

Joint Research Centre (JRC)

8. BEST ENVIRONMENTAL MANAGEMENT PRACTICE TECHNIQUES IN THE TOURISM SECTOR



Workshop held in Brussels on 31st March 2011

IPTS - Institute for Prospective Technological Studies

Seville - Spain

<http://ipts.jrc.ec.europa.eu/>

<http://www.jrc.ec.europa.eu/>

Description

Achieved environmental benefit

Environmental indicators

Cross-media effects

Operational data

Applicability

Economics

Driving force for implementation

Reference organizations

Reference literature

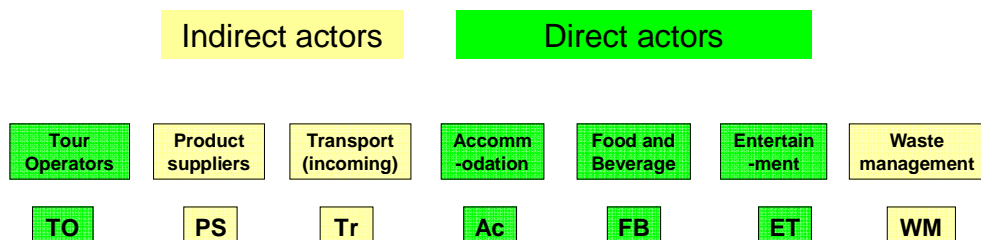
- **Description**
Background/context of the technique
Working principle
- **Achieved environmental benefit**
e.g. emission reduction, water protection, improved working conditions etc.
- **Environmental indicators**
Used to measure the environmental performance of the technique

- **Cross-media effects**
Impacts created by the use of the technique to other media: energy consumption, emissions, waste etc.
- **Operational data**
Technical guidelines and conditions for how to operate the technique
- **Applicability**
Types of companies that could adopt the technique

- **Economics**
Investment, running costs, consumables, consumption, maintenance etc.
- **Driving force for implementation**
Legislation, voluntary schemes, business incentives, image etc.
- **Reference organisations**
Retailers who are commercially using the technique

Goal:

Cover key aspects of the tourism chain over which tourism actors have significant influence



Purpose of these slides:

To stimulate feedback on the range, definition and content of BEMP techniques

A few key aspects of each technique listed

Possible indicators specified

Questions asked?

Discussion and feedback

Follows structure and sequence of Draft Tourism Report

Suggestions on technique scope?

- What should be included?
- Does the proposed issue require multiple techniques?

Can you offer information towards technique elaboration?

- Technical?
- Environmental?
- Economic?

Do you know a person or organisation (case study) who could offer information?

Do you know of an organisation worth visiting to view a range of best practice?

Cross-cutting (applies to all actors)

ISO 14001 and EMAS (Plan, Do, Check, Act)
Targets and reporting
Integration and coordination
Monitoring (see BEMP SA2)
Implementation (employee training and incentives)

Existence of appropriate structure and chain of responsibility
Reporting of performance and targets for priority aspects
Performance across relevant BEMPs

Scope?
Case studies?
Relevant contacts?
Economic considerations?

TO	PS	Tr	Ac	FB	ET	WM
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DTR pp.16-44

Identify and monitor priority aspects (e.g. electricity consumption, fuel consumption, water consumption, food and chemicals consumption)

Derivation of appropriate eco-efficiency indicators that can be benchmarked (over time and with other enterprises)

Number of key aspects monitored?

System to identify problems and target maintenance

Scope?

Case studies?

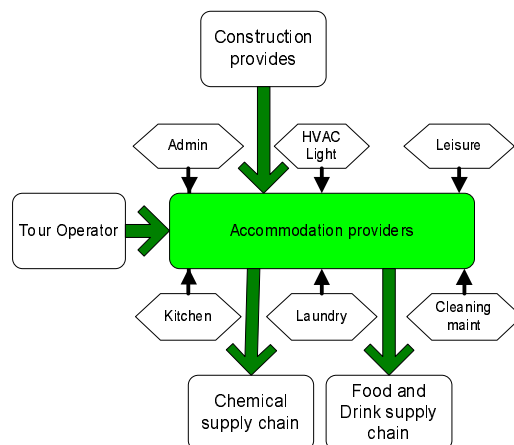
Relevant contacts?

Economic considerations?

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DTR p.45

Serviced accommodation (hotels, guest houses, hostels connected to sewage network)



Link with retail and construction documents

Draft exclusion, insulation thickness, window upgrades, use of shading devices, etc

kWh/m²/yr HVAC

Include design of new premises?

Case studies?

Relevant contacts?

Economic considerations across member states?

Relevant regulations and subsidies in MSs?

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DTR p.46

Link with retail and construction documents

Heat recovery

Optimise air-exchange rate (e.g. CO₂ sensors)

Minimise duct leakage, etc

kWh/m²/yr HVAC

Case studies?

Relevant contacts?

Economic considerations across member states?

Relevant regulations and subsidies in MSs?

