



LOMBARDIA INFORMATICA



Regione Lombardia

The role of information technology in the reorganization of the health system in Lombardy

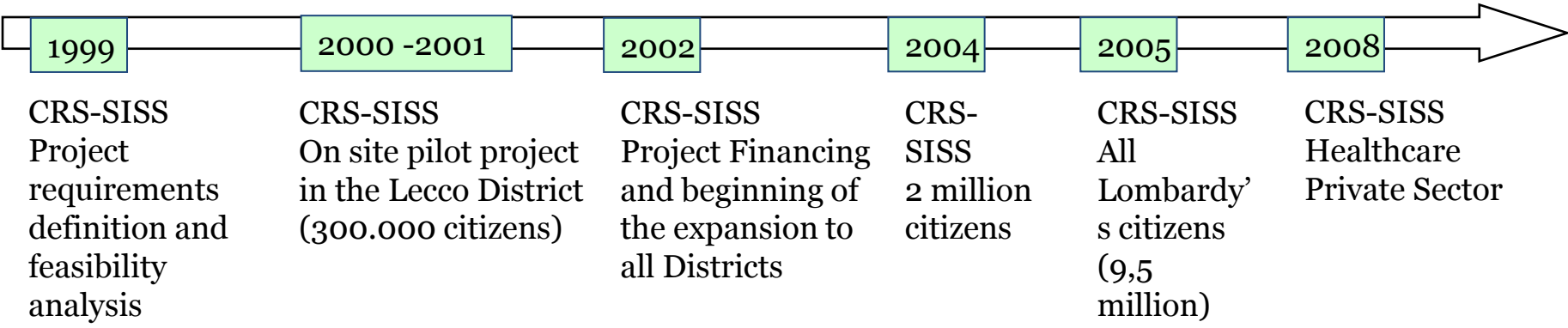
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Research Innovation Program - Project Management

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Lombardy's Region Healthcare Information System evolution

- 1978 Collection and filing of hospitalizations
- 1982 Regional personal data Registry of Citizens and General Practitioners
- 1985 Collection and filing of pharmaceutical acquisitions
- 1997 Collection and filing of outpatient visits data



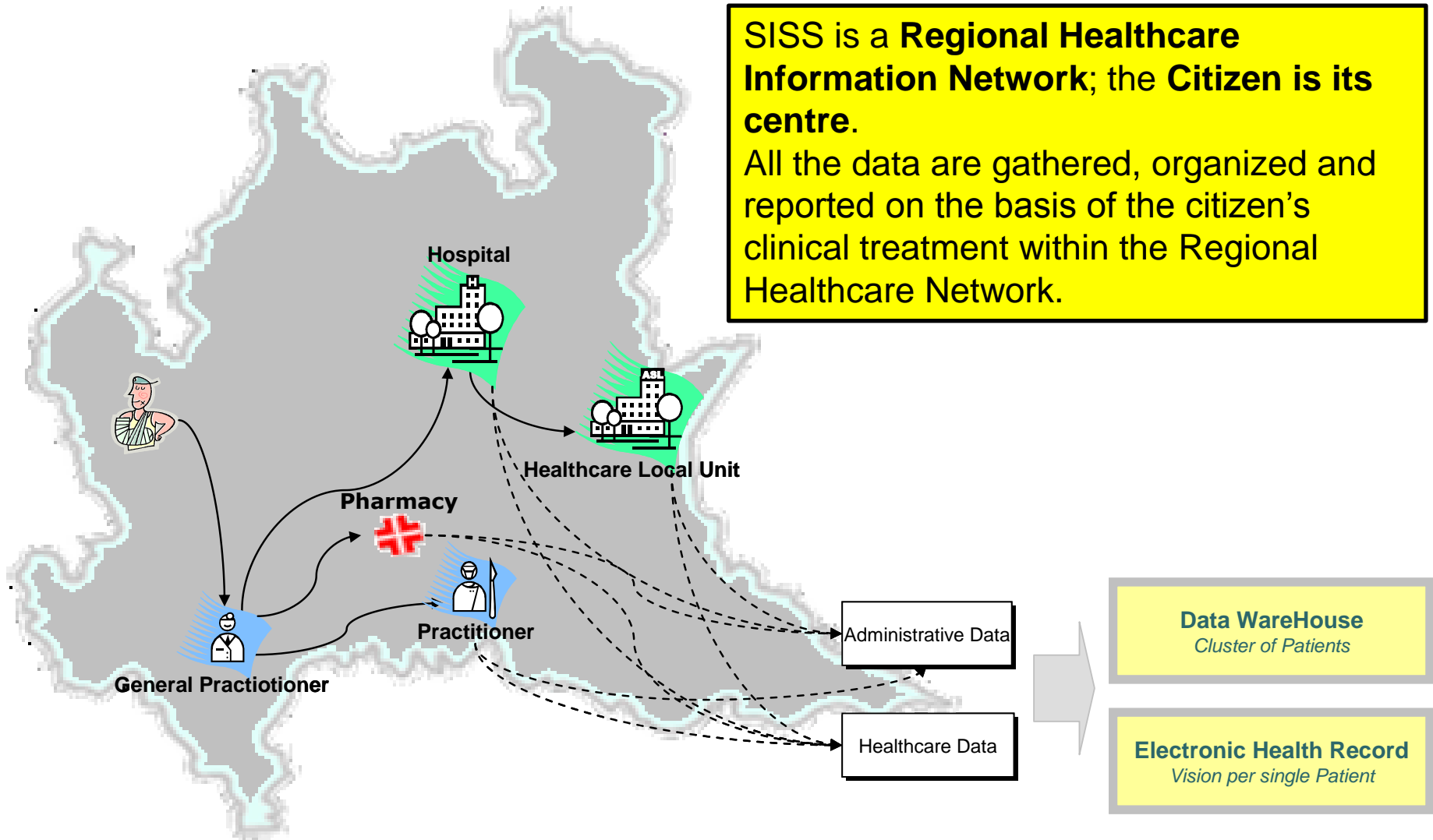
Healthcare Information System (SISS) – some figures

