

ENV-PR # 5

PROGRESS REPORT # 5

Period:

01-05-03 to 30/10/03

V1.0



IPS-2000-0035



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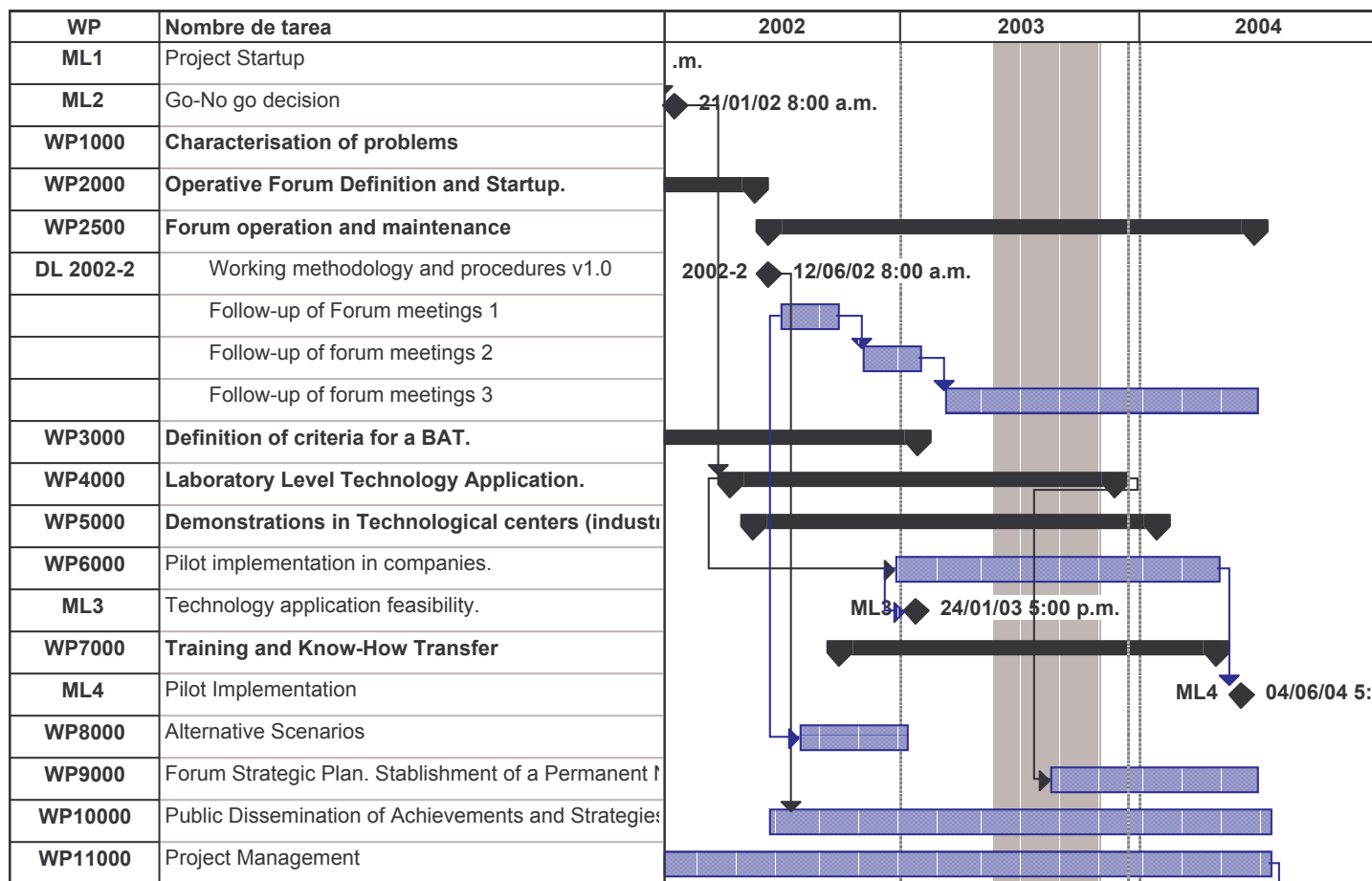
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1. Description of the work carried during the considered period.

