

Welcome



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7th International Conference on Hydroinformatics

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AIMS AND FUNCTIONS OF THE nofdp IDSS

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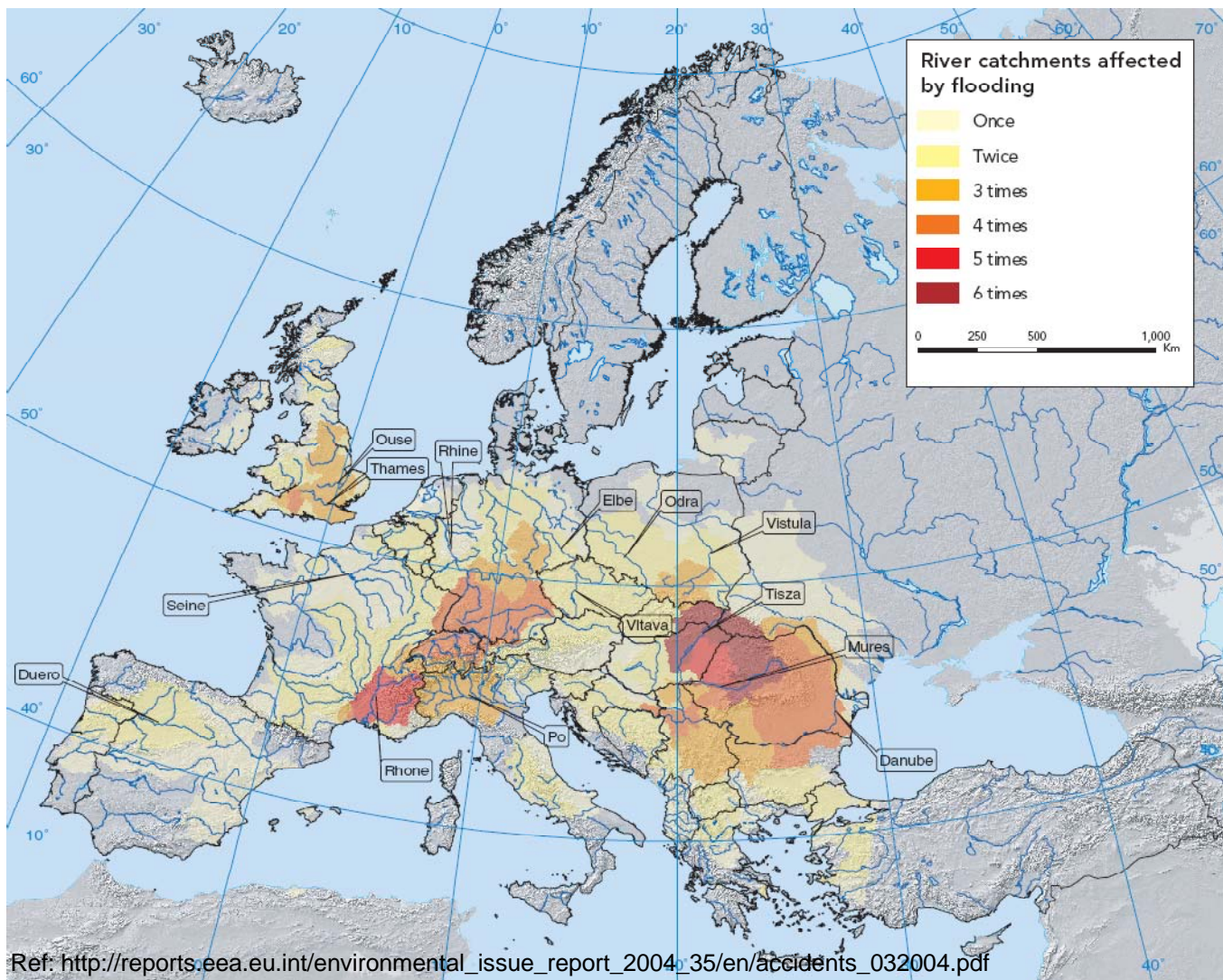


Introduction

The background



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1998-2002

100 Floods

6.5 Mill. People
affected

500.000 homeless

25 bn EUR damage

700 casualties

Ref: http://reports.eea.eu.int/environmental_issue_report_2004_35/en/accidents_032004.pdf



Structure of the Presentation

- Overview of the nofdp project
- Objective of nofdp
- IDSS functions & interfaces
- IDSS concept
- Conclusion and Outlook

