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Integrating CBA in the Development of Standards for Flood Protection & Safety

Capitalisation Plan

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CHAPTER 1

EXECUTIVE SUMMARY

The main goal of the current Capitalisation Plan is to serve as an on-going, concise work plan for setting out the main capitalisation aspects of the FLOOD CBA 2 project and to establish suitable actions to make FLOOD CBA 2 a successful and sustainable project.

Generally, it is based on the communication and capitalisation strategy elaborated by the FLOOD CBA 2 consortium adopting the most appropriate dissemination and capitalisation tools and channels elaborated so far in order to exploit the results achieved during the project implementation.

The current document serves as an agenda for future opportunities and possibilities for increasing the targeted stakeholders' awareness towards the results of the project. The FLOOD CBA 2 capitalisation strategy focuses on the following objectives:

- to promote the project's contents, developments and results;
- to look for cooperation with decision making bodies and organizations, identifying specific channels for dissemination and follow up activities;
- to expand the stakeholders' network interested in exploiting FLOOD CBA 2 results, thus encouraging interactions and synergies;
- to successfully transfer the results to appropriate decision-makers to achieve their sustainable promotion and support;
- to harmonize the capitalisation activities of the partners for a more efficient and effective communication. To coordinate all levels and types of capitalisation of the knowledge produced by the project;
- to plan specific capitalisation activities after the project lifetime.

The Capitalisation Plan indicates:

- Stakeholders' targeted groups
- Types of dissemination and capitalisation activities;
- Means/Instruments that will be used;
- Calendar of capitalisation activities.

The document also identifies the exploitable results of the project in terms of products, experiences and European cooperation and describes the strategy to exploit these products at European, national and regional levels. The Capitalisation Plan addresses both mainstreaming and multiplication initiatives. The mainstreaming initiatives will take advantage of the participation of the project's partners to existing networks and links to decision makers, public authorities and the academic community, while the multiplication initiatives exploit the established FLOOD CBA 2 Information Exchange Network (IEN). The monitoring of the Capitalisation activities will follow an approach similar to the monitoring of the main FLOOD CBA 2 activities.

The main axes around which the project's dissemination and capitalisation activities have been designed and revolved are as follows:

- Close collaboration with related EU projects in order to support their dissemination activities and voice their results;
- Engagement of experts to support the various project activities;
- Publication of the FLOOD CBA 2 results and strong online presence by implementing the dissemination and capitalisation roadmap as prescribed in the project's Communication and Dissemination Handbook.

The FLOOD CBA 2 consortium is aware that the project's evolution may present changes in the course and enactment of some of the aforementioned activities. Dissemination channels not yet foreseen may come into being and may demand capitalisation, while some activities deemed promising at present may in the future be found to be ineffective. The consortium will adhere to the aforementioned principles in its further pursuit of the broadest array of dissemination and capitalisation activities possible to achieve its goals.

CHAPTER 2

CAPITALISATION STRATEGY

The Capitalisation strategy of the FLOOD CBA 2 project has been built on i) the direct involvement of stakeholders and end users' representatives in the project consortium ii) on the partners' well established networks in the participating countries and beyond, as well as iii) on a set of outcomes that have been produced for this purpose. The FLOOD CBA 2 network itself is structured on an enlargement and sustainability strategy, supporting the effects of impact during and after the funding period.

Within the current document the Capitalisation Strategy has been developed, identifying and describing the exploitable outcomes, the potential users (target groups), the activities, the instruments and the channels via which the project results will be exploited, including the consortium's strategy to achieve stable frameworks of cooperation throughout the life-cycle of the project as well as the continuing use of FLOOD CBA 2 outcomes after the official project termination.

The implementation of the FLOOD CBA 2 capitalisation strategy by the project consortium is a five step process:

- Step 1 Defining a clear expression of the project's aims and objectives
- Step 2 Identification of the target audience
- Step 3 Identification of the FLOOD CBA 2 products to be capitalised
- Step 4 Establishment of Capitalisation instruments
- Step 5 Description of Capitalisation channels

2.1 Step 1: FLOOD CBA 2 Aims and Objectives

FLOOD CBA#2 main target was to integrate Cost-Benefit Analysis into the decision making process for selecting the appropriate and most efficient flood protection standards in flood prone areas. The proposed project succeeded to:

- a) Facilitate the collection, assessment and the exchange of information amongst stakeholders (i.e. responsible authorities, technical services and scientific community);
- b) Provide overview and detail on existing standards applied for flood protection and safety and the methodologies which are implemented for the justification of the related investments;
- c) Exploit the results of the successfully completed FLOOD CBA project to develop a state of the art guidance as well as necessary data sources and support structures for the appraisal of flood defence standards and tracking of the most resilient investments;
- d) Validate the quality and applicability of the developed products through the realisation of pilot case studies in three selected areas of concern;
- e) Demonstrate the Cost-Benefit Analysis as a tool that enables the end-users to identify those flood protection standards which represent "best value for money" by being economically efficient;
- f) Strengthen the performance of the existing prevention mechanism especially in the project participating countries;

h) Promote the transnational cooperation of competent bodies all over Europe.

FLOOD CBA 2 envisaged the following ways in order to achieve the abovementioned - overarching targets:

- Creation of a Knowledge Creation & Exchange Network within the EU.
- Creation of flexible local clusters ensuring the active involvement and cooperation of target groups.
- Assessment of the baseline conditions referred to the implementation of economic appraisal methods in flood risk management.
- Establishment of a Knowledge database.
- Delivering support tools on the implementation of CBA economic assessments methodologies.
- Increasing the awareness and capacity of competent stakeholders.
- Validating the applicability of the developed knowledge platform and the effectiveness of its communication lines.
- Collaborating with the results of other projects in the area of concern.
- Delivering of a Capitalisation Plan for the linkage of the project outputs with the implementation of the National and EU policy actions
- Favours the project results adoption: organizing specific dissemination events (website, workshops, brochures, press articles, newsletters, EU presentations);
- Promotion of the suitable use of the project outcomes: ensure the engagement of key stakeholders from the target groups; setting up the FLOOD CBA 2 Information Exchange Network; implementing project Capitalisation Plan; organizing project final conference

2.2 Step 2: Identification of FLOOD CBA 2 target groups

The overall aim of the dissemination strategy in the course of FLOOD CBA 2 was to provide the various target groups with high-quality information, ensuring maximum impact of the project during its life span and sustainable benefits after the project completion. The efficient communication plan increased the public awareness regarding the project and provided accurate and reliable information. Simplicity and consistency were essential to ensure that the target audiences understand and retain the information.

