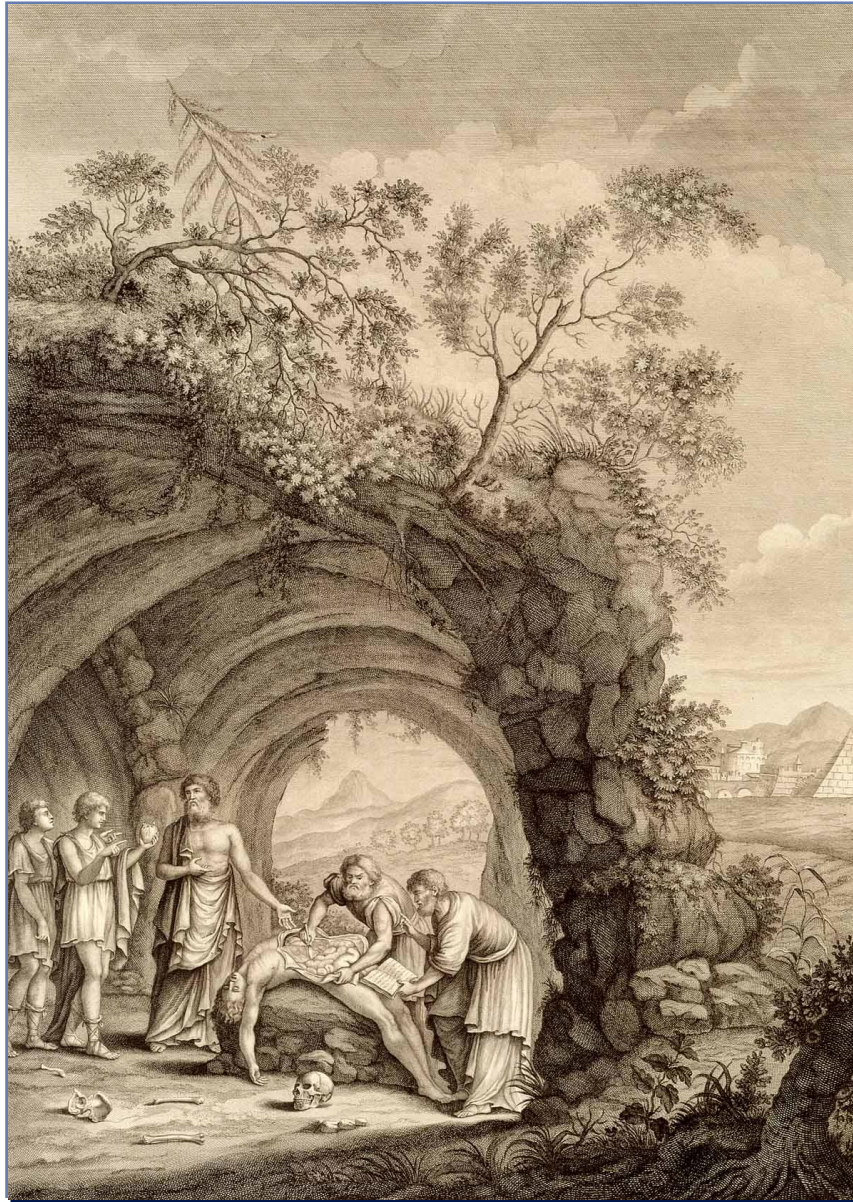# HEALTH SYSTEMS TRANSFORMATION THROUGH eHEALTH

Joan Cornet Prat

Executive Chairman TicSalut Foundation

Boston 23rd October 2012

Generalitat de Catalunya
Departament de Salut

Agència d'Informació,
Avaluació i Qualitat en Salut

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Tabulae anatomical ligamentorum corporus humani...

Venice, 1803. Copperplate engraving. National Library of Medicine.

Extracción de la piedra de la locura

El Bosco, 1475-1480

Museo del Prado, Madrid, España

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CELEBRATE
Mad Hatter Day
with
THE ALTERED ALICE'S
Mad Tea Party

Will you please tell me which way I ought to go from here?

"In that direction" the Cat said, waving the right paw round " lives a Hatter; and in that direction ,waving the other paw, " lives a March Hare.

"Visit either you like; they're both mad".

" But I don't want to go among mad people" Alice remarked.