Introduction

Partners



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INTERREG IIB Programme

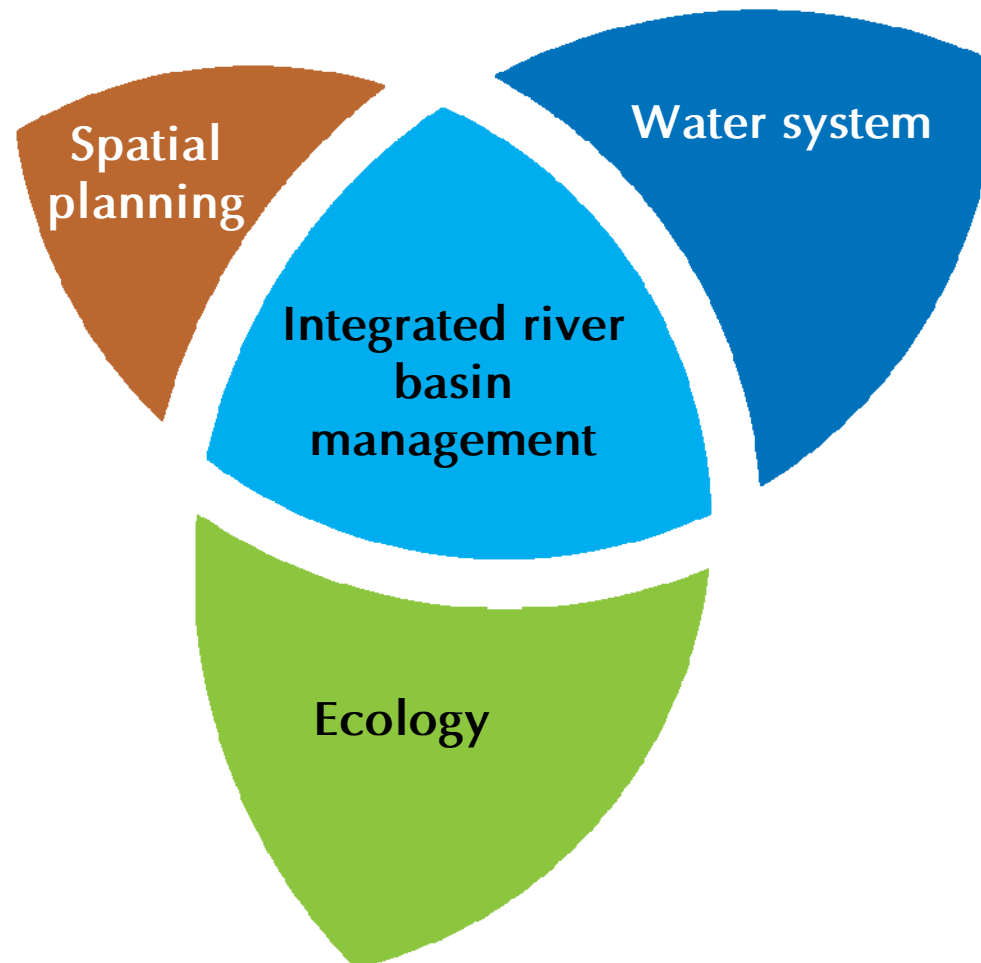
8 Partners

April 2004 – Aug. 2008

50 % ERDF funding



nature-oriented flood damage prevention



The overall objective of the project is to:

develop a computer based decision support system

that provides the information required,
as well as suitable models and methods

**to demonstrate the expected function
of flood prevention measures / projects**

on different scales, in an integrated temporal and spatial context.

Requirements

- Applicable for any small to medium catchment in NW-European territory
- Free of charge
- Transparent planning process
- Not make decisions, but deliver information
- Discussion platform
- Easy to guidance
- Different kinds of flood prevention measures