A priority contributing to the success of the project was the identification of the correct target groups addressing all the actors involved in flood risk management and communicating to them the aims, progress, results and conclusions of the project.

In the beginning of the project a specific Action under Task B "Building the stakeholders' capacity" was implemented in order to identify the key stakeholders related to flood risk management in each FLOOD CBA 2 participating country and to establish solid regional/national networks that would be operative through the whole project.

Four national/regional networks and 75 stakeholders were identified and became part of the network. These included mostly Public Administrations, such as Ministries, Agencies of Environment, Water Management authorities, Civil Protection Agencies, Emergency/Response/Preparedness Units, City Councils, Municipalities, Hydraulic and Civil Engineering Agencies, Engineering and Economics depts. of Higher Education Institutes,

Urban and Land Planning Departments, Technical Works depts. at local, regional and national level. Private sector was also represented by consultants and companies. The descriptive information gathered (e.g. level of action, competences, willingness to participate in the project or contact details) was of inestimable value to characterize stakeholders as well as to target the potential collaborators for the FLOOD CBA 2 Project. As expected, the national/regional networks were active through the whole running of the project.

Based on the outcomes of this Action and the developed network of stakeholders, the FLOOD CBA 2 capitalization activities will further address three main target groups:

- Policy Makers: National Ministries like Interior, Environment, Development, Tourism and Economy. EU central services for Civil, Environmental Protection, Marine and Coast, Industry and managing authorities of EU funds and financial instruments.
- End Users: End-User groups or Direct Beneficiaries comprise all those who will directly use the outputs of the project. They consist of the Regional or Local Authorities responsible for civil protection and emergency response, flood management, hydro technical investments, structural and non-structural measures implementation, environmental protection, tourism, land use planning, technical works and public health. Other public services like the Fire Brigade, the Police and other Emergency Response organizations and services are included in this group.
- Other stakeholders: It involves scientists and specialized environmental protection and risk management organizations and representatives from local communities, tourism and industrial companies, universities, consulting companies, equipment providers, mass media, environmental organizations and general public.

2.3 Step 3: Identification of the FLOOD CBA 2 products to be capitalised

The core deliverables of FLOOD CBA 2 project have been identified as being those results that the project partners should exploit in future activities in order to ensure their sustainability and capitalise their impact.

These core deliverables are the following:

Common Framework

A 'characterization framework' of Standards of Flood Protection and Safety in EU project countries has been produced which provides a common conceptualization and terminology. This framework will be used to achieve a better understanding of the implementation of Cost-Benefit Analysis and Multi-Criteria Analysis methodologies as applied to the appraisal of potential flood risk management interventions. The framework has been developed iteratively, taking into account features identified in the Stakeholder's Views and Needs Report and a literature review. The framework focuses on various approaches that are currently considered central to the economic appraisal of flood risk management measures.

This succinct forty-four page document contains explanations of 50 key terms and/or concepts which are considered essential to understanding and use of the methodologies. These terms/concepts are organised in a manner which proceeds from 'basic' terms/concepts to 'advanced' ones. The principal sections in the contents are as follows:

- Introductory level
- Methods of analysis

- Flood probability and related terms
- Flood protection and safety measures
- Standards of flood protection and safety
- Decision-making concepts and rules

Typologies of flood defence standards and definition and typology of safety standards together with a categorization of flood defence failure are included in the contents. The document concludes with references and website sources. Each section is illustrated and the text is liberally distributed with hyperlinks designed to make it feasible for readers to easily access further information, explanations and illustrations.

At the Introductory Level, users are introduced to the precise meaning or definition of terms including 'flood hydrograph', 'floodplain', 'risk', and 'flood risk assessment'. The Methods of Analysis section includes detailed explanations of the 'Source-Pathway-Receptor-Consequence (SPRC) Model' which underpins methods of assessing flood damages; 'Project Appraisal', 'Cost-Benefit Analysis', 'Local economic (financial) cost-benefit analysis', 'Multi-Criteria Analysis', 'Environmental Impact Analysis' and 'Uncertainty and Uncertainty Analysis'.

In the Flood Probability and related terms section, concepts including 'return period', 'exceedance probability', 'expected annual damages' and 'loss-probability curve' are explained and illustrated. In the Flood Protection and safety measures and Standards of flood protection and safety sections, concepts such as the 'Do-nothing option', 'design standard', 'freeboard' (see illustration) 'residual risk' and 'flood defence failure' receive full attention. Finally, the Decision-making concepts and rules is the most technical part of the Common Framework. It includes explanations of key concepts including 'economic efficiency', 'distributional impacts', 'taxes and transfer payments', 'incremental cost-benefit ratio', 'social time preference rate', 'discounting' and 'transparent decision-making'. This section explains and illustrates how the economically optimal standard of protection may be identified among a range of potential interventions (see illustration above) and how safety of life may be factored into decision-making.

Guidelines for Standards on Flood Protection and Safety

These Guidelines are intended to be a step-by-step "How to do it" guide to assessing the economics of flood risk management (FRM) in relation to deciding the standard of protection to be required of any intervention to reduce flood risk and the standards of safety against flooding thereby provided.

When put together with knowledge of the costs of the plans and schemes required in that risk management, the user can assess the relationship between the benefits and the cost of investment decisions. This comparison should enable the users to identify those risk management plans and schemes which maximise the economic return to their nation and therefore represent "best value for money" by being economically efficient. At the same time they can decide the standard of protection (SOP) to be provided by that intervention, which in turn determines the degree of safety against flood risk that is provided.

These Guidelines are designed to complement the guidelines produced in the previous FLOOD CBA project and report (see Appendix 3). There is no intention to repeat that material here (see Appendix 1) but concentrate on the relationship between benefit cost analysis (and the design standards of flood risk management schemes), and the safety considerations inherent in choosing a particular design standard over another. Thus whilst these guidelines offer a step-by-step guide, they are not a stand-alone document but should be consulted in conjunction with the FLOOD CBA guidelines referenced above.

These Guidelines are intended to allow appraisals of the standard of flood risk management schemes to be undertaken with the minimum of effort. One important dimension of this is judging the time and resources allocated to those parts of the benefit assessment process that are most important. This importance is gauged in three ways:

1. Concentrating on those components of total benefits which are the largest compared with the effort expended on assessing them (e.g. focusing on non-residential property where there is a mix of non-residential and residential property at risk, because non-residential damage per unit area is generally far higher than residential damages);
2. Ensuring that the data on which the benefit assessment depends is most accurate (or least inaccurate) where it has most effect on the final results (e.g. ensuring flood probability data is of the highest quality readily available).
3. Ensuring that the different standards of protection provided by different types of intervention are compared on a like-for-like basis, so that a genuine choice can be made as to which standard can be afforded and what standard of protection and safety is thus provided.

