


Deloitte.

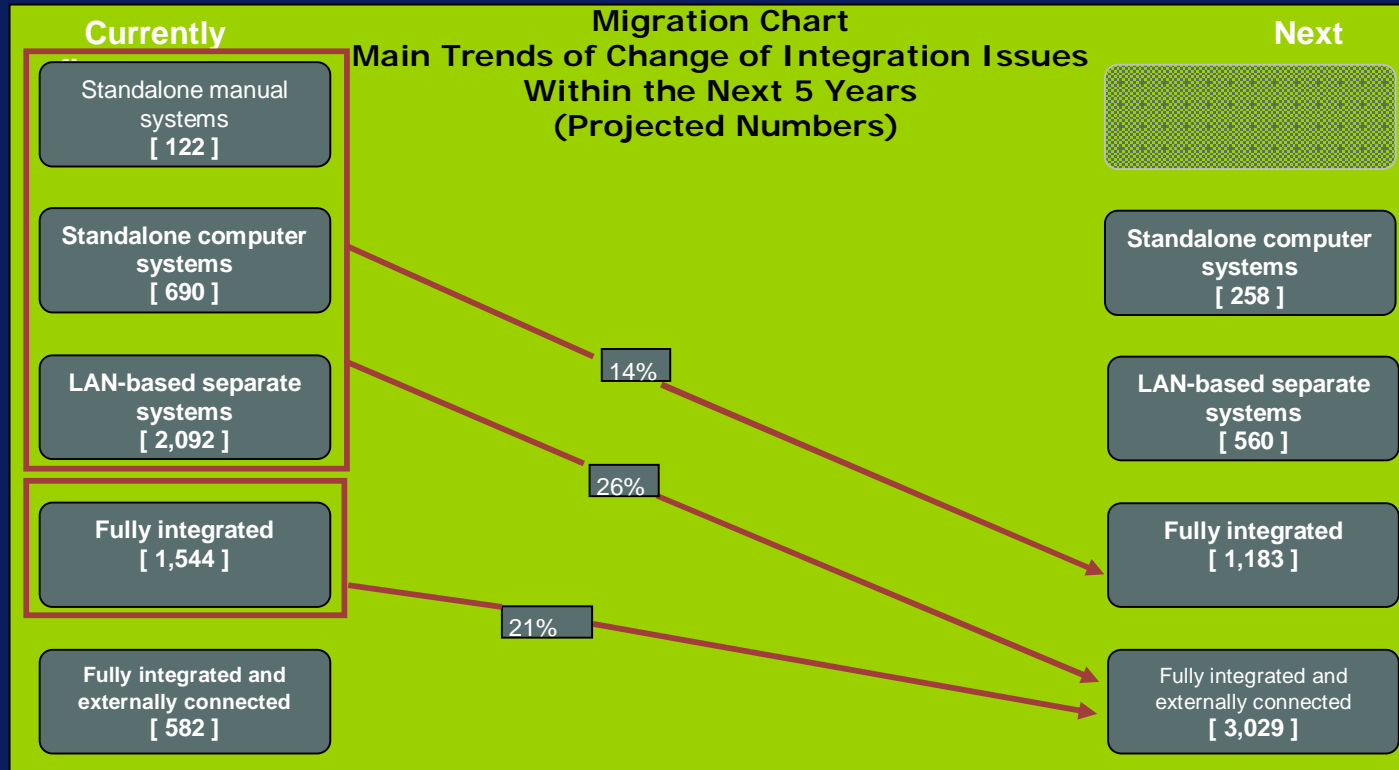
e-Business W@tch 2006 Hospital activities workshop

Are Europe's hospitals equipped to meet eHealth opportunities? A view from HINE

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Infrastructure in place?