TO	PS	Tr	Ac	FB	ET	WM
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Heat pumps
Geothermal
Solar collectors (water heating and photovoltaic)
Wood boilers
CHP

Net kWh/m² from renewable energy sources or CHP

Case studies?
Relevant contacts?
Economic considerations across member states?
Relevant regulations and subsidies in MSs?

TO	PS	Tr	Ac	FB	ET	WM
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DTR p.47-81

Appropriate illuminance (installation design)
Intelligent lighting control (timers, guest key-cards, etc)
Use of natural light
CFL and LED lighting
Maintenance programme (e.g. keep fittings clean)

W/m² installed lighting in different areas

Case studies?
Relevant contacts?
Economic considerations across member states?
Relevant regulations and subsidies in MSs?

TO	PS	Tr	Ac	FB	ET	WM
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DTR pp.82-99

Green procurement of low flow taps and showers, low flush toilets
Use grey water or captured rainwater for toilet flushing
Guest notices?

I water consumed per guest night

Case studies?
Relevant contacts?
Economic considerations across member states?
Relevant regulations and subsidies in MSs?

TO	PS	Tr	Ac	FB	ET	WM
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DTR p.100

Green procurement of efficient washing machines
Optimised loads and cycles
Green procurement of efficient outsourced services (labels?)

I water consumed per kg washed

Include dry cleaning?
Include other impacts such as detergent use and energy (i.e. rename)?
Frequency of outsourcing and existence of labels?
Case studies?
Relevant contacts?

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DTR p.102

Minimise area requiring irrigation
Use native or drought-tolerant vegetation
Maintain soil quality through organic matter additions
Use carefully controlled drip irrigation systems
Use grey water and captured rainwater, including through runoff
soak-away systems

m³ water consumed per hectare

Hotspots (particular locations?)
Combine with best practice on other aspects of landscaping such
as biodiversity, or maintain as separate BEMP?
Case studies?
Relevant contacts?

TO	PS	Tr	Ac	FB	ET	WM
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DTR p.103

[Link to retail document](#)

Separate

[Reduce \(see next BEMP technique\)](#)

[Reuse](#)

Recover

Recycle

[See Food and Beverage section for organic waste BEMP](#)

kg waste sent to landfill or incineration per guest night

Waste specific to tourism sector?
Case studies?
Relevant contacts?
Economic considerations across member states?
Relevant legislation and infrastructure in MSs?

TO	PS	Tr	Ac	FB	ET	WM
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DTR pp.104-126

Link to retail document
Choice editing and green procurement (e.g. no individually wrapped soaps, reusable containers)
Discourage unnecessary consumption

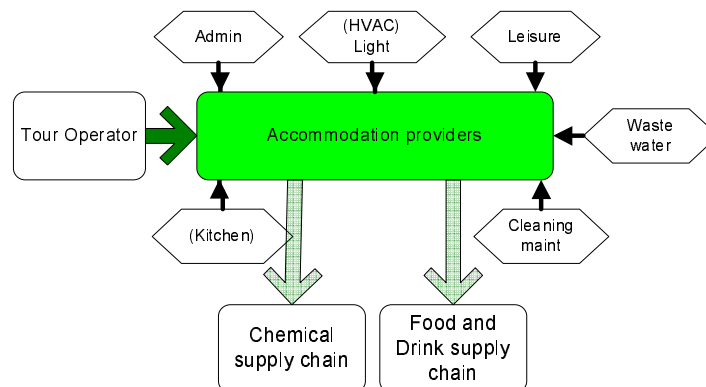
kg waste generated per guest night

Waste specific to tourism sector?
Case studies?
Relevant contacts?
Economic considerations across member states?
Relevant legislation and infrastructure in MSs?

TO	PS	Tr	Ac	FB	ET	WM
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DTR pp.127

Non-serviced accommodation (e.g. campsites, rural houses not connected to sewer system)



DTR pp.128-129

'Light-touch' landscaping
Planting native species
Planning?
Encouraging responsible behaviour
Economic contribution to local habitat protection?

Indicators?

Tourism biodiversity impact hotspots?
Scope?
Target actors? Not just NSA...
Separate BEMP technique (for local municipalities)?
Case studies?
Relevant contacts?
Costs of biodiversity protection?
Relevant legislation and infrastructure in MSs?

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DTR p.128

Connect to sewer wherever possible
Secondary and tertiary treatment systems
Reed beds or willow
Careful control of chemical inputs (e.g. pool water?)
System maintenance (e.g. sludge removal)

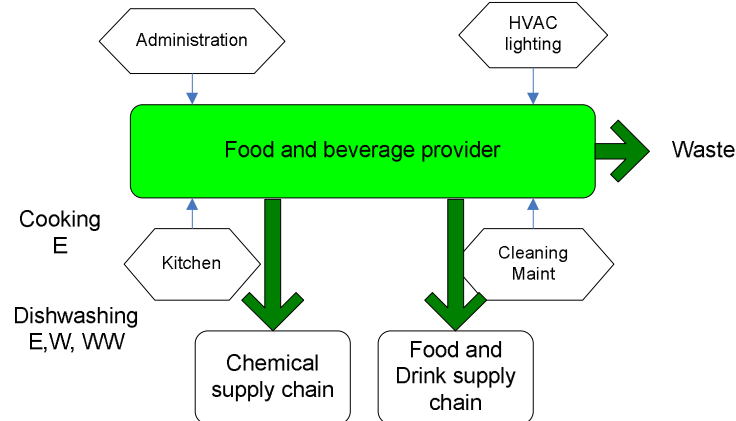
Type of system installed? Water quality parameters?

