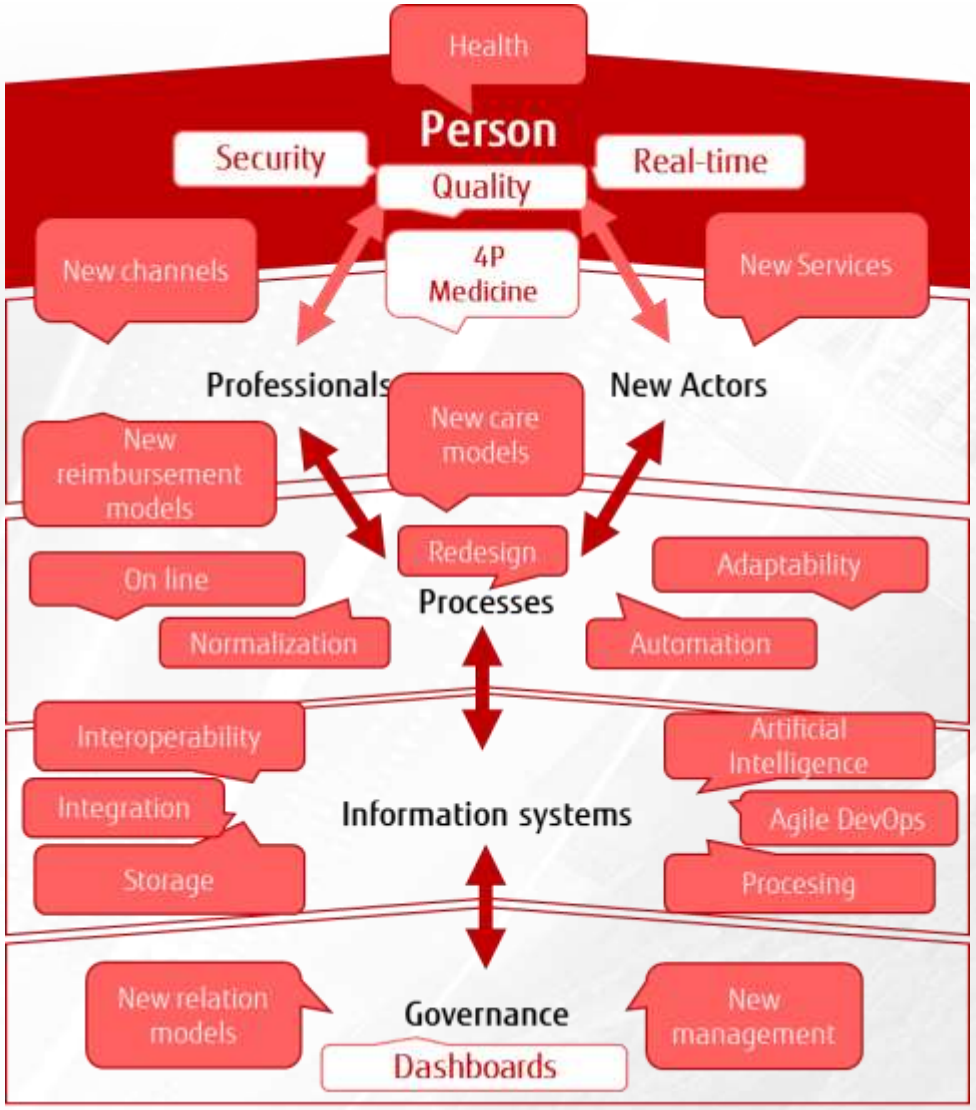
Digital Transformation in Healthcare

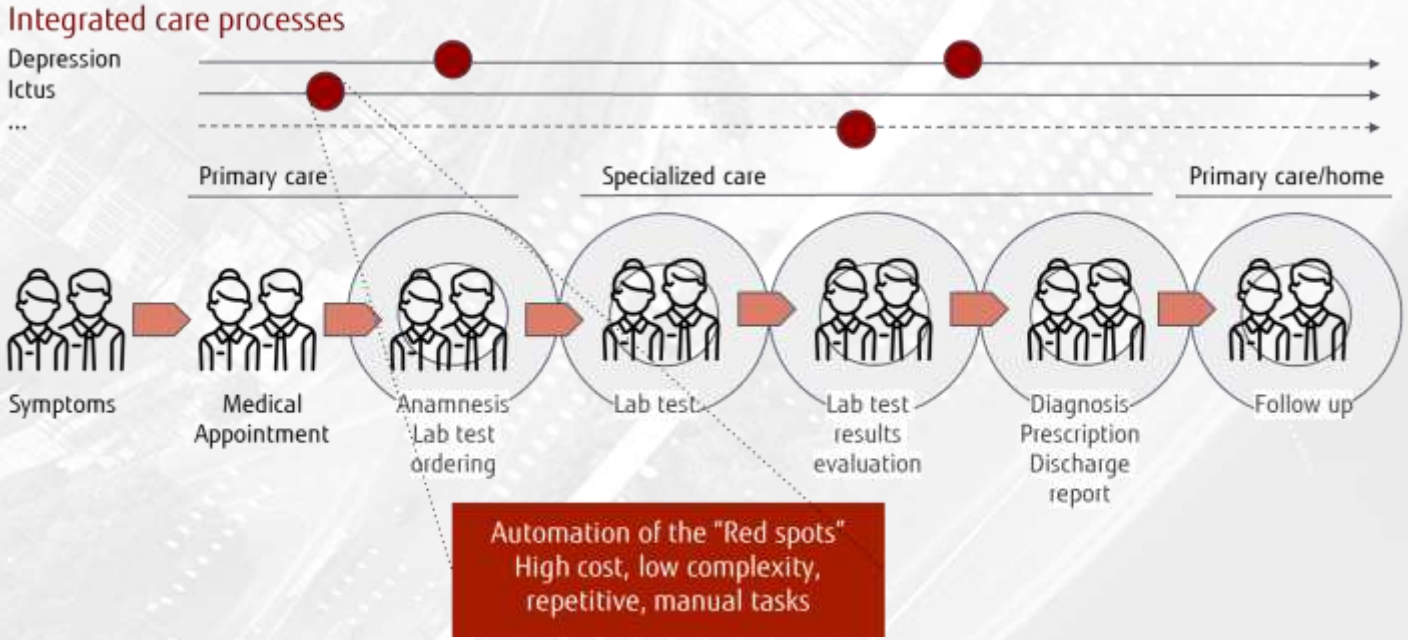
FUJITSU

光 Intelligent Healthcare™

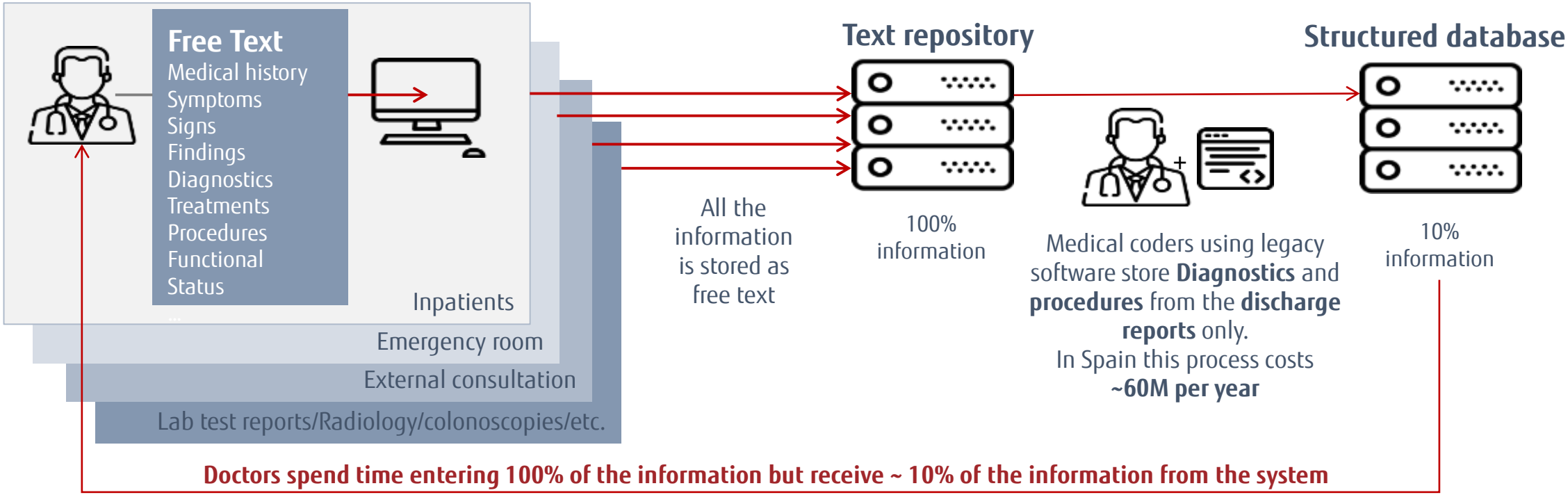
Madrid, diciembre de 2019

Our vision

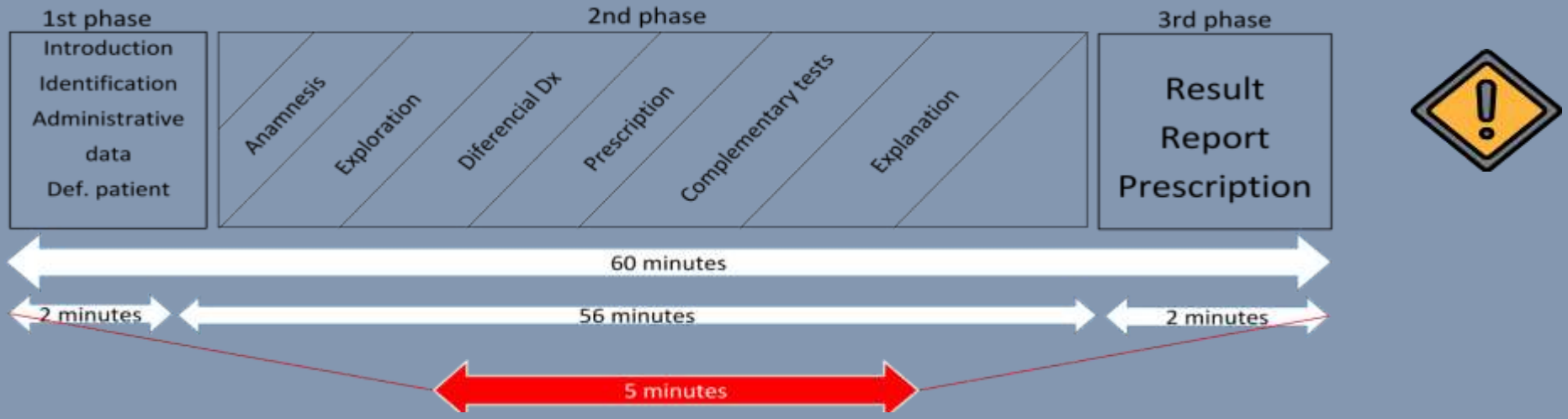

Health
Person
Security
Quality
Real-time
New channels
4P Medicine
New Services
Professionals
New Actors
New reimbursement models
New care models
Redesign
On line
Adaptability
Processes
Normalization
Automation
Interoperability
Artificial Intelligence
Integration
Information systems
Agile DevOps
Storage
Procesing
New relation models
Governance
New management
Dashboards


Integrated care processes
Depression
Ictus
...
Primary care
Specialized care
Primary care/home
Symptoms
Medical Appointment
Anamnesis Lab test ordering
Lab test
Lab test results evaluation
Diagnosis Prescription Discharge report
Follow up
Automation of the "Red spots"
High cost, low complexity,
repetitive, manual tasks

One of the most critical processes



Doctors spend time entering 100% of the information but receive ~ 10% of the information from the system



