



Co-funded  
by European Union  
*eContentplus*

# Project overview

Antonio Di Natale  
Acquario di Genova

## AQUARING

Accessible and Qualified Use of Available Digital Resources about Aquatic World In National Gatherings



# Partnership

## Coordination

Acquario di Genova - Costa edutainment S.p.A. (IT)

## Content Providers and Scientific Experts

Acquario di Genova - Costa edutainment S.p.A. (IT)

Nausicaa - French National Sea Centre (FR)

Royal Belgian Institute of Natural Science (B)

Rotterdam Zoo (NL)

Lithuanian Sea Museum (LT)

## IT Partners

Softeco Sismat SpA (IT)

Robotiker Tecnalía (ES)

## Evaluation

University of Genoa, Department of Anthropological Sciences (DISA) (IT)

## Awareness and dissemination

ECSITE, European Network of Science Centres and Museums (B)



## Rationale

- **To develop a European portal to access new digital contents on marine and freshwater systems science and culture**
- **To improve access and use of digital multidisciplinary contents available in many European organisations, either public or private, which were not available for the public**
- **To provide value added services to citizens, schools, scientists, media, museums, children**



# Aggregation of digital contents on aquatic science and culture

## Sources

### Natural history museums - Aquaria, Zoos

## Aqua topics



- Water-related climate problems
- Ecosystems
- Biodiversity
- Biology of aquatic organisms
- Animal kingdom
- Animal behaviour
- Vegetal kingdom
- Aquatic food resources
- Regional management of aquatic
- Environments & development



- Hydrological cycle
- Water and Society
- Education
- Aquatic research
- Information
- History & Navigation
- Fishery
- Water use
- Water quality
- Aquatic pollution





# AquaRing approach

Media  
Museums and  
Aquaria operators



Citizens, Visitors,  
Schools, Teachers,  
Children

Information  
Education  
Entertainment

Value added services  
- High quality contents  
- Scientific Collection data



**AQUARING** web portal

Unified semantic classification and indexing

**Direct visit !**

**Pre Visit**  
• Visit planning  
• Information material  
• Tourist information  
**Post visit**  
• Educational effectiveness evaluation  
• Additional material  
• Educational support

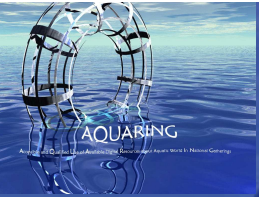
Museums and Aquaria





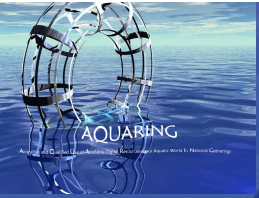
# Project objectives

- **To add value to individual collections** of the participating science centres and external providers and encourage the development of a global view of the European heritage in the domain
- **To allow visitors to explore a virtual global knowledge space**
- **To combine specific investigations and learning routes across the digital resources of different centres**
- **To support improved education and informal learning experiences, for both individual learners and groups**
- **To increase communications to and awareness of the public at large on aquatic environment conservation and sustainable management of aquatic resources**
- **To strengthen the cultural and scientific offer of participating centres and the capability of offering combined experiences to their visitors**
- **To deliver value added services to media producers and other business uses**



## Services provided

- **Semantic-based content search and navigation supported by domain ontologies and according to visitor's profile**
- **Educational paths planning with the strong involvement of project scientific partners with different specialisations**
- **Interaction with the content infrastructure to provide feedback on the user experience**
- **Provision of value-added services for content (re)use**



# Ways to address the objectives

- ❑ Investigate and define suitable common data and meta-data models and suitable common copyright policies
- ❑ Domain's semantic descriptions (ontologies) to enable content integration and development of the global digital data space on aquatic heritage
- ❑ Design and set up an open semantic web based infrastructure, with an associate set of e-services
- ❑ Web portal to access a distributed content database.
- ❑ Multilingual content base management tools:
  - multilingual metadata model and ontology
  - multiple language user interface
  - multilingual content navigation and search
- ❑ Definition and provision of value added services to business users (i.e.: media producers, journalists, etc.)

The project takes advantage of the fact that the project consortium includes the **main organisations in this field at EU level** with significant mass of public at large (about 30,000,000 visitors per year), also thanks to the ECSITE's network



# Workpackages



WP1  
Project & Financial Management



WP2  
Digital Collections & User Needs

WP3  
Meta-Data & Semantic Resources



WP4  
Enabling Infrastructure & Services



WP5  
Global Content Space Set-up and Validation



WP6  
Assessment & Evaluation



WP7  
Awareness & Dissemination



# General work plan

Duration: 30 months

