



EMRAM STAGE 6, A CORPORATE DEVELOPMENT DECISION OF A PRIVATE UNIVERSITY HOSPITAL

Clínica Universidad de Navarra

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Ministry of Health
of the Republic of Latvia



11 - 13 MAY 2015
RIGA, LATVIA



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PROFILE

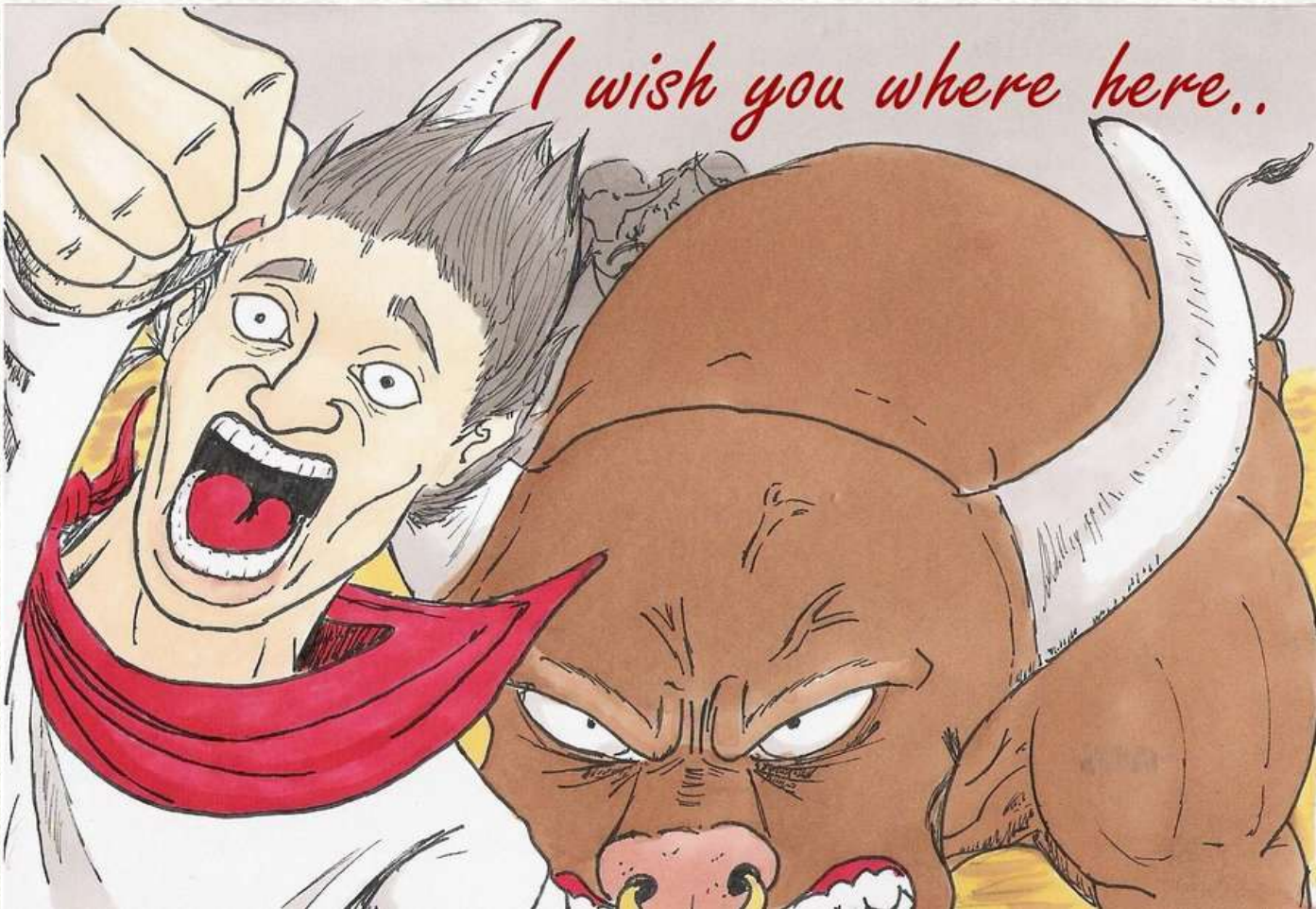
PRIVATE

ACADEMIC