Example

San Carlos

Discharge reports from the Digestive system unit

Anonymized discharge reports from the Digestive system unit

Scope defined by San Carlos innovation unit + head of services

Target Entities

Symptoms
Signs
Diagnostics
Drugs
Procedures

Fujitsu

Text augmentation tech

Multilingual NER tech

First model based on MIMIC data Accuracy 80%

Accuracy drops to 45%

First Transfer learning exercise

Curation and model re-training

Structured data

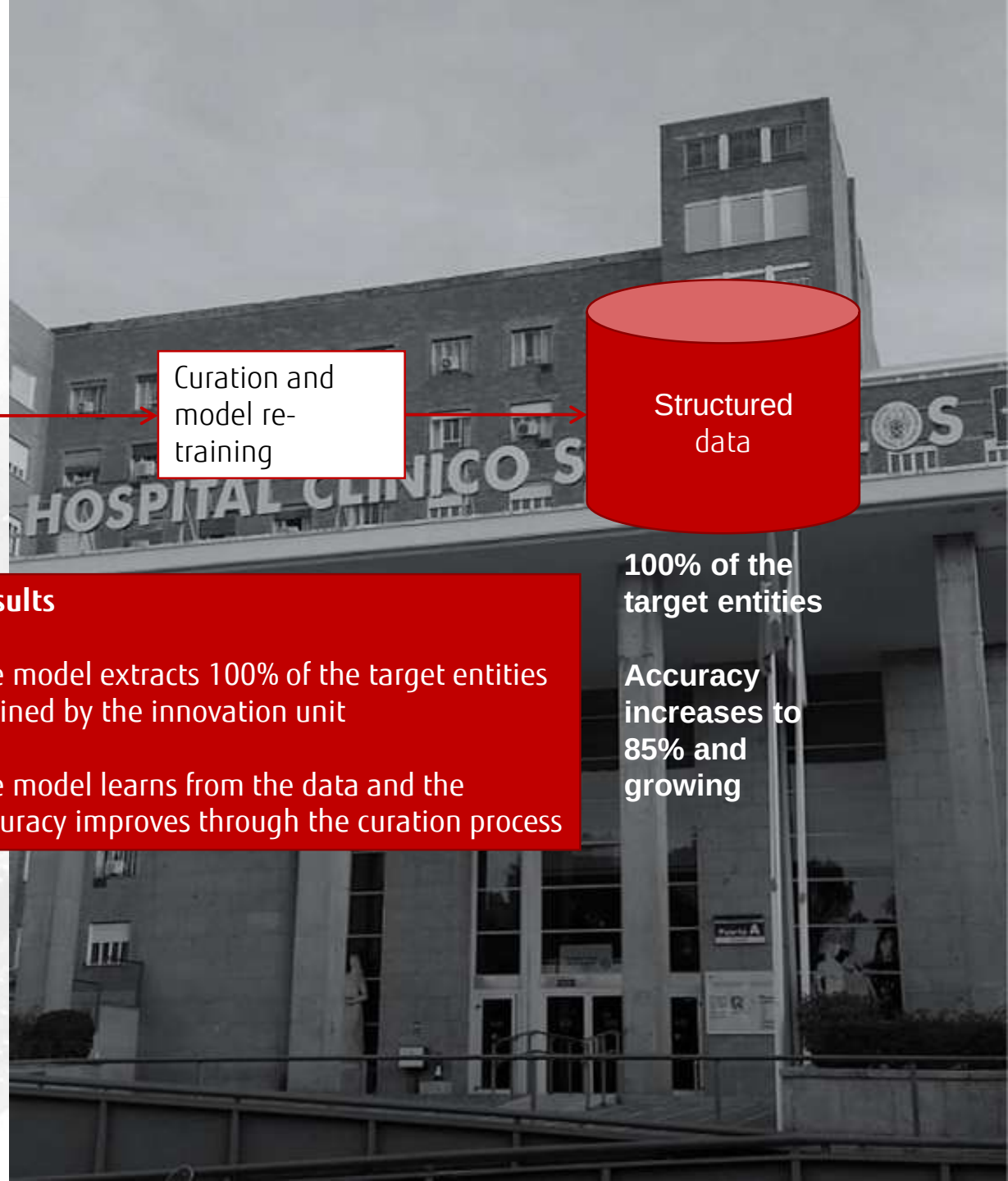
100% of the target entities

Accuracy increases to 85% and growing

Results

The model extracts 100% of the target entities defined by the innovation unit

The model learns from the data and the accuracy improves through the curation process

