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a joined journey to selecting a
new Hospital Information System

health
CONFERENCE 2010


WHIT
Conference & Exhibition
Connecting Leaders in Technology and Healthcare

Agenda

LUMC and UMCU:
a joined journey to selecting a new HIS

- Introduction of Leiden and Utrecht University Medical Centers
- ICT history and reasons to change
- The journey to selection
- Observations

LUMC and UMCU

Holland has app. 90 hospitals; including 8 UMC's



€570 Million turnover (2008)
876 Beds (official)
20.043 Inpatients
82.807 Outpatients first visit
15.612 Day-treatment
2100 Students
113 PhD degrees awarded
6833 Personnel (5650 FTE)



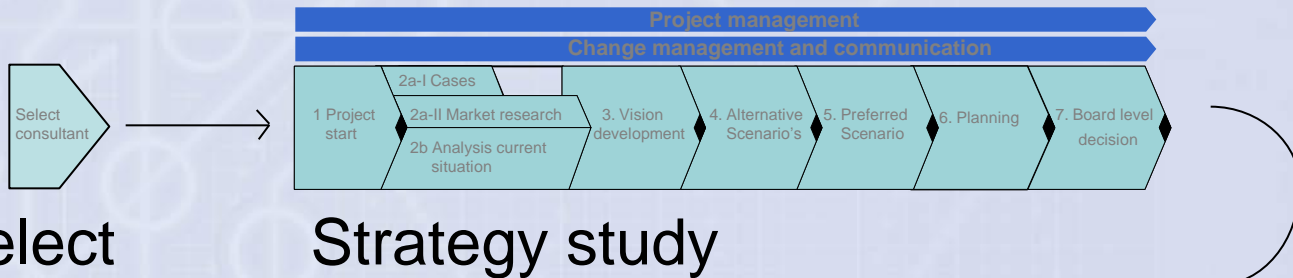
€794 Million turnover (2008)
1042 Beds
30.071 Inpatients
127.569 Outpatients first visit
23.547 Day treatment
3474 Students
133 PhD degrees awarded
10366 Personnel (7237 FTE)



ICT history and reasons to change

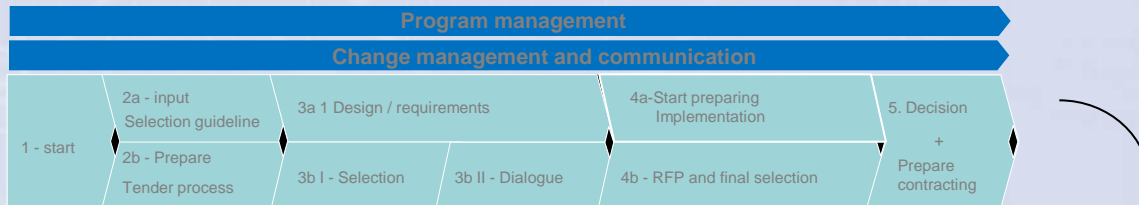
- 1972: start of NOBIN-ZIS project (in LUMC)
 - Integrating patient registration
 - Printing lab results
- 1974: successful development required close cooperation
 - 7 out of 8 UMC's to join
 - Project developed into a functionally very rich HIS
- 1998: In use at over 40 hospitals
- 2007: core technology of this (35 years old) HIS is still in use
 - But current and future requirements can no longer be met
 - Both LUMC and UMCU want to define their replacement strategy
 - Both have a common vision on the future of their HIS