RESEARCH

EXCLUSIVE CONTRACTS



PROFILE

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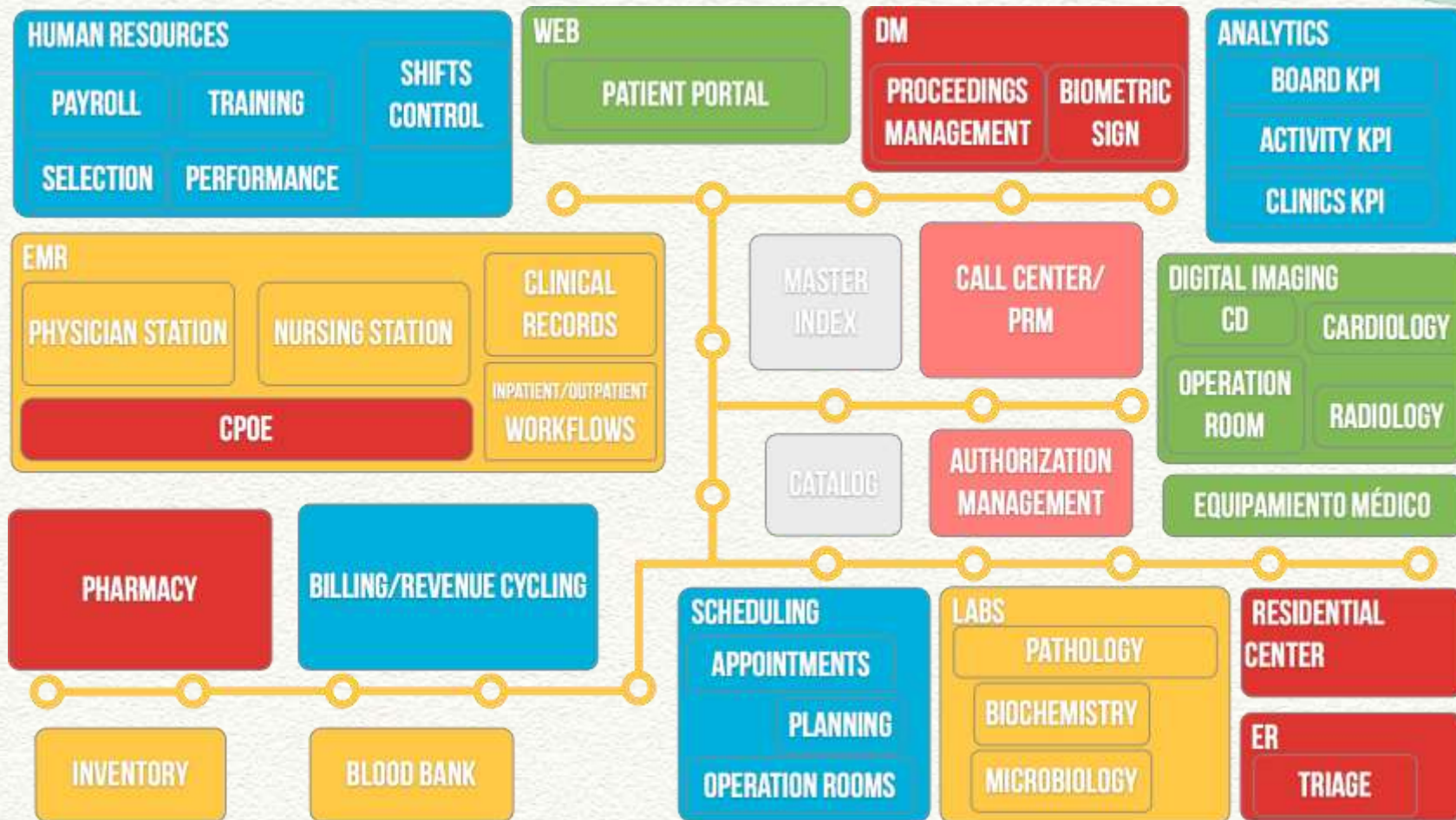


¿WHAT?	¿HOW MANY?
Outpatients/year	130.000
Inpatients/year	13.000
Employees	2.000
Beds	320



A BRIEF HISTORY OF OUR INFORMATION SYSTEMS

- 80's – Billings, payroll. IBM Host.
- 90's – EMR Project draft.
- 2000 – First release. VB5, Oracle