IDSS functions

Flood damage prevention measures

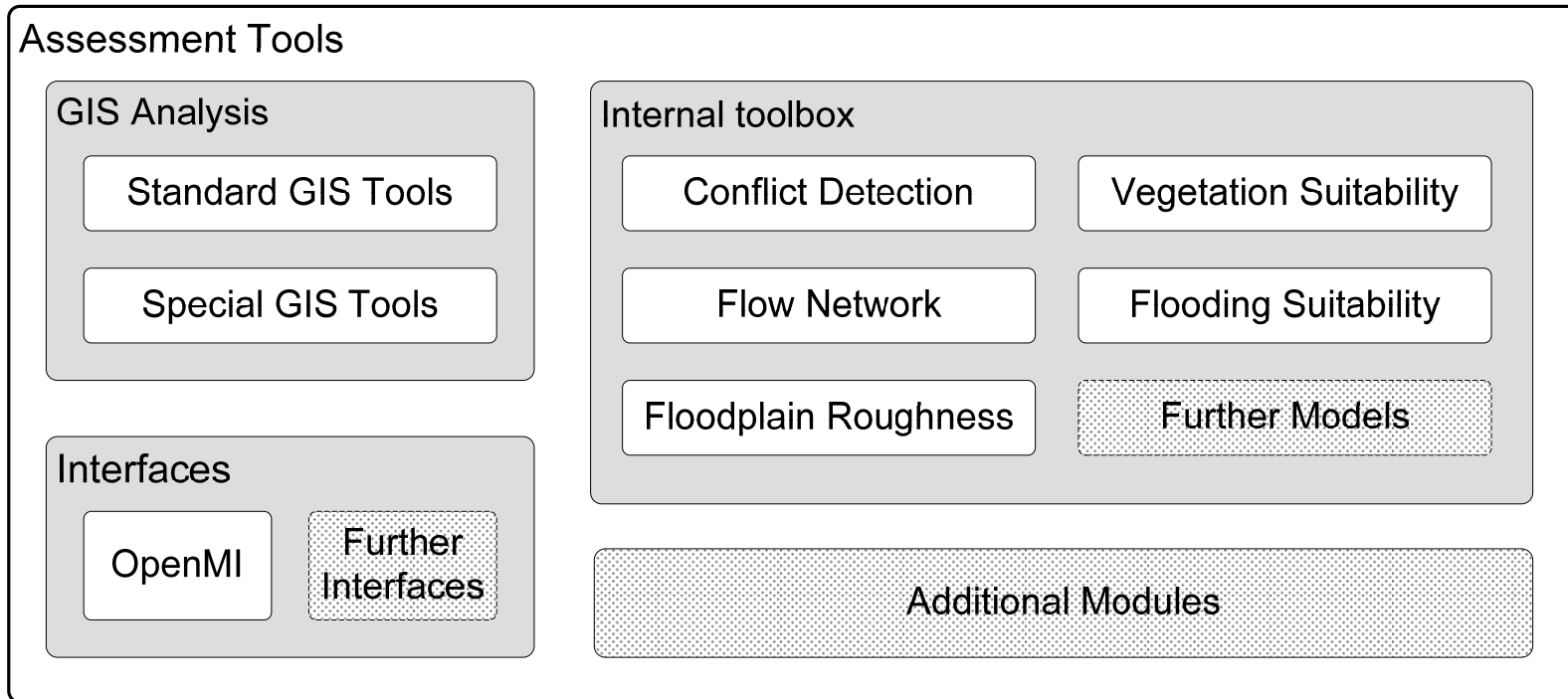


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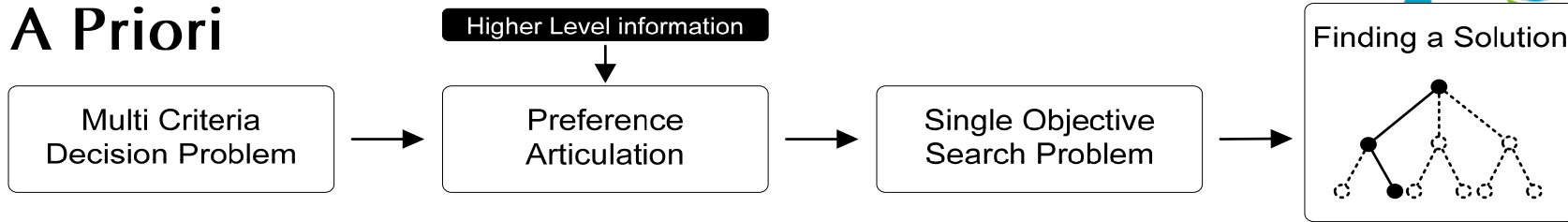
Category	Sub-category	Measure
Constructive Measures	Flood retention	Polder
		Retarding basin (controlled and uncontrolled)
		Excavation works within floodplains
		Lowering floodplains
	Hydraulic conveyance capacity	Bank recession and -fill up
		Change of bottom slope or level
		Obstacles and line-structures on floodplains
		Diversion flood discharge
		Weirs
	Activation of retention area	Relocation of dykes
		Earth walls in the valley
	Flood protection	Construction of dykes, increasing dyke height
		Mobile walls for local flood protection
Measures of nature conservancy and spatial planning	Flood retention	Ecological flooding of floodplains and polders
	Hydraulic conveyance capacity	Establishment of buffer strips with free vegetation succession on river banks
		Meandering of river course (controlled and uncontrolled)
	Activation of retention area	Adapted forest management
		Forest development on floodplains (controlled and uncontrolled)
		Adapted cultivation on floodplains
		Zoning plan modifications
	Flood protection	Urban land use planning -precautionary measures against flood damage