The journey to selection



Select

Strategy study

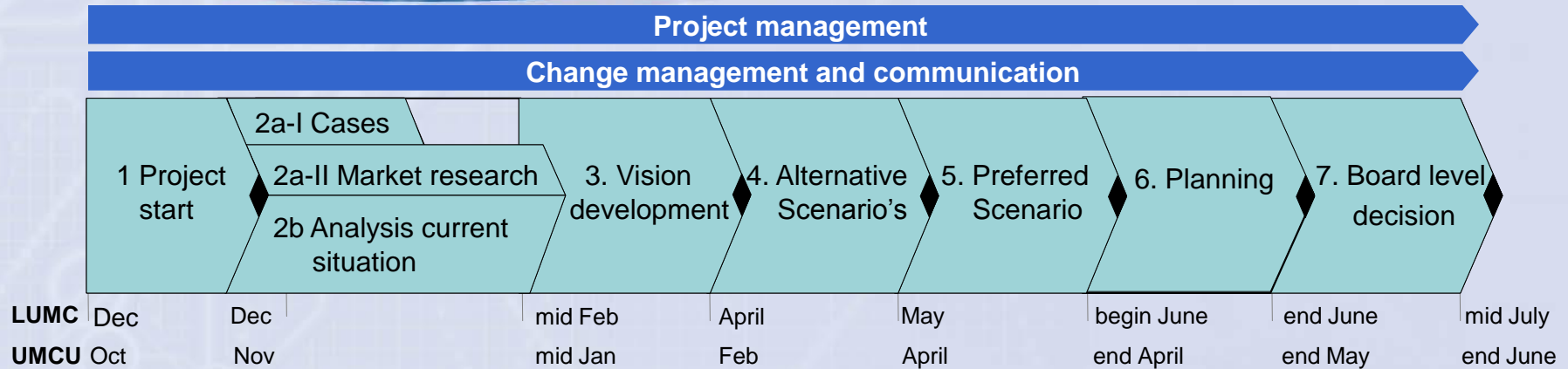


Design and selection

Month	Analysis on Design					Iterative refining, interface development						Testing and training			Post go-live						
	1 1-feb	2 1-mar	3 1-apr	4 1-may	5 1-jun	6 1-jul	7 1-aug	8 1-sep	9 1-oct	10 1-nov	11 1-dec	12 1-jan	13 1-feb	14 1-mar	15 1-apr	16 1-may	17 1-jun	18 1-jul	19 1-aug	20 1-sep	
Quality Assurance																					
LUMC	1. Information analysis	6. Prepare implementation environment, Define baseline, EPR				10. Review						15. Test and acceptance			19. End user training		21 Post go-live care				
UMCU	1. Information analysis	6. Prepare implementation environment, Define baseline, EPR				10. Review						15. Test and acceptance			19. End user training		21 Post go-live care				
	2. Analysis Interfaces and ETL					11. Develop and test interfaces and E						16. Implement Training environment									
3. CO	7. Conversion of base tables		12. Conversion Patient data								17. Implement Production environment										
4. IO	9. Develop test and Acceptance process		13. Design and develop end-user training material								18. Train the trainers										
	8 Training project members					14. Design and develop user procedure						20 prepare Go-live									

Implementation

Leg 1: Strategy study (Oct-07 – Jul 08)



- Each UMC starts their own strategy study, using the same methodology
 - Market research is common activity
- Documentation and intermediate results are shared freely
- A joined trip in April 2008 shows that we have the same vision
- Subsequent decision to work closely together in selection process

Results Strategy study

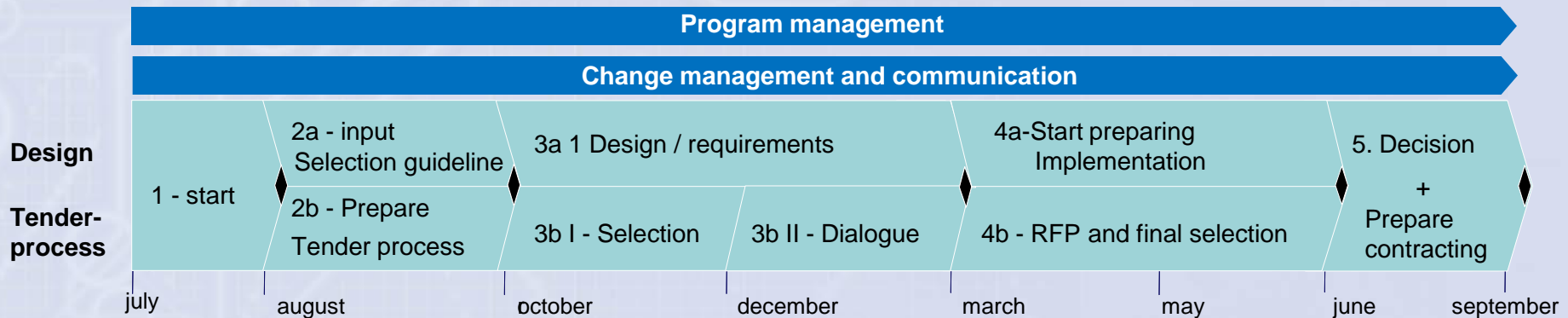
- UMC's want
 - further integrate care, research and education
 - Transparency and management based on quality and efficiency
 - Patients and referring physicians as active participants in care, also across hospitals
- Therefore
 - Over 60% of care will be organized in care path
 - One common Electronic Patient Record will be used, with integrated communication
 - Data input will be highly standardized, structured and coded (for research, communication and decision support)
 - Communication with patients and referring physicians will be digital

Results Strategy study

- This requires
 - One integrated planning system
 - Full use of order management
- Critical success factors
 - Ease of use (user interface, mobile use)
 - Full flexibility and ability to work structured
 - Integration with care management process
 - Working together in and between [regional] hospitals
 - Working 100% digital, no extra time needed
 - Fully integrated functionality
 - Very fast implementation in 3-4 plateaus
 - Start preparing the organization early

