A Roadmap for sustainable and effective deployment of testing and certification of eHealth systems

The Healthcare Interoperability Testing and Conformance Harmonisation (HITCH: www.hitch-project.eu) project just concluded its 18 month study with important recommendations to the EU Commission on how to proceed with eHealth interoperability testing and certification/labelling in Europe. HITCH proposes a way forward balancing the urgency to defragment the current approach by eHealth projects, reduce cost of testing, raise the level of quality, and remain sufficiently flexible to account for local needs.

HITCH considers testing and certification related but distinct processes. While testing represents the way one assesses/measures the level of interoperability, certification is a process where a certifying entity uses the positive test results. If profile specifications and testing tools are robust, certification becomes a formality and high-level of eHealth interoperability are realized.

In the area of testing, HITCH stressed the need to continue and amplify the progress accomplished in the last few years, with initiatives such as IHE Connectathons. HITCH identified two areas that need further improvement and more formalism. First, there is a need for a widely accepted quality guide for interoperability testing based on existing quality standards such as ISO 9001 and 17025). Second, an organized collaboration is needed to reduce the fragmentation and lack of maturity in interoperability test tools and test plans in specific areas.

In the area of certification, HITCH surveyed various certification strategies and concluded that different variants would need to coexist and evolve with profile specification stability and market maturity.

The HITCH proposes a five year roadmap for testing and certification:

- In 2012-2013, HITCH recommends to develop and approve common guidance on testing quality and to organize a testing tool development infrastructure at the European level to fill the most critical gaps in tooling and test plans.
- By the end of 2012, a European interoperability framework should be agreed for testing to proceed. This framework should contain an objective set of interoperability standards-based profiles and become the reference against which testing may be piloted in 2013-2014.

- Based on feedback from the above testing and certification pilots, the first products could be tested and receive a "certification" in 2015 at the profile level in Europe.

HITCH proposes that national or regional eHealth projects across Europe organize their own testing and certification by building upon this common European testing and certification foundation. This foundation would leverage a common set of test tools, allow products to be tested once at the European level and further tested only for regional/national extensions to the European interoperability framework. Such a European foundation would increase consistency, reduce costs and significantly accelerate deployment across multiple national and regional eHealth projects in contrast with the current inconsistent and fragmented approach.

HITCH is partially funded by the European Commission under the 7th Framework Programme as a supportive action performed by ETSI, EuroRec, IHE Europe, INRIA, MedCom, OFFIS. **For more information contact:**
eric.poiseau@inria.fr