



***Regional Service Card  
Health & Social Care Information  
System***

***Fulvio Barbarito***  
*Lombardia Informatica*

## *Summary*

### CRS-SISS Project:

- ✓ Overview
- ✓ The Smart Cards
- ✓ The Project in detail
- ✓ Services
- ✓ The Principles
- ✓ Figures

## Project overview

The CRS–SISS is one of the most important Italian e-Government project in the field of Healthcare.

The core of the project is the **creation of a network**, an '**Healthcare Extranet**', which links operators, social services, organizations and citizens, tracking all the events which occur in the patient treatment (from prescription to administration) and providing value added services.

The project is based on Smart Card technologies, granting access to the Network to both citizens and operators by their personal smart card.



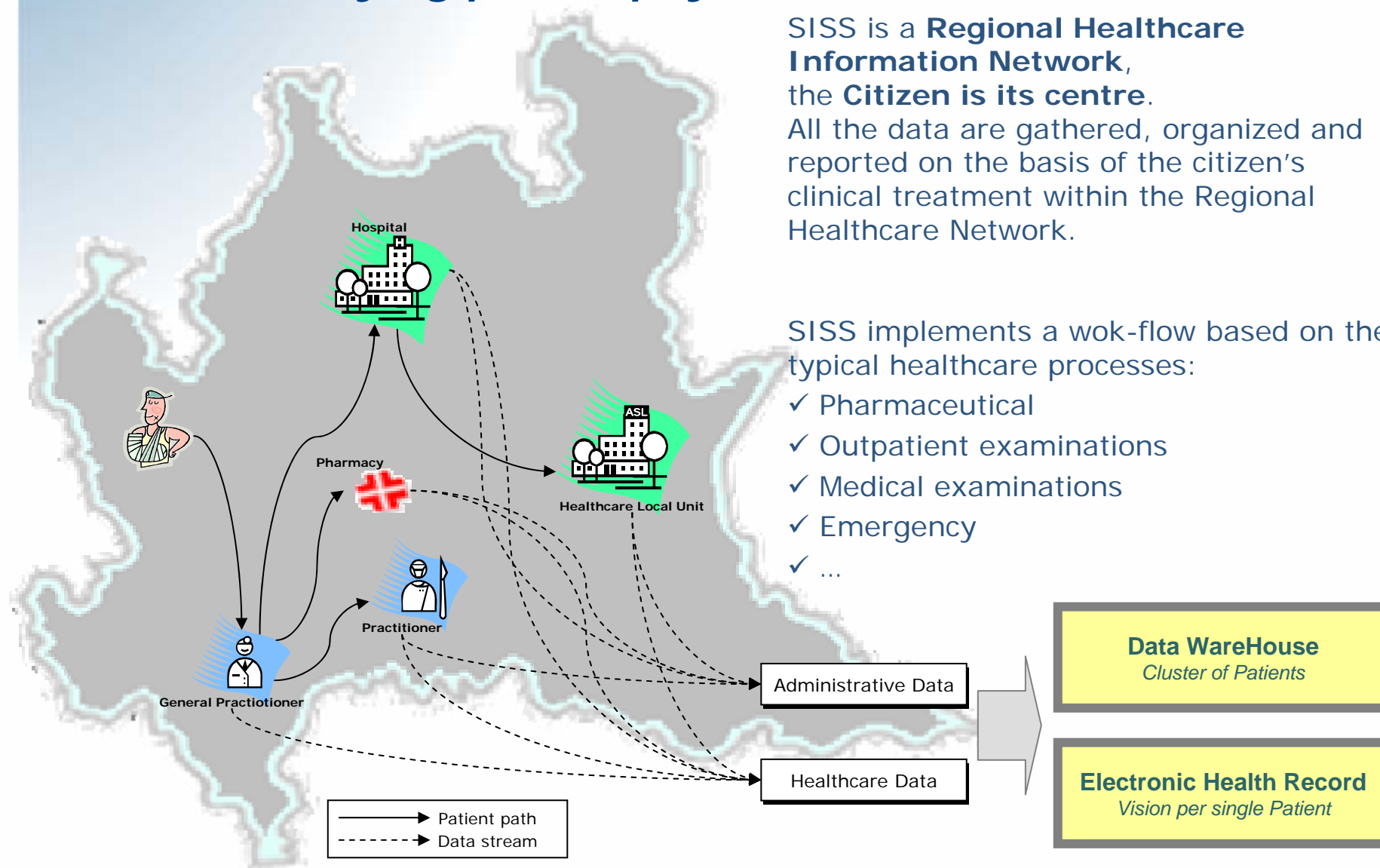
## The underlying philosophy

SISS is a **Regional Healthcare Information Network**, the **Citizen is its centre**.