The period covered by this PR#5 is highlighted in the general Gantt Chart of the project. The version of the Gantt Chart is corresponding to the actual course of the project, based on the updated workprogramme that arose from the GO-No GO.



The main milestones covered during this period are summarized in the following list:

- Final implementation of the main procedures in the forums (DL2501-2, DL2502 and DL2503). Ready to start exercise in evaluation of the ENVIREDOX applications.
- Two applications finalised (**degreases** at 90%) work in the other applications roughly in schedule. Starting of industrial implementations in Portugal.
- Production of documentation to WP7000 and WP10000.

1.1. Project progress.

1.1.1. Breakdown of Project progress.

WP		Progress (%)	Main progress highlights
WP 1000	Characterisation of problems in the referenced geographic areas	100	Finalised WP
WP 2000	Operative Forum Definition and Startup.	100	Finalised WP
WP 2500	Forum operation and maintenance	95	Final version of methodology being used in the forums. Audit Manual pending from last refinements
WP 3000	Characterisation of alternative solutions and applicability. Definition of the ideal parameters of a BAT.	100	Final definition and integration of criteria into methodology. Armonisation with IPPC criteria.
WP 4000	Laboratory Level Technology Application.	85	Three applications completed. Painting booths waters pending. Deliverable delayed.
WP 5000	Demonstrations in Technological centers (industrial pilot level)	65	Two applications completed and one in progress. Deliverable delayed.
WP 6000	Pilot implementation in companies.	60	One application completed and the second in final results.
WP 7000	Training and Know-How Transfer	40	2 Internal knowledge exchange meetings. Technical part of Website operative. Continuous technical and non-technical exchange. Training to technicians in companies
WP 8000	Alternative Scenarios	100	Finalised WP. Conclusions on WP2500 and wp11000
WP 9000	Forum Strategic Plan. Stabishment of a Multi-regional Permanent Network.	33	General architecture v2.0 of ENVIREDOX methodology as prototype. Predefinition of final days and pluriregional forum. Initial work on a technology watch toolkit.
WP 10000	Public Dissemination of Achievements and Strategies.	33	Incidental presentation of project in regional audiences and media. Production of DL8001-light.
WP 11000	Project Management	79	Linear progress + Consortium Agreement + Project Management manual.
WP 12000	Link to the Clustering approach	79	Linear progress
WP 13000	Link to the Accompanying Measures	79	Linear progress (accumulated to WP12000)
Resulting Project Progress		67.4%	

1.1.2. Summary of tasks carried out and highlights on the results achieved.

WP 2500

The technology evaluation methodology has been finalised. A new version of DL2501-2 (v0.9 has been issued). New documents have been released according to due DL's: DL-2502 and DL-2503.

The initial objectives per forum have been stated, and previous local meetings have taken place (France: September 11th ; Spain: 22th October). In France, forum objectives are more biased towards information exchange, while the spanish forums strongly focus on technology evaluation. An intermediate set of objectives is the portuguese one, that aims at setting up an influence circle for environmental actions.

The Enviredox techniques (cyanides, degreasing wastes, cooling fluids from car repair) have been described and documented according to the methodology in order to begin to test it in the evaluation procedure.

A Forum meeting in Portugal took place in May the 8th .

A trans-regional forum tool has been developed for the enviredox website.

WP3000

The criteria were finally defined strongly influenced by the IPPC directive and existing methodologies. The final status of DL3002 is integrated in the DL2501-2 and DL2503 documents. Although based in the previous incarnations of DL3002, the set of criteria has been completely reworked, and has been one of the non-technical highlights of this period.

WP4000

Laboratory application has been finalised in the *Degreases* application. Laboratory analysis are about to be finished in the *automotive* application. The application *waters from painting booth* is currently being studied.

The problems with the BDD cells have been solved and some test were carried out with them.

