



**LT-INNOVATE SUMMIT  
19 June 2012**

THE FORUM FOR EUROPE'S  
**LANGUAGE TECHNOLOGY** INDUSTRY

[#1]

Funded by  
the ICT Programme  
of FP7





# iHealth INNOVATION FOCUS SESSION

LT-Innovate Summit, Brussels, 19 June 2012

Innovation Opportunities, Inhibitors and Solutions

THE FORUM FOR EUROPE'S  
**LANGUAGE TECHNOLOGY** INDUSTRY

[#2]

Funded by  
the ICT Programme  
of FP7



## Our remit



- What innovations do you see for this area using LT?
- What barriers are there to achieving those innovations – for your company, and for the market in general – and how can these barriers be overcome through cooperation?



- Language Technology in healthcare and the life sciences is one of the fastest growing parts of the LT industry. Managing complex scientific data on the one hand and equally complex clinical data on the other is a compelling challenge, made even more so by the need to communicate effectively with patients. Today LT makes physicians and healthcare delivery organisations more efficient. Today pharmaceutical and bio-science companies mine scientific data using LT for faster and safer drug development. Today patients expect clear diagnostic information, and efficient communication with practitioners. Tomorrow healthcare and life sciences will share seamless access to medical and scientific data using commonly accepted models mapped to terminology in many languages, used by many different types of systems. Tomorrow patients will expect more control over their personal medical data, and the ability to transport and use it in the ways they want, to communicate it, and about it, across language barriers, all in secure and reliable environments.
- Moderator: Adriane Rinsche
- Rapporteur: Rose Lockwood

# Opportunities



- Large potential for LT innovation in iHealth as currently it is not widely used
- For Doctors and Institutions, LT can provide:
  - Automatic annotation and classification of medical files supporting policy compliance
  - Automatic anonymization of medical files
  - An easier and accurate way of search over text, audio or video
  - Multilingual communication platforms
- For patients, LT can provide:
  - Increased dignity : affordable voice banking that produces what the patients wants to say not what the system wants to say and unobtrusive equipment (easy to use)
  - Increased functionality (integration with other functions such conversation predetermination)



# Inhibitors



- Information is infinite, and the big challenge starts in getting information into the information systems. Thus here the big challenge is to extract clinical data from clinical narratives in natural language. And represent this information in a structured manner.
- iHealth has a Big data phenomenon where most of the data is unstructured. where information or clinical cases are recorded in multiple formats and right information is hard to find
- Many institutions still keep paper, mainly for two reasons: the software is not intuitive and still a strong cultural backlash.
- Also, language is a big barrier and there is no special and good tool to find information in the right way.
- Hospitals managed by public institutions, hard to get into the system, thus many times you need to partner with a big companies to get into business with them. It is also very difficult to get into the bidding system.
- Severe legal restrictions regarding the protection of personal data thus not easy that makes difficult to deploy iHealth
- In iHealth for Patients
- There are technical challenges for new services or functionalities such as conversation predetermination, issues with health environment.

# Solutions



- Gather all info in one database
- Tagging and semantic technologies
- Having a product at affordable price (massive use fro patients)

## Benefits of LT

- Growth of every ones competences
- Real time decision support
- Clinical relevant links to clinical references
- Mapping to clinical documentation and HER data
- Coding for safety performance and cost monitoring