Case studies?
Relevant contacts?
Costs of implementation for tourist operators?
Relevant legislation and infrastructure in MSs?

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DTR p.128

Food and Beverage actors



Appropriate sizing and type of dishwasher
 Green procurement of dish-washer based on energy labelling
 Optimised dish-washer usage (e.g. full loads, appropriate cycle)
 Low-flow taps for hand washing, food washing

I water per dining guest

Scope or additional factors? Consider use of detergents?
 Case studies?
 Relevant contacts?
 Economic considerations in member states?
 Relevant legislation in MSs?

TO	PS	Tr	Ac	FB	ET	WM
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DTR pp. 130-134

Appropriate sizing and type of oven (gas versus standard electric versus induction)
Green procurement of oven based on energy labelling
Optimised oven usage (e.g. appropriate sized saucepans, lids on)
Reduce hot water use (see previous technique)

kWh primary energy per dining guest

Scope or additional factors?
Lowest impact energy source for oven depends on electricity mix...
Case studies?
Relevant contacts?
Economic considerations in member states?
Relevant legislation in MSs?

TO	PS	Tr	Ac	FB	ET	WM
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DTR pp. 135-136

Link to retail document
Appropriate portion sizes
Optimised ordering procedure
Green procurement to reduce packaging
Send for anaerobic digestion where available
Use for composting

kg organic waste per dining guest sent to landfill

Scope or additional factors?
Case studies?
Relevant contacts?
Economic considerations in member states?
Relevant legislation in MSs?

TO	PS	Tr	Ac	FB	ET	WM
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DTR p. 138



Link to retail document

Reduce meat and avoid endangered fish in offers

Source seasonal and local fresh produce where available

Source certified produce (Fairtrade, MSC, Organic, RSPO)

% certified produce within product groups

Scope or additional factors?

How to assess local or onsite food production (e.g. agrotourism)?

Possible to reflect damage of high meat consumption?

Case studies?

Relevant contacts?

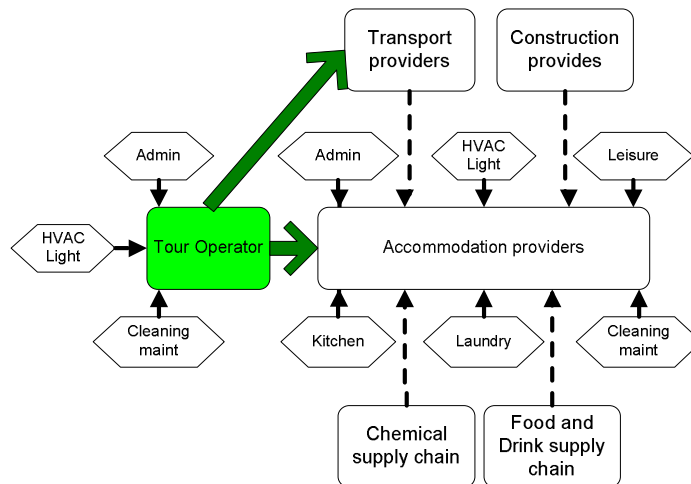
Economic considerations?

TO PS Tr Ac **FB** ET WM

DTR p. 139



Travel agents and Tour Operators



Green procurement efficient equipment
Reduced use of paper
Maintenance and use

Energy and paper use – how to normalise?

Should include this as a BEMP?
Case studies?
Relevant contacts?

TO	PS	Tr	Ac	FB	ET	WM
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DTR p. 140

Choice editing of offers (e.g. no offers to highly sensitive areas)
Green procurement based on certification/labels
Specific requirements
Incentives (e.g. benchmarking, reward best performers)

% suppliers certified or compliant with env. requirements

Important aspects of control?
Role of marketing strategy?
Case studies?
Relevant contacts?
Economic considerations?

TO	PS	Tr	Ac	FB	ET	WM
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DTR pp. 141-153

Green procurement of front-runner eco-tours based on certification/labels
Promotion through pricing and advertising

% turnover from eco-tours

Important aspects of control/extent of influence over consumer choice?
Definition of eco-tours?
National favoured over long-distance? But extracting value from vulnerable habitats > conservation?
Role of marketing strategy?
Case studies?
Relevant contacts?
Economic considerations?

TO	PS	Tr	Ac	FB	ET	WM
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DTR p. 154

Activities?
Local authority planning?
Leisure facilities (swimming pools)?
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