FLOOD CBA 2 Knowledge Toolkit

The Flood CBA2 Knowledge Toolkit is a structured electronic library containing over 300 documents which those wishing to undertake a CBA/MCA should find valuable. In addition to providing much new material, the Flood CBA2 Knowledge Toolkit fully combines the content of the toolkits of two closely-related preceding projects undertaken for the European Commission. These are the first Flood CBA project (2013-14) and the EcosHaz project (2015-16). The result is a fully-integrated, 'one-stop' knowledge toolkit for the economic appraisal of inland and coastal flood risk management. The toolkit includes a range of key documents (e.g. regulatory instruments, project appraisal guidance), explanations, illustrations, case studies, economic data (e.g. crop insurance values, residential and non-residential average flood damage data), calculation tools (e.g. various spreadsheets), proformas setting out the steps necessary in undertaking a CBA, training materials, video tutorials and links.

The toolkit comprises seven modules as follows:

- Standards of Flood Protection and Safety
- EU and National Regulatory Frameworks
- FRM Measures and Plans
- Economics Knowledge Base
- Tools and Data for the Implementation of Case Studies
- Training module
- Economics of oil spill accidents

The toolkit's seventh module is on innovative methods of economic appraisal of coastal oil spill accident prevention. This was included in the EcosHaz and the material contained in this module has been carried forward into the FLOOD CBA2 Knowledge Toolkit as it includes explanations of economic concepts which are applicable to CBA/MCA of flood risk management measures.

The Standards of Flood Protection and Safety module includes explanations of the meaning of 'standards' of flood protection and safety as well as the Common Framework and a number of case studies of standards. The EU and National Regulatory Frameworks module includes the EU Floods Directive of 2007 as well as other related EU Directives including the Water Framework Directive of 2000.

This module also includes a range of relevant regulatory instruments from Greece, Germany, Portugal, Spain, Romania and the UK. The FRM Measures and Plans module comprises 111 documents explaining each and every type of flood risk management measure ranging from Natural Flood Management through to Business Continuity Planning and including Flood Insurance, Flood Resilience Measures and Structural Flood Protection.

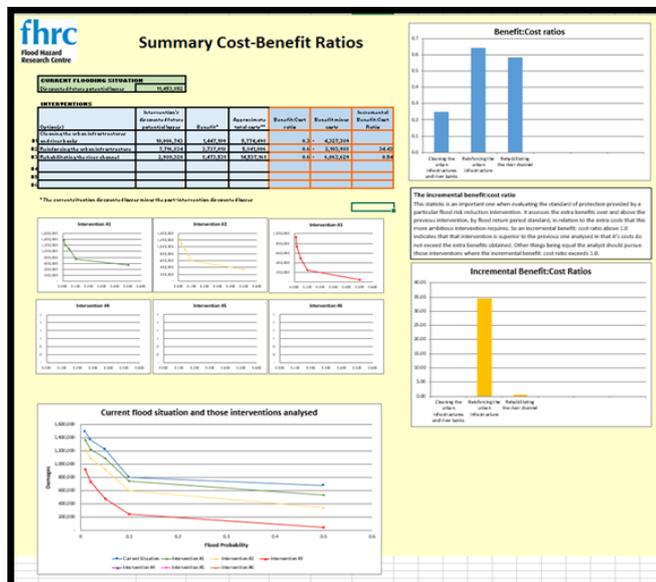
The Economics Knowledge Base builds upon the content of the first Flood CBA project by providing succinct definitions and explanations of key primarily economic analysis terms, concepts and processes. The Tools and Data for Implementation of Case Studies module contains the key 'Guidelines' document (in the four project languages) which explains the process of cost-benefit analysis as it relates to potential flood risk management interventions.

This module also includes Proformas (A to F) which set out, through 27 tasks or steps, the process of undertaking a CBA of a range of potential flood risk management interventions. These are the detailed instructions which may be followed by users. These instructions are explained by the demonstration case study of Oxford, England, and the case studies of Amadora, Portugal; Ecija, Spain and Lavara, Greece which are available in the Training Module. The Training Module includes each of these case studies, together with the other training materials used in the training programmes for local stakeholders in the four project languages: Greek, Portuguese, Spanish and English. The Tools and Data for Implementation of Case Studies module also includes several spreadsheet tools (for flooding and coastal erosion benefit calculation, and for cost-benefit analysis) which are available for users to employ.

Case Studies and Spreadsheets

After the development of the FLOOD CBA 2 Support Tools the project partners implemented a set of case studies on how to evaluate alternatives of standards based on the Cost Benefit Analysis and training on the case studies methodology and results.

One demonstration project in Oxford, UK and three pilot case studies in Lavara, Ecija and Amadora were realised by the Greek, Spanish and Portuguese partners respectively. The partners applied the Proformas introduced by the FHRC for the implementation of the Oxford demonstration Project. The Proformas (A to F) set out 27 tasks which led the partners, step by step, to the realisation of the case studies at the selected areas in their countries. The CBA calculations were facilitated via the implementation of special spreadsheets which were developed by FHRC and individualised for each case study.



The spreadsheets were one of the important items delivered in the FLOOD CBA2 project that calculate various metrics by which to judge the economic efficiency of different flood risk reduction options. In turn these options can be assessed for the different levels of flood safety that they deliver.

The spreadsheet compares the likely costs of different risk reducing interventions with the benefits they may deliver in terms of the future reduction in flood losses. Benefit : Cost ratios are calculated automatically for each intervention, and loss-probability graphs are automatically created. Incremental benefit:cost ratios show how moving from one level of intervention to a more ambitious arrangement increases costs, but can also increase benefits: these are then compared. The question posed is: can we afford the extra costs, and what do we get for them?

The results of the case studies in Oxford, Lavara, Ecija and Amadora were depicted in a common and thus comparable way in ppt form. The case studies and the related sheadsheets are available on the Knowledge Toolkit and the project website.

Training

After the completion of the project Case Studies, three training seminars were organised by the project partners. The seminars took place in Greece, Spain and Portugal. For the needs of the training sessions special training material was developed by UPO in cooperation with the FHRC.

