

# Flood Risk Analysis and Management

## Achieving Benefits from Research

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FLOODsite IP



**FLOODsite**

18 May 2006

GOCE-CT-2004-505420

## Types of benefit

- **Robust and defensible policy**
- **Improved public safety**
  - Reduction of risk
  - Mitigation of residual risks
- **More reliable methods**
- **Better use of expenditure**
  - On research
  - On operation and maintenance
  - On design and construction
- **Examples from FLOODsite and CRUE**

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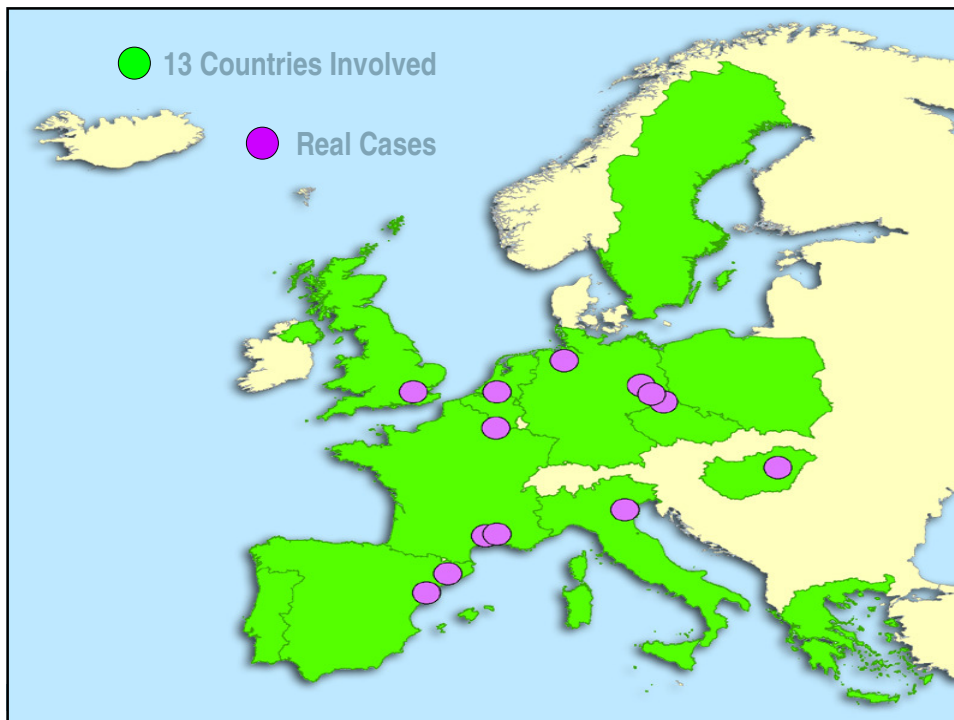
## Why have the FLOODsite IP?



- **Flood damages are increasing**
  - Insurance data
  - UK Foresight project
  - Flood risk arises from human activity
- **Floods appear to be happening more often**
  - Better publicity or climate change?
- **Floods do not respect administrative or national borders**
- **Public intolerance to flooding from whatever source**

## FLOODsite Overview

- **EC grant to budget of €9.68 Million**
- **Complemented by other funds**
- **Start date 1 March 2004**
- **Duration of 5 years**
- **35 "Tasks"**
- **36 Partners**
- **Over 150 research team members**
- **13 Countries (BE, CZ, DE, ES, FR, GR, HU, IT, NL, PL, PT, SE, UK)**



## Project Vision

- **Our research will improve the management of flood risks in the EU and more broadly.**
- **FLOODsite will benefit the citizens of Europe, by reducing flood risks and improving resilience in the face of floods.**
- **The partners will work together to implement the research results in practice.**
- **The team will produce peer-reviewed scientific publications from their research**

