eHealth 2003 - Telematics in Health Care

21-23 October 2003, Dresden

The European perspective beyond eHealth

Professor Jean-Claude HEALY
European Commission - DG INFSO - C4
Brussels





from to

PAST 10 years (1991-2002)

"INFORMATION Technology for HealthCare"

"M to m"

FUTURE 10 years (2003-2014)

"KNOWLEDGE Technology for Health"

"m to M"

1989-1990 1991-1994 1995-1998 1999-2002 2003-2006 2007-2010 FP2 FP3 FP4 FP5 1. E-Molecule: Bioinformatics

Computers for Doctors

Projects

30

Results

Feasibility

Study

Networks for HealthCare Professionals

User Needs Approach

DG RTD Societal Demands

2. E-cellule/tissue: neuroinformatics

3. E-Individual: Medical Informatics

RESEARCH

2011-2014



Budget Budget 20M € 100M €

> **Projects** 63 Results AIM Community

Budget 140M €

Projects 158 Results 1st batch of **Products**

Budget 200M €

Projects 125 Results

EU Health Telematics Industry

TELECOM POLICIES

Others

SUPPORT TO IMPLEMENTATION

Regional - National Plans

DG INFSO supports: eHealth 2002 + 2005, eHealth Ministerial Conference 2005, TEN/TELECOM, etc.

DG SANCO supports: Public Health Policy

DG REGIO, RELEX, EMP, ENT... supports

INFSO C4





I. Research Component

I.1.1. FP5 (98-02) "User Friendly IST Programme"

- Citizen, patient, HC professional oriented (flower model)
- Budget 175 Meuro
- Projects 130
- In particular: IHE-E, HINE, Pro Ethel, TM Alliance
- See FP5 report April 2003
- www.cordis.lu





5th FP: KA1: HEALTH DOMAINS

1: CITIZENS

SOCIETAL DEMAND: "Stay HEALTHY".

1.2: <u>health</u> appliances

SPECIFIC DEMANDS: at home, at work, abroad, at leisure, ensure the citizen can manage his own health

1.1: health support

SERVICES
SPECIFIC DEMANDS:

- health promotions
- support to health-related industries

Info - Ethics e-EUROPE **2.1:** <u>home</u>

SPECIFIC DEMANDS: best home treatment

2: PATIENTS

SOCIETAL DEMAND:
"Safe, cheap, efficient,
follow-up & treatment"

2.2: <u>worldwide</u> telemedicine

SPECIFIC DEMANDS:
1st medical advice

1st medical advice 2nd medical opinion

3.1: hc providers SPECIFIC DEMANDS:

- quality
- integration
- user friendliness
- more mobility

3.2: hc managers specific demands:

- effectiveness
- hc policies
- resource management

3: HC PROFESSIONALS

SOCIETAL DEMAND:

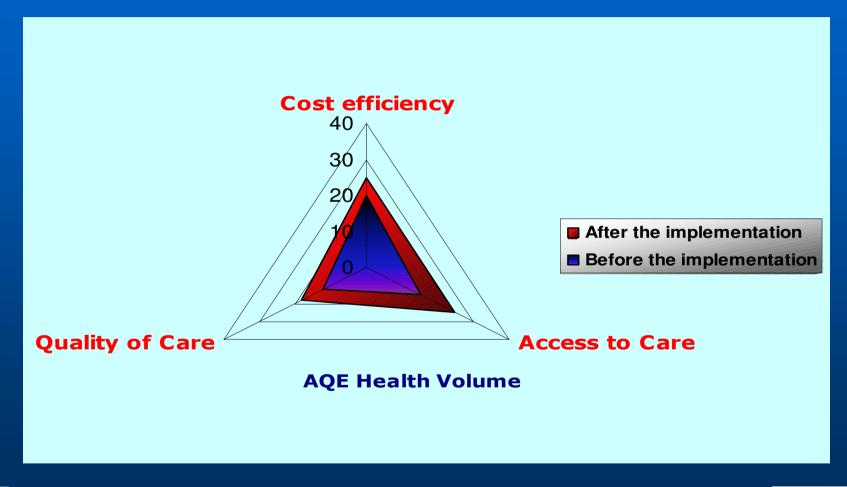
"optimisation of human,

financial & infrastructure resources"