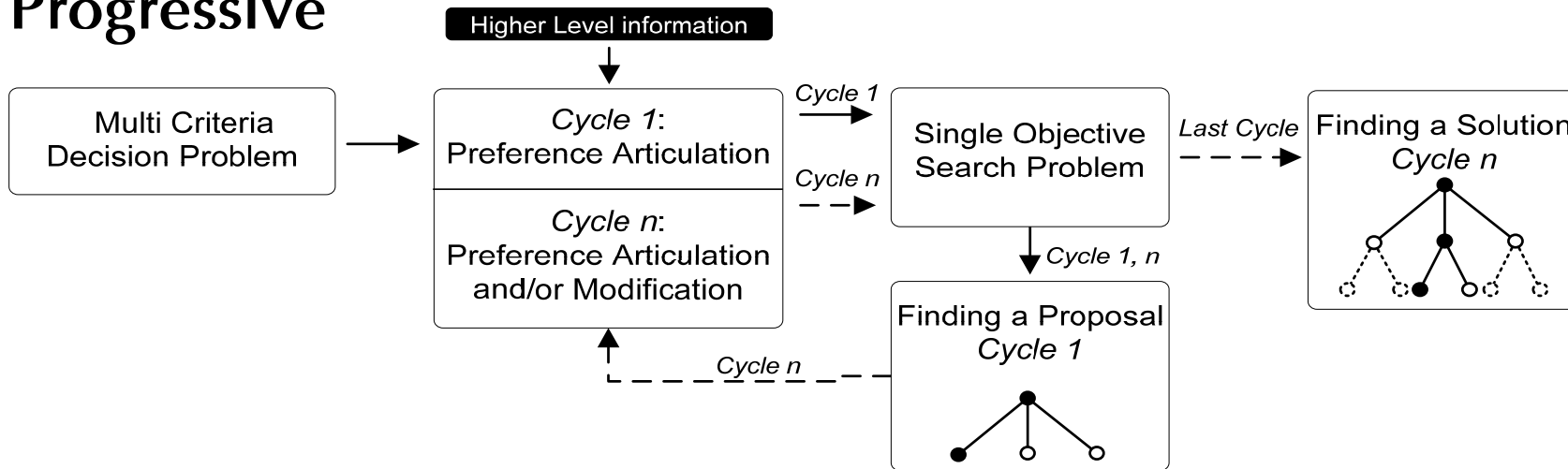


Based on the Kalypso Enterprise Core

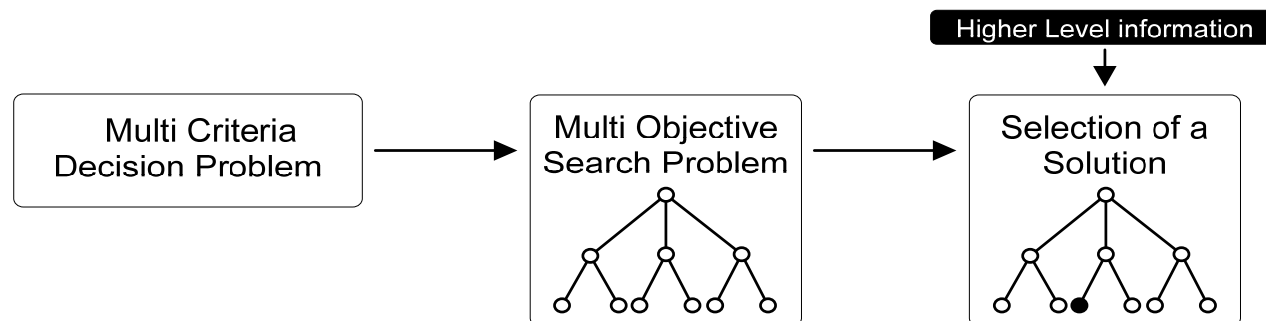
