## Main Project Objectives

1. Develop an architecture that can provide seamless access in converged digital broadcasting and mobile communications networks.

2. Incorporate Chinese DMB-T into the multi-standard framework.

3. Apply advanced scalable coding techniques for the services in the converged digital broadcasting and mobile communications networks environment.

4. Conduct field trials to provide validation support for the usability of the technologies developed.

In addition, the project will consider the convergence between broadcast and mobile technology networks to provide a unified platform for the delivery of services to mobile terminals. Finally, the project will address the issue of how to deliver these services with a consistent level of quality to rich media applications across mixed broadcast networks, and in particular of how scalable video coding may deal with this issue.

The MING-T Universe

With over 300 million mobile phone users today, China is already the largest single market for digital communication. Recent survey data confirms a further increase and predicts a large market for mobile services including mobile television in China. While DVB-H is to be tested during the 2008 Beijing Olympics, China is set to develop its own standard for mobile television, where the recently announced standard is based on the DMB-T system developed at Tsinghua University in Beijing. Given the size of the Chinese market, a timely cooperation with Chinese academics and companies based on DMB-T is likely to provide economic benefit for European companies willing to operate on a worldwide scale.
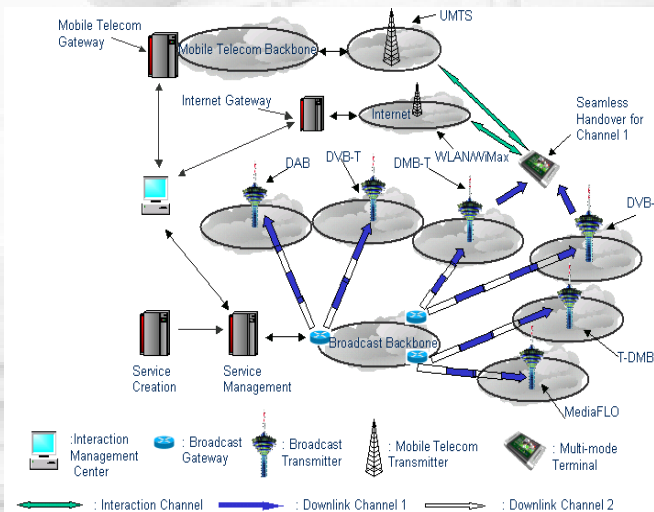

Scenarios

In our vision, three different types of networks are considered. First of all, and similar to analog television, are the **broadcast**-type networks used for the digital TV standards including T-DMB, DVB-H, DMB-T, MediaFLO and ISDB-T. Second, video and television content can also be transmitted via **telecommunication** networks like UMTS. Typically, the telecommunication networks will also provide the uplink channel including status information and interactive functions if the main media download is effected via a broadcast network. Third, clients can access multimedia content via a direct **internet** connection, including WiFi or WiMAX. Such connections also provide an attractive solution for indoor reception. The figure shows the initial project architecture:
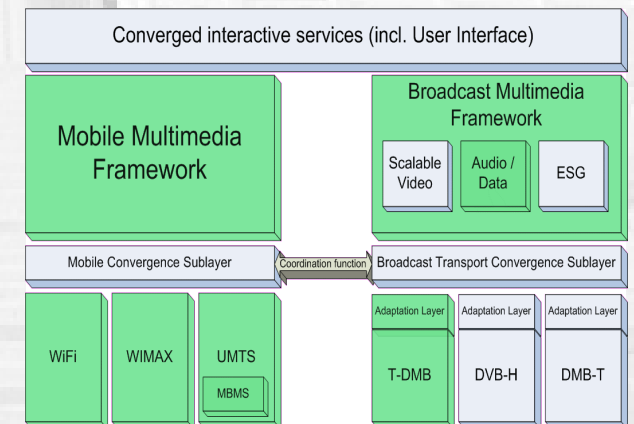
User Experience

Of course, the acceptance of mobile TV will be closely related to the availability of attractive devices, where the compromise between screen size, weight, and battery life poses interesting design challenges and opportunities for device vendors.

However, the **user experience**, and with it the commercial success, of mobile television will largely depend on the ease of use of the overall system, not on technical details like the modulation scheme or signal-to-noise ratios. The goal of the MING-T project is to study and develop the network infrastructure required to provide a great user experience for mobile television. As this involves the question of **interoperability** between different networks and their software, we call this the **network convergence.**
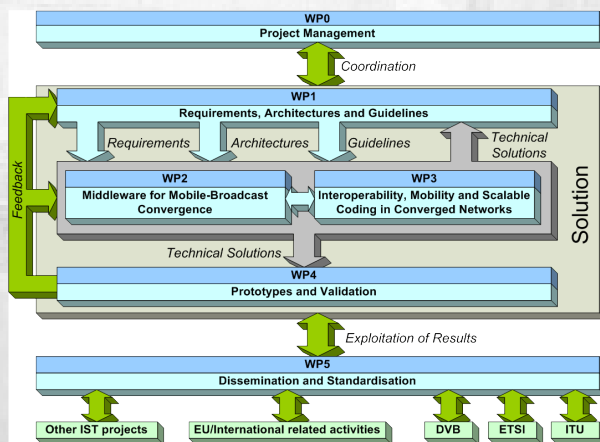
Project Partners

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Create-Net, www.create-net.org

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MING-T

Multistandard Integrated Network convergence for Global Mobile and Broadcast Technologies

Multistandard integrated network convergence for global mobile and broadcast technologies

Specific targeted research project in FP6
01.01.2006-31.12.2007

The goal of MING-T is to research, develop, prototype, integrate and validate the interoperability and handover issues of the representative mobile digital broadcast standards developed in China and Europe. MING-T will address the issues of convergence between broadcast standards and mobile communications network technologies. A further goal of the project is to foster cooperation between Europe and China in both industry and research communities. The project will particularly address the convergence of the European DVB-H standard with the emerging Chinese standard (temporarily named DMB-T) with a view to providing a harmonized framework.

Information Society
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