4: INDUSTRIAL AFFAIRS

- standards
- implementation plans
- certification centre

I.1.2 Research FP5: AQE methodology (Access, Quality, Economy)







I.1.3 Research Outputs: eHealth Conference May 2003: Winners

THEME 1 - Networks

Winners: * EVISAND - Entorno Virtual de Atencion de Salud de Andalucia,

Regional Ministry of Health, Seville, Spain



* SJUNET - The National ITinfrastructure for Healthcare, Carelink, Stockholm, Sweden

ALLOWS THE SECURE TRANSMISSION OF HEALTH CARE DATA AND APPLICATIONS ON AN IP-NETWORK SEPARATE FROM THE INTERNET





I.1.3 Research Outputs: eHealth Conference May 2003 : Winners

* HYGEIAnet - The Regional Health Information Network of Crete, Venizeleion Regional Hospital, Crete, Greece



OUTCOME OF A SYSTEMATIC EFFORT TOWARD THE DESIGN, DEVELOPMENT AND DEPLOYMENT OF ADVANCED eHEALTH SERVICES AT VARIOUS LEVELS OF THE HEALTHCARE HIERARCHY, INCLUDING PRIMARY CARE, PRE-HOSPITAL HEALTH EMERGENCY MANAGEMENT, AND HOSPITAL CARE

* MedCom - The Danish health care network, Venizeleion Regional Hospital, Odense, Denmark

NATIONAL PROGRAM FOR ENABLING ELECTRONIC COMMUNICATION BETWEEN ALL PARTIES IN THE HEALTH AND SOCIAL SECTOR - BOTH ADMINISTRATIVE AND CLINICAL





I.1.3 Research Outputs:

eHealth Conference May 2003: Winners

THEME 2 - Health ProfessionalS

Winners:

* COHERENCE - Component-based Health Reference architecture for



Network CarE, Information System for a successful Hospital Restructuration Georges Pompidou European Hospital (HEGP), France

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TO CONTROL COSTS THROUGH ORGANIZATIONAL INNOVATION, TO IMPROVE THE QUALITY OF THE PATIENT ADMISSION PROCESS, TO DECREASE AND REDIRECT THE NUMBER OF BEDS, IMPROVING THE OVERALL HEALTH CARE OFFERING

* SURGETICA - Computer Assisted Medical Interventions & SURGETICS,

TIMC-IMAG Laboratory, Grenoble University Hospital, France

MULTIFUNCTIONAL SURGICAL STATION WHICH PROVIDES: PRE-OPERATIVE AND INTRA-OPERATIVE IMAGE ACQUISITION, INTERVENTION PLANNING, AND SURGICAL NAVIGATION



I.1.3 Research Outputs:

eHealth Conference May 2003: Winners

THEME 3 - Patients

* BHC Project - Boario Home Care Project,

Salvatore Maugeri Foundation, Pavia, Italy

THE SYSTEM PROVIDES GENERAL PRACTIONERS, CARDIOLOGISTS AND PATIENTS WITH DEVICES CAPABLE OF MONITORING A SERIES OF ELECTORCARDIOGRAPHIC SIGNALS

