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**MEDITERRANEAN ACTION PLAN**

Meeting of MAP Focal Points

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**EXTERNAL EVALUATION ON THE  
REGIONAL ACTIVITY CENTRE FOR CLEANER PRODUCTION**

**(full report)**

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## **CHAPTER 0. : EXECUTIVE SUMMARY**

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This document reflects the assessment carried out by SGS on the management of the Regional Activity Centre for Cleaner Production (RAC/CP), based on the revision and analysis of the functions and activities carried out over the last three years (2001-2003).

The assessment has been carried out in two areas:

1. Objective assessment by the consultancy SGS based on evidence detected during the audit (study of the documentation and interviews with RAC/CP personnel).
2. Evaluation of various institutions and agents that work to protect the Mediterranean (National Focal Points, other members of the MAP, UNIDO, UNEP/DTIE, NGOs, experts, etc.), based on their answers to the questionnaires they were sent.

### **0.1 OBJECTIVE ASSESSMENT BY SGS**

The objective assessment consisted of evaluating the RAC/CP's management based on the Plan-Do-Check-Act cycle, commonly called PDCA. The PDCA is the management model that is the basis of any international ISO business management standard and that enables the organisation's activities to be carried out following the logical flow of planning the activity-carrying out the activity itself-checking the correct development of the activity-review of the previous cycle to be able to act on it for the next planning. From this objective assessment, three kinds of considerations emerge: considerations concerning the strategic situation of the RAC/CP, considerations about the management of the activity based on the PDCA model, and considerations concerning the actions carried out during the assessment period.

#### **0.1.1 Strategic Considerations**

The RAC/CP is an organisation integrated into the Centre for the Enterprise and the Environment (CEMA), a public company affiliated to the Department of the Environment and Housing of the Government of Catalonia (DMAH).

In 1995, at the 9<sup>th</sup> Meeting of the Contracting Parties to the Barcelona Convention for the Protection of the Mediterranean Sea against Pollution, the Government of Spain proposed to the UNEP Mediterranean Action Plan (MAP) that the company become the Regional Activity Centre for Cleaner Production (RAC/CP). This offer was accepted at an extraordinary Meeting of the Contracting Parties held the following year. Apart from this acceptance, formally included in the report of the 9<sup>th</sup> Meeting of the Contracting Parties to the Barcelona Convention for the Protection of the Mediterranean Sea against Pollution, the RAC/CP does not have a protocol or official document that formalises its mandate. In order not to endanger the work carried out and the experience gain over more than a decade it would be recommendable to consolidate the RAC/CP's mission, as well as its rules of operation and its interrelationship with other organisations in an official document/protocol/mandate that ratifies it.

In the current context of the Mediterranean, in which the Mediterranean countries, under the leadership of the MAP and the MCSD, are involved in the preparation of a Mediterranean Strategy on Sustainable Development, the definition of the mission of the RAC/CP must take into account the experience that the centre already has in sustainable development. This is explained by the fact that, of the 4 components of SD – economic, social, governance and environmental -, RAC/CP activities have aimed at promoting the integration of economic and

environmental components in the industry sector, through the dissemination of Cleaner Production and Eco-efficiency, two concepts identified by the Johannesburg Implementation Plan as one of the primary options in decoupling the link that has existed between economic development and environmental depletion.

Although it is true that in this task the RAC/CP has focused particularly on promoting sustainability in the industrial production process itself due to the previous experience that the centre had in working with that sector in Catalonia, the following new lines of activities have been identified that could be useful in establishing a mission for the centre, thus enabling it to increase its area of action:

- The incorporation, together with cleaner production, of other mechanisms for sustainable production, such as LCA and eco-design, in the area of RAC/CP activities;
- The extension of the RAC/CP activities to other economic sectors represented in the Mediterranean, such as tourism, agriculture and services;
- The assignation of activities concerning strategies and/or plans for pollution prevention;
- The inclusion of activities for disseminating sustainable consumption.

The evaluation of these lines of action, took into account the versatility of the RAC/CP in working on various kinds of activities and themes, to the extent that in most of them its staff acted as lead co-ordinators of projects whose technical development was carried out by an external provider.

## **0.1.2 Considerations on the Management**

From the point of view of management, to guarantee its efficiency, the RAC/CP should establish mechanisms/tools to improve:

- The setting of objectives;
- Staff training;
- The action of the national focal points;
- Verification that the activities are being developed correctly;
- Periodical review and analysis of the management.

### *Setting Objectives*

The objectives and activities of the RAC/CP are established annually by a Bilateral Commission made up of representatives of the Spanish Ministry of the Environment, and the Catalan Department of the Environment and Housing, from a proposal by the centre itself, based on its experience at a regional level and on the recommendations arising from the biannual meetings of its NFPs, as well as those that arose from the meetings of the Contracting Parties to the Barcelona Convention and from others that were held by other members of the MAP (MED POL, other RACs, etc.) inasmuch as they affect the action of the RAC/CP.

Likewise, the setting of the objectives and the activities is framed within lines of action that the centre itself has established in exercising its role as a promoter and disseminator of cleaner production in the Mediterranean basin. These lines consist of:

- Participating in the activities of the MAP and the Mediterranean Commission on Sustainable Development (MCSD);
- Working with the National Focal Points (NFP) on the sustainable development of Mediterranean industry;
- Promoting and co-operating in projects and training activities;
- Carrying out studies on pollution prevention alternatives in different fields and sectors of interest to the Mediterranean Region;
- Informing, by publishing and disseminating business news and experiences;
- Promoting technology transfer and exchange of experts.

It has been possible to verify that the activities carried out in the framework of these lines of action have, on the whole, responded to the recommendations of the meetings mentioned above, particularly to those of the NFPs. However, it has been stated that some of them have not been developed. These recommendations are related to the increase of the scope of RAC/CP activities, either to other sectors (services) or to other kinds of activities (IPPC, EMAS, etc.). The fact that the recommendations have not been followed could, therefore, be because in some way they are outside the scope of the current functions of the RAC/CP, which would reinforce the need to attribute new lines of action to the centre.

According to some of the agents questioned for this evaluation, there is a certain lack of correspondence between some of the activities carried out by the RAC/CP and the real needs of the countries. Therefore, it is necessary to identify the following mechanisms for establishing its activities:

1. A methodology for detecting the needs, based on previously set criteria agreed on by the RAC/CP and its NFPs, based on the environmental problems of the sectors, their economic and social representativeness in the countries, their consideration as priority sectors within the SAP framework, etc;
2. Alternative objective methods such as market studies on the industrial sectors themselves.

Once the activities have been agreed on, the identification of the projects to carry them out should detail:

- Time planning;
- Person responsible assigned to the Project;
- Persons involved and time dedicated by them to the Project, in order to determine whether the human resources available are sufficient to achieve the objective;
- Specific activities to be carried out for each of the objectives established;
- Follow-up frequency, defining the appropriate period to ensure the correct progress of the Project (monthly, quarterly, etc.).

All this with the objective of making the follow-up of those activities more agile, to ensure that the established deadline can be met, and facilitate reporting to the stakeholders (NFP, MAP, etc.).

*Staff Training*

The versatile nature of the centre mentioned above with regard to its ability to cover diverse subjects and categories of activities, requires, however, the setting up of a continuous training system for the technical staff to update them to new activities and needs to which the centre must be able to respond, which should include the following elements:

- Detection of needs;
- Establishment of a Training Plan;
- Follow-up and assessment of the training courses.

#### *The Action of the National Focal Points (NFPs)*

In addition to its own technical staff, the RAC/CP is supported by the collaboration of the NFPs, which are key to making the centre's activity present in the Mediterranean, and guaranteeing the future of CP in their countries, through the dissemination and publicising of the centre's activities and providing information about their country for the studies and publications it issues. However, despite the fact that the NFPs have a suitable profile as far as training and their professional activity is concerned, in some cases they do not seem very willing when carrying out their tasks as NFPs, and are not as proactive as the RAC/CP would hope. Therefore, there should be a written "job description" established for the NFPs in which the responsibilities, training requirements, skills and dedication necessary to carry out the focal point tasks efficiently should be made clear.

#### *Verification that the Activities are being Developed Correctly*

To verify that the objectives/projects/activities are being developed correctly, the RAC/CP should establish mechanisms to determine the impact/repercussion/interest of its activities in the industrial sector on which it is currently focusing its activity, and to set up follow-up indicators on the management by means of which the activity of the focal points can be evaluated objectively, as well as the functioning of the centre itself. The objective of these verifications is to be able to establish improvements and correct errors/deviations with regard to the objectives set if this should occur.

#### *Periodical Review and Analysis of the Management*

The indicators mentioned in the previous section should be analysed by the Bilateral Commission. Based on the indicators and compliance with the NFPs' proposals, there should be periodical reviews, rethinking of the activity and even the mission of the RAC/CP. These reviews should take into account the following aspects:

- The results of the activity based on objective indicators;
- The objectives planned but not achieved;
- The external recommendations (National Focal Points, Contracting Parties to the Barcelona Convention, MAP...);
- Problems that have arisen during the period (actions with results that may have been unsatisfactory, etc.);
- Changes at an organisational level (changes of staff, of NFP);

- Changes in the environment (Strategy of sustainable development in the Mediterranean, etc.).

### **0.1.3 Considerations on the Activity Itself**

In this part, starting from the premise that the main function of the RAC/CP is the dissemination and promotion of cleaner production in the Mediterranean region, an analysis was made of:

- The content of the activities that the RAC/CP carried out to comply with this function during the 2001-2003 period,
- The regional approach that the centre has tried to take in carrying out its task,
- The mechanisms the centre has had available to it for the management and dissemination of the activities, as well as for their follow-up.

A general assessment on the activities developed by RAC/CP and the deeper analysis carried out, at a sample level, of the content of some projects, as well as the evaluation of the procedure that the centre applies in carrying them out, enabled the recognition of the centre's efficiency in the management of their development. This is endorsed by the recognition of the technical quality of the various activities of the centre by most of the agents questioned.

The regional approach adopted by the RAC/CP when performing its task was assessed through the evaluation of the level of involvement of the countries in the activities the centre organises, the languages used in their development and the mechanisms available for their dissemination. In addition, it was also analysed the level of co-ordination between the RAC/CP and the other agents that address Mediterranean pollution from land-based sources, inasmuch as the collaboration with them has direct repercussions on the visualization and efficiency of the RAC/CP's task in the region.

The assessment on the regionalisation of RAC/CP activities corroborates an effort of the centre in integrating a regional approach in its activities. Nevertheless, the fact that, as mentioned above, the contents of some of them have not been suitably adapted to the needs of the countries, demands to reinforce the interaction between the RAC/CP and its NFP to the strengthen regional approach of the centre. Likewise, although an evolution of the coordination between RAC/CP and MED POL in the fight against Mediterranean pollution from land-based sources is observed, and there has been greater contact between the centre and UNIDO and UNEP/DTIE, it is necessary a stronger commitment among those institutions to coordinate their activities, to define new lines of cooperation and materialize them through common projects, as far as their joint task is essential in the prevention and control of the pollution of the Mediterranean.

## **0.2 EVALUATION OF THE AGENTS INVOLVED**

The evaluation of the agents involved was carried out based on their answers to the questionnaires carried out using the methodology explained in point 1.4. The objective of the questionnaires was to determine, on the one hand, the view of the agents involved of the activities carried out by the RAC/CP, both with regard to content and organisation and response to demands, and on the other, the level of collaboration between them and the RAC/CP.

Representatives of the following institutions were sent the questionnaire:

- RAC/CP National Focal Points;
- MAP Coordination Unit;

- MAP National Focal Points;
- MED POL;
- The Regional Activity Centres and MAP Programmes;
- The Ministry of the Environment of Spain;
- The European Commission;
- The United Nations Organizations;
- Mediterranean NGOs that are MAP partners;
- Representatives of Mediterranean companies and industrial sectors;
- National Centres for Cleaner Production and other similar entities;
- National and International Experts (freelance consultants and advisors);
- Other.

Five different questionnaires were drawn up taking into account differences existing among those agents with regard to their relationship and interaction with RAC/CP.

Participation in terms of the number of questionnaires filled in and received was as follows:

<b>Questionnaires</b>	<b>Sent</b>	<b>Received</b>	<b>% Responses</b>
National Focal Points	19	12	<b>63%</b>
General	32	21	<b>66%</b>
Business	5	0	<b>0%</b>
Coordinator	4	2	<b>50%</b>
Experts	7	5	<b>71%</b>
<b>TOTAL</b>	<b>67</b>	<b>40</b>	<b>59.7%</b>

According to the questionnaires, it can be observed that the performance of the RAC/CP in carrying out its role as CP promoter in the Mediterranean region is evaluated positively by the different agents questioned, who comment on the quality of the centre's activities. However, several also mention its poor penetration in the countries and a certain lack of correspondence of its activities with their actual needs. This is mainly due to the weak or non-existent interaction between the RAC/CP and its end client, the industrial sector, at which its activities are aimed (shown clearly by the lack of response to the questionnaire from any representative of that sector).

Taking into account the dependence of RAC/CP's visualization on the NFP network, as they are the only interlocutors officially designated to disseminate the centre's activities in the industrial sector of their countries and they are, at the same time, the main source of information through which the centre can get to know the various realities and needs of those sectors, it is necessary that the role of the NFPs is defined. This role should be compared to that carried out

by the NFPs of the other RACs and adapted to the activities of the RAC/CP so that alternative interlocutors (such as business or industrial associations) could be identified, if necessary, for guaranteeing the presence of the centre in the industrial sector of Mediterranean countries. At the same time, they should provide the centre with a greater approximation of the needs of that sector.

Along the same lines, the centre should reinforce periodical communication with the Mediterranean experts, as their daily professional activities in the industrial or university sphere can act as channels through which the centre could penetrate those sectors.

On the other hand, one can see a general opinion, of both the direct interlocutors of the RAC/CP - the NFPs - and the MAP Coordination Unit, that within the framework of sustainable development in the Mediterranean, and in the process of drawing up the strategy leading to it, the definition of the mandate of the RAC/CP should carefully consider the incorporation of the new lines of action. These could include disseminating mechanisms that go beyond CP applied to production processes (LCA, IPP, etc.), extending activities to other sectors and offering the countries advice, particularly those that do not belong to the EU, not limited to technical content, but increased to cover other areas (e.g. legal mechanisms).

Whilst this new area of activities would still be within what has been the basic task of the centre, in other words, the identification and promotion of CP as mechanism for sustainable production, it should finally be noted the observation made from within the MAP Coordination Unit about the possibility that, together with this task, the centre should also take on that of working on the identification of techniques aimed at changing consumer patterns. Assigning this task to the centre would, without the slightest doubt, complete the role it has been playing so far, at the same time as providing the MAP with an agent to coordinate, within the MSSD process, the actions in the region to promote sustainable consumption.

## **CHAPTER 1. : INTRODUCTION**

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### **1.1 BACKGROUND**

The task of Regional Activity Centre for Cleaner Production is carried out by the Centre for the Enterprise and the Environment (hereinafter CEMA), a public company affiliated to the Department of the Environment and Housing of the Government of Catalonia (DMAH). The Centre was created in 1994, with the name of the Centre for Cleaner Production Initiatives, as a specific unit within the Management Programme for Toxic and Hazardous Waste with the purpose of promoting the principles and advantages of pollution reduction at source among Catalan industries.