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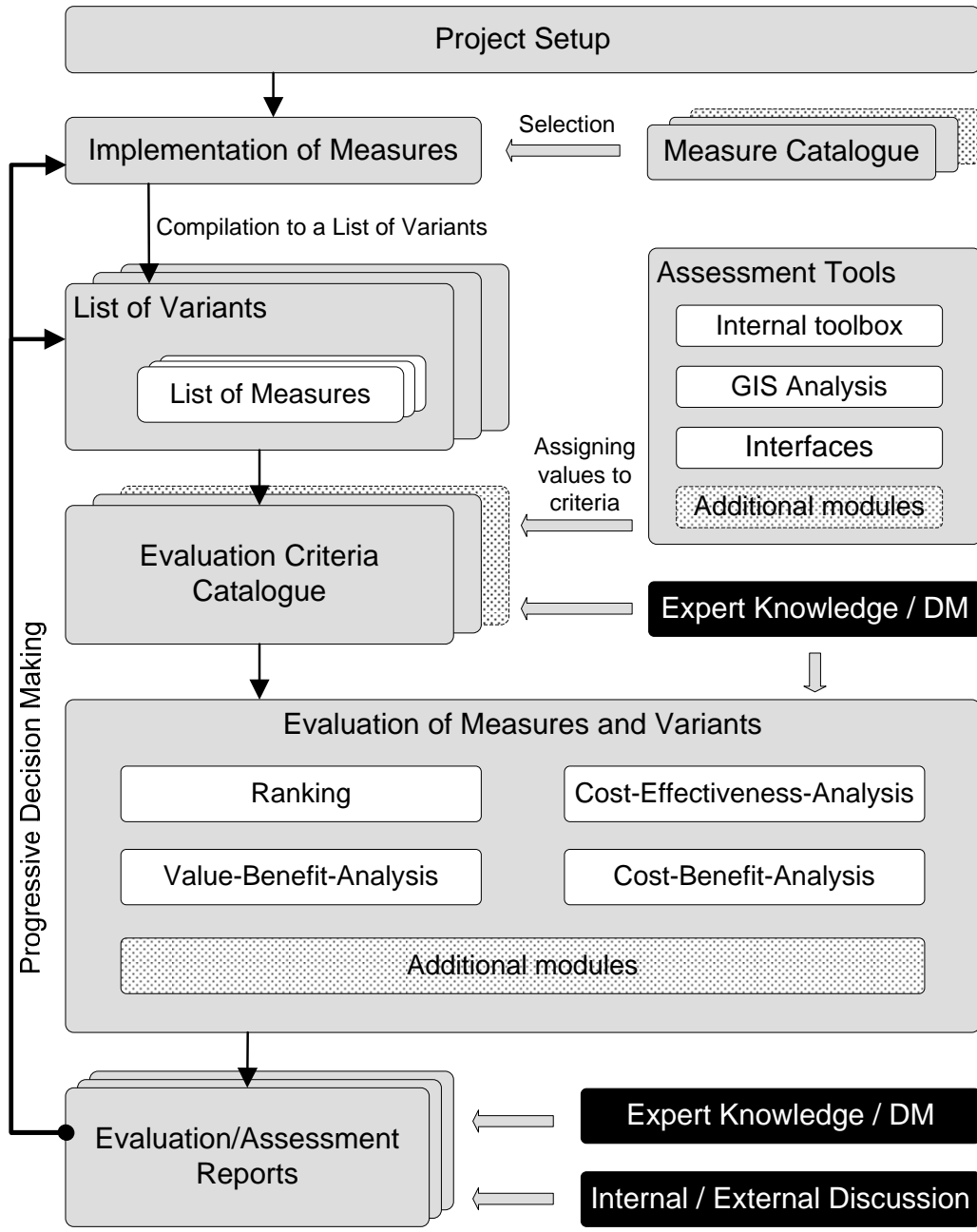
Progressive

