



I+D. Advancing to the future

Without innovation, advancing to the future becomes an unsatisfying task, which is why at **mirada**, we think that a dedicated R&D team lets us not only innovate, but advance to the future.

Through internal and public projects - supported by nationwide and international institutions - we have learned that our investment in R&D creates the foundation of our progress.

Profit

Since 2004 **mirada** has been an active player in the Development and R&D projects sponsored by the Spanish Industry, Commerce and Tourism Ministry within its PROFIT framework.

2006

ADI: Interactive High Definition

In collaboration with Telefónica Servicios Audiovisuales, Astra, Hispasat, Sogecable, Radio Televisión Española, HyC Soluciones de Vídeo y Comunicaciones, Televés and Universidad Politécnica de Madrid - with the goal of driving Spain into the development of the High Definition Digital Television (HDDT) – **mirada** played an integral role in a wide range of research projects which examined the technology required for the content production, presentation, transmission and reception of HDDT.

At the same time, an end-user study on perceptions of the new technology, the capacity to generate High Definition Interactive services, and the creation of the HD Campus, (where HD content, including audiovisual and interactive services, was transmitted and received inside the campus of the Universidad Politécnica de Madrid), examined the advantages and problems of this new technology.

Inspira 2: Advanced interactive services for TDT

mirada also worked with Radio Televisión Española, Abertis Telecom, and the Universidad Politécnica de Madrid on the INSPIRA project. The aim of the project was to develop advanced interactive MHP services for TDT through information obtained by a qualitative marketing analysis - including real end-users from various Spanish cities. As a result of this research, some functional changes were made to the services deployed in the INSPIRA project, including the development of a tool for TDT broadcasters which could generate basic interactive services that were synchronized with the audiovisual content.

Identifica-T

In collaboration with Radio Televisión Española and Indra, mirada worked on a project to develop a technical solution for the implementation of an electronic identification card through interactive digital television services based on MHP for TDT broadcasters. The solution included advanced user authentication and electronic signature, allowing users of digital interactive television access to electronic Government services.



managetv: Advanced user management TV platform

managetv provides the means to getting to know the television customer through their use and consumption of both video and interactive content.

managetv is a unified system for access and registration of users through a unique identity, allowing the integration of interactions between different devices (digital decoder, mobile phone, personal computer) with television content.

2007

Arca: MHP Platform for Audiovisual contents recovery using the return channel

In collaboration with Radio Televisión Española, Telvent Housing and the Universidad Politécnica de Madrid, mirada investigated several options to retrieve and reproduce audiovisual content by using the existing return channel in DTT (Digital Terrestrial Television) Set-Top Boxes with MHP-integrated middleware. The result was a trial that allowed RTVE users to access traffic information (snapshots and videoclips) in different parts of Madrid.

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Iberoeka DESI

Both projects were developed in collaboration with INDRA, SIDSA and LambdaStream in order to develop and deploy new DTT and IPTV services in Latin American countries such as Uruguay.

Iberoeka DESELE

In collaboration with INDRA and SIDSA, mirada is working on the definition, development and deployment of terrestrial television services for emerging areas in Chile.

2008

Iberoeka DESI

mirada collaborated with INDRA, SIDSA, LambdaStream and the Polytechnic University of Madrid to develop and deploy services for DTT and IPTV in Uruguay; a territory which adopted the DVB standard in 2007. These services have a dual purpose: firstly, to serve as a foundation for Uruguayan companies to develop the information society, but also to make technology knowledge transfers between Spanish and Uruguayan companies easier. During the project development an analysis of the market was undertaken. This demonstrated that the best suite of services for the Uruguayan TV viewer was one which was both entertaining and educational. As a result of the project a trial using MHP 1.2 with two games, and one t-learning application, with video streaming through the return channel, was initiated.



Iberoeka DESELE

In collaboration with Indra and Sidsa, mirada has worked on the definition, development and deployment of services for digital terrestrial television in Chile, with the aim of reducing the digital gap and bringing the information society closer to rural areas. The applications that have been developed offer the advantages of interactive digital television, and will be used to promote the adoption of the DVB standard in Chile. This is the core of the digital television platform and is similar to the launcher with the functionality of the mini-guide and the electronic program guide (EPG). In addition to this, technology companies can also provide a specialized information environment and information portal, where users can find details about seismic activity; an important service considering that Chile is in the 'Pacific Ring of Fire' - an area where a large number of earthquakes and volcanoes occur.



SIAM

In collaboration with the University of Oviedo, mirada has completed a report and study on home-networking and the digital home. In order to acquire the knowledge and analyze the technology mirada had the support of two Spanish companies, Gigle and DS2, who are providers of technology for home-networking. The study focused on the services and applications connected to the home network, and the devices and interfaces needed to access these services; as well as looking at the technologies for the interconnection of these devices, both individually and within the broadband network. The knowledge gained from this report has allowed us to create the home network on which deployment of the services of the digital home rests. We have developed an interactive television application, with connected devices, which facilitates communication and the exchange of content with the multimedia server of a home automation system (domotics), using the UPnP protocol and PLC networks. These networks use the electric power network from home and provide a high speed data transmission line. The experience for the user is enriched by a 3D interface within the application, and we have also developed prototypes of natural interaction services and augmented reality.



SERMEDIA

Sermedia is a project which encompasses the definition and development of a system for the integration and personalization of multi-platform audiovisual services. Through this project, developed entirely inside the company, we want to provide a solution that covers the needs of triple and quadruple play operators who offer transversal digital television services, that is, services that are independent of the access media, or digital window, used by the client. The project also has the objective of solving the current problem of Digital Identity in real time, regardless of the access media used, or its location. The solution provided must be portable to the standards currently being developed by organizations such as the IMS Forum and the Open IPTV Forum.