WP5000

Application **cyanides** completed, but waiting for additional data on the industrial implementation in Portugal, where the work at the technical center, about the application of **cyanides** has been finalised on April. In Portugal, the application on **degrease baths** has been initialised on July. This work involves also the definition of complementary techniques (decantation, etc.) for pilot validation of the application **degrease**.

Applications ended in Spain.

WP6000

Application with the industrial company ELIG has been completed. Implementation in GALOL is about to be finalised for their degreases. In Portugal CATIM provided technical assistance in the implementation at STA.

WP7000

Since it was a consortium decision to celebrate project meetings every three months, technical meetings are being celebrated in the scope of the project meetings.

Training to technicians in the participant companies has showed to be a key issue in the success of the application. Intensive sessions have taken place at GALOL and ELIG, and are starting at STA.

WP8000

Finalised the report on the french scenario. A "light" version has been produced with a view on dissemination.

WP9000

A collaboration with the Universidad Politécnica de Valencia has started to develop the basis for a toolkit in technology watch for ENVIREDOX related applications.

WP10000

Participation to meetings for the diffusion of information notably the 1er Forum of eco-conception in Paris the 1st of October (EMSE).

Continuous ENVIREDOX dissemination in media.

Presentation of the ENVIREDOX Project to about 80 Portuguese companies, which took place at AIMMAP on October the 30st 2003.

WP 11000

After extensive reviews and, the final version of the consortium Agreement is available, but due to the change in nature of one of the partners (AQUATEC) will have to be reviewed by the new partner (VEOLIA).

WP12000

A meeting of the cluster on innovation projects took place in Luxembourg. Although some preparatory tasks were carried out, there was finally no attendance to the venue. Two technicians from the ENVIREDOX project registered in eucluster.net

WP13000

No highlights.

1.1.3. Modifications over the Workplan (if any).

Only minor modifications have been produced in this period over the initial workplan:

- (In period #2 there was a change in the consortium: ASTRE responsibilities and rights were taken over by AQUATEC.)
- Laboratory tasks have accumulated a delay due to both difficulties in decreases and the problems with the BDD cells that appeared in the last period. **Deliverable DL4001 is delayed and will be issued in month 32.**
- Work with pilot in centers (WP5000) have what may be considered as a standard deviation. Due to August stop, application painting booths has not been solved, but pilots in technical centers go steady. As there is dependence to WP4000, **deliverable DL5002 will be issued in month 33**
- WP2500 has been extended till the end of the project. Although forums are working 100%, the fact is that the methodology and the group dynamics will be evolving during the whole workplan. Objectives have been completed already.
- As anticipated in the previous PR#4, the application painting booths is being analyzed in detail, since relevance of the environmental problem has decreased dramatically in France and Spain. Wp5000 and Wp6000 tasks will be affected in the next period.
- In WP7000 and wp10000, tasks are being carried out in an up-to-date basis, but it has been detected a delay in the production of documentation. No modification in existing workplan.
- No other changes have been produced in the workplan.

1.1.4. Activities per WP.

WP2500

1. DL25xx documents

During the 5th project period the DL-2501 was updated with technique evaluation results obtained from the first quarter 2003 forums and the Valencia workshop held on July, 2003.

Information was collected from the Consortium in order to produce the DL-2502 document about forum experiences. This document shows the evolution of the forums in the participating countries, the stakeholders response to the methodology and the recommendations to be taken into consideration in order to make the forums being an useful tool for new techniques implementation wherever they are planned (within UE scope).

This is in fact the purpose of the DL-2503 document that has been created. DL-2503 is a Management and Auditing Guide which contains feedback information from the DL-2501 and DL-2502 documents. It provides assistance to organisations in implementing best available techniques by means of a forum system. This Guide also intends to be a Standard Draft which could be afterwards worked out by certification entities as a diffusion measure.

