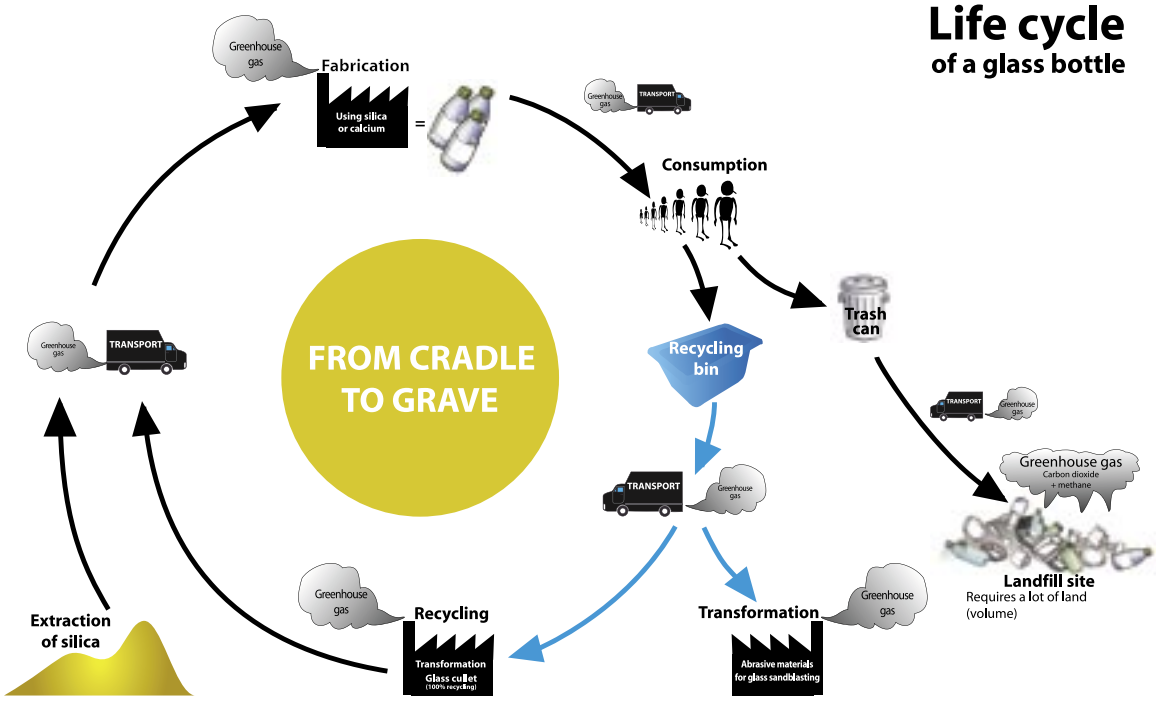
UNIVERSITÉ DU QUÉBEC À CHICOUTIMI

Life cycle
of Styrofoam and plastic utensils*



* Plastic code 6

Life cycle
of a glass bottle



APPENDIX 7

EXAMPLE OF CALL FOR TENDERS

Date: November 29, 2006
Bids must be sent by email to: *colloque&congress@2026.ca*

Opening date: 8:00 AM, November 30, 2026
Closing date: 5:00 PM, December 6, 2026

Ms. Conference and congress
Responsible for logistics
2026 conference
Tel.: 111-2026

Your bid could be disregarded if it does not comply with the specifications described in this document.
The 2026 conference organising committee is not obliged to accept the lowest bid nor any other bids.
The organising committee will evaluate the bids according to the criteria and the weighting described in this document.
For further information, please contact Ms Conference and Congress by email or telephone.

CALL FOR TENDERS

The 2026 conference organising committee wishes to receive one or more lunch proposals for conventioneers during the 5th 2026 event held at *Whereitis*, on January 19, 2026.

Bidders should give as much information as possible for each proposal. Bidders may make as many proposals as they wish, as long as the bidding documents and their specifications are clear and concise.

GENERAL INFORMATION AND PARTICULARITIES

1- INSTRUCTIONS:
Serve lunch during the 5th 2026 conference entitled: *"What do we do in 2026?"*

2- DATES AND NUMBER OF PLACE SETTINGS
Thursday January 19, 2026. Approximately 100 place settings
The organising committee will cover the cost of meals. Conventioneers who prepaid the meal fees will receive dining room access passes (or meal tickets) from the organisers.