Training Seminars focused more on the applied aspects of the methodology than the theoretical aspects that had already been presented during the project workshops. For that reason, UPO designed the Training Seminars mainly following the structure of the FLOOD-CBA#2 proformas, the results for each case study and some additional "Time-Out" presentations clarifying the major concepts of the methodology and training with the Knowledge Toolkit and the project spreadsheets. The seminars were designed to cover 8 hours of training according to the following program:

- Welcome
- Introduction - including the following Time-Out:
 - Objectives and Support Tools
- Proforma A: Collecting information regarding the study sites - Including the following Time-Out:
 - Guidelines: The detailed map showing individual properties: why we need this
- Proforma B: Collecting information about the flood risk situation in the study area - Including the following Time-Outs:
 - Common Framework: The concept of 'Return Period'
 - Property numbers and types, and population by flood return period envelope
- Proforma C: Overview of the impacts expected on the "do-nothing" scenario - Including the following Time-Outs:
 - Depth-damage data;
 - The loss probability curve;
 - Calculating future annual average damages
- Proforma D: Assessment of the future possible interventions - Including the following Time-Outs:
- Review and then short-list 3-6 likely interventions of different cost and standard of protection. Estimate whole life costs of each one
 - Types of whole life costs

- Proforma E: Assessment of the potential of a range of flood risk prevention measures and their effectiveness based on CBA - Including the following Time-Outs:
 - The Time Value of Money and Discounting
 - Incremental benefit-cost ratio explained
- Proforma F: Analysis of results and conclusions - Including the following Time-Out:
 - Identify what has been omitted, consider further analysis and draw conclusions
- Discussion about Oxford Demonstration Case Study and the rest of the project Case Studies

It should be emphasized that for each Proforma, each country presented mainly their own case study and that during the “Discussion” the rest of case studies, including the Oxford demonstration case study, were presented and compared. This way, all stakeholders knew about all other project case studies, but they worked more in depth in the case study of their own country. The Guidelines and the Knowledge Toolkit were presented during the “Introduction” as well during the different Time-Outs presented all along the Training Seminars. Trainees actively used the Knowledge Toolkit and other tools, such as the FLOOD-CBA#2 spreadsheet.

UPO was in charge of coordinating materials and developing the training packages but other partners, SIGMA and CIS.NOVA contributed to the Training Seminars. Especial mention is to be made to staff FHRC who personally travelled to each country to share their expertise to the training of the stakeholders. FHRC also prepared a series of explanatory video tutorials that are available through the project’s website. During the Training Seminars in their respective countries REDIAM, REMTH and Amadora Municipality contributed with their expertise in the development of the respective case studies.

Some 37 stakeholders had the opportunity to attend these sessions. The training material was produced in English and it was translated into all partners’ own languages (Spanish, Greek and Portuguese). All the material, translated to all the languages in the project, was uploaded onto the project’s website and is available for download in MS Power Point format.

2.4 Step 4: Establishment of Capitalisation instruments

Within the framework the FLOOD CBA 2 project a number of certain instruments has been foreseen which will operate in favour of the capitalisation activities and will contribute to the achievement of the scope of exploiting the project’s results. In this respect, the adopted instruments are as follows:

FLOOD CBA 2 Portal

The Knowledge Toolkit is advanced into a more interactive and dynamic environment, the FLOOD CBA 2 portal. The operation of the FLOOD CBA 2 portal certifies in a dual way the continuous interactive communication of project partners with existing and new stakeholders but also interactive communication among stakeholders by themselves, increasing further the project’s capitalisation potential.

The development and operation of the portal site includes the following functions:

- a) Search and Navigation function that enables users to query both structured (knowledge toolkit) and selected unstructured content (i.e. documents, proposals uploaded in the portal by other citizens) by keywords. Special attention is given to this function in order the portal users to trace not only the appropriate information they are

searching but also receive proposals for additional relevant information which may be available through the portal or in another e-link.

b) A notification function (push technology) is included in the portal function. Therefore each user is able to receive updated or reviewed information automatically on the issues he has previously determined. Thus, each user has the opportunity to subscribe to active information sources and continuously be informed. In the portal structure there is also a designated area where individuals are able to post their ideas, practices and experiences.

The FLOOD CBA 2 Portal is going to be continuously updated, disseminating high quality of information and acquired knowledge for at least five years after the end of the project.

FLOOD CBA 2 Forum

In order to continue and maintain active any emerged new contacts and collaborations, the project partners established the FLOOD CBA 2 Forum which is responsible for the provision of future coordination and technical support actions after the project conclusion. The aims of the FLOOD CBA 2 Forum are:

- the coordination on items like know how and experience exchange, research and technology transfer etc.
- the expansion of the cooperation in other geographical areas
- the entering into new joined collaborations and projects.

The founding members of the FLOOD CBA 2 Forum are the project partners as well as the members of the FLOOD CBA 2 stakeholders' IEN and the registered users of the FLOOD CBA 2 website and the Knowledge Toolkit. The Forum is led by the project's CO (SIGMA Consultants). The members of the local clusters as well as other European stakeholders are invited to join the Forum. The FLOOD CBA 2 Forum will stay active for at least five years after the project ending.

FLOOD CBA 2 Helpline Centre

A special Unit, the FLOOD CBA 2 Help Line Centre, is established on the project website. The HelpLine Centre provides support services to the questions and requests set by individuals dealing with the economic appraisal of flood risk management measures and the evaluation of standards for flood protection and safety.

The Help Line Centre will operate for a period of 5 years after the project ends. Individual users will be able to contact the Help Line Centre via the on-line communication form. The answers to the requests will be given free of charge. The requests that cannot be answered based on the contents of the Knowledge Toolkit will be forwarded to experts of the FLOOD CBA 2 IEN, who will be asked to contribute their expertise to the centre, for final answer.

FLOOD CBA 2 Publications

The consortium of the project has produced a number of publications available to the broad public either in hard copy or in electronic form on the website.

These publications include:

- Two project leaflets available in all participating countries languages
- Guidelines for the standards on flood protection and safety, available in all participating countries languages
- The FLOOD CBA 2 Booklet of achievements available in English language.

FLOOD CBA 2 Exploitation Agreement

The FLOOD CBA 2 Exploitation Agreement was set up in order to facilitate and oversee the exploitation activities of the FLOOD CBA 2 project. The Exploitation Agreement has the form of a letter of intent which will be commonly agreed and signed by the FLOOD CBA 2 partners. The context of this memorandum sets of arrangements regarding a program of future activities and initiatives for the exploitation of FLOOD CBA 2 results. These activities will be carried out by the project partners according to their institution scope, interest, resources and in full compliance with their institutional constraints.

