1. Introduction

The Community Eco-Management and Audit Scheme (hereafter EMAS) was originally established in 1993 by Regulation (EC) No 1836/93. This voluntary scheme was originally restricted to companies from industrial sectors. EMAS was revised in 2001 by Regulation (EC) No 761/2001 of the European Parliament and of the Council of 19 March 2001 allowing participation by organisations from all economic sectors, which is currently in force. Now, a second revision of EMAS has been undertaken, called EMAS III. This new regulation foresees the development of sectoral reference documents on best environmental management practice (Article 46). The goal of this workshop was to bring stakeholders together to initiate the information exchange process that will provide information on sectoral best practice to be used to develop the reference document for the tourism sector. As a starting point, the consultancy Grontmij-Carlbro prepared a background report that was sent to working group participants in advance of the workshop.

2. Opening of the workshop and Introduction to EMAS Sectoral Reference Documents
The chairman, HS, opened the session and welcomed the participants. After a brief explanation of the meeting procedure, including obtaining permission to audio-record proceeding, an introduction was given. Working group members presented themselves and summarised relevant experience in environmental assessment, the tourism sector, and EMAS. The meeting agenda (Annex II) was accepted without changes.

3. Presentation 1: Purpose and goals of the meeting

The EMAS III regulation framework, under which the document is being developed, was presented. Article 46 states that the European Commission will elaborate sectoral reference documents in which best environmental management practices, indicators and, where appropriate, benchmarks of excellence will be developed. The Tourism sector was identified as a relevant sector for development of one of the first EMAS reference documents. The scope of the documents will be technical, in order to describe what organisations can do in a given sector. Environmental indicators and benchmarks of excellence will be developed at the process level and will be derived from the best performers, but should be achievable by all organisations. Where relevant, these sector specific indicators must be used by organisations seeking EMAS registration, but the intention of the document is to provide guidance for all interested organisations, not just those seeking EMAS registration.

Discussion. There followed a brief discussion in which it was clarified that the term "technique" within the document is broadly defined, and includes management options to influence guest behaviour in addition to technical options.

4. Presentation 2: Lesson learnt

Information on how the documents were developed, and the structure of the documents, was presented. The template used for the retail sector reference document will be used again. This template is based on the systematic and technically-oriented technique description used in the best available technique reference documents (BREFs) developed by the so-called Sevilla process. Contact with front-runner companies and site visits are important to collate best practice data. Questionnaires proved ineffective.

Discussion. There followed brief discussion in which it was stated that the EC intends to update reference documents periodically, but there are no definite plans for this yet as the project is still in a pilot phase.

5. Presentation 3: Overview of the Tourism Sector

The tourism sector was defined based on appropriate NACE codes, and relevant actors listed. Information on the economic contribution of tourism to the EU27 economy, in terms of value added and employment, was presented. The structure of the tourism sector was summarised.
Discussion. There was some discussion over high rates of EMAS registration in Spain compared with other countries in which two factors were proposed: (i) a high proportion of environmentally-aware German tourists (and enterprise owners); (ii) subsidies for EMAS implementation in Catalonia (also for ISO 14001).

There was a lengthy discussion over the scope of the document. It was noted that recreational attractions, including theme parks, are missing from the background report. It was agreed that this is an important subsector for tourism, but because it is so broad in scope (from golf courses to museums) it might instead be include in a dedicated best practice document for recreation (to be decided by the EC). However, important entertainment facilities commonly found within hotel grounds (e.g. swimming pools) will be included in the document. The applicability section of technique descriptions will be used to indicate where specific activity or amenity hotel combinations are excluded (e.g. building envelope improvement not applicable for castle-hotels). Non-European destinations will be included under the Tour Operator choice editing and green procurement technique, consistent with EMAS Global.

The order of techniques will be rearranged from the sequence existing in the background report, to reflect the sequence of actors in the sector (i.e. Tour Operators first point of customer contact), and environmental priority. The distinction between "serviced" and "non-serviced" accommodation in the background report is confusing, and will be revised. The IPTS will ensure that sector-specific terminology is used accurately. Specific guidance and a simplified indicator subset will be provided for micro enterprises, summarized in a dedicated section.

