

CIVIL PROTECTION FINANCIAL INSTRUMENT

FINAL REPORT

December 2010

Project Title

CIVIL PROTECTION AGAINST CHEMICAL RELEASES IN RIVERS

CIVILARCH

PROJECT IDENTITY

Starting Date:	01/10/2008
Ending Date:	30/09/2010
Duration:	24 months
EC contribution (%) of Total eligible cost	75 %
Countries of implementation	Greece, Poland, Hungary, Bulgaria

KEYWORDS AND ABBREVIATIONS

CO:	Coordinating Beneficiary
AB:	Associated Beneficiary
REMTB:	Region of East Macedonia and Thrace, CO
IEP:	Institute of Environmental Protection, AB1
VITUKI:	Environmental Protection and Water Management Research Institute, AB2
FRD:	Foundation Regional Development, AB3
SIGMA:	SIGMA Consultants Ltd, AB4
CM:	Coordination Meeting
ESC:	European Support Cluster
AF:	Application Form
LP:	Lead Partner

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1 GENERAL REMINDER

The main objective of the CIVILARCH project was to enhance the preparedness and effectiveness of the civil protection modules which are responsible to respond to emergencies that have been caused by the accidental pollution of river waters from chemicals' releases.

More specifically, the tasks that were realised intended to,

- a) Outline the intervention requirements in accordance with the potential contamination hazards of critical water resources in the four participating regions of Greece, Poland, Hungary and Bulgaria respectively,
- b) Promote the restructuring and upgrading of the existing civil protection modules taking into consideration the specified needs and the approach of the Community civil protection mechanism,
- c) Support the trans-national know how exchange and cooperation with competent bodies from the entire Europe.

The Coordinating Beneficiary of the project was the Region of East Macedonia and Thrace (GR). The four Coordinating Beneficiaries of the project were the Institute of Environmental Protection - IEP (Poland), the Environmental Protection and Water Management Research Institute - VITUKI (Hungary), the Foundation Regional Development (Bulgaria) and SIGMA Consultants Ltd (Greece).

During the project capacity building, experience exchange, know - how transfer and dissemination activities were implemented. The realised actions were organised under the following six (6) Tasks: Task A. Management and reporting to the EC, Task B. Building the stakeholders' capacity, Task C. Creation of supporting mechanism, Task D. Implementation of pilot activities, Task E. Setting up the administrative tools and actions, and Task F. Information, communication and capitalization measures

The outputs of the project mainly concerned the preparation of risk identification reports and best practice guides, as well as the creation of stakeholders' networks, and emergency response structures.

The most important outputs are listed below:

Task A. One (1) kick-off and four (4) coordination meetings; Monitoring and Evaluation System; Organizational Structure

Task B. One Risk Identification report for each participating region; four local clusters' of stakeholders; one informative workshop in each participating region

Task C. Three Emergency Response Guides of best practices.

Task D. One training seminar in each participating country; one established Early Warning and Alarm System; one contingency drill; evaluation issues of the existing emergency response structures

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Task E. One Action Plan for each participating region; one European Support Cluster

Task F. Communication and Dissemination Handbook; Project Web Site; Managerial Summary; Booklet of the project achievements; Final Conference, dissemination and publicity material (leaflets, newsletters, posters, folders, etc.).

2 GENERAL SUMMARY OF PROJECT IMPLEMENTATION PROCESS

2.1 General overview of the process

The present Final Report concerns the activities that were implemented within the framework of the project. The CIVILARCH project “Civil Protection against Chemical Releases in Rivers” was successfully elaborated within the duration of 24 months from the 1st of October 2008 until the 30th of September 2010.

The project management structure, the responsibilities among the project partners' and the overall strategy for the implementation of the project was set and agreed during the 1st CM of the project in Kavala in December 2008. A monitoring and evaluation system was developed for the clear and exact tracking of the progress, the deliverables and the milestones of the project.

The partners' consortium developed a favorable transnational cooperation through the intense communication and regular meetings under the guidance of the CO. The project status in each participating country, the completed actions, the accomplished targets, the schedule of forthcoming events and activities as well as project management issues were analyzed during the CMs that were realized almost every six months. The CMs were hosted by the Hungarian partners in Budapest (May 2009), by the Bulgarian partners in Glavatarski village (October 2010) and by the Polish partners in Warsaw (May 2010). Each CM was combined with special field trips, scientific presentations by experts on the subjects tackled by the project and guided visits. Through these events a high level of know-how and experience exchange was accomplished.

The project partners introduced the areas that would be studied throughout the implementation of the project. In Greece the “Paradisos” and “Stratonon” drinking water springs, which belong to the river basin of Nestos, were appointed by the CO and AB4; in Poland the Oder river basin in the Lubuskie Region was selected by AB1; in Hungary the River Danube, the Tisza and Dráva riverbank zones were set to be studied by AB2; finally AB3 in Bulgaria selected the basin of the Arda (Ardas) River which runs within the administrative districts of Smolyan, Kardjali, Haskovo and Plovdiv.

The above mentioned areas were the baseline for building up the capacity of stakeholders via the elaboration of various tasks. Four respective risk identification reports were compiled concerning the above mentioned areas. The outputs that were produced, along with general presentations of the CIVILARCH project, were presented to stakeholders during four informative workshops, one in each participating region. The aim of the informative workshops was to raise the interest and awareness of the competent bodies, assess their views and knowledge on the potential sources of water hazards of the areas under study and the competences in the prevention of and response to industrial accidents, and establish stakeholders' and key actors' clusters on regional level.

The partnership's knowledge on emergency response practices in favor of civil protection against chemical releases in water bodies was reinforced by the three Best Practice Modules which were created AB4. The three Modules refer to practices for water contamination monitoring, field investigation and site assessment, abatement

and remediation of the affected area. The Modules were initially created in English and afterwards translated by the Project Partners in their languages.

All participating regions organized training seminars on the content of the Emergency Response Modules as well as on the existing national structures and practices. The Emergency Response Modules were acknowledged by all the trainees as useful support tools compatible with world wide practices which present comprehensively the methodologies that should be applied for the efficient response to a given alarm.

An in depth simulation of a relevant contingency drill was conducted (accidental release of chemicals to the rivers) by CO in the Region of East Macedonia and Thrace. For the elaboration of this pilot action, a dedicated early warning and alarm system was installed at the water supply settlements of Paradisos springs. The early warning and alarm system of REMTH as well as the existing response plans and activities were tested via the mobilization of all the related bodies in a full scale exercise which was attended by the core stakeholders of the regional cluster.

The deficiencies of the existing emergency response structures of the participating regions, which stemmed from the evaluation of the Supporting Modules, the training seminars and the pilot exercise, were included in four Action Plans. The Action Plans' recommendations concerned the capability enhancement for emergency response in case of accidental chemical releases in rivers. The Action Plans set a time framework of seven years for the implementation of the proposed interventions.

The effective promotion of CIVILARCH outcomes, along with the further promotion of the related international cooperation, is ensured via the establishment of a European Support Custer. The unit of the ESC was instituted by the project consortium under the responsibility of the CO. The Unit operates at the premises of the Water Directorate of REMTH in Kavala and it employs one staff member. The main priority axes of the CIVILARCH European Support Custer for the period 2010 - 2017 are i) the continuation of the dissemination and know-how exchange activities, ii) the continuation of the networking actions, iii) the expansion and optimization of the Early Warning and Alarm System, and iv) the expansion of the established cooperation in other geographical areas.

Dissemination and publicity actions on national and European level were elaborated throughout the duration of the project, and were based on the Communication and Dissemination Handbook. The Handbook was compiled under the CO's responsibility and adopted by all project partners. The main dissemination activities were the design, operation and frequent update of the CIVILARCH website, www.civilarch.eu, the publication of the Emergency Support Modules, the circulation of informative newsletters and informative leaflets, the publications of press releases and the organization of press conferences, entries in technical magazines, the creation of a booklet with the project's achievements as well as other communication material such as posters, banners, folders, CDs, etc.

The final conference of the project was organized on the 24th of September 2010, in Kavala by the CO in collaboration with AB4. All project partners were present at the conference. They presented to an audience of 68 stakeholders the most important results of the CIVILARCH implementation at their regions. The importance of the

established transnational co-operation was pointed out along with the willingness to extend this collaboration to future projects.

Through the application of the methodology and criteria of the monitoring and evaluation system, it was estimated that the CIVILARCH project succeeded to accomplish all its targets and objectives at a rate of 92,3 %.

As a conclusion, it is appraised that the CIVILARCH project was a bright venture which reinforced the preparedness and effectiveness of the emergency response structures in the participating regions and promoted significantly the transnational cooperation for civil protection against accidental chemical releases in rivers.

2.2 Comparative analysis of initial and actual time schedule

The CIVILARCH project was elaborated within the initially approved duration of 24 months, from the 1st of October 2008 until the 30th of September 2010. During the implementation of the foreseen tasks, some deviations from the time schedule of the Application Form were indicated. However these deviations did not affect the successful completion of the various Tasks and in certain cases they served the partners in order to realize the respective actions more efficiently. The initially planned outputs per Task via their actual realization are presented in the Tables below.

Task A

ACTIVITY - OUTCOME	Planned End	Actual End
Organizational Set Up	31/12/08	11/12/08
Partnership Agreement	31/12/08	31/12/08
Monitoring and Evaluation System	31/12/08	31/12/08
Kick-Off meeting in Brussels	3/12/08	3/12/08
2nd Meeting in Brussels	31/10/09	Cancelled
Co-ordination Meeting I in Kavala, Greece.	11/12/08	11/12/08
Co-ordination Meeting II in Budapest, Hungary	11/5/09	11/5/09
Co-ordination Meeting III in Sofia, Bulgaria	15/10/09	8/10/09
Co-ordination Meeting IV in Warsaw, Poland	30/4/10	13/5/10
1st Progress Report	31/5/09	31/5/09
2nd Progress Report	31/1/10	31/1/10
Final Report	31/12/10	28/12/10

There are no serious delays to be reported in the implementation of Task A. The majority of the outputs were realized according to the initial schedule.

Task B

ACTIVITY - OUTCOME	Planned End	Actual End
Risk Identification Report REMTH	28/2/09	31/1/09
Risk Identification Report IEP	28/2/09	28/9/09
Risk Identification Report VITUKI	28/2/09	15/6/09
Risk Identification Report NGO	28/2/09	10/6/09
Organisation of East Macedonia Thrace Regional Network	30/4/09	10/5/09
Organisation of Polish Network	30/4/09	30/7/09
Organisation of Hungarian Network	30/4/09	20/5/09
Organisation of Bulgarian Regional Network	30/4/09	30/5/09
Knowledge and views' assessment report	30/4/09	15/7/09
Informative Workshop REMTH	30/4/09	7/5/09
Informative Workshop Poland	30/4/09	8/7/09
Informative Workshop for Hungary	30/4/09	18/5/09
Informative Workshop for Bulgaria	30/4/09	27/5/09

The most serious delay under Task B is indicated in the compilation of the polish Risk Identification Report, the realization of the informative workshop in Poland by IEP and the consequent final organization of the polish regional/ national cluster. As it has already been stated in the 1st CIVILARCH progress report (31/5/2009), in the beginning of the project AB1 faced some serious, although temporary, internal staff problems. In order to remain in the consortium, AB1 proposed a 2-months extension in the timetable of the organization's foreseen actions so as to regain the required staff capacity. This solution was accepted by the Lead Partner as well as by the other ABs during the 1st CM in Kavala. According to this agreement the polish informative workshop was organized almost 2 months later than it was initially planned. This prolongation also affected the final formation of the polish cluster, as well as the elaboration of the overall knowledge and views' assessment report which was based on the questionnaires that were delivered by the project partners to the attendees of the workshops.

