

Digital Single Market

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Health on the go: Monitoring your heart or diabetes via your smartphone

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Smart Decision Support and monitoring with your smartphone Disclaimer: This is a guest blog post - the author is not working for the European Commission.



We have now been working on the MobiGuide project (<http://www.mobiguide-project.eu> [1]) since November 2011, researching and developing a smart system for patients with chronic illnesses such as **cardiac arrhythmias** and **diabetes during pregnancy**. Patients wear small sensors that can monitor their bio signals (e.g. heart rate, blood pressure, physical activity). These bio signals are transmitted to their smartphone. An intelligent Decision Support System analyses the data, alerts the patient about actions that should be taken, asks the patient questions (if additional information is needed) and makes recommendations regarding lifestyle changes or contacting care providers. Recommendations regarding therapy are also transmitted to the patients' medical team.

On top of that the MobiGuide system supports patients 24/7, wherever they are. They can even adapt the treatment, when they have to go to a wedding for example. Capturing each patient's individual **preferences** and designing an ICT system that respects and adapts to them like this whilst preserving **evidence-based medicine** principles raises many challenges, as you can imagine.

We discussed those challenges when we all met at the 4th MobiGuide Consortium meeting in May at the Universidad Politécnica de Madrid. Not only **personalisation** of the MobiGuide services to the individual patient was a topic, also **security** and **privacy**, management of **knowledge** in a **distributed** and **mobile decision support system**, and **data integration**.



State of Play

The technical partners led by Technical Manager Tom Broens (University of Twente, Netherlands) made good progress with implementing all components of the MobiGuide System and preparing **the demo** which will be held at the next consortium meeting. The scenario is based on the clinical case of gestational diabetes and will show progress over the previous prototype including distribution of decision support, personalization and security.

Familiar with new technology

Endocrinologist Dr. Mercedes Rigla (Department of Endocrinology and Nutrition, Spain) reported on a survey she performed of patients with gestational diabetes (GDM). The survey showed that 60% of the patients needed insulin during their pregnancy, and that the patients surveyed had a good level of familiarity with new technology. **Cardiologist Dr. Carlo Napolitano** (Italy) addressed issues around the planning of the patient pilots and some of the benefits that clinicians would like to see from the project. **Patient representative Àngels Pallàs** (Spain), stressed that use of the MobiGuide system by patients should only require minimal computer knowledge and patients should not have to face a lot of technical language. The need for patients to enter data should be minimal and the cost should be kept low.



We reached consensus on the deployment strategy for Year 4 and Daniele Segagni from FSM hospital in Pavia was selected as Deployment Manager.

The Project Coordinator/Scientific Manager is Prof. Dr. Mor Peleg of the University of Haifa.



Mor Peleg

[Contact MobiGuide](#) [2].

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