

# eHealth

## Policy and research ICT for a healthier EU

MARCH, 2011

**The eHealth industry is growing fast. Thanks to the new electronic services it provides, healthcare is becoming more efficient. As a result, healthcare professionals and patients can now get quicker and easier access to vital health information.**



### The policy context

For more than two decades now, the European Commission has contributed to the improvement of healthcare through research & development programmes on new technologies.

With the new Digital Agenda strategy, the Commission focuses on ICT's capability to: reduce energy consumption, support ageing citizens' lives, revolutionise health services and deliver better public services. It includes a specific focus on sustainable healthcare and ICT-based support for dignified and independent living.

### What does eHealth mean?

eHealth means providing citizens with access to quality health information and to view their own health records on line, even when travelling in Europe. It means building secure health networks, where specific vital information about patient can be accessed securely by health professionals in any Member State. eHealth means this and much more!

eHealth helps to improve: relations between patient and health-service administration, institution-to-institution transmission of data, and peer-to-peer communication between patients and/or health professionals.

It is also health information networks, electronic health records, telemedicine services, and personal wearable, portable and communicable systems for



monitoring and supporting patients.

### Developing the eHealth market

Today, many European countries and regions are world leaders in eHealth. They have developed advanced health information networks, electronic health records and health cards. See example in the box below.

The size of the European eHealth industry is currently estimated at €20 billion. Yet there is still much untapped potential that needs to be encouraged.

The Commission has led a number of political initiatives to support and promote greater dialogue among healthcare administrations, industry and professionals in the Member States.

### The eHealth Action Plan

As early as 2004 the Commission adopted an eHealth Action Plan that called on Member States and on the Commission to speed up the development and spread of eHealth systems.

Member States were asked to draw up national or regional roadmaps for eHealth, define a common approach to patient identifiers, outline interoperability standards for health records and health data messages, and support investment in eHealth.

The Commission is intensifying its efforts in **tackling the barriers to large scale deployment of eHealth applications**<sup>1</sup>. In this regard, we need to support interoperability of health information systems<sup>1</sup>, and clarify the legal framework for telemedicine. A special emphasis will be put on the protection of personal data and on regulatory issues to ensure that the eHealth can fully benefit from the Internal Market ensuring high quality, transparency and better prices for customers.<sup>2</sup> The Commission will also support the **deployment of a proper ICT infrastructure** and large European actions that demonstrate the benefits of eHealth services on a larger scale<sup>3</sup>.

**epsOS** (european patients Smart Open Services) - enabling cross-border access to patient summary and ePrescription services. This European Union 'large scale pilot' project develops basic national and pan-European eHealth infrastructure elements (like authentication of patients and health professionals, semantic interoperability, security) which will interconnect regional and national solutions to enable cross border access to patient data. These may contain emergency data and/or prescription information. Semantic interoperability built up by the project will facilitate the healthcare experience of a patient from Country A, who seeks care in Country B by providing key information in the respective national languages. Patients will be able to give explicit consent to accessing their data in their native language. Piloting of services will begin in 2011. (<http://www.epsos.eu>)

<sup>1</sup> Commission Communication "A lead market initiative for Europe" - COM(2007)860 (21.12.2007)

<sup>2</sup> As addressed in the Communication on telemedicine for the benefit of patients, healthcare systems and society (of 4 November 2008 (COM (2008) 689).

<sup>3</sup> The Commission Communication "A lead market initiative for Europe" - COM(2007)860 (21.12.2007) was adopted in Dec 2007, calling for urgent and coordinated action to accelerate the development of six different market areas, including eHealth. As addressed in the Communication on

In response to the Council Conclusions on eHealth<sup>4</sup>, the European Commission is supporting an **EU-wide policy initiative<sup>5</sup> group** to ensure proper governance of eHealth deployment in Europe.

The Commission will further strengthen its research activities on eHealth applications, such as wearable systems for monitoring of patients, for immediate diagnosis and detection of Public Health threats, artificial organs and diseases simulators to enable personalised treatments and predictive medicine.