In 1995, through a cooperation agreement between the Spanish and Catalan Governments, the scope of the centre's activities to promote pollution prevention among industries extended to the rest of Spain.

In the same year and at the 9<sup>th</sup> Meeting of the Contracting Parties to the Barcelona Convention for the Protection of the Mediterranean Sea against Pollution, the Government of Spain proposed to the UNEP Mediterranean Action Plan (MAP) that the Centre become the Regional Activity Centre for Cleaner Production (RAC/CP). This offer was accepted at an Extraordinary Meeting of the Contracting Parties held the following year.

The CEMA's role is currently threefold:

- In Catalonia, as a centre within the Department of the Environment, working directly with industries and businesses;
- In Spain, as an institution promoting pollution prevention among Spanish industries and providing technical support to the Ministry of the Environment on issues related to the application in Spain of European and international initiatives and programmes (IPPC, OSPAR, MAP, Stockholm Convention, etc) aimed at reducing pollution from land-based sources;
- In the Mediterranean Region, within the framework of the MAP, as the Regional Activity Centre for Cleaner Production (hereinafter RAC/CP).

### **1.2 ASSESSMENT CONTEXT**

This document reflects the assessment performed by SGS on the management of Centre for the Enterprise and the Environment (hereinafter CEMA) in its performance as Regional Activity Centre for Cleaner Production (hereinafter RAC/CP), based on the revision and analysis of the functions and activities carried out over the last three years (2001-2003).

The framework for this assessment was established in the 13<sup>th</sup> Ordinary Meeting of the Contracting Parties to the Barcelona Convention (Catania, 11-14 November 2003), during which it was recommended that the RAC/CP be included in the external assessment process of the MAP components, which aims to evaluate its entire structure before the next Ordinary Meeting of the Contracting Parties.

In the aforementioned meeting, it was also recommended that, on the basis of this assessment, the possible lines of adaptation with regard to the role of the RAC/CP be employed as an instrument to facilitate the sustainable development of Mediterranean industry.

## 1.3 OBJECT AND SCOPE

The object of the assessment carried out by SGS is to analyse the management of the activities of the CEMA as RAC/CP during the period 2001-2003.

The assessment has been carried out in two areas:

3. Objective assessment by the SGS team based on evidence detected during the audit.
4. Assessment based on the results obtained in the questionnaires sent to the various agents involved in the protection of the Mediterranean in order to assess their interaction with the RAC/CP throughout the 2001-2003 period (National Focal Points, MAP components, experts, etc).

Below, the objective of each scope is described:

### 1.3.1 RAC/CP Management (SGS Objective Assessment)

Since it is a **management** audit, the main criteria of the objective assessment were the general managerial concepts included in any activity.

- **Planning:** at this point the mission/position of the RAC/CP at a strategic level is analysed, as well as the procedures implemented for the establishment of objectives and lines of action based on the aforementioned mission.
- **Performance:** this involves evaluating the carrying out of the activity in accordance with the planning for which it is necessary to assess whether the assigned resources are adequate, to assess the activity in itself, and to assess the control of the documents generated.
  - Resources to carry out the activity. This consists in evaluating the human resources (own or external) as well as the material resources of the RAC/CP to carry out its activity. In this section, at the request of the CEMA, it is placed on record that the analysis of financial resources (financial sources and budget management) has been excluded from the scope of the audit.
  - Activity in itself. In this section, based on the premise that the main function of the RAC/CP is the dissemination and promotion of cleaner production, an analysis has been made of both the “content” and the “form”. By “content” we understand generated documents and projects in which it has intervened. And by “form” we understand the activities/management of dissemination in themselves.

In regard to “content”, the analysis includes a general and a specific assessment of particular projects/activities.

General assessment has consisted in checking, on the one hand, that actions have been taken by RAC/CP to carry out its specific tasks as CP promoter in the Mediterranean.

The specific assessment was carried out by sampling, reviewing in greater depth some activities/projects of the centre. The sampling was carried out according to the magnitude of the projects; and the analysis is based, initially, on the registers made available to the audit team representatives of the results of the actions (for example in the case of training actions where the most significant registers are the student satisfaction surveys) and secondly on the criterion of the auditor.

- Document control. in this point the processes carried out are analysed in order to guarantee the preservation of the documents, and control dates, distribution and so forth.
- **Assessment and follow-up of activities**: it is obvious that in the management of any activity it is necessary to establish mechanisms to check the effectiveness of the actions carried out. In this point it was verified whether the RAC/CP has these types of mechanism both in terms of checking whether its actions have fulfilled the expectations of the industrial sector of the Mediterranean Basin to which actions are currently directed, and internally, in order to periodically check the degree of attainment of the established objectives.
- **Review**: the correct management of any activity involves having the mechanisms that force the organisation to periodically assess the management performance for the purposes of seeking improvement not only operationally, but also in terms of updating and reconsidering strategic lines. These mechanisms force the organisation to reconsider periodically from the need for resources to the definition of its areas of action. At this point it was verified whether the RAC/CP has this type of mechanisms.

### **1.3.2 RAC/CP Interaction (Evaluation from the Agents Involved)**

The evaluation of the agents involved has been carried out based on their answers to the surveys undertaken, according to the methodology described in point 1.4. The objective of the surveys is to learn, on the one hand, the view of the agents involved in the activities carried out by the RAC/CP, in regard to both contents and organisation and response to demands and, on the other, to establish their degree of cooperation with the RAC/CP. The latter input is especially important in the case of the National Focal Points, since they constitute the main cooperator of the RAC in the different countries within its scope of action.

## **1.4 METHODOLOGY**

The RAC/CP Assessment has been carried out in the following phases:

### **PHASE I: Review of the Material and Documentation**

During a number of visits to the RAC/CP facilities, the Documents generated through different activities (Med Clean, Cp News, Multimedia Documents, etc.) were consulted, along with material received by other parties involved, records of proceedings, meetings, etc.

The documentation was available in paper format and/or through computer records via designated databases.

In addition, interviews were carried out with RAC/CP personnel who are involved in the process of developing the activities and managing its future transmission.

### **PHASE II: Questionnaires**

#### **Definition of Questionnaires**

In order to obtain an external assessment from the opinions of the MAP components and other agents working for the protection of the Mediterranean region, concerning the mandate and the activities developed by the Centre, questionnaires were prepared and sent to the following institutions:

- RAC/CP National Focal Points;
- MAP Coordination Unit;
- MAP National Focal Points;
- MED POL;
- The Regional Activity Centres and MAP Programmes;
- The Ministry of the Environment of Spain;
- The European Commission;
- United Nations Agents, namely, UNEP/DTIE and UNIDO;
- Mediterranean NGOs that are MAP partners;
- Representatives of Mediterranean companies and industrial sectors;
- National Centres for Cleaner Production and other similar entities;
- National and International Experts (freelance consultants and advisors);
- Other.

Five different questionnaires were drawn up taking into account the differences existing among those institutions with regard to their relationship and interaction with RAC/CP (see table 1). Questionnaires are divided into sections referring to different aspects of RAC/CP performance. Though some sections are common for all questionnaires, each of them also includes specific sections based on the relationship between the agent receiving the questionnaire and the RAC/CP (see table 2). Likewise, questions in common sections are slightly different for the same reason.

Table 1. Questionnaire types.

Questionnaire Type	Agents included
RAC/CP NFP	RAC/CP National Focal Points
GENERAL	MAP National Focal Points MEDPOL Programme Regional Activity Centres (RACs) European Commission Organisms of the United Nations Mediterranean NGOs recognised by MAP National Cleaner Production Centres and other similar organisations
BUSINESS ASSOCIATIONS	Business Representatives
COORDINATORS	MAP Coordination Unit; Spanish Ministry of the Environment
EXPERTS	National and foreign Experts

Table 2: The sections included in each questionnaire type are described below. The differences in the sections between the various Questionnaires are shown in italics:

Questionnaires						
	Staff	NFP	General	Business Associations	Coordinator	Experts
<b>Sections included</b>	Personal Data  <i>RAC/CP – MAP Framework interaction</i>  <i>RAC/CP activities</i>  <i>Staff Performance</i>  RAC/CP dissemination among sectors concerned  Comments and Suggestions	Personal Data  Interaction with RAC/CP  RAC/CP Role and Activities  <i>NFP Profile</i>  RAC/CP dissemination among sectors concerned  Comments and Suggestions	Personal Data  Interaction with RAC/CP  RAC/CP Role and Activities  Comments and Suggestions	Personal Data  Interaction with RAC/CP  RAC/CP Role and Activities  RAC/CP dissemination among sectors concerned  Comments and Suggestions	Personal Data  Interaction with RAC/CP  RAC/CP Role and Activities  RAC/CP performance in the development of its role and activities  Comments and Suggestions	Personal Data  Interaction with RAC/CP  RAC/CP Role and Activities  <i>Expert Profile</i>  RAC/CP dissemination among sectors concerned  Comments and Suggestions

### **Analysis of the Questionnaires**

Once the completed questionnaires were received from the different organizations and separated accordingly, the information obtained was analysed.

The information contained in the questionnaires was analysed separately according to whether the questions were general or specific to the groups created.

The results are shown in the corresponding sections throughout the Evaluation Report and especially in chapter 3.

### **PHASE III: Analysis of the Information Obtained**

From the information obtained, the documentation and the result of the interviews were analysed. Said information was compiled and analysed, in order to set out the conclusions in this report.

### **PHASE IV: Drawing up of Conclusions, Recommendations and Final Report**

Following analysis of the information, the Final Report was drawn up containing the recommendations and conclusions reached during the assessment period.

## 1.5 FINAL REPORT STRUCTURE

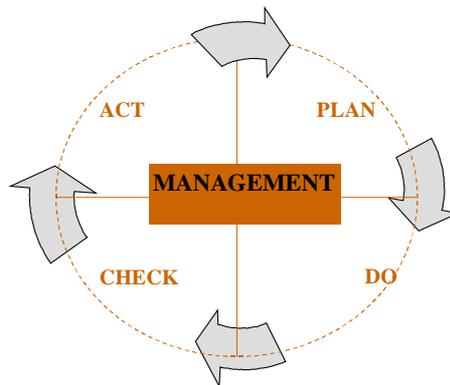
According to the aforementioned methodology, the Evaluation's Report is structured in the following chapters:

**CHAPTER 0: Executive Summary.** Contains a brief summary of the main conclusions drawn after the RAC/CP Assessment during the 2001-2003 Term.

**CHAPTER 1: Introduction.** Contains a description of the object and scope of the evaluation, as well as the work methodology used.

**CHAPTER 2: RAC/CP Management (Objective Evaluation by SGS).** Contains an objective assessment, provided by the SGS team taking part, of the management carried out by RAC/CP during the Term. Said assessment is shown in accordance with the Deming Cycle<sup>\*</sup>, considering that any 'Management' of an organisation should include the following stages and carry them out consecutively in order to ensure continuous improvement: planning, performance, verification and revision.

A detailed explanation of the contents of each stage has already been referred to in point 1.3.1 of this report.




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\* The Deming cycle, or PDCA is a continuous quality improvement model consisting out of logical sequence of four repetitive steps for continuous improvement and learning: Plan, Do, Check, and Act. The PDCA is also known as the Deming Cycle, named after Edward W Deming, a well-known American quality guru.(1930). The PDCA is the basis of any management system in accordance with both international ISO standards and other management models.

- **PLAN:** Design or revise process components to improve results.
- **DO:** Implement the plan and measure its performance.
- **CHECK:** Assess the measurements and report the results to decision makers.
- **ACT:** Decide on changes needed to improve the process.

**CHAPTER 3: RAC/CP Interaction (Evaluation from concerned agents)**. Contains an assessment based on the results obtained in the questionnaires sent to the various agents involved in the protection of the Mediterranean in order to assess their interaction with the RAC/CP throughout the 2001-2003 period (National Focal Points, MAP components, experts, etc).

**CHAPTER 4: Conclusions**. This chapter includes the final conclusions reached after the assessment based on the consultants' opinion together with that of the agents involved with RAC/CP. Said conclusions have been summarised by means of a SWOT analysis.

## **1.6 CONFIDENTIALITY**

All the documentation used, as well as that provided by RAC/CP and received from external organisations, analysed for the development of the assessment, has been handled confidentially.

SGS will not copy nor distribute any document or information to third parties without the express authorisation of RAC/CP.

## **CHAPTER 2. : RAC/CP MANAGEMENT (SGS Objective Assessment)**

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### **2.1 PLANNING**

This section contains the analysis of the RAC/CP mandate basis within the MAP framework and its application.

#### **2.1.1 RAC/CP's mission in the MAP**

As mentioned in the introduction, the RAC/CP is integrated into the CEMA (Centre for the Enterprise and the Environment). At the 9<sup>th</sup> Meeting of the Contracting Parties to the Barcelona Convention for the Protection of the Mediterranean Sea against Pollution, the Government of Spain proposed to the UNEP Mediterranean Action Plan (MAP) that the centre become the Regional Activity Centre for Cleaner Production (RAC/CP). This offer was accepted at an extraordinary Meeting of the Contracting Parties held the following year.

Based on the acceptance of the proposal, the centre started to act as an RAC/CP taking on the mission of promoting and disseminating cleaner production in the Mediterranean Basin. Within the framework of this mission, which the centre took on as its own, the RAC/CP set some guidelines for action that consisted of:

- Participating in the activities of the MAP and the Mediterranean Commission on Sustainable Development (MCSD);
- Working with the National Focal Points on the sustainable development of Mediterranean industry;
- Promoting and co-operating in projects and training activities;
- Carrying out studies on pollution prevention alternatives in different fields and sectors of interest for the Mediterranean Region;
- Informing, by publishing and disseminating business news and experiences;
- Promoting technology transfer and expert exchanges.

As will be seen in later sections, the RAC/CP has worked within its possibilities in the areas of action that were duly established. In carrying out its projects, like other RACs, it has counted on the collaboration of the National Focal Points (hereinafter NFP) which are fundamental for both carrying out the dissemination in countries of the region and knowledge of their needs. However, unlike other similar organisations, the RAC/CP does not have an official document that ratifies its mission and the rules by which it operates. Thus, although the centre is widely known as Regional Centre in matters of cleaner production, this is thanks to the activities it carries out rather than this position having been authorised in writing within the framework of the MAP.

Considering the work carried out to date, and with the aim of not wasting the experience accumulated since 1995, it is deemed necessary for its continuity to consolidate the RAC/CP

through the ratification of its mission and the rules by which it operates and its interrelationship with other organisations within the framework of the MAP in an official document.

Obviously, when carrying out this ratification, the mission of the RAC/CP must be defined not just based on the activity carried out to date, but also on the current context of the Mediterranean region (1), and the capacities of the centre (2):

**(1) Mediterranean Context:** With regard to the current context of the Mediterranean, it should be pointed out that countries making up that region, through the leadership of the MAP and the Mediterranean Commission for sustainable development (MCSD), are involved in the elaboration of a Mediterranean Strategy on Sustainable Development.