Task C

ACTIVITY - OUTCOME	Planned End	Actual End
1 st Module: Environnemental Surveillance Programme	31/7/09	31/12/09
2 nd Module: Field Investigation and Site Assessment	31/8/09	31/12/09
3 rd Module: Abatement and Remediation actions	30/9/09	31/12/09

The initial English version of the three Support Modules was prepared until the end of October 2009 by AB4. However further time was required by the project partners in order to assess and review the content of the three Modules as well as to translate them in Greek, Polish, Hungarian and Bulgarian. The most important effect of this delay in the preparation of the final versions of the Modules was the consequent postponement of the realization

of the training seminars. However, the desired results were achieved and all respective Actions, C1, C2, C3 and D1 were successfully completed.

Task D

ACTIVITY - OUTCOME	Planned End	Actual End
Training of Stakeholders in Greece	30/11/09	7/6/10
Training of Stakeholders in Poland	30/11/09	16/3/10
Training of Stakeholders in Hungary	30/11/09	18/8/10
Training of Stakeholders in Bulgaria	30/11/09	9/9/10
Provision and installation of early warning and alarm system in REMTH	28/2/10	30/4/10
Full scale exercise in REMTH	31/3/10	2/7/10
Evaluation results of existing emergency response structures	30/4/10	31/7/10

As it was stated above, the delay in the implementation of the training seminars is attributed to the additional time that was required for the finalization of the content of the three Modules and their translations. Regarding the realization of this Action by the Hungarian and the Bulgarian partners, it was also estimated that a greater impact would be achieved towards the identified stakeholders if the seminars were organized after the implementation of the pilot exercise. In this case the stakeholders would have the chance to further discuss on the outputs of the exercise. This direct discussion would serve the easier and more efficient compilation of the Action Plans under Task E.

Additionally, VITUKI was forced to postpone the training seminars for July and August 2010 due to the disastrous floods in Hungary in May and June 2010. The staff of the water authorities, environment protection agencies etc. were dealing with the flood fighting and remediation, therefore it was impossible for VITUKI to reach the desired stakeholders' group at that time.

The provision and installation of the pilot early warning and alarm system unit was completed two months later than it was initially planned due to bureaucratic difficulties that occurred at the Region of East Macedonia and Thrace. These difficulties stemmed from the change of the General Secretary of REMTH after the Greek elections in October 2010. This delay affected the realization of the pilot exercise as well. However, this postponement was in favor of a better result since the weather conditions in July were more suitable for the realization of the exercise instead of the weather conditions in March.

Task E

ACTIVITY - OUTCOME	Planned End	Actual End
Action Plan by REMTH	30/6/10	31/8/10
Action Plan by IEP	30/6/10	31/8/10
Action Plan by VITUKI	30/6/10	31/8/10
Action Plan by NGO	30/6/10	31/8/10
Reorganisation of Greek Network	31/7/10	31/7/10
Reorganisation of Hungarian Network	31/7/10	31/7/10
Reorganisation of Polish Network	31/7/10	31/7/10
Reorganisation of Bulgarian Network	31/7/10	31/7/10
Institution of the European support cluster	31/7/10	31/8/10

No serious delays were indicated in the implementation of Task E. The one-month postponement of the completion of the Action plans is attributed to the delay of the implementation of the pilot exercise by REMTH, since the results of the pilot exercise would have to be encountered in the reference material.

Task F

ACTIVITY - OUTCOME	Planned End	Actual End
Communication and Dissemination Handbook	31/12/08	31/12/08
Project Website	31/12/08	31/12/08
1st website update	31/7/09	31/7/09
2nd website update	28/2/10	28/2/10
3rd website update	30/9/10	30/9/10
Leaflet	30/4/09	30/4/09
Newsletter 1	30/4/09	28/7/09
Newsletter 2	30/10/09	23/11/09
Newsletter 3	30/4/10	15/6/10
Newsletter 4	30/9/10	30/9/10
Managerial summary	31/7/10	30/9/10
Booklet of the project achievements	30/9/10	15/9/10
Final Conference	30/9/10	24/9/10

No serious delays were indicated in the implementation of Task F. The most important delay concerns the compilation and circulation of the 1st CIVILARCH Newsletter which was decided to be combined with the first update of the project's website in July 2009, in order to achieve a broader dissemination of all the deliverables that were completed by that time.

2.3 Comparative analysis of planned and used resources

The planned resources are described in the F forms and comprise costs for personnel, travel and subsistence, equipment and sub-contracting. In July 2010 the consortium submitted a budget reallocation request which respected the 10% and 30.000,00 € limits and therefore no formal changes in the grant agreement were required. The budget changes were accepted by the CIVILARCH responsible Desk Officer.

Full details of the actual expenditures are detailed in the financial statement and excel workbook which is attached to the Final Report. An overview is provided below.

Table of Expenditures

BUDGET LINE	Expenses according to AF	Actual Expenses
Personnel	354.000,00	367.188,23
Travel and subsistence	39.000,00	27.503,41
Equipment	70.000,00	69.575,00
Sub-contracting / External assistance	108.000,00	70.705,66
Other direct costs	0,00	0,00
Indirect costs / overheads	29.000,00	24.610,03
TOTAL ELIGIBLE COSTS	600.000,00 €	559.582,33 €

The expenditures' table shows that there was an overall saving in the actual expenditures of 40.417,67 €. This saving is mostly attributed to the lower levels of budget absorption by AB2. However, all the foreseen activities were successfully completed according to the work plan of the AF mainly due to the maturity and experience of the partners and the involved staff in European co-financed ventures generally and environmental projects particularly.

Explanations for the occurred differences are given in the following points:

- **Personnel:** Extended requirements regarding translations, training seminars' organization, technical deliverables and administrative tasks led to an increase in the personnel budget category.
- **Travel:** The reduction of "Travel" budget category occurred mainly due to the fact that the 2nd progress meeting in Brussels (which would be attended by 3 persons) was cancelled. Additionally AB1, AB2 and AB3 did not attend the pilot exercise in Greece. However, AB1 and AB3 participated in the final conference of Kavala with more than two representatives.

- **Sub contracting:** The core difference in this budget category stemmed from AB1 and AB2 and the fact that the partners' external assistance costs were lower than initially estimated, even though all necessary tasks were realized according to the approved Application Form. Additionally, the publication in national press (3.000 €) was managed to be made free of charge.

Regarding the involved permanent and contracted staff some changes occurred compared to the staff declared in the AF. These changes did not affect the smooth elaboration of the various tasks, since the new staff members that entered the consortium, as additional or replacement staff members, were of competent skills adequate to come up with the requirements of the project. All staff members and the duration of their involvement in the project are presented in the Financial Forms attached to the Final Report.

2.4 Comparative analysis of expected and actual results

The 'expected results' correspond to the results included in the T forms of the AF. All of the initially foreseen results were successfully achieved. More specifically:

- *Increase of transnational project management capacity*

The transnational project management capacity was successfully increased throughout the implementation of the CIVILARCH project via a. the formation and function of efficient administrative, technical and financial units, b. the development and operation of the project monitoring and evaluation system, c. the frequent and effective internal communication between the CO and the project partners, and d. the reporting of the project's technical and financial progress according to the instructions of the Programme's managing authority.

- *Assessment of the region's baseline conditions referred to the potential risk on citizens and environment that can be created in case of chemical pollution of rivers*

This result was achieved via the risk identification reports and the assessment of the key stakeholders' views and knowledge on the regional emergency response structures. Both Tasks were elaborated by the consortium for each participating region.

- *Ensuring solid coordination with regional and national key actors on civil protection issues*

The establishment of the regional/ national CIVILARCH clusters in each participating country and their continuous and substantial involvement in the various actions of the project led to the achievement of the foreseen result.

- *Acquisition of effective support tools for emergency response interventions.*

This result has been successfully achieved via the compilation and publication of the three Emergency Response Support Modules. The Modules were created in English by AB4. However the project partners decided to translate the Modules in their own languages, Greek, Polish, Hungarian and Bulgarian, in order to promote them at a broader scale and make them easier to be used by the CIVILARCH key stakeholders.

- *Enforcing the skills of the competent civil protection responders.*

The CIVILARCH informative workshops and the training seminars on the content of the Emergency Response Guides, organized by the project partners in each involved region, succeeded in building the civil protection responders' capacity. These events gave the key stakeholders the opportunity to participate in active clusters and become familiar with the background information of the areas under study and world best practices on emergency response mechanisms.

- *Design of early warning systems and effective communication lines between the several civil protection resources*

The creation of the CIVILARCH clusters in each participating region led the partners to investigate deeply the established communication lines between the various national civil protection resources, indicate the deficiencies and propose substantial solutions. Additionally, an integrated early warning and alarm system was designed and established for the region of East Macedonia and Thrace within the framework of the CIVILARCH project.

- *Testing the applicability of the development support tools and the adequacy of the existing emergency response mechanisms.*

The applicability of the developed support tools was tested via the execution of the pilot exercise which was conducted at the Region of East Macedonia and Thrace and where certain conclusions were extracted. A further evaluation of the existing emergency response structures of each participating region was achieved via the implementation of a questionnaire that was specially structured by taking into consideration a. the results of the pilot exercise, and b. the views and knowledge of the key stakeholders expressed during the training seminars.

- *Building the capacity of the civil protection modules*

This target was approached via the preparation of the four Action Plans, one for each participating region. The Action Plans were based on the deficiencies of the civil protection mechanisms/ modules that were identified during their evaluation. The Action Plans propose certain measures which will enforce the existing emergency response structures and will strengthen their capacity.

- *Paving the way for international cooperation and experiences exchange and promoting the reproduction potential and transferability of the project's outputs to other geographical areas facing similar risks.*

These are both on-going results that are achieved through the continuous function of the CIVILARCH European Support Cluster. The ESC has been established at the premises of the CO in Kavala and it is supported by the CIVILARCH consortium. The CIVILARCH ESC provides a focal point for European bodies interested to undertake initiatives and to improve their emergency response performance. Additionally, the multiple communication initiatives of the CIVILARCH partners on national and European level during the implementation of the project helped towards the accomplishment of the wide dissemination and future sustainability of the CIVILARCH outputs.

3 EVALUATION OF PROJECT MANAGEMENT/ IMPLEMENTATION PROCESS

3.1 Positive aspects / opportunities

The positive aspects and opportunities indicated are the following:

- The experience and managing ability of the Coordinating Beneficiary led to the successful completion of the project with minor deviations concerning the expenses allocation and the time schedule.
- The EC 'kick-off' meeting offered the Project Team an opportunity to network with the EC officers as well as with other project leaders and facilitated the knowledge exchange among the European projects.
- The coherent organizational set-up facilitated the accurate administrative, technical and financial coordination of the project and gave the project partners the opportunity to exploit their resources in the best way.
- The experienced and high educated staff that was involved in the implementation of the various Actions on behalf of the project partners achieved a high quality of deliverables and an excessive know-how exchange during the project.
- The Civil Protection Authorities, at regional and national level, were successfully engaged in the project providing a substantial guidance over the creation of the Support Mechanism, the execution of the training seminars and the realization of the Pilot Exercise.
- The translation of the Emergency Response Guides into the languages of the project partners, i.e. Greek, Polish, Hungarian and Bulgarian, broadened the impact of the deliverable as it became a useful tool to a larger number of stakeholders.
- The successful motivation of the stakeholders by the project partners in each region which resulted into their willingness to attend and actively participate in the frequent events of the project.

3.2 Internal and external difficulties encountered

The internal and external difficulties encountered include the following:

- The withdrawal risk of the Polish partner from the consortium, which occurred in the beginning of the project, caused a minor disorder in the smooth launch of the activities. The Polish partners came up with serious staff deficiency mainly due to health problems. However the problems were adequately overcome, the partner remained in the consortium and successfully completed the project's requirements.
- In Greece, the governmental change after the election of October 2009, led to the replacement of the General Secretary of the Region of East Macedonia and Thrace. This replacement had as a consequence a serious delay in the conclusion of the public tender for the purchase of the emergency response pilot

unit. The delay caused consecutive delay in the implementation of the training seminar and the pilot exercise.