Additionally the Exploitation Agreement will provide information regarding the maintenance of the FLOOD CBA 2 Portal and Knowledge Toolkit:

- Methods proposed to further exploit them
- Functional areas of responsibility for supplying technical and administrative data in support of the abovementioned tools
- Methods of collecting, processing, and reporting data in support of the IT tools
- Milestones in the evolution of the IT tools.

2.5 Step 5: Description of Capitalisation channels

The Capitalisation activities of the FLOOD CBA 2 project will be applied at regional/national and EU/ international level through specific communication channels.

The objective of the planned capitalisation activities will deploy on two separate axis,

1. Mainstreaming the FLOOD CBA 2 products and promote their extend use to as many as possible institutions, authorities and individuals;
2. Promoting further the development of new collaborations and eventual results having the FLOOD CBA 2 IEN and the FLOOD CBA 2 core products as a reference point.

The project partners will take advantage of their strong market position to undertake initiatives ensuring that both targets are achieved in the best possible way. The capitalisation activities are proposed for a period of 5 years after the closure of the project.

Final conference

The final conference of the project took place on the 22nd of November 2017 in Alexandroupoli at the Hotel ASTIR-EGNATIA. The event was hosted by the Region of East Macedonia and Thrace.

The project partners presented the core deliverables and results of the project at the presence of key stakeholders from the Greek information exchange network.

The event was attended by 43 people. The Booklet of the Project Achievements, leaflets as well as the FLOOD CBA 2 Guidelines were disseminated to the attendees of the event.

Participation to other events

All project partners will exploit any appearing occasion, at internal, regional, national or international level, like workshops, conferences and exhibitions, where the FLOOD CBA 2 results could be presented and the relevant publications could be disseminated.

Such indicative events in 2018, where FLOOD CBA 2 could be promoted are the following:

- The European Geographical Union [EGU] meeting in Vienna in April 2018, where a paper will be presented by the UK's FHRC team which will feature the FLOOD CBA 2 Proforma methodology
- The "Flood and Coast" Conference in Telford UK (21.2.18 to 2.3.18) where there will be an opportunity to disseminate FLOODCBA2 publicity materials and discuss the project with a range of stakeholders
- XVI Colóquio Ibérico de Geografia, November 2018
- Meetings will be held with the regional authorities of Portugal from the five main regions of mainland, North, Center, Lisbon and Tejo Valey, Alentejo and South, to present the main findings and disseminate the website and the on-line information.
- National Conference for Risks (May 2018) – presentation / paper about Floods CBA2 – Amadora Results
- 8th International Conference on Building Resilience (7-9th November 2018) – presentation / paper about Floods CBA2 – Amadora Results
- Resilient Cities in Portugal - Workshop (February 2018) – dissemination of FloodCBA2 materials
- Peer review in Disaster Risk Reduction – Amadora (18-20th April) – dissemination of FloodCBA2 materials
- Dissemination of FloodCBA2 materials at the Seminar meeting "After the catastrophe, what civil protection system?", in Lisbon in 25th of January 2018.
- Presentation of the Amadora Case Study Results to the Mayor and Deputies of the Municipality of Amadora and to the Chiefs Engineers of the Intermunicipality Services of Water and Sanitation of the Municipalities of Oeiras e Amadora in the first semester of 2018.

The FLOOD CBA 2 consortium has set a target of participating at least at 3 events during the forthcoming 5 years.

New projects and collaborations

The FLOOD CBA 2 consortium will seek to proceed with the preparation of new project proposals as an attempt to achieve the capitalisation of the FLOOD CBA 2 results through their transferability to new thematic areas and the expansion of their impact to other EU regions. A tempting initiative also concerns the further development of the created deliverables and the broadening of their contents.

The project partners may collaborate together as the original consortium but may also look for new collaborations as part of other consortiums. The targeted proposals may seek for funding either to the next DG-ECHO call for proposals or to other EU programmes, such as the Horizon 2020 - Disaster-Resilient Societies and the Erasmus+ - Knowledge Alliance priority.

An indicative example that has already been discussed within the framework of the FLOOD CBA 2 consortium concerns a project dedicated to the exploitation of the developed training material in the framework of a vocational training of flood risk managers.

Further to that, in the framework of a Resilient Societies priority a project regarding the flood risk management of critical infrastructure and the coherent cascading effects could be put together either under the Horizon 2020 programme or the new DG-ECHO call.

The target set under this capitalisation channel category is that at least one follow up project will be attempted by the FLOOD CBA 2 project partners either in the form of the original team or as beneficiaries of new consortiums with other potential partners stemming from the FLOOD CBA 2 portal.

Synergies with other networks

The FLOOD CBA 2 network will join other existing EU clusters in the course of new collaborations and funding opportunities.

FLOOD CBA 2 has already linked FLOOD CBA 2 project to CO-EVOLVE Med project.

CO-EVOLVE (Promoting the co-evolution of human activities and natural systems for the development of sustainable coastal and maritime tourism) is an on-going EU MED project. CO-EVOLVE aims at analysing and promoting the co-evolution of human activities and natural systems in touristic coastal areas, allowing sustainable development of touristic activities based on the principles of ICZM/MSP. CO-EVOLVE couples a presently unavailable analysis at MED scale of threats and enabling factors for sustainable tourism with local studies on representative Pilot Areas, to demonstrate through pilot actions the feasibility and effectiveness of an ICZM/MSP-based planning process.

FLOOD CBA 2 will also join the European Network for Transfer and Exploitation of EU Project Results "E.N.T.E.R." which is Europe's largest network for transfer and exploitation of project results,

<http://www.enter-network.eu/> that provides a number of benefits in terms of

- Partners' search for potential collaboration
- Sharing ideas and developments in the members' news section

- Promoting activities in the events calendar
- Disseminating any EU funded project with the Email Alert System targeted to members who are interested in the same target groups and sectors of activities
- Participating in dissemination conferences organised by the network
- Publishing articles about the projects in the European Magazine “Focus Europe”
- Collecting documentation of dissemination activities
- Receiving information on selected calls for proposals and events in the network newsletter
- Keep up to date with information from the European Commission, different departments and funding programmes in the EU News section

Within the next five years the FLOOD CBA 2 network will attempt to join at least one more Cluster of other relevant EU funded project/ projects.

