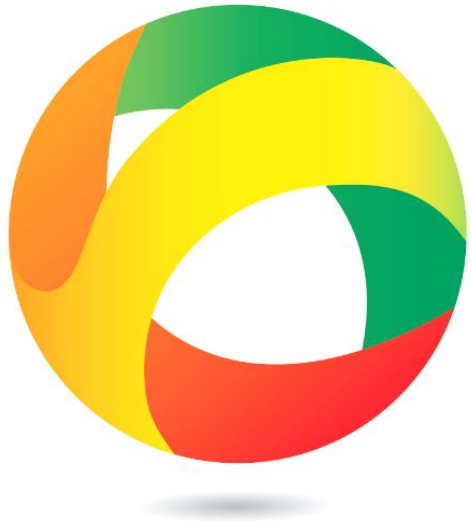

Shared Services Ministry of Health, Portugal

Henrique Martins, MD PhD

CEO of SPMS EPE
www.spms.min-saude.pt

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Interoperabilidade técnica em SI para a Saúde

Henrique Martins
Presidente do Conselho de Administração

SPMS EPE
Serviços Partilhados do Ministério da Saúde

Interoperability is “good will”

Barriers:

- Different languages
- Different health systems
- Different infrastructures

Appropriate treatment ↔ Access to comprehensible medical information

Interoperability: ‘the ability of two or more systems or components to exchange information and to use the information that has been exchanged’

Assets: guidelines, terminologies and architectural specifications

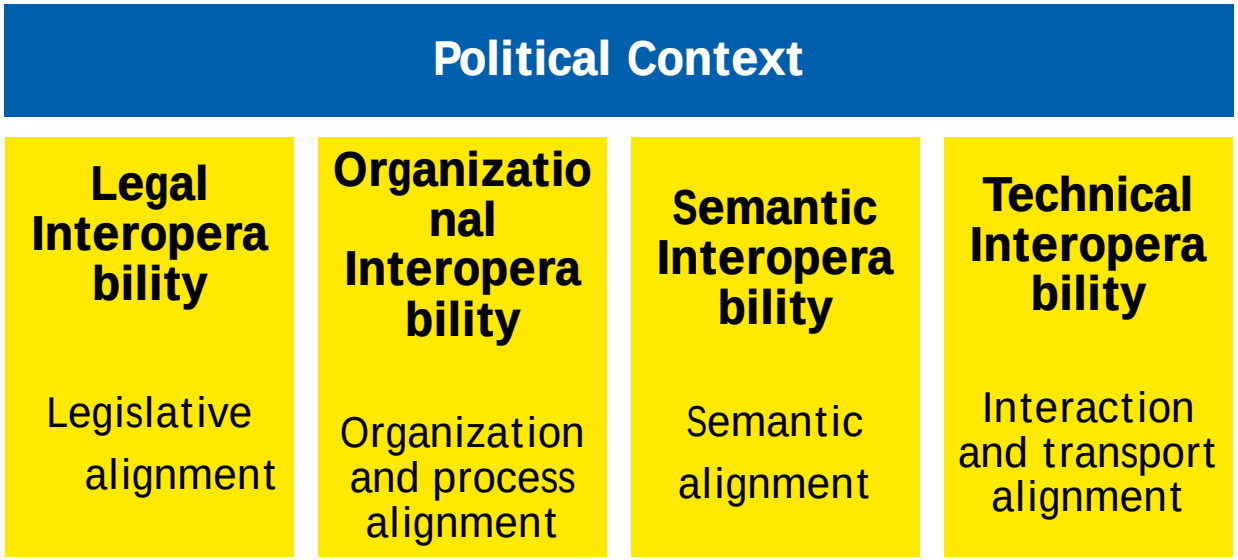
- **European Interoperability Framework (EIF)**
  - Recommendations on how Administrations, Businesses and Citizens communicate with each other within the EU and across Member States borders
  - Four dimensions for interoperability:
    - Legal
    - Organizational
    - Semantic
    - Technical

INTEROPERABILITY, ICT SYSTEMS AND HEALTH

- **Decision No 922/2009/EC -** interoperability solutions for European public administrations (ISA)

  - **Interoperability**: 'the ability of disparate and diverse organizations to interact towards mutually beneficial and agreed common goals, involving the sharing of information and knowledge between the organizations, through the business processes they support, by means of the exchange of data between their respective ICT systems'

