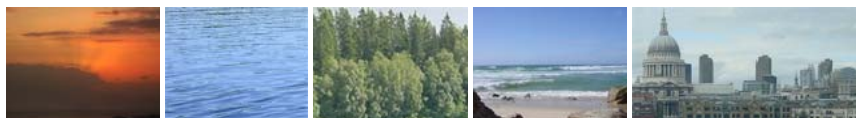




# Newsletter



November 2009  
Volume 1, Issue 1

## EMMON has kicked-off!!

*By Délio Almeida, Project Coordinator*

### INSIDE THIS ISSUE

- 1 EMMON has kicked-off!!
- 2 EMMON First Steps
- 3 Dissemination
- 4 EMMON 1st General Meeting (TSG+GM)
- 5 ARTEMIS JU Autumn Event 2009
- 6 Upcoming Meetings and Events
- 7 EMMON Project Partners

---

*"EMMON has ambitious objectives for sure and is setting up high expectations within the scientific community of Wireless Sensor Networks."*

---

Being one of the twelve ARTEMIS JU projects coming out from Call 2008, EMMON has ambitious objectives for sure, and is setting up high expectations within the scientific community of Wireless Sensor Networks.

The proof of that was the immediate interest and awareness generated by our presentation towards several experts at the Concertation Meeting on WSN and Cooperating Objects (Third Monitoring and Control Week) in Brussels, last October 8<sup>th</sup>.

EMMON project has kicked-off 1<sup>st</sup> of March 2009, and is the only project tackling the challenge of deploying a (Very) Large Scale Wireless Sensor Network in the Embedded Control Systems domain.

Since the successful start of the project, now long ago, a committed consortium of 9 partner organizations is thriving to achieve its goals and objectives, in order to make a difference in the WSN R&D state of the art.

This European consortium is composed of industrial and research institutions, from six different countries, with strong focus and expertise in the research areas covered by the project. The consortium is lead by Critical Software (Portugal), with participating partners, Instituto Superior de Engenharia do Porto (Portugal), InteSys (UK), Centro de Estudios e Investigaciones Tecnicas de Gipuzkoa (Spain), Critical Software Technologies (UK), Trinity College Dublin (Ireland), Aristotle University of Thessaloniki (Greece), SESM S.c.a.r.l. (Italy), and Akting Ingeniaritza S.L. (Spain).

So, the challenge is set, goals are established, and a team has been gathered. What else is needed?

For further information, please consult the following web address: [www.artemis-emmon.eu](http://www.artemis-emmon.eu)

## EMMON First Steps

*By Délío Almeida, Project Coordinator*

---

*“...effective monitoring with 10,000 to 100,000 devices, monitoring an area of 50 square km in a real world scenario.”*

---

EMMON main objective is to research, develop and deploy a large scale WSN in a real world environment to perform continuous monitoring and situation analysis, targeted at specific scenarios (water pipelines, urban quality of life, forest and marine environments, civil protection) detecting abnormal variations and rapidly broadcasting alarms and alerts.

The quantified goal of the project is to create technologies that allow effective monitoring with 10,000 to 100,000 devices, of an area of 50 square km in a real world scenario.

During the first eight months, the project has successfully ramp-up: project management methodologies and administrative procedures have been defined, roles and responsibilities were assigned, a research and implementation strategy was devised, the project collaboration platform and mailing lists were made available to the project, dissemination activities started, communication channels were established with end-users, and the main project bodies were created, such as the General Assembly, Steering Committee, Technical Steering Group and Project Management Team. Initial work has been kicked-off on exploitation and standardization.

Initial focus and technical work has been done on gathering and analyzing end user requirements, problems and constraints for each one of the identified project specific operational scenarios. An initial state of the art review was performed, which included relevant end user operational studies, existing technological solutions and a compilation of main challenges to address (and solve) with respect to large scale WSN communication and protocols.

