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# **Informing at the new UFP Hospital**

playing with information and the digital challenge

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# Plan...

- A brief introduction
  - The HE-UFP place
  - The HE-UFP project
  - The HE-UFP facts & numbers
- Playing with information
  - Issues related with those health (hospital) matters
- The digital challenge
  - Why and in what can computers and networks help (getting information digital)

**NO TIME**

# HE – UFP (UFP, Teaching Hospital)

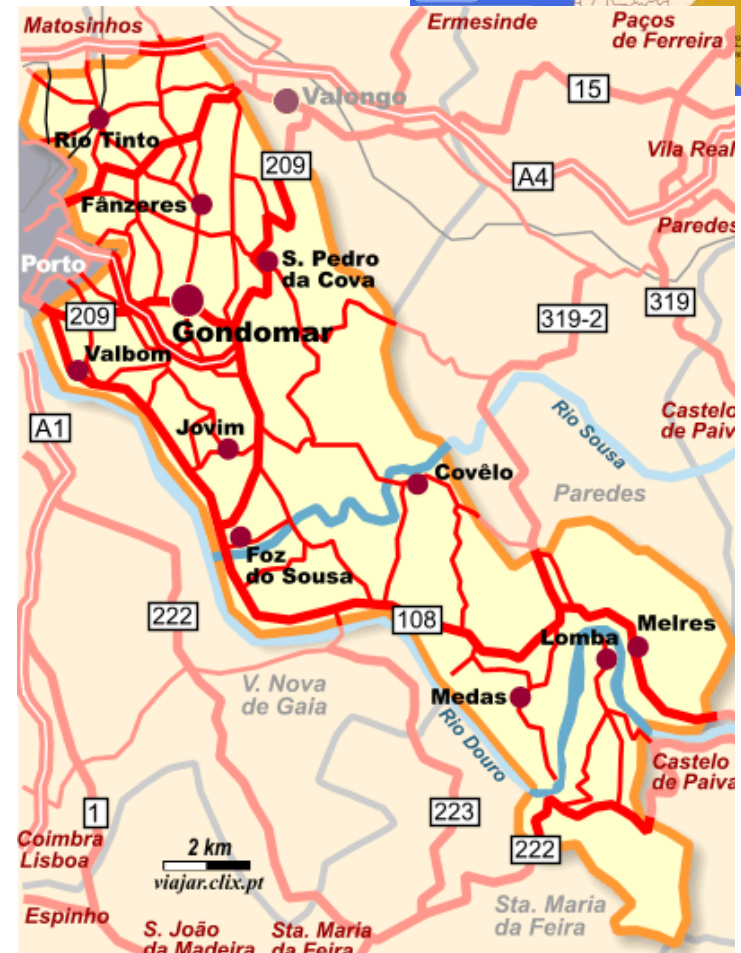


# HE-UFP Philosophy of action

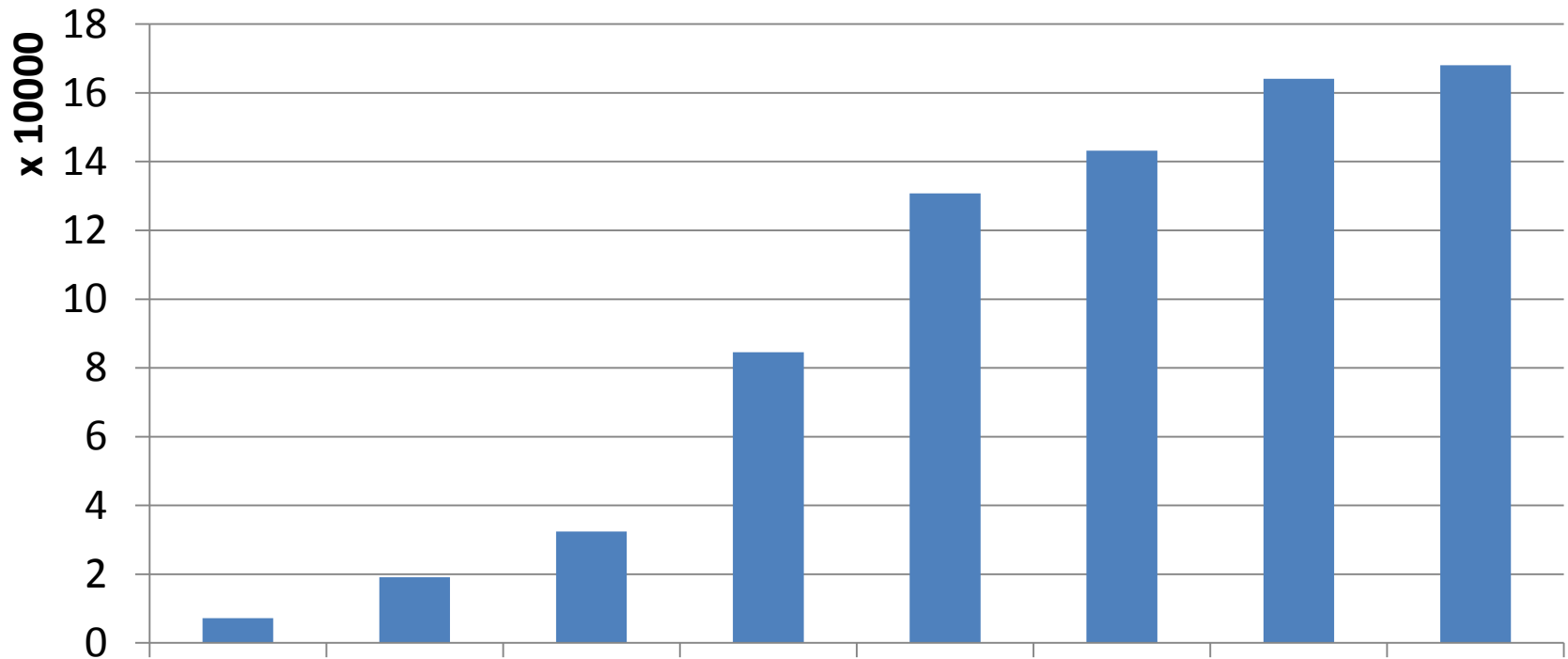
- *“Assuming that one invests in health and spends in disease, we want to contribute to **creating a culture of prevention and preservation of mental and physical well-being**, timely controlling and countering as much as possible the extraneous factors that lead to the disruption of the mind / body balance.”*
- *“**Our logic of service and care is therefore primarily pedagogical**, investing in a humanized counseling and therapy relationship, compassionate and understanding of the suffering and frailty of patients.”*

# Where? Near Porto...

- Population: 168 027 (2011 Census)
- Area: 133,26 Km<sup>2</sup>
- Foundation: 1193 (XII Century)
- Gondomar accounts for 12% of the Porto urban area
- Region (NUTS II): North
- Sub-region (NUTS III) Greater Porto
  - Population: 1 287 276 (2011 Census);
  - Area: 1 024 Km<sup>2</sup>



# Gondomar (population 1801-2011)



1801	1849	1900	1930	1960	1981	1991	2001	2011
7 220	19 103	32 428	49 758	84 599	130 751	143 178	164 096	168 027

# Close to Porto and the University

## Within a 10 minute car ride from UFP



# HE-UFP

- Hospital
  - Health care institution providing patient treatment by specialized staff and equipment
- Teaching Hospital
  - Combines assistance to patients with teaching to health students and linked with an University (UFP)