3- LOCATION
The dining room will be located in the centre of the building.

4- OPENING HOURS
The dining room will be open to conventioneers from noon to 1:30 PM.

5- PRICE
Bids will indicate a per-meal price including one glass of wine.
This price will not exceed two dollars ($2), taxes and gratuities included.
The 2026 conference organising committee will pay the caterer according to the number of meals served to conventioneers.

Bidders can, if they wish, offer the two coffee breaks (one in the morning and one in the afternoon) free of charge in exchange for business exposure. If you would like to take advantage of this opportunity, please let us know and include what you will serve as snacks and beverages.

6- MENU

The menu should include an entree or soup, the choice between two main courses (one vegetarian) and a dessert. The caterer will also offer a choice of salads. The caterer will also plan to offer beverages such as tea, coffee, herbal tea and water. The meal could be served as a buffet. In his bid, the bidder will provide the complete menu he has planned for the event.

7- REGIONAL PRODUCTS

Caterers will prioritise regional products and will provide proof thereof in their proposals.

8- SUSTAINABLE DEVELOPMENT

In compliance with the ØØ or *préventif pour le climat*™ event objectives, the caterer will apply sustainable development practices:

- Use sustainable tableware. The word "sustainable", in this context, denotes reusable or reused items during or after the 2026 event (plates, bowls, cups, glasses, jugs, utensils).
- Table covers and napkins should also be sustainable.
- If, however, plastic material is used, only PET (polyethylene terephthalate) class I plastics will be considered. Products containing recycled fibres will also be considered.
- Avoid, if possible, using individually wrapped portions and indicate, in your call for tenders, which products will be individually wrapped.
- Prioritise, if possible, regional, biological or fair-trade products. Indicate product status and origin in your bid.

9- BEVERAGES

Bidders will serve one glass of biological wine per individual (during lunch). They shall serve the wine in sustainable glasses or cups.

10- MATERIAL DISPOSITION

Bidders will agree to redistribute unsold prepared perishable food products to local non-profit organisations (who offer food services).

11- DISPOSAL OF RESIDUAL MATERIAL

All products sent to the dining room and which may later be thrown away (table leftovers, plastic items, etc.) will be disposed of in the recycling bins located in the centre of the building. Unconsumed foods will be disposed of by conventioneers themselves.
Bidders will assure the presence of one person near the recycling bins to give the appropriate guidelines.

12- LOGISTICS

In their proposals, caterers should list the equipment they plan to install in the centre of the building, including all related accessories (extension cords, etc.).
The dining room furniture is under the responsibility of the conference organising committee (rectangular tables for conventioneers, chairs, rectangular tables for the buffet).

13- LICENCE

Caterers will provide proof of licence for such events in their proposals.

INSTRUCTIONS TO BIDDERS

LISTED PRICES

The conference organising committee reserves the right to accept offers in whole or in part, or to modify (as needed) the quantities listed (as described in the specifications).

CONDITIONS AND RESTRICTIONS

Bids should not hold any conditions or restrictions.

BID VALIDITY

The proposed prices will not be subject to change until January 19, 2026 inclusively.

BID PRESENTATION

Send your bids by email to: *colloque&congress@2026.ca*

BUSINESS FAILURE

The contracting business will be held responsible by the organising committee for any and all problems arising from failure to deliver or delays in delivering contracted goods.

CLEANING AND MAINTENANCE

Suppliers will keep the area secure, in good order, clean, and free from waste and scrap accumulation.

INSURANCE

Suppliers will be covered by liability insurance ($100,000 minimum coverage) valid until the end of the event.

PRICE

Bidders can submit one or more proposals (include them in the appendices). If the content of the various proposals is similar, the distinguishing elements can simply be pointed out.

Prices, in Canadian dollars, should include taxes and gratuities.

Total price should include transportation, customs, insurance, and set-up and cleaning fees.

Prices will include the presentation of the enclosed bid(s) and meal and service preparation.

VALIDITY

The present offer is valid until 5:00 PM, December 6, 2026.

