

# Project Achievements



## Advanced technologies enabling multi-device mobile access to current and future Web applications, services and information portals

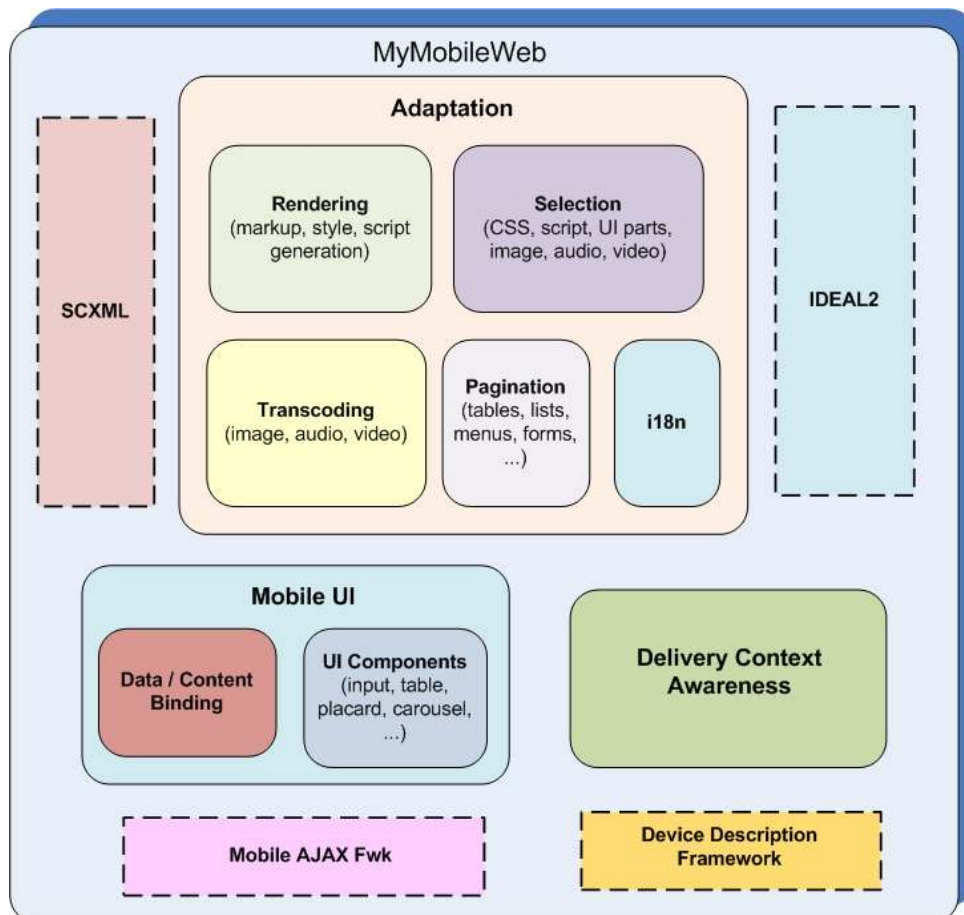
MyMobileWeb is an open source, standards-based software framework that simplifies the rapid development of mobile web applications and portals. MyMobileWeb encompasses a set of technologies which enable the automatic adaptation of contents & applications to the target Delivery Context (browser, device, network, location,...), thus offering a harmonized user experience.

### Main focus

Making the Mobile Web 2.0 a reality it is not only a matter of using highly capable devices and enhanced web browsers. End users are expecting more from the new generation of the Web on the move. First of all, they want to use applications and

portals adapted and optimized for every device. Another emerging requirement is the availability of rich user interfaces (AJAX , graphics, maps) supporting higher functionalities while optimizing traffic costs. Furthermore, context-awareness (for example, enabling location based services) is demanded to obtain the most relevant information or content depending on the situation or environment the user is in.

In addition application developers are seeking powerful, standards-based (and possibly open source) technologies that make it possible the creation of advanced, high-quality mobile web applications in time to market without investing a lot of money or hiring specialized (and expensive) developers.