Within this context, the definition of the RAC/CP Mandate should be supported by the background that, in fact, the centre already has in sustainable development (hereinafter SD). That is explained by the fact that, of the 4 components of SD – economic, social, governance and environmental -, RAC/CP activities have aimed at promoting integration between the economic and the environmental components in the industry sector, through the diffusion of Cleaner Production and Eco-efficiency, two concepts identified by the Johannesburg Implementation Plan as one of the primary options to decouple the link that has existed between economic development and environmental depletion.

For this task, the RAC/CP has focused on the approach used by the CEMA with Catalan companies, this is an approach based on costs, resource and economic savings, paybacks, cost of opportunities, risks and competitive advantages.

RAC/CP activities, as related to promote SD in industry, have consisted mostly in:

- Identifying, for the main industrial sectors in the region, suitable options for minimising pollution and for optimising their production processes. This has been done through studies analysing those sectors and proposing economically feasible pollution prevention options for their production processes.
- Disseminating the findings of initiatives, programmes and projects carried out in the Mediterranean countries on the application of sustainable production patterns by companies. The MedClean files and the Technical Publication have been the main RAC/CP tools in the performance of that task.

Within the performance of this dissemination task, the RAC/CP has also developed multimedia material (video, CD-ROM) adopting and summarizing the contents of the studies in order to boost wider diffusion. Furthermore, the centre is in the process of including all material on its website so that it can be downloaded by Internet users.

- Holding meetings and seminars through which to facilitate the exchange of information and experiences between experts in pollution prevention, representatives of industry and administrative authorities.
- Organising activities providing training in techniques and mechanisms for cleaner production, aimed at industrial companies as well as at representatives of the administrations responsible for the development and application of plans for the reduction of pollution from land activities in Mediterranean countries.
- Co-operating with MAP member countries for the creation of new cleaner production centres and activities promoting a more eco-efficient production.
- Promoting technology transfer and exchange of experts. The databases of pollution prevention experts and cleaner technologies, updated yearly by the centre, are the specific tools developed by the centre to this end.

- Biennial follow-up of the agents, regulations, programmes and plans of action existing in Mediterranean countries to promote cleaner production, through the publication of the *Study on the State of Cleaner Production in MAP Countries*.

Those activities roughly summarise the extent to which the RAC/CP has worked to promote SD in the Mediterranean region. For all of them, the following observations can be made:

A) In all RAC/CP activities CP options, BATs and BEPs were the main tools on which the centre has focused, all of them being alternatives aimed mainly at production processes. Nevertheless, the centre has not worked on other mechanisms that not only minimize the environmental impacts of the industrial production processes but go beyond this either because they affect the whole lifespan of the product created in those processes (Life Cycle Analysis) or because they integrate the environment in the design of the product (Eco-design).

B) The RAC/CP's industrial expertise, gained from the long experience of the CEMA with Catalan manufacturing industries, is a strong point of the centre's work for Mediterranean industry. However, it has also proved a constraint for the centre to address other important economic sectors such as tourism, agriculture and services, of which it had no previous experience.

**(2) Capacities of the Centre:** as mentioned previously, the RAC/CP is a small organisation that has 3 full-time employees and a network of collaborators. From this point of view, it can be broadly considered that the main activity of the centre is to lead projects by co-ordinating, in each case, the most suitable technicians and experts. In this sense, despite the fact that the Centre's task has focused mainly on promoting sustainability in the industrial productive process, as shown in points A) and B), the fact that the people who make it up are more "managers" than experts classified in the industrial area, the possibility arises that the RAC could increase its area of action.

Taking into account what was mentioned about the current context of the Mediterranean, this increase could reinforce the involvement of the centre in sustainable development of the region through the introduction into its area of mechanisms such as the LCA and eco-design which, as was mentioned earlier, go beyond the productive process, and new economic sectors, tourism, agriculture and services, whose transformation is considered essential for the effective introduction of SD in the Mediterranean.

Thus, the increase in the area of action of the RAC/CP when defining its mission, would reinforce the role of the centre in the promotion and dissemination of mechanisms to decouple production from environmental depletion, and would provide the MAP with an agent devoted to promoting the shift to sustainable production patterns, one of the overarching objectives established by the Johannesburg's Plan for sustainable development.

In this context, taking into account the fact that, in accordance with Johannesburg's Plan itself, the change in production patterns is indissolubly associated with the transformation of those of consumption, we should even look at the possibility that, in establishing the mission of the RAC/CP, that sustainable consumption, promoted as another of the main factors for SD, should be included. On the one hand, the centre's lack of experience in this field would make it necessary to carefully evaluate the viability of this step towards a new scenario that would clear the way of the centre to new activities addressing not only the economic and environmental components of SD, but also the social component. On the other hand, the fact that the centre has been the only MAP unit specifically focusing on sustainable production makes it a suitable candidate within the MAP to perform this task for which no MAP component has been assigned so far.

A final indication to be taken into account in setting up the mission of the RAC/CP refers to the essentially technical content that the various activities carried out by the centre have presented

so far. Although it is true that they have concentrated on offering technical options for pollution prevention, it has been seen that in some cases they have also included a strategic perspective, applied at industry level and even at country level, on “how to proceed” to achieve some intermediate objectives for sustainable industry.

The main example of those activities is the Regional Plan for the Reduction by 20% by 2010 of Hazardous Waste Generation from Industrial Sources, carried out as one of the activities performed by the RAC/CP in the framework of the GEF Project for the application of the Strategic Programme for addressing pollution from Land-based sources (SAP). This is a strategic document aiming at identifying a range of proposals for policymaking in Mediterranean countries when addressing Hazardous waste reduction as a medium-term objective established by SAP.

The acknowledgement that this document has received from the Mediterranean institutions and experts that participated in its revision is seen as an indicator of the potential of the centre to extent its field of action from the simple diffusion of technical options to a broader scope that includes activities related to planning and strategies for pollution reduction.

***RecommendationAUTONUM*** *To consolidate the activity of the RAC/CP it is considered necessary to have an official document to formalise both its mission statement and the rules by which it operates.*

***RecommendationAUTONUM*** *In formalising the mission statement, it should also clearly define the role that the RAC/CP should play in the Mediterranean process towards sustainable development, based on the centre’s background in the dissemination of mechanisms for the integration of the economic and environmental component in industry, and on the possible new lines of action that are listed below:*

- *The inclusion, together with cleaner production, of other mechanisms for sustainable production, such as LCA and eco-design, in the area of the RAC/CP activities;*
- *The extension of the RAC/CP activities to other representative economic sectors in the Mediterranean, such as those of tourism, agriculture and services;*
- *The assignation of activities in matters of strategies and/or plans for pollution prevention;*
- *The inclusion of activities for the dissemination of sustainable consumption.*

## **2.1.2 Setting up of Objectives**

The objectives and activities of the RAC/CP are established annually by a Bilateral Commission made up of representatives of the Spanish Ministry of the Environment, and the Catalan Department of the Environment and Housing, from a proposal by the centre itself, based on its experience at a regional level and on the recommendations arising from the biannual meetings of its NFPs, as well as those that arose from the meetings of the Contracting Parties to the Barcelona Convention and from others that were held by other members of the MAP (MED POL, other RACs, etc.) inasmuch as they affect the action of the RAC/CP.

Likewise, the setting of the objectives and the activities is framed within the aforementioned guidelines of action that the centre itself set for exercising its role as a promoter and disseminator of cleaner production in the Mediterranean region.

In part 2.2.2 of the report, an assessment is made on the activities carried out by the centre during the period 2001-2003, as performed within each of the guidelines for action.

From this assessment it has been possible to verify that the activities carried out have, on the whole, responded to the recommendations of the meetings mentioned above, particularly to those of the NFPs, as direct RAC/CP's interlocutors for Mediterranean countries. As far as the recommendations of the NFPs meetings are concerned, the following have been complied with:

Recommendations and Proposals 3<sup>rd</sup> Meeting of RAC/CP National Focal Points (2001)

- A. To provide industries with environmental information for guidance and to promote the environmental culture aimed at improving their performance.
- B. To review the CP tools developed by the RAC/CP to identify improvement opportunities and publish the studies carried out on its behalf and that of its National Focal Points to facilitate their use in the Mediterranean countries.
- C. To organise workshops on Minimisation Opportunities Environmental Diagnosis (MOED) and Good Housekeeping Practices (GHP) in the main industries in the Mediterranean.
- D. To create and enlarge several Database (experts, technologies).
- E. To increase the use of the Internet and the RAC/CP website as a tool for the RAC/CP NFP network.
- F. To strengthen co-operation between the RAC/CP and other Mediterranean entities.
- G. To organise on-site visits to facilities that have implemented CP techniques.

Recommendations and Proposals 4<sup>th</sup> Meeting of the RAC/CP National Focal Points (2003)

- H. To continue publishing successful stories, news and articles related to Clean Production.

However, some recommendations were detected that have not been developed. These recommendations are as follows:

Recommendations and Proposals 3<sup>rd</sup> Meeting of RAC/CP National Focal Points (2001)

- To broaden the scope of activities of the RAC/CP to cover products and services as well as processes.
- To promote the incorporation of an environmental dimension in the public procurement process.
- To encourage stronger links with European-level initiatives such as IPPC, EMAS, IPP and Ecolabel and with Institutions to strengthen an integrated approach to cleaner production and to improve information sharing with the non-EU Mediterranean countries.
- To facilitate the inclusion of cleaner production concerns in the work of Mediterranean accession countries in their efforts to prepare for EU environmental regulations.
- To carry out studies on economic instruments to promote CP and on product-oriented issues related to CP.
- To initiate a study of experience in environmental management in industrial parks and industrial cities.

Recommendations and Proposals 4<sup>th</sup> Meeting of the RAC/CP National Focal Points (2003)

- To take into account aspects such as sustainable consumption, environmental management systems and eco-labelling.

As can be observed, the majority of the recommendations made by the NFPs that have not been carried out to date are related to the increase in the scope of activity of the RAC/CP, whether to other sectors (services) or to other types of activity (IPPC, EMAS, etc.) and all of them but one were formulated in 2001.

At a strategic level, the non-following of the recommendations given could be due to the fact that in some way those recommendations are outside the scope of the mission of the RAC/CP defined in 1995 by the centre itself viz "To promote and disseminate cleaner production". However, as the NFPs recommendations may be reflecting the real needs of the countries to implement SD in the economic sector, they should have led to an internal review of the mission of the RAC/CP in order for it to work on those needs.

***RecommendationAUTONUM*** *The recommendations and proposals of the NFPs are one of the best ways through which the RAC/CP can get to know the real needs of Mediterranean countries as related to sustainable development in industry, so they should have a greater specific weight in the consideration of actions to be planned by the centre, and more so should the recommendations imply the review of the strategic areas of action of the RAC/CP (in this sense, the setting up, between the RAC/CP and its NFPs, of systematic mechanisms to evaluate the needs of the countries in the region as well as for carrying out periodical reviews/reconsiderations of the activity performed by the centre is analysed in points 2.3 and 2.4 of this report).*

***RecommendationAUTONUM*** *In the NFP Meetings, the specific activities that the RAC/CP should take into account during the following biennium should be clearly defined.*

***RecommendationAUTONUM*** *The Projects proposed to be carried out during the period should be detailed as far as possible at the end of the NFP meetings. Below is some of the data it is considered should be detailed:*

- *Time planning;*
- *Person responsible assigned to the Project;*
- *Persons involved and time dedicated by them to the Project, in order to be aware of whether the human resources available are sufficient to achieve the objective;*
- *Specific activities to be carried out, for each of the established Objectives;*
- *Follow-up frequency, defining the appropriate period to ensure the correct progress of the Project (monthly, quarterly, etc.).*

*All this with the aim of making the follow-up of those activities more agile, to ensure that the established deadline can be met, and facilitate reporting to the interested parties (NFP, MAP, etc.).*

***RecommendationAUTONUM*** *It is recommended to draw up, before each of the NFP meetings, a document which reflects the level of compliance with the objectives and activities defined in the previous NFP meeting, as well as the justification of the Objectives/Recommendations/Activities not carried out (budget, cancellation, lack of human resources etc.).*

## 2.2 PERFORMANCE

### 2.2.1 Available Resources

#### RAC/CP Staff

Currently, the RAC/CP has three full-time members of staff: a co-ordinator and two technical staff under the supervision of the CEMA's Director, who is also the Director of the RAC/CP. The tasks of the RAC/CP members are defined in an internal CEMA document describing the functions assigned, training, and skills required for each post.

Due to the limited number of human resources of RAC/CP, for some projects the centre relies on the technical support of external suppliers such as personnel from other areas of the CEMA, institutions, private consultancies, experts, etc.

The supplier is selected from the offers presented by 3 candidates who are experts in the area of the project. The RAC/CP selects the offer that brings together the highest points based on criteria such as knowledge of the framework in which the project is developed, previous experience in similar projects, human team provided, etc. In this respect, in order to improve the system for external supplier selection, it is proposed:

***RecommendationAUTONUM*** *To record the results of previous experiences with experts to be taken into consideration systematically way in forthcoming contracting.*

In those projects where RAC/CP is technically supported by an external expert, the centre's own personnel act as lead co-ordinators of the project, the technical development of which is carried out by the external provider. Therefore, the task of the RAC/CP is restricted more to carrying out the follow-up on the project to ensure that its contents respond to the objectives set, than in corroborating the technical aspects provided by the expert in its development. As stated in chapter 2.1.1., this situation provides the centre with great versatility when looking to broaden its area of activities. However, this mechanism of operation makes to continual retraining of staff particularly necessary. Nevertheless, there is no training plan that guarantees the updating of their knowledge so far.

***Recommendation*** *To have available the mechanisms that ensure the continuous training of personnel. This system should be based on:*

- *Detection of needs;*
- *Establishment of a Training Plan;*
- *Follow-up and assessment of the training courses.*

#### National Focal Points (NFPs)

Like the other MAP components, the RAC/CP has a network of NFPs. These are representatives, designated by the governments of each contracting party to the Barcelona Convention, that act as interlocutors for the RAC/CP in each of these countries. The task of NFPs is assigned to professionals who work for the Ministry of the Environment for their country or for a centre of sustainable development/cleaner production attributed to a Ministry (normally, Environment or Industry). These appointments are done directly by the Ministry, which informs the MAP Coordination Unit, which in turn, must inform the RAC/CP of the appointment.

Therefore, the designation-relocation-change of the NFPs is in the hands of the corresponding Ministry, with no participation by the RAC/CP.

On the other hand, although the task of the NFPs is not formally established, it is perceived that it must consist of disseminating cleaner production in their country. Therefore, they are called to carry out an active task of dissemination of this concept and of the mechanisms for its application, through the organisation of activities and the dissemination of the documentation/material prepared by the RAC/CP. Likewise, they are called to provide the centre with information for the material it prepares with regard to the country of each NFP. However, as can be seen in chapter 3 of this assessment, several NFPs have not taken on this task, considering their mission to be just that of disseminating RAC/CP material.