THEME 4 - CITIZONS

Winner: * NHS Direct Online web-site - NHS Direct Online,

Hedge End, Nr Southampton, UK

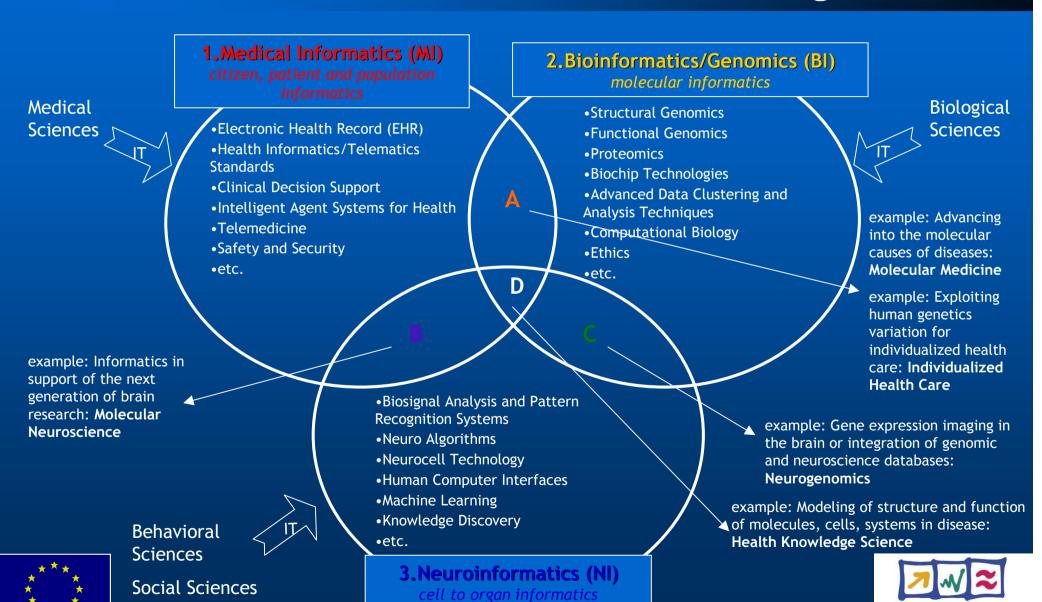


NHS DIRECT ONLINE PROVIDES HIGH QUALITY HEALTH ADVICE AND INFORMATION ON THE INTERNET. IT'S UNIQUE IN BEING THE ONLY UK WEBSITE SUPPORTED BY A 24X7 NURSE-LED HELPLINE





I.2.1.1. Research FP6: New Paradigm



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I.2.1.2. Research FP6: New Paradigm

1.Medical Informatics (MI)

citizen, patient and population informatics

2.Bioinformatics/Genomics (BI) *molecular informatics*

Data Banks:

- Heterogeneous
- Non structured
- Distributed
- + strong data protection regulations

Data Banks:

- +/- Heterogeneous
- +/- Structured
- +/- Centralised

Data Banks:

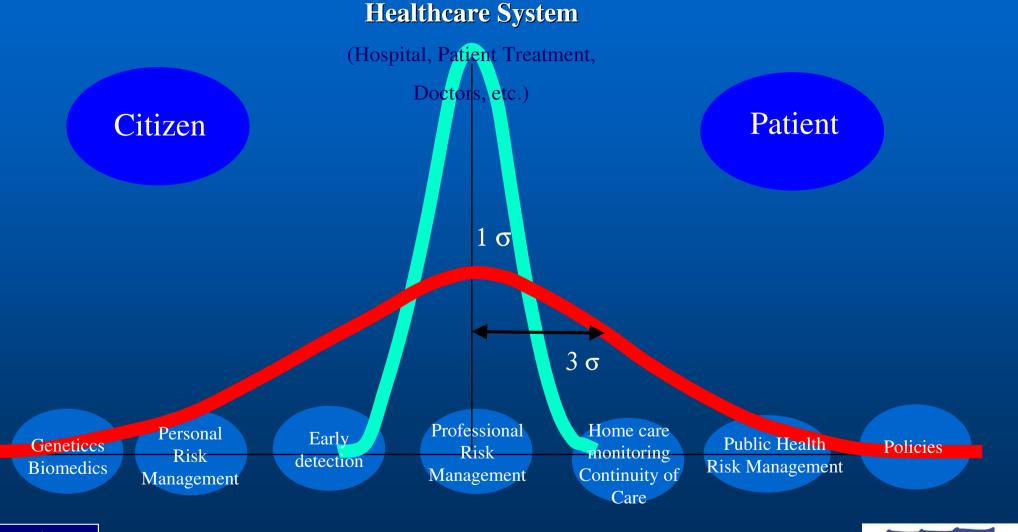
- Heterogeneous
- +/- structured
- Distributed