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## Risk Analysis Model

**Source:**

Rainfall, river flow, storm surge, snowmelt

**Pathway:**

Bank failure, flood plain flow, sewer surcharging

**Receptor:**

Property, people, possessions, environment

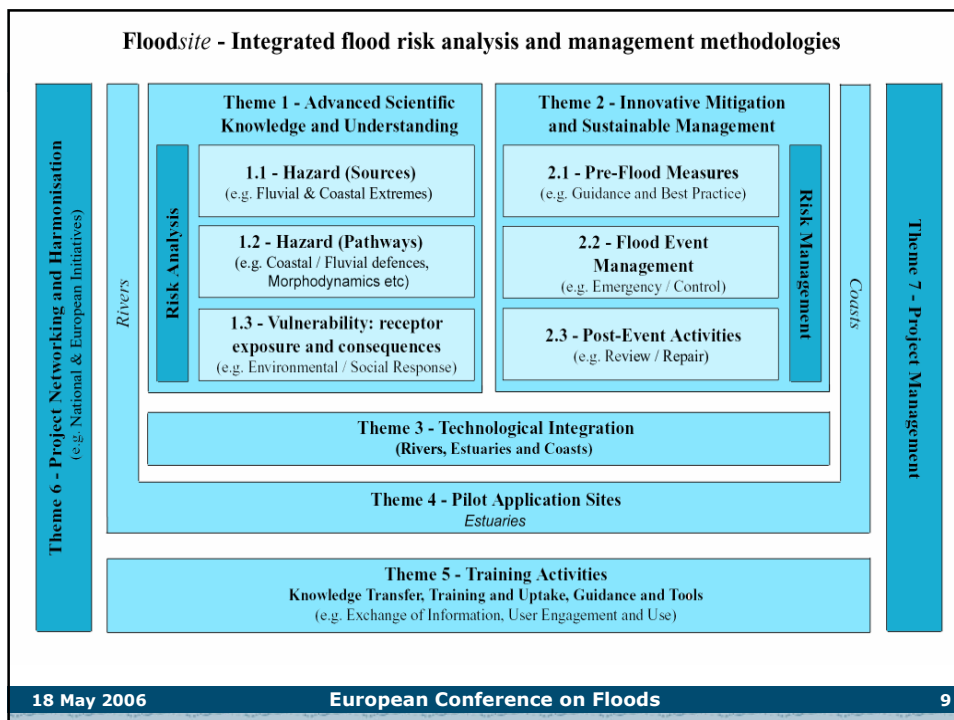
**Consequence:**

Damages, distress, disease, death, degradation

## Research for Risk Management

- **Pre-flood activities**
  - Learning from past events
  - Identifying sustainable mitigation measures
  - Flood risk management as a process
- **Flood event management**
  - Flash flood forecasting
  - Evacuation planning
- **Post flood recovery and regeneration**
  - No specific research tasks » pre-next-flood!





**Current Status**

- **Month 27 of the project**
- **All research tasks underway**
- **Some tasks nearing completion**
- **10 deliverables achieved at Month 24**
- **First results being published in scientific literature and conferences**

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## Floods Directive:

### Preliminary flood risk assessment (Art. 4-6)

- **Likelihood of future floods (Tasks 1 and 2)**
- **Consequences of floods (Tasks 9 to 11)**
- **Also Tasks 4, 6 and 7 look at the security of flood defences**



## Floods Directive:

### Flood risk maps (Art. 7 & 8)

- **Flood hazard mapping guidelines (Task 3)**
- **Flood probability (Tasks 1 & 2)**
  - Also Tasks 4, 6 and 7 look at the security of flood defences
  - Task 20 considers uncertainty
- **Projected depths and velocity (Task 8)**
- **Bank erosion (Task 5)**
- **Potential damages (Tasks 9 to 11)**



## **Floods Directive: Flood risk management plans (Art.9 to 12)**

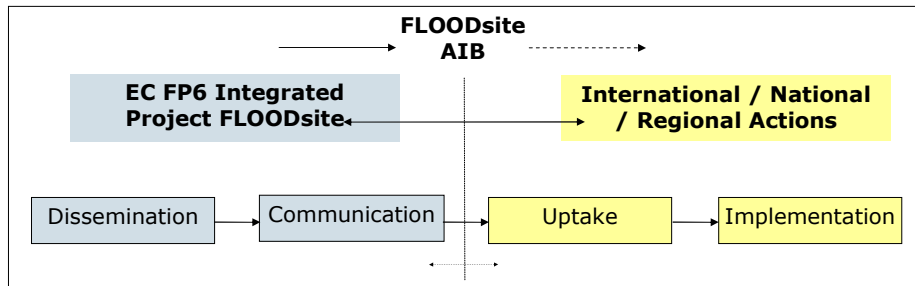
- **The flood risk management cycle (Tasks 12 to 14)**
- **Preparedness (Tasks 11, 16, 17 & 19)**
- **Spatial planning and land use (Tasks 12 – 14 & 18)**
- **International rivers (Tasks 21, 22, 23 & 25)**