All the data are gathered, organized and reported on the basis of the citizen's clinical treatment within the Regional Healthcare Network.

SISS implements a wok-flow based on the typical healthcare processes:

- ✓ Pharmaceutical
- ✓ Outpatient examinations
- ✓ Medical examinations
- ✓ Emergency
- ✓ ...



**Data Warehouse**  
*Cluster of Patients*

**Electronic Health Record**  
*Vision per single Patient*

## The Smart Cards

Two different types of smart card have been issued



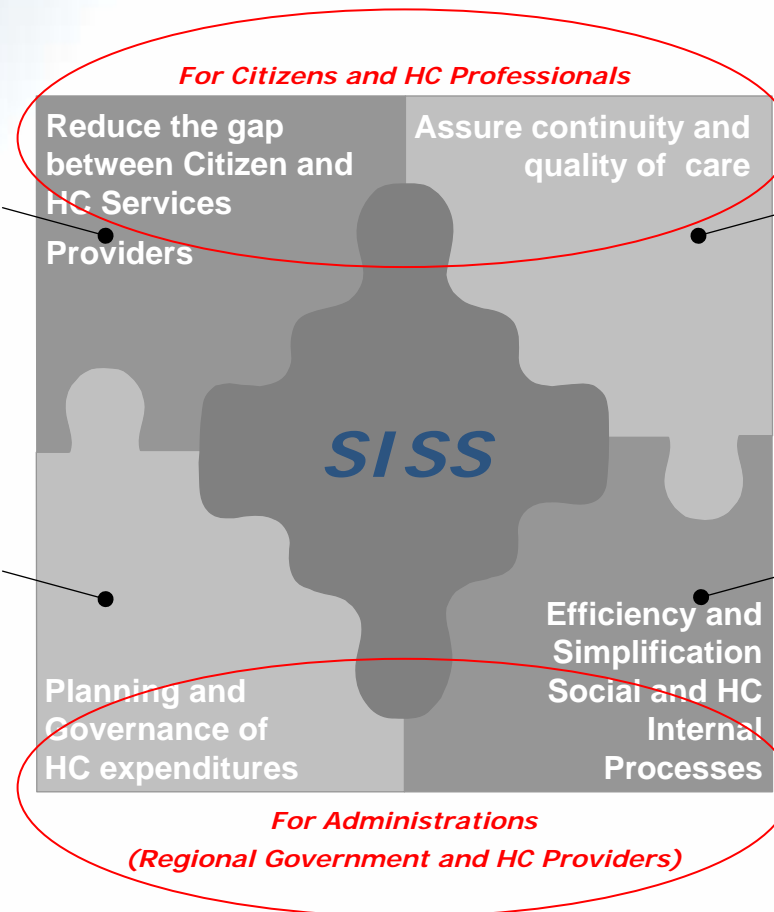
✓ Operator Smart Card, for healthcare professionals