## MyMobileWeb

Project ID: CP4-020

Start Date: 1 March 2007

Closure date: 29 December 2009

### Partners:

Answare Technologies, Spain

Fundación CTIC, Spain

Germinus XXI, Spain

iWS (internet Web Serveis), Spain

Telefónica I+D, Spain

Telefónica Moviles, Spain

Tisco GmbH, Austria

Universidad Politécnica de Madrid, Spain

Universidad de Castilla La Mancha, Spain

YACO Sistemas, Spain

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### Project Websites

[www.celtic-initiative.org/projects/MyMobileWeb](http://www.celtic-initiative.org/projects/MyMobileWeb)

<http://mymobileweb.morfeo-project.org>

**MyMobileWeb enables the rapid development of standards-based, context-aware, rich mobile web applications.**

## Approach

The MyMobileWeb approach relies on the following technologies:

- ◆ the **IDEAL2** language for the declarative description of device-independent user interfaces and adaptation policies.
- ◆ the **SCXML-based** language for describing application flows modeled as state machines. State Chart XML (SCXML) is a W3C standard. Application Flows describe the behavior to be performed in reaction to the interaction of the user with the system.
- ◆ the **“Device Description Framework”** concerned with obtaining information about the characteristics of devices and web browsers by interfacing with different Device Description Repositories (DDRs). MyMobileWeb is able to connect to any DDR supporting the W3C’s DDR Simple API Recommendation.
- ◆ the **“Adaptation and Rendering Engine”**, in charge of selecting and generating the final markup, script, style sheets and other resources (images, audio, video) to be delivered to the mobile device. A flexible and extensible architecture allows both to add and to extend the rendering components.

- ◆ the **“Client-side Framework”** (a.k.a. “Mobile AJAX Framework”) which enables rich interactions in different Javascript-enabled browsers. Such a framework provides (cross-browser) convenience methods for asynchronous HTTP requests, DOM manipulation and advanced UI components (calendar, range, tabs, ...)
- ◆ the **Semantic Bar** for content and service correlation plus smart navigation

## Achieved results

The achieved results can be summarized as follows:

- ◆ MyMobileWeb version 4 released, which includes a stable implementation of all the key technologies mentioned above. Furthermore, during the lifetime of the project, MyMobileWeb has been downloaded more than 11.000 times from the Morfeo Project Forge.
- ◆ More than 30 developers already certified on the technology during 5 free training courses.
- ◆ 15 scientific papers, 2 books and 5 online tutorials covering the technology
- ◆ Key contributions (and leadership) to different W3C Recommendations, namely “Mobile Web Best Practices”, “Device Description Repository Simple API” and “Delivery Context Ontology”
- ◆ At least 6 applications already in production using the technology

and other 14 are at development stage

- ◆ More than 40 dissemination actions during the lifetime of the project, including both Europe and Latin America
- ◆ Around 90 developers have approached to our support mailing list from the five continents
- ◆ 10 additional incubated research projects proposals based on the MyMobileWeb technologies

MyMobileWeb is the open source reference implementation of a new generation of standards for the Mobile Web. The released technologies will allow solution integrators to configure a service offer and, as a consequence, to develop business opportunities. Together with enlarging the mobile industry market potential and maximizing the competitive edge in this area within European companies, MyMobileWeb will also strengthen European competitiveness and maintain Europe’s R&D lead in the mobile industry towards existing and potential competitors, like the USA, China, and India.

## Impact

MyMobileWeb will make the Mobile Web a reality by significantly strengthening the foundations for the development of future mobile web information portals and applications. The immediate benefits will apply to both providers and end users. In particular, MyMobileWeb will:

- ◆ Make the development of high quality, standards-based, adaptive mobile web applications easier. Thus both, the time to market and development costs will be reduced.
- ◆ Empower mobile service consumption as a consequence of both improving the user experience and enabling a universal access. This will lead to: (a) an increased quality of life for European citizens, (b) the further development of integrated telecommunications and (c) the creation of new employment niches.
- ◆ Increase competitiveness of companies by augmenting the number of electronic services ready for discovery and consumption in a mobile environment.

## About Celtic

Celtic is a European research and development programme, designed to strengthen Europe’s competitiveness in telecommunications through short and medium term collaborative R&D projects. Celtic is currently the only European R&D programme fully dedicated to end-to-end telecommunication solutions.

**Timeframe:** 8 years, from 2004 to 2011

**Clusterbudget:** in the range of 1 billion euro, shared between governments and private participants

**Participants:** small, medium and large companies from telecommunications industry, universities, research institutes, and local authorities from all 35 Eureka countries.

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