



REMOTE

Remote health and social care for independent living of isolated elderly with chronic conditions
AAL Project

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Blue Point IT Solutions



Overview

- Who we are
- RTD projects involvement
- REMOTE project



Blue Point IT Solutions

The company was set up in December 2000
Main activity is software development, consulting
and integration services focusing in:

- banking IT and business solutions
- development of applications for mobile platforms
- technology enabled learning



Blue Point IT Solutions

Research activity

- Development of mobile services
- Development of applications for mobile platforms
- Software accessibility



Blue Point IT Solutions

Main projects

ASK-IT - Ambient Intelligence System of Agents for Knowledge-based and Integrated Services for Mobility Impaired users (**FP6 - IP**, 44 partners, 16 countries 15.1 M EUR budget)

AEGIS Open Accessibility Everywhere: Groundwork, Infrastructure, Standards (**FP7 - CP**, 27 partners, 11 countries, 12.7 M EUR budget)

OASIS Open architecture for Accessible Services Integration and Standardisation (**FP7 - CP**, 33 partners, 12 countries, 12.2 M EUR budget)



REMOTE project

Full title Remote health and social care for independent living of isolated elderly with chronic conditions

Project acronym REMOTE

Grant agreement no. AAL-2008-1-147

Total budget €3.410.726,40

AAL funding €2.249.195,23 (64,9%)

Duration 3 years

Start Date June 2009



REMOTE Consortium

15 partners from 8 countries

Sensor/Actuator developers

Knowledge management engineers
and ontology experts

Web service providers

Software development experts and
System integrators

Healthcare professionals

Human factors, Psychologists, and
Sociologists

Dissemination and Marketing
experts

SIEMENS

SIEMENS S.A. SIEMENS,
Spain
www.siemens.es



TSB Soluciones S.A. TSP,
Spain
www.tsb.upv.es



Universidad Politécnica de Madrid UPM,
Spain
www.upm.es



Fundación para la Investigación Médica Aplicada
FIMA, Spain
www.cima.es



Saliwell Ltd. SALIWELL,
Israel
www.saliwell.com



Foundation for Research and Technology Hellas
Institute of Computer Science, Greece
<http://www.ics.forth.gr>



Centre for Research and Technology
Hellas CERTH, Greece
www.certh.gr



Netscouts gemeinnützige GmbH Netscouts,
Germany
www.netscouts-ggmbh.de



Abama Technologies S.L. ABAMA,
Spain
www.abama.es



University Hospital of North-Norway (UNN) -
Norwegian Centre for Telemedicine NST,
Norway
www.telemed.no



The European Older People's Platform AGE,
Belgium
www.age-platform.org



Bluepoint IT Solutions Bluepoint,
Romania
www.bluepoint-it.ro



Medea SRL MEDEA,
Italy
www.medea-project.eu



Fraunhofer-Institut für Biomedizinische Technik
FhG/IBMT, Germany
www.ibmt.fraunhofer.de



Ortholine Ltd. Ortholine,
Israel
www.ortholine.co.il



REMOTE project

REMOTE aims at defining and establishing a **multidisciplinary and integrated approach** to R&D of ICT for addressing real needs of elderly people

especially of citizens at risk due to

- **geographic** and/or
- **social** isolation

in combination with specific

- **chronic conditions**

and the coexistence of

- **lifestyle risk factors** (such as obesity, blood pressure, poor eating/drinking habits, stress, etc.)





REMOTE project

REMOTE will advance
the SoA in fields of
tele-healthcare and **Aml**
by enhancing the elderly's daily
life at home with audio-visual,
sensor / motor function /
environmental monitoring and
automation abilities

as a means to:

monitor **vital signs, activity,**
behaviour and health condition

collect **human- and context-related**
data

detect **risks and critical situations**

provide (proactively and reactively)
effective and efficient support at
home

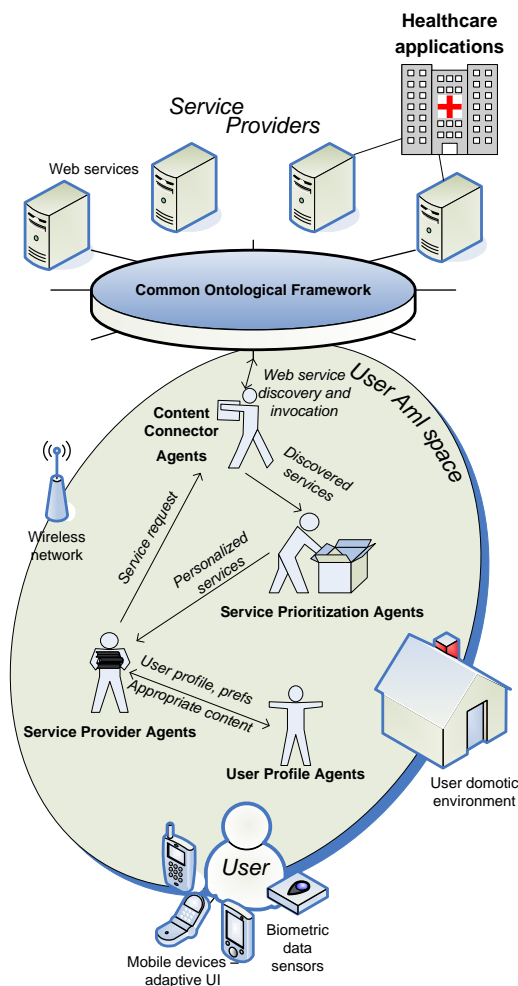


REMOTE Aml framework: a collaborative telemonitoring platform

as a means to support remote teams of professionals to identify and react collaboratively to health risks of isolated elderly

the project introduces an **innovative, ontology-driven, open reference architecture and platform** that will enable interoperability, seamless connectivity and data sharing among different services

thus allowing for monitoring at anytime and from anywhere real-time, activity and medical data



Main parts

- Monitoring and tracking infrastructure
- Aml framework managed by software agents
- Common Ontological Framework
- Service-oriented content management architecture
- Adaptive user interfaces and mobile devices
- Healthcare applications



Intelligent services and applications: End-user tools and experience

Personal self-care services and applications

- ✓ Health, activity and nutrition advisor
- ✓ Social interaction platform (chat, message board, voice-over-IP, video-streaming, etc.)
- ✓ Personal Calendar
- ✓ Trip advisor

Augmented home autonomy applications

the Aml environment is experienced through several user-friendly and accessible house controls and displays

Mobile and portable toolkits

Services and applications integrated to mobile and portable platforms:

- ✓ Remote access to home automation and other REMOTE self-care services
- ✓ Virtual trip assistant, which will monitor the health conditions of the user on the move and provide, when necessary, alert messages and guidance for preventing dangerous events (dehydration, high blood pressure, arrhythmia, etc.)