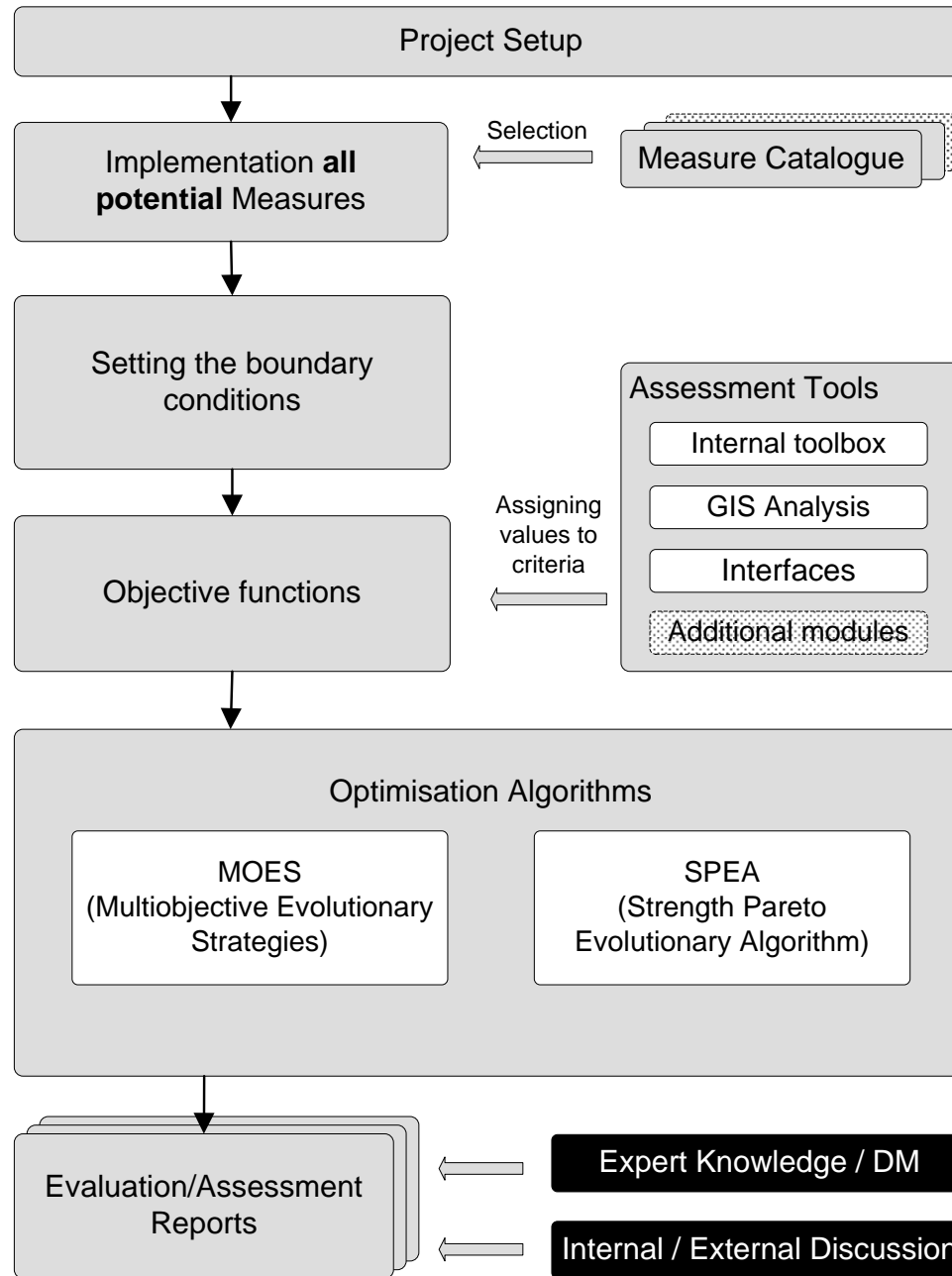
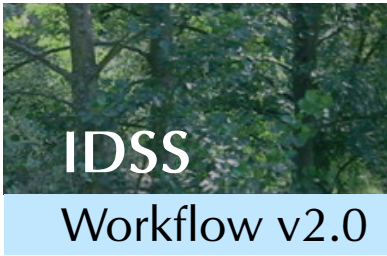


A Posteriori



Ref: Deb K., Van Veldhuizen D. A., Muschalla D.





Implementation:





Ref: BCE Bjoersen / Inform DSS

The IDSS is designed to enable to:

- address possible conflicts caused by a certain measure or strategy
- provide a general information base, regarding the impact of measures
- provide an system, that can be used for discussions
- provide tools for flood damage prevention measure assessment

The used data und functionality are mostly determined by the particularities of one catchment.

- The nofdp IDSS is transferable to other catchments.
- Modular structure provides the flexibility to enhance the system.
- Existing and therefore validated models can be incorporated into the decision process.
- It will be open source and free of charge.

Outlook

- Is prepared to use A Posteriori Decision Making
- Optimisation of flood damage prevention measures

Fin



*Thank you very much
for your attention!*

www.nofdp.net