Activities with forum management have also been carried out in the countries. In Spain the 4th forum has been scheduled for November 2003 and prepared, as for the non technical part, mainly as a working forum in order to test the Evaluation methodology with the Enviredox techniques (Cyanides, degreasing wastes and cooling fluids from car repairs)

From September to October 2003, a great deal of information was gathered on Enviredox techniques (technical, environmental, social and economic) according to the methodology criteria and an Assessment document was issued. This document is also intended to be sent the EIPPCB of Sevilla in order to contribute to the elaboration of the BREF document on Best Available Techniques used in Surface Treatments.

It is also to be stated that the Spanish forum has made contacts with the Regional Administration in order to present the Enviredox forum as a valuable tool to be considered in the Draft IPPC Regional Law which is going to be transposed.

2. Organization and participation in the different forums launched.

The 2nd Portuguese FORUM took place on the 8th of May, at Porto; 50% of the Entities invited were present:

- 67% Administration
- 40% Business
- 33% Social

Attendants are listed in the Actors' list.

WP3000

Two sets of evaluation criteria have been worked out :

- BAT criteria: taking the Annex IV, from IPPC Directive, as a reference, a study has been made so as to include them in the Technique evaluation process.
- Socio-economic criteria: a proposal was made and discussed in the Valencia workshop.

All this information, after extensive reviews in which experts from other projects (CLEANTOOL) participated, has been integrated in the formats used for the *Evaluation of the Technique*.

WP4000

It must be noted that CATIM has decided to be intensively involved in WP4000, 5000 and 6000, when initially it was only foreseen to work in industrialisation of the applications (wp5000 and – mainly- wp6000). Main work in this WP is still carried out by AIMME, AQUATEC and ECS.

The detailed tasks carried out in the context of wp4000 were:

- Clarification and solution of the problems that, related to the BDD cells, appeared in the former period. ECS developed some laboratory tests on degreasing waste at electrode supplier's facilities.
- Final definition of pretreatments and laboratory phase with the application **degreases**. The choice of pretreatments followed the initial conclusions in the former period. They were carried out both in France, Spain and Portugal, where the most suitable pre-treatment for the degreasing baths with a view to lowering of the initial COD level was carried out by ultrafiltration, de-emulsifying and decantation, after addition of a cationic flocculator.
- Laboratory analysis of the **automotive** application finalised at 90%. Tests were carried out with direct purge of the cooling circuits and with the rinsing water after the purging operation. Conclusions lead to the use of rinsing waters. Only 3 tests remain to end this task, that is being carried out mainly at AQUATEC.

WP5000

Work carried out in this period has been related mainly to the application **degreases**.

- Results with **degreases** in the company GALOL have yielded not satisfactory results and have been repeated with different anodes. This task has been overlapped to the industrial implementation at the company in order not to delay additionally the task.

WP6000

- Finalised application **cyanides** at ELIG¹.
- Starting of industrial implementation² at GALOL (**degreases**).
- Preparatory work at AUTOBALMI (application **cooling liquids from automotion**).

WP7000

- Development of the “laboratory phase information set” as an internal document. The document is growing with the data of the different ongoing applications
- Technical session with results from laboratory and technical center phases. This session took place in the frame of ENV-M-10 in Valencia.
- Internal technical sessions among french partners (St Etienne on September the 12th on October the 16th 2003).

WP8000

- With a view on dissemination activities, a new “light” version of DL8001 has been prepared by the responsible partners (JRU EMSE-ARMINES and PESE).

WP9000.

- Development of a toolkit in technology watch for the ENVIREDOX applications. This toolkit will be available near the end of the project, and will be used by all the forum animators. This work is currently being done by experts from the Universidad Politécnica de Valencia, and participation of more experts is foreseen in the next period.