"Oh, you can't help that" said the Cat; " we are all mad here…

Alice in Wonderland. Lewis Carroll. Chapter VI

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Tic Salut Foundation

TicSalut — Tecnologia, innovació i salut

Suppliers of Health

Advisory Business Board

Professional and citizens Council

Scientific Council

Collaboration Agreement Fundació TicSalut – Health Department / CatSalut

Observatory

Innovation

Normalization

International relations and projects

Trend Maps

Telemedicine and Teleassistance plan **DEPLOYMENT**

Office of standards **DEPLOYMENT**

Projects, agreements, congress

Who we are
Foundation Board

Generalitat de Catalunya
Departament de Salut

Generalitat de Catalunya
Departament de la Presidència

Generalitat de Catalunya
Departament d'Empresa i Ocupació

Generalitat de Catalunya
**Departament de Governació
i Relacions Institucionals**

Ajuntament de Mataró

CatSalut
Servei Català
de la Salut

Institut Català
de la Salut

**Consorci de Salut i
Social de Catalunya**

La Unió
Associació d'Entitats
Sanitàries i Socials

aces
ASSOCIACIÓ CATALANA
D'ENTITATS DE SALUT

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What to do

Map of trends

Annual publication that provides objective information about the level of development of ICT in health organizations in Catalonia

OBSERVATORY

Telemedicine and Teleassistance Plan

Proposals for action and projects of interest assessed by the Health Department in this area

INNOVATION

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What to do

Interoperability and standards office

Preparation of criteria and strategic guidelines in adopting semantic standards and technologies.
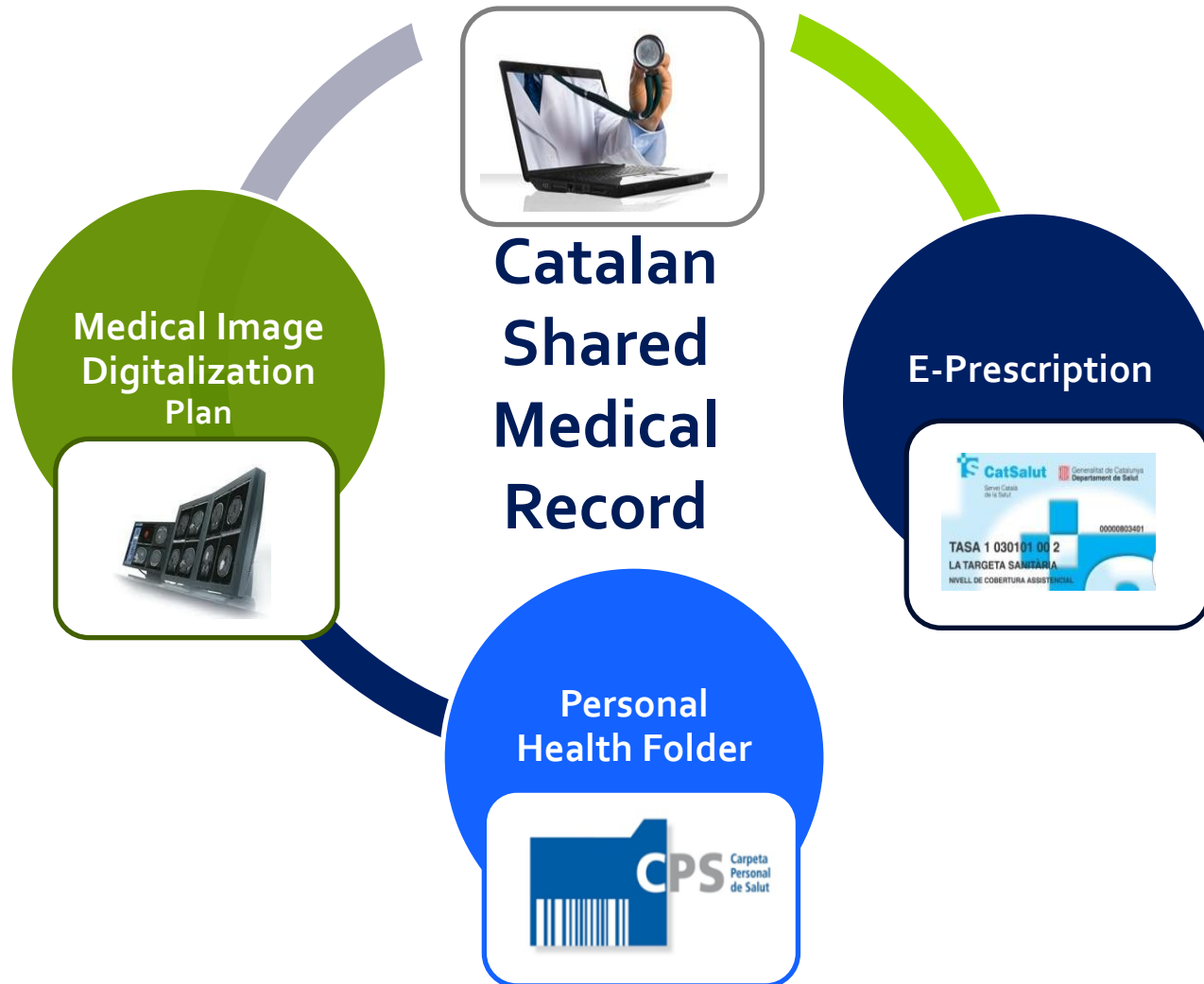
Standardizations