- Private Hospital
  - Means not funded by the public sector and needs to grants his own sustainability
- HE-UFP
  - Means “Hospital Escola” with Escola being the portuguese word for School...



# More info...

- Property of Fernando Pessoa Foundation
  - The same owners of the University (UFP)
- Hospital area: 40 000+ square meters
  - More than the 34 000 of UFP campus
  - 8 levels, 6 above ground (<http://www.youtube.com/watch?v=G5CsPbjrWLo>)
- HE-UFP
  - Conception and project by the UFP Architecture Lab
  - Constructed under UFP supervision
- Investment: 50 000 000 euros
  - 2.8% are EU funding for an Intensive Care unit
- Place: Fernando Pessoa Avenue. S. Cosme. Gondomar
- Site: <http://he.ufp.pt/>
- ...and a Facebook page: <https://www.facebook.com/heufp>

# Some important dates

- July 2009
  - Local authorities agreement
- 4th December 2012
  - Inauguration day
- January 2013
  - Open to public
- Ending July, 2013
  - The first deployment operational phase (IT & Information management)
  
- HE-UFP, a 3 years project (fast and furious...)
  - Conception , construction & equiped
- 2 years to build
  - See <http://www.youtube.com/watch?v=45xfbjYvmHA>

# Some HE-UFP figures...

- Hospital capacity
  - 200 beds
- Service for
  - Inpatients
  - Outpatients (ambulatory care)
  - External consulting
- General hospital
  - 43 specialist units
- Has an emergency department
  - 24/7 service for urgent care
- Intensive care
  - 60 beds
- 200 people working
  - plans for 400



# So...

- It is a new hospital that needs to start from day one (challenge)
- But this allow to think all details to function as a modern hospital (opportunity)



# Complex and critical

- Deals with life
- Deals with trust
- Deals with risk
- Deals with information
- Deals with knowledge
- Deals with data
- Deals with (lot of) money
- Deals with dead

- Do you know anything bigger than health matters?
  - Quality of life!
  - Health is a relevant part of it...