- 9.900.000 Citizens
- 7.800 General Practitioners
- 2.600 Pharmacies
- 35 Public Hospitals
- 15 Local Health Units
- Over 2500 Private Healthcare Service Suppliers
- 150.000 Health & Social Care Operators

SISS - The underlying philosophy

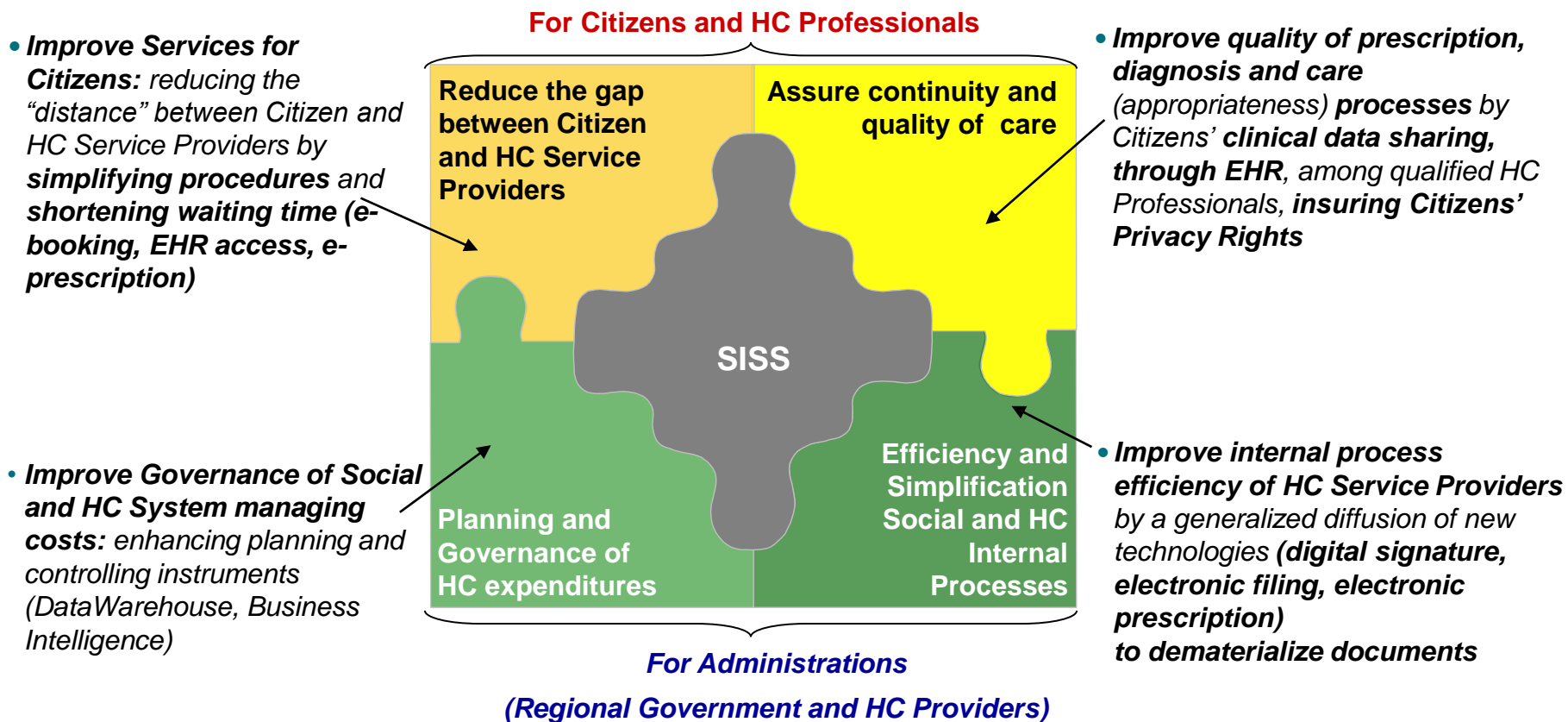
SISS is a **Regional Healthcare Information Network**; the **Citizen is its centre**.