***Recommendation*** *To set up a mechanism for selecting the NFPs that will facilitate the work of the Ministries and guarantee suitable profiles. This mechanism could consist of a job description file for NFPs made by the RAC/CP, which identifies the academic and professional profile required, as well as the function the NFP has to carry out, and which would reach the Ministry of the country through the MAP Coordination Unit.*

### **Material Resources**

The RAC/CP shares its infrastructure with other areas of the CEMA, on the same premises, along with its administrative personnel, etc. It also has computing equipment, a library, a meeting room, a room with the publications on paper, and so on available.

***Recommendation*** *A revision of the update of the I.T. resources available should be carried out, as this is the main tool for the carrying out of the projects by the technicians, since the databases used take up large amounts of memory.*

### **Economic Resources**

The RAC/CP annual budget comes from the Spanish Ministry of the Environment, as per the Report of the 13th Ordinary Meeting of the Contracting Parties to the Barcelona Convention.

In the following table the use of the annual budget is summarized for the 4 last years.

	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>
<b>Daily activity cost</b>	228,385	240,405	314,050	360,020
<b>Training</b>	276,466	112,556	195,104	151,000
<b>Publications</b>	171,288	235,223	161,110	170,000
<b>Studies</b>	162,273	154,495	185,000	236,980
<b>Projects</b>	0	81,901	16,200	6,000
<b>TOTAL</b>	<b>838,412</b>	<b>824,580</b>	<b>871,464</b>	<b>924,000</b>

## 2.2.2 Performance: Activities Carried Out

The methodological approach described in part 1.3.1 was followed to evaluate the activities carried out, which is re-summarised below:

The analysis includes a general assessment and a specific assessment of particular projects/activities.

The general assessment consists of checking, on the one hand, whether actions have been carried out during the 2001-2003 period, within the framework of the guidelines for action set by the RAC/CP and, on the other, to verify whether those actions comply with the recommendations and proposals from the RAC/CP's NFPs, defined in their biannual meetings.

The specific assessment was carried out using sampling, reviewing in a more detailed way some activities/projects performed within each guideline for action. The sampling was realized according to the magnitude of the projects; and the analysis was based, initially, on the registers made available to the audit team demonstrating the results of the actions (for example, in the case of training actions, the most significant registers are the questionnaires on student satisfaction) and secondly, on the criterion of the auditor.

In order to be aware of the development and follow-up of each activity, the RAC/CP's Database of a Lotus Notes Programme was used by the auditors. By means of a code assigned to each of the projects, this database enables to monitor the process for their development, including information on the meetings held for projects follow-up, sent and received e-mails, generated documents, drafts, etc. The Database has various systems to view the information, amongst which various filters can be highlighted in the following fields: 'Open Projects', 'Closed Projects', 'Person Responsible', 'Title', 'Classification', 'Origin'. All this in order to facilitate the search and analysis of the specific projects.

Next, the activities carried out by the RAC/CP during the 2001-2003 period in the performance of its mandate to promote cleaner production and eco-efficiency in the Mediterranean Region are assessed.

The activities are classified in accordance with the guidelines for action defined by the centre itself. These are:

- To participate in the activities of the MAP and the Mediterranean Commission on Sustainable Development (MCSD);
- To work with the National Focal Points (NFP) on the sustainable development of Mediterranean industry;
- To promote and co-operate in projects and training activities;
- To carry out studies on pollution prevention alternatives in different fields and sectors of interest to the Mediterranean Region;
- To inform, by publishing and disseminating business news and experiences;
- To promote technology transfer and expert exchanges.

**To participate in the activities of the Mediterranean Action Plan (UNEP/MAP) and the Mediterranean Commission on Sustainable Development (MCSD)**

Since its designation, the RAC/CP has represented the industrial component in initiatives developed to fight against land-based pollution within the framework of the MAP, the Mediterranean Commission for Sustainable Development (MCSD) and more recently in those carried out within the creation process of the Mediterranean Strategy for Sustainable Development (MSSD).

**Participation of the RAC/CP in MAP Activities**

During the 2001-2003 period, the RAC/CP participated in diverse meetings, seminars and workshops organised as part of various MAP projects and programmes, offering its experience in the application of cleaner production in industry. These include:

- Meeting of the Coordination Unit of the Mediterranean Action Plan (MEDU) with Non-Governmental Organisations; Barcelona, 19th April 2001. The objective of this meeting was to discuss a document drawn up on relationships between the PAM and civil society organisations.
- Meeting on Urban Environment and Sustainable Development, Barcelona 3rd-5th September 2001. Support for the PAP/RAC and MED CITIES in the organisation of the above-mentioned meeting, the result of which was a set of proposals for action concerning urban development and management planned for 2001-2005.
- Seminar on Sustainable Development and the Sustainable Use of Natural Resources. Neum, 22nd-24th May 2002. Participation in the seminar organised by the ERS/RAC and the Hydro-Engineering Institute of the Faculty of Civil Engineering of BiH, presenting experiences in the Mediterranean on successful cases of introduction of cleaner production.
- Second Seminar on Legal and Management Tools for Protecting the Mediterranean Coast. Majorca, 6th-8th June 2002. Presentation of cleaner production as a means to reduce pollution of the Mediterranean coast.
- Regionally Based Assessment of Persistent Toxic Substances. Mediterranean Region. Barcelona, 26th-28th June 2002. Participation as experts and in the organisation of the meeting to review the draft copy of the study and its final writing up.
- Symposium on Protected Coastal and Maritime Areas of the Mediterranean. Roses – L'Estartit, 6th-10th March 2002. Support for the organisation of the above-mentioned meeting, the result of which was a set of proposals for actions concerning the management of specially protected areas of the Mediterranean.
- Seminar for Mediterranean Communication Professionals on the Environment and Sustainable Development in the Mediterranean Region – The role of the Mediterranean Action Plan (Barcelona, 7th-10th May 2003). Jointly organised with the MAP Co-ordination Unit and PAP/RAC. The sessions included presentation and debates about the main sources of pollution in the Mediterranean, the activities of the MAP to reduce and contain them, and its objectives in matters of sustainable development. The participants visited two companies where they were able to learn about practical applications for preventing pollution.

These activities are in line with recommendations A, F and H, arisen from RAC/CP NFPs meetings (referred to in part 2.1.2).

Within this role of the RAC/CP as a promoter and disseminator of cleaner production in MAP activities, particularly noteworthy in the assessment period is the involvement of the centre in the Strategic Action Programme for Addressing Pollution from Land-Based Sources (SAP) through its participation in the GEF Project "Determination of Priority Actions for the Further Elaboration and Implementation of the Strategic Action Programme for the Mediterranean Sea". Amongst the regional activities set up by the SAP, the RAC/CP carried out various projects aimed at facilitating the introduction of measures to prevent pollution at source in the industrial area by Mediterranean countries. They consisted of the organisation of a seminar on the application of cleaner techniques and practices, dealt with further below (in the section referring to the participation of the centre in projects and training activities) and in the preparation of the following documents:

- Regional Guide to the Application of Best Environmental Practices (BEPs) for the Rational Use of Fertilizers and the Reduction of Nutrient Loss from Agriculture
- Regional Guide to the Application of Best Available Techniques (BATs) and Best Environmental Practices (BEPs) in Industrial Sources of BOD, Nutrients and Suspended Solids
- Regional Guide for the Application of Best Available Techniques (BATs), Best Environmental Practices (BEPs) and Cleaner Technologies (CTs) in Industries of the Mediterranean Countries
- Regional Plan for the 20% Reduction by by 2007 of the Generation of Hazardous Waste from Industrial Installations in the MAP Countries

It has been verified that the process for drawing up this material included a broad participative process with several revisions made both in expert meetings organised jointly with the MED POL Programme (Split, 18th-20th March 2003; Barcelona, 8th-10th April 2003) and by the National Focal Points of the RAC/CP, informing, whenever relevant, the national co-ordinators of the GEF project as well as the national co-ordinators of the MEDPOL Programme.

The common note of the first three documents is their essential technical nature, despite the fact that they present very heterogeneous contents. Whilst the guidelines for the agricultural sector and for the industrial sources of BOD, nutrients and SS, refer to transversal matters, identifying options - whether BEPs, MTDs or CTs - to address specific environmental impacts, the guide for the application of BATs, BEPs and CTs in industry sets up a methodology through which to facilitate the application of the mechanisms to Mediterranean industries, independently of the sector to which they belong. Finally, unlike the technical content of the 3 documents, the regional plan for the reduction of hazardous waste consists of a strategic document aiming at proposing a range of proposals for the policy making of Mediterranean countries when addressing hazardous waste reduction as a medium-term objective established by the SAP.

These documents have received special acknowledgement from the Mediterranean institutions and experts that participated in their revision: the Guidelines addressing BOD, are considered an useful technical support tool to apply the MED POL's Regional Plan to reduce by 50% the input of industrial BOD in the Mediterranean; the guidelines for the application of BATs, BEPs and CTs have been recommended as the reference methodology for the countries when drawing up their National Action Plans for the application of the SAP; finally, the Regional Plan, that was adopted by the Contracting Parties to the Barcelona Convention (13th Meeting, Catania, November 2003).

### **Participation of RAC/CP in the MCSD**

As with the general activities performed by the RAC/CP within MAP, the centre's participation in the MCSD has focused on representing the industrial component in the Commission and on promoting Cleaner Production as a tool with which to facilitate the sustainability of that sector. For that reason the centre co-ordinated the MCSD's Industry and Sustainable Development Working Group created with the objective of developing proposals for applying sustainability in Mediterranean Industry. In the performance of this task, the RAC/CP organized the *Regional Seminar Status and Trends of Industry and Sustainable Development* (Barcelona, 27-29 June 2001). The objectives of this seminar were to analyse the current situation and the trends of industry in the Mediterranean with regard to sustainable development; to generate a series of recommendations and proposals of strategy and actions to present to the Contracting Parties to the Barcelona Convention.

To do a follow-up on the recommendations made by the industry group, two years later, the centre organised a meeting (Barcelona, 26th February 2003) with representatives from institutions that work in the Mediterranean region on matters of sustainable industrial development (UNEP, UNIDO and MEDPOL<sup>1</sup>) in order to exchange information on the various activities that those institutions were carrying out in this context, and how they could be better implemented through a set of collaborative actions among the institutions concerned.

In addition to participating in all MCSD Meetings and coordinating the aforementioned working group, another contribution from RAC/CP to the Commission in the assessment period was the cooperation and participation in the logistics of the 2nd Meeting of the Task Force on the proposal of a new orientation and organization of the Commission (Barcelona, 3-4 April 2003) that was held at the centre's headquarters.

### **Participation of the RAC/CP in the Mediterranean Strategy for Sustainable Development (MSSD)**

The RAC/CP has been involved in the Strategy preparation process, participating both in the prior MCSD meetings discussing and defining the working methods to be followed throughout the process and in the meetings and workshops preparing such Strategy. Furthermore, in 2003 the centre also contributed to the organization of the Workshop on Framework Orientations for the Preparation of the MSSD (Barcelona, 13-15 March 2003) and prepared the working documents for that workshop.

### **To work with the National Focal Points (NFP) on the sustainable development of the Mediterranean industry**

The co-operation between the RAC/CP and the NFPs aims to facilitate the integration, in businesses, of economically sound pollution prevention measures adapted to the Mediterranean context.

To that end, the following tools are used to strengthen the network:

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<sup>1</sup> The Association of Chambers of Commerce (ASCAME) was also invited to the meeting, although in the end it was unable to attend.

- Periodical communications with the NFPs with the aim of compiling information about the industrial sector in their countries and about their initiatives and experiences with regard to the application of Cleaner Production;
- Submission of the publications and projects for the approval by NFPs and their subsequent dissemination in their countries;
- Biannual meetings with the NFPs where the actions on pollution prevention and cleaner production promoted by the MAP countries are assessed and new proposals and recommendations are discussed;
- Meetings of experts designated by the NFPs, for the exchange of experiences on a specific industrial sector.

### ***RAC/CP's National Focal Points Meetings (biannual)***

During the Term, two RAC/CP NFP meetings have taken place:

3rd National Focal Points Meeting

4th National Focal Points Meeting

These activities are in line with recommendation F made by the NFPs, as mentioned in part 2.1.2.

For each meeting, the organisation (agenda, invitations, trips, etc.) and the content were verified, by means of the data filed in the Lotus Notes Database.

These meetings present the following general structure:

- Presentation and assessment of RAC/CP activities carried out since the last NFPs meeting;
- Discussion sessions for the exchange of experiences among the participants. In these sessions each NFP present and explain its activities for promoting CP in its country (dissemination, publications, projects, etc.);
- Recommendations for action for the next biennium to promote CP in the Mediterranean region.

Following the meetings, a report is published containing the agenda, issues dealt with, conclusions reached, and the contact details of the participants. The report is distributed to the participants for their review. Later, the recommendations made are sent for approval to the Contracting Parties to the Barcelona's Convention.

It has been verified that the meetings held were correctly structured and considered of vital importance as the NFPs are the main communication channels for the distribution of CP techniques.

Nevertheless, there is neither a mechanism defining specific actions through which materializing the recommendations arisen from the meetings nor a system for the follow-up of the actions that may be finally carried out by either the RAC/CP or the NFPs for complying with those recommendations.

Recommendations in this sense are made in chapters 2.1.2, 2.3.2 and 2.4.1 of this evaluation report, in order to ensure that the NFPs meetings are truly efficient.

### **Experts Meetings**

RAC/CP has periodically brought together experts, technicians and industrialists from Mediterranean countries, in representation of the NFPs, to analyse the production systems used by a particular industry sector and promote the exchange of experience, technology, knowledge and experts among the different countries represented.

The aim of this type of meeting is to analyse the characteristics and problems of a specific productive sector, and study the possible alternatives for pollution prevention, and the extent to which they are implemented in the companies in the region.

The evaluation of these meetings was carried out based on the meeting of experts on pollution prevention in the textiles industry.

As for the NFP meetings, the organisation of the expert meetings (Agenda, Invitations, Trips, etc.) was verified by means of the data filed in the Lotus Notes Database. It is observed that the following general structure is common to them:

- Session/s devoted to analyse the different stages of the productive process of the sector, the environmental impacts generated from them and the possible pollution prevention alternatives. This session may include the presentation of a study that the RAC/CP has carried on the application of cleaner production in the sector;
- Session/s for discussing the state and needs of the sector in the Mediterranean region. Experts participating in the meeting present an overview of the sector in their country, focusing on its representativeness, environmental considerations and experiences of introducing pollution prevention;
- Session/s devoted to issues specifically related to the sector dealt with in the meeting;
- Proposals for action;
- Visit to a company of the sector discussed in the meeting, showing to the participants how that company had integrated the environment into its activities.

For each of the meetings participants were selected according to their training and experience on the targeted sector. Likewise, RAC/CP's staff aimed to bring experts from as much Mediterranean countries as possible, in particular from those where the sector was especially representative, in order to guarantee the regional character of the meetings.

The information presented and documented during the meetings is then spread nation-wide through the NFPs, in order that it may reach the enterprises that can thus benefit from the outputs of those meetings.