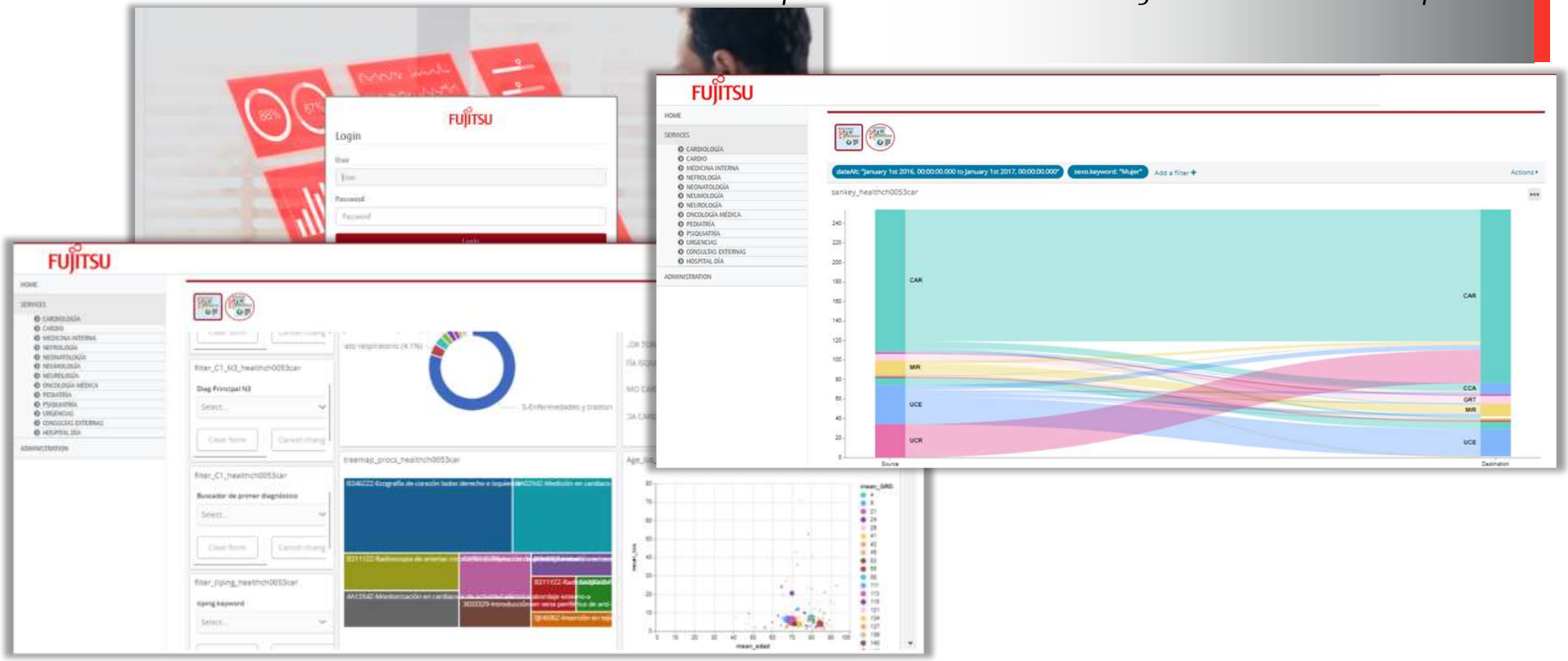


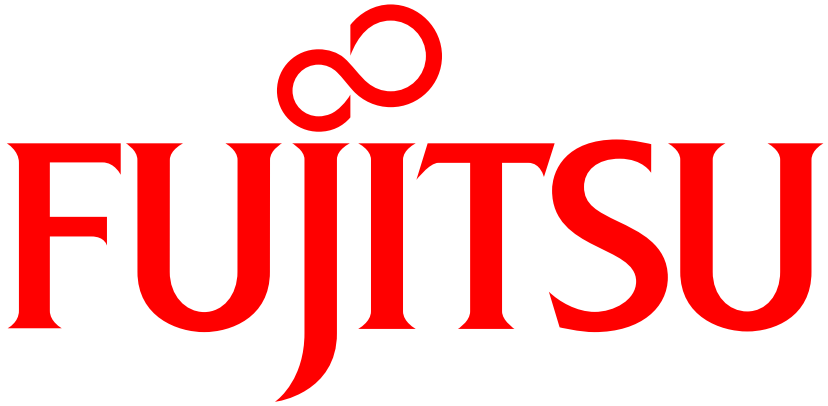
Sholark Health

Better Insights

Intelligent Healthcare™

Using the information stored in clinical texts is possible to create better tools and provide doctors with better insights to understand their patients





shaping tomorrow with you