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Application of BAT and BEP in the Mediterranean Basin

Last 22-23 November the Mediterranean countries and the European Union met in Barcelona as part of a regional workshop organized by the Regional Activity Centre for Cleaner Production (RAC/CP) on best available techniques (BAT) and best environmental practices (BEP).

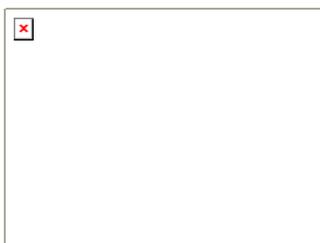
The RAC/CP gave key roles at the seminar to the European Union, with its experience in the creation of a BAT system via the IPPC Directive, and to the Catalan Ministry of the Environment and Housing, which is a pioneering body in having transposed the IPPC Directive in an advanced and ground-breaking manner. In this regard, the EU and Catalonia played an active part in the event. Highlights of the seminar included the presence of EU and Catalan experts who were involved in the formulation of the legal instruments on BAT (the IPPC Directive for the EU, and the IIAA law for the Catalan Ministry of the Environment and Housing).



Mr Xavier Carbonell from the Catalan Ministry of the Environment and Housing showing the transposition of the IPPC Directive in Catalonia

To view the workshop agenda [click here](#).

The participant countries began by giving an account of their positions relative to the existence or otherwise of a system for the application of a BAT / BEP at the national level. This was followed by a case study focussing on the pioneering experiment by Catalonia on the transposition of the IPPC Directive, presented by the Catalan Ministry of the Environment and Housing. Finally, the European Union representative described the experience of the EU with the IPPC Directive, a framework scheme for the application of BAT on a national level, with more than eight years of history. After the country presentations, the European Union representative hosted a debate session incorporating his own vision in the light of the EU experience with the IPPC Directive.



The participants of a working group during the session presenting the guide on BATs and BEPs

The seminar was also an opportunity to air the idea for a new pilot project designed for the application of BAT and BEP in a selected Mediterranean country from a legal and institutional perspective. The initiative presented was greeted with considerable interest by several countries attending the event, and a number of them have already expressed to the RAC/CP their interest in participating.

The seminar also presented the document prepared by RAC/CP Guidelines for the application of best available techniques (BAT), best environmental practices (BEP) and cleaner technologies (CT) in industries of the Mediterranean region. This document includes a methodology based on the principles of cleaner production, ecoefficiency, integrated pollution prevention and control, designed to facilitate the introduction of BAT, BEP and CT in companies. It consists of the methodology to be used in the application of BAT, BEP and CT in our Mediterranean industry, as convened within The Mediterranean Action Plan.

To download the document, [click here](#)



Mr Miquel Rigola, expert on cleaner production, presents the guide on BATs and BEPs

Establishment of a Permanent Industrial Unit at the Egyptian Environmental Affairs Agency

The establishment of an industrial unit is a very important pillar for the sustainability of Egyptian Pollution Abatement Project activities and for liaising all industrial activities within Egyptian Environmental Affairs Agency, as well as with other stakeholders. The new unit will ensure the continuous compliance and enforcement efforts initiated by the Egyptian Pollution Abatement Project. The mandate of the industrial unit focuses on coordination with local and international stakeholders' activities and projects. It also aims at setting industrial environmental policies, including different tools of environmental compliance and various enforcement procedures. These include economic incentives and promoting awareness of environmental management systems and cleaner production.

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Preventing Pollution in the Tanning Industry: Algeria, Morocco and Tunisia

The Regional Activity Centre for Cleaner Production (RAC/CP) held a seminar in Barcelona on 4 - 8 October on pollution prevention in the tanning industry. The seminar focussed on Mediterranean Maghreb countries: Algeria, Morocco and Tunisia in particular.



The seminar was held as the result of cooperation between the Catalan Development Cooperation Agency (ACCD), the Spanish International Cooperation Agency (AECI) and the RAC/CP. In the case of the AECI, the seminar took place as part of the Azahar programme implemented by the Spanish government's Ministry of Foreign Affairs, which addresses issues related to cooperation and sustainable development, protection of the environment and preservation of the natural resources of the Mediterranean region.

The participants visit the tanning plant Industrial Igualadina



Representatives from Catalan companies exchange views with seminar participants.
View of the seminar board

Candidates wishing to participate in the seminar had to undergo a preliminary selection process designed to ensure that their profiles were suited to the purpose of the seminar. 19 representatives from Algeria, Morocco and Tunisia, from tanning associations and official bodies related to industry where the tanning sector was part of their professional activities, and even companies active in the tanning sector, were selected to take part in the seminar.