- **European Interoperability Framework (EIF)**



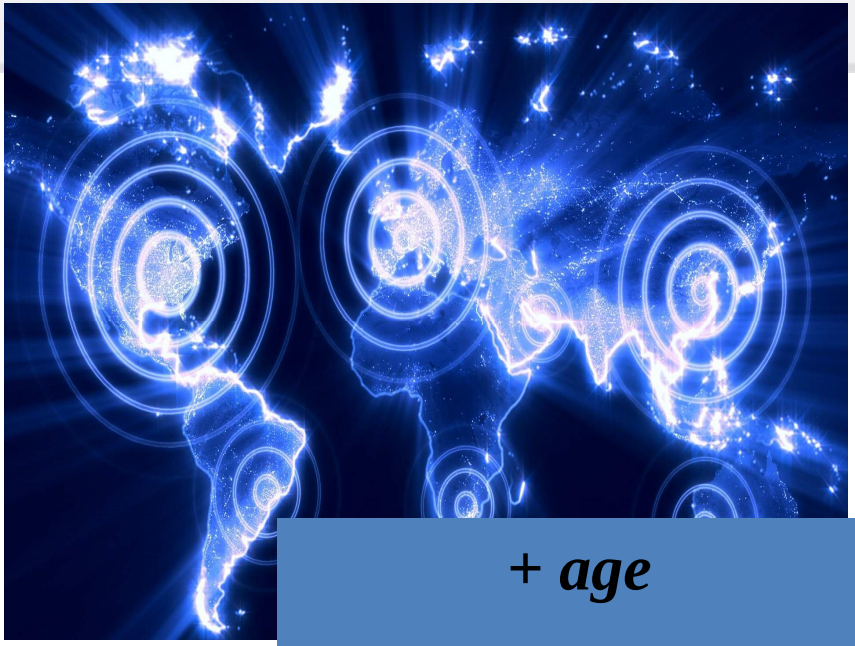
Comparison of European Health related ICT Projects

Health care provision is a complex process

Interoperability measures how accurately, effectively and consistently health entities exchange clinical information as **Electronic Health Records (EHR)** by **Health Information Systems (HIS)**

Better achieve health sector's goals

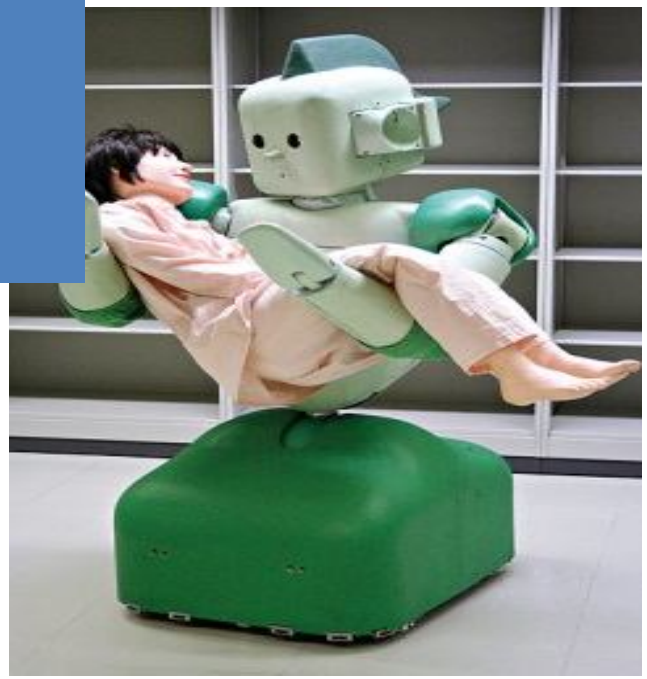
Comparison of European Health related ICT Projects



+ age

+ tech

+ Knowledge



Evolution of Healthcare Systems from Silos to systems

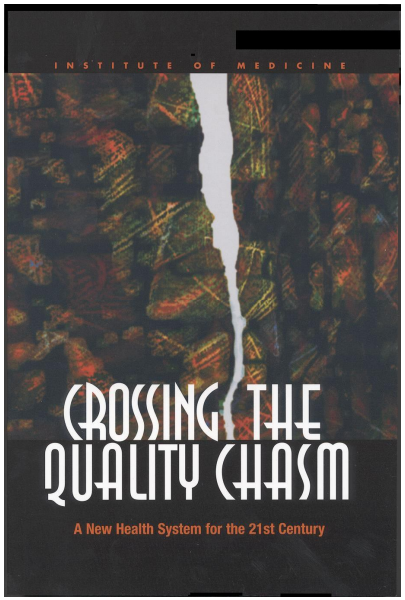
HealthCare Systems….