Approaches and principles

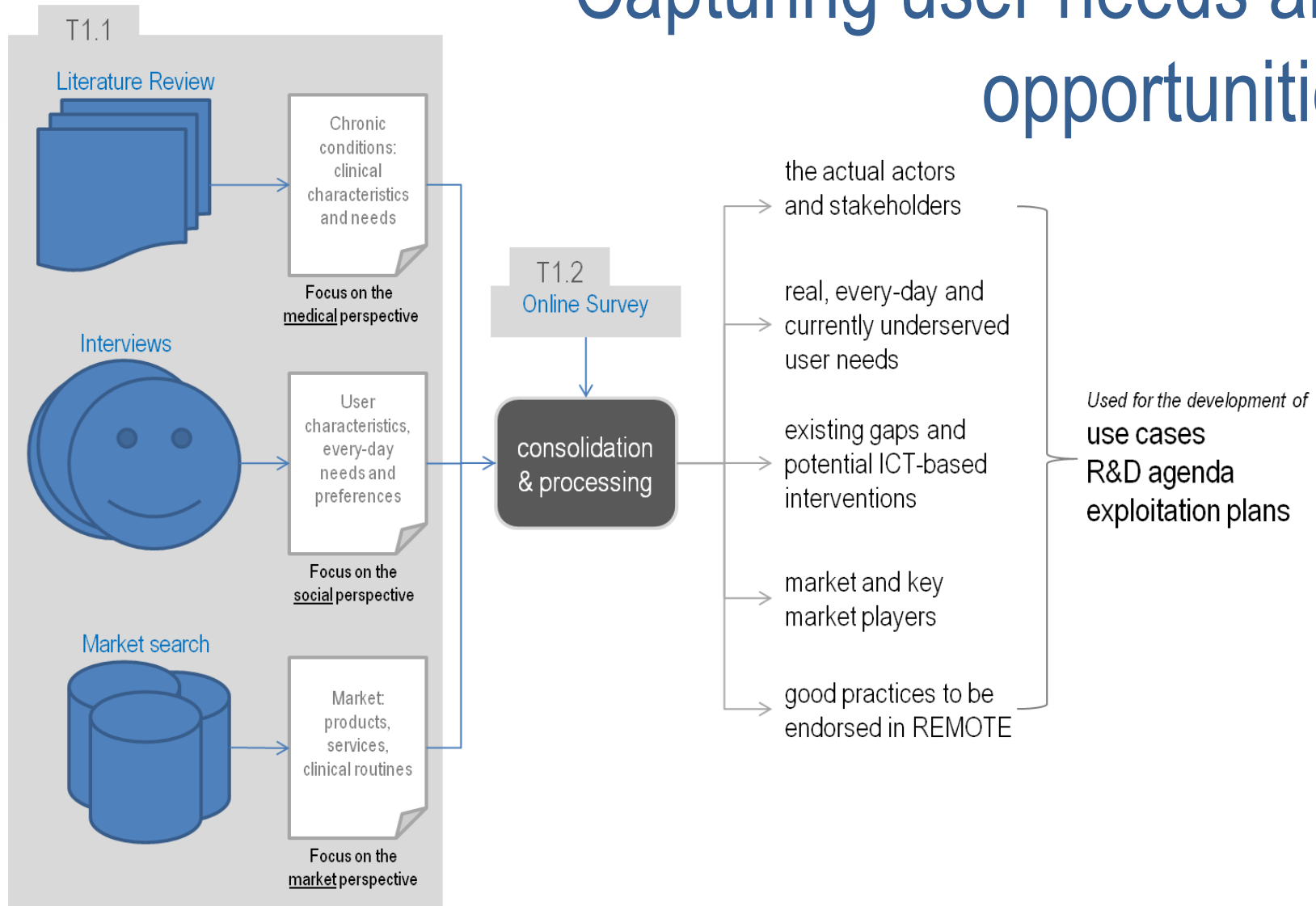
Overall, REMOTE is characterised by:

- ✓ a UCD philosophy and consistent involvement of users
- ✓ processes for reaching consensus among all stakeholders
- ✓ strong commitment to ethical and legal issues
- ✓ sound scientific and evidence-based methods to measure usability, impact and acceptance of the developments by elderly populations
- ✓ and European market-oriented R&D