# Hospital professional groups

- Medical
  - Nursing
  - Administration
  - Physiotherapy
  - Pharmacy
  - Paramedic
  - Technical staff
  - IT staff
  - Administrative
  - Security
  - Public Relations staff
  - Other?
- Each group with proper:
    - Functions
    - Systems
    - Procedures and standards
    - Priorities
    - Language
    - Rules
    - Information needs
    - Information systems
    - Tools
  - **Perform, Report, synchronize**
  - **Integrate, relate and share**

# Still it is a peoples issue



# A number of systems

- A complex, multidimensional set of integrated facilities
- Some are analog...
- Other digital
- ...but all need to be integrated and most are highly depended from each another

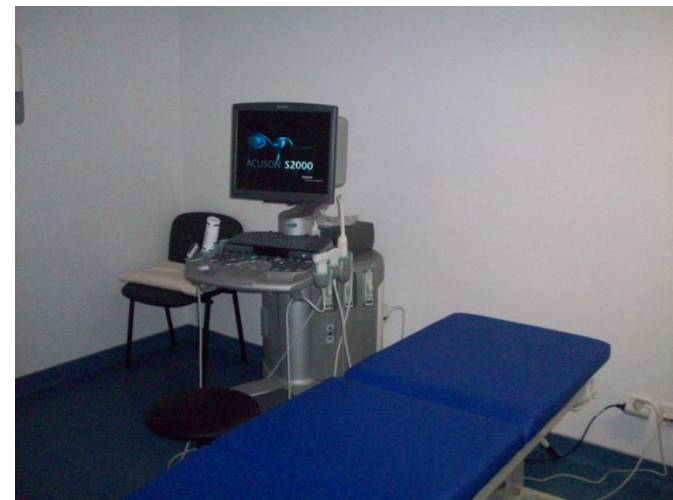
# Hospital ventilation systems (deal with cross infection in Hospitals)



# Security & monitoring (access control & surveillance)



# Medical Imaging systems (diagnose & create a human atlas)



# Data Center (store data for knowledge, get smarter, be intelligent)



# New anatomical theaters

(more safe, bidireccional but isolated and for more people)



# High tech operating rooms (for less risk & more medical comfort)



# Operating department practice (training operating room & content creation)



# Digital calls

- To support, control & produce content (\*new!)
  - Diagnose
  - Work
  - Decision
  - Logistics
  - Resources
  - Care
  - Billing
- But also to integrate and relate information
- & turn health professionals life easier and (more) error free

# Even traditional profiles are impacted

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**“Doctor and physician are outdated terms.  
I’m your biological tech support specialist.”**

But complex challenges emerge  
(how to balance billing, report and privacy?)





# HIS Biggest commercial offers (EUA)

- McKesson Technology Solutions
- Dell, Inc.
- Philips Healthcare
- Cerner Corp.
- Siemens Healthcare
- Epic Systems Corp.
- Medical Information Technology, Inc. (MEDITECH)
- GE Healthcare
- IBM
- Oracle

# HIS Developed and/or implemented (PT)

- Alert Life Sciences Computing SA
- Siemens Healthcare
- Indra
- Critical Software
- MedicineOne

# HE-UFP adopts Siemens Healthcare

(<http://healthcare.siemens.com/>)

- Administrative, financial and archiving information systems
- Clinical information systems
- E-health
  
- The product is *Soarion*
  - A complete HIS (*Hospital Information System*) solution (means: workflow, report, efficiency, standard, certification, and trusted & reliable **as keywords**)

# Need to tailor it

- Integration
- Service
- Cost
- Time response
- Sustainability
- Patients are become clients and can turn relatives / partners / users, depending on health concept adopted... (\*new!)

# Final remarks

- As in many other contexts, health care is suffering tremendous pressures, in particular:
  - To provide new, better quality and more humane services
  - New demands for more eldering populations
  - Looking for alternative strategies not so based on treatment but more on prevention
  - Always the need to control costs, quality and service

# The digital can...

- Help us to
  - Make the move to inform people
    - In more imaginative, pedagogic ways  
(from training staff to informing patients)
  - Allow better information management
    - For a more efficient and less stressed environment for health professionals
- You also can help us make the change
  - We got an excellent real time, real life environment to study, research and innovate – projects, collaboration and proposals are welcome!

- A visit to the HE-UFP hospital is scheduled for today , 17h30 (there is a list to sign up)