- **Communities of practice** organized in a systematic way to provide, promote and ensure health to populations

- Complex Adaptive Systems

Aims for Health Care Delivery System

- Equitable
- Safe
- Effective
- Patient-Centered
- Timely
- Efficient

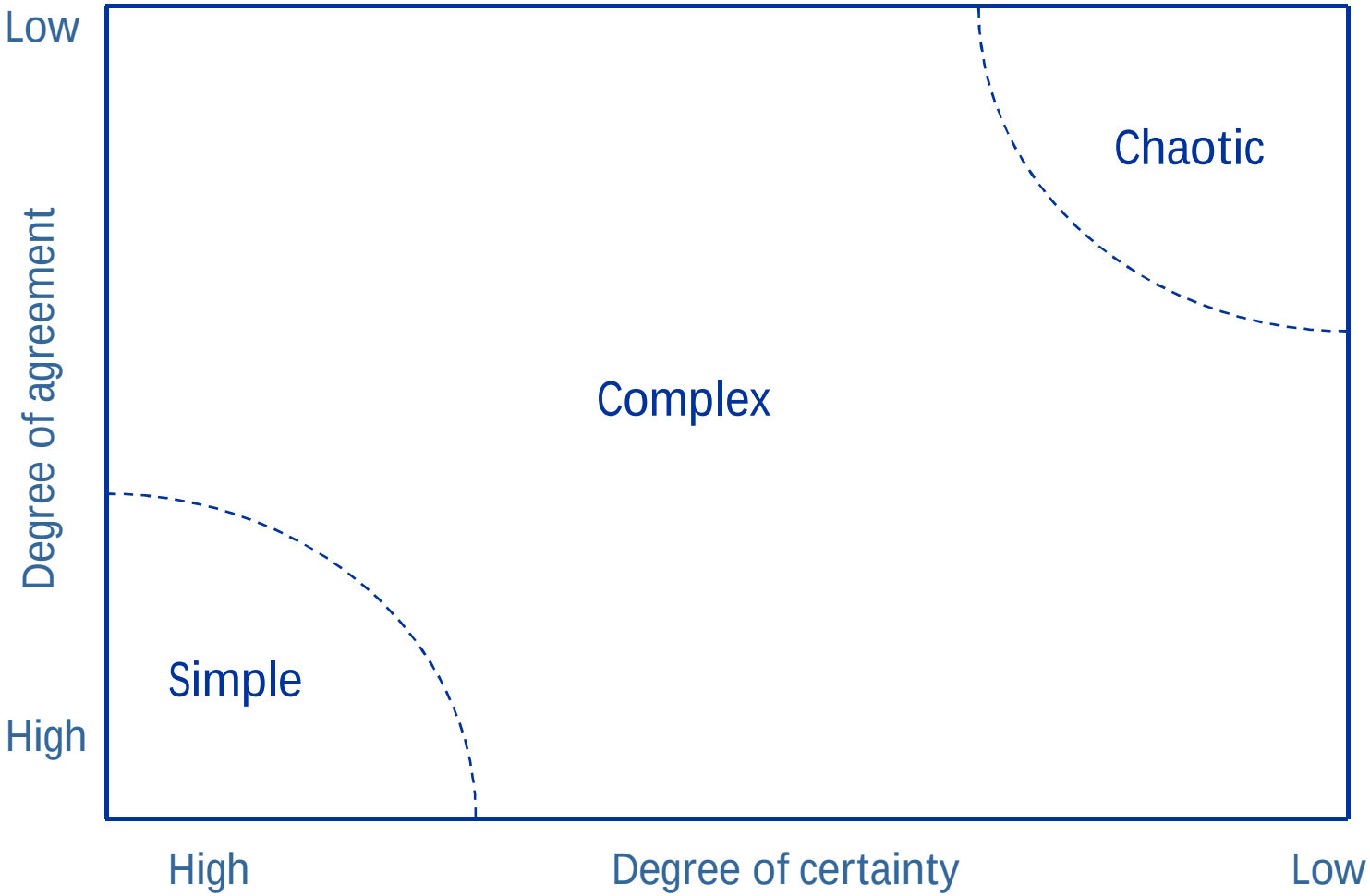


IOM:Crossing the Quality Chasm, 2001

Healthcare Environments are Complex Adaptive Systems

- Hospitals
- Primary care settings
- Patient's homes
- Neighborhoods & Communities
  - Are each 'their own little ecosystems'