Participatory design & Iterative testing

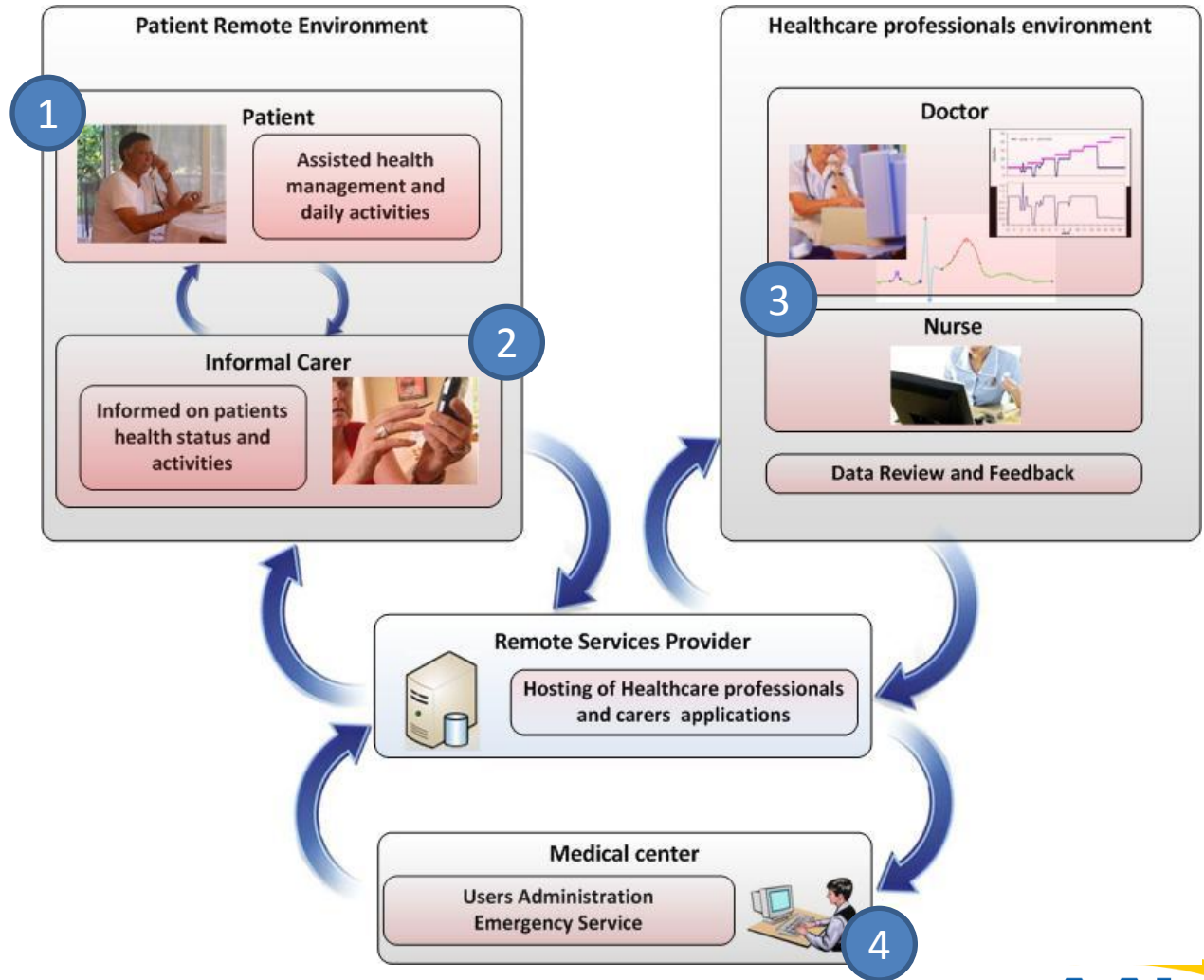


Capturing user needs and opportunities



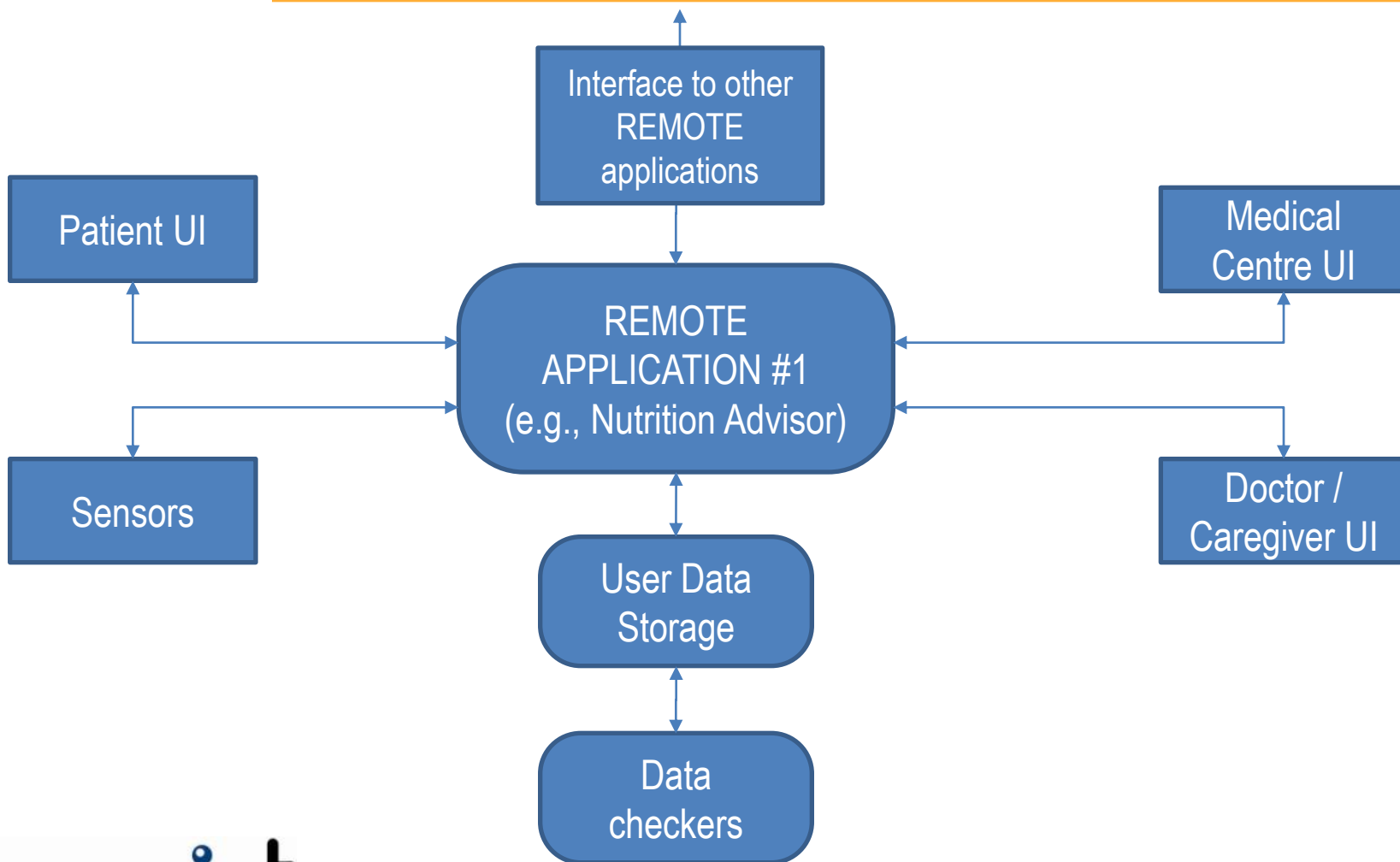


Four main roles and corresponding interfaces

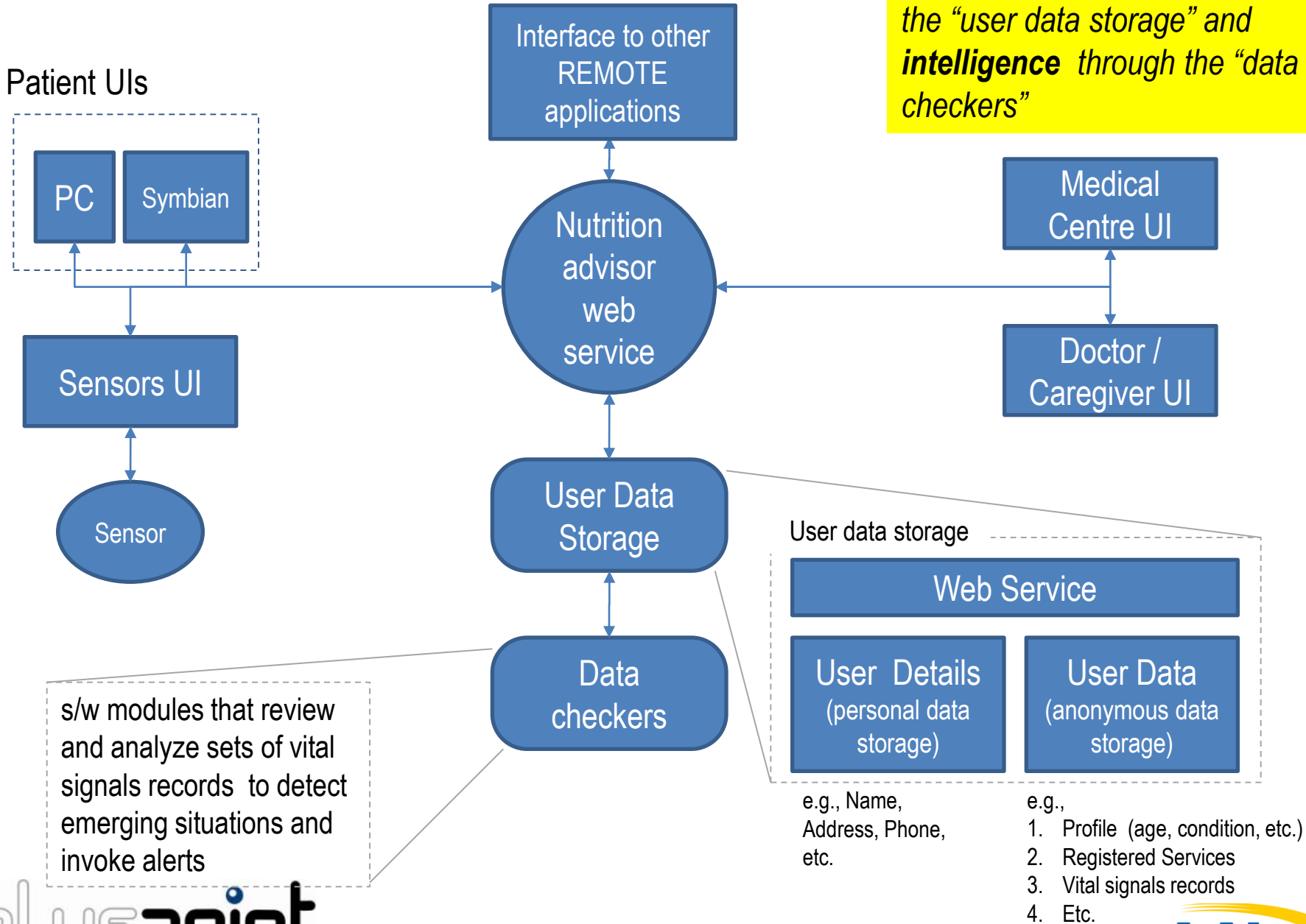




Development of the REMOTE applications



integration is achieved through the “user data storage” and **intelligence** through the “data checkers”





Nutritional Advisor - professional

The screenshot shows a web browser window with the URL `http://158.42.166.122:8081/NutriManager/MenuPlanner.jsp`. The browser's address bar and tabs are visible at the top. The application's header features the 'Remote' logo on the left