Engaging new stakeholders

Based on the outcomes of the training seminars and the final conference, the project partners will revise the structure of the FLOOD CBA 2 Information Exchange Network as it was initially established. As a follow up activity, the project consortium will try to engage new stakeholders and motivate them to become active members of the FLOOD CBA 2 portal. The FLOOD CBA 2 Forum will foster any new collaboration under the umbrella of the FLOOD CBA 2 capitalisation activities. An indicative list of the new targeted authorities/ organisations that may become members of the project Network is presented below:

- Representatives from the private sector such as engineering and consulting companies
- The Technical Chamber of Greece
- The Region of Central Macedonia / Directorates of Technical Works, Environment and Spatial Planning
- The Decentralised Administration of Macedonia and Thrace/ Water Directorate
- Engineering depts. and Economics depts. of Higher Education Institutes
- The General Directorate of Water. Sub-directorate of Public Hydraulic Domain. Spanish Ministry of Agriculture, Water and Environment
- The General Directorate of Planning and Management of the Public Hydraulic Domain. Andalusian Ministry of Land Planning and Environment

The FLOOD CBA 2 consortium sets a target of raising the current number of the FLOOD CBA 2 Network members by 15%.

Training Activities

The majority of the FLOOD CBA 2 consortium consists of academic institutions. The members of the project's working group are active lecturers who may have the possibility to integrate part of the developed FLOOD CBA 2

training material into their lectures or organise special lectures on the FLOOD CBA 2 training material. The Middlesex University (UK), the University of Pablo de Olavide, Spain and CICS.NOVA of the University of Nova de Lisboa, Portugal, will investigate the potential to exploit the Training Material and its contents into existing and new courses.

Social Media

The Social Media, such as LinkedIn, FACEBOOK and Youtube can provide an opportunity of wide visibility of FLOOD CBA 2 results to the broad public. A Youtube channel was created by UPO where the tutorials of FLOOD CBA 2 were uploaded. This channel will be maintained and linked to the project website.

Website

The FLOOD CBA 2 project website, www.floodcba2.eu, was launched (in English) in the beginning of the project containing information on aspects like: project description, objectives and outputs, deliverables, partners' profile, contact details, announcement of meetings, workshops, seminars and conferences, deliverables, photos, links to other relevant projects, contact details, etc. The FLOOD CBA 2 Knowledge Toolkit are also linked to the website. The website also hosts the link to the FLOOD CBA 2 Help Line Centre. The users can register themselves in order to become members of the FLOOD CBA 2 Network thus having the opportunity to:

- have direct access to the contents of the FLOOD CBA 2 Knowledge Toolkit together with the possibility to add comments and provide themselves knowledge on the FLOOD CBA 2 Toolkit
- receive the project's existing and future e-Newsletters
- be informed about project's future events and new collaborations.

15.663 visits were realized during the life of the project, 2016– 2017 and **5.291 unique visitors** were counted.

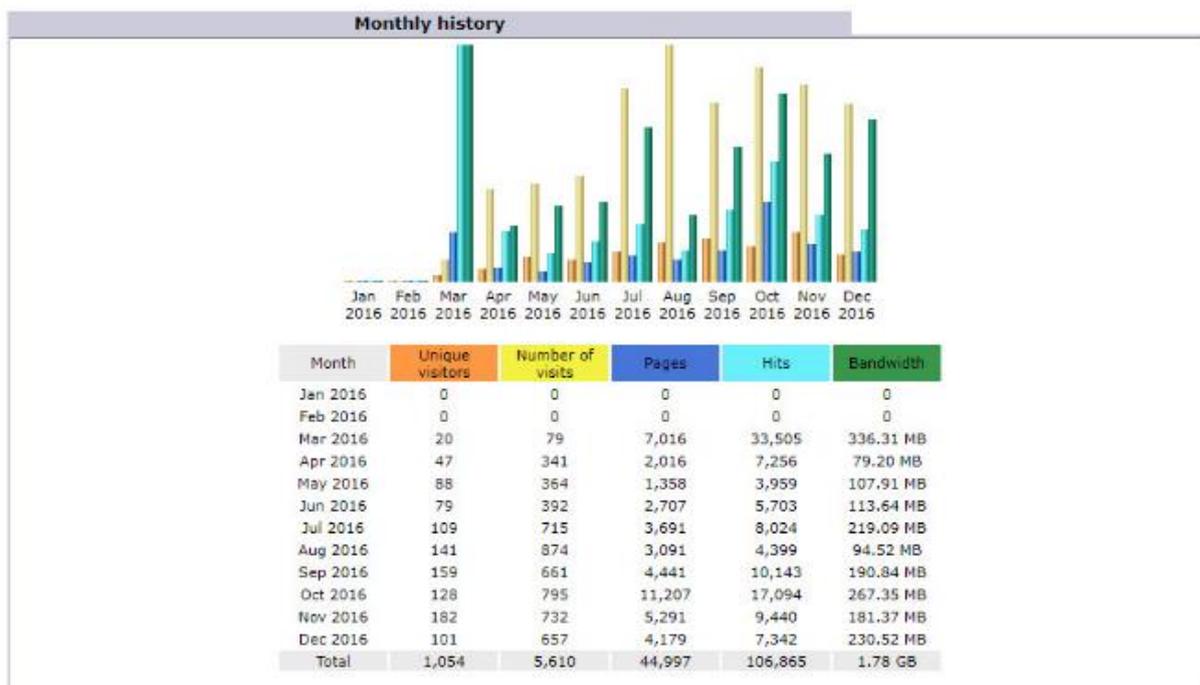
Last Update: 11 Dec 2017 - 14:18 [Update now](#)