Projects, agreements, congresses

Participate in international projects and activities that promote the implementation of new technologies in the field of health

Where we are

Catalan Shared Medical Record

Medical Image Digitalization Plan

E-Prescription

Personal Health Folder

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Servei Català de la Salut
Generalitat de Catalunya
Departament de Salut

TASA 1 030101 00 2
00000803401
LA TARGETA SANITÀRIA
NIVELL DE COBERTURA ASSISTENCIAL

CPS
Carpeta Personal de Salut

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The Catalan Health System reality

Government: **Generalitat de Catalunya**

Area: **32.107 km²**

Population (2011): **7.539.000**

Life expectancy (2011): **80,55 years**

Birth rate (2010): **1,47**

Gross Mortality rate (2010): **7,92**

Infant mortality (2010): **2,63**
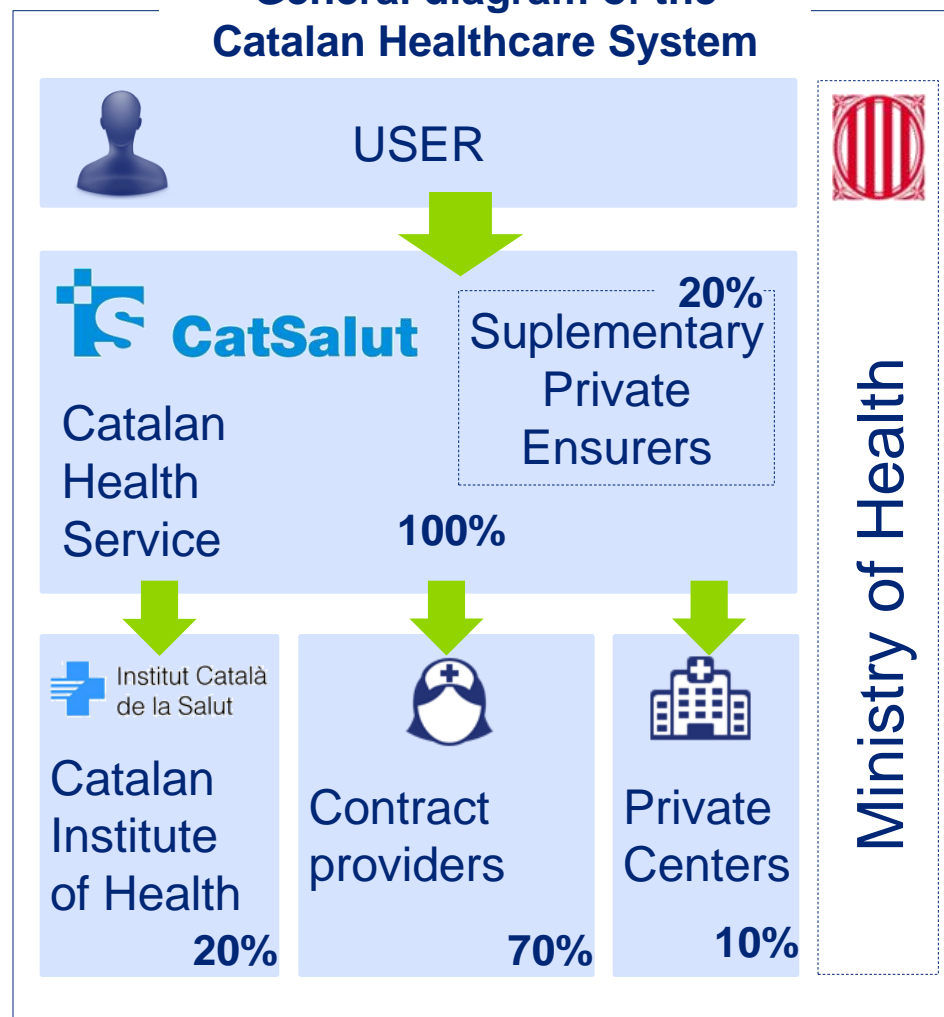
GDP/Capita (2009): **28.046€**