APPENDIX 8

PROSPECTIVE BIDDER EVALUATION GRID

PARTS	CRITERIA	EVALUATION (/15,/10,/5) *Weighting example*
Economical	Menu	/15
	Price	/15
	Portion	/15
	Service	/10
	Bid quality	/10
	Efficient food usage	/5
	Introduces interesting solutions	/5
	Encourages partnerships	/15
	Contributes to knowledge transfer	/5
	Participates in a social economy program	/10
	Invests in regional development	/15
Social et ethical	Gives access to fair trade products	/15
	Gives access to biological products	/15
	Gives access to regional products	/15
	Has a sound reputation	/10
	Has a regional head office	/15
	Its menus outshine traditional ones	/10
	Introduces interesting solutions	/5
Environmental	Uses sustainable tableware	/15
	Uses sustainable cutlery	/15
	Uses sustainable table cloths and napkins	/15
	Uses recycled table cloths and napkins	/5
	Contributes to energy efficiency	/5
	Individually wrapped portions	/15
	Introduces interesting solutions	/5
	Total :	/295

How to use the evaluation grid

The criteria are weighted as follows /15, /10 or /5. Essential criteria are weighted /15. Important criteria are weighted /10 and the less important criteria are weighted /5. This weighting is essential since the "price" and the "introduces interesting solutions" criteria may not have the same importance to your organisation. We suggest you weigh the criteria and include the results in your calls for tenders. Suppliers will know what is expected of them.

EXAMPLE OF AN EVALUATION

BIDDER 1

- Offers a $10 meal, which is the asked price.
- Offers local products and identifies them.
- Offers organic products and identifies them.
- Offers very few individually wrapped portions (Only two– milk carton and butter).

BIDDER 2

- Offers an $8 meal, which is below the asked price.
- Offers very few local products and does not indicate their origin.
- Only organic product is coffee.
- Does not specify how the products are wrapped.

Here is a partial analysis of the two bidders according to these 4 criteria:

CRITERIA	BIDDER 1	BIDDER 2
Price	10/15	15/15
Gives access to regional products	8/10	2/10
Gives access to organic products	8/10	2/10
Does not use individually wrapped portions	4/5	0/5
Total :	30/40	19/40

We selected the lowest bidder for the "price" criteria and gave him the highest review. The second criterion has a lower review and so on. For each evaluated criteria you will find the differences between each bidder. This method introduces different ways of evaluating bidders other than simply using the economical factor (remains important but is not the only criterion).

APPENDIX 9

COMMUNICATION WITH SUPPLIERS (CATERERS)

FROM THE DESJARDINS ANNUAL MEETING REPORT

Eco-advisors responsible for the Ø waste objective met with the Palais des congrès de Montreal employees (chef, waiters and dishwashers) to evaluate the types of materials to be sorted and to establish guidelines for achieving the objective. The implication of the caterer's team was an important contributing factor to achieving the objective.

The meetings and communications between the caterer and his employees included the following elements:

- Assure that the meals and coffee breaks are served in sustainable tableware. Milk and juice in jugs.
- Assure that the table covers and napkins are sustainable or compostable.
- Raise caterer (and his team) awareness and insist on the fact that the event will only be a success if the objective is achieved.
- Request their participation.
- Change, if necessary, the location of waste containers (in the kitchen) in order to place recovery bins where recovery trolleys will have easy access to them.
- Discuss the location (where in the kitchen) and weighing capacity of the scale.
- Inform the caterer that a team of volunteers will be present in the kitchen to sort and weigh the recovered material.
- Assure that there are sufficient well-identified recovery bins in the kitchen.
- Assure good communication between the caterer and the redistribution company so that the food is collected within reasonable time to free up refrigerator space (hygiene regulations).
- Assure there will be sufficient garbage bags in case of residual material overflow.
- Raise caterer (and his team) awareness so that residual materials from the Desjardins annual meeting are not mixed with other materials from other events.
- Obtain a list of the food served (during meals and coffee breaks) to better inform volunteers.