- In Hungary, the serious flood incidents during May and June 2010 postponed the organization of the training seminars. The key staff members of the water authorities, environment protection agencies etc. that would attend the seminars were dealing with the flood fighting and remediation at that time. The training seminars were organized in July and August, and so this difficulty didn't cause any further issues.
- The economic crisis in Greece led to a gradual increase of the goods and services' VAT from 19% to 23%. This increase forced the CO to modify the contract of the purchase of the emergency response pilot unit as well as the budget allocation of the remaining actions in order to incorporate the VAT increase. Since the overall budget of the CO was not increased, these modifications had as a result the actual decrease of REMTH's available sources until the completion of the project. However, this reduction did not affect the smooth completion of the CO's obligations.
- The Regional Management teams of the Polish, Hungarian and Bulgarian partners, needed to monitor the fluctuations in the exchange rates of their national currencies since this was affecting their expenses and budget control.

3.3 Partnership cooperation

The Partnership Agreements between the CB and each AB were prepared and signed, pursuant to the CIVIL PROTECTION program guidelines and template. The documents were sent by the CO to the Civil Protection Unit.

The established transnational cooperation of the five project partners representing four different regions in Greece, Poland, Hungary and Bulgaria was proven to be a successful consortium. The effective collaboration is attributed mostly to the maturity and experience of the involved partners in the execution of partnership projects. The direct response to every request appointed by the CO facilitated the management and elaboration of the various tasks, as well as the reporting to the EC.

According to the project management scheme, which was described in the approved CIVILARCH project proposal, the project management structure was formed and staffed. Each AB appointed representatives to the six Units, a. Lead Partner; b. Coordination Office; c. Steering Committee; d. Working Group; e. Task Coordination; f. Regional Management, that were established.

The communication between the Coordination Office and the Regional Managers was based mostly on e-mails and phone calls. The Regional Managers and their working teams responded directly to each request appointed by the Lead Partner. The 4 coordination meetings provided the chance for in depth discussion regarding technical, managerial and financial issues.

All project partners expressed their willingness to undertake the organization of one co-ordination meeting. Thus four coordination meetings were realized: the 1st CM in Kavala, Greece in December 2008, the 2nd CM in

Budapest, Hungary in May 2009, the 3rd CM in Glavatarski village, Bulgaria, in October 2009, the 4th CM in Warsaw, Poland in May 2010. The CMs were each time combined with a relative to the project field trip or site visit, expanding in this way the potential of experiences' and know how exchange. In every CM there was always sufficient representation of each project partner. No absence was ever recorded, apart from the 1st meeting in Kavala where the Polish partners were not able to participate due to their internal staff problems that were being faced at that time.

As far as the elaboration of the project's activities is concerned, the full involvement by each project partner throughout the duration of the project was acknowledged. During the kick - off meeting there was a scheduling of tasks' allocation to each partner, according to the approved application form of the project.

Each project partner was responsible for the activities realization on national level. Additionally, the whole partnership was involved in the finalization of the content of every deliverable and output by expressing opinions, making comments and corrections, and proposing alternative solutions. The expressed views were evaluated by the project partner who was in charge and were exploited for the best fulfillment of every action.

What should be mentioned as a slight disorder in the smooth development of the project partnership concerns, as stated before, the Polish Partner AB4 and their staff difficulties that occurred after the approval of the project. During the kick-off meeting in Brussels, the CIVILARCH representatives explained to the responsible Desk Officers that there was a probability for the Polish Partner, AB1, to withdraw from the CIVILARCH partnership due to temporary staff problems. However, after intense communication with the CO, AB1 proposed a 2-months extension in the timetable of his foreseen actions in order to regain the required staff capacity. This solution was accepted by the Lead Partner as well as by the other ABs during the 1st CM in Kavala. Therefore the polish partner remained in the consortium and succeeded in implementing all the foreseen tasks and in achieving the respective results with no deviations.

3.4 Cooperation with the Commission

- The two interim reports of the progress of the project, including summaries of the project expenditures, were submitted to the Commission on 31st of January 2009 and 31st of May 2010 according to the EC guidelines.
- The EC gradually received the deliverables produced during the project with the submission of the two interim reports and the final report.
- The EC was kept informed for the progress of the project via the CIVILARCH Newsletters since the EC responsible desk officers were among the recipients of the mailing list of the CO.
- Whenever necessary the CO turned to the EC desk officers, responsible for the CIVILARCH project, for financial and technical advice and kept them informed for any changes considered. The officers' response was always direct and prompt.

- The EC's support has been reflected on all of the CIVILARCH deliverables, while a direct link to the EC was foreseen on the CIVILARCH website.
- The kick-off meeting of the project in Brussels gave the opportunity of a bilateral meeting between the CIVILARCH project team and the EC responsible desk officers. This bilateral meeting helped towards the clarification of various administrative and financial issues.

3.5 Comments on European value added

The concept of the European added value of CIVILARCH was dominant throughout the duration of the project. The European added value derived from four main axes:

1. Project Management

The project management was elaborated as a transnational activity. Each AB delegated on representative to the Steering Committee, for monitoring and guiding of the project's implementation. Additionally, each Regional Management team undertook the organization of one CM with the presence of the rest of the project partners. These events were of major importance since they were an excellent opportunity for the joint scheduling of future activities, the presentation and evaluation of completed outputs, as well as for knowledge exchange, field trips and site visits.

2. Common planning and implementation of activities

The majority of the deliverables of the project were produced on national level; however they were always based on the common planning, base lines and standards of the Working Group which consisted of one technical representative of each partner. Even when the creation of a deliverable was to be conducted by a single partner, e.g. the 3 Support Modules, the final version was concluded after the inclusion of the consortium's comments, corrections, additions, etc.

3. Elaboration of dissemination activities at European level

During the project there was a special provision for the realization of dissemination activities at European level. These activities included:

- The common Communication and Dissemination Handbook;
- The project website, which was created in the English language, and provided information about the project's description and objectives, the partners' profile, contact details, a calendar of events and announcement of meetings, workshops, seminars and conferences, the presentation of the project's results, links to other relevant websites, collection of the frequently asked questions (FAQ's) etc;
- The kick-off meeting at Brussels with the EC desk officers and the presence of the coordinating beneficiaries and work teams of other Civil Protection projects;

- The electronic Newsletters of the project which were broadly disseminated by each AB to the members of the CIVILARCH European, national and regional clusters;
 - The final conference of the project at the region of East Macedonia and Thrace with on-the-spot interpretation services;
 - The creation and dissemination of a booklet (in English) containing the project achievements that was distributed to the attendants of the final conference;
 - The translation and extra editing of certain deliverables in all the languages of the involved countries (Greek, Polish, Hungarian, Bulgarian) even though the consortium's obligation was the creation of the deliverables in English;
4. The institution of the European cluster.

The CIVILARCH proceeded with the creation of a European Support Cluster which will stay active after the official closure of the project. This Unit is responsible for coordination and technical support actions at European level and more specifically a) the supervision of the regional clusters which are promoting the implementation of the Regional Action Plans, b) the coordination and elaboration of know how and experience exchange, research and technology transfer, c) the networking with other relevant initiatives and institutions and d) the expansion of the cooperation in other geographical areas facing similar problems and risks.

Finally, it is noted the CIVILARCH project addressed an issue that was encountered in many regions. During the last years several international initiatives have led to the improvement of the risk management framework. Still, the implementation of such civil protection interventions is very limited and hence the replication potential is remarkably high. Therefore, the CIVILARCH project provided important tools for the support of such future ventures on the reinforcement of the civil protection baselines and structures.

3.6 Lessons learnt and possible improvements

The project was completed successfully in terms of technical and financial issues. There were certain aspects which enforced the right achievement of the foreseen results. These aspects are deriving from the section 4.1 of the present report.

- The effective and well organised project management is the key issue for the successful implementation of a project.
- The early warning of the EC and open discussion with the EC Desk Officers for any potential changes or occurring problems either at the technical implementation of the Tasks or the budget allocation is of crucial importance.

- The creation of a management tool like the Monitoring and Evaluation Tool, that was created and applied in the framework of CIVILARCH, facilitates the Lead Partner to follow easily the progress of the project and early identify potential deviations.
- One CM at least every six months helps the consortium to evolve and establish communication procedures.
- The early identification of the key policy makers and their involvement in the project implementation, since the continuation of the results of the project rely mostly on their initiatives and positive assents.

Apart from the positive features of the project, some aspects which could have enabled the project to be even more effective were indicated.

The possible improvements include the following:

- The whole interface of the website could have been developed not only in English, but also in the other languages of the project partners. However, all the deliverables (even if created in another language or translated from English) were normally uploaded.
- A part of the budget should have been allocated to the translations of certain deliverables. Wherever necessary, the translations were mostly conducted by the staff of each AB.
- As soon as the problem with the participation of AB1 occurred, the CO might have been useful to pay a visit at IEP's premises in order to find directly a solution and avoid any unnecessary inconvenience. However, the problem was faced adequately due to the good communication between the LP and AB1 especially because of their previous cooperation.
- A second progress meeting at Brussels with the EC and the rest of the Working Teams of the 2008 Civil Protection projects might have been useful in terms of dissemination as well as direct clarification of possible questions. However, the good communication with the EC desk officers via emails covered this gap.

4 ACTIVITIES

4.1 Comparison between initially planned and actually implemented activities, including monitoring, evaluation and dissemination

The actually implemented activities were in accordance to the initially planned tasks as they were described in the approved AF. More specifically:

Task A. Management and reporting to the EC

The Actions under Task A were implemented successfully according to the AF. There were only the following two deviations:

- The second progress meeting in Brussels was not realized after relevant decision of the EC.
- Two progress reports (May 2009, January 2010) were submitted, instead of four progress reports every 6 months, according to relevant guidelines of the EC.

Any deviations concerning the actual timetable of the activities have been described under section 3.2 of the present report. A detailed description of the Actions and the deliverables produced are included in the following chapter.

Task B. Building the stakeholders' capacity

The Actions under Task B were implemented successfully according to the AF. No deviations were indicated. Any deviations concerning the actual timetable have been described under section 3.2 of the present report. A detailed description of the Actions and the deliverables produced are included in the following chapter.

Task C. Creation of supporting mechanism

The Actions under Task C were implemented successfully according to the AF. No deviations were indicated. What should be pointed out is the additional work that was realized by each project partner for the translation of the three Guides from the English language in Greek, Polish, Hungarian and Bulgarian language.

Any deviations concerning the actual timetable have been explained under section 3.2 of the present report. A detailed description of the Actions and the deliverables produced are included in the following chapter.

Task D. Implementation of pilot activities

The majority of the Actions under Task D were implemented according to the AF. Two differences were indicated:

- The training seminars of stakeholders were supposed to be realized as 3-day courses. However the project partners decided either to realize three individual events at different places or dates (Greece and Hungary), or organize a 2-day event (Poland) of broader scale in terms of attendees and duration. This

decision was based on the thought that a 3-day seminar would be a serious commitment for the attendees and lectures concerning their availability. Additionally, by organizing three different events at different places a wider impact would be achieved. In order to realize this change the project partner took the assent of the responsible Desk Officer.

- AB1, AB2 and AB3 decided not to be present at the pilot exercise. The reason of this decision was the fact that the pilot exercise was delayed, as stated earlier, and therefore the partners' journey to Greece would be very close to the 4th CM in Poland and the final conference in Greece. Due to time limitations, the consortium decided that all the material produced during the pilot exercise and the relevant report would be disseminated to them and explicitly presented during the final conference.

Any deviations concerning the actual timetable have been explained under section 3.2 of the present report. A detailed description of the Actions and the deliverables produced are included in the following chapter.

Task E. Setting up the administrative tools and actions

The Actions under Task E were implemented successfully according to the AF. No deviations were indicated. Any deviations concerning the actual timetable have been described under section 3.2 of the present report. A detailed description of the Actions and the deliverables produced are included in the following chapter.

Task F. Information, communication and capitalization measures

The Actions under Task F were implemented successfully according to the AF. No deviations were indicated. Any deviations concerning the actual timetable have been described under section 3.2 of the present report. A detailed description of the Actions and the deliverables produced are included in the following chapter.