✓ Citizen Smart Card, for each citizen

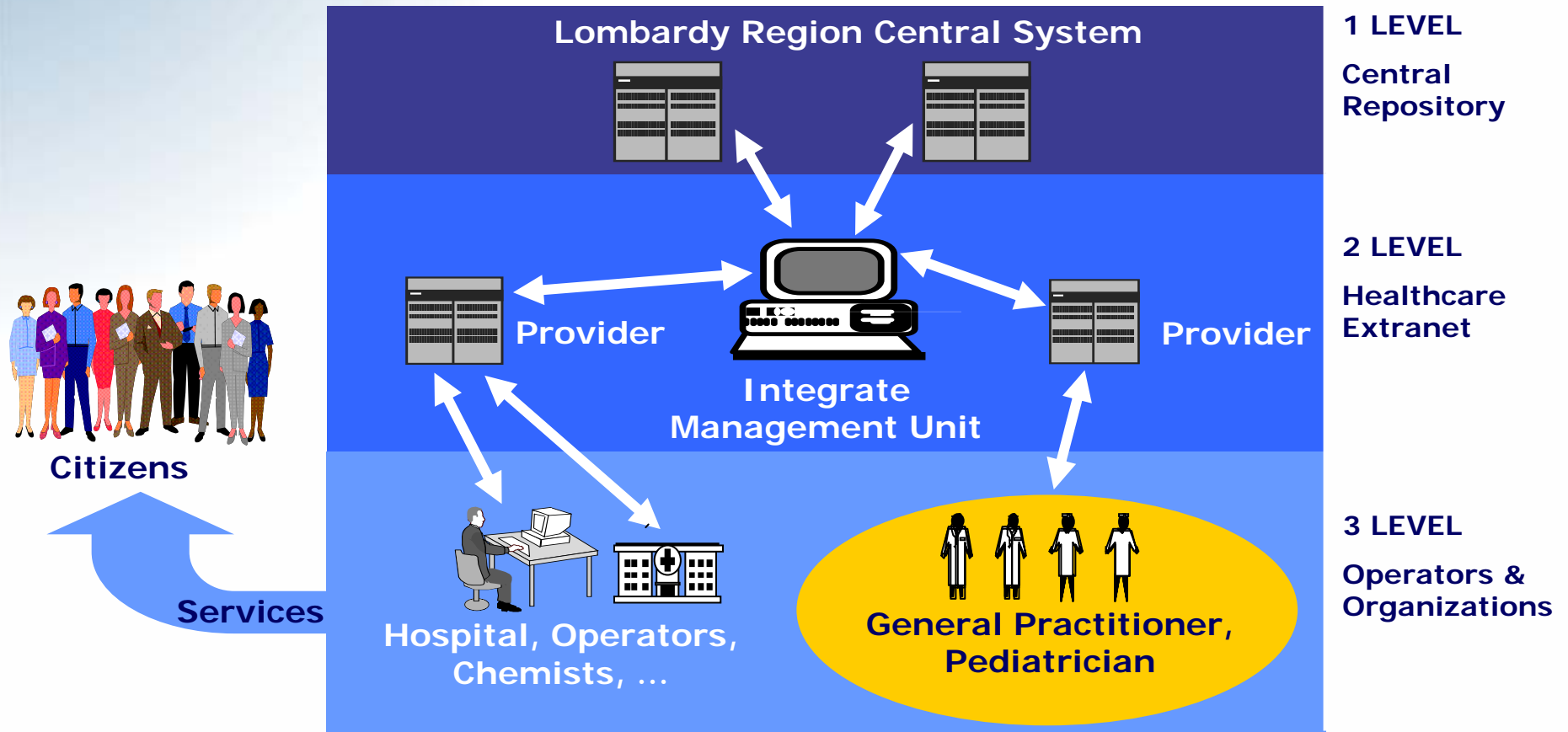
## The Project Goals

- **Improve Services for Citizens:** reducing the "distance" between Citizen and HC Services Providers by **simplifying procedures** and **shortening waiting time**
- **Improve Governance of Social and HC System managing costs:** enhancing planning and controlling instruments (DataWarehouse, Business Intelligence)