Regarding project results, EMMON has concentrated efforts on establishing and consolidating the first end-user requirements baseline to drive the future research work on multilevel communication protocols, hardware platforms and middleware services for the Large Scale WSN (LSWSN) architecture. This work has led to the creation of detailed end-user requirement specifications, addressing each one of the potential scenarios covered by EMMON. One important project body, the End User Committee (EUC) was created, involving ten (10) representatives and eight (8) organizations and public authorities, ranging from forest fires and civil protection to marine and water management scenarios.

The project also focused on the analysis of previous research and studies, that are considered relevant for the end-users, and which will serve as important input for understanding end-user business rules, needs, constraints, and problems during the upcoming design and research phase. During this period the project released a total of fourteen (14) deliverables.



*Group photo at the 1<sup>st</sup> TSG Meeting in Oporto, Portugal*

## Dissemination

*By Dr Lubo Jankovic, Dissemination Manager*

The initial period in the EMMON project has been buzzing with activity. This article gives an overview of the initial steps.

### Project Web Site

The first step in project dissemination was the development and publication of the project web site in April 2009. Please see [www.artemis-emmon.eu](http://www.artemis-emmon.eu). Subsequently, the dissemination activities were formalised through the development and release of The Dissemination Plan and The Exploitation and Standardisation Plan on 31<sup>st</sup> August 2009.

---

*"The initial period in the EMMON project has been buzzing with activity."*

---

### Dissemination material

In parallel with the web site, a complete framework of dissemination material was developed to increase the efficiency of communication. The EMMON logo on the left is a representation of the concept of the EMMON project. An End User Committee forum and an End User Interest Group forum have been created to facilitate the work with end users. The project e-newsletter, of which this is the first edition, will be published quarterly. A project leaflet has been created for distribution at public events and a project poster has also been created using for display at public events.

### Dissemination news in brief

EMMON project published an article entitled "Project EMMON vai criar ferramenta de monitorização ambiental", in the May 2009 edition of the Portuguese Journal "Água e Ambiente", URL:

<http://aguaeambiente.ambienteonline.pt/>, one of the most active and prestigious national journals dedicated to water and environment development news.



*EMMON Logo designed to reflect the concept of the project*

On September 21st and 22nd, members of the consortium met up in Dublin to kick off the project's work package 6, and discuss common aspects of work packages 4 (Research on Protocols and Communication Systems) and 6 (Research on Embedded Middleware).

In September 2009, EMMON was pleased to announce the creation of the End User Committee (EUC): a consultative project body responsible for assuring that end-user objectives and requirements are identified, addressed, and achieved by the EMMON technical and research committees. Members of the EUC are key to project success and play an active role in the project.

In an event facilitated by the ARTEMISIA Association and together with all other twelve ARTEMIS JU Call 2008 projects, EMMON was represented in the ARTEMIS Autumn Event held in Madrid last 29th and 30th October 2009. The event was part of the Co-summit 2009 together with ITEA2.

In October 2009 EMMON published a list of public deliverables released to date.

More details on: <http://www.artemis-emmon.eu/news.html>

## EMMON 1<sup>st</sup> General Meeting (TSG+GM)

*By Pedro Braga, Technical Manager*

*"EMMON [...] established valuable contacts with other projects [...]"*

EMMON consortium got together in Dublin, Ireland on October 16<sup>th</sup> for the first General Meeting after project kick-off. In the previous day, October 15<sup>th</sup>, the Technical Steering Group (TSG) met for the second time to address the main technical issues of the project. Trinity College of Dublin (TCD) hosted both meetings.

The TSG discussed and decided about the forthcoming challenges for the project. One of the issues is the availability of end user scenarios that are both a technological challenge for Large Scale Wireless Sensor Networks (LS-WSN) and a feasible solution with real usability and a committed end user. Another issue addressed was the need for detailed definition of the project scope, its distribution by Work Packages and dependencies amongst them. The outcome of the meeting was several actions and plans to address all the issues discussed, making it a productive day for the TSG.

The General Meeting provided a chance to disseminate work performed, report on project status, better clarify ideas from different partners and participants, and to socialise. New members were also presented to the consortium.