and the title 'Nutritional Advisor' in large white text on a dark blue background. Below the header is a navigation menu with buttons for 'Menu Planner', 'Menu Manager', 'Meals Manager', 'Recipes Manager', 'Ingredients Manager', 'Advices Manager', 'Control Patients', and 'Help'. The main content area is titled 'Patient's Data' and contains several input fields and buttons: 'Search patient:' with 'Name' and 'Last Name' text boxes and a 'Search' button; 'Patient:' with a 'Select Patient' dropdown menu; 'Menu Source:' with a 'Select Menu Source' dropdown menu and a 'Load Menus' button; and 'Menu:' with a 'Select Menu' dropdown menu and a 'See Menu' button.



Nutritional Advisor - user

Today

Tomorrow

Week

Recipes

Nutritional Menus

Advises

Nutritional Advises

Shopping List

Add Food Article

Shopping

Breakfast: 08:30

whole milk, bread, margarine, whole-grain cereals, apple

 Did you eat it?
 Did you like it?

Lunch: 13:30

sole with hazelnut

Baked apples without sugar

tortellini with bacon

 Did you eat it?
 Did you like it?

Dinner: 20:00

Lentils salad

custard

trout with almonds

 Did you eat it?
 Did you like it?

Options

Nutritional Advisor mobile



REMOTE Home



Nutritional
Advisor



Communication
Tool



Environmental
Control



Guardian
Angel



Calendar



Exit

Menu

Panic Button



Help is on the way!
Medical center will call you.