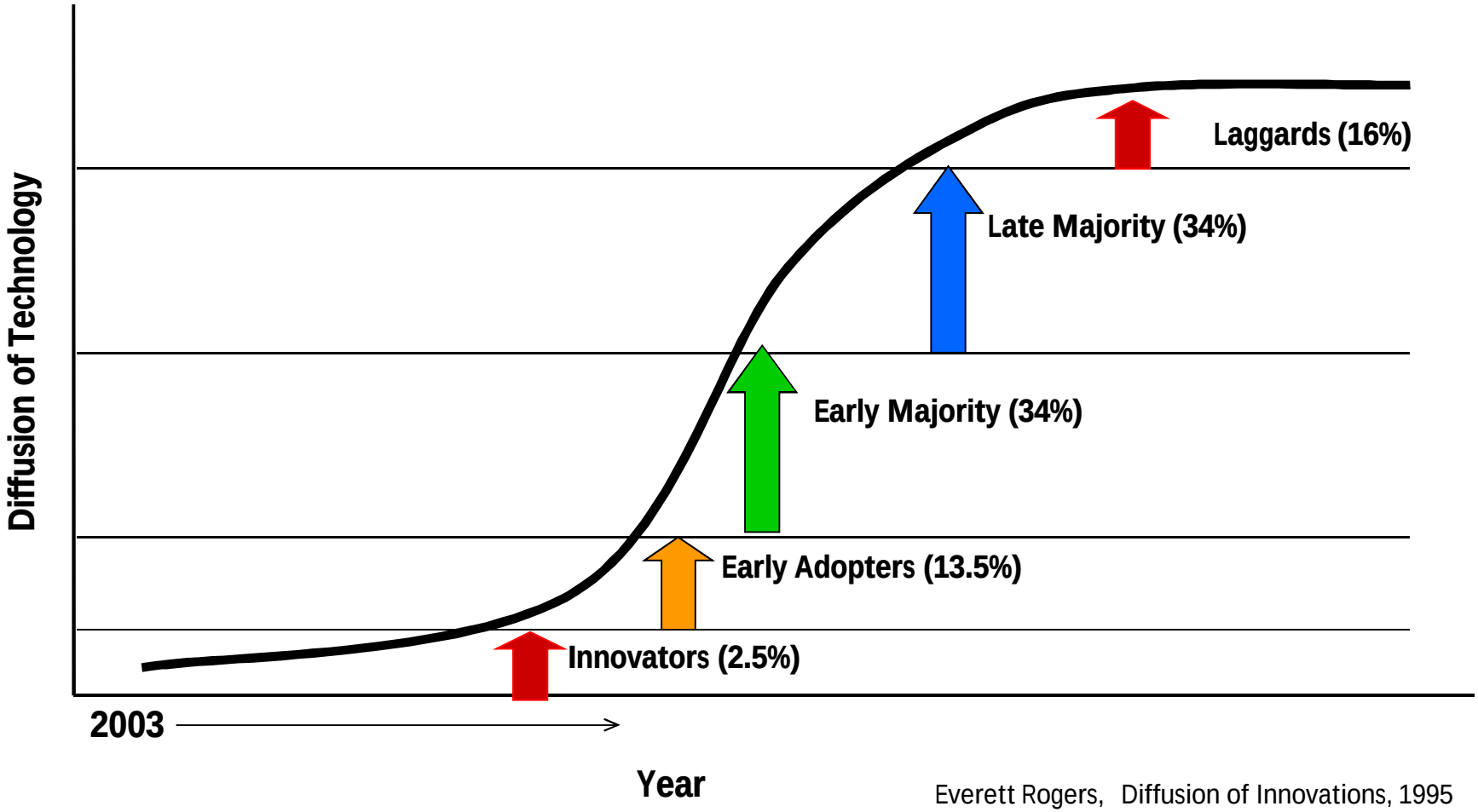
Life in the Complexity Zone



Successful Organisations

- Transparent Goals
- Collaborate with Customers – internal and external
- Good at structuring & organising knowledge
- Adaptable
- Allow decision-making near the level of implementation

Diffusion Curve: General



Everett Rogers, Diffusion of Innovations, 1995

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SClínico

InterOperabilidade Tecnica em SI – The role of SPMS

To learn/prepare...