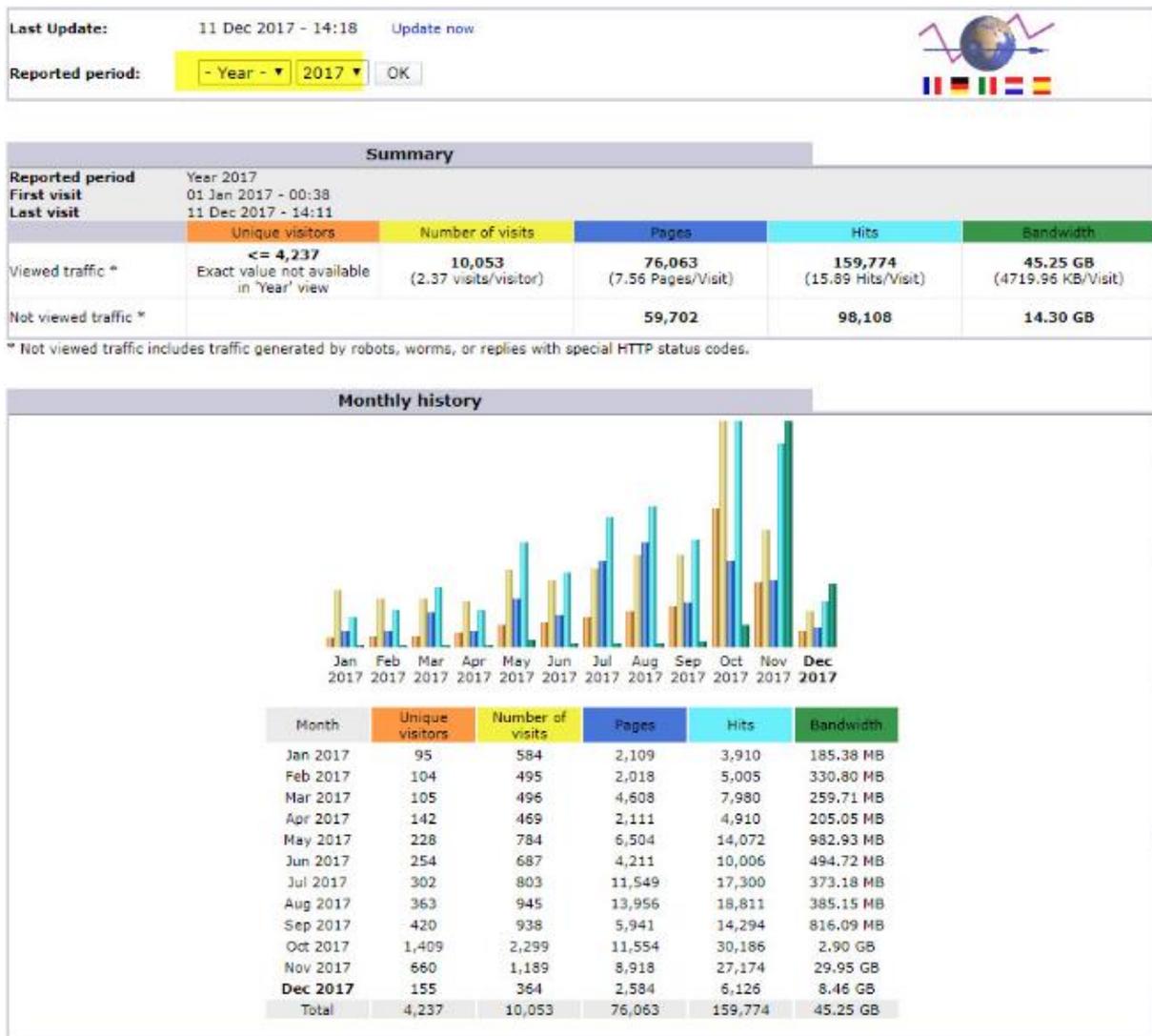
Reported period: - Year - 2016 OK



Summary					
Reported period	Year 2016				
First visit	16 Mar 2016 - 07:44				
Last visit	31 Dec 2016 - 22:41				
	Unique visitors	Number of visits	Pages	Hits	Bandwidth
Viewed traffic *	<= 1,054 Exact value not available in 'Year' view	5,610 (5.32 visits/visitor)	44,997 (8.02 Pages/Visit)	106,865 (19.04 Hits/Visit)	1.78 GB (332.34 KB/Visit)
Not viewed traffic **			15,797	29,976	1.27 GB

* Not viewed traffic includes traffic generated by robots, worms, or replies with special HTTP status codes.





The website was maintained up-to-date in the course of the project and will stay active for 5 years after its completion by the CO - SIGMA Consultants.

Articles and press releases

All FLOOD CBA 2 partners will prepare at least one new article concerning the results and potential future activities of the project. This article may be published at the local or national press, in the partners' organisations circulations, on the partners' websites, on on-line magazines, etc.

Additionally any further dissemination activity, such as presentations in relevant events, will be announced with respective press releases.

In the UK FHRC maintains an annually updated website named MCM Online (<https://www.mcm-online.co.uk/>) on cost-benefit analysis in the flood and coastal risk management area. This website has the support of the UK's Environment Agency and Defra and is fundamental to a network of both public and private sector agency users including international consulting engineering companies. There is also a free-to-access section of this website which may be used by members of the public. FHRC plans to publicise the products of the FloodCBA2 project,

including the Knowledge Toolkit via this website which will serve to spread knowledge and to promote the FloodCBA2 outputs.

Final report and Layman's report

At the end of the project a final report will be prepared by the CO with the contribution of all project partners and submitted to the EC/Civil Protection Unit. As soon as the final report is approved by the funding authority it will be disseminated to a number of selected EU directorates and organizations, such as the following:

- DG Environment
- EU Working Group for Floods
- EU Climate Change Programme

The FLOOD CBA 2 final report will be received by all organizations listed above.

A layman's report, in English language, containing the project's initiatives and achievements has been edited by the consortium, and will be sent to the EC and then be published on the project's website.

CHAPTER 3

SETTING UP A MONITORING AND EVALUATION SYSTEM

All activities of FLOOD CBA 2 project are subject to monitoring and evaluation as part of the on-going quality control and management. The principal purpose of this process in the case of Capitalisation activities is to assess the impact of the project on targeted stakeholders in order to determine effectiveness and future sustainability.

The objective of the monitoring of the capitalisation performance is to ensure that the project achieves the goals defined in the Capitalisation Plan. The monitoring of the performance of the capitalisation activities will follow the model described in the project's Quality Management Handbook. A table will be set up containing the list and description of capitalisation activities, the responsible partner, the quantity or quality target, indicative timetable, and emerging results.

The CO (SIGMA Consultants) will undertake this task, however the contribution with input by all partners in tracking the progress of the capitalisation activities is required.

CHAPTER 4

SUSTAINABILITY OF CAPITALISATION ACTIVITIES

Once the FLOOD CBA 2 project funding period expires, the FLOOD CBA 2 consortium will enter a period of self-sustainability for the coordination, realisation and monitoring of the capitalisation activities.

Financial self-sustainability and viability of the FLOOD CBA 2 longevity and operability must necessarily involve the identification of potential sources of revenue. The following Table is indicative of the potential costs required for the sustainability and further development of the FLOOD CBA 2 project.