The Move It program was referred to, in which tourist packages are certified in clusters. KE will provide information to the IPTS on EMS implementation in micro-destinations.

6. Presentation 4: Content of the Background Document

SH presented the contents of the background document prepared by the Grontmij-Carlobro consultancy. Key environmental aspects of the tourism sector were referred to, and the list of Best Environmental Management Practice (BEMP) techniques included in the background document were listed. Main features of these techniques were summarized, with an emphasis on the overlap with other environmental measures and instruments, such as ecolabel criteria for relevant products and services.

Discussion. There was a discussion on appropriate environmental indicators in which it was noted that the UNEP global sustainable tourism criteria, designed for hotel and tour operators to accredit packages, will be updated later this year. Meanwhile, the EcoDestinet project is developing European ecolabel criteria. In addition to core indicators, EMAS regulation states the need for use of additional sector specific indicators were relevant, and it was emphasized that meaningful and informative environmental performance comparisons can usually only be made at a process level.

7. Presentation 5. Environmental Aspects of the Tourism Sector
The main environmental aspects, and associated environmental impacts, arising from tourism activities were listed. The relationship of environmental aspects to specific tourism actors, and mechanisms of influence (direct and indirect) were summarized.

**Discussion.** There was a discussion about the complications of accounting for indirect aspects of Tour Operators, especially as they use different methods for assessing environmental performance. Carbon footprinting highlights the contribution of air travel to tourism impact, but there is a move towards more balanced environmental assessment methods.

It was agreed that the document should indicate the relative importance of different aspects for tourism actors, and focus on the more important aspects. The list of environmental aspects on p.6 of the draft tourism report will be expanded (MP contributed additional information). In some cases, it can be important to focus on aspects that are highly visible to guests, even if they are a lower environmental priority, in order to advertise environmental responsibility and maintain environmental credibility for certification schemes.

### 8. Presentation 6: Techniques

The purpose and structure of the workshop was summarized in a brief presentation that led into the presentation of one slide per BEMP technique, with contributions from participants and discussion throughout. Feedback is summarized in relation to the background report and the original slides (see annex III), per technique, with key conclusions repeated at the end of these minutes. The conclusion slides could not be presented during the workshop owing to time constraints. The information and actions offered by participants during the workshop are also summarized in the conclusions section (Table 1). Relevant discussion for each technique is summarized below:

**Cross cutting techniques**

**A1. Environmental Management**

It was clarified that best practice in this technique is not specifically for EMAS, but for effective implementation of an EMS in any organisation that wishes to use the reference document to improve its environmental performance. Public bodies at local and regional level play an important role in managing tourism destinations. This falls under the scope of the public administration reference document, but the possibility of including a technique for public bodies in the tourism reference document will be explored. Portugal and Oman were offered as example countries for public authority GRI reporting. SP volunteered information from a project he is involved with to identify the characteristics of good performing administrations.

The problem of standard proliferation was raised. Often, local and regional authorities promote their own tourism environmental award schemes that local enterprises may prioritise over international standards. Wherever possible, existing international standards should be referred to in the document and, where sufficiently rigorous, be used to provide benchmarks (e.g. ecolabel criteria, as listed in the conclusions section of the background report). It was emphasized that the document will provide a framework for improving environmental performance, with reference to front-runner performance, and will therefore provide guidance relevant for compliance with any EMS or environmental standard.
**A2. Monitoring and maintenance.**

It was noted that biodiversity impacts cannot be meaningfully monitored at the enterprise level – coordinated local or regional level monitoring is required (e.g. local and regional administrations, ideally working with tour operators and NGOs). So far, there is little evidence of this.

The Ecotravel foundation was referred to, that encourages improved monitoring of consumption to achieve cost savings. In some cases, hotel managers may not even know where electricity and water meters are located, suggesting that it will be a challenge to convince managers of large enterprises to install the sub-metering necessary to identify and report on specific improvement options. It is important that financial accounting systems and staff are fully integrated into environmental plans, in order to calculate possible financial savings arising from reduced consumption. Financial data can be used to calculate the lifecycle costs and benefits of improvement options, including secondary factors such as labour and transport.