***Recommendation*** *Experts meetings are found a very necessary input for the RAC/CP to gain knowledge of the real situation of the industrial sectors in the Mediterranean and thus to identify actions to better implement sustainable patterns in companies operating in those sectors. Therefore, such as it has been proposed for the recommendations of the RAC/CP NFPs meetings, the setting up of mechanisms for the follow-up of actions carried out from the proposals arisen from the experts meetings is recommended.*

### **To promote and co-operate in projects and training activities**

The RAC/CP has participated, through assessment activities and training in cleaner production, in national and regional projects for the introduction of mechanisms for reducing land-based pollution.

The training operations developed by the RAC/CP were aimed both at representatives from the industrial sector and civil servants and professionals in public administration responsible for areas or programmes for pollution prevention and control. Likewise, their objective has gone from training on the Minimisation Opportunities Environmental Diagnosis (MOED), the methodology developed by CEMA, through which businesses can detect possible opportunities for preventing and reducing pollution at source, to training on specific techniques applied to certain sectors, including for all of them a general introduction to the concepts of pollution prevention at source (CP, eco-efficiency, LCA, IPP, BATs, BEPs, etc.).

Likewise, these activities were carried out as the participation of the RAC/CP in diverse regional and national initiatives and projects. In some cases, they arose from an individual initiative of the centre, which materialised after a previous evaluation of the opportunity and use of the activity with regard to the country/ies and the sector in which they were to be carried out, as well as on the likelihood of co-operation from the national institutions of the country in the activity. This is the case of the seminars which took place in Barcelona and Dubrovnik in 2001. The first of these, aimed at training in environmental management for civil servants and professionals from the MAP countries was held in two versions, English and French, (15th-26th October and 5th-16th November, respectively). The following countries were represented at these meetings: Israel, Malta, Bosnia-Herzegovina, Syria, Lebanon, Albania, Turkey, Libya, Croatia and Egypt (for the meeting in English) and Algeria and Tunisia (for the meeting in French). The seminar held in Dubrovnik (12th-14th December 2001) focused on training in the MOED and it was organised by the RAC/CP in collaboration with the Croatian Cleaner Production Centre and the Centre for Environmentally Sustainable Development of Bosnia-Herzegovina (CESD).

In other cases, the centre has developed training activities within the framework of its participation in projects aimed at a single country, a group of countries or all of those that make up the Mediterranean region. In this sense, during the 2001-2003 biennium, the following projects were identified in which the RAC/CP has participated through training and/or assessment activities:

**MED-Delta 2000: Eco-efficiency in Companies.** A training project on the methodology of environmental management tools in Turkey, Tunisia and Syria, within the framework of the European Financing Programme LIFE-Third Countries. In the case of the first two countries, the RAC/CP held two training seminars on the MOED methodology, Turkey (7th-11th May 2001) and Tunisia (11th-15th June 2001). The objective of these seminars was to offer participants the opportunity to acquire basic knowledge concerning the systems of environmental management, to promote the introduction of specific actions and to provide companies with practical instruments in order to facilitate the decision-making process, whilst reducing environmental impact and costs.

**LIFE-Third countries Project: Capacity building in Bosnia and Herzegovina, to create a cleaner production centre in BiH in the long term and to create national capacities through knowledge transfer and training.** The participation of the RAC/CP in this project started in 2001 and it included both training and direct assessment of Bosnian companies and administrative authorities on the concept of CP, advantages and obstacles to its application, stakeholders concerned, necessary tools and instruments, and case studies, referring to the Catalan experience and that of transition countries. Some seminars were focused on the implementation of the MOED and included follow-up by the RAC/CP of the implementation of the MOED by four pilot companies. Other activities performed by the centre in its participation to this Life project consisted of

supplying centre's material to the project, contributing to the first issue of the periodical magazine "Voice of Sustainability", created within the framework of the Project by CESD, and organizing a visit from a Bosnian delegation to the RAC/CP headquarters. Through this visit, representatives from Ministries and other public administrations as well as from the private sector of that country were informed on the task and internal management of CEMA and on its experience in the promotion of cleaner production in the Catalonian industrial sector. Likewise they were informed on the Catalonian experience in the implementation of the IPPC Directive as main legal mechanisms to apply best available techniques and best environmental practices.

**MED GEF Project.** The participation of the RAC/CP in this project included, together with the drawing up of guides and the plan mentioned previously, the organisation of a Regional Training Course on Cleaner Production Practices and Techniques (30th September – 4th October 2002), directed at representatives of the MAP countries, aiming at reinforcing national capacities on pollution prevention mechanisms, for the best formulation of the National Action Plans for implementing the SAP.

These activities are in keeping with recommendation number G included in part 2.1.2 carried out by the NFPs.

As with the NFP and expert meetings, the organisation and development of the training activities has been verified through the Lotus Notes database used by RAC/CP staff. Among them, the GEF Regional Course has been chosen for deeper evaluation.

A complete follow-up of the development of the project could be performed as the mentioned database includes all documentation on both the organisational and technical aspects of the seminar (invitations to the participants, follow-up for their confirmation, flights, accommodation during their attendance of the course, definition of the course structure and contents, election of trainers and speakers, questionnaires for evaluating the seminar, reports, etc.).

As in the case of the expert meetings, the theoretical sessions of the course were complemented with visits to the companies where CP has been implemented in their processes.

Both for this course and for the rest of training activities developed by RAC/CP, it has been observed a very positive evaluation by participants with regard to their technical content as well as to their organization and structure. However, apart from the LIFE project in Bosnia, no kind of procedure has been observed to carry out a follow-up of the outputs of the seminars, whether at application level by the participants themselves or at an activity level that could be launched to publicise the contents of the activities at a national level.

***Recommendation*** *The same as in the case of the other activities organized by RAC/CP, the setting up of mechanisms through which the centre can follow up the application/dissemination of the outputs of its training activities is recommended.*

### **To carry out studies on pollution prevention alternatives in different fields and sectors of interest for the Mediterranean Region**

The range of studies that the RAC/CP has carried out in the development of this task covers various subject matters that can be grouped into three categories:

General Studies present the trends and initiatives implemented by both public institutions and private agents in Mediterranean countries to promote the adoption of pollution prevention mechanisms, notably focused on CP, by the industrial sector, leading it towards sustainable development.

The following were issued during the period 2001-2003: *State of Cleaner Production in the Mediterranean Action Plan Countries*, first and second edition (drawn up in 2001 and 2003 respectively); *Status and Trends of Industry and Sustainable Development in the Mediterranean Region* (2001); *Biotechnology Applications in Industry* (2003).

Sectorial Studies focus on the analysis of an industrial sector, showing its status and trends in each Mediterranean country, describing its production processes and the environmental impacts associated with them, while proposing economically feasible pollution prevention options for reducing those impacts.

During the period 2001-2003 sectorial studies were carried out in the following areas: surface treatment industry; tanning industry (study and kit summarizing the study); olive oil production; food canning processes; used oils; dairy industry; textiles industry; printing sector; fertilizers and industrial sources of BOD (the last two were carried out within the framework of RAC/CP participation in the MED GEF Project aforementioned).

Methodological Guidelines are manuals presenting tools to contribute and implement CP within enterprises.

Methodological manuals issued during the 2001-2003 period focused on the MOED and an interactive training course for its application; the design of a good housekeeping practices programme application in industry; a methodology for organising working groups; the application of BATs, BEPs and CTs in Mediterranean industries (the last within the framework of RAC/CP participation to the MED GEF Project mentioned above).

These activities are in keeping with recommendations A, B and C arisen from NFPs meetings (referred to in part 2.1.2).

The evaluation of the procedure that the RAC/CP applies in carrying out these studies enables to recognise the centre's efficiency in the management of the development of those studies. This is endorsed by the recognition of the quality of the documents by most of the agents questioned.

Their development includes the following stages aimed at assuring the quality of their contents and providing them with a Mediterranean approach:

- Queries to the NFPs of the RAC/CP and to other official bodies with the aim of incorporating the information that they can provide on the object of the study in their countries in the development of the project;
- Continuous follow-up by RAC/CP staff on the development of the structure and content (periodical meetings with the expert) providing the technical support for the project, technical involvement in the development of the document, etc.);
- Following approval by the RAC/CP, the document is sent to the NFPs to be reviewed and approved;
- To update the studies, the methodology used in the previous editions is reviewed and improved. This is the case, for example, of the Study on CP in the MAP countries, for the second edition of which they had the collaboration of three Mediterranean experts belonging to countries in different areas of the region; namely, Egypt, Spain and

Turkey. The document also incorporated a structure of contents that was more complete than in the first edition.

### **Multimedia (CD ROM, Videos) and Leaflets**

As support material for the dissemination of the studies, during the 2001-2003 period, the RAC/CP adapted most of them to CD-ROM format. In these cases, the insert where the disk is stored was presented in the form of a leaflet containing a graphic summary of the main contents of the study.

Likewise, some studies also had a video explaining their main contents. During 2001- 2003 videos were released on olive oil production, the surface treatment sector, the dairy sector and the tanning sector.

Other formats which the RAC/CP has used to facilitate the dissemination of information about CP and other related matters were leaflets containing graphic and summarised information. During the assessment period, the centre published two leaflets: one of them was part of the set of informative leaflets on Mediterranean challenges for sustainable development and the MAP components addressing them, which they presented at the 2002 Johannesburg Summit (*Promoting Cleaner Production in the Industrial Sector – Towards Sustainable Development in the Mediterranean*); the object of the other was to disseminate the role and the activities of the RAC/CP amongst the agents and institutions that work for the protection of the Mediterranean (*RAC/CP leaflet*).

These activities are in keeping with recommendations A and C arisen from NFPs meetings (referred to in part 2.1.2).

### **To inform, by publishing and disseminating business news and experiences**

RAC/CP carries out this task through the following publications:

#### **CP News**

CP News is a newsletter on the activities and initiatives carried out in the Mediterranean countries for pollution prevention and CP promotion, including: meetings and seminars, regulations, programmes, projects and other topics.

During the period 2001-2003, 6 CP News, issues 9 (2001) to 15 (2003) were published.

As a dissemination tool, CP News allows RAC/CP to provide information on CP-related news to all interested parties and the public in general in the Mediterranean. At the same time the newsletter is a tool through which the centre informs of its latest activities.

Although at the beginning the bulletin aimed at foster the periodic exchange of information among RAC/CP NFPs, it has been observed that there is a gradual increase in its receiving capacity, which has started to include other institutions and agents dedicated to protecting the Mediterranean.

Parallel to this increase in readership, it has also increased the range of subjects covered in the document. In its first issues it focused on informing about specific CP-promotion activities, such

as projects and seminars on the subject, and it has gradually included information on measures of legal or political significance taken by Mediterranean governments, as can be seen in the news summary in issue 15, below:

1. **The Mediterranean states undertake to reduce their hazardous waste generation:** the Mediterranean countries approved the approach presented in the regional plan drawn up by RAC/CP to reduce hazardous waste generation by applying cleaner production in industrial installations.
2. **RAC/CP broadens its field of action:** The aim of this to help disseminate principles, advantages, opportunities and tools for the introduction of sustainability in corporate management, among the economic sectors of the Mediterranean countries.
3. **Spreading eco-efficiency in the French textile ennobling industries:** examples of approaching the Mediterranean industries directly to disseminate eco-efficient measures in the region.
4. **New publications available (2003):** the latest publications from the RAC/CP.
5. **Towards the entry into force of the new LBS protocol (*Protocol for the protection of the Mediterranean Sea against Pollution from Land-based Sources*):** Evaluation of the status for the acceptance of amendments to the LBS Protocol reviewed at the last meeting of the Contracting Parties to the Barcelona Convention held in Catania, Italy.
6. **The next step in the application of the SAP: the preparation of National Action Plans:** how the countries wish to reach the SAP targets on a national scale, should be ready by the end of 2004.
7. **Implementing eco-efficiency in Slovenian companies: ECOPROFIT in Maribor:** An explanation of how the Ecological Project for Integrated Environmental Technologies works and its state of implementation.

**Recommendation** *To set up a system for subscribing to CPNews, with two objectives.*

- a. *To boost the dissemination of RAC/CP activities.*
- b. *To set up a mechanism for obtaining information about agents interested in the RAC/CP, as well as identifying possible experts.*

## **MedClean**

MedClean are case studies that illustrate examples of enterprises in the Mediterranean region that have carried out cleaner production initiatives, showing their feasibility through balances that include economic and environmental aspects.

Actions implemented may consist of changes and modifications to processes or specific stages of a process, such as, production, storage, cleaning or transport; changes or elimination of raw materials; the implementation of good housekeeping practices or the use of new technologies, aimed at saving resources, avoiding the generation of waste and emissions, saving on costs, etc. and incorporating criteria of ecoefficiency and sustainability. Also those that bring about modifications of the product.

File structure:

- a. Company background

- b. Environmental considerations
- c. Background
- d. Summary actions
- e. Diagrams
- f. Balances
- g. Conclusions

During the period 2001-2003, 31 MedCleans were published. The contents and origin of the examples are listed below:

MedClean	Country	Contents
No. 25	Lebanon	Pollution prevention in an agro-food industry. Bonjus Lebanon Fruit Juice Co
No. 26	Spain	Replacement of cyanide salts in the cementation process of steel parts. Construcciones Mecánicas Doménech
No. 27	Egypt	Water and energy conservation in the textiles sector. EI-Nasr Company for Spinning and Weaving
No. 28	Spain	Minimisation of waste and resource savings by recycling at source. Componentes Mecánicos, S.A. (COMESA)
No. 29	Croatia	Reduction of water and energy consumption in a dairy industry. LURA factory Zagreb-Dukat
No. 30	Spain	Elimination of trichloroethylene in the production of metal parts. Sasonia de Corte Fino, sa. La Roca del Vallès
No. 31	Morocco	Pollution prevention measures in a fish canning industry. Case study under the GEM project.
No. 32	Egypt	Industrial Pollution Prevention in the Oil and Soap Sector. Sila Edible Oil Company
No. 33	Israel	Modifying an established production process to generate less waste. FERTILIZERS AND CHEMICALS LTD
No. 34	Egypt	Combining preparatory processes. A low-cost high-productivity

MedClean	Country	Contents
		solution. MISR BEIDA DYERS GIZA SPINNING, WEAVING, DYEING AND GARMENTS CO.
No. 35	Bosnia and Herzegovina	Cleaner production in a small-scale slaughterhouse industry SAHBAZ
No. 36	Spain	Recovery of final product and improved cleaning processes HIPERTIN, S. A.
No. 37	Spain	Minimisation of dope waste, a mixture of acetone and various types of thread. INACSA
No. 38	Israel	Modifying an established production process to generate less waste LUXEMBOURG (MAPOL) LTD
No. 39	Spain	Pollution prevention in a dairy industry LEYMA
No. 40	Egypt	Reduction of whey generation MISR COMPANY FOR MILK AND FOOD
No. 41	Turkey	Reduction of re-dyeing in a textile company Textile company located on the European side of the region of Istanbul
No. 42	Spain	Process modification to consume less water in the cleaning operations MANIPULADOS DEL TER, S. A.
No. 43	Turkey	Energy recovery in a textile company Textile company located in the region of Denizli
No. 44	Turkey	Reduction of the liquor ratio in a textile company Textile company located in the region of Denizli
No. 45	Spain	Recovery of rinsing baths and substitution of cyanide zinc. SIMON, SA

MedClean	Country	Contents
No. 46	Spain	Reduction of water consumption. TYCO ELECTRONICS AMP ESPAÑOLA, SA
No. 47	France	Optimisation of a steam production system. FROMAGERIES BEL
No. 48	France	Installation of immersed compact piping for heating flux removal baths. VALTI
No. 49	Spain	Improvements in the cleaning system: the CIP system (cleaning in place). BIG DRUM IBÉRICA, SA
No. 50	Spain	Solvent substitution by osmosis water in viscosity adjustment of inks. MASA DECOR, SA
No. 51	Spain	Substitution of a system of chemical pickling by a process of pickling by vibration. MUNNE ALSINA, SL
No. 52	Spain	Recycling of rinsing water from electrochemical nickel plating by means of a vacuum evaporator. VITRI ELECTRO-METALÚRGICA, SA
No. 53	Bosnia and Herzegovina	Cleaner production in black metallurgy DD "ŽICA", Sarajevo
No. 54	Croatia	Reduction of energy losses in the transportation pipes KRAŠ d.d. Food Industry
No. 55	Croatia	Reuse of energy from a steam condenser Croatian Electric Utility Company – Sisak
No. 56	Spain	Recycling at source of process water by atomization BASF Curtex S.A.