3. Neuroinformatics (NI) cell to organ informatics



I.2.1.3. Research: The "6 s approach" in e-Health







I.2.2. Research FP6 Call 1: Strategic Objective eHealth

Submitted 175 proposals requesting 1,2 Billion Euro Invited for negotiations: 21 Proposals requesting 87 Million Euro

Focus 1: Ubiquitous Management of Citizen's Health Status

Submitted: 10 IP, 2 NoE, 24 STREPS, 3 SSA

Invited for negotiations: 2 IPs, 3 STREPS

Focus 2: Systems for Health professionals

Submitted: 33 IP, 6 NoE, 63 STREPS, 8 SSA, 4 CA

Invited for negotiations: 3 IPs, 9 STREPS, 1 SSA

Focus 3: Supporting synergy between medical Informatics, Bioinformatics and Neuroinformatics

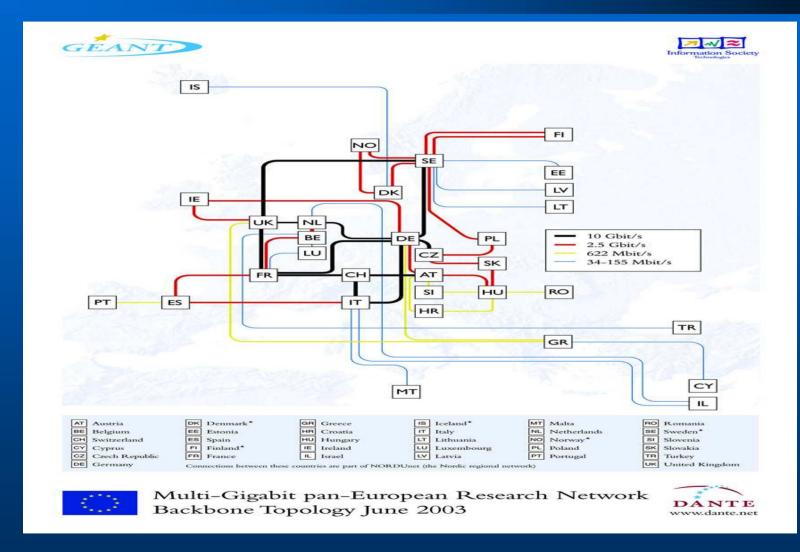
Submitted: 2 IPs, 13 NoE, 7 STREPS

Invited for negotiations: 3 NoEs





I.2.3. Research: Géant & HealthGrid







I.2.4. Research: Intelligent clothes











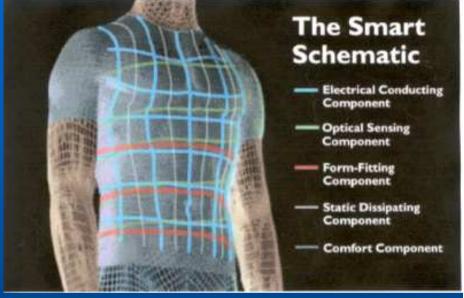




VTAMN Background (1)

Tele-assistance Jacket (1999 - CNES)