Leg 2: Design and Selection process

(Aug '08 – Sep '09)



- 2 parallel streams: design (detailing requirements) and selection (Tender process)
- Both LUMC and UMCU agreed upfront at board level to selecting the same product
- Selection based on a non-public European Tender process with competitive dialogues

Selection criteria

Requirements (Normal, Important)

363	EHR
113	Care processes
339	Integrated planning
62	Management Information
222	Billing related
19	Additional functions
160	ICT related
55	General
78	Support and Maintenance
1468	Total

16 *very important* requirements

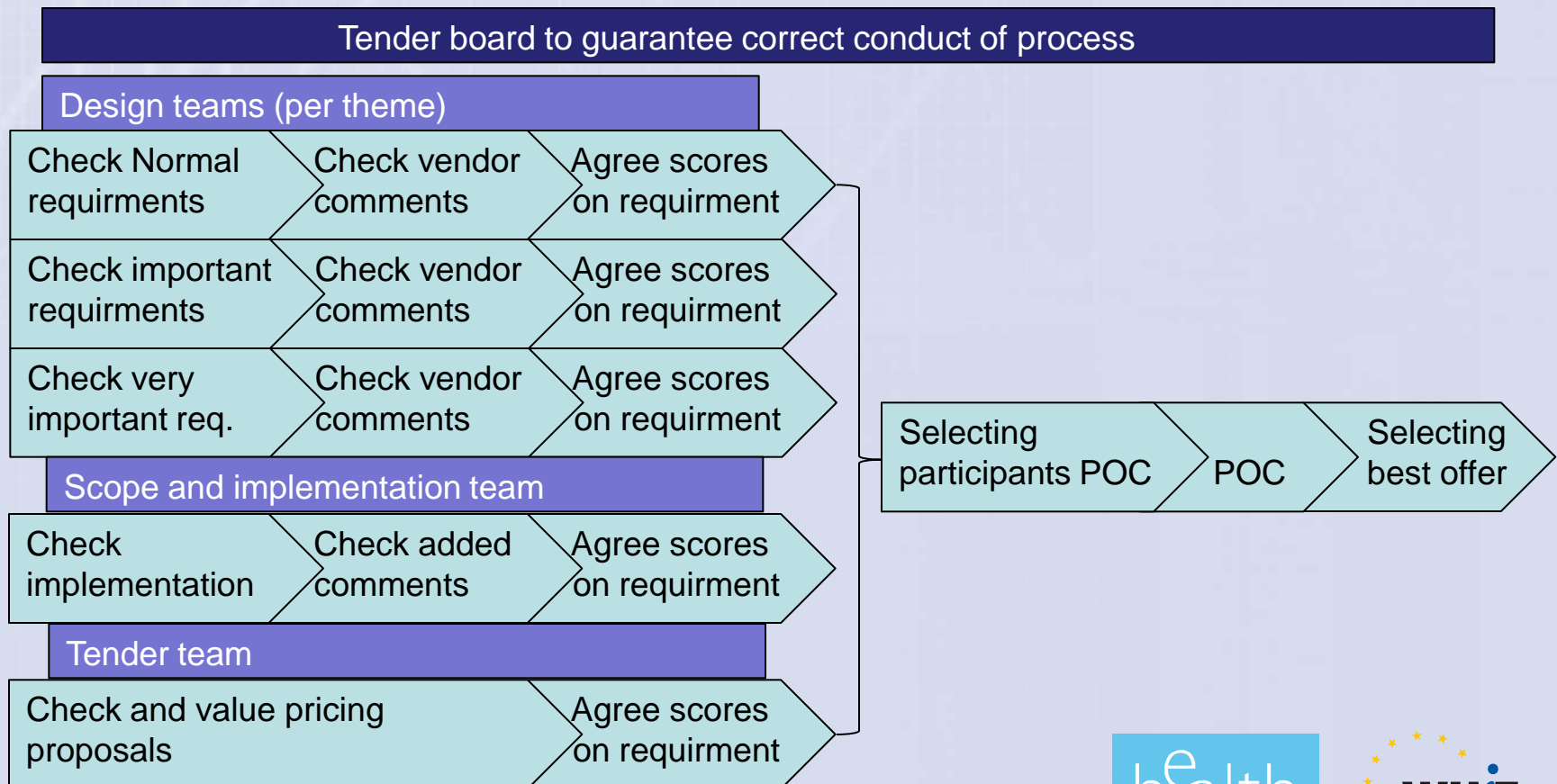
Vision statements
Richness of solution
Availability of solution

Selection Criteria

points

	max	min
Product quality	420	
- Normal	10	7.5
- Important	10	9.5
- Very important	400	200
Implementation	300	150
Proof-of-concept	100	50
Pricing / contract	180	
Total	1000 (100%)	