For the assessment of these case studies, numbers 28 and 40 were used as a sample. Analysis reveals that thanks to their structure and contents, the reasons for the action carried out by the company and the final results are easily understood.

This enables to deduce their validity as reference tools for disseminating in the industrial sector the advantages of the introduction of measures for reducing the environmental impacts generated in the various stages of the productive process as they involve an optimization of that process, obtaining an increase in production, generating economic benefits through savings and a short payback period on the investment.

However, it has been found that in some cases the diagrams that are included in some cases to help the understanding of the process and the action carried out, are not very clear and could lead to confusion for the reader.

### **Annual Technical Publication**

This is a publication including diverse technical and scientific contributions related to pollution prevention at source, focusing especially on the Mediterranean aspect of its contents. Each edition includes articles on the outcome of research in different spheres, tools and instruments aiming at preventing the production of pollution in regional enterprises, etc.

During the evaluation period, the 2<sup>nd</sup> and 3<sup>rd</sup> numbers of this publication were issued.

### **To promote technology transfer and exchange of experts**

The RAC/CP performs this task by means of three main tools which are detailed below:

#### ***Database of Mediterranean Experts***

Interactive list of experts and professionals in the region, located at RAC/CP's web-site, and divided into several categories, as a source of reference. It includes the curriculum vitae of professionals specialised in pollution prevention in the Mediterranean region, describing their areas of experience, knowledge and activity as well as their contact details.

During the assessment period, the database was being updated and it was not available on the internet, so that auditors could only accede to the software containing it. A total of 102 entries were registered.

***Recommendation*** *The speeding up of processes to upload information to the database is recommended, in order to achieve the objective of transferring and exchanging the information.*

***Recommendation*** *As additional information to be included in said database, the inclusion of a field in the Database allowing identification of the date of entry/update of the Expert's CV is recommended.*

***Recommendation*** *It would be positive to include a field in the Databases allowing identification of the Projects in which the expert has participated with the RAC/CP and the assessment of the same.*

***Recommendation*** *Once the Database is operative on the website, there should be a mechanism that counts the number of queries of the Database by the RAC/CPs, Business*

*Associations, Industrial Sector, etc., as well as extending it with the additions of the NFPs of the various countries. All this in order to establish the extent of distribution and use of the same.*

### **Cleaner Technologies Database**

During the period 2001-2003, a database of cleaner technologies for the Textiles and the Pulp and Paper sectors was drawn up. This database contains information on the Technologies associated with each of the environmental sectors (water, waste, etc.), as well as the Suppliers of the same, in order to facilitate the distribution and access to the same by the companies.

Currently, said Database is available on the CEMA website but not on the RAC/CP site, thus the end for which it has been created as a tool providing the distribution of said information to the various Agents involved in the Mediterranean, is not fulfilled.

### **Debate Forum**

This is a tool for fostering open debate among the members of the NFP network, carrying out enquiries on issues of interest, requesting advice and spreading information.

The forum is supposed to be available on RAC/CP website, but during the assessment period it was not possible to consult it due to an IT problem. According to RAC/CP staff, participation in the forum by the NFP has been almost nonexistent.

***Recommendation*** *The IT problem should be solved without delay. Moreover, as the forum was launched from a Recommendation of an NFP meeting, its usefulness and use should be included in the matters to be discussed at the next meeting.*

## **2.2.3 RAC/CP's Regional Approach**

As with the other MAP components, the RAC/CP has been entrusted to work in its area of expertise throughout the Mediterranean. Therefore, the regional approach of RAC/CP when performing its task is another main component for the assessment of the centre's performance. It has been assessed according to the following criteria:

- Regionalisation of activities;
- Language;
- Dissemination mechanisms;
- Communication with other Mediterranean agents addressing pollution from land-based sources.

### **Regionalisation of Activities**

The Mediterranean approach present in the task of the RAC/CP can be observed in the procedure followed by the centre in carrying out the various categories of activities:

*Publications:* All the processes for drawing up the publication of Med Clean, CP News or Technical Publications start with a request from the RAC/CP to their NFPs for information that can be included in the publications. Together with the contributions that may be received from the NFPs, the centre has other human and material resources through which it can obtain information from the various countries of the Mediterranean region (experts and Mediterranean institutions, websites, newsletters, etc).

The following table shows that the publications made during the 2001-2003 period provided information on CP matters from most of the Mediterranean countries, whether in the form of news, case studies or technical articles:

<b>Country</b>	<b>MED Cleans (25-56)</b>	<b>Technical Publication (2 &amp; 3)</b>	<b>CP News (9-15)</b>
Albania			X
Algeria			
Bosnia and Herzegovina	X	X	X
Croatia	X	X	X
Cyprus			
Egypt	X	X	X
France	X	X	X
Greece			
Israel	X		X
Italy		X	X
Lebanon	X	X	
Libya		X	
Malta		X	X
Monaco		X	
Morocco	X	X	
Slovenia			X
Spain	X	X	X
Syria			X

Turkey	X	X	X
Tunisia		X	
Palestine		X	

However, it should be mentioned that while certain countries appear with some frequency in the three publications, others have only done so on very rare occasions. This could be for various reasons such as the lack of available information in those countries, a lack of interest from the authorities with regard to CP, the difference in the level of involvement of the NFPs in RAC/CP activities, etc.

*Studies:* the development process of the sectorial studies includes queries to the NFPs of the RAC/CP and to other official bodies with the aim of including the information that they could provide on the situation in the sector under study in their countries, as well as on the practical feasibility of the techniques presented in the studies according to the reality of that sector in each country. In the case of the general studies, the need to ensure that the content provides information about all the countries in the basin is even more evident, inasmuch as the main object is to show the situation in one with regard to a specific question concerning CP (e.g. Study on the State of CP in the MAP countries).

*Meetings, seminars and training activities:* in the same way as for the other categories of activities, for every meeting, seminar or workshop that the RAC/CP has carried out, it asks its NFPs to participate or designate an expert to attend, with the aim of guaranteeing the greatest attendance of representatives of the various Mediterranean countries at all of them. Obviously, this is not applied to the training activities that the centre has carried out within the framework of projects developed for a country or group of countries, such as in the case of the Projects LIFE in Bosnia or Med-Delta 2000.

Despite the fact that in general one evaluate positively the effort of the RAC/CP in integrating a regional approach in its activities, it should be pointed out, in accordance with some of the NFPs questioned for this evaluation whose opinions are given in chapter 3, that in some cases the contents of the activities have not been suitably adapted to the needs of the countries. This shows the need to reinforce the interaction between the RAC/CP and the NFP so that the centre plans its activities taking these needs into consideration. Other indications about this are given in both the above-mentioned chapter and in other parts of this evaluation report.

**Recommendation** *To increase the incorporation of news, case studies and articles from Mediterranean countries whose participation in RAC/CP publications has been scarce so far.*

## Language

Almost all documents produced by the RAC/CP are available in English and French, as MAP official languages, and in Spanish<sup>2</sup>. Likewise, meetings, workshops and training activities organized by the centre include simultaneous translation for English and French (in some cases

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<sup>2</sup> In the case of the Technical Publication, each article is published in the original language of the author, along with a summary given in the other two languages.

also for Spanish) and documents generated during and after the meetings are provided at least in those languages. Attempts to include Arabic as a language for RAC/CP material have been made by the centre and one study has been translated into that language, the MOED. Nevertheless, for both financial reasons and practical reasons, such as the fact that both English and French are commonly spoken in most Arab countries, this task has been suspended in the centre for the moment.

**Recommendation** To evaluate the possibility of including Arabic as a language in the RAC/CP activities.

### Dissemination Mechanisms

The mechanisms that the RAC/CP uses in disseminating the material and the activities it carries out in the performance of this task are as follows:

- Internal management of the output of material
- The NFP
- The RAC/CP website
- Other activities for strengthening dissemination

#### *Internal management of material output*

As a control mechanism of the sending out of material published on paper, CD-ROM or video to NFPs or other agents at whom it is aimed, the RAC/CP has a system of registering (in access format) through which it controls the output of the material.

However, there is no control over who receives the documentation that leaves the centre.

**Recommendation** *To ensure the correlation between the inventory of the material in stock and that which is sent, in order to be aware of the real stock.*

**Recommendation** *To establish a mechanism for registering the agents, professionals and institutions receiving RAC/CP material.*

#### *NFP*

As explained in chapter 2.2.1, the NFPs, as main interlocutors of the RAC/CP in the Mediterranean countries, are in charge of the task of disseminating in their countries the activities carried out by the RAC/CP. Recommendations on this function were made in the aforementioned chapter and re-stated in the conclusions to chapter 3.

#### *Website*

The website is considered another essential element for dissemination by the RAC/CP.

The centre's website is accessed from the CEMA site (<http://www.cema-sa.org>) and includes the following sections:

Presentation explains what the RAC/CP is, its main lines of action and the context within the centre performs its task.

Cleaner Production explains what CP is and its advantages.

Activities contains material issued by the centre. It can be freely downloaded by internet users.

News contains news on RAC/CP performance and related events and activities for the promotion of pollution prevention in the Mediterranean.

National Focal Points shows a map of the Mediterranean Region indicating the contact details of each NFP.

Links includes a list of links to several international, regional and national institutions involved in the protection of the environment.

Most sections are not updated.

**Recommendation** *To update the RAC/CP website by:*

- *Updating the contents of each section of the website;*
- *Including for all sections the date when new information is published;*
- *Including in the 'Activities' section a mechanism which registers the data of the user downloading documentation (Country, Post, etc) in order to obtain information on the distribution of the material available on the website.*

*Other activities for strengthening dissemination*

Together with the usual mechanisms for disseminating its activities, the centre has started some other initiatives to promote dissemination, both in the industrial sector and in other sectors of activity. In this respect, the following actions carried out during the 2001-2003 period can be highlighted:

"Study of the Organisation and Structure of the Business Organisations in the Mediterranean Region"

An internal project of the centre consisting in a study of the institutions, associations and organisations that group the companies and industries of each Mediterranean country, and on the creation of a database that would contain data on the associations identified.

The final objective of the project consisted of identifying the institutions and associations that can best act as channels through which to disseminate CP in Mediterranean countries and of finding counterparts with which to collaborate in the organisation of training sessions and of surveys and making enquiries of the stakeholders concerning issues considered a priority in the way towards environmentally sound economic development.

"Workshop for Mediterranean Communication Professionals on Environment and Development in the Region: The Role of the Mediterranean Action Plan (Barcelona, 7-10 May 2003)"

The RAC/CP used this seminar jointly organised with the MEDU to inform journalists from the various Mediterranean countries about the role and the strategy carried out by the centre in promoting pollution prevention in the Mediterranean.

**Recommendation** The study and the database on industrial and business organisations in the Mediterranean should be updated by improving their structure and contents. Once they are updated, they may be distributed to the NFP to aid them in the dissemination of CP among the most adequate economic and industrial representatives in their countries. Likewise, both the study and the database must be updated periodically.

**Recommendation** *The centre should continue to carry out activities involving communication professionals as they are the best channels through which to disseminate information at global level.*

**Recommendation** *Universities should be considered as other valuable recipients through which to disseminate CP among future professionals, industrialists and managers. In this respect, the RAC/CP should launch activities to reinforce its dissemination among universities and to promote the introduction of CP in their curricula.*

**Recommendation (for all dissemination mechanisms).** *For each of the RAC/CP's resources for disseminating its activities, it should set up a protocol for follow-up on the final distribution of the documentation to the people at whom it is aimed.*

## **Communication with Other Mediterranean Agents Addressing Pollution from Land-Based Sources**

The interaction between the RAC/CP and the other agents working for the Mediterranean and especially with those that, like the centre, focus on addressing pollution from land-based sources, directly affects the view and efficiency of the RAC/CP task in the region.

### *RAC/CP and MED POL*

Both centres have participated in the NFP meetings of the other, therefore they have both been able to do some follow-up on the strategy and activities that the other has carried out in the performance of its task. Nevertheless, this has not been reflected in a co-ordinated action on their activities, so much so that on several occasions they have duplicated their efforts or set different priorities and/or approaches in fighting pollution.

However, one can see a development in the co-operation between both institutions as a result of the fact that their joint task is essential in the prevention and control of the pollution of the Mediterranean. The main example of this collaboration can be seen in the participation of the RAC/CP in the Strategic Action Programme (SAP) developed by MED POL, through the activities explained in chapter 2.2.2.

In this sense, both institutions aim to reinforce mutual co-operation, using the SAP as the main framework for their joint action. This has been reflected in the proposal that they both made, firstly to the NFPs of the RAC/CP and later to the Contracting Parties to the Barcelona Convention, to readapt the role of RAC/CP as a tool for the achievement of sustainable development by Mediterranean Industry, within the framework of the implementation of SAP.

A first step to strengthen the coordination and cooperation between the institutions is their agreement to hold joint NFP Meetings.

*RAC/CP, UNIDO and UNEP/DTIE*

Contact between the centre and these two other UNEP agents, for which the promotion of CP is a key activity, has been normally limited to sporadic communication and the odd attempt at collaboration in certain projects. Nevertheless, the last two years there has been greater contact between them, reflected in the participation of a representative of UNIDO or UNEP/DTIE in meetings organised by the RAC/CP, such as the meeting of experts from the textiles sector at which a representative of UNEP/DTIE was present, the 4<sup>th</sup> meeting of the NFPs, which included the participation of a representative of UNIDO, and the meeting for the follow-up of the recommendations of the MCSD working group for industry and sustainable development, at which both institutions were present.

According to the report prepared after that meeting, the three institutions recognized the significant lack of coordination among them and possible actions were identified to overcome that situation. However, according to this evaluation, none of those actions have yet been carried out. Likewise, from the meeting a round of contacts started among the three institutions which, nonetheless, have not ended in any joint initiative or project.

