

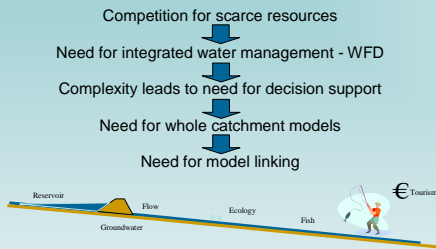


Bringing the OpenMI to life

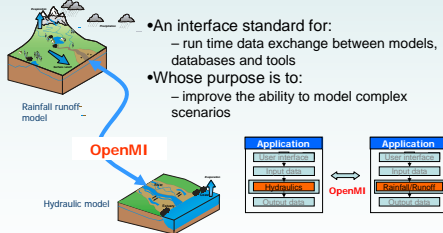


Background

Project Drivers



What is the OpenMI?



Current Status of the OpenMI

- Version 1.0 released and documented for .net and Java
- Available under 'Open Source' licence on Source Forge
- For next three years:
 - Funded through the OpenMI-LIFE project (2006-2009)
 - Developed and maintained by the OpenMI Association

OpenMI Compliant Models

Organisation	Models
Delft Hydraulics Software	Sobek Channel Flow, Delft3D and DelftFEWS
PCRaster	PCRaster
Alterra	Capri, FSSIM, Apes, MetaSwap and Simgro
RIZA	Sobek-RE, Mozart, NwSim, Agricom, DemNat and DistrConnector
Waterloo Hydrologic Institute	Visual Modflow
WRc Plc	STOAT
DHI Software	Mike11, Mike-She, Mike Basin and Mike Urban
Wallingford Software	Infoworks RS and Infoworks CS
HR Wallingford	Sulis(3D)
CEH Wallingford	CLASSIC

OpenMI – LIFE Project

Objectives of OpenMI-LIFE

- Transform the Open Modelling Interface and Environment from a **research output** to an **operational supported standard**
- **Build Capacity**
- **Demonstrate and evaluate**
 - The use of the OpenMI in integrated water management/modelling
 - The Scheldt (Belgium)
 - The Pinios (Greece)
 - The support organisation (The OpenMI Association)
- **Disseminate Information**

Deliverables

- Training
- Demonstrations
 - **Use cases**
 - **Models migrated to the OpenMI**
 - OpenMI evaluation reports
- Support
 - **OpenMI Association**
 - **New releases of the OpenMI**
 - Support evaluation report
- Dissemination
 - Best practice manual
 - Papers and Journals (6)
 - Press articles (8)
 - Conference presentations (6)
 - OpenMI-Life web site (multi-lingual)
 - Workshops(5)
 - Associate with existing newsletters (3)
 - Posters (4) and Leaflets (4, multi-lingual)
 - Layman's report
- Reports to the Commission

Consortium

NERC	Natural Environment Research Council	UK
DHI	DHI - Water and Environment	DK
WL Delft	Stichting Waterloopkundig Laboratorium	NL
WSL	Wallingford Software Ltd	UK
NTUA	National Technical University of Athens	GR
UTH	University of Thessaly	GR
Aquafin	Aquafin NV	BE
IVA-VMM	Intern Verzelfstandigd Agentschap Vlaamse Milieumaatschappij	BE
FH	Flanders Hydraulic Research	BE
IVA-VMM-AWA	Intern Verzelfstandigd Agentschap Vlaamse Milieumaatschappij - afdeling Water	BE
ULG	CEME Environmental Modelling Centre	BE
RIKZ	National Institute for Coastal and Marine Management	NL

Acknowledgements:

This project has been made possible with the contribution of the LIFE financial instrument of the European Community.

Demonstrations

Demonstration of the OpenMI in the Scheldt

The **Use cases** will show the use of the OpenMI in studies of the effects of:

- **sewer effluents from the city of Leuven on flood risk on the river Dije**
 - links a sewer model to a river model
- **dredging on flood risk in the upper Dije**
 - links a non-tidal river model of the river Dije to a tidal river model of the river Dije, part of the Zeeschelde model
- **flow regulation on water quality and the impact of water quality during flooding**
 - links river flow models of the river Dije to a river quality model of the river Dije, part of the Scheldt basin model
- **tides on upstreams flood risk**
 - links a tidal river model of the river Zeeschelde to an estuary model of the river Westerschelde

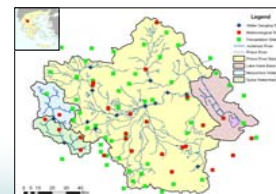


Use case: Flood risk from sewer effluents on the river Dije

Demonstration of the OpenMI in the Pinios

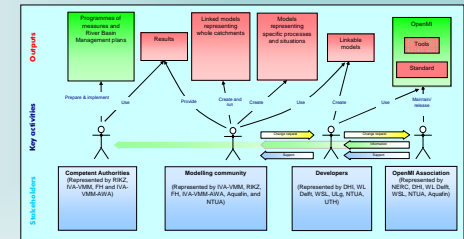
The **Use cases** will show the use of the OpenMI in studies of the effects of:

- **The restoration of the Lake Karla wetlands without increasing flood risk**
 - links a water balance model (UBC), a groundwater model (UTHGW), a water management model (WMEA) and a water balance model for a lake (LWB) to understand the hydrological and ecological response to different strategies
- **The impacts of climate change in the production of primary hydroelectric power**
 - links a water basin model of monthly time step to a reservoir water balance model
- **The effect of dispersion and diffusion on sewage effluent from Larissa as it passes down a tributary of Pinios River**
 - Links of a sewer and a river flow model



Use Case: The restoration of the Lake Karla wetlands without increasing flood risk

Demonstration of the OpenMI Support Organisation



Interactions of the OpenMI users with the OpenMI association

The objectives of the OpenMI Association

- A mechanism for developer and user participation
- Maintains and develops the OpenMI Standard and Environment
- Disseminates information

Capacity Building and Dissemination

The OpenMI-LIFE project will build capacity in the use of the OpenMI among developers, modellers and the competent authorities as presented in the project.

It will also hold a variety of public seminars, workshops and conferences to disseminate information about the OpenMI across the world but especially in Europe.

Further Information

OpenMI Documents Series

- Scope and Organisation
- Guidelines
- Standard Specification
- Backbone Technical Documentation
- Development Support Technical Documentation
- Utilities Technical Documentation

These documents can be found at:

www.openmi.org

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