¹ In PR#4, due to a mistake, the application at ELIG was identified as **degreases**

² It must be noted that an industrial application includes training of the technicians in the company

WP10000

- Definition of the ENVIREDOX dissemination pack, that will be elaborated in the next period. The pack will consist of:
 - Leaflets (already done).
 - A sheet on the technique description
 - Application sheets
 - A consortium Sheet.
 - A document on IPPC related issues
 - A document on the forums instruments and participants (customized by each region).
 - A glossary
- Definition and first issue of the ENVIREDOX newsletter in Portugal. Example annexed.
- A TV report on ENVIREDOX has been issued in the regional TV channel in Valencia (Oct. 03).
- Seminar done on the 30 of October 2003, in Porto, prepared by CATIM and AIMMAP, and related to the new “Environmental permit”, mandatory for certain companies, covered by the IPPC application. The presentation of this last topic was carried out by CATIM. It was also focused on the possibilities of the emergent Enviredox technique, to be present on the BREF for the surface treatment. Presentation of ENVIREDOX was carried out by Sofia Araújo (CATIM’s environmental department).
- Publication of articles with references to ENVIREDOX in France: “Environnement Magazine” (July 2003) and “Petites Affiches de la Loire” (July 4th 2003). Annexed.

WP11000

- One official meeting has been carried out (ENV-M-10). The minutes are annexed information. AIMME has dealt with organization and logistics.
- Internal meetings for regional co-ordination in Bron, Porto, Paterna, and Saint Etienne.
- Finalisation of the Consortium Agreement, which will be circulated to signing once clarified the change in nature of the partner AQUATEC.

WP 12000

- The main tasks developed in this Workpackage are explained in point 1.4 Clustering Activities.

WP 13000

- The main tasks developed in this Workpackage are explained in point 1.3 Links to Accompanying Measures.

1.1.5. Work in progress concerning DLs

DL1001: No modifications have been carried out, although the new information provided by ECO-INNOVATION will be integrated in brief.

DL1003: No modifications in this document. Remarks and contributions to the concepts included in this document will be structured within DL3002.

DL2001: Fully active WebSite. Project progress section with added information. Online Forum Tool active in all the regions. User manual document developed. New trans-regional forum added.

DI2002-1 (Currently **DL2501-2**): N/A. See 2501-2.

DL3001: No modifications.

DL3002: harmonization of the criteria used in the document with the types of criteria considered by the IPPC.

DL2501-2: The document has been updated with the Valencia workshop conclusions about the technique evaluation process, specially related with assessment criteria (technical, environmental and socio-economic). Some improvements for socio-economic criteria have been proposed and accepted, but BAT criteria from the Annex IV of the IPPC Directive doesn't seem to be accurate enough and understandable to many stakeholders participating in the forums. Additional research is needed in that way.

Feedback from the next forums to be held before the end of the year will close this particular point of the methodology.

DL2502: Currently in progress. The documented will be continuously updated until the end of the project.

DL2503: As mentioned before, the Management and Auditing Guide as been released as initial version and communicated to the Consortium for evaluation and afterwards presented in the forums for information, comments and improvement. The document will be continuously updated until the end of the project.

DL11002: No modifications.

DL11001: Consortium Agreement is in standby till the clarification of the eventual change in nature of partner AQUATEC.

DL5001: No modifications. Deliverable on its final version.

DL8001: Final version of the deliverable. No modifications. A "light" version of the document has been produced.

1.2. Project Management.

1.2.1. Project meetings.

Only one official ENVIREDOX meeting has taken place during this third period.:

Code	Date	Venue
ENV-M-10	July 2003, 3rd and 4th	Valencia

1.2.2. External actors involved.

The main contacts with external actors have been related to both the development of the forums and the work related to the IPPC. The list of the actors involved has been extensively described in the previous PRs. From now on, only the additions to the list will be decribed:

Valencia

- No new additions. Actors stated in PR#3

Alicante

- No new additions. Actors stated in PR#3

North Portugal

- **IA - Instituto do Ambiente** (Eng^a Susana Gomes)
- **INR - Instituto dos Resíduos** (Eng^a Alexandra Fernandes e Dr. Pedro Delgado)