4.2 Qualitative evaluation of the activities

To avoid repetition, and for ease of reading, the evaluation of each of these activities has been dealt together with the evaluation of each of the deliverables, in chapter 6.

5 PRESENTATION OF THE TECHNICAL RESULTS AND DELIVERABLES

The T forms have been used in this section as the main source when referring to the initially planned activities and deliverables.

In accordance with the technical report guidelines, each deliverable is documented in a separate sub -section and includes information on:

- description of individual deliverables;
- purpose of the deliverable;
- evaluation of the deliverable;
- value-added of the deliverable - in particular European value-added and transferability;
- dissemination (where applicable)

5.1 Task A: *Management and Reporting to the EC*

Deliverables:

- Final project planning
- Project's organizational structure
- Coordination Meetings
- Project Monitoring and Evaluation System
- Progress reports

Final project planning

Description: Just after the approval of the proposal, the Coordinating Beneficiary reformulated the project planning and responsibilities assignment according to the comments that were appointed by the Commission, especially after the kick-off meeting which was held in Brussels and the 1st CM of the project partners in Kavala. The Final Project Planning was actually depicted on the revised T forms that were submitted along with the 1st Progress Report of the project.

Purpose: The purpose of the deliverable was the detailed definition of activities and obligations of the project partners according to the approved working plan and timetable, taking into consideration all necessary parameters that were specified in the Grant Agreement.

Evaluation: The deliverable was accepted by the project partners and was estimated as precise and detailed. The deviations from the originally approved technical forms were very limited.

Value-added: The pattern of the specific project planning appears as appropriate for the design and implementation of future European projects by international consortiums.

Dissemination: The deliverable was disseminated to the project partners and the responsible EU desk officers.

Project's organizational structure

Description: The deliverable was accomplished by the Coordinating Beneficiary with the contribution of all Associated Beneficiaries (AB). According to the project management scheme that was described in the approved CIVILARCH AF, the project management structure was formed and staffed. Each AB appointed representatives to the six Units, a. Lead Partner; b. Coordination Office; c. Steering Committee; d. Working Group; e. Task Coordination; f. Regional Management, that were established. The project management structure was finalized during the 1st Coordination Meeting of CIVILARCH.

Purpose: The purpose of the deliverable was the establishment of the appropriate organisational infrastructure and its effective function in order to assure the successful elaboration of the project.

Evaluation: The organisational structure of CIVILARCH was estimated by the project partners as effective, flexible, and appropriately staffed since all necessary tasks were carried out successfully and any difficulties were smoothly overcome.

Value-added: The pattern of the specific organizational structure appears as appropriate for the design and implementation of future European projects by transnational consortiums.

Dissemination: The deliverable was disseminated to the project partners and the responsible EU desk officers. It was also published on the CIVILARCH website.

Coordination Meetings

Description: Four coordination meetings were realized: the 1st CM in Kavala, Greece, in December 2008, the 2nd CM in Budapest, Hungary, in May 2009, the 3rd CM in Glavatarski village, Bulgaria, in October 2009, the 4th CM in Warsaw, Poland, in May 2010. The CMs were always two-day events since they were combined with a relative to the project field trip or site visit. The outputs of each CM were the agenda, the list of participants, the presentations, the minutes of the meeting and a number of photos.

Purpose: The purpose of the deliverable was the smooth and direct communication among the project partners.

Evaluation: The coordination meetings were always perceived as successful. The success was attributed to the fact that a. there was always sufficient representation of each project partner; no absence was ever recorded, apart from the 1st meeting in Kavala where the Polish partners were not able to participate due to their internal

staff problems; b. their results had always a positive impact on the technical, financial and administrative progress of the project; c. they were excellent opportunities for experience and know-how exchange among the participants.

Value-added: The direct monitoring of the project via the methodology of organizing one CM every six months appears as appropriate for the implementation of any European project of international partnerships. In case of larger partnerships even more frequent meetings would be advisable. Additionally, as already stated above, the CMs were organised in such way so as to endeavour the harmonization of the participating countries on civil protection issues.

Dissemination: The outputs of the CMs were communicated by the CO to the project partners and the responsible EU desk officers. They were also published on the CIVILARCH website.

Project Monitoring and Evaluation System

Description: This deliverable is a supportive tool to be used for the monitoring and evaluation of the project execution. Time, cost and target's achievement were tracked and assessed via the use of specific measurable indicators. These data provided the necessary input for project evaluation and subsequent actions. The Monitoring and Evaluation System consists of the following modules:

- Gantt Chart, for the time monitoring of the Project execution
- Table of Project Deliverables and Milestones (including scheduled and actual completion dates, calculation of probable delays, identification of responsibilities).
- Project Evaluation Spreadsheet. The evaluation of the project will be implemented at a separate spreadsheet using a series of progress indicators. For each indicator, the target will be defined, and at a different column the realized quantity will be noted. The evaluation of the related activity will result from the following three constituents:

Realization: The realization factor can take the value of 1 and 0 (according to the accomplishment of the relevant activity).

Rating: The rating factor can take the values from 0 to 5, and results from the quality of the output, the duration and the cost of the relevant activity (compared to the foreseen ones).

Weightiness: The weight factor indicates the importance of the relevant activity (compared to the other activities of the same tasks, as well as to the activities of the whole Project).

For the evaluation of each activity, the above mentioned factors have to be multiplied. The overall assessment of the Project results as a sum of separate products. The factor ranges were selected properly, so as the excellent implementation of the Project to be rated with 100 and the worst with 0. The actual overall grade of the Project is given out as a percentage of the theoretically perfect score.

The deliverable was successfully completed by the CO with the contribution of all ABs. The tool was continuously applied by the Coordination Office during the project in order to track the progress of the activities and recognize delays or miss-estimations.

Purpose: The purpose of the deliverable was the continuous evaluation of the project's progress and technical completion as well as the early determination of potential deviations or inconsistencies and designation of proper support and corrective actions.

Evaluation: The deliverable was accepted by the project partners and considered as a useful tool that efficiently served the purpose of its formulation.

Value-added: The Monitoring and Evaluation System appears to be appropriate for the implementation of any European project by international consortiums.

Dissemination: The monitoring and evaluation system was communicated by the CO to the project partners and the responsible EU desk officers. It was also published on the CIVILARCH website.

Progress Reports

Description: Two progress reports and one final report were prepared by the CO and submitted to the project EU desk officers. Each progress report covered an 8-month period, while the final report covers the whole duration of the project. The reports followed the relevant specifications and templates of the Grant Agreement. The deliverables that were completed by the time of submission of the progress reports were attached to them.

Purpose: The purpose of the deliverable was to meet the requirements of the Grant Agreement and to provide proper reporting to the European Commission.

Evaluation: The progress reports and the final report were submitted in time according to the time limits set by the Grant Agreement. They included all necessary information so as to give in a precise and inclusive way the progress of the project, the main outcomes, the occurred problems and the future activities.

Value-added: The reports were the direct way of providing information on the project evolution to the EC.

Dissemination: The progress reports were communicated by the LP to the project partners and the responsible EU desk officer. The final report is expected to be published on the Civil Protection Financial Instrument website after its approval by the Commission.

5.2 Task B: *Building the stakeholders' capacity*

Deliverables:

- 4 Risk identification reports, one for each participating country
- 4 local clusters - List of members

- Photos, minutes, agenda, list of participants, informative material of the workshops
- Knowledge and views assessment report

Risk Identification Reports

Description: Each project partner compiled one Risk Identification Report for the study area which was defined for the implementation of the CIVILARCH tasks: The CB in cooperation with AB4 selected the drinking water springs “Paradisos” and “Statonon” which belong to the river basin of Nestos; AB1 selected the Oder river basin in the Lubuskie Region; AB2 set River Danube, Tisza and Dráva riverbank zone under study; AB3 selected the basin of the Arda (Ardas) River which runs within the administrative districts of Smolyan, Kardjali, Haskovo and Plovdiv.

The Risk Identification Reports were based on support material concerning the spatial characteristics, like maps, land use, existing industrial sites etc, of the above mentioned project areas. The potential chemical pollution accidents were examined and relevant data, such as the types of hazardous substances, the volume of releases, the pathways to the river basin, possible effects etc, was collected and included in the deliverables.

Purpose: The purpose of the deliverables was to identify, characterize and prioritize the incidents that can result to the release of chemicals in the river waters.

Evaluation: The reports which were created by the project partners were based on reliable data that either was gathered from official resources or stemmed from the participants’ former knowledge and archives. Therefore, their content was comprehensive and accurate

Value-added: The deliverables were appraised as useful tools for the stakeholders of the under-study areas. Future environmental feasibility studies, spatial planning studies, investment action plans, etc could make use of the information and results presented within the reports.

Dissemination: The Risk Identification Reports were circulated among the project partners and were communicated to the responsible EU desk officer. They were also published on the CIVILARCH website. Additionally, the main results of the reports were presented at the informative workshops of the project under the Capacity Building task.

4 local clusters - List of members

Description: Four local – regional clusters were formulated by the project partners. The members of the local clusters were the key representatives of the bodies which are directly involved in the CIVILARCH project as well as in the activities of emergency response against chemical releases in rivers at the study areas of the project. This deliverable had the form of a short list of contact details that would be revised and enlarged at a later stage under Task E. All partners used the same template for the completion of the contact details of their local-regional cluster.

Purpose: The purpose of this deliverable was the development of a flexible structure ensuring the involvement of key actors from private and public sector and of the general public in the main initiatives of the CIVILARCH project

Evaluation: The deliverable was evaluated as efficient for the initial phase of the project since it involved all those stakeholders that were considered not only appropriate recipients of the CIVILARCH results but also active decision makers.

Value-added: The creation of local – regional clusters is an approach that has already been applied by the project partners in other European projects, where it was considered of great importance to implicate stakeholders into the implementation of various initiatives. The current groups of stakeholders have the potential to expand their capacity to future projects, as it has already been foreseen by the CIVILARCH project, through the European Support Cluster (Task E).

Dissemination: The composition of the four local-regional support clusters was circulated among the project partners and was communicated to the responsible EU desk officer. The clusters were also published on the CIVILARCH website.

Informative Workshops

Description: Four informative workshops were realised by the project partners. In Greece, the CO in co-operation with AB4 organized the CIVILARCH one-day informative workshop in Kavala, Greece, at MPATIS conference centre on 7/5/2009. The number of participants was 85. AB2 organized the CIVILARCH one-day informative workshop in Budapest, Hungary, on 18/5/2009 at VITUKI premises. 45 attendees were present at the event. The Bulgarian workshop was realised by AB3 on 27/5/2009 in Sofia at the presence of 30 participants. The Polish workshop was organized at Gorzow Wielkopolski, Poland, on 8/7/2009 with 54 participants.

During the workshops, reference material to the CIVILARCH project was distributed to the participants as well as a questionnaire for the assessment of their knowledge and views on the objective of the project. The outputs of all workshops were the agendas of the events, photos, lists of participants, presentations and the distributed informative material.

Purpose: The purpose of the informative workshops was to introduce the CIVILARCH project to the local-regional stakeholders and create the necessary networking conditions for the establishment of the local-regional clusters.

Evaluation: The four workshops were successfully organised. Their success is depicted a. on the total number of participants, 214 attendees; b. the representation of bodies-services which are directly involved in the issues tackled by the project; c. the active participation of national civil protection representatives.

Value-added: The informative workshops provided the opportunity for the establishment of co-operation bonds among the different water management and civil protection bodies in the framework of the future initiatives of CIVILARCH as well as of future European transnational projects.

Dissemination: The outputs of the informative workshops were circulated among the project partners and delivered to the CIVILARCH EU desk officers. They were also presented in every open event of the CIVILARCH project and published on the CIVILARCH website.

Knowledge and views assessment report

Description: As mentioned above, one of the objectives of the informative workshops was to establish working contacts with the representatives of each Region, potentially interested in the results of the Project, including the assessment of their opinions and experiences on: a. Significant potential sources of water hazards; b. Water protection against the effects of accidental releases of chemicals; and c. Competences in the prevention of and response to industrial accidents. In order to achieve this objective, a special questionnaire was prepared and disseminated to the participants of the respective informative workshops. A Stakeholders' Views Report was conducted based on the answers which were given to the delivered questionnaire. The report was prepared by the CO by integrating the material gathered by the project partners.