High urban concentration (2009): **232,8 hab/km²**

Own language and culture

Catalunya

General diagram of the Catalan Healthcare System

USER

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Catalan Health Service

20% Suplementary Private Ensurers

100%

Institut Català de la Salut

Catalan Institute of Health

20%

Contract providers

70%

Private Centers

10%

Ministry of Health

How are we organized to provide health services?

Emergency

2.761.280 emergencies primary assistance
3.5212.420 hospital emergencies
1.622.300 urgencies SEM (emergency medical system)

Visits

40.919.888 primary assistance
4.476.690 first specialist hospital visits

Chronic Illnesses

29.5% lumbar pain
27,3% cervical pain
22,6% degenerative osteoarthritis
19,8% poor circulation
19,2% low blood pressure

| 65 Hospitals | 408 Primary Attention | 374 Psychiatric Care | 327 Sociosanit | 133 Drugs care | 3159 Pharmacies |

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Challenges of the Catalan Health System

Our health care system shows results that **placed it at the forefront of European health systems**, it's well valued and has **become a powerful engine** of the national economy. However, future challenges are different and **our health system is not prepared** to face them

CHRONICITY
Demand growing steadily, with an **aging population** and a **poorer profile of morbidity**

CARE COST
Some **resources are becoming limited**, with **more customized** and **expensive** medical treatments and a growing saturation

FINANCING
A financing scheme **pressured by the increase in demand and the continuous growth of care costs.**

Pla de Salut 2011-2015

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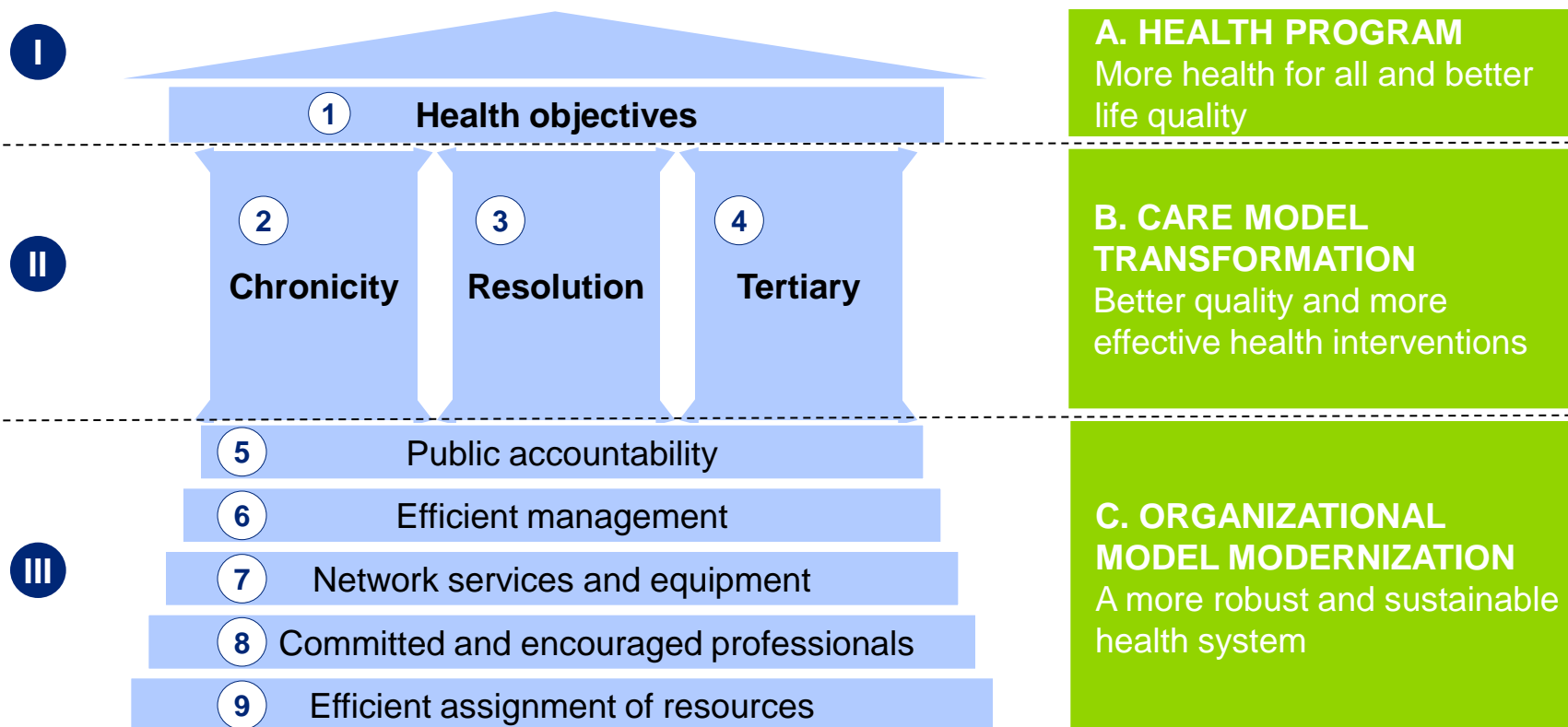Tecnologia, innovació i salut