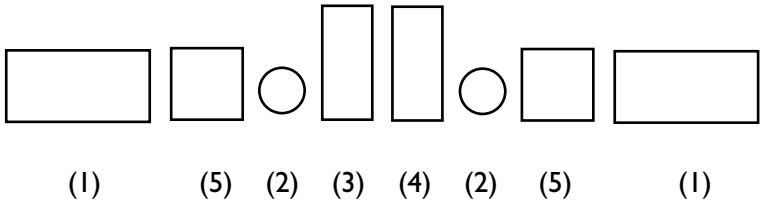
The caterer and his team's excellent collaboration made it possible to achieve the actions listed above. Nevertheless, the way the kitchen was organised (Palais des congrès de Montreal) left room for residual material contamination. For example, polystyrene cups were found in the plastic, glass and metal (PVM) bin and dangerous material bins (kitchen heating plates). It is therefore very important to raise caterer awareness upstream (using signs to distinguish which materials are recyclable or not) regarding all types of wastes which are related to his activities and products (in order to avoid or reduce their usage).

APPENDIX 10

INSTALLATION OF A SORTING STATION

We suggest placing sorting stations at the ends of the dining room. Each one will be made up of:

- Two long tables (1) where participants can place their food trays and empty plates in the plastic containers provided by the caterer.
- Recipients for liquids (2).
- A rolling bin for glass and metal lined with a Gobecan bag for collecting cans (3).
- A rolling bin for end-waste lined with a rolling-bin size bag (4).
- Two composting containers (5), lined with biodegradable bags: full bags are placed in a compost rolling bin and kept in a separate area.
- In this system, the rolling bins were placed in the middle and from there, on each side, were placed two complete stations to accommodate two clients at a time.



- Plan to buy bags which are the right size since organisations do not always have them on hand. They not only help to keep rolling bins clean but also simplify the tasks and avoid material overflow.
- For more information on biodegradable bags, consult the technical advice by: RECYC-QUÉBEC, Sacs dégradables : Propriétés et allégations environnementales (2005) at : *www.recyc-quebec.gouv.qc.ca (french only)* in the "centre de documentation" under "plastique"

SUGGESTIONS

The following suggestions come from the experience of the Zero waste, carbon neutral report of the Canada-wide Science Fair 2006:

- Plan to have a large number of people available for better task distribution.
- Improve your call for tenders by mentioning that beverages must be served in large formats or in bulk.
- Require sustainable tablecloths for the stations instead of disposable plastic ones.
- At the last minute, many objects were distributed by some partners, such as flimsy frisbees made in China. In fact, many of them were found in waste bins. It is important to limit the number of these objects distributed during such an event and to investigate the durability and pertinence of the objects that will be acceptable to distribute.
- Be cautious with cup and flask distributions. During the Canada-wide Science Fair 2006 event, this did not work out very well as participants were not always carrying their beverage containers with them.
- Plan to have a storage area to avoid recycling bin contamination between two sorting activities.
- After meal times, plan one hour for cleaning and weighing.
- For future projects, plan to evaluate cost-savings associated with such an event.

Source: Zéro déchet, carbo-neutre à l'Expo-sciences pancanadienne 2006
http://ecoconseil.uqac.ca/eco-conseillers/rapport_stage/helene_cote_oct2006.pdf (french only)

APPENDIX 11

GHG EMISSION CALCULATION GRID

There are two types of data that you need to know to evaluate participant GHG emissions: distance travelled and method used. A questionnaire, a legend and a calculation sheet (used to write all compiled data) will be explained in the following pages.

CONVENTIONEER QUESTIONNAIRE

Departure	Transportation	Departure	Transportation	Departure	Transportation
Name of pollster :					

You can fill out this questionnaire once the conventioneers have arrived. It is also interesting to assess the CO_2 emitted and the number of trees to plant. You can also ask participants, when they pre-reregister, how they plan to travel. It is also a great opportunity to promote alternative transportation methods and to announce public transportation related partners.

EXAMPLE OF QUESTIONS FROM THE PRE-REGISTERING FORM

For transportation methods, I think of:

- Driving solo.
- Using public transportation: car pooling, bus, air travel, train.