Purpose: The purpose of the deliverable was to assess the awareness of the decision and administrative actors of the project area and consequently to gain their positive attitude on the objectives and work methodology of the project.

Evaluation: The deliverable depicted in detail the stakeholders' views and was accepted by the project partners. The relevant questionnaire assisted towards this direction via the appropriate and well-aimed questions included.

Value-added: The deliverable is a useful tool for the stakeholders of the under-study areas since it can provide information on the existing civil protection weaknesses that could be dealt with in a future investment, educational or dissemination project. Additionally, the assessment approach and the relevant results can be transferred to other EU regions where similar to the CIVILARCH initiatives could be realized.

Dissemination: The Knowledge and Views' Assessment Report was circulated among the project partners and delivered to the CIVILARCH EU desk officers. It was also published on the CIVILARCH website.

5.3 Task C: Creation of Support Mechanism

Deliverables:

- 1st Module: Environmental Surveillance Program
- 2nd Module: Field Investigation and Site Assessment
- 3rd Module: Abatement and Remediation actions

1st, 2nd and 3rd Support Module

Description: The three Modules include best practice guidelines which outline general considerations according to the relevant international experience and they constitute support tools which make a direct contribution to capacity building in the area of concern.

The 1st support Module provides guidelines for the development of a contamination warning system regarding the efficient monitoring of the quality of surface waters with special focus on sources intended for the abstraction of drinking water. The 2nd support Module provides guidance on the development of the appropriate program for the investigation and validation of sites that may be affected by the accidental release of chemicals in the environment. The 3rd support Module refers to guidelines which concern the development of Best Practices concerning the implementation of short-term mitigation and long-term remediation measures in case of chemical releases in rivers.

The draft of the Support Modules was prepared by AB4 in English. The final version of the documents was concluded with the contribution of all CIVILARCH project partners. All project partners proceeded with the translation of the three Modules in their languages, so, the final versions are available in Greek, Polish, Hungarian, Bulgarian and English. The three Modules were published as one single book.

Purpose: The purpose of the deliverable was the development of support tools specifically targeted at improving the quality of the human and technical resources providing civil protection services in the case of accidental chemical pollution of rivers.

Evaluation: The final versions of the three Support Modules are of high quality in terms of their context as well as their editing. The quality of the Modules was evaluated by the attendees of the training seminars who received hard copies of the deliverables.

Value-added: The three Modules can provide information of direct benefit to a broad audience, such as scientific and technical staff from water distribution companies, utilities, environmental agencies, local authorities, emergency response organizations, insurance companies, laboratories, etc. that are directly or indirectly involved in the response to environmental accidents, at local, regional, national and EU level.

Dissemination: The deliverables were: a. circulated among the project partners and delivered to the CIVILARCH EU desk officers; b. published on the CIVILARCH website; c. distributed to the training seminars which were organised to the project partners; d. distributed to the participants of the final conference.

5.4 Task D: *Implementation of Pilot Activities*

Deliverables:

- List of lecturers, list of trainees, training material, photos, agenda of the 4 training seminars, one in each participating country

- Early warning and alarm system
- Reference, list of attendants, photos, and agenda of the contingency drill
- Issue of evaluation results of existing emergency response structure

Training Seminars

Description: The project partners organised training seminars at their regions on the content of the three Support Modules and the existing procedures of emergency response against chemical releases in rivers.

The Greek partners, CO and AB4, organised one training seminar in two parts. On the 7th of June 2010 the first part took place in Kavala at the presence of 22 representatives of local authorities, which are involved in the civil protection mechanism. The seminar was supported by Mrs Natalia Patsioti, representative of the Hellenic General Secretary of Civil Protection. The second part of the seminar was realised on the 23rd of June 2010 - a day before the execution of the pilot exercise - in Xanthi and was addressed to the main key players who would have an active role during the exercise.

The Polish partner organised a two-day seminar on the 16th and 17th of March 2010 in Gorzow with 22 persons – regional stakeholders of administrative, environmental and civil protection issues - attending the event. Among other presentations, the NOMOTO Computer Programme to Calculating the Concentration of Contamination in Surface Waters was also presented.

The Hungarian partner organised one training seminar in three different places of the Hungarian pilot area: in Budapest, at VITUKI Nonprofit Kft. premises on the 21st of July 2010; in Győr, at Édukövizig premises, on the 23rd of July 2010; and in Nyíregyháza at Fetikövizig premises on the 8th of August 2010. The total number of participants was 50 among which representatives of the regional and national civil protection mechanism.

The Bulgarian partner organised one training seminar in Sofia on the 9th of September 2010 in cooperation with the Bulgarian regional Directorate of Civil protection and Basin directorate Plovdiv of MEW. Main part of the 24 participants came from the governmental authorities-both central (Ministries, Executive Agencies, General Directorates, etc.) and local (Basin Directorate -Plovdiv, Smolyan etc.). The rest of the participants were scientists from academic institutes and universities.

Purpose: The purpose of the training seminars was a. the promotion of the technical aspects of the 3 support modules; b. the presentation of the existing structures of the under-study areas to the chemical accidents; c. the discussion and exchange of experiences among persons interested in issues of prevention of and response to industrial accidents and people and water protection against accident consequences.

Evaluation: All training seminars were organised successfully. The fruitful results of the initiatives were depicted on the quality of the presentations, the quality of the informative-educational material, the adequate representation of stakeholders in qualitative and quantitative terms.

Value-added: Via the training seminars, the CIVILARCH project succeeded in providing the competent authorities with practical guidelines and instructions in implementing emergency response action plans. These guidelines and instructions could eventually come into force in the future in order to enhance the regional civil protection mechanisms. Additionally, the impact and results of the seminars can be transferred to other European regions. Finally, the training seminars approach is a well applied method of raising the key players' awareness on certain issues.

Dissemination: The outputs of the training seminars – agenda, photos, list of participants, presentations – were circulated among the project partners and communicated to the CIVILARCH EU desk officer. They were also published on the CIVILARCH website.

Early warning and alarm system

Description: The CB conducted a public tender for the purchase of an on-line monitoring and emergency response pilot unit, which would be established at “Paradisos” and Stratonon” springs of the Prefecture of Kavala, and would support the contingency drill of the project. The emerged contractor of the public tender was SCIENTACT S.A.

The measurement parameters of the monitoring system are the following a. $\text{NO}_3\text{-N}$, b. Total Suspended Solids (TSS), and c. Total Organic Carbon (TOC), d. Water Temperature, while the Pilot Unit consists of the following features 1) Apparatus; 2) Controller; 3) Data logger and telemetry unit; 4) Mechanical protection arrangement; 5) Software and data collection.

Every one hour the realized measurements are forwarded to the server that is established at the premises of the Water Directorate. Whenever unusual conditions occur, such as exceeding of parameters' limits, electricity cut off, etc. an alarm via sms is sent to the cellular phone of the person in charge for the monitoring of the water quality.

Purpose: The purpose of the deliverable was the enforcement of the civil protection mechanism of the Region of East Macedonia and Thrace as well as the facilitation of the CIVILARCH contingency drill that was planned under Task D of the project.

Evaluation: The established monitoring and alarm system unit is a technology leader product of high quality which operates without disturbances and provides on continual basis measurements of the parameters set to the Water Directorate. Its operation was tested during the pilot exercise and was appraised as successful.

Value-added: The adopted early warning and alarm system is a dynamic unit whose operation can be extended so as to include the monitoring of further parameters. Additionally, this unit was embodied in the broader measurements' stations network of river Nestos, thus integrating the water monitoring of the river basin. The potential transfer of this technology as a good practice to other Greek and European river basins is another value-added feature of the deliverable.

Dissemination: The features of the emergency response and alarm system and its operation were presented to the project partners during the Coordination Meetings. They were also presented to the Greek stakeholders during the training seminar, the pilot exercise and the final conference. A relevant publication was also made on the CIVILARCH website.

Contingency drill

Description: The contingency drill took place on the 2nd of July 2010 at the city of Xanthi. The number of participants was 55 among which representatives of the national General Secretary of Civil Protection, the Civil Protection services of the Prefecture of Xanthi, the Health Directorates of the Region of East Macedonia – Thrace and the Prefecture of Xanthi and the local Water Supply services.

A contamination simulation of the drinking water of Xanthi, Topeirou and Chrisoupoli agglomerations was organised. As soon as the established monitoring system detected the contamination (exceeding of the NO₃-N limits) an alarm-sms was sent via telemetry to the cellular of Mr Georgiadis. Mr Georgiadis, in his turn, activated the emergency response plan that had been consisted in the framework of the CIVILARCH project and for the needs of the pilot exercise.

The contingency drill was followed by a discussion on issues concerning the incident verification, the indication of the contamination source, the remediation activities and the incident communication to the civilians.

Purpose: The purpose of the deliverable was the testing of the adequacy, applicability and flexibility of the developed modules, as well as the identification of potential constraints and critical factors for the implementation of actual emergency response actions.

Evaluation: The contingency drill was elaborated successfully according to the views of the attendees. The successful elaboration is attributed to a. the correct operation of the emergency response and alarm system, b. the right coordination and activation of the emergency response plan, c. the fruitful results which indicated the deficiencies of the existing emergency response structure.

Value-added: The elaborated contingency drill could be implemented on a regular scale in order to improve the established emergency response structures. Additionally, the selected approach could serve as good practice in the implementation of other European projects which deal with civil protection and environmental disasters' issues. This approach could also be adopted by other regions in Greece and in the European Union generally.

Dissemination: The outputs of the contingency drill - photos, agenda, presentations, list of participants, contingency drill report – were disseminated among the project partners and communicated to the responsible EU desk officer. Additionally, they were presented during the final conference and published on the CIVILARCH website.

Issue of evaluation results of existing emergency response structure

Description: In the frame work of the CIVILARCH project, the project partners evaluated the existing emergency response structures at their pilot areas. The evaluation was based on the following elements: a. The content of the Emergency Response Guides which were created for the CIVILARCH project and present worldwide best practices; b. The results that stemmed from the stakeholders' training seminars on the context of the Emergency Response Guides and the existing emergency response procedures; c. The results of the pilot exercise which was conducted at the Region of East Macedonia and Thrace and concerned the simulation of chemical pollution of the drinking water at the site of Paradeisos and Stratonon springs; d. A special structured questionnaire which was created by SIGMA Consultants in order to facilitate the evaluation requirements. The questionnaire categorizes the evaluation aspects into seven criterion groups of varying weighting factors:

- i. Assessment planning (100%)
- ii. Prevention of industrial accidents and reduction of their effects (60%)
- iii. Preparedness for accidental events (100%)
- iv. Response to accidents involving dangerous substances (100%)
- v. Recovery of water resources (100%)
- vi. Providing information for the public and raising public awareness (40%)
- vii. Plan Maintenance: Keeping the Plan Current (20%)

The project partners produced 4 evaluation reports, one for each study area, in both English as well as their national language.

Purpose: The purpose of the deliverable was the exploitation of the gained experience and extraction of meaningful evaluation results concerning the deficiencies of the existing emergency response structures. These results were the basis for the Action Plans which were compiled under Task E.

Evaluation: The four evaluation reports contain substantial conclusions regarding the advantages but mostly the weaknesses of the existing emergency response structures in the selected study areas of Greece, Poland, Hungary and Bulgaria. This appraisal was never conducted before for those areas, so the involved stakeholders perceived this as being a very useful output.

Value-added: The added value of the specific deliverable was already proven since its observations became the basis for the compilation of the four Actions Plans under Task E. The questionnaire that was applied for the

sought evaluation was constructed in a way that can be applied by any national, regional or local authority for the assessment of the civil protection infrastructures.

Dissemination: The evaluation reports were disseminated among the project partners and communicated to the responsible EU desk officer. Additionally, they were presented during the final conference and published on the CIVILARCH website.