Health Plan 2011-2015

Pla de Salut 2011-2015 — The Health Plan is **the tool that should contribute to guide the transformation of the health system**. This transformation is divided into 3 areas, 9 major lines and 31 strategic projects which make the health system's roadmap until 2015

Items of change

Main lines

I

1 **Health objectives**

A. HEALTH PROGRAM
More health for all and better life quality

II

2 **Chronicity** 3 **Resolution** 4 **Tertiary**

B. CARE MODEL TRANSFORMATION
Better quality and more effective health interventions

III

5 Public accountability
6 Efficient management
7 Network services and equipment
8 Committed and encouraged professionals
9 Efficient assignment of resources

C. ORGANIZATIONAL MODEL MODERNIZATION
A more robust and sustainable health system

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The lifecycle information management

The value of the information

The Health Plan 2011-2015 presents **new challenges**, focused in an organizational transformation that involve a **new health care model**.

The **lifecycle information management** is a **key element** in this new health care model.

The rol of the CAHIAQ

Catalan **A**gency for **H**ealth **I**nformation, **A**ssessment and **Q**uality

Health Care Providers

TIC Providers

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ICT Strategic Plan 2012-2015

In response to the Health Plan 2011-2015, the **ICT Strategic Plan defines the strategy of the Agency** on ICT issues.

ICT Strategic Plan 2012-2015

Strategic Lines
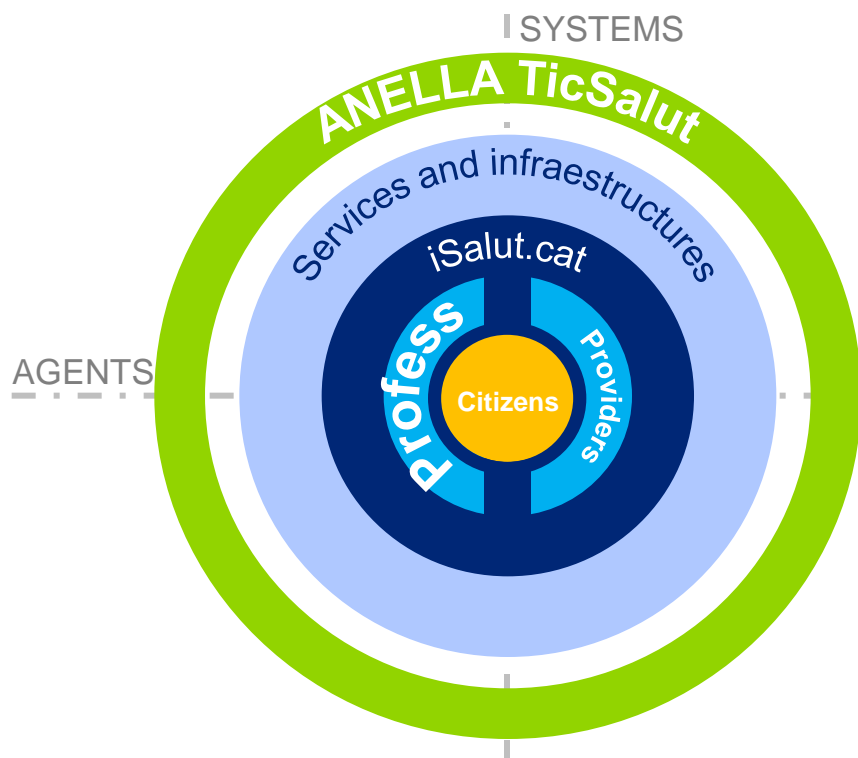
S.L. 1 — Transform the **medical record** of Catalonia into an **information and shared services** network