Final selection process



Leg 3: Implementation

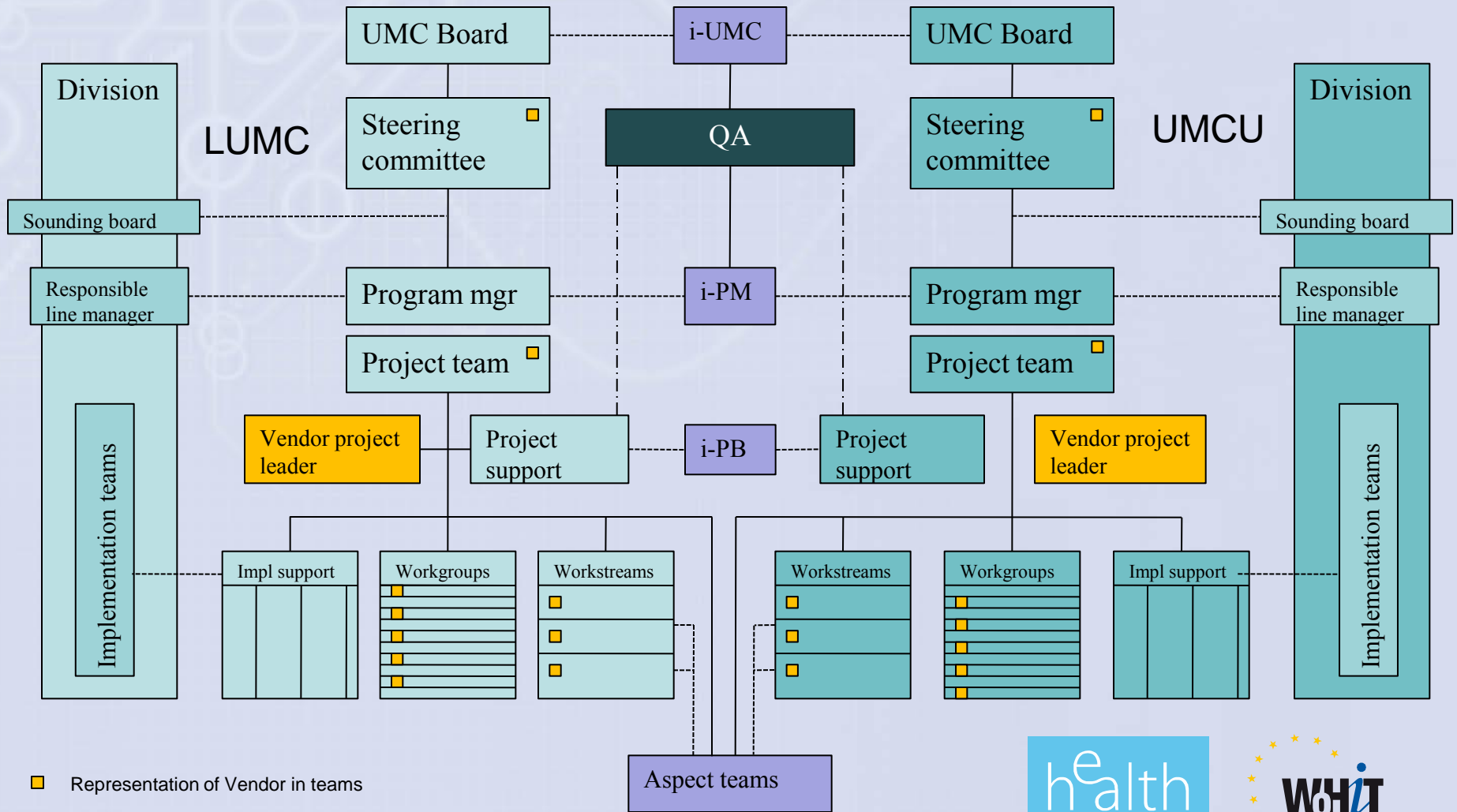
2010-2012

Month	Analysis en Design					Iterative refining, interface development						Testing and training				Post go-live			
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Quality Assurance	●					●						●				●			
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LUMC and UMCU decided to implement together

- for reasons of quality, cost and future synergy
- in 3 phases
 - 1st: big-bang replacement of current system;
 - 2nd: enriching functions;
 - 3rd: adding new functions)

Project organization mirrored and shared in each phase



■ Representation of Vendor in teams

Observations

- Strategy study and Selection are business projects
- Excellent rapport created between business and ICT
- Broad acceptance of final result in each UMC
- Joined process very beneficial for both UMCs
- Tender process via dialogue was time-consuming, but worth the effort for both UMCs and all vendors
- Process requires external help but Professional knowledge comes from UMCs
- Working together proved to be a worthwhile journey