5.5 Task E: Setting up the administrative tools and actions

Deliverables:

- 4 Action plans, one for each participating country
- European support cluster
- List of members of the reorganized local clusters

Action plans

Description: Four Action Plans, one for each pilot area, were compiled by the project partners. Each deliverable was produced in two versions, English and the respective national language of each partner. The Action Plans were developed according to a common template that was prepared by the Polish partner. The template introduced five Priorities Fields:

Priority I	Prevention of industrial accidents and reduction of their effects
Priority II	Preparedness for accidental events
Priority III	Response to accidents involving dangerous substances
Priority IV	Water protection and improvement of wastewater management
Priority V	Providing information for the public and raising public awareness

The project partners organised their intervention measures under these priorities. Each measure is presented with its objective and description, indicating the way and period of implementation. Estimated costs and potential sources of financing have been determined where it was possible. A period of 7 years – 2010 to 2017 – was considered for the implementation of the Action Plans.

Purpose: The purpose of the deliverable is to enhance the restructuring of the existing civil protection resources thus improving the emergency response capacity in each region.

Evaluation: The work that was conducted under the four Action Plans was substantial and depicted the actual needs of each pilot area in the field of civil protection against chemical accidents. The proposed measures gained the positive opinion of the involved decision makers of the local clusters.

Value-added: The Action Plans involve future interventions the adaptation of which can lead to integrated emergency response schemes at the pilot areas of the CIVILARCH project, thus adding to the European civil

protection capacity. Moreover, these interventions may well be transferred to other river basins within the European territory.

Dissemination: The action plans were disseminated among the project partners and communicated to the responsible EU desk officer. Additionally, they were presented during the final conference and published on the CIVILARCH website. The Measures of each Action plan were summarised in a PDF booklet – Managerial Summary – which was disseminated via emails to a broad range of stakeholders.

European support cluster

Description: The project partners instituted the European Support Cluster after the completion of all training seminars and the revision of the local clusters. The European Support Cluster is a Unit that is responsible for the provision of coordination and technical support actions to local and regional bodies, from the public and private sector involved in civil protection issues. More specifically, the aims of the new unit are: i) the coordination on items like know how and experience exchange, research and technology transfer, common resources use etc. ii) the expansion of the cooperation in other geographical areas facing similar potential problems.

The Unit is established at the premises of the Water Directorate in the Region of East Macedonia and Thrace, where all the CIVILARCH deliverables and supporting material has been gathered. The LP appointed two persons, one scientific expert and one administrative assistant for the operation of the Unit. Each partner appointed one scientific expert.

A list of stakeholders' contacts is organised by the Unit so as to create a recipients' group of newsletters on topics relevant to the aims of the Unit. A special form of communication has been uploaded on the CIVILARCH website through which the broad public will have the chance to address questions and requests to the Unit.

Purpose: To provide a focal point for European bodies interested to undertake initiatives and to improve their emergency response performance.

Evaluation: The initial structure of the CIVILARCH European Support Cluster is considered as accurate and well organized. There is a strong intention on behalf of the partnership to maintain this quality during the whole operation of the unit in the forthcoming years.

Value-added: The European Support Cluster ensures the sustainability of the CIVILARCH results. Additionally, as mentioned above, the target of the European Support Cluster is the expansion of the cooperation in other geographical areas facing similar potential problems. Therefore, it may motivate future European projects of transnational consortiums.

Dissemination: The establishment and operation of the European Support Cluster was presented at the final conference and was disseminated to the members of the local – regional clusters via the last Newsletter of the project. Finally, a link that leads to the special structured request form was placed on the CIVILARCH website.

List of members of the reorganized local clusters

Description: Four local – regional clusters were formulated by the project partners under Task B. As already mentioned, each cluster had the form of a short list of contact details that would be revised and enlarged at a later stage. After the completion of all dissemination and training activities, as well as the completion of the regional Action Plans, the local clusters were reformulated. The reformulated local clusters will undertake the supervision of the action plan execution.

Purpose: The purpose of the reformulated local clusters is the strengthening of the realization of future activities that were demonstrated through the CIVILARCH project and the Action Plans in particular.

Evaluation: The structure of the reorganised local clusters is representative of the core policy and decision makers in each participating region.

Value-added: The creation of local – regional clusters is an approach that has already been applied by the project partners in other European projects, where it was considered of great importance to involve stakeholders into the implementation of various initiatives. The current groups of stakeholders have the potential to expand their capacity to future projects, as it has already been foreseen by the CIVILARCH project, through the European Support Cluster.

Dissemination: The composition of the four local-regional support clusters was circulated among the project partners and was communicated to the responsible EU desk officer. The clusters were also published on the CIVILARCH website.

5.6 Task F: Information, Communication and Capitalization measures

Deliverables:

- Communication and Dissemination Handbook
- Material for information and publicity actions (press releases in all participating countries, leaflets, brochures, folders, newsletters)
- Project web site
- Managerial summary
- Booklet of the project achievements
- Agenda, list of attendants, minutes of final conference

Communication and Dissemination Handbook

Description: The Communication and Dissemination Handbook was created by the LP in the beginning of the project and was adopted by the partnership. The Handbook described in detail the activities, participants' roles and measures applied during the project for the effective dissemination of its achievements. The target groups were also defined as well as regulations for editing the CIVILARCH outputs. The Handbook was created in English.

Purpose: The purpose of the deliverable was to create a "corporate identity" and a common communication strategy on behalf of the project in order to maximise the impact of the outcomes of the project.

Evaluation: The partnership qualified the deliverable as concise and accurate since it described thoroughly the dissemination tasks that should be realised. No declinations compared to the approved AF were indicated.

Value-added: The structure and context of the Communication and Dissemination Handbook can be applied as a template for future projects which incorporate soft dissemination activities within the European territory.

Dissemination: The Communication and Dissemination Handbook was circulated among the project partners and was communicated to the responsible EU desk officer. The deliverable was also published on the CIVILARCH website.

Project web site

Description: The project website, www.civilarch.eu, was launched (in English) in the beginning of the project containing information on aspects like: tasks' description and foreseen results, partners profile, contact details, announcement of meetings, workshops, seminars and conferences, deliverables achieved, photos, links to other relevant websites, collection of the frequently asked questions (FAQ's) etc, communication form, etc.

The website was maintain up-to-date during the project implementation and will stay active even after its completion. The website will be the main communication channel between the CIVILARCH European Support Cluster and European stakeholders as well as the broad public.

Purpose: The purpose of the project website was to disseminate and promote to all related bodies and target groups, at EU and international level, the concept, methodology and results of the project.

Evaluation: The CIVILARCH website is easy, dynamic and flexible to use. It contains all the deliverables produced during the project so it illustrates precisely the project's identity. It operates in a user friendly environment while the core data is achievable through various paths.

Value-added: The website is a substantial tool which promotes not only the CIVILARCH project but also the Civil Protection Financial Instrument and generally the European grant opportunities in general at international level. The website will stay active after the completion of the CIVILARCH activities and will support the operation of the European Support Cluster that was instituted under Task E.

Dissemination: The website was available without any restrictions to the broad public. Its operation was presented in each one of the CIVILARCH events – coordination meetings, informative workshops, training seminars, contingency drill, and final conference – while the web link appeared on each of the produced dissemination material in the framework of the project. Finally, links to the CIVILARCH website were present on the individual websites of the project partners.

Booklet of the project achievements

Description: AB4 created a booklet which consists of the following parts: Project Identity, Objectives of Activities, Presentation of Pilot Sites, Core Deliverables and Project Results. 500 copies of the Booklet were produced. The language of the Booklet is English.

Purpose: The purpose of the deliverable was in line with the general purpose of Task F, i.e. to disseminate and promote to all related bodies and target groups, at EU and international level, the concept, methodology and results of the project.

Evaluation: The deliverable was of high quality in terms of content, editing and printing.

Value-added: The Booklet of the project's achievements is an output which promotes not only the CIVILARCH project but also the Civil Protection Financial Instrument and the European grant opportunities in general at international level. Its template may well be applied for the production of dissemination material in future projects.

Dissemination: The Booklet of the project's achievements was distributed to the participants of the final conference. Multiple copies were also given to the project partners in order to disseminate them to their national stakeholders. Finally, the deliverable was uploaded to the CIVILARCH website.

Final Conference

Description: CIVILARCH was successfully completed with a final conference during which the results and achievements of the project were presented. The conference was realised in Kavala on the 24th of September 2010 at the conference hall of HOTEL LUCY. The conference was attended by 68 persons among which the EU Civil Protection Financial Instrument desk officer. All project partners actively participated at the closure of the project by presenting mainly the technical outputs and conclusions of their activities in the framework of the project.

The Booklet of the project achievements as well as the book of the 3 Supporting Modules was disseminated to the attendees of the event. The conference was covered by the local media. Statements about the CIVILARCH initiative were made by the project coordinator Mr. Georgiadis, the deputy project coordinator Mr. Kampas, as well as by the representatives of the Bulgarian Work Team, Mrs Ormadjieva and Mrs Stavkova.

Purpose: The purpose of the deliverable was in line with the general purpose of Task F, i.e. to disseminate and promote to all related bodies and target groups, at EU and international level, the concept, methodology and results of the project.

Evaluation: The conference was appraised as a successful organization by all attendees.

Value-added: The final conference promoted not only the CIVILARCH project but also the Civil Protection Financial Instrument and generally the European grant opportunities. The presentation of the CIVILARCH outcomes generated new ideas for future projects and co operations.

Dissemination: The outputs of the final conference – agenda, presentations, list of participants, photos - were uploaded to the CIVILARCH website.

Material for information and publicity actions

Description:

- The CIVILARCH logo was created by the Working Group and approved by the Steering Committee. The CIVILARCH logo appears on every deliverable and output of the project.
- The CIVILARCH informative leaflet was compiled by the Working Group in English and further translated by the project partners in their own languages. 800 English and Greek leaflets were printed by the CB; 200 Polish leaflets were printed by AB1; 200 Hungarian leaflets were printed by AB2; and 200 Bulgarian leaflets were printed by AB3;
- Four (4) Newsletters were prepared and disseminated by the project partners via e-mails to the broad CIVILARCH European stakeholders' network.
- Press releases and press conferences were realised by all project partners in view of or after the realization of the various CIVILARCH events at regional and international level. Additionally, the Lead Partner realised the publication of a technical article concerning the project in two Greek technical magazines of wide circulation. The first publication was in ECOTEC (No 55; April 2010; pg 82). The issue was dedicated to the "3rd International Exhibition of ECOTEC" and was disseminated to more than 18.000 international participants and visitors of the event. The second publication was in the weekly journal of the Greek Technical Chamber (No 2601; 27/9/2010; pg 55). The journal is disseminated to all members of the Greek Technical Chamber that would be around 88.000 of engineers.
- The final versions of the three Emergency Response Guides were printed in 500 copies, 250 copies in English and 250 copies in Greek. Additionally, AB1, AB2 and AB3 produced 500 copies, each, of the translated versions. The Guides were disseminated to participants of the training seminars, the pilot exercise and the final conference.

- The Booklet of the project achievements was produced in 500 copies by AB4. The copies were all in English and were disseminated during the final conference. Apart from the final conference, the project partners would disseminate the booklet to the stakeholders of their local networks.
- Folders, notepads, budgets, pens, posters, banners and supportive material of the various dissemination events (Coordination Meetings, informative workshops, training seminars, pilot exercise and final conference) were produced by the project partners.

Purpose: The purpose of the deliverable was in line with the general purpose of Task F, i.e. to disseminate and promote to all related bodies and target groups, at EU and international level, the concept, methodology and results of the project.

Evaluation: The produced dissemination deliverables were in accordance to the specifications of the CIVILARCH Communication and Dissemination Handbook as well as the specifications of the European Commission. Their quality was appraised as excellent in terms of context, editing and dissemination impact. Through the implementation of the above mentioned dissemination methodology, the CIVILARCH partnership managed to communicate the project's general idea, the purpose, objectives and results to a wide range of stakeholders.