S.L. 2 — Deploy a **multichannel communication** and **attention network** for citizens

S.L. 3 — Ensure the **infrastructures and services** needed to build a **new healthcare model**

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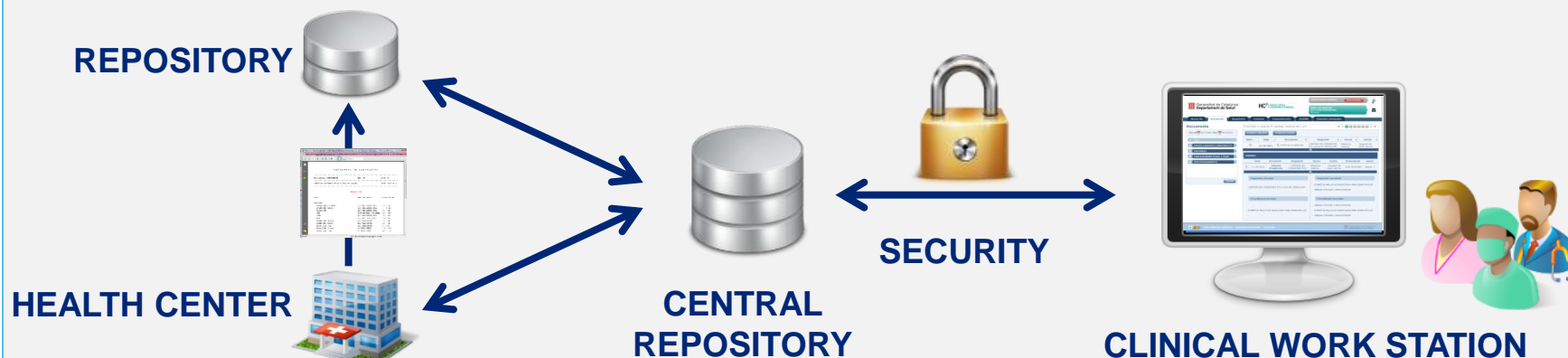# An information and shared services network

Transform the **medical record** of Catalonia into an **information and shared services** network

HC³

The Shared Medical Record is a virtual space to group together **the documents about patient's healthcare process.**

iSalut.cat

We're working to **include ALL the documentation about the patient's health status** and **new services** focused to **coordinate the professionals' work**.

