



Silvia Santini

*microenv*

micro-environmental monitoring services  
on-demand using wireless sensor networks



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## Biography

Silvia received her Master's degree in **electrical and communication engineering** with summa cum laude from the University of Rome "La Sapienza", **Italy**, in May 2004. During her studies, she spent one academic year abroad at the Swiss Federal Institute of Technology (ETH) in Zurich, **Switzerland**, and then joined Philips Research Laboratories in Aachen, **Germany**, for a full time internship.



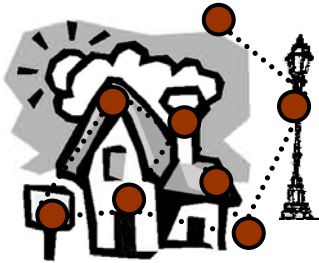
Following her strong personal and professional interest for foreign countries, she moved again to Switzerland in September 2004, joining the Distributed Systems Group at the ETH Zurich. She is currently pursuing **research on wireless sensor networks** and expects to complete her doctoral thesis in 2008.



Silvia is particularly fascinated and motivated by the idea of bringing innovative technological solutions to the market that can address emerging consumer needs in a smart way. Pushing her technical know-how beyond the borders of the academic world is what drives her entrepreneurial aspirations and her willingness to start up *microenv*, her venture project, which will link the emerging demand for **micro-environmental monitoring services** to wireless sensor networks, the emerging technology she is working on.

## Project

The relevance of **environmental issues** for both the general public and policy makers is higher than ever before, and the **interest in monitoring environmental parameters** is increasing accordingly.



Potential **consumers** for monitoring services are manifold and include, among others: **Real estate companies**, willing to evaluate the environmental pollution levels in a certain neighbourhood (since these increasingly influence house prices); **Real estate investors** interested in knowing those levels before buying a certain asset; **Public agencies** required to provide fine grained environmental noise measurements; **Environmental protection agencies**, promoting new campaigns on the basis of accurate pollution measurements; **Private Citizens** interested in verifying the efficiency and adequacy of the heating system of their apartments.

Wireless sensor networks enable performing fine-grained micro-environmental monitoring using **cheap and reusable tiny sensing devices**, endowed with **wireless communication** and **processing** capabilities. Using wireless sensor networks, *microenv* will bridge the gap to the emerging demand for micro-environmental monitoring services.

*microenv* is still in its infancy but it can rely on a **highly motivated team** with excellent **technical know-how**. Since the wireless sensor networks can be **easily reconfigured and reused** to perform several different monitoring tasks, an initial investment in hardware and software development could be rapidly amortized. An existing self-financed initial investment is intended to cover the expenses for setting up the company's web site ([www.microenv.ch](http://www.microenv.ch)), and for purchasing a minimal hardware set. Further financing must be retrieved from interested individuals or other adequate **business partners**.

To properly address the high number and variety of potential customers, *microenv* is looking for a **sales manager** who will be in charge of developing and implementing a sound marketing strategy. Furthermore, *microenv* is interested in establishing business cooperation with **sensors manufacturers**.