



ICT WP 2011-12  
Challenge 5  
-  
Objective 5.3:

"Patient Guidance Services (PGS), safety and healthcare  
record information reuse "

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**FP7 ICT Objective 5.3**  
**An overview**

<p>a)</p> <p><b>Patient Guidance Services</b></p> <p>Security, Semantic interoperability</p>	<p>b)</p> <p><b>Reuse of Clinical Data for clinical research and epidemiology</b></p> <p>Security, Semantic interoperability</p>
<div style="border: 1px dashed black; display: inline-block; padding: 5px;">a + b = 29 M€</div>	

c) 3M€  
**NoE Semantic Interoperability and European Health Infostructure Medical  
Professions, Industry, International & National Organisations, Academia**

Terminologies/Ontologies, Health Record Structures, Knowledge bases  
Interoperability, Product certification, Template/Archetype validation

d) 3M€  
**Pre Commercial Procurement - Mobile Access to Patient Portals**

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## Drivers

- Explore and decide on *utility* of patient-centric ICT services
- Semantic interoperability via intermediation
- Integration for VPH and PHS
- Including the patient contribution
- Guidance on prevention and lifestyle



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## Outcome a) Required elements

- Semantic integration of patient healthcare data into a PHR
  - Accessible securely & ubiquitously – patient controlled
  - **Semantic Interoperability and mediation with the SiOP NoE**
- Users – Patients
  - Authorised Carers and HCPs
- Interoperate with auto-adaptive 'PHS'
  - Non clinically controlled environment
  - Inter & Intra individual variability
- Incorporate Modelling & Predictive algorithms
  - Analyse patterns in behaviour / data
  - Enable shared Patient Physician Decision Support
- Provide patient oriented therapeutic and medical information
  - Quality information

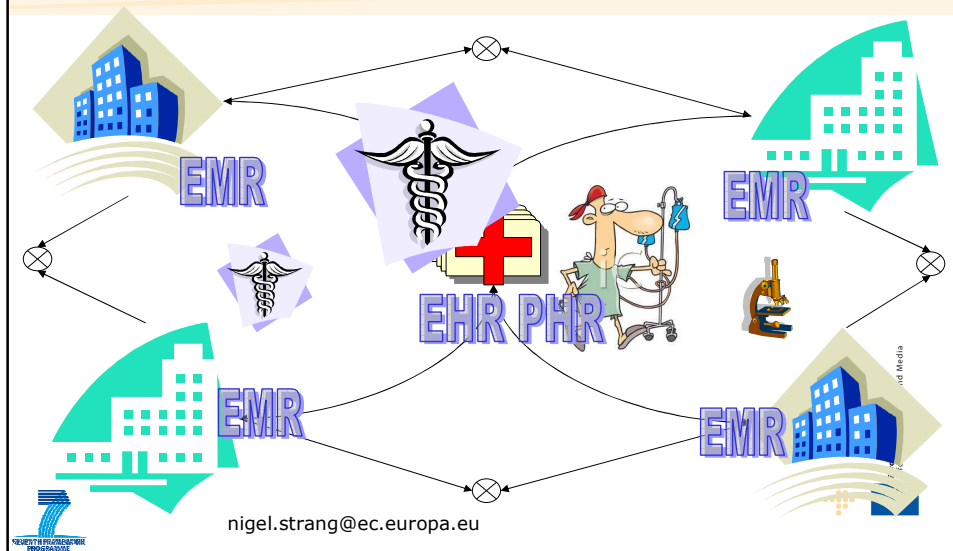


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## Patient Health Care Record – at the heart of the guidance services



## Some information and services

Consultation / Observation / Actions – finding booking & reminding Physical and virtual consultation
Treatment & medication (prescription, dispensation) Administration & Compliance (how to help, how to measure, what to record)
Lab tests/ examinations/ imagery -> Results Follow up – sero-conversion and alarms -> Contagion tracing and informing
Home recording of events (parkinsonian tremors, phone video of seizures, hypo/hyper glycaemia)
Remote ambulatory monitoring – (medical devices)
Access to trusted sources of medical information
Adverse event prevention
Payment and reimbursement

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## Outcome b) Requirements

- Advanced environment for integration between EHR/PHR and Clinical Trial systems
  - Avoid redundant data entry
  - Identify eligible patients
  - Identify early patient safety issues
- Semantic interoperability
  - With the SiOp NOE
  - Develop shared core data sets
  - Link with EHR repositories
- Data protection and security issues
- Use case validation



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## Outcome c) - Network of excellence on semantic interoperability and the European Health Infostructure

- Define and implement a Semantic Interoperability research agenda
  - Building on and completing existing work
    - Calliope, Ride, Semantic Health etc.
- Virtual organisation
  - Infostructure elaboration by the projects in a) & b)
  - Seeded from EPSOS
- Infostructure Coordination & Sustainability
  - Clinical governance
    - Medical professional organisations
  - Health care record structures
  - Terminologies/ Ontologies
  - Medical Logic/ knowledge bases
  - Guidelines, workflow, models, Clinical Decision support
  - Knowledge base coherence, completeness & non redundancy

Expected elements of  
infostructure

## Objective 5.3 Outcome d)

- Innovative services for **patients** and **health professionals** developed and validated against **public sector needs** through a joint

Pre-Commercial Procurement



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## Outcome d) - Innovative services for patients and health professionals

- Based on Patient Portals
- Provide **mobile** access to **existing** Portals, PHR or other systems
- Improve quality & efficiency of healthcare services
- Supporting individuals' mobility and secure & fast access to health data anywhere in the EU **using mobile devices**
  - Medication, emergency data, test results (Start with EPSOS)



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## Examples of Possible services

- Communication between HCP and patients
  - appointments, alerts, emergency admissions, prescriptions abroad, interaction with pharmacists, feedback to carers
- chronic disease management and lifestyle choices



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## Constraints

- Multilingual display
- Open Source & open standards
- Data protection & Medical Device Directive



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## Sought impacts I

- For target outcome a), b), c) and d):
  - Common platform for a wide range of ICT-based healthcare services.
  - Improve sustainability of Healthcare services by enabling better use of resources.
  - Increased international competitiveness of European Healthcare Information Services and Software industry.
  - Guidance on healthcare information systems issues in “green field” member states.
  - Accelerated establishment of interoperability standards and of secure, seamless communication of health data between all involved partners, including patients.
  - Wide-scale epidemiology based on Europe-wide Healthcare information system.



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## Sought impacts II

- For target outcome a), c) and d):
  - Bettmedical expertise access in remote areas, via improved decision-support systems.
  - Support for patient mobility and patient safety through PHR accessed throughout Europe.
  - Improved disease management and treatment through provision of personalised services.
  - Reinforced participation of patients in care processes and health management.
- For target outcomes b), c) and d):
  - Faster medication innovation and lower costs through a more efficient research process.
- For target outcome d) only:
  - Wider access for patients to public health information data portals using mobile platforms.
  - Standard mobile solutions for future implementations of closed loop applications.



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## Rhetorical questions

- What contribution to draw from EPSOS and Calliope?
- How to involve patients in identifying their needs and validating solutions?



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## Leading actors

- Medical professional organisations (NoE, 5.3a)
- Patient representation organisations (5.3a)
- Pharma & Clinical Research Organisations (5.3b)
- Mobile telephone operators (PCP)
- Standards development organisations (NoE)
  - Healthcare record standards
  - Terminologies and ontologies
- Member state health service providers
- Healthcare software editors
- Healthcare information providers



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## Contact persons

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Thank you



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