Convincing SMEs to monitor consumption and calculate appropriate indicators will also be challenging, but examples from the Myclimate organization were cited where relatively simple monitoring based on Excel spreadsheet calculations led to significant cost savings. BL agreed to provide the IPTS with the checklist criteria used by hostels to reduce energy and water consumption, while Marco Walter agreed to provide information on monitoring tools available online for small enterprises, and HH offered information on the Via Bono Scheme in Germany aiming to establish zero and minus energy hotels. The EC and UNEP also provide online energy tools for hotels.

**Serviced accommodation**

**SA1: Retrofitting building envelope**

This technique will be renamed to "Energy efficient building envelope" to reflect the inclusion of new buildings as well as retrofitting of existing buildings. Primary energy used for building heating, ventilation and air conditioning, irrespective of source, is the appropriate indicator although some of the factors used in the calculation of this indicator are not standardized. Various building energy standards may be referred to, including BREEAM, LEED and MINERGIE, and also CT350 building indicators. Cross reference will be made to the construction document where planning issues are dealt with in detail.

**SA2: Optimise HVAC**

A number of measures were proposed for inclusion in this technique:
- Temperature restrictors
- Detection systems that stop heating and cooling when doors or windows open
- Cleaners opening windows for ventilation when cleaning room
- Guest information on when to open windows and curtains in hot climates
- Heat recovery on campsites, from wastewater (Marco Walter will provide info)
- Lisbon University natural ventilation e.g. (SH will provide info)
It was noted that the IPTS is also involved in building ecolabel criteria development, so any overlap will be exploited.

SA3: Alternative energy Sources
There was a discussion over the indicator on renewable energy use. Generation of renewable energy is only useful if it provides necessary energy, and it was agreed that within the document energy minimization should be prioritised. Wind and biogas will be included in the technique, and fossil-based CHP may be excluded. A camp site near Venice was referred to as a case study of best practice, where the management spent 2 million EUR to achieve zero energy status, based on a business case.

A discussion on the use of green energy certificates concluded that these can drive additional investment in renewables, but can also simply shift renewable electricity consumption towards specific 'green' consumers without significantly increasing renewable generation capacity. The purchase of 'green' electricity will be regarded as basic good practice, but not a defining feature of best practice.

SA4: Efficient lighting.
There was discussion on the suitability of low energy lights across all applications, including frequent on-off and diming lights, and soft-tone light areas. It was concluded that there are no longer any significant barriers to installation of low energy light bulbs.

Outdoor lighting was missing from the background report and will be included in a new technique. Sodium vapour lamps are a good example of outdoor lighting that reduces light pollution for wildlife and requires lower maintenance. MP will provide IPTS with a published guide on placement of outdoor lighting to reduce light pollution.

As a performance indicator, W/m² fails to account for appropriate use of installed lighting – an additional indicator will be considered, for example "installation of intelligent lighting control system".

SA5: Minimize water consumption in guest area.
Points from the construction document can be used for this technique, including use of grey water in green areas, rainwater collection, correct timing of automatic water flow control, and avoiding excessive water pressure.

An additional specific suggestion was the use of pool water to flush toilets. Guest information is important, as is reducing consumption of bottled water (though the latter point may be addressed under green procurement or food and drink technique).

SA6: Minimise laundry water consumption
It was agreed that in the first instance laundry should be minimized. Therefore, a more appropriate indicator might be l water used per guest night, rather than per kg laundry washed. Use of detergents and energy should also be considered in laundry technique.
The source and quality of bed linen and towels are important issues that could be included in this technique, or in a separate section dedicated to green procurement which would tie in with other EC policy such as ecolabels. The best quality towels can be used over 1000 washes, whilst organic and GOTS certification of cotton indicates lower production impacts (overlap with retail document).