OK

Emergency Help



Medical Contact Center

List of Patients

Patient Search

First name Last name
Username Site

#	<input type="checkbox"/>	First name	Last name	Gender	Birth date	Mobile Phone	Healthcare Professionals	Site	Details
1	<input type="checkbox"/>	aaaaa	bbbbbb	F	Mar 14, 2012			TEST	View
2	<input type="checkbox"/>	Adam	Wolff	M	Jan 01, 1986		Dr. Andy Wolff	ISRAEL-PEHMED	View
3	<input type="checkbox"/>	Adeiios	Adeiou	M	Mar 09, 2007		Mr. Konstantinos Agnantis	GREECE-CERTH-HIT	View

- Patients
 - List of Patients
 - Add new Patient
 - Edit Patient
 - Remove Patient
 - Print report
- Healthcare Professionals
- Informal Carers
- Logout

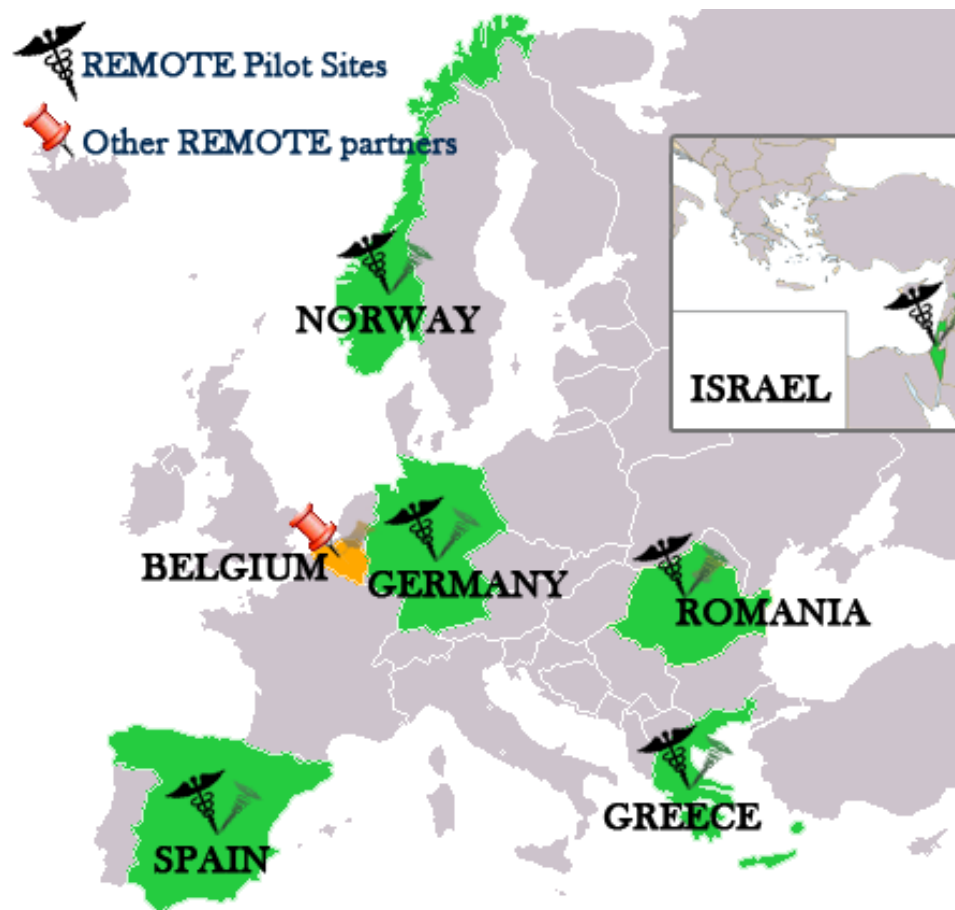


Testing & Pilots

REMOTE addresses all types of European social, economic, legal and organisation related environments, through its pilots in **six (6) countries**

The evaluation has three (3) phases:

- Individual sensor/systems tests and interface designs assessment
- Stand alone services and interactive interfaces assessment
- Final system trials





Conclusions

REMOTE enables continuous health monitoring services, thus allowing health care personnel at hospitals and care institutions to seamlessly supervise, follow-up, treat, and monitor elderly people while at their own homes or within elderly homes

Overall, REMOTE has the potential to contribute to the following areas:

- (health) information extraction and use
- Understanding of (chronic) and age-related conditions
- Patient modelling (the medical perspective)
- Elderly-friendly user interface design & development
- Guidelines, standards and policy



Contact Information

Thank you for your attention!

Blue Point IT Solutions

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