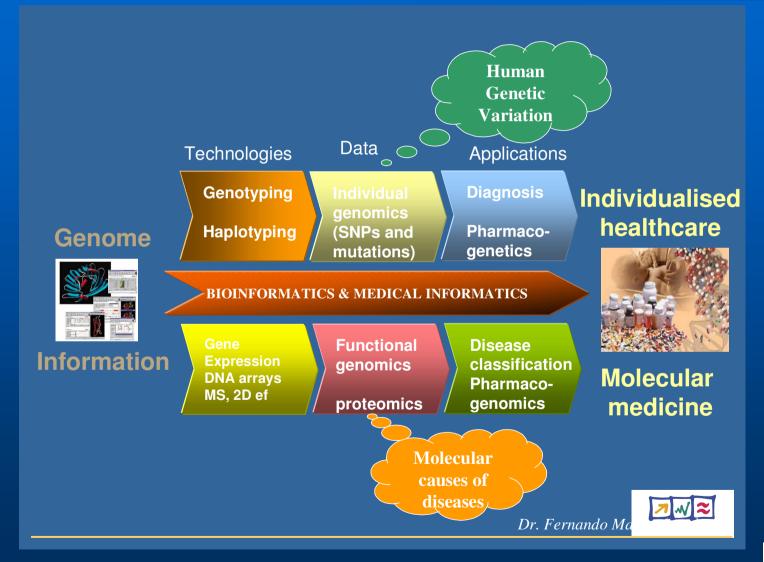








I.2.5. Research: Biomedical Informatics







I.3. FP6 Next opportunity

Overview of Calls for Proposals foreseen in the Work Programme 2003-3004

Three calls published:

Call 1: closure April 24, 2003 budget 1070 Meuro (*),

Call 2: closure October 15, budget 525 Meuro,

Call 3: open, closing December 31, 2004, budget 60 Meuro (*),

eTEN - October 2003

Future and Emerging Technologies – Open Call

+ DG RTD Calls

« Contribution to European Research Area (ERA) »





II. Support to Implementation: European eHealth Area (EeHA)

II.1. Ministerial Declaration Brussels, 22 May 2003

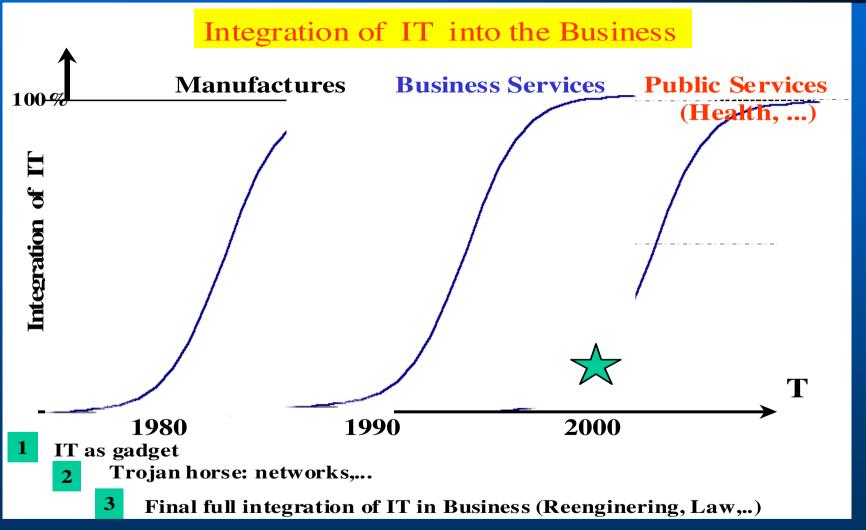
Ministers of EU Member States, Acceding and Associated countries, as well as EFTA countries met on 22nd May 2003 in the framework of the *e*Health 2003 conference organised jointly by the European Commission and the Greek Presidency of the Council...

in eHealth Book - IOS Press n 100 - 2003





II.2.1. Support to Health System Reforms







II.2.2. EeHA: European eHealth Area

- Demand: politicians, industrialists, users
- Tools:
 - * Administrative: communication, eEurope 2005
 - * Legal: court of justice decret: mobility of patient
 - * Technical: standardisation (DG ENT)
 - * Social: eHealth 2nd conference (Cork), 5-6 May 2004
 - * Financial: structural funds, intereg funds, cohesion funds, social funds, MODINIS, DG SANCO Public Health funds, etc.
 - * Educational
- Open method of co-ordination with the Member States
- International collaboration





II.3. Legal aspects

KEY LEGISLATIVE AND REGULATORY ISSUES IN CHEALTH

The table below represents a list of the current legislative issues regarded as important in the implementation of eHealthcare tools and applications. The table does not purport to be exhaustive, nor to represent a ranking of issues. *The table is not an official document.*