### Present and upcoming actions:

- The eHealth Governance initiative will bring forward eHealth for the "**deployment and actual use of interoperable eHealth services within and between national healthcare systems**";
- A 10-point action plan to support deployment of telemedicine, including measures to improve its acceptance, overcome legal barriers and technical challenges is being implemented;
- Following the launch in 2009 of Large scale pilots (LSP), supporting interoperability of health information systems across borders, for patients summary and ePrescription of drugs, further LSP supporting Telemonitoring deployment were launched in 2010 and additional ones on "Empowering patients and supporting widespread deployment of telemedicine services"<sup>6</sup> are foreseen in 2011;
- A Commission Staff Working Paper on a Community legal framework applicable to telemedicine services is planned for mid 2011;
- A study "Enhancing procurement of ICT solutions for healthcare" was launched in January 2011;
- A collaborative initiative of several Commission Directorates on lead markets aims to accelerate the creation of innovative eHealth markets<sup>7</sup>;
- Specific studies and Member States' consultations will allow the European Commission to continue to monitor eHealth development and deployment across Europe;
- A new eHealth Action Plan will be adopted by the European Commission by end 2011.

### Major future events

The [eHealth Week 2011](#) will co-locate the **eHealth Ministerial Conference<sup>8</sup>** with the participation of all

telemedicine for the benefit of patients, healthcare systems and society (of 4 Nov. 2008 (COM (2008) 689).

<sup>4</sup>Such as the ongoing epSOS project

<sup>5</sup> European eHealth Governance Initiative is planned to be funded via the CIP ICT PSP and the SANCO Public Health Programme.

<sup>6</sup>[http://ec.europa.eu/information\\_society/activities/ict\\_psp/documents/ict\\_psp\\_wp2011\\_for\\_publication.pdf](http://ec.europa.eu/information_society/activities/ict_psp/documents/ict_psp_wp2011_for_publication.pdf) p24

<sup>7</sup>[http://ec.europa.eu/information\\_society/activities/health/policy/lmi\\_ehealth/index\\_en.htm](http://ec.europa.eu/information_society/activities/health/policy/lmi_ehealth/index_en.htm)

<sup>8</sup>[http://ec.europa.eu/information\\_society/activities/health/policy/ehealth\\_conf/index\\_en.htm](http://ec.europa.eu/information_society/activities/health/policy/ehealth_conf/index_en.htm)

EU Member States and the World of Health IT conference & exhibition in Budapest, Hungary, 10-12 May 2011.

Other relevant conferences<sup>9</sup>: Med-e-Tel, pHealth, Heart failure congress, ECR congress, WHCC, WCIT.

### Research

The EU has already devoted €335 million to healthcare research<sup>10</sup> related to ICT (Information and Communication technologies) in the first 4 years of the 7<sup>th</sup> Framework programme (FP7 2007-2013). This amount will be increased by further funding in the latter phase of the FP7. The overall aim is to support the development of sustainable and personalised healthcare services. Up until now, the effort has focused on:

#### 1. Personalised monitoring (135 M€):

Innovative systems and services for monitoring the health status of people at risk of or suffering from chronic health conditions, including those associated with ageing. Solutions based on wearable, portable or implantable systems offer the means to follow patients' health outside traditional care institutions, thus enabling them to live a more normal life, whilst facilitating efficient management of diseases and early diagnosis of symptoms from a distance.

#### 2. Risk assessment and patient safety (60M€):

Advanced computerised systems to alert and prevent injuries or adverse events, improve safety of surgical interventions and close the loop between clinical care and clinical research information systems. In addition, tools to improve global health security by earlier detection of public health events, such as outbreaks.

#### 3. Computer models for personalised and predictive healthcare (140 M€):

Patient-specific predictive computer based models and simulation of major diseases integrating biological and medical data. These multi-scale models use specific patient data allowing for personalised and predictive healthcare. Health professional can use these models to predict the risk of developing a disease and to diagnose and treat these diseases for a specific patient. This research known as the Virtual Physiological Human (VPH) has reached a leading position over the last 4 years, on the international research scene. FP7 Call 4 was specifically dedicated to international cooperation linking EU projects with international initiatives.

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#### For further information:

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<sup>9</sup>[http://ec.europa.eu/information\\_society/newsroom/cf/news.cfm?redirection=1&item\\_type=calendar&tpa\\_id=23](http://ec.europa.eu/information_society/newsroom/cf/news.cfm?redirection=1&item_type=calendar&tpa_id=23)

<sup>10</sup>[http://ec.europa.eu/information\\_society/activities/health/research/index\\_en.htm](http://ec.europa.eu/information_society/activities/health/research/index_en.htm)