Codes used during ACFAS 2005 in Chicoutimi

Legend	Code
Departure from Quebec	
Montréal :	M
Trois-Rivières :	T
Rimouski :	R
Chicoutimi :	C
Québec :	Q
Abitibi :	A
Hull-Ottawa :	H
Departure from Canada	
Ontario :	ON
Maritimes :	MAR
Alberta :	AL
Saskatchewan :	SA
Manitoba :	MA
Colombie-Britannique + Yukon+ Territoires de Nord-Ouest (Nunavut) :	YU
Modes of transportation	
Avion : (plane)	A
Train : (train)	T
Autobus : (coach)	B
Voiture : (car)	V
Covoiturage : (car pooling)	C
Taxi : (taxi)	X

And so forth for international departures

CALCULATION

Please download the MS Excel™ calculation tool : *http://ecoconseil.uqac.ca/chaire/documents/ChaireEcoConseil_CalculateurGES_EER_2009.xls*

Transport related GHG emissions and amount of trees required to offset them

Fill the yellow boxes starting with participant #1
The instructions can be found on the previous page

Total number of participants even if they haven't filled the questionnaire	**100**
Trees to plant to be carbon neutral:	**843**
Trees to plant to be Climate Positive ™:	**1685**

Participants		TRANSPORTATION CAR	BUS	TRAIN	PLANE	Emitted green house gases (GHG) in tons of CO2 equivalent (tCO2e)	Trees to plant to offset the GHG
1	Passengers (for car only)	1				0.24	1.20
	Km (both ways)	1000					
2	Passengers (for car only)					2.97	14.85
	Km (both ways)				10000		
3	Passengers (for car only)					0.00	0.00
	Km (both ways)						
4	Passengers (for car only)					0.00	0.00
	Km (both ways)						
5	Passengers (for car only)					0.00	0.00
	Km (both ways)						
6	Passengers (for car only)					0.00	0.00
	Km (both ways)						
7	Passengers (for car only)					0.00	0.00
	Km (both ways)						

FORMULAS

GHG calculations (kg CO2 eq.) = emission factor for transportation method (e.f.) X travelled distance (km) x (100/occupation rate (%)) x number of trips.

Calculation of the number of trees to plant for a Ø carbon event (after 70 years of growth) = GHG emitted (kg)/0,140.

Calculation of the number of trees to plant for a climate positive event (after 70 years of growth) = (GHG emitted (kg)/0,140) x 2

Note 1: The tutorial (spreadsheet « Mode d'emploi») must closely be followed to qui est fourni avec ce calculateur.
Note 2 : Calculation precisions and details are described in section B of the «Mode d'emploi» spreadsheet. Please take note of them. One of the main precision is that the sequestration factor used to account for carbon store in trees comes from the Tree Canada. This factor represents the average carbon store for an average tree (mixed species) at average latitude over 80 years. This average sequestration factor is 0,200 tonnes of CO_2. This factor must not be apply to bush trees.
Note 3 : For sustainable events that would like to offset GHG emission via the Carbone Boréal project, the Chair uses the same calculation tool but had to specifically adapt the sequestration factor for black spruce boreal afforestation project, this factor being 0,140 tonnes of CO_2 per tree over 70 years. (Gaboury et al 2009). This «adapted» calculation tool can be download at *http://carboneboreal.uqac.ca*

Reference:

1 The tutorial (spreadsheet « Mode d'emploi») must be closely followed in order to use the calculator."

2 GHG Protocol, 2005 – Calculating CO2 Emissions from mobile sources, version 1.3 – *http://www.ghgprotocol.org*

3 GIEC, 1999. L'aviation et l'atmosphère planétaire, résumé à l'intention des décideurs. 25 p.

4 UNFCC, 2005 UNFCC Climate neutral meetings, 8 p.

Number of people who filled the questionnaire	**2.00**
Number of people who took part in the event	**100.00**
Calculated GHG emissions (tCO2é)	**3.21**
Ajusted GHG emissions (+5%) (tCO2é)	**3.37**
Extrapolated GHG emissions (tCO2é)	**168.53**
Trees to plant to offset the extrapolated emissions:	**842.63**
Trees to plant to be Climate Positive ™	**1685.25**

LIST OF ACRONYMS

ACFAS	L'Association francophone pour le savoir
CO_2	Carbon dioxide
GHG	Greenhouse gas
IPCC	Intergovernmental Panel on Climate Change
ISO	International Organization for Standardization
PVM	Plastic, glass, metal
RQFE	Réseau québécois des femmes en environnement
SOPECOR	Fondation de la société pour la protection de l'environnement du Collège de Rosemont
UNFCCC	United Nations Framework Convention on Climate Change
UQAC	Université du Québec à Chicoutimi

FOUNDING PARTNERS

Recyc-Québec
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Guide to Sustainable Event Management

UQAC