***Recommendation.*** *To review the possibility of materialising the actions to reinforce the coordination and interaction between the RAC/CP, MED POL, UNIDO and UNEP/DTIE, which were proposed at the meeting for the follow-up on the recommendations of the MCSD working group for industry and sustainable development.*

***Recommendation*** *To promote the holding of periodical meetings of the four institutions to inform each other about on-going and future activities, as well as to discuss common priorities for addressing Mediterranean pollution from land-based sources and define new lines of cooperation.*

## 2.2.4 Documentation and Register Control

RAC/CP documentation generated throughout the development of its projects and activities is registered in the following way:

Internal Documentation: that generated from the activities carried out in the period. Said documentation is available in the Lotus Notes Database compiling the information on the activities mentioned in section 2.2.2.

All the information that cannot be found in computerised format is filed on paper in subdivided cabinets, traceable by year and file number, in order to facilitate its location.

External Documentation: that received by the RAC/CP from other MAP components and other agents (UNIDO, EU, NGOs, etc). This information is registered in a database that can be used later to located that documentation.

***Recommendation*** *For reasons of space, the updating of I.T. equipment/tools in order to reduce the amount of paper generated should be planned (scanning changing documents to Acrobat Reader, sending faxes by computer, etc.).*

**Recommendation** *The structure of the Lotus Notes database should be revised, as during the assessment difficulties were encountered in locating the files related to some of the projects developed.*

## 2.3 VERIFICATION

In the management area of any activity, it is necessary to set up mechanisms to check the efficiency of the actions carried out. This point looks at whether the RAC/CP has these kinds of mechanisms both for verifying whether its actions have met the expectations of the industrial sector in the Mediterranean basin at which the actions carried out are currently aimed, and internally, with the aim of periodically checking the degree of attainment of the objectives set.

### 2.3.1 Meeting the Needs of the Industrial Sector

For the purposes of this assessment, the Mediterranean industry sector is considered as the end client of the RAC/CP. This part evaluates on the one hand the centre's resources for recognising the needs of the sector and, on the other, the mechanisms it has available to verify whether the actions carried out have met these needs.

With regard to the detection of needs, the RAC/CP evaluates them based on the experience it has acquired over its time as a regional centre for the Mediterranean and from the proposals that the NFPs make at the biannual meetings. However, as can be seen in chapter 3 of this document, some of the agents questioned considered the fact that the activities carried out do not always respond to the needs of their countries to be a weak point of the RAC/CP. This is mainly for two reasons:

1. the lack of a methodology for the detection of these needs, based on criteria previously agreed between the RAC/CP and their NFPs, based on the environmental problem of the sectors, their economic and social representativeness in the countries, their consideration as priority sectors within the framework of the SAP, etc.
2. the lack of alternative objective methods such as market studies on the industrial sectors.

The setting up of both mechanisms poses difficulties for satisfying all the countries that make up the Mediterranean region, insofar as they are a very heterogeneous group that includes Arab countries, members of the EU and extra-Community European countries (including countries in a post-war situation). However, an effort in this sense would provide the RAC/CP with greater knowledge of the real needs of the sectors in the region, which would be reflected in its activities, at the same time reinforcing the interaction between the centre and their NFPs.

To establish mechanisms that include market studies, the centre should have, in addition to its NFPs, alternative interlocutors (such as business or industrial associations, experts and university academics) to guarantee the direct contact of the centre with the industrial sector.

**Recommendation** *The setting up, between the RAC/CP and its NFPs, of systematic mechanisms to evaluate the needs of the countries in the region, based on criteria previously and jointly agreed on, together with criteria for objective selection that the centre would develop based on market studies. These criteria would be known by the NFPs.*

The lack of mechanisms for the detection of needs leads likewise to a lack of follow-up on the effectiveness of the RAC/CP activities, with regard to these needs, which shows at the same time, the insufficient interaction between the centre and the industrial sector (reflected on the other hand by the fact that no response was received from any of the industrial associations to which the questionnaire was sent).

***Recommendation.*** Together with the establishing of mechanisms for the detection of needs, the RAC/CP and its NFPs should agree on other mechanisms for the follow-up of the effectiveness of the activities the centre carries out to respond to these needs. *This would enable the centre to get to know the level of repercussion, interest and usefulness of its activities with regard to the sectors at which they are aimed, which would also serve as further input in the detection of needs and in setting new objectives.*

### 2.3.2 Follow-up Activities

Currently the RAC/cp does not have tools that enable it to check systematically the efficiency of the actions carried out. In this sense, for each of the objectives set in each biennium, follow-up indicators should be identified. For example, for the activity “dissemination of publications and projects developed at the NFPs for their review and later distribution in the NFP’s country” the indicator is the number of documents distributed by stakeholder (business association, university, etc) and year. The setting up of this kind of indicator would enable the RAC to determine the efficiency of its management in meeting objectives, collaboration of the NFPs, etc. with the aim of improving it.

***Recommendation*** *It is recommended that indicators be set up in order to measure the fulfilment of the objectives and the efficiency of the management of the RAC/CP, with the aim of having available the information to improve the efficiency of the management.*

## 2.4 REVIEW

### 2.4.1 Review by Management

The correct management of an activity implies having mechanisms that oblige the organisation to assess periodically the management carried out with the object of seeking improvements, not only at an operating level, but also updating and rethinking strategic lines. These mechanisms oblige the organisation to rethink things periodically, from the need for more resources to the redefining of their lines of action.

In this sense, in the Follow-up Bilateral Commission of the Cooperation agreement between the Ministry of Environment (MIMAM) and the Department of the Environment and Housing (DMAH), a review of the period is carried out, analysing the events that have occurred, approving the new activities to be carried out, etc. It is in this forum that, at RAC/CP Management level, they should analyse the indicators mentioned previously and, based on these indicators of the results of the activity and of the proposals of the focal points, review/rethink the activity periodically and even of the mission of the RAC/CP. The reviews by the management should take into account the following aspects:

- The results of the activity based on objective indicators;
- The objectives planned but not achieved;

- External recommendations (Focal Points, Contracting Parties to the Barcelona Agreement, MAP);
- The problems that have arisen during the period (actions yielding unsatisfactory results, etc.);
- changes at an organisational level (changes in staff, focal points, etc.);
- changes concerning the environment (Strategy for sustainable development in the Mediterranean, etc.).

Based on this information, they should not only establish the actions to be carried out over the next biennium with regard to activity (establishing objectives) and resources (need for more human or material resources) but also strategically to work in accordance with the environment.

***Recommendation*** *It is recommended that at the biannual Commissions, the activity carried out be reviewed in depth, with the object of establishing not only objectives but also actions for improving the management of the RAC/CP and even reviewing its mission according to the changes in the environment.*

## **CHAPTER 3. : RAC/CP INTERACTION WITH OTHER AGENTS**

This chapter presents and analyses the results obtained in the questionnaires sent to the various agents involved in the protection of the Mediterranean in order to assess their interaction with the RAC/CP throughout the 2001-2003 period, according to the outline explained in the Methodology in Part 1.4.

The reception period for the questionnaires was from 1st October to 19th November. The level of participation with regard to the number of questionnaires filled in and received, after the corresponding reminders that had been sent by e-mail and some telephone calls had been made, was as follows:

<b>Questionnaires</b>	<b>Sent</b>	<b>Received</b>	<b>% Response</b>
EQN (National Focal Points)	19	12	<b>63%</b>
EQG (General)	32	21	<b>66%</b>
EQC (Coordinator)	4	2	<b>50%</b>
EQE (Experts)	7	5	<b>71%</b>
EQB (Business sector)	5	0	<b>0%</b>
<b>TOTAL</b>	<b>67</b>	<b>40</b>	<b>59.7%</b>

The percentage of response was almost 10 points over 50%, therefore it is considered sufficient to make an analysis.

For each of the groups, the values reflected are given below:

### **NATIONAL FOCAL POINTS**

As stated in chapter 2.2.1., the NFPs are the interlocutors for the RAC/CP in each of the Mediterranean countries, with the task of promoting cleaner production in their territories through the dissemination of material that they receive from the centre and the activation of initiatives that respond to the activities organised by the centre to foster their introduction.

The level of response from the NFPs was 63%. This lack of involvement by some NFPs in the assessment of the RAC/CP could be interpreted as a first indicator of the flexible nature of their task in as much as it responds more to their willingness to collaborate with the RAC/CP than to a duty taken on following their designation by the corresponding Ministry.

### ***NFP profile and assuming of Responsibilities***

Most of the NFPs that answered the questionnaire (90%) had completed tertiary studies in technical subjects (chemistry, engineering, etc.) and specific training in the environment. In the same way, they stated that they work on a daily basis on activities related to cleaner production in the industrial sector. This means that they have the right background to carry out their task.

On the other hand, most of the NFPs confirm they were designated during the RAC/CP assessment period. However, this does not indicate that they can all be attributed with broad experience in exercising this function as the modifications made during the assessment period to the NFP designation for some countries, shows excess turnover in the post, as well as long periods of time with no NFP designated.

With regard to the responsibilities that the NFPs take on, it is observed that more than 90% consider that their activity basically consists of disseminating the documentation generated by the RAC/CP in their country. In 50% of cases, they also take on the task of informing the RAC/CP about the areas of interest in their country related to the activities carried out in the centre. However, only 2 of the NFPs that answered take on a proactive function, in the sense of starting up actions to be able to disseminate the documentation, organise activities, contact the industrial sector, etc.

### ***Interaction with the RAC/CP***

All the NFPs responding to the questionnaire state that they have been informed about the activities carried out by the RAC/CP during the 2001-2003 period.

Their evaluation, with regard to the feedback received by the RAC/CP, its working relationship and its performance when carrying out its activities was positive or very positive in over 75% of cases, whilst around 20% of the NFPs who answered considered that the RAC/CP should improve co-operation in its relations. In these cases, it has not been possible to find out from the NFPs in which aspects the centre should improve co-operation.

From the responses received by this group, only 30% of the NFPs state they had requested the collaboration or technical support of the RAC/CP in activities carried out in their country to promote cleaner production.

With regard to the NFPs providing the RAC/CP with information on experiences developed in their country, there is a great diversity of opinion, from those that indicate that they supply regular information to the RAC/CP, to those that say they do not have time to do so. This reiterates, as has been previously stated in chapter 2.2.1, the need to define the functions and responsibilities of the NFPs more clearly.

### ***Role and general view of the RAC/CP activities***

#### **Activities carried out during the assessment period**

It has been possible to verify that the opinions of the NFPs on the mission of the RAC/CP agree that it is a centre whose objective is to promote and disseminate cleaner production in the Mediterranean region.

In regard to the assessment period in the 2001-2003 biennium, all those who answered the questionnaire had the impression that the activities carried out by the RAC/CP comply satisfactorily with their mission. Amongst them, the questionnaires highlight the quality of the publications, the use of multimedia support that facilitates the dissemination of the documentation and the meetings/seminars organised (NFPs, experts) that enable professionals from the countries in the region to exchange experiences. Likewise, in 60% of cases (30% did

not offer an opinion and 10% valued it as negative) they felt that the participation of the RAC/CP in the MCSD, SAP and MSSD is positive.

### **Future activities framed within the Mediterranean Strategy for Sustainable Development (MSSD)**

With regard to their view of RAC/CP participation in the MSSD, the NFPs believe that the centre could work on establishing sustainability indicators, other activities related to industry (life cycle analysis, etc.) and other vectors amongst which energy is noteworthy.

In the same way, they consider that the RAC/CP could offer legal advice to countries that do not belong to the EU, using the experience of Member States.

These considerations by the NFPs reinforce what was stated in chapter 2.2.1 concerning the setting up of new lines of action.

#### ***Adaptation of the needs to the industrial sector***

Of the NFPs that completed the questionnaire, 40% consider that the activities carried out by the centre to date adapt to the needs of their country as opposed to 50% who consider that this is not the case and 10% who do not know. At a general level, the need for future RAC/CP projects to adapt more to the needs of the countries was observed and that, in order to contribute to this objective, contacts with the industrial sectors should be fostered.

Recommendations in this respect are made in chapter 2.3.2 as well as in the general conclusions of the present chapter.

#### ***Participation in meetings, seminars and workshops***

In this part, only NFPs meetings are valued, as the answers received about the expert meetings, whether because the NFPs confuse them with NFP meetings or because they have not been to any expert meetings, are not representative.

All the NFPs agree that all the NFP meetings aim to determine the actions for the following biennium. However, only 50% of them are aware that they should also review the actions carried out since the last meeting and assess the level of compliance with the proposals made. In fact, 70% are unaware of the level of compliance with the recommendations made in previous meetings.

With regard to the participation of the NFPs in the meetings joining them in 2001 and 2003, there was an increase of the participation from 50% to 80%. Likewise, those who were unable to attend these meetings, designated people to represent them. This fact indicates the growing interest of countries in the need to foster pollution prevention measures and in the RAC/CP activities to promote their introduction.

With regard to the organisation and development of the meetings, according to the responses received, it can be deduced that they are organised correctly, as around 75% of the NFPs state they were notified in plenty of time of the Agenda of the meetings and consider that it was clear about the matters to be dealt with.

As far as the participation of the NFPs is concerned in the proposal of matters to be discussed in the meetings, 80% admit they had made no contribution to the Agenda, which shows a certain lack of involvement on their part in enriching the discussions of the meetings.

Concerning the question on the efficiency of the meetings, and whether they were fruitful and cleared the way to new initiatives and activities other than the ones proposed by the centre,

most of those asked abstained from answering, and those who did answer felt that in fact the meetings are useful for defining new lines of action.

### ***Dissemination of the information***

With regard to the mechanisms for the dissemination of material provided by the RAC/CP to the NFPs, the response given was that it is done mainly in a passive way, so that the material remains as a document for consulting, in the institution in which the NFP works. Only 2 of those questioned reported more proactive actions, in which the NFP itself disseminated the information to business associations more directly related to the industrial sector.

## **OTHER ORGANISATIONS RELATED TO MEDITERRANEAN**

Those questioned in this general section, belong to diverse institutions and agents that work for the protection of the Mediterranean and whose level of interaction with the RAC/CP it was considered necessary to evaluate. Amongst the organisations that make up this group were the remaining MAP components, UNIDO, UNEP/DTIE, NGOs, etc.

### ***Knowledge of the activities carried out by the RAC/CP***

Most (75%) said they were informed of the activities carried out by the RAC/CP during the 2001-2003 period. About 25% of them commented that they had not received information.

A total of 85% evaluate the feedback received by the RAC/CP, its working relationship and its performance when carrying out its activities positively or very positively.

As far as the provision of information to the RAC/CP was concerned, 95% of them declared that they provide information every time this is requested by the RAC/CP, and 25% stated that they periodically provide the RAC/CP with information that may be useful to the centre in carrying out the activity. Half of those questioned in this group declared they had requested information from the RAC/CP at some time. According to the response, it is perceived a climate of certain exchange of information and co-operation between the RAC/CP and the organisations questioned.

The responses of the organisations about the mission of the RAC/CP agree that it is a centre whose main objective is the promotion and dissemination of cleaner production in the Mediterranean region.