...To lead...

...By example...

InterOperabilidade Tecnica em SI – The role of SPMS

To learn/prepare...

- Participation in epSOS, eSENS, TriliumB, EU projects (+4 in 2014)
- Create internal skills and organization dinamics on interoperability

  Internal Interoperability team/efforts
  Semantic and external interoperability representation/focus
  HL7 Training/ testing – participation in Connectathons

- Organize events with industry to engage and learn needs and readiness

epsos
Winner of the
Award 2013
making healthcare better.eu
SENS
moving services forward.eu
PARENT
cross-border PAtient REgistries iNiTiative
STORK2.0
making access smarter.eu
Meaningful Use
epsos
EXPAND

http://www.expandproject.eu/

InterOperabilidade Tecnica em SI – The role of SPMS

...To lead...

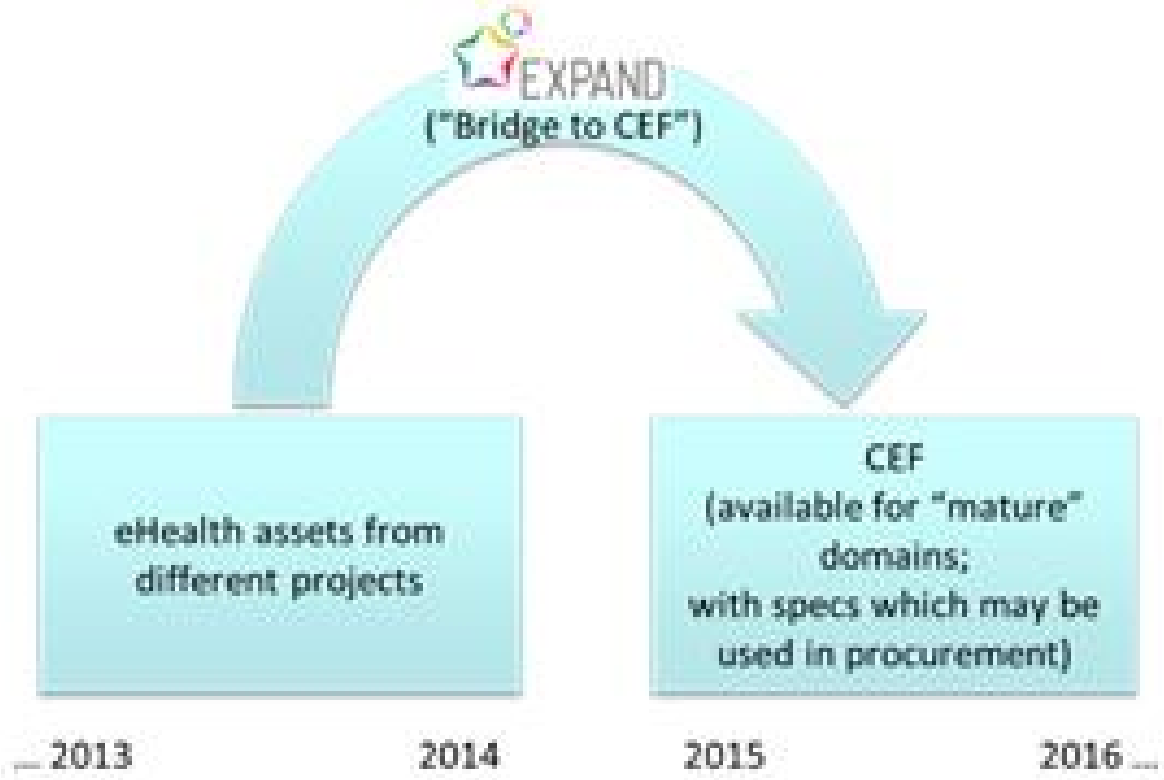
- Representing Portugal/gov Initiatives
- Foster adoption of Tecnical standards

  Establishing/helping establishment of “PT” IHE, HI7... other Chapters/subgroups,

- Public Tender for Interoperability providers – Closed

- Inclusion of “interoperability” requirements for IT investment approval and agregation of SW/aplication mantainance/evolution contracts to the NHS

- Link with AMA IP – Nationalwide efforts in ICT interoperability (eg. Stork 2 project)


EXPAND
("Bridge to CEF")
eHealth assets from different projects
CEF
(available for "mature" domains;
with specs which may be used in procurement)
... 2013
2014
2015
2016 ...