## ARTEMIS JU Autumn Event 2009

*By Pedro Braga, Technical Manager*



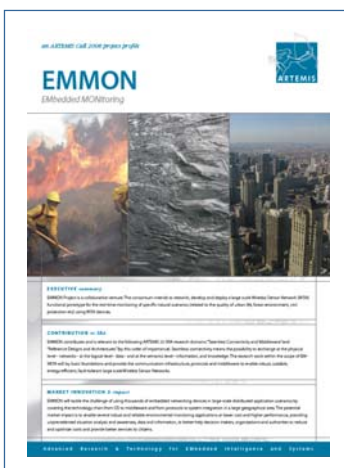
EMMON booth at ARTEMIS Event

On October 29<sup>th</sup> and 30<sup>th</sup>, 2009, in Madrid, Spain, took place the ARTEMIS Autumn Event and ITEA2 Symposium Co-summit. Besides the parallel sessions with several key note speakers, press events and the ARTEMISIA General Assembly, the Co-summit had also a project exhibition.

EMMON was present in the event, represented by Pedro Braga. There were a total of twelve Artemisia projects being presented in such exhibition for the first time. EMMON booth was visited by a considerable number of visitors, some of them with a denoted interest by the WSN topic and the EMMON project in particular.

The event organised guided tours at the exhibition. EMMON welcomed a guided tour with keynote speakers, ITEA2 board, ARTEMISIA steering board & presidium and public authorities. During this visit EMMON was presented and discussed.

During the event, EMMON also established valuable contacts with other projects - including ITEA2 projects - working in WSN related areas. The positioning held by EMMON relating to these other projects was completely open to collaboration. EMMON showed interest in the outcomes of running projects and eager to present its own results also. This will was corresponded by the other projects and the foundation for expected future collaboration was settled. The forum created on the EMMON web site will be one of the tools to foster these collaborations.



EMMON leaflet at ARTEMIS Event

## Upcoming Meetings and Events

*By Dr Lubo Jankovic, Dissemination Manager*

Some of the most important upcoming events of the EMMON project that are already planned, are listed here chronologically:

Dec 2009 1<sup>st</sup> Steering Committee meeting  
March 2010 Project Review meeting  
April 2010 General Assembly meeting

## EMMON Project Partners

**Critical Software (Portugal)** - founded in 1998, provides solutions for mission and business critical information systems. Its customers are drawn from several markets including telecoms, the public sector, industry, aerospace and defence.



### "Critical Software, SA"

Mr. Délio Almeida  
"Parque Industrial de Taveiro, Lote 48"  
"3045-504 Taveiro, Coimbra"  
Portugal

Phone:  
"+351 239 989 100"

Website:  
<http://www.artemis-emmon.eu/>

E-mail:  
[wp1@criticalsoftware.com](mailto:wp1@criticalsoftware.com)

**CISTER (Real-Time Computing Systems Research Centre)** is a top-ranked Portuguese Research Unit based at the School of Engineering (ISEP) of the Polytechnic Institute of Porto (IPP), Portugal. The Unit focuses its activity in the analysis, design and implementation of real-time and dependable computing systems.

**InteSys (UK)** - an SME specialised in computer modelling and analysis of complex systems, using principles of emergence and complexity.

**Centro de Estudios e Investigaciones Técnicas de Gipuzkoa (Spain)** - a private multidisciplinary non-profit research centre closely connected to TECNUN, the Faculty of Engineering of the University of Navarra.

**Critical Software Technologies (UK)** - designs, develops, tests, validates and assures software for mission and business critical information systems across Defense, Aerospace and Transportation.

**Trinity College Dublin (Ireland)** - the oldest university in Ireland and rated by the EU as the number one research institute in Ireland.

**Aristotle University of Thessaloniki (Greece)** - the largest University in Greece and is located in the city of Thessaloniki in Northern Greece. It conducts research in many areas of the Electrical, Electronic, Telecommunications and Computer Science and Engineering fields.

**SESM S.c.a.r.l. (Italy)** - a private research centre focused on the development of information solutions by adopting state-of-art information and communication technologies.

**Akting Ingeniaritza S.L. (Spain)** - a Telecommunication Engineering Company that designs, develops and deploys communication systems to optimize the production of a company or organization.