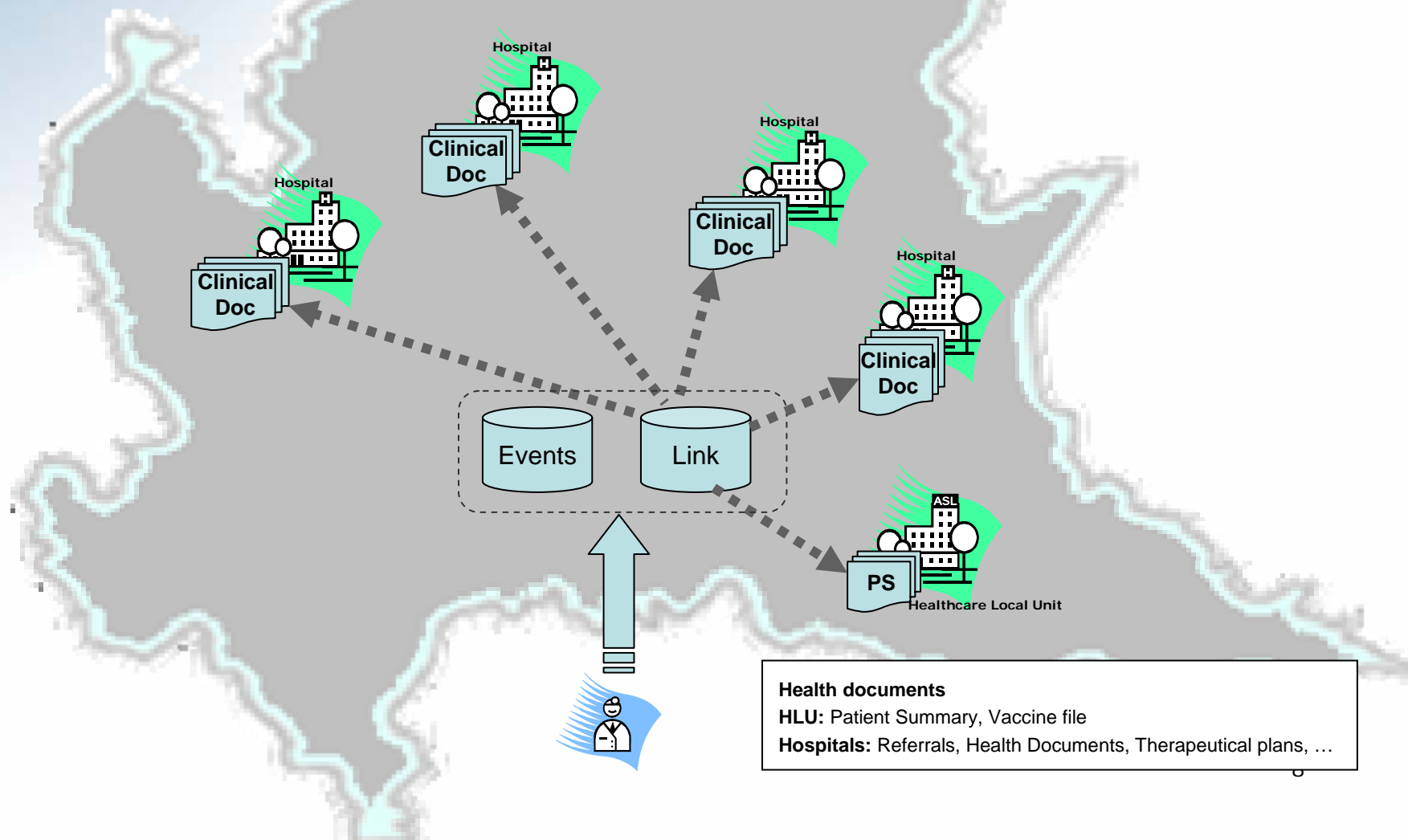


- **Improve quality of prescription, diagnosis and care** (appropriateness) **processes** by Citizens' **clinical data sharing, through EHR**, among qualified HC Professionals, **securing Citizens' Privacy Rights**
- **Improve internal processes efficiency of HC Services Providers** by a generalized diffusion of new technologies (**digital signature, electronic filing, electronic prescription, ...**) to **dematerialize documents**

# The Project Architecture



# EHR Architecture





## The Healthcare Network



- ✓ 9.200.000 Citizens
- ✓ 150.000 Operators
- ✓ 8.000 General Practitioners and Pediatricians
- ✓ 2.500 Pharmacies
- ✓ 15 Local Healthcare Assistance
- ✓ 34 Public Healthcare Services Suppliers
- ✓ Over 2500 Private Healthcare Services Suppliers

## *The Services*

- ✓ Citizen Identification
- ✓ Electronic Prescriptions Management
- ✓ Electronic Health Record (EHR):
  - share clinical data: events, prescriptions, referrals, care profile, ...
  - on line access for Citizens and HC Professionals
- ✓ Clinical information exchange among HC Professionals
- ✓ Support to GP's electronic patient dossier
- ✓ Booking Services (for Citizens by internet, GP, Pharmacies, Regional Call Center)
- ✓ Accounting information flow management
- ✓ Electronic signature, mailing system, encryption functionality

## *Project principles*

- ✓ **Web technologies**
- ✓ **Evolution** and **integration**, not replacement, of existing applications
- ✓ Strict enforcement of personal data protection (**privacy**):  
**high security technologies**
- ✓ **Process reengineering** to improve efficiency
- ✓ Large deployment of digital signature and electronic documents (**dematerialization**)

## *Oct. '07: The results*

- ✓ **About 9 millions** CRS delivered
- ✓ **More than 79%** General Practitioners and Pediatricians in the network
- ✓ **All Healthcare Local Units** and **Public Hospitals** of the Region have **integrated** their **applications to the network**
- ✓ **Public Hospitals** are generating events, referrals and clinical documents, signed electronically, into EHR to share data with other operators