InterOperabilidade Tecnica em SI – The role of SPMS

...By example...

- PDS – Use of Technical Interoperability standards
  (links to more than 10 different applications/SW using same technical specs)
  (API development for Patient portal – to link to mobile/other aplications)

- Creation of a interoperability layer (HL7 complainant) between SONHO (main hospital admin application – more than 50 hospitals)

- Work towards decoupling application layers – in legacy applications (SONHO vs SAM/Sclinico)

- Developing Semantic Catalogues (CPARA v.2, CPAL, SNOMED CT reliase center – Patology-Oncology 1st)

CSP – Medicina geral e familiar

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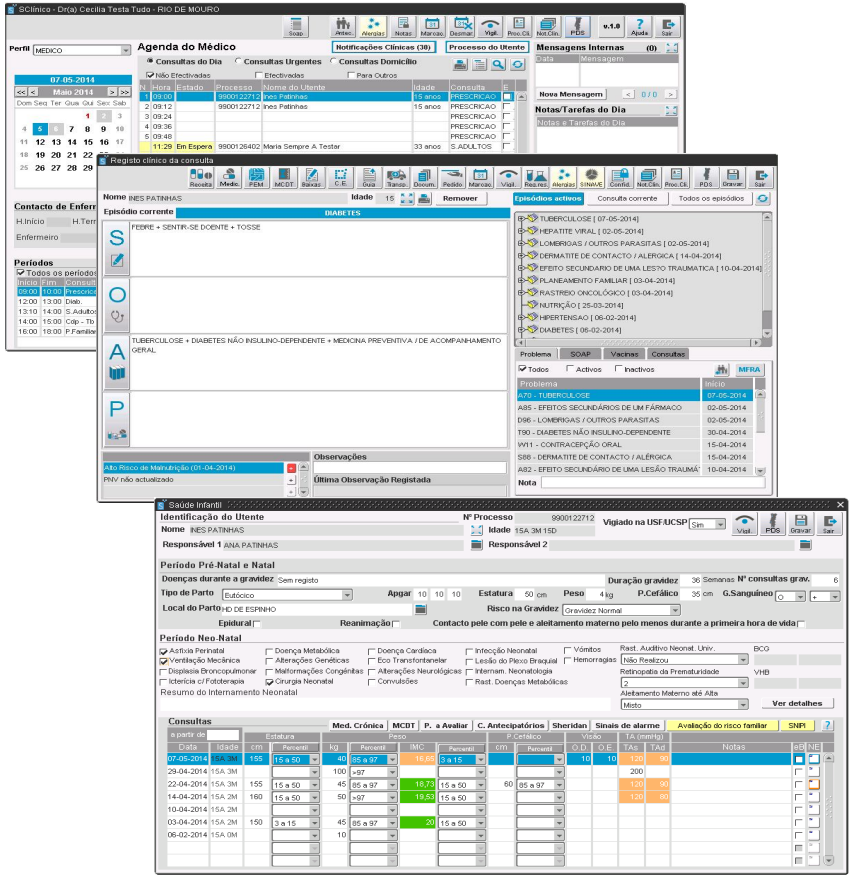
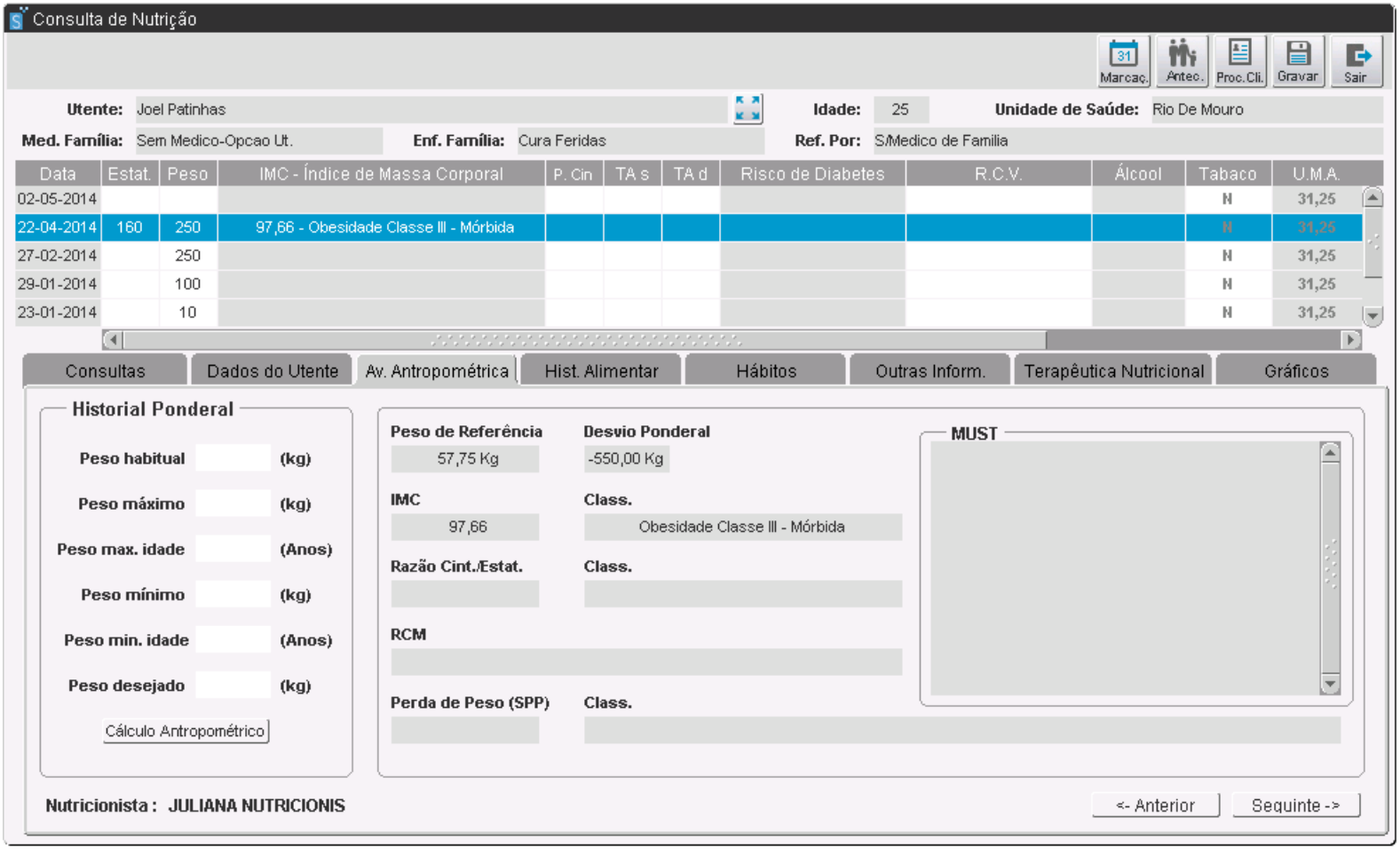
SClínico