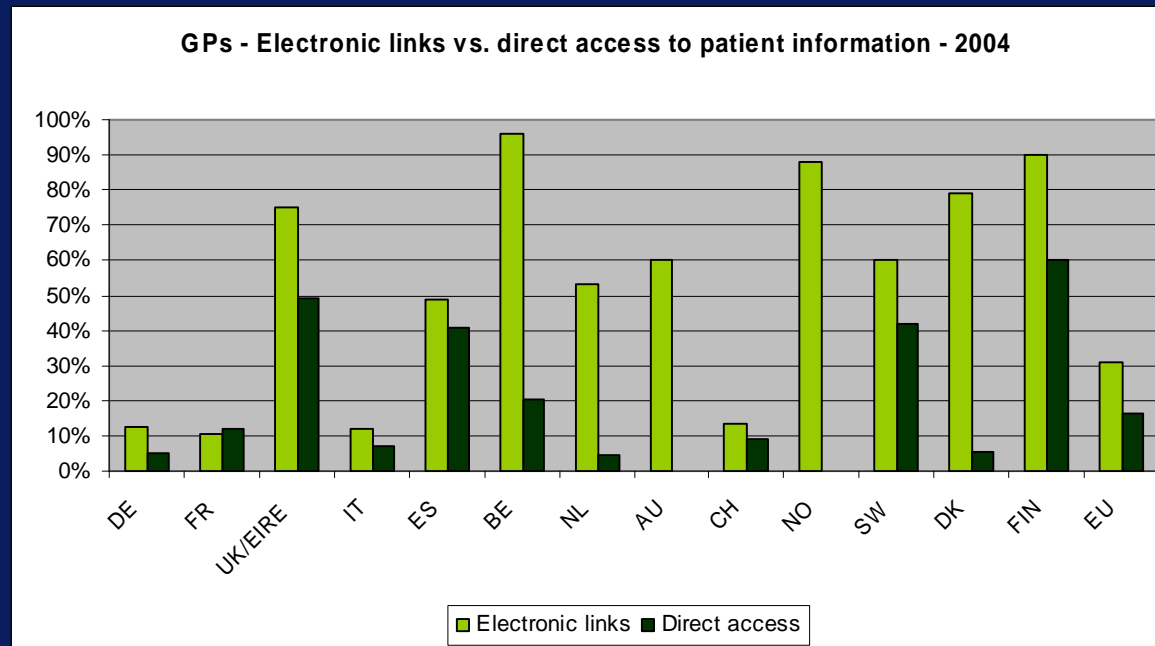
- "Infrastructure is good"
 - LAN (82% W@tch) -> LAN & above (84% HINE)
- "Scope for improvement"
 - Externally connected low e.g. book online (W@tch) -> 11% currently (HINE), 60% in five years (HINE)

Infrastructure in place?



Three additional HINE observations:

- Hospitals are recognising the challenge:
 - plan to move towards fully integrated/externally connected
- Challenges differ
 - electronic links (one way traffic) > remote/direct access (interactive)
- Big differences observed across countries
 - Nordics and Benelux overall more advanced (except UK/EIRE)
 - France, Germany and Italy lagging behind
 - Smaller markets driven by national projects more successful so far



Hospital Information System use

Similar trends observed. Figures differ due to samples.

- Prevalence of administrative, financial and medico-technical systems.
 - Patient Administration Systems are very common.
 - 98% ADT coverage
 - ADT still a major area of investment
 - Medico-technical and services department second ranking in coverage.
 - 75% LIS/LIM coverage
 - 70% PHIS
 - 60% RIS
- Advanced clinical support systems not yet widely available.
 - EPR systems mid ranking with 51% but not yet mature systems and integration still very weak.
 - Order communication not yet highly sophisticated, often not enterprise-wide
 - Knowledge support solutions reported as very basic.
- Very advanced clinical solutions still in the future.
 - 32% PACS
 - 18% ETP
 - 8% ePrescribing

Additional HINE observations:

- Significant differences from country to country.
- Countries will move unevenly.

Hospital Information System use

Additional HINE observation: Key challenge is to move from level 2 to levels 3&4 addressing clinical workflows, medical documentation and decision support. Towards eHealth-enabled hospitals!

		%	#
↑ 4 3 2 1 <i>Levels of sophistication</i>	Decision support, ePrescribing	2,13%	107
	Clinical orders, results, Advanced medical library	18,70%	941
	Common MPI / integration around patient number	87,34%	4395
	PAS	98,87%	4975

- # = total number of installations across Western Europe
- Total population considered for forecasts is 5032 hospitals across 15 European countries (acute hospitals larger than 100 beds)

Hospital Information System use

Additional HINE observation: A major area of improvement relies in bringing the tools and the knowledge to the point of care.
Need for healthcare ICT business infrastructure!