Around 60% of the organisations evaluate the work carried out by the RAC/CP positively. Amongst the different opinions collected, those questioned highlighted the technical quality of the documentation generated, and the professionalism of the staff at the Centre, although they felt there should be a greater presence in the different countries, as well as greater collaboration with other RAC/CPs or cleaner production centres in the Region.

With reference to the evaluation of the various RAC/CP publications, they were all evaluated by about 90% positively or very positively.

### ***Participation in Meetings, Seminars and Workshops***

With regard to the participation in meetings, seminars and workshops organised by the Centre, only 30% of those questioned said that they had attended any meetings. Their evaluation was favourable, meeting their expectations. Of those who answered the questionnaire, 15% declared that they did not have information about this kind of activity.

## CO-ORDINATION

Those questioned in this group are part of the Coordination Unit of the Mediterranean Action Plan (MEDU).

Of the 4 people included in this group, 2 of them responded. In view of the low number of people who answered in this group, the evaluations will be given in absolute numbers rather than in percentages.

### *Knowledge of the activities carried out by the RAC/CP*

Those questioned stated that they were informed about the activities carried out by the RAC/CP during the 2001-2003 period.

Their evaluation with regard to feedback received by the RAC/CP, its working relationship and performance when carrying out its activities was very positive.

With regard to supplying information to the RAC/CP, they both stated that they inform the RAC/CP every time they are requested to do so about news of value to its activities.

The general evaluation of RAC/CP activities is positive. As points to be highlighted, they mention the organisation of courses and the communication strategy and dissemination of technical material. According to those questioned, the staff of the RAC/CP are qualified to carry out their work and to intervene in wide-ranging projects.

With regard to the evaluation of the various materials and publications published by the RAC/CP, this is positive or very positive.

As weak point of the centre, they feel, like other institutions, that there is a lack of its presence in Mediterranean countries.

Proposals in this respect are made in Recommendation 24 as well as in the general conclusions of the present chapter.

With regard to the RAC/CP role within the MSSD, on one hand those questioned consider that the review of the centre's mandate should be used to reinforce the application of cleaner techniques as tools for sustainable development. On the other hand, they suggest "identifying the most appropriate techniques that could contribute to changing (...) consumption patterns" as a possible new line of action for the RAC/CP within the Strategy.

These considerations reinforce what was stated in chapter 2.2.1 concerning the setting up of new lines of action.

### *Participation in the meetings, seminars and workshops*

Only one of those who answered had participated in meetings, seminars and workshops organised by the Centre in the 2001-2003 biennium, specifically the MCSD workshop on Industry and Sustainable Development, the organisation and content of which was evaluated positively.

## EXPERTS

Experts are considered to be all those who have participated in the Meetings/Seminars organised by the RAC/CP, belonging to diverse organisations (universities, environmental science institutes, research associations, etc.) as well as external collaborators who have undertaken technical studies under the coordination of the RAC/CP's staff.

### ***Expert profile***

The group of experts is made up of university professors, technical experts who work in private companies or technical experts who work in research centres. As far as the knowledge and collaboration of those questioned is concerned, two of them started their collaboration before 1999, two in 2001 and one in 2002.

### ***Knowledge of the activities carried out by the RAC/CP***

With regard to the level of knowledge about the RAC/CP activities carried out during the 2001-2003 period, there is a diversity of opinion between the various evaluations, and no clear conclusion can be drawn.

Their evaluation with regard to feedback received from the RAC/CP, its working relationship and its performance when carrying out its activities was very positive.

In general, their impression of the centre's performance with regard to its task is evaluated positively or very positively.

Those questioned mentioned as one of the strengths that the RAC/CP is an important source of information with regard to cleaner production in the Mediterranean basin. In this respect, they emphasise that the material generated by the RAC/CP is useful for them in their professional activities.

Like the rest of those questioned, the experts refer to the difficulty the RAC/CP encounters in reaching the industrial sector.

With regard to the evaluation of the different materials and publications published by the RAC/CP, they are all evaluated positively or very positively, although some abstained from comment, on the MedClean case studies, the CPNews bulletin and the multimedia material. Of those questioned, 80% said the RAC/CP material is useful in their habitual work (as a support for giving university lectures, as a source of information, etc.).

Concerning the dissemination of the documentation published by the RAC/CP, only 2 of them had distributed the publications amongst representatives of the business and industrial sector.

### ***Participation in meetings, seminars and workshops***

The participation of those questioned in this group in meetings/seminars organised by the RAC/CP was mainly as speakers. As far as their organisation is concerned, 80% viewed this positively and agreed that a significant amount of preparation work is done before these events.

## **BUSINESS REPRESENTATIVES**

Five questionnaires were sent to business representatives, but no responses were received, therefore no evaluation could be made of this group.

## CONCLUSIONS FROM THE QUESTIONNAIRES

### RAC/CP - NFPs Relationship

After the overall evaluation of the responses of the NFPs, it can be deduced that, basically, they are sufficiently qualified in regard to training and professional activity. However, the lack of definition of what their role should be shows an attitude that is not very proactive when carrying out their tasks as an NFP which would be desirable for the effective dissemination of the concept of pollution prevention in the region. According to those responsible for the RAC/CP questioned, this second focus on the activity would be useful.

### General Conclusions

It can be observed that the performance of the RAC/CP in carrying out its role as CP promoter in the Mediterranean region is evaluated positively by the different agents questioned, who comment on the quality of the centre's activities. However, several also mention its poor penetration in the countries and a certain lack of correspondence of its activities with their actual needs. This is mainly due to the weak or non-existent interaction between the RAC/CP and its end client, the industrial sector, at which its activities are aimed (shown clearly by the lack of response to the questionnaire from any representative of that sector).

Taking into account the dependence of RAC/CP's visualization on the NFP network, as they are the only interlocutors officially designated to disseminate the centre's activities in the industrial sector of their countries and they are, at the same time, the main source of information through which the centre can get to know the various realities and needs of those sectors, it is necessary that the role of the NFPs is defined. This role should be compared to that carried out by the NFPs of the other RACs and adapted to the activities of the RAC/CP so that alternative interlocutors (such as business or industrial associations) could be identified, if necessary, for guaranteeing the presence of the centre in the industrial sector of Mediterranean countries. At the same time, they should provide the centre with a greater approximation of the needs of that sector.

Along the same lines, the centre should reinforce periodical communication with the Mediterranean experts, as their daily professional activities in the industrial or university sphere can act as channels through which the centre could penetrate those sectors.

On the other hand, one can see a general opinion, of both the direct interlocutors of the RAC/CP - the NFPs - and the MAP Coordination Unit, that within the framework of sustainable development in the Mediterranean, and in the process of drawing up the strategy leading to it, the definition of the mandate of the RAC/CP should carefully consider the incorporation of the new lines of action. These could include disseminating mechanisms that go beyond CP applied to production processes (LCA, IPP, etc.), extending activities to other sectors and offering the countries advice, particularly those that do not belong to the EU, not limited to technical content, but increased to cover other areas (e.g. legal mechanisms).

Whilst this new area of activities would still be within what has been the basic task of the centre, in other words, the identification and promotion of CP as mechanism for sustainable production, it should finally be noted the observation made from within the MAP Coordination Unit about the possibility that, together with this task, the centre should also take on that of working on the identification of techniques aimed at changing consumer patterns. Assigning this task to the centre would, without the slightest doubt, complete the role it has been playing so far, at the same time as providing the MAP with an agent to coordinate, within the MSSD process, the actions in the region to promote sustainable consumption.

## **CHAPTER 4. : GENERAL CONCLUSIONS AND RECOMMENDATIONS**

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Throughout the present report, the planning, management and performance of RAC/CP within the framework of the Mediterranean Action Plan has been analysed and evaluated and a range of recommendations have been drawn on different aspects related to each of those components. All that can be summarised in the following general conclusions:

### **Revision and official ratification of RAC/CP's role in the Mediterranean Action Plan**

Although the task of the RAC/CP as MAP unit for the promotion of cleaner production and eco-efficiency in the Mediterranean was formally accepted by the Contracting parties to the Barcelona's Convention for the Protection of the Mediterranean Sea against Pollution, the centre does not have a protocol or official document that formalises its mandate. In order not to endanger the work carried out and the experience gain over more than a decade it would be recommendable to consolidate the RAC/CP's mission, as well as its rules of operation and its interrelationship with other organisations in an official document/protocol/mandate that ratifies it.

In the current context of the Mediterranean, in which the Mediterranean countries, under the leadership of the MAP and the MCSD, are involved in the preparation of a Mediterranean Strategy on Sustainable Development, the definition of the mission of the RAC/CP must take into account the experience that the centre already has in sustainable development. This is explained by the fact that, of the 4 components of SD – economic, social, governance and environmental -, RAC/CP activities have aimed at promoting the integration of economic and environmental components in the industry sector, through the dissemination of Cleaner Production and Eco-efficiency, two concepts identified by the Johannesburg Implementation Plan as one of the primary options in decoupling the link that has existed between economic development and environmental depletion.

Although in this task the RAC/CP has focused particularly on promoting sustainability in the industrial production process itself due to the previous experience that the centre had in working with that sector in Catalonia, the following new lines of activities have been identified that could be useful in establishing a mission for the centre, thus enabling it to increase its area of action:

- The incorporation, together with cleaner production, of other mechanisms for sustainable production, such as LCA and eco-design, in the area of RAC/CP activities;
- The extension of the RAC/CP activities to other economic sectors represented in the Mediterranean, such as tourism, agriculture and services;
- The assignation of activities concerning strategies and/or plans for pollution prevention;
- The inclusion of activities for disseminating sustainable consumption.

In addition to the RAC/CP's background in promoting sustainable production, the evaluation of these new lines of action has taken into account other two key factors:

#### **A) Centre's Capacity:**

The versatility of the RAC/CP in working on various kinds of activities and themes, to the extent that in most of them its staff acted as lead co-ordinators of projects whose technical development was carried out by an external provider.

B) Assessment from the MAP components with a greater influence in RAC/CP's planning and performance:

There is a general opinion, of both the direct interlocutors of the RAC/CP - the NFPs - and the MAP Coordination Unit, that within the framework of sustainable development in the Mediterranean, and in the process of drawing up the strategy leading to it, the definition of the mandate of the RAC/CP should carefully consider the incorporation of the new lines of action. According to those agents, these new lines could include – in line with what has been stated above - disseminating mechanisms that go beyond CP applied to production processes (LCA, IPP, etc.), extending activities to other sectors and offering the countries advice, particularly those that do not belong to the EU, not limited to technical content, but increased to cover other areas (e.g. legal mechanisms).

Likewise, whilst this new area of activities would still be within what has been the basic task of the centre, in other words, the identification and promotion of CP as mechanism for sustainable production, it should be noted the observation made from within the MAP Coordination Unit about the possibility that, together with this task, the centre should also take on that of working on the identification of techniques aimed at changing consumer patterns. Assigning this task to the centre would, without the slightest doubt, complete the role it has been playing so far, at the same time as providing the MAP with an agent to coordinate, within the MSSD process, the actions in the region to promote sustainable consumption.

### **Setting objectives that respond to the needs of the countries**

The activities to be carried out by RAC/CP are annually established by the Bilateral Commission, made up of representatives of the Spanish Ministry of the Environment, and the Catalan Department of the Environment and Housing, according to the proposals made by the centre itself, based on its experience at a regional level and on the recommendations arising from the biannual meetings of its NFPs, as well as on those that arose from the meetings of the Contracting Parties to the Barcelona Convention and from others that were held by other members of the MAP (MED POL, other RACs, etc.) inasmuch as they affect the action of the RAC/CP.

Likewise, actions realized have been framed within the guidelines of action that the centre itself set for exercising its role as a promoter and disseminator of cleaner production in the Mediterranean region. These are: participating in the activities of the MAP and the Mediterranean Commission on Sustainable Development (MCSD); working with the National Focal Points on the sustainable development of Mediterranean industry; promoting and co-operating in projects and training activities; carrying out studies on pollution prevention alternatives in different fields and sectors of interest for the Mediterranean Region; and informing, by publishing and disseminating business news and experiences; promoting technology transfer and expert exchanges.

The evaluation of the procedure and methodology that RAC/CP applies in carrying out its actions, in addition to the analysis performed on the content of some of them, enables to recognize the centre's efficiency in the management of its activities. This is corroborated by the different agents questioned for the evaluation, who commented on the quality of the centre's activities.

Likewise, throughout the evaluation it has been possible to verify that the activities developed during the period 2001-2003 responded to most of the recommendations of the meetings mentioned above, particularly to those of the NFPs.

However, some NFPs as well as other Mediterranean agents questioned mentioned a certain lack of correspondence of some of those activities with the actual needs of the industrial and economic sector of the countries.

Therefore, in order for the RAC/CP to continuously adapt its activities to those needs, the following mechanisms should be established:

1. a methodology for detecting the needs, based on previously set criteria agreed on by the RAC/CP and its NFPs, based on the environmental problems of the industrial sectors, their economic and social representativeness in the countries, their consideration as priority sectors within the SAP framework, etc;
2. alternative objective methods such as market studies on the industrial sectors themselves.

### **Reinforcing RAC/CP presence in Mediterranean countries.**

The regional approach adopted by the RAC/CP when performing its task was assessed through the evaluation of the level of involvement of the countries in the activities the centre organises, the languages used in their development and the mechanisms available for their dissemination. Although the assessment corroborates an effort of the RAC/CP in integrating a regional approach in its activities, it has not been reflected in a consolidated presence in the Mediterranean countries as several agents questioned regretted the still poor visualization and penetration of the centre in the countries.

This is mainly due to the weak or non-existent interaction between the RAC/CP and its end client, the industrial sector, at which its activities are aimed (shown clearly by the lack of response to the questionnaire from any representative of that sector).

Taking into account the dependence of RAC/CP's visualization on the NFP network, as they are the only interlocutors officially designated to disseminate the centre's activities in the industrial sector of their countries and they are, at the same time, the main source of information through which the centre can get to know the various realities and needs of those sectors, it is necessary that the role of the NFPs is defined. This role should be compared to that carried out by the NFPs of the other RACs and adapted to the activities of the RAC/CP so that alternative interlocutors (such as business or industrial associations) could be identified, if necessary, for guaranteeing the presence of the centre in the industrial sector of Mediterranean countries. At the same time, they should provide the centre with a greater approximation of the needs of that sector.

Along the same lines, the RAC/CP should reinforce periodical communication with the Mediterranean experts, as their daily professional activities in the industrial or university sphere can act as channels through which the centre could penetrate those sectors.

### **Co-ordinating RAC/CP task with other agents addressing Mediterranean pollution from land-based sources**

The level of co-ordination between the RAC/CP and the other agents that address Mediterranean pollution from land-based sources was analysed in the evaluation inasmuch as the collaboration with them has direct repercussions on the visualization and efficiency of the RAC/CP's task in the region.

In this respect, although an evolution of the coordination between RAC/CP and MED POL in the fight against Mediterranean pollution from land-based sources is observed, and there has been greater contact between the centre and UNIDO and UNEP/DTIE, it is necessary a stronger commitment among those institutions to coordinate their activities, to define new lines of cooperation and materialize them through common projects, as far as their joint task is essential in the prevention and control of the pollution of the Mediterranean.