The training programme was carried out in close collaboration with the Catalan tanning sector, and included theory sessions classified in thematic sections, case studies and examples of application. Moreover, study visits to tanning installations and plants provided practical illustrations of the



The participants visit the tannery sludge composting plant

concepts presented. Finally, the participants, Catalan experts and Catalan companies had the chance to exchange experiences. This exchange addressed the special status of the sector in the countries represented in the seminar, the difficulties encountered and impacts caused by the tanning sector along with its contribution to the economy, and the action taken to reduce the pollution generated.

To view the seminar agenda, click here: [French - Spanish](#)

Cleaner production services in Slovenia

Easy access to the Internet for information on pollution abatement has been accomplished in Egypt through the Industrial Pollution Prevention Gateway website, developed by the Egyptian Pollution Abatement Project (EPAP) in the Egyptian Environmental Affairs Agency (EEAA). This website has linked all international links to pollution prevention techniques. It is hosted on EEAA homepage: <http://www.eeaa.gov.eg/ippg/>



Image of the IPP Gateway on the Internet

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Strengthening Enforcement of Egyptian Environmental Law no. 4/94

In the absence of a RAC/CP National Focal Point for Slovenia, the Regional Activity Centre for Cleaner Production has been in close contact with what is called Steng-National Cleaner Production Centre Ltd. during the last few years, when carrying out national-targeted activities focussing on Slovenia.

Steng-National Cleaner Production Centre Ltd. was born in the University of Maribor in Slovenia. It is a Slovenian innovation enterprise established with the aim of transferring cleaner production knowledge from the University of Maribor, specifically from the Faculty of Chemistry and Chemical Engineering to small and medium enterprises (in the food, chemical and textile industries) and to services such as hospitals, hotels and repair shops.



As it is closely connected with the Topol Armature Ltd. Ljubljana, which is an official representative of Spirax Sarco (producers of high quality steam and condensate armatures, control and heating systems for industry, as well as steam boiler equipment), one of its main areas of expertise is cleaner production related to energy consumption. Notably, it carries out projects regarding rational energy consumption, design and optimisation of steam and condensate systems in small and medium-sized Slovenian companies. In this field of expertise, Steng-National Cleaner Production Centre Ltd. has also produced a handbook on steam traps and condensate recovery.

Steng-National Cleaner Production Centre Ltd. is located at the Styrian Technological Park (STP) 8 km from Maribor. The STP is an incubator for the new technology entrepreneur and small spin-off companies. It is also active in networking between Slovenian and foreign companies, as well as research institutions, and plays an active role in regional development. A total of 11 companies are currently located in the STP as on-site members and another 7 companies in other locations as off-site members. All members are micro and small enterprises in the field of biotechnology, computer science, civil engineering, heating and control systems, and environmental protection.

Current staff of the Steng-National Cleaner Production Centre Ltd. include 1 expert in the office, 2 experts from Topol Armature Ltd. in Ljubljana, and 2 experts from the University of Maribor who take part in the activities of the company if necessary.

Activities

Steng-National Cleaner Production Centre Ltd. carries out activities in the following areas:

- Cleaner Production in SMEs** in process industries, including Environmental Management Accounting (EMA).
- Energy Auditing and Rational Energy Consumption:** energy consumption analysis, energy costs analysis, assessment of possibilities of rational energy consumption and waste heat recovery.
- Analysis of Steam and Condensate Systems:** flowsheet, steam, condensate and energy balance, condensate recovery, rational use of steam, technical and economical assessment of options.
- Process Design and Analysis:** flowsheet, mass and energy balance, pinch analysis of heat exchanger networks, integration of utility systems into processes, simulation and process design.
- Technical Support at Distributing Spirax Sarco Products:** including consultancy in design, installation and maintenance in co-operation with the Topol Armature Ltd.
- Feasibility studies** of various investments in SMEs.

The Centre has mostly carried out projects for the food sector and the textiles industry. Furthermore, it has undertaken energy-related projects for the Styrian Technological Park. Below are some examples:

- Food sector:** Design of a condensate system in meat processing, auditing of a steam and condensate system in a chicken slaughterhouse and a laundry, design of retrofitting for the heating system of the slaughterhouse, energy auditing of the ORMOZ sugar beet company, energy auditing and wastewater minimisation in a vegetable canning process, transfer of environmentally sound technology in the Danube River Basin (for the IPK sugar plant in Osijek, Croatia), energy auditing of the steam and condensate system of animal food production.
- Textiles industry:** waste minimisation and rational energy consumption in textile wet processing, cleaner production in thread and belt production, a feasibility study on retrofitting of the heating system.

Steng National Cleaner Production Centre Ltd. is currently looking for international projects and cooperation regarding the described activities. In addition, the enterprise anticipates expanding its activities and employing at least two additional experts on cleaner production.

Further information can be obtained by contacting Mr Janez Petek, Director of Steng-National Cleaner Production Centre Ltd. at the following address:

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