Value-added: The activities that were realised for the promotion of the CIVILARCH project could be a well applied methodology for the dissemination approach of future projects. The produced informative material is available through the CIVILARCH European Support Cluster to all interested parties even after the completion of the project. Generally, the informative material of the project will continue to promote not only the CIVILARCH project and its achievements but also the Civil Protection Financial Instrument and the European grant opportunities in general at international level.

Dissemination: The recipients of the deliverables were mentioned previously in the "Description" section. Additionally the dissemination material was uploaded to the CIVILARCH website.

Managerial Summary

Description: Under TASK E of the CIVILARCH project an Action Plan for each participating region was elaborated aiming to improve the emergency response capacity in each region. A "managerial summary", in PDF format, which includes the proposed Measures of each Action Plan, was created by CO and AB4.

Purpose: The purpose of the deliverable was to disseminate and promote to all related bodies and target groups, at regional and international level, the Action Plans that were created under Task E.

Evaluation: The produced deliverable is a tool which was structured not in the form of a simple report but in the concept of a promotional brochure. This form is more attractive and useful since it communicates its content briefly and directly. Therefore it has a bigger potential to reach a broader audience.

Value-added: The Managerial Summary is available through the CIVILARCH European Support Cluster to all interested parties even after the completion of the project. The Managerial Summary will serve as a quick reference to the future planning and realisation of activities for the upgrading of the civil protection means and structures in each participating region.

Dissemination: The Managerial Summary was disseminated to all concerned policy makers of the local clusters and the European Support Cluster via e-mails. The deliverable was also uploaded to the CIVILARCH website.

6 EVALUATION OF THE TECHNICAL RESULTS AND DELIVERABLES

In this section of the report, project's learning will be presented, together with conclusions and recommendations.

6.1 General lessons learnt

The general lessons learnt are identified in the fields of Management, Communication and Technical results of the project as follows:

Project Management

1. Maintain a clear management structure and decision making process. The roles, responsibilities and contributions of each project partner should be thoroughly defined, and periodically updated.
2. Setting a realistic timetable: The project coordinators should make adequate provision in their planning for the time required to evaluate options, make decisions and take action to achieve the project's objectives. Allowance should also be made for the effect of unforeseen risks and obstacles, which inevitably arise in such projects.
3. Ensure precise allocation of the budget per expense category. Margins should be foreseen at personnel costs, in the case that the realization of an action – deliverable is delayed.
4. During the project's planning phase investigate and understand the communication structures and channels. Ensure you know how the project will interact with and impact on key actors and target groups.
5. Be clear on the objectives and the target groups. Define measurable targets and tangible performance indicators.
6. Ensure that all the project participants have a certain capacity.
7. Monitor outputs carefully. Use a strong, clearly defined monitoring system – tool. The Project Coordinator should promote the well understanding of Monitoring and Evaluating system as a project management tool and as an integral part of the project cycle. All partners should be acquainted to the adopted system.
8. The adopted Monitoring and Evaluating System should be streamlined, technically simplified and made user friendly. It should focus on corrective actions to address problems rather than collecting data for the sake of completing a checklist.

Communication and Dissemination

9. Ensure strong communication with the Project's Desk Officer for the early identification and direct solving of any queries or misinterpretations.
10. Create and support communication and effective relationships between partners, stakeholders. Ensure good communication as to their roles and responsibilities.
11. Use meetings as the main source of information sharing among partners. One co-ordination meeting at least every six months is a necessity for multinational projects.
12. Create local – national – EU networks at the early stage of the project. The members of the networks will be the core recipients of the dissemination activities.
13. Effective dissemination often means iterative follow up and support. This possibility should always be taken into consideration, especially at the early stages of the project.
14. Use a multi targeted strategy to disseminate information and wherever possible translate the deliverables in the national languages of the project partners.
15. Update the project's website regularly, with all new deliverables and information. Each update should be combined with a Newsletters addressed to the members of the local – national – EU stakeholders.

Technical Results

16. The assessment of baseline conditions of a region is a key aspect for the direct response against chemical releases in a river basin. An integrated risk assessment at local or regional level facilitates the early identification of the pollution source, the verification and consequently the evaluation of the chemical incident.
17. The national legislation is the frame in which the preparedness and response regulations are defined. However, there are always misinterpretations as well as deficient acquaintance with these regulations on behalf of the local – regional services and bodies which are involved in the preparedness and response to any emergencies.
18. The structure, maintenance, regular update and pilot implementation of specified Emergency Response Plans at local – regional level clarifies the roles of the involved bodies as well as the communication and cooperation channels among them.
19. There is a variety of actors that can be identified as having a role and contribute to an emergency such as: public authorities that manage the response and preparedness; NGOs and voluntary organizations which provide a range of services and resources; professional

organizations providing expertise and services; media providing information and communication; the citizens that may take individual measures to protect themselves, etc. To enable organizations to work together effectively in a response, involves joint planning, training and exercising, reviewing, establishing clear coordinating mechanisms and structures and optimizing communication.

20. The key players should be provided with Support Tools, like the CIVILARCH Emergency Response Guides, that should include the analysis of all aspects, i.e. monitoring, field investigation, incident evaluation, abatement and remediation measures, in favor of an integrated preparedness and emergency response management structure.
21. In the case of emergency response plans against chemical releases in trans-boundary rivers, the implementation of international exercises and the realization of joint water management ventures are of vital importance especially for the downstream agglomerations that might be the final recipients of any water pollution.

6.2 Strengths

The strengths of the technical results and deliverables of the CIVILARCH project include the following:

- Creating and maintaining the local – regional clusters, within the CIVILARCH participating countries, Greece, Poland, Hungary and Bulgaria, as well as the European Support Cluster. These structures will be useful in the development of future projects.
- Involvement of high skilled experts in the project teams of the CIVILARCH partners and exploitation of their know-how and experiences during the workshops, training seminars and pilot implementation.
- Creation and operation of a website which gathers all the outputs of the project, provides frequent informing on all latest news and upcoming events, and gives the opportunity for easy access and communication with the European Support Cluster.
- Achievement of all the deliverables and project objectives according to the approved timetable of the AF and to a level of high quality, as was described in detail in Chapter 6.
- Creation of the majority of the project deliverables in English as well as in the national languages of the project partners, thus achieving a wider impact and multiplying the opportunities to disseminate the project findings and tools to a broader range of events.
- The substantial collaboration of the partners (Associated Beneficiaries) with the Lead Partner and the successful implementation of their obligations despite of the various problems that they had to come up with during the project.

- The CIVILARCH Emergency Response Guides which aim at the improvement of the quality of the human and technical resources providing civil protection services in the case of accidental chemical pollution of rivers.

6.3 Possible challenges and/or improvements to be tackled through further action

The following challenges have been identified and mainly concern the sustainability of the CIVILARCH outputs:

- Maintain the operation of the CIVILARCH website for at least five years after the completion of the project. The operation of the website will be the LP's responsibility. The challenge would be not only to maintain the operation but also to update the context of the website frequently with topics and news alerts of events relevant to the CIVILARCH issues.
- Maintain the coherence and even strengthen the European Support Cluster. The regular revision of the structure of the ESC is of major importance in order to keep this network alive and promote civil protection initiatives and policy proposals through its members. The LP will be responsible for the management and co-ordination of the ESC.
- Claim new grants for the implementation of follow up activities. These activities could either transfer the impact of the project outputs to other regions of the CIVILARCH participating countries or continue the efforts of the involved regions to improve the quality of their emergency response structures.
- Realise the proposed Measures of the four Action Plans that were compiled under the CIVILARCH Project and which concern the improvement of the Emergency Response Structures of the CIVILARCH study areas. The Actions Plans refer to a period of seven years and their realization would be the responsibility of the regional policy makers with the support of the CIVILARCH local networks.

6.4 Recommendations to stakeholders, partners, authorities in charge, National and EU Institutions

The CIVILARCH project team has indicated the following recommendations which are mainly addressed to the national authorities in charge as well as to the National and EU institutions.

- A part of the implementation of the Water Framework Directive is the preparation and realization of river basin management action plans. The regional emergency response plans should be adjusted to the action plans for the river basin units. The adjustment is mainly needed where the actual emergency response plans are based on administrative unit instead of river basin unit.

- Continue the efforts towards the capacity building of the local and regional authorities through pilot exercises and trainings dedicated to civil protection practices and implementation of emergency response plans.
- Allow the citizens to access environmental data as well as relevant information about potential risks, hazards and the consequences of emergencies and disasters. In this way, the citizens could be better prepared, make responsible choices and also participate in recovery activities to mitigate the effects of emergencies and disasters.
- Undertake initiatives for further raising the awareness of local services and citizens concerning the importance of establishing a high level of preparedness against situations of emergency. Preparing for an emergency is an effective way of eliminating the impact of the incident by using the optimal range of material and human resources.
- Upgrade the existing monitoring measurement stations of water quality by adding new sensors that would indicate a broader range of water pollution. Additionally, it is important to maintain on a regular basis the measurement stations and ensure their unhindered and continuous operation.
- Upgrade the existing networks of monitoring measurement stations of water quality by installing new units along the river basins, and thus ensuring a more integrated monitoring against potential risks of water pollution.
- Promote the use of the CIVILARCH Support Tools by the staff members and experts who are involved in the implementation of emergency response plans at regional level. The CIVILARCH support tools are comprehensive and provide easy references to world applied techniques.
- Promote the CIVILARCH website, www.civilarch.eu. The website includes the whole deliverables' package of the project that could be exploited as a template or reproduced in the framework of civil protection and water management projects of other European regions.
- Promote the realization of the Action Plans which were prepared by the project partners. The Action Plans depict the real needs of the involved regions since they were compiled after the multi-criteria evaluation of the existing emergency response structures and they have taken into consideration the consultation of regional key stakeholders and policy makers. Therefore their realization is achievable as long as any budget limitations are overcome.

7 FOLLOW-UP

7.1 Comparison between initial and current follow up measures

The main target of any follow-up activities would be the promotion of the above mentioned recommendations – Section 7.4 - towards the stakeholders, partners, national and European authorities. The initially foreseen elements, that would ensure the realization of the follow-up activities, included mainly:

- a. The compilation of the four Action Plans, one for each participating country, which include measures for the adoption of further policies aiming at the upgrading of the existing emergency response structures.
- b. The reorganisation of the local clusters in order to ensure, envisage and supervise the execution of the Action plans in each participating region.
- c. The establishment of the ESC that will continue its operation after the completion of the project and will be responsible for coordination and technical support actions in the field of emergency response and civil protection against chemical releases in rivers.
- d. The incorporation of REMTH's early warning and alarm system into the integrated monitoring system of Nestos river basin.
- e. The maintenance and continuation of the operation of the CIVILARCH website.

These initiatives have already been realised. More specifically, the Action Plans were concluded and presented during the final conference of the CIVILARCH project, while a Managerial Summary with the most important aspects of the Action Plans was prepared in order to promote the proposed measures in a more “user-friendly” way. The local clusters were reorganised after the completion of the training seminars, the pilot implementation and final conference. The ESC has been established and operates under the responsibility of the Lead Partner with the contribution of specially appointed staff members of all project partners. The European Support Cluster will provide scientific and technical support for the implementation and monitoring of European Union strategies and assists in policy-making in the area of management of environmental technological hazards endangering water bodies and the quality of environment, basing on approaches which are consistent across the Europe.

The emergency response and alarm system that was established at “Paradeisos and Stratonon” springs by the LP has already been incorporated into the measurement stations network of Nestos river basin. The dynamic software of the emergency response unit allowed its adaptation to the features of the broader network. The last update of the CIVILARCH website was on the 8th of October 2010. A relevant NEWSLETTER was sent to the members of the local-national and European clusters.