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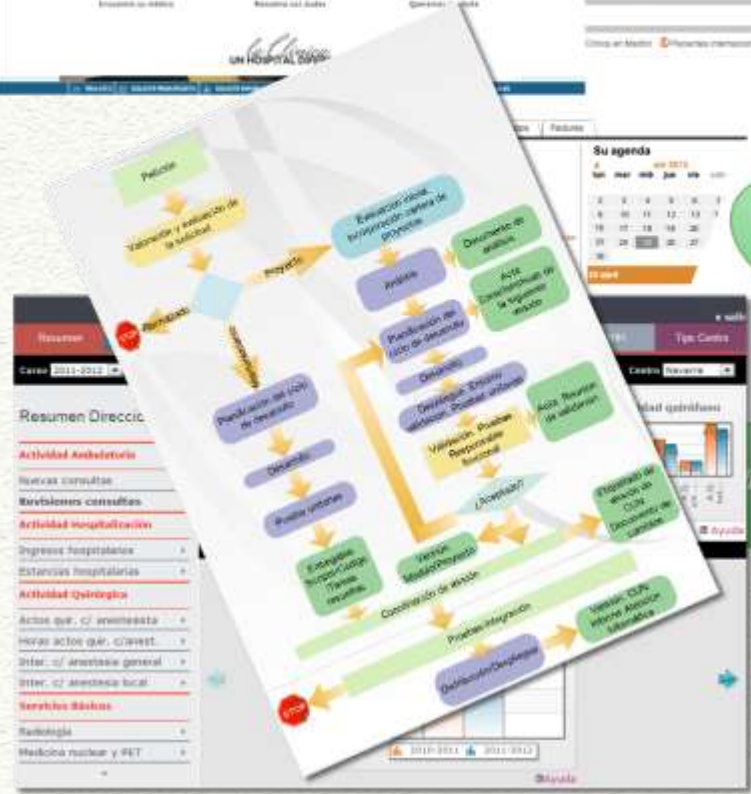
- 2010 – Architecture evolution: Service Bus, Web technologies, Analytics, WebServices, + VB5
- 2014 – Application virtualization W8.1



¿Por dónde empezamos?
Explorar las diversas posibilidades

¿Desarrollo propio?

12,5
Inversión?



Análisis							
<p>Nivel A: Experimentos en el laboratorio y puesta en marcha de sistemas de información complejos.</p> <p>Nivel B: Algunos experimentos en el desarrollo y puesta en marcha de sistemas de información.</p> <p>Nivel C: Sin experimentos.</p>							
ID	Competencia	Nivel C	Nivel B	Nivel A	Fundamental	Adicional	Conocimientos de
ANAL	Análisis de requisitos	3	4	5	5		
SPNT	Análisis de procesos	3	4	5	5		
OTAN	Análisis de datos	3	4	5	5		
INST	Pruebas de software	3	4	5	5	5	
UNPM	Análisis de requisitos de seguridad	3	4	5	5		
ODIN	Diseño de sistemas	3	4	5	5	5	
NTDS	Diseño de redes	3	4	5	5		5
ASAP	Seguridad de aplicaciones	3	4	5	5	5	
CHNO	Gestión de la configuración	3	4	5	5		5
INBN	Integración de sistemas	3	4	5	5		5
PMDS	Diseño de software	3	4	5	5	5	
SWT	Integración de sistemas	3	4	5	5		5



A BRIEF HISTORY OF OUR INFORMATION SYSTEMS

Application Virtualization. App-V



SWOT Analysis

STRENGTHS

- Functional flexibility
- Internal knowledge management
- Strong departmental leadership
- Well know data model

OPPORTUNITIES

- New services evolution: telemedicine, PRM,...
- Change management leadership
- Information Systems role

WEAKNESSES

- Common workflows leadership.
- High maintenance cost.
- Not developed as a product: Docs, feature analysis, ...
- Complex and slow evolution

THREATS

- Legacy anarchy, highly coupled modules
- Technological evolution
- Core developers' retention
- Limited functional evolution



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Stage 6, as a result



Stage 7	Complete EMR; CCD transactions to share data; Data warehousing feeding outcomes reports, quality assurance, and business intelligence; Data continuity with ED, ambulatory, OP.
Stage 6	Physician documentation interaction with full CDSS (structured templates related to clinical protocols trigger variance & compliance alerts) <u>and</u> Closed loop medication administration.
Stage 5	Full complement of PACS displaces all film-based images.
Stage 4	CPOE in at least one clinical service area and/or for medication (i.e. e-Prescribing); may have Clinical Decision Support based on clinical protocols.
Stage 3	Nursing/clinical documentation (flow sheets); may have Clinical Decision Support for error checking during order entry and/or PACS available outside Radiology.
Stage 2	Clinical Data Repository (CDR) / Electronic Patient Record; may have Controlled Medical Vocabulary, Clinical Decision Support (CDS) for rudimentary conflict checking, Document Imaging and health information exchange (HIE) capability.



THANK YOU



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