



What does the SERENADE project reflect?



**Objective ICT-2009.3.5 Engineering of Networked Monitoring and Control systems**

The activities in this area address engineering technologies for large scale, distributed and cooperating systems for monitoring and control, including wireless sensor networks.



**b) Wireless Sensor Networks and Cooperating Objects**  
main ideas:

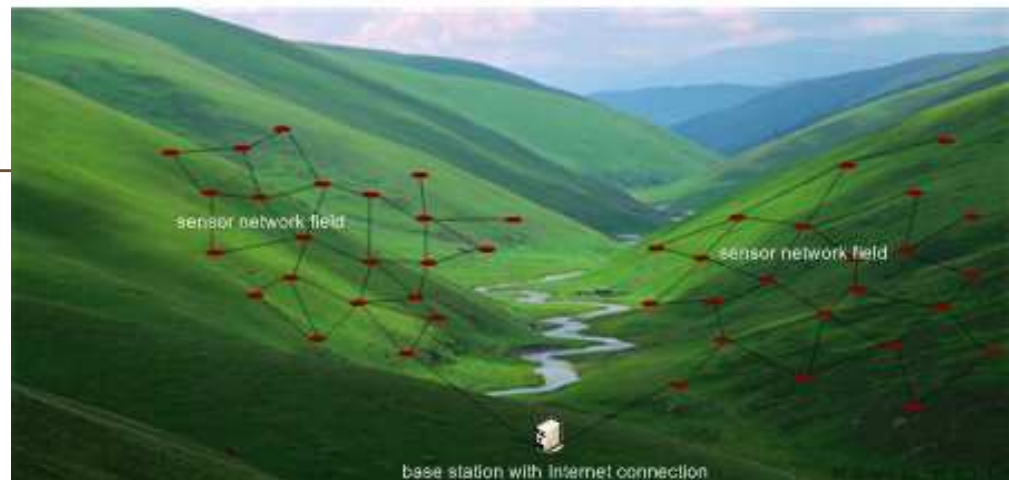
1. Development of architectures, hardware / software integration platforms
2. Focused on better dependability, safety, security, cost and energy efficiency
3. Research
  - 3.a) spontaneous ad-hoc cooperation between objects;
  - 3.b) open wireless communication protocols for harsh environments;
  - 3.c) experimenting with novel large-scale applications of WSN



## SERENADE – *SEnsOR nEtworks for NATural Disasters prEvision*

### *Project annotation:*

The objective of the SERENADE project is the proposing of the modular communication architecture for WSNs, which will consist of several highly specialized algorithms for a variety of uses. The proposed communication algorithms should be implemented into the outside wireless sensor networks of the arbitrary topology that will serve as the technology for the precision of the natural disasters. Our vision is to develop *modular structure* with new communications algorithms, which can in the long-term scope constantly monitor the level of the water floods, the soil-landslide, forest fires, earthquakes e.g. and thus to save the human health and the most valuable ... *human lives*.





**SERENADE** addresses the several research issues. These are:

**1. *Environmental research***

Mainly the investigation of the phenomenons causing the natural disasters,

**2. *WSN research***

*Energy model, localization, data aggregation and distribution, data-security and guarantee .*

**3. *Development of monitoring and diagnostic applications***

*Monitoring systems, web-based applications, 3D-modelling*



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*Thank you for attention*

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