Learning from frontrunners – helping to improve

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Best Environmental Management Practices

Content of this presentation

The EMAS Sectoral Reference Documents and the Best Environmental Management Practices (BEMPs)

BEMPs, Environmental Performance Indicators and Benchmarks of Excellence

Examples from the Tourism sector
The Joint Research Centre (JRC)

- We are the science and knowledge service of the European Commission
- Our mission is to support EU policies with independent evidence throughout the whole policy cycle
- We work on nearly all science and policy areas
- We are policy neutral

3000 staff, 30+ nationalities, 6 locations
Best Environmental Management Practice (BEMP)

- BEMPs support all businesses and other organisations to improve environmental performance, not only EMAS registered organisations.
Sectors addressed

- Development of BEMPs for 11 priority sectors

- Retail
- Tourism
- Construction
- Public Administration
- Agriculture
- Waste management
- Telecommunications
- Metal products manufacturing
- Electronic equipment manufacturing
- Car manufacturing
- Food & beverage manufacturing
Two final outputs for each sector

Best Practice report

Sectoral Reference Document
In the best practice reports, each BEMP follows a fixed structure similar to the Best Available Techniques Reference Documents (BREFs) according to Industrial Emission Directive.
Stakeholder involvement

BEMP for 11 sectors

The European Commission cooperates with experts and stakeholders from different sectors to identify BEMP. As a result of this cooperation, Sectorial Reference Documents for 11 sectors are currently under development.

WORKING GROUPS

JRC & DG Environment in close cooperation with

- Research centres and universities
- Industry associations
- Companies
- EMAS verifiers
- Member States
- EMAS organisations
- NGOs
- Technology providers
**BEMP is...**

- Peer-reviewed measures / actions that minimise environmental impact
- direct and indirect aspects
- technical/technological as well as management /organisational type
- fully implemented by best performers
- technically feasible and economically viable

**...but not:**

- Obsolete / common practice
- Emerging techniques (not yet proven at scale)
Main elements of the Sectoral Reference Documents: examples

- Best environmental management practice (BEMP)
  Food waste minimisation by retailers

- Environmental performance indicator
  kg food waste generation per m² of sales area

- Benchmark of excellence
  Zero food waste sent to landfill or incineration
Low emission vehicles

- Improve the fuel consumption and emissions of waste collection vehicles.
- Priority technology options and key features include:
  - stop/start and idle shut-off;
  - low rolling resistance tyres;
  - hybrid vehicles;
  - electrically powered
  - dedicated natural gas/biomethane vehicles or dual-fuel vehicles (*diesel/gas*);
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  ➢ low rolling resistance tyres;
  ➢ hybrid vehicles;
  ➢ electrically powered
  ➢ dedicated natural gas/biomethane vehicles or dual-fuel vehicles (diesel/gas).

Environmental performance indicators:

• Average fuel consumption of the waste collection vehicles (litres/100 km)
• Share of vehicles that are Euro 6 in the total waste collection vehicle fleet (%)
• Share of waste collection vehicles that are hybrid, electric, natural-gas- or biogas-powered (%).

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Benchmarks of excellence

All new refuse collection vehicles purchased or leased by the waste management organisation are Euro 6 and are fuelled by either compressed natural gas or biogas, or are hybrid-electric.

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Environmental performance indicators & Benchmarks of excellence

- **Environmental performance indicators**: "specific expression that allows measurement of an organisation's environmental performance" (EMAS Regulation)

- Core indicators
- Specific indicators
- (Alternative indicators)

- **Benchmarks of excellence**: level of environmental performance achieved by the best performers (frontrunners)

- (i) Energy efficiency
- (ii) Material efficiency
- (iii) Water
- (iv) Waste
- (v) Biodiversity and
- (vi) Emissions
Selection of environmental performance indicators

- Indicators must be **actually used** by organisation of the sector and/or they must be **calculated easily**

- Indicators must be as **specific** as possible in order to allow meaningful **comparison** over time, across sites of an organisation and against given **benchmarks**
Identifying benchmarks of excellence (1)

- **Frequency distributions** of a quantified *environmental performance indicator* can be used to derive the benchmark of excellence once the indicators have been identified.

- The benchmarks of excellence correspond to the performance levels achieved by **frontrunners**.

- They correspond to the performance of best performers identified e.g. as the **top 10-20%** in the industry.
Identifying benchmarks of excellence (2)

- Benchmarks of excellence can also be:
  - **a yes or no criterion**, e.g.: natural refrigerants are used in all refrigeration systems in all sites (from the food and beverage manufacturing sector – BEMP on improved freezing and refrigeration)
  - **a percentage of implementation of a certain BEMP**, e.g.: ≥ 50% of the animal population consist of locally adapted breeds (hybrids) (from the agriculture sector – BEMP on the use of locally adapted breeds in the farm)

- Not all BEMPs come with benchmarks of excellence
Use of benchmarks

- Provide information to users of what is potentially achievable under certain defined circumstances.
- Possibility for an organisation to form an opinion whether its activities/processes are performing well.
- They should be meaningful in terms of relevance to environmental impact.
How can organisations benefit from the benchmarks of excellence?

- Organisation's environmental performance

Distance from benchmark may be due to local or specific conditions e.g. cultural heritage etc.

BEMPs can provide inspiration to improve

Frontrunners
Example of benchmarks of excellence (Tourism sector)

BEMP: Water system monitoring, maintenance and optimisation (1/2)

• (b1) Implementation of a site-specific water management plan that includes:
  (i) sub-metering and benchmarking all major water-consuming processes and areas;
  (ii) regular inspection and maintenance of water system 'leak points' and appliances.
Example of benchmarks of excellence (Tourism sector)

BEMP: Water system monitoring, maintenance and optimisation (2/2)

• (b2) Total water consumption ≤ 140 L per guest-night in fully serviced hotels, and ≤ 100 L per guest-night in accommodation where the majority of the bathrooms are shared (e.g. hostels).
Example of benchmarks of excellence (Tourism sector)

BEMP: Water system monitoring, maintenance and optimisation (2/2)
From BEMP reports to online user-friendly tools...
BEMPs made easy: introducing takeagreenstep.eu

The one-stop online place for tips on how to make your hotel and restaurant more eco-friendly.

Funnelling readers to the relevant information, takeagreenstep.eu includes:

- Introductory articles on big and small green steps for your business
- To go further... Case studies showing how others have achieved it
- To get the full technical details... References to the full Best Practices in an easy-to-read format
- As well as practical tools you can use immediately such as signs for guests and checklists for staff
We collected the answers to these questions and so many more in a website.
Find out more and get in touch with us...

http://susproc.jrc.ec.europa.eu/bemp
Thanks!
Any questions? Interested to stay in touch?

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