**SA7: Water conservation in green areas**

There was discussion over whether the proposed indicator should be normalized according to area or guest night, with a suggestion that per guest night would be more appropriate for large hotels and per hectare more appropriate for small enterprises. The local availability of water is also important, and should be reflected in any indicator.

Soil additives that reduce evapotranspiration should also be considered. The section will be expanded to include biodiversity impacts and chemical use. Information to influence guest behaviour in local habitats is important, but will be considered separately.

**SA9: Waste prevention (first)**

It was agreed that this technique should come before waste reuse and recycling. Waste should be categorised by type, and it may be difficult for some types of accommodation manager to provide info, especially rural houses and holiday apartments where guests dispose of their own waste.

MP will provide some examples and information on waste avoidance through practices such as buying toilet paper rolls without cardboard centres, placing complementary consumables in locations they may be left if unused (i.e. not next to basin where they get wet). Marketing can be an important driver, of good and bad practice. Customers often expect a basket of complementary personal care products and large buffet selections. Also, there may be legal hurdles in some countries that make some waste reduction more difficult (e.g. on food packaging regulations).

SP offered an example of best practice in Egypt where a resort manager initiated a waste management facility that sorts most wastes and results in just a few percent being sent to landfill.

The issue of paper consumption and green procurement of paper was raised. Catalogue and other paper advertising is becoming less common with online advertising, but hotels may still use a significant quantity of paper.

**SA8: Waste Sorting and Recycling**

Internationally recognized symbols, or multiple languages, should be used to identify recycling facilities to all tourists. Scandic hotels offer separate bins for three types of waste, and could be used as an example.

It was noted that staff accommodation should be required to comply with same environmental standards as guest accommodation.
Non-Serviced Accommodation

NSA1: Measures to Increase local biodiversity
It was noted that the sale of endangered species should be avoided, and that green roofs and walls, natural pools also fall within scope of this technique. MW will provide information on green roofs and green walls, natural swimming lakes (with plants that clean the water naturally). Use of local organic products may also contribute towards local biodiversity, although the food supply chain is complex and this may not be an appropriate environmental indicator.

HH offered to provide information on a Bavarian forest hotel (Mürz) and MP offered to provide information on Hellenic Hotels in Greece that send organic waste to local farmers who supply food to them.

PG will provide IPTS with a copy of a document on best hotel practice for biodiversity produced by Business and Biodiversity.

NSA2: Treatment of wastewater
Provision of information to camping guests can be important to ensure that correct chemicals are used in chemical toilets, and correct washing facilities (with grease traps) are used for greasy or oily items.

Food and Beverage actors

FB1: Minimise water use in kitchens
There was some discussion regarding the scope of this technique, and a decision that, as with the laundry technique, use of detergents should be included. This will overlap with a separate green procurement section based on use of ecolabels, etc. Another important aspect for inclusion is the prewashing of dishes with water hoses prior to placing in dish washers – this can use a lot of water.

As with other techniques, some options, such as use of tunnel dishwashers, are not applicable to small enterprises.

The issue of flushing ventilation and water systems with insecticides, sometimes without notifying occupant guests, was raised as an example of bad practice.

FB2: Minimise energy use in kitchen
It was recommended that steamers, cooling and refrigeration systems, and clear separation of hot and cold areas should be included in this technique. Appropriate maintenance, such as regular cleaning of air filters, is also important

It was decided that this technique should focus on industrial kitchens, and that the applicability section should be used to exclude local traditional food preparation methods that necessitate use open fires, etc.
Regarding the appropriate indicator, there was a suggestion that the number of (hot) dishes served may be a more appropriate denominator for energy consumption than the number of dining guests, although it could be difficult to measure. HH will provide information on this.

FB3. Minimise waste from kitchens
There was discussion over the indicator to use for this technique. It is important not only to send organic waste for anaerobic digestion and composting, but to avoid waste in the first instance - a separate indicator is required to reflect this. There is overlap with the next technique on choice editing and portion sizes, etc.