- Gestão da agenda;
- Registo clinico da consulta- SOAP;
- Registo de Programas de Saúde;
- Referenciações internas e externas;
- Prescrições;
- Registo de resultados de MCDTs;
- Gestão de alertas;
- Notificações clinicas.



CSP – Registo de dados de Nutrição



Normalização de Registos... CSP e Hospitalar

Diagnósticos/problemas

- ICD 9 – CM; ICD 10 – CM (International Classification of Diseases)
- SNOMED (Systematized Nomenclature of Medicine)
- ICPC-2 (International Classification of Primary Care)
- CIPS (Classificação Internacional de Problemas de Saúde)
- ICNP/CIPE (International Classification for Nursing Practice)

Intervenções/ procedimentos

- ICD-9CM (1,2&3); **ICD-10** CPS; Cod OM
- SNOMED (Systematized Nomenclature of Medicine)
- ICNP/CIPE (International Classification for Nursing Practice)

Reacções adversas/alergias

- CPARA – Catálogo Português de Alergias e Reações Adversas

InterOperabilidade Tecnica em SI – The role of SPMS

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InterOperabilidade Tecnica em SI – The role of SPMS

...in to the future...

• SNOMED CT event	<10 companies	April
• IHE Event	~ 20 companies	July
• HL7 Event	aim ~ 40 companies	Sept/Oct
•		

Sharing is key!

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