REPOSITORY

HEALTH CENTER

CENTRAL REPOSITORY

SECURITY

CLINICAL WORK STATION

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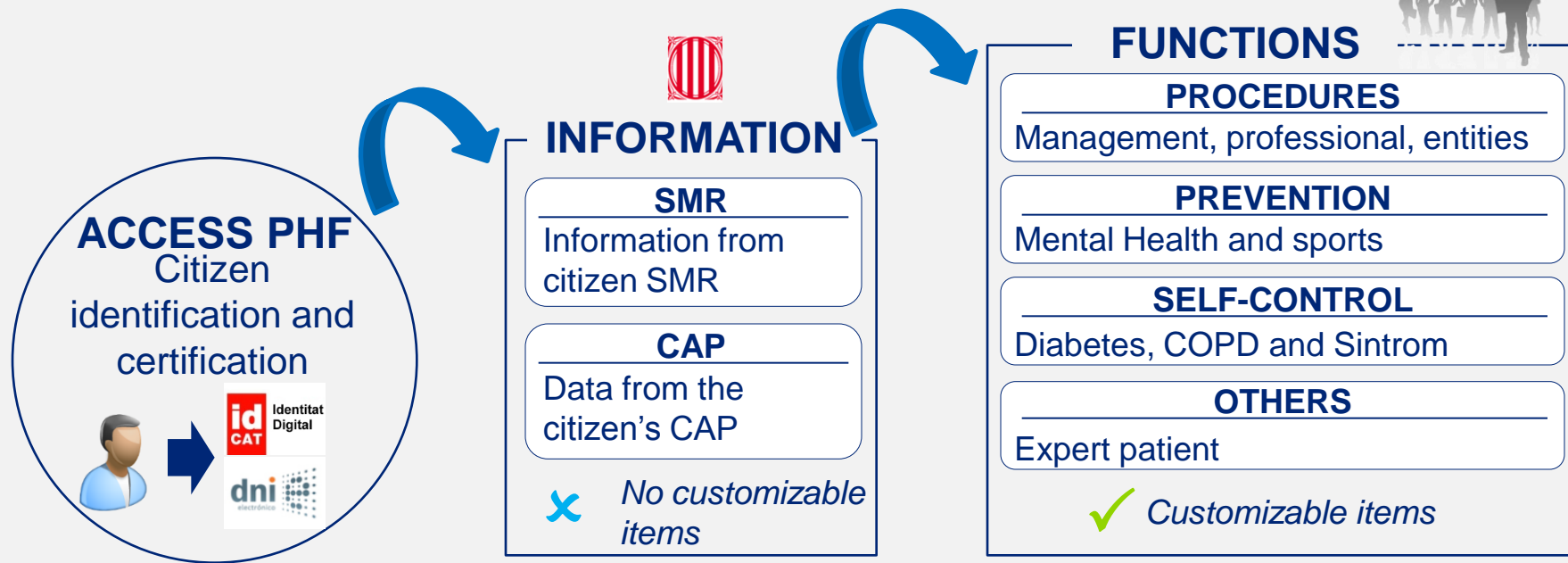
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A multichannel communication and attention network

Deploy a **multichannel communication** and **attention network** for citizens

The **Personal Health Folder** is a **virtual space** where the Health Department store and offer to all the **Catalan citizens**, through internet, **relevant information of their health status to implicate citizens in the care of their own health**.

FUNCTIONS

ACCESS PHF
Citizen identification and certification

INFORMATION

SMR
Information from citizen SMR

CAP
Data from the citizen's CAP

✗ *No customizable items*

PROCEDURES
Management, professional, entities

PREVENTION
Mental Health and sports

SELF-CONTROL
Diabetes, COPD and Sintrom

OTHERS
Expert patient

✓ *Customizable items*

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Key ICT Projects' goal

SHARED MEDICAL RECORD FOR PROFESSIONALS

The 76% of healthcare centers in Catalonia are connected to the SMR

PERSONAL HEALTH FOLDER FOR CITIZENS

The 8,8% of the Catalan population has access to the PHF

Goal: Provide ICT tools to professionals and citizens to offer quality care to citizens

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Mobility, another key element

2008	2009	2010	2011	2012	2013	2014	2015

Definition of the Personal Health Folder as a Strategic Project in the IS-ICT Plan

Usability testing of the Personal Health Folder in Calella

17.000 citizens with access (Calella BHA and blood donors)

Certificates **eDNI**: 25 million
Certificates **CatCert**: 174.034

Pilot to **access** the PHF via **mobile**

88.727 citizens with access (Incorporation of Malgrat de Mar and Lloret de Mar BHA and Palafolls)

Allow **access** to **diabetics**

Access to Medication plan

Services for a **personalized follow-up** of patients

Access via **Canal Salut**

Allow **access** to all **Catalan citizens**

Common internet **resources** and services

Communication and **interaction** with health professionals

Involvement and presence in **social networks**

Procedures **Virtual Office** to access different services

MOBILITY OF HEALTH CONTENTS AND FEATURES

− +

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Innovation, another key element

The health care sector needs to **identify innovative management practices** that are taking place to face future challenges.

The **Innovative Management Observatory of the Catalan Health Care System** is a **tool of the system and for the system**, that will **collect**, **validate**, **order** and **value** various **management experiences that are taking place in the health care management area**

ACTIVITY AREAS

- Catalonia
- Autonomous Communities
- State
- European
- International

USERS

- Health care system managers
- Public and private health care managers
- Health care professionals

PRODUCTS

- Methodologies
- Experiences

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