FB4: Choice editing and green procurement
There was discussion over how to use certification schemes for green procurement, as they represent different levels of environmental performance (an example was provided for RSPO palm oil, which is accepted as sustainable biofuel feedstock in Germany). There are no mainstream alternatives to relying on existing certification and labeling schemes. The approach of the retail document will be adopted, in which certification and labeling schemes are classified approximately according to their environmental rigour.

Use of local food is another relevant indicator that can be used, but there was debate about the recommendation to reduce meat in the offer as this could be regarded as micro management that interferes with consumer choice and deters potential users of the reference document. However, meat consumption is a major driver of environmental impact that should be somehow reflected in best performance. Impact varies by type of meat, so perhaps should be ranked accordingly.

Indicators are required at a product group level, and the concept of secondary indicators was introduced in which users may be expected to comply with a selection of best practice across product groups in order to demonstrate overall best practice.

It was clarified that the document will rank techniques according to priority where relevant, but will not prescribe which best practice must be implemented in order to achieve EMAS.

Tour operators

TO1: Efficient office equipment.
It was agreed the scope of this technique should be expanded to include promotional material (although use of paper catalogues is becoming less common), and the name changed to "Efficient offices".

Regarding indicators, the number of employees may be a suitable denominator for office material and energy consumption, or perhaps turnover? Also, use of FSC certified and recycled paper are relevant indicators of more sustainable paper.

TO2: Environmental demands on suppliers
It was emphasizes that large tour operators have their own standards and codes of practice, with TUI and Thomas Cook regarded as leaders. Smaller tour operators require more
guidance on this, and it may be difficult to establish common standards across large tour operators who see environmental performance as competitive defining criteria now. NK and SP will send IPTS criteria used by Dutch and UK tour operators for accommodation.

TO3: Develop and promote eco-tours

The name of this technique will be changed to "Develop and promote eco-tourism", although its definition was subject to debate. The intention of this technique is to indicate front-runner (pioneer) tourism packages, that are likely to represent a small niche market but that could drive innovation.

An Austrian Ecolabel is being developed to identify Eco Packages, and it may be possible to use the criteria contained in this. The issue whether or not eco tourism can include flights was discussed. Carbon offsetting may be regarded as a minimum requirement for tour operators, but cannot be regarded as best practice or a central component of eco tourism.

Communication to the customer is a central aspect of this technique, including the avoidance of misleading advertising.

Additional techniques

Additional proposed techniques comprise:

- Transport within destination
- Major leisure facilities (especially swimming pool, jacuzzi, sauna and play areas likely to be present on hotel property)
- Room cleaning
- Green procurement for accommodation sector (chemicals, linen, consumables)
- Management of conferences and events
- Destination management (directed at local authorities)

9. Presentation 7: Environmental Indicators and Benchmarks

An overview of environmental indicators and benchmarks of excellence was presented, focusing on the derivation process and the need to concentrate on a process level that is relevant for all actors. Benchmarks are based on frontrunner performance.

10. Meeting close

Harald Schoenberger thanked all participants for their attention and constructive contributions. Owing to time constraints, it was agreed that the conclusions would be circulated to the working group with the minutes (summarized below). Comment on the conclusions is welcomed. It was also agreed to circulate the list of participants and their email addresses (Annex 1).
11. Conclusions

Table 1 lists the information and contacts that participants offered to provide to the IPTS after the meeting. In addition, major conclusions are:

- Techniques will be arranged in order of sequence within sector, and priority.
- "Serviced" and "Non-serviced" accommodation headings will be changed, and the distinction may be de-emphasised.
- At least one technique will be written for activities and facilities commonly found within accommodation enterprises (e.g. swimming pools).
- Other tourist activities, such as theme parks, may be included in a separate best practice document.
- A technique on transport within tourism destinations will be included.
- Staff accommodation should be covered by best practice and included in indicators.
- Chemical use will be included within a technique for cleaning best practice, and under green procurement.
- Slide 10: New buildings will be included in building envelope technique, to be renamed "Energy-efficient building envelope" (i.e. not restricted to retrofitting).
- Slide 12: Wind and biogas will be included in renewable energy section.
- Slide 14: Water pressure, timing of water devices, waterless urinals will be included in guest water use technique.
- Slide 15: Laundry water use technique will be expanded to consider detergent and energy use, and green procurement of detergent and textiles.
- Slide 16: Green area water use technique will be expanded to include chemical use and biodiversity management.
- Slide 17: Move recycling technique to after waste avoidance. Include guest info and internationally recognized symbols. Include multiple bins placed in rooms.
- Slide 18: Move waste avoidance technique to before waste recycling. Include training of employees, paper use, avoidance of individually packaged products.
- Slide 20: Include not selling endangered species in hotels and souvenir shops in biodiversity technique. Also include green walls and roofs, natural pools. May also include procurement from local organic farmers.
- Slide 21: Include transporting campsite wastewater to nearest WWTP in wastewater best practice for "non-serviced" accommodation. Advice of which chemicals to use in chemical toilets, and clear signing for where to empty waste water.
- Slide 23: Include pre-washing plates with high pressure water in kitchen water saving technique. Consider use of detergents.
- Slide 24: Include use of steamers, refrigeration systems, separation hot and cold areas, appliance placement, maintenance (e.g. filter cleaning) in kitchen energy efficiency technique.
- Slide 25: Include provision of individual servings instead of large buffets in food waste avoidance technique.
- Slide 28: Change technique name to "Efficient offices". Include promotional material (paper use, FSC certification, recycled). Number of employees could be used to normalize paper use.
- Slide 30: Need to define "eco tourism" – Austrian Eco Tour ecolabel criteria may offer guidance. Important that misleading claims are avoided.
Table 1. Summary of contributions offered during the meeting

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<thead>
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<th>Offered contributions</th>
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<tr>
<td>1. Info on EMS implementation in micro destinations</td>
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<td>1. Report on best practice for biodiversity</td>
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<td>1. Info on Via Bono scheme in Germany</td>
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<td>2. Indicator for chemical use in green areas</td>
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<td>3. Info on Mürz hotel in Bavarian forest</td>
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<td>3. Study on energy use in kitchens - indicator</td>
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<td>1. Info on tourism biodiversity best practice</td>
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<td>1. Info on natural ventilation in Lisbon University</td>
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<td>1. Env criteria used by Dutch tour operators</td>
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<td>1. Checklist criteria used by hostels to reduce energy and water use</td>
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<td>1. Info on best practice EMS implementation (focus on organisation structure and reporting)</td>
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<td>2. Guidance document on outdoor lighting</td>
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<td>3. Info on waste avoidance through green procurement, etc</td>
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<td>3. Hellenic hotel example of organic waste sent to local farm suppliers</td>
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<td>1. Info on a study of public administration destination management / reporting</td>
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<td>2. Example of water conservation in green areas</td>
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<td>3. Info on Egypt waste management best practice</td>
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<td>4. Env criteria used by UK tour operators</td>
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<td>1. Info on online monitoring tools for SMEs</td>
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<td>2. Info on heat recovery from wastewater on campsites</td>
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<td>3. Contact for zero-energy camp site in Venice</td>
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<td>4. Info on implementation of natural pools</td>
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<td>1. Opening and welcome by chairperson</td>
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<td>5. Overview of the Tourism Sector</td>
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<td>7. Environmental aspects in the Tourism sector</td>
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<td>8. Techniques used in the Tourism sector to address environmental aspects</td>
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<td>Lunch Break</td>
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<td>10. Environmental Indicators and Benchmarks of Excellence</td>
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<td>Coffee Break</td>
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<td>11. Way forward and information gathering</td>
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<td>12. Conclusions and close of workshop</td>
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Annex II: Attached information

See attached pdf presentations of:

1. Purpose and goals of the meeting
2. Lessons learnt from previous experiences
3. Overview of the tourism sector
4. Content of the background document
5. Environmental aspects in the tourism sector
6. Techniques used in the tourism sector to address environmental aspects
7. Environmental Indicators and Benchmarks of Excellence