Key Issue	Current and Forthcoming Legislation	Implications for eHealth
Data Protection	 95/46/EC data Protection 2002/58/EC data protection in Electronic Communications Data Protection working Party recommendation 2/2001 CoE recommendation Medical DP 13/2/97 	Duties of: Consent, management need to employ the correct professional Duties to inform
Digital Signatures	99/93/EC directive on Digital Signatures	Key importance in Health Professional Cards and Patient Data Cards MS agreements on methods of encryption
Consumer Protection	 2001/20/EC Clinical Trials Directive 2000/31/EC On Electronic Commerce 97/7/EC protection of consumers in distance contracts 85/374/EEC Product Liability for Defective Products 92/59/EEC General Product Safety 	Note Clinical trials include eTrials Note 2000/31/EC art 14 includes possibility of ban on distance selling of medicinal products HCP, health Authorities and producers must be able to comply with Product Liability legislation as well as eCommerce legislation
Guidance Documents	Communication on Quality Criteria for Health related Websites (2002)	Guidance on good conduct for webmasters
	Communication on on the Web Accessibility Initiative (2001)	Guidance on accessibility of web- based information
	Communication on European Health Insurance Cards (2003) High Level Committee on Health report on Health telematics (2003)	Setting the timetable for the European Health Insurance card which MS may choose to develop into a smart card

Legislation Table (version 8 June 2003)

Produced by: Petra Wilson DG Information Society C4







II.4. Guidelines for implementation

E.g.:

1. National Initiative for TeleHealth

NIFTE Guidelines - Canada 2003, Uni. of Calgary

- 2. Open method of coordination (LSE)
- 3. Technological plate-form (ISTAG)





II.5. Education

eHealth High Level Course

(Maastricht Institute)





II.6. Financial support

- Structural Funds

- BEI/WB/BERD

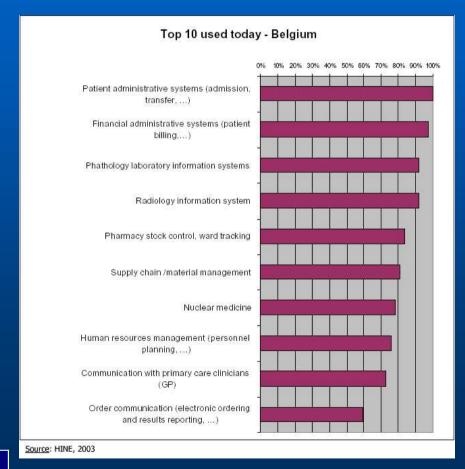
- etc.

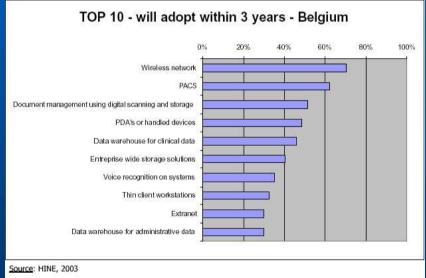




II.7. National Plans for implementation

- HINE Results - ex: Belgium







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II.8. International initiatives

- Baltic countries initiatives
- New applicant countries initiatives (Romania)
- WHO/CISCO: Health Academy
- WSIS: Geneva December 2003
- DG SANCO Public Health Programme, etc.





III. Conclusion

III.1. Towards eHealth industry

- 5 % of Healthcare expenditure by 2010
- Products, systems and services
- Positively evaluated
- + code of conduct, reimbursement process, acceptability, etc.

We need regional, national and international plans for supporting implementation





III.2. Time table

- Optimistic: Change within 10 years

- Pessimistic: Change within one generation

- Realistic: Nothing without strong incentives (legal, administrative, financial)





III.3. eHealth Industry/Pharmaceutical collaboration

- Research: 3/4D structure of molecules, Healthgrid, etc.
- Tracability of patients/diseases
- Optimisation of diagnostic/therapeutic tools
- Services for the citizen





III.4. eHealth is:

The today instrument for productivity gain in the existing Healthcare delivery systems.

The tomorrow backbone of the renewed citizen centered regional health delivery systems.