Activities - Products	Essential Costs
FLOOD CBA 2 Portal	Administrational and Staff Costs Infrastructural and running costs for maintenance, updating, web hosting
Operation of FLOOD CBA 2 Web site	Administrational and Staff Costs
Further enrichment of FLOOD CBA 2 Knowledge Toolkit	Administrational and Staff Costs Subcontracting experts/ mentors
Development and maintenance of profiles in social media	Administrational and Staff Costs
Events and Conferences	Administrational and Staff Costs Travel and accommodation costs Participation fees Cost of exhibition stand / pavilions Presenter/s remunerated or not
Networking activities	Administrational and Staff costs costs
Training activities	Administrational and Staff costs costs
Publications	Administrational and Staff Costs Subcontracting of experts Printing Costs Publication fees
Articles and press releases	Administrational and Staff Costs Publication fees



There is a general willingness of all FLOOD CBA 2 partners to exploit the project outcomes and proceed with the abovementioned capitalisation activities. However, it is a fact that the capitalisation and further development of the project's results require additional investments. Taking into consideration the short time left till the end of the project's funding period, the consortium will have to examine thoroughly the sustainability perspectives and propose realistic pathways from a financial point of view. Until today, the partners' active involvement in the project and their individual intentions, demonstrate a strong engagement to exploit the project's results to support their own activities.

In this sustainability concept, CO will propose to the EU, through the DG ECHO Civil Protection Unit, whether the FLOOD CBA 2 Knowledge Toolkit could be sustained on an EU server and by providing the FLOOD CBA 2 consortium with a certain link. CO will proceed with this proposal after the completion and submission of the project's final report.

Additionally, DG ECHO could contribute to the results' further promotion by hosting dissemination events where the outcomes of completed civil protection projects are presented and by covering all necessary travelling and accommodation costs of the participants.

Other pathways that the consortium may follow in order to ensure necessary resources for the realisation of the capitalisation activities are further funding opportunities either via the Civil Protection Financial Instrument, or other European funds as mentioned previously. Other on-going projects joined by the FLOOD CBA 2 consortium members as project partners, may be exploited in favour of the dissemination and networking activities that are included in the FLOOD CBA 2 capitalisation plan.

A final option that could lead to another short of financial sources could be the commercialisation of the training services, that the FLOOD CBA 2 partners could provide upon request. The training services might concern either:

- ✓ The development of new country specific training material
- ✓ Training lectures from the members of the FLOOD CBA 2 Forum.

In both cases a reference to the FLOOD CBA 2 sources will be made.

ANNEX

Exploitation Agreement

I, the undersigned, having regard:

- The FLOOD CBA 2 project proposal as approved by the DG - ECHO of the European Union (Grant Agreement nr. ECHO/SUB/2015/713849/PREV32)
- The FLOOD CBA 2 Capitalization Plan (Action E.4) as agreed by the FLOOD CBA 2 Working Group

Hereby, I attest that the [Official Name of the partner organisation], hereinafter the “organisation”, which I represent is willing to contribute to the following activities which comprise the Capitalisation Activities of the FLOOD CBA 2 project that aim at exploiting the core deliverables of the FLOOD CBA 2 project, as presented in the Capitalisation Plan), in the future and ensuring their sustainability and capitalising their impact.

1. *Continuous update of the contents and the structure of the FLOOD CBA 2 Knowledge Toolkit for at least five years after the completion of the project on December 31, 2017, with new material such as training material, articles, case studies, guidelines, relevant projects, etc.*
SIGMA Consultants as the project coordinator will be responsible for upgrading the Knowledge Toolkit to a Knowledge Portal by realising the set of operations as these are described in the Capitalisation Plan.
2. *Future participation to various events at internal, regional, national or international level, like workshops, conferences and exhibitions, where the FLOOD CBA 2 results could be presented and the relevant publications could be disseminated. In the course of 2018, the organisation will seek to promote FLOOD CBA 2 results to at least one event either at national or international level.*
3. *Preparation of new project proposals as an attempt to achieve the capitalisation of the FLOOD CBA 2 results through their transferability to new thematic areas and the expansion of their impact to other EU regions. A tempting initiative also concerns the further development of the created deliverables and the broadening of their contents. The project partners may collaborate together as the original consortium but may also look for new collaborations as part of other consortiums. The targeted proposals may seek for funding either to the next DG-ECHO call or to other EU programmes such as the ERASMUS+ or the HORIZON 2020. At least one new project proposal, as a follow up of the FLOOD CBA 2 project, will be prepares and submitted for funding in 2018.*
4. *Establishing synergies with other networks. The FLOOD CBA 2 network will join other existing EU clusters and related Networks in the course of new collaborations and funding opportunities. Within the next five years the FLOOD CBA 2 Information Exchange Network will attempt to join at least one more Cluster and/or Network of other relevant EU funded project/ projects.*
5. *Engaging new stakeholders. As a follow up activity, the project consortium will try to engage new stakeholders and motivate them to become active members of the FLOOD CBA 2 Network. The FLOOD CBA 2 Forum will foster any new collaboration under the umbrella of the FLOOD CBA 2 capitalisation activities. The FLOOD CBA 2 consortium sets a target of raising the current number of the FLOOD CBA 2 Network members by 15%.*
6. *Realisation of Training Activities. The academic institutions of the FLOOD CBA 2 consortium will exploit any occasion in order to integrate part of the developed FLOOD CBA 2 training material into their lectures with regard to flood hazards management.*

7. Maintenance of the FLOOD CBA 2 Website for at least five year after the closure of the project as part of the FLOOD CBA 2 Portal. The capitalisation activities and results will be published on the website. SIGMA Consultants as the project coordinator will be responsible for the maintenance of the website. All partners will maintain the links to FLOOD CBA 2.eu on the websites of their organizations and on the websites of joining clusters as long as FLOOD CBA 2.eu stays active.
8. Preparation of articles and press releases. Each partner organisation will prepare at least one article concerning the results and potential future activities of the project. This article may be published at the local or national press, in the partners' organisations circulations, on the partners' websites, on on-line magazines, etc. Additionally any further dissemination activity, such as presentations in relevant events, will be announced with respective press releases.
9. Final report and Layman's report. At the end of the project a final report will be prepared by the CO – SIGMA Consultants with the contribution of all project partners and submitted to the EC/Civil Protection Unit. As soon as the final report is approved by the funding authority it will be disseminated to a number of selected EU directorates and organizations, such as the following: The DG Environment and the EU Working Group for Floods

This Exploitation Agreement enters into force after the completion of the FLOOD CBA 2 project and shall stay active for the forthcoming five years.

Place and Date

Signature and Name of organisation representative

Function of representative