# EMMON

## EMbedded MONitoring

**ARTEMIS**

## EXECUTIVE *summary*

EMMON's objective is to research and deploy 10,000 to 100,000 wireless sensors in a network, that will perform continuous monitoring and situation analysis, targeted at specific scenarios (water pipelines, civil protection, etc.).

## RELEVANCE CALL *2008 objectives*

EMMON is relevant to ARTEMIS JU Industrial priorities 3.1.2 Seamless connectivity and middleware (researching WSN cross domain connectivity, middleware services and communication capabilities) and 3.1.1 Reference designs and architectures (architectural scalability and dependability, ensuring secure, reliable and timely system services in large scale WSN deployments).

## MARKET *innovation*

EMMON will tackle the challenge of using thousands of embedded networking devices in large-scale distributed application scenarios by covering the technology chain from operating system to middleware and from protocols to system integration in a large geographical area. The potential market impact is to enable different robust and reliable environmental monitoring applications at lower cost and higher performance, providing unprecedented situation analysis and awareness, data and information, to help decision makers, organisations and authorities to reduce and optimise costs as well as provide better services to citizens.

## TECHNICAL *innovation*

The EMbedded MONitoring (EMMON) project aims to deploy a large scale Wireless Sensor Network, composed of 10,000 to 100,000 nodes, monitoring an area of 50 square km, thus advancing by far the largest WSN deployments realised so far. The network will be used to monitor a real infrastructure, in a real-life situation (i.e. water pipelines, urban quality of life, forest and marine environments or civil protection, among others).

The identification of the infrastructure to monitor and the corresponding scenarios will be made with the close participation of end-users, driving the focus of the project towards a specific real-life scenario.
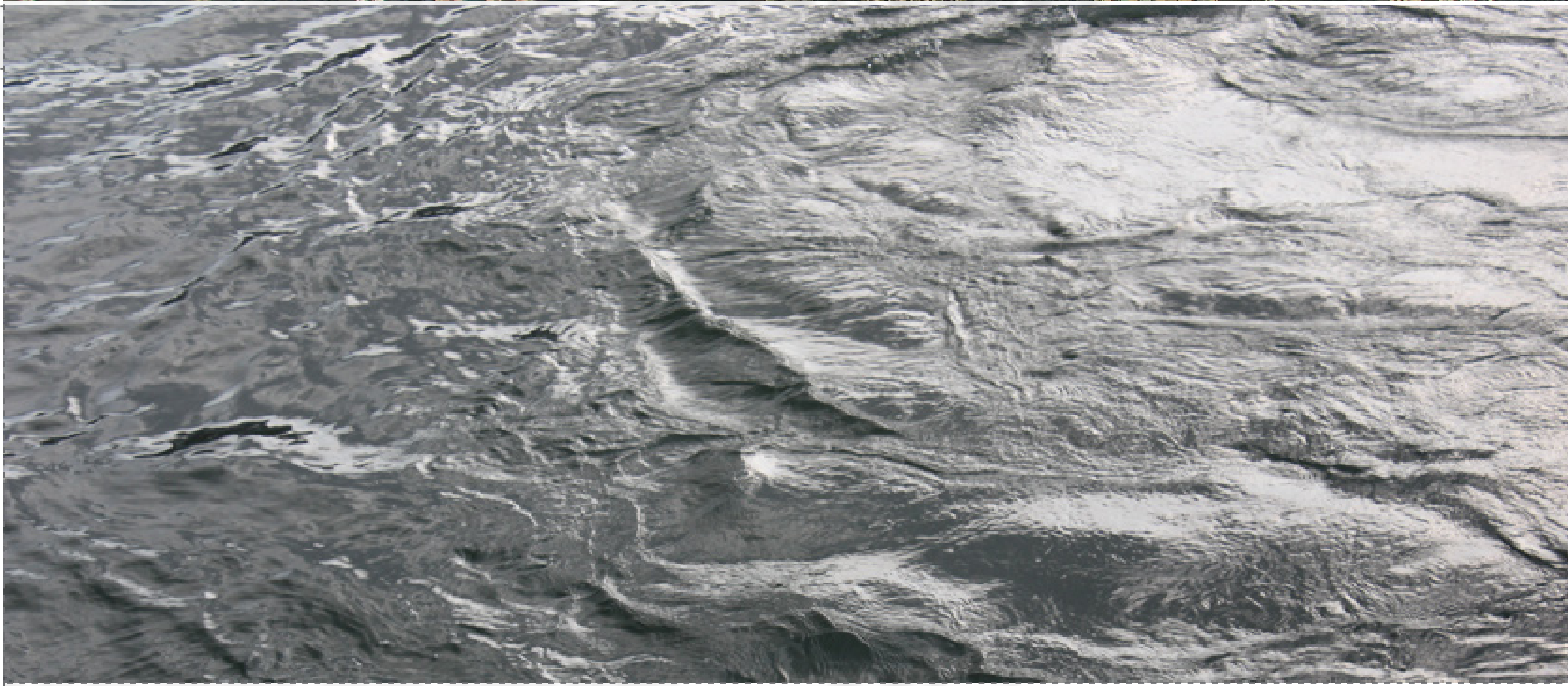
**emmon**

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| **PROJECT COORDINATOR**<br>Mr. Délio Almeida | **DURATION**<br>36 months |
| **INSTITUTION**<br>Critical Software, SA | **START**<br>February 2009 |
| **EMAIL**<br>dalmeida@criticalsoftware.com | **TOTAL COST**<br>2,56 M€ |
| **WEBSITE**<br>www.artemis-emmon.eu | |

# EMMON

*project partners*

**ARTEMIS**

IRELAND

**DSG** Distributed Systems Group
Trinity College Dublin

UNITED KINGDOM

**Critical** software

InteSys Ltd

PORTUGAL

**Critical**

**isep**

SPAIN

**akting**

**CEIT**

ITALY

*SESM s.c.a.r.l.
(Finmeccanica)*

GREECE