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



SISS Goals

- **The main objectives of the SISS Program are to unify and to protect, within a co-ordinated system, all the information related to the citizens' state of health.**



SISS Services

▶ General services

- Identification and authentication (for both operators and citizens)
- Digital signature (embedded in the card using PKI, RSA)
- Encrypted mail, ...

▶ Health care services

- Prescription and Provision of Healthcare Services
- Electronic Health Record
- Support for GP's patient dossier
- Test result consultation
- Booking Process
- Emergency data management
- Accounting information flow management
- Clinical information exchange among HC Professionals

Project History Summary

STAGE I - PROTOTYPING
(on 300.000+ citizens)

STAGE II - EXTENSION
(9.500.000+ Citizens)

SET UP OF THE ORGANIZATION AND PRIVATE PARTNERS



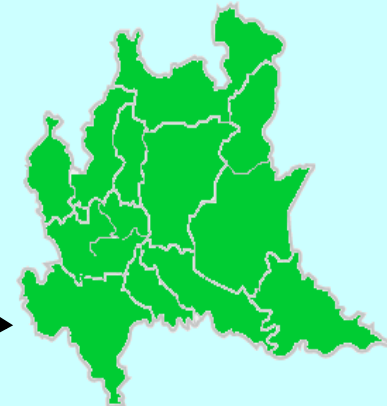
PROTOTYPING IN LECCO



EVALUATION OF THE PROTOTYPE



SELECTION OF NEW PARTNERS AND EXTENSION TO THE WHOLE REGION



12/1999

03 / 2000

03 / 2002

12 / 2002

09 / 2009

3 months

21 months

3 months

Tender evaluation

7 years

Prototype: reasons for the choice

- Limited area:
 - 305.000 citizens,
 - about 100 GP,
 - 88 Pharmacies,
 - 1 Public Hospital.
- Not many interferences with other areas
- Not far from LI Headquarters

Prototype: Approval Conditions

- Implementation on a small scale of the network
- Implementation of all basic services
- Establishment of all the new procedures for data exchange among:
 - General Practitioners & Pediatricians
 - Hospital
 - Pharmacies
 - Regional Government

Prototype: Approval Process (3 month)

- Involvement of a trusted third party
- Verifications on the territory on a random basis (interviews)
- Verification of the project documentation
- Production of an official document collecting:
 - Results of the interviews
 - Assessment on the project status
 - Recommendations for the project continuation



Approval of the prototype and commitment for its deployment

Project Governance

- Regional Government Committee for Project supervision
- Technical Committee
- Local Steering Committees (1 per Province)

Involvement of HC Professional Representatives (Hospital Management, GP Unions, Pharmacies Representatives)

Project Governance

Some Principles from our experience:

- Try to tamper as little as possible with the open market of applications
- Integration of applications is more expensive (time & money) but safer (see previous point)
- Involve HC Professionals (signately GPs) from the start of the Project
- Tight control of project in all its threads
- Continuous reference to laws in implementation (especially privacy)

Project Management – Major Activities

- **Project Management Group**
 - Project planning
 - Privacy
 - Technical Architecture
 - Standards
- **Coding Committee (ongoing)**
 - Drugs coding
 - Examinations coding
- **Policies Analysis Group (ongoing)**
 - Clinical policies
 - Administrative policies

Project Management – Hospital Integration

- Hypothesis: Hospitals have an IS coming from an history of informatization (different solutions for different branches)
- The first task is therefore to foster integration **WITHIN** the Hospital IS
- The second task is to integrate the new IS into the network
- The third task is to evolve internal Hospital policies using the network features

Involve the Hospital Management team and Clinician in the Project from the beginning

Project Management – Hospital Integration - Internal

- ONE only customer administrative data base, available to all applications
- ONE only “service code” trough all applications
- ONCE a data is recorded, it is available to all applications within the IS
- ONE only repository for all clinical documents generated in the Hospital
- Integration Platform for vertical application

Project Management – Hospital Integration - Internal

- Prepare an evolution project for the accomplishment of the previous goals
- The Lispa PM revises and approves the evolution project
- The Lispa PM follows the project implementation (with a dedicated person)
- The Lispa PM verifies and certifies the results (in incremental steps)

Project Management – Hospital Integration - External

- New capabilities must be added to the Hospital IS to acquire/send information to the network
- The Lispa PM must give all technical support and interfaces description as to facilitate implementation
- The Lispa PM follows the integration implementation (with a dedicated person)
- The Lispa PM verifies and certifies the results (in incremental steps)

Project Management – General Practitioners & Pediatricians

- Assessment on the Informatization and Internet access
- Decision whether to create a new application or to integrate others in use
- Involve GPs and Pediatricians in the Project decisions
- Advertise the Project benefits to HC Professionals
- Prepare an integration plan on the territory
- Give a LOT of support to create a general acceptance
- Give something in exchange for the new working procedures