All European citizens must become the center of a humanized, global and sustainable Health System. Every service must reach out to every citizen no matter where they live, every citizen must contact well-qualified doctors no matter the disease, citizens and health professionals must communicate in an open way, providing both feedback and complaints. And health services must go beyond traditional ones, provided by means of new business models involving big companies, SMEs and governments. Only the Future Internet Paradigm will allow us to achieve these goals.

But to advance in the right direction large scale scenarios where a set of networked hospitals covering different areas of a region, where rural areas and metropolitan areas coexist, where medical facilities and health professionals share their time and expertise to make health system efficient, where most citizens can have a broadband connection, where ICT companies and research centers collaborate to achieve a user-centered health system, must be selected.

Europe is fostering the development and deployment of a platform that instantiates a unified and consolidated open architectural approach: the Future Internet Core Platform (FI-CP). The FI-CP must be proven to be valid in as rich scenarios as possible. In the context of e-Health a distributed, resource sharing scenario, centered on the user and fulfilling barriers derived from age, language, disabilities,... (in brief, by humanity) is needed. This scenario is so complex which will provide test situations not only to validate FI-CP but to provide inputs for further development of “enablers” (as defined in the White paper on the Future Internet PPP Definition [1]).

Reusable pieces of functionality expected to be required by the proposed use case will require, for instance: real-time broadband communications concerned about privacy, safety and confidentiality, storage and handling of multimedia content, identity management and access control, personalized specific devices aware of use contexts and user preferences, multimodal-multilingual interactive user interfaces, support for information codifying and exchanging standards (both medical and technological),... In summary, enablers related with human interaction, storage and handling of multimedia content and real-time broadband communications will be shared with other use cases, but could not be proven in a better environment that the e-Health environment as health and wellbeing is, probably, the first global need.

Regarding the experimentation environments we foresee the following needs:

- A set of broadband connected reference hospitals, rural hospitals and primary health centers, where telemedicine provides a sustainable approach to medical diagnosis and treatment (i.e. remote imaging and diagnostic radiology).
− Hospitals where health specialists are continuously connected to patients and other health professionals through new generation interfaces. Thus, they will be able to share resources and knowledge.

− Primary urban and rural health centers where information systems allow a perfect communication with patients, no matter age, language or culture (i.e. multimodal-multilingual self-customizing interfaces).

− Information systems highly standardized, integrated with other hospitals at national and European levels (i.e. the Electronic Clinical History). Health professionals not only will be aware of international standardization efforts but will be active participants in standardization groups so advances during the experimentation quickly reach society.

− Public and private infrastructures with potential to globally connect citizens with health professionals (at home, at work...) and an ecosystem of private companies capable of giving health services not only at health centers, specially those services related to highly prevalent chronic diseases or well-being.

− Support of public authorities capable of building or modifying policies, convinced of the benefits of e-Health, conscious that it is the only way of achieving long-term sustainability of Public Health Systems and aimed to foster the e-Health realization.

The Principality of Asturias has already part of the requirements to be fulfilled by the proposed experimentation environment. We have a set hospitals connected by a last generation broadband network; running projects related to teledermatology/teleophthalmology at rural areas; the HUCA, a paperless hospital with IT systems among the most moderns of Europe; public and private broadband facilities to connect citizens with health centers and hospitals; a private set of companies researching and investing on e-Health solutions. But we have not only acted locally: Asturian health professionals are very active at different standardization levels (Asturias is one of the very few regions in Spain elegible to define and use the Electronic Clinical History at national level) so efforts and achievements will fulfill requirements of standards or will result in new ones.

And last, but not least, the commitment of the Government of the Principality of Asturias who, according to the Asturias Health Services Modernization plan (EDESIS), foresees an investment of around 200M€ in the convergence of research on Biosanitary, Health and ICT disciplines, the development of e-Health and the acquisition of hi-tech equipment of proved efficacy to treat prevalent diseases.

In summary, both our capacities and commitment makes Principality of Asturias capable of taking a prominent role in the context of e-Health FI-PPP user's area.

References