7.2 Additional follow-up approaches

Additional follow-up approaches include the following:

Presentation of the CIVILARCH results in meetings, workshops and conferences

- Participation of REMTH and SIGMA representatives in the Greek informative workshop of FLINKMAN project in November 2011. FLINKMAN project is funded by the Civil Protection Financial Instrument - 2009 projects and deals with flooding management plans.
- Participation of REMTH and SIGMA representatives in two events of the project MONITORING. MONITORING is a project funded by the INTERREG South East Europe initiative that deals with the management of natural hazards and is realised by the Civil Protection Department of Evros Prefecture in REMTH. More specifically, the first event will be the meeting of the Greek local civil protection working group in November 2010, while the second one will be the project's mid-term conference in Bolzano, Italy.
- In the next expert group meetings (in the first half of the year 2011) of the International Commission for the Protection of the Danube River (ICPDR) the experts of the Monitoring and Assessment group, experts of the Pressure and Measure group and experts of the Accidental Early Warning System task group will be informed about the main activities, deliverables and results of CIVILARCH project.
- The CIVILARCH ESC actively seeks for opportunities to promote the CIVILARCH project and its findings at other national and European events like conferences and exhibitions.

Press entries and publications

- After the closure of the project and the realization of the final conference, press entries were released in local and national newspapers of the CIVILARCH participating countries.
- An article concerning the successful closure of the CIVILARCH project and the produced Action Plans of the participating regions will be included in ECOTEC journal within the beginning of 2011.

Internet services

- The project's website will stay operable until the end of 2015. During this 5-year period a strong effort will be made in order to keep the "News" section of the website updated with information concerning especially the initiatives of the members of the CIVILARCH ESC with regard to civil protection issues.
- The project partners will maintain on their institutions' websites, active links to www.civilarch.eu.

- Creating in the form of World Wide Web portal, a common platform for providing necessary information and promoting regional and international co-operation.

Realization of Action Plans

- The members of the CIVILARCH local networks will promote the Action Plans in view of any regional planning concerning new projects and infrastructures in the field of civil - environmental protection and emergency response.
- The CIVILARCH ESC and especially the members of the project's Steering Committee are exploring for new funding opportunities that will enable partially the realization of the proposed Action Plans and will expand the established networks to further European regions.

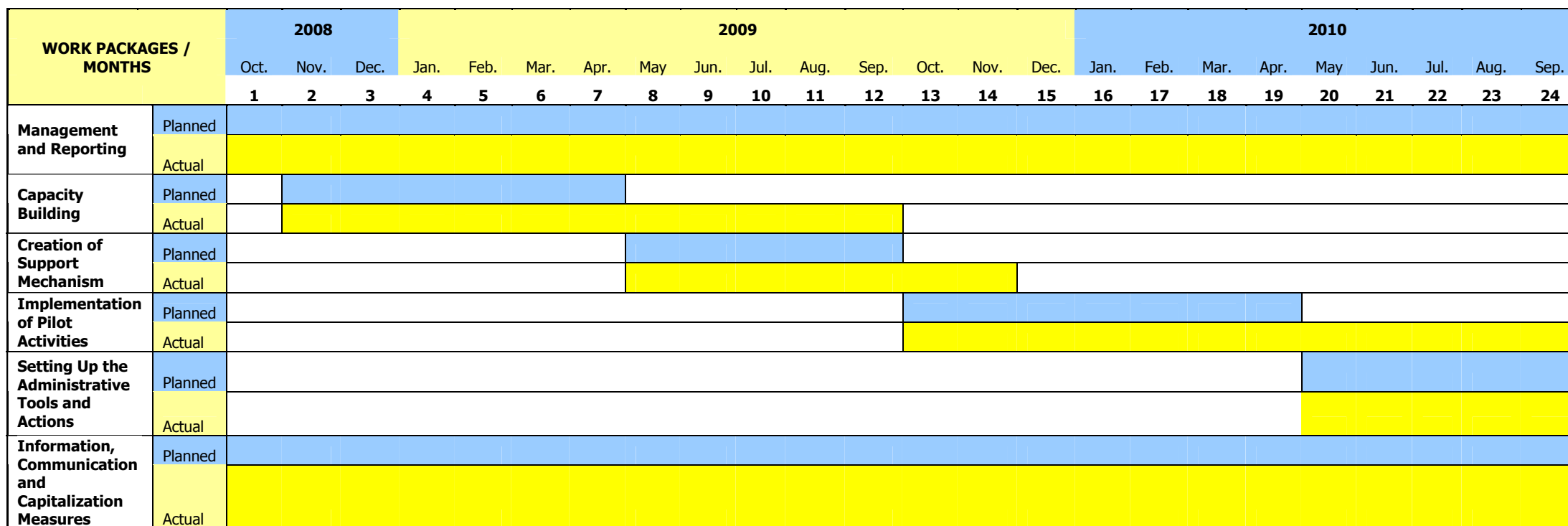
On behalf of the CIVILARCH partnership

Dr. Panagiotis Georgiadis

Project Coordinator

ANNEX

CIVILARCH GANNT CHART



CIVILARCH MONITORING TABLE

Action No.	Planned End	Actual End	DELAY	BRIEF DESCRIPTION OF ACTIVITY - OUTCOME	Responsible Partner
A.1	31/12/08	11/12/08	0	Organizational Set Up	CO
A.2	31/12/08	31/12/08	0	Partnership Agreement	CO
A.3	31/12/08	31/12/08	0	Monitoring and Evaluation System	CO
A.4	3/12/08	3/12/08	0	Kick-Off meeting in Brussels	CO, AB4
A.5	31/10/09	cancelled	-	2nd Meeting in Brussels	CO, AB4
A.6	11/12/08	11/12/08	0	Co-ordination Meeting I in Kavala, Greece.	CO, AB4
A.7	11/5/09	11/5/09	0	Co-ordination Meeting II in Budapest, Hungary	AB2
A.8	15/10/09	8/10/09	0	Co-ordination Meeting III in Sofia, Bulgaria	AB3
A.9	30/4/10	13/5/10	13	Co-ordination Meeting IV in Warsaw, Poland	AB1
A.10	31/5/09	31/5/09	0	1st Progress Report	CO
A.11	31/1/10	31/1/10	0	2nd Progress Report	CO
A.12	31/12/10	28/12/10	0	Final Report	CO
B.13	28/2/09	31/1/09	0	Risk Identification Report REMTH	CO
B.14	28/2/09	28/9/09	212	Risk Identification Report IEP	AB1
B.15	28/2/09	15/6/09	107	Risk Identification Report VITUKI	AB2
B.16	28/2/09	10/6/09	102	Risk Identification Report NGO	AB3
B.17	30/4/09	10/5/09	10	Organisation of East Macedonia Thrace Regional Network	CO
B.18	30/4/09	30/7/09	91	Organisation of Polish Network	AB1
B.19	30/4/09	20/5/09	20	Organisation of Hungarian Network	AB2
B.20	30/4/09	30/5/09	30	Organisation of Bulgarian Regional Network	AB3
B.21	30/4/09	15/7/09	76	Knowledge and views' assessment report	all
B.22	30/4/09	7/5/09	7	Informative Workshop REMTH	CO
B.23	30/4/09	8/7/09	69	Informative Workshop Poland	AB1
B.24	30/4/09	18/5/09	18	Informative Workshop for Hungary	AB2
B.25	30/4/09	27/5/09	27	Informative Workshop for Bulgaria	AB3
C.26	31/7/09	31/12/09	153	Module 1	AB4
C.27	31/8/09	31/12/09	122	Module 2	AB4
C.28	30/9/09	31/12/09	92	Module 3	AB4
D.29	30/11/09	7/6/10	189	Training of Stakeholders in Greece	CO, AB4
D.30	30/11/09	16/3/10	106	Training of Stakeholders in Poland	AB1
D.31	30/11/09	18/8/10	261	Training of Stakeholders in Hungary	AB2
D.32	30/11/09	9/9/10	283	Training of Stakeholders in Bulgaria	AB3
D.33	28/2/10	30/4/10	61	Provision and installation of early warning and alarm system in REMTH	CO

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D.34	31/3/10	2/7/10	93	Full scale exercise in REMTH	CO
D.35	30/4/10	31/7/10	92	Evaluation results of existing emergency response structures	all
E.36	30/6/10	31/8/10	62	Actions Plan by REMTH	CO
E.37	30/6/10	31/8/10	62	Actions Plan by IEP	AB1
E.38	30/6/10	31/8/10	62	Actions Plan by VITUKI	AB2
E.39	30/6/10	31/8/10	62	Actions Plan by NGO	AB3
E.40	31/7/10	31/7/10	0	Reorganisation of Greek Network	CO
E.41	31/7/10	31/7/10	0	Reorganisation of Hungarian Network	AB1
E.42	31/7/10	31/7/10	0	Reorganisation of Polish Network	AB2
E.43	31/7/10	31/7/10	0	Reorganisation of Bulgarian Network	AB3
E.44	31/7/10	31/8/10	31	Institution of the European support cluster	all
F.45	31/12/08	31/12/08	0	Communication and Dissemination Handbook	CO
F.46	31/12/08	31/12/08	0	Project Website	CO
F.47	31/7/09	31/7/09	0	1st website update	CO
F.48	28/2/10	28/2/10	0	2nd website update	CO
F.49	30/9/10	30/9/10	0	3rd website update	CO
F.50	30/4/09	30/4/09	0	Leaflet	all
F.51	30/4/09	28/7/09	89	Newsletter 1	CO
F.52	30/10/09	23/11/09	24	Newsletter 2	CO
F.53	30/4/10	15/6/10	46	Newsletter 3	CO
F.54	30/9/10	30/9/10	0	Newsletter 4	CO
F.56	31/7/10	30/9/10	61	Managerial summaray	CO
F.57	30/9/10	15/9/10	0	Booklet of the project achievemens	CO
F.58	30/9/10	24/9/10	0	Final Conference	CO

CIVILARCH EVALUATION TABLE

Ref.	Performance Indicator	Realisation	Rating	Gravity	Evaluation
1,1	Project elaboration according to schedule	1	3	1,00	3,00
1,2	Project elaboration according to budget	1	5	1,00	5,00
1,3	Project elaboration according to objectives	1	5	1,00	5,00
1,4	Functionality of Monitoring and Evaluation System	1	4	0,70	2,80
1,5	Applicability of CIVILARCH Website	1	5	1,00	5,00
1,6	Outcomes of Coordination Meetings	1	5	1,00	5,00
1,7	Validity and Completeness of Project Reports	1	4	1,00	4,00
2,1	Completeness of Risk Identification Reports	1	3	0,70	2,10
2,2	Adequacy of Regional Networks	1	4	0,80	3,20
2,3	Adequacy and Attendance of Informative Workshops	1	5	0,80	4,00
2,4	Outputs of Transnational Cooperation	1	5	1,00	5,00
3,1	Applicability of Module 1	1	5	0,80	4,00
3,2	Applicability of Module 2	1	5	0,80	4,00
3,3	Applicability of Module 3	1	5	0,80	4,00
4,1	Adequacy and Attendance of Training Seminars	1	4	0,80	3,20
4,2	Performance of Early Warning and Alarm System	1	5	0,80	4,00
4,3	Outputs of Contingency Drill	1	5	0,80	4,00
5,1	Usefulness of Action Plans	1	5	0,60	3,00
5,2	Adequacy of Reorganised Regional Networks	1	5	0,60	3,00
5,4	Sustainability of the European Support Cluster	1	4	1,00	4,00
6,1	Adequacy of Communication and Dissemination Strategies	1	5	1,00	5,00
6,2	Sufficiency of Informative Actions at Regional Level	1	5	1,00	5,00
6,3	Sufficiency of Informative Actions at European Level	1	5	1,00	5,00

Overall 92,30

Explanations

1. The Realisation value, varies between 0 and 1, 0 in case of no realisation and 1 in case of full realisation, go between values are acceptable.
2. The Rating value, varies between 5 for excellent performance and 1 for poor performance, go between values 2,3,4 complete the scale.
3. The Gravity value has been pre-set according to the significance of each performance indicator.
4. Realisation and Rating values are set by the River - Shield Project Manager and the Evaluation Grades are automatically calculated.
5. Overall grade between 76 and 100 is for good performance, between 51 and 75 for acceptable, 26 and 50 for poor, 0 and 25 for unacceptable.