	EU Weighted Av. Nb. Workstations per Hospital	EU Weighted Ratio Nb. Workstations per Bed	EU Weighted Ratio Nb. Staff per Workstations
4 Decision support, ePrescribing	1614	1,5	2,5
3 Clinical orders, results, Advanced medical library	585	1,2	2,9
2 Common MPI / integration around patient number	536	1,2	3,7
1 PAS	282	0,8	5,1

Hospital Information System use



Additional HINE observation: Challenge for Europe relies in building a hospital ICT infrastructure at the forefront, converging voice, data and video communications as well as supporting all administrative and clinical applications, diagnostic systems and medical devices. T
Towards digital hospitals!

	DE	FR	UK/ EIRE	IT	ES	BE	NL	AU	CH	NO	SW	DK	FIN
Workstations - Mean	294	383	1297	384	423	521	1050	680	597	977	2019	1555	984
% Mobile	3%	6%	6%	4%	7%	2%	4%	7%	8%	17%	11%	12%	6%
% Wire-less	0,5%	2,6%	3,4%	0,5%	4,8%	0,4%	3,1%	2,8%	3,0%	2,5%	2,2%	5,6%	0,8%

ICT spending patterns



- In Europe, 70% (HINE) of the hospitals spend less than 2% of their total revenues, while more 70% of their US colleagues were spending more than 2% in 2004.
- Spending are however increasing in Europe but are far below other information intensive sectors, from 1% (Deloitte) in 2000 to 1,8% (HINE) in year 2004.
- Investment levels remain a barrier.
- Early W@tch survey findings do not foreseen a major budget increase (62% reported budget will stay the same) -> HINE reported that 52% of the hospitals expects their current budget to increase by 24% over a period of three years.



Additional HINE observations:

- Low level of ICT spending
- Recognised lack of inhouse eHealth skills
- CIOs generally unwilling to outsource support
- Failure of CIOs to recognise changing job role
- IT strategies disconnected from business objectives
- Smart procurement not yet widely developed.

Drivers for further investments



HINE findings differ from the early W@tch results:

- Legal requirements top-ranking in all countries.
- Comply with government incentives high ranking in UK reflecting NHS programme.
- Cost control mostly reported by Germany reflecting current political imperatives.
- Security and confidentiality currently ranking high in French hospitals reflecting current DMP discussion.
- Nordics, Netherlands, Belgium, Spain currently on the forefront in recognising real business imperatives (quality, safety, etc.).



Additional HINE observation:

- **Impulsion from public authorities is a key driver!**

Challenge for Europe's hospitals...

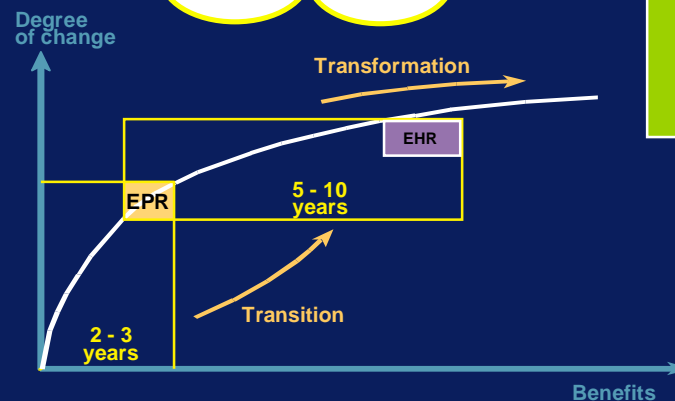
Current situation

Fragmented
organisation
poorly
connected

Transformation

Future vision

Networked
services
providing
seamless care
to
informed public



- Using **TOOLS** (EPR / ePrescribing / mobile & wireless...)
- Implementing **NEW CONCEPTS** (networking and collaboration, interaction and exchange within HC segments and between HC segments)
- Developing **NEW ATTITUDES** (create awareness and openness for data collection and information exchange) – learning as a permanent action point to improve the system

Technology is opening new horizons

... but these have to work across the boundaries between acute and community

Acute hospitals

- Teleconsultation
- Critical care
- Clinical research
- Trauma services
- Community outreach
- Virtual care services

Community services

- Requesting tests/results
- Electronic prescribing
- Booking hospital referrals
- Maintaining summary EHR
- Simple local procedures
- Provision of homecare

**Integrated Care networks
Integration by bites no bricks**