- **DGI - Direcção Geral da Indústria** (Eng^a Gilda Cardoso)
- **CCDRN - Comissão de Coordenação e Desenvolvimento Regional Do Norte (Ex: DRAOT)** - Regional Director
- **Câmara Municipal da Maia** (Eng^a Helena Lopes / Eng^a Maria João Pedrosa)
- **Câmara Municipal de Vila Nova de Gaia** (Eng^a Marcês Ferreira)
- **CGTP - Confederação Geral de Trabalhadores Portugueses** (Secretário Geral)
- **SINDEL - Sindicato Nac. da indústria e Energia** (Sr. José Ângelo Pereira)
- **Quercus - Associação Nacional de Conservação da Natureza** (Eng. Rui Berkemeier)
- **AIMMAP - Ass. dos Ind. Met. Metalomecânicos e Afins de Portugal** (Eng^o Luís Rente)
- **ANECRA - Ass. Nacional das Emp. do Com. e Reparação Automóvel** (Eng^o Alexandre Barbosa)
- **APEMETA - Ass. Portuguesa de Empresas de Tecnologias Ambientais** (Eng^a Sofia Viegas)
- **VALSAN –Vlademar dos Santos, Lda** (Eng^o António Tavares/ Eng^a Paula Resende)
- **STA- Sociedade Transformadorea de Alumínios, S.A.** (Sr. Júlio Barbosa / Sr António José)

Rhône-Alpes.

- No new additions. Actors stated in PR#4

1.3. Links to Accompanying Measures.

During this period, only one Accompanying Measure has been contacted:

- LIFESTYLE (support to clustering activities).

1.4. Clustering Activities.

AIMME initiated a preparatory work for the new clustering strategy, but could not attend the Luxembourg meeting in October 30th and 31th. In the subsequent period, new clustering events and activities will be participated.

1.5. Dissemination activities.

Publication of the following references:

Media	Title	Audience.
Environnement Magazine	Le Pôle de L'Eau s'orientes vers l'ingenierie de projets européens	Rhône Alpes
Petites Affiches de la Loire	Projets européens et nouveau secretaire general au Pôle de L'Eau	Loire.
Forum Noticias	(newsletter)	North Region (Portugal).

ENVIREDOX		
The 2nd ENVIREDOX Portuguese Forum	TECNOMETAL (May/June of 2003)	North Region (Portugal)
Interview with Julio Barbosa	TECNOMETAL (May/June of 2003)	North Region (Portugal)
Europa al día (TV)		Comunidad Valenciana. General

2. Conclusions regarding progress of the project

2.1. Operative conclusions (related to WPs).

Companies in which environmental ENVIREDOX problems appear, behave very dynamically. Sometimes, decisions related to their production processes have influenced the way the ENVIREDOX technology may help them (i.e. changes in the type of baths or degreases, or in the abatement technologies transform the view of the results these companies have).

Although a continuous technology survey is being carried out along the project by technology (AQUATEC, ECS, AIMME, CATIM, ENSMSE) and service (Pôle de l'Eau, Innove Verda) providers, the fact is that, in a three year workplan, technology watch has to be performed in a more systematic way, and the influence of technology evolution clearly identified. At least, requirements for these needs should be defined. A prototype toolkit on technology watch is being developed by an AIMME subcontract.

2.2. General conclusions (related to the project objectives).

General conclusions relate to the main objectives of the project :

1. *Development of a transregional innovation model involving all relevant decision makers and actors in order to integrate all main aspects of the IPPC Directive and European harmonization.*
2. *Demonstration of the technical feasibility of industrial liquid waste treatment by anodic oxidation techniques as an alternative to incineration and evaporation-incineration processes.*

Conclusions:

- The transregional innovation model, that has been a combination of bottom-up and top-down strategies, although working under the same methodology (DL2501-2) has showed to be not unitary. Three levels have been identified:
 - Regulatory (Spain): the model aims at having direct influence both in the way the regulations are applied and defined. Key stakeholders, close to administrations need to have active participation in the forums.
 - "Lobby" (Portugal): Active participation in advisory groups of the definition of environmental policies.
 - Information exchange (France): A wide range of forum participants ensures the circulation of results. An strong participation of collective entities is mandatory.
- The feasibility of the industrial implementation has been clearly identified for the **cyanides** application, and –taking into account pretreatments- also for **degreases**.