## **Steps to Implementation (1)**

- **Dissemination**
  - Papers and reports
- **Communication**
  - Inter-personal contact
- **Uptake**
  - Incorporate new methods into projects
- **Implementation**
  - Change in working practice and procedures



## Steps to Implementation (2)



## Engaging stakeholders

- **Project Boards**
  - Application and implementation advisory board
  - Scientific and technical advisory board
  - Project board
- **National support**
  - Create expectation of output
  - Benefits planning
- **Dialogue with EU stakeholder group**



## Background to ERA-NET CRUE

- **ERA-NET**
  - European Research Area Network
- **CRUE**
  - **C**oordination de la **R**echerche sur la gestion des inondations, financée dans l'**U**nion **E**uropéenne
- **An FP6 'Co-ordination Action'**
  - for the FUNDERS of flood research (Govt bodies, agencies, etc)
- **10 Countries involved**

## Planned benefits of CRUE

- **Harmonisation and mutual opening of national and regional research programmes in FRM research**
- **Support to the implementation of national and European policies on flood risk management**
- **Support to the development of integrated flood risk management for transnational river basins**
- **Identification of priority research issues**
- **A more efficient use of resources on flood research in the ERA**



## CRUE Workpackages

Workpackage	Title	WP Leader
WP1	Network management	England
WP2	Comparison of national research programmes	Austria
WP3	Good practice on programme management	Germany
WP4	Dissemination methods for research results	Austria
WP 5	Opportunities and gaps in research	Netherlands
WP6	Pilot common calls for research	Germany
WP7	European research agenda for flood risk mitigation	England
WP8	Network development	England

## Common Call

- **Six Partners involved**
- **Call Published late 2005**
  - Common text on [www.crue-eranet.net](http://www.crue-eranet.net)
  - National text by all funders
- **Closed 2 March 2006**
- **Evaluation in progress**
- **Research Topic**
  - "Risk assessment and risk management: effectiveness and efficiency of non-structural flood risk management measures"

## Current position for CRUE

- **Database prepared on national programmes and projects**
- **Common call raised many issues to resolve**
  - Concentrate on themes of common interest
  - Obstacles of language (e.g. "risk")
  - Differences of approach to funding and procurement
- **Starting work on good practice guides**

## Conclusions on FLOODsite

- **Supports move from flood defence to flood risk management as the policy**
- **Contributing knowledge and techniques relevant to implementing the proposed Directive**
- **Does not implement research findings in practice, this is a separate activity**
- **Commitment to the dissemination and communication of FLOODsite results.**

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## Conclusions

- **Topics of common interest can be addressed collaboratively as in CRUE**
  - Avoid duplication
  - Shares knowledge
- **Uptake and implementation is essential to derive full benefit from the research**
- **Needs effective dialogue and engagement with the users of the research knowledge**
  - Plan from the early stages of the project

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FLOODsite: Integrated Flood Risk Analysis and Management Methodologies - Microsoft Internet Explorer provided by HRW - Default

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Integrated Flood Risk Analysis and Management Methodologies

**For more information see:**  
[www.floodsite.net](http://www.floodsite.net)  
[www.crue-eranet.net](http://www.crue-eranet.net)



- MEDIA BRIEFING, BRUSSELS, MAY 2004
- PROJECT LAUNCH WORKSHOP, BRUSSELS, JULY 2004
- DELFT PROJECT WORKSHOP, FEB 2005
- SELECTED YEAR 1 DELIVERABLES
- THE FLOODSITE PROJECT
- PROJECT WEBSITE

Contract Number: GOCE-CT-2004-505420

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