

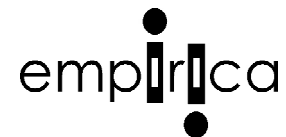
How far have we come?

Monitoring national eHealth strategies in EU Member States and EEA countries

- Study objectives, approach and overview of results -

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Outline

- **Study objectives & methodology**
- **Results in a nutshell**
- ***Status quo and progress made* - overview of priorities & results**
 - **Policy documents**
 - **Administrative structures (Governance)**
 - **EHR/ePrescribing**
 - **Standards**
 - **Identifiers**
 - **Legal and financial issues**
- **Outlook/Recommendations**

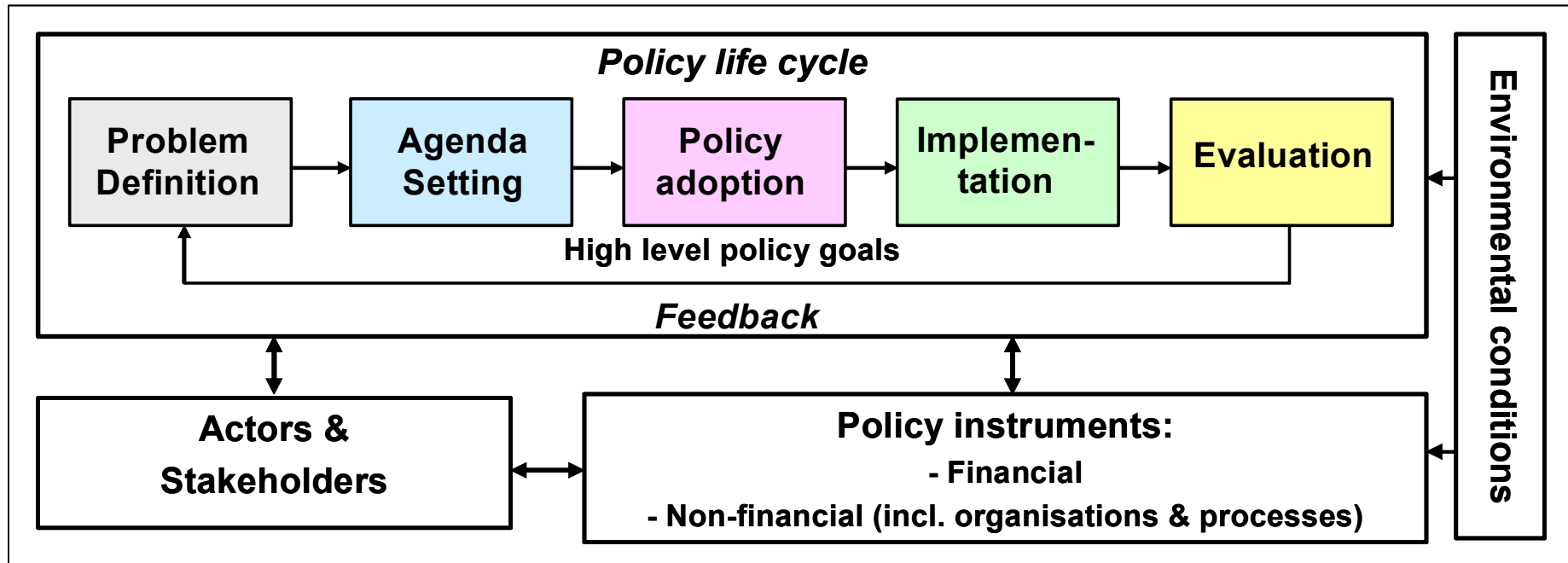
Objectives

- **Update of a prior EC funded study: eHealth ERA (2006/2007), which analysed national eHealth policies and implementations**
- **Objectives**
 - **Describe, measure and assess**
 - national eHealth policies, strategies and implementation measures
 - progress achieved, focusing on selected eHealth Action Plan priorities
 - **Identify good practice cases of national activities**
- **Output**
 - **Country reports**
 - **European overview and progress report / brochure**

Backup: eHealth Action Plan

- **Published in 2004 (COM 2004, 356) to address a number of challenges facing wider deployment of eHealth**
- **The „common challenges“ to be addressed in a concerted effort are:**
 - **Commitment and leadership of health authorities in particular on financial and organisational issues**
 - **Interoperability of eHealth systems in order to enable cross-border sharing of health data**
 - **Patient Identifiers**
 - **EHRs**
 - **Enhancing infrastructures**
 - **Financial and legal/regulatory issues**

Overall policy analysis framework



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A clear-cut *theoretical* framework, which is *fuzzy in the real world*.

Methodology

- **Survey of national status via online questionnaire**
 - **Guiding principle: EU eHealth Action Plan priorities**
 - **Structured questions in 6 main domains on plans, initiatives, achievements**
 - **Detailed handbook for guidance**
 - **Collection of references, background material, contacts to national experts**
- **European network of national correspondents**

Status quo and progress made - overview of priorities & results

eHealth in Europe in a nutshell (1/2)

- **eHealth is on everyone's agenda (e.g. epSOS project)**
- **...but only few countries have implemented a fully functional patient summary or Electronic Health Record and/or ePrescription system**
- **Success limited to countries or regions with less than 10 million inhabitants**
- **Developments away from full EHRs → summaries**
- **Over the past four years, awareness has grown for the managerial, legal and financial challenges of eHealth implementations**

eHealth in Europe in a nutshell (2/2)

- **Current efforts of the European Commission focus on the epSOS „large scale pilot“ (CIP-ICT-PSP)**
- **Definition of a basic patient summary and ePrescription data-set to be exchanged through national contact points**
- **12 Member States, national competence centres and a consortium of industry companies participating.**
- **Specification phase is finished, piloting scheduled to begin in 2011**
- **A number of new EU Member States are expected to join in the second phase of the project**

Progress on policy documents

- **4 years ago: mostly high level official policy documents or roadmaps**
- **2010: virtually all EU and EEA Member States have detailed documents (though not necessarily separate from [regular] health policies) outlining concrete strategies on eHealth goals, measures, implementation objectives and achievements**
- **Several countries have updated their older documents**
- **In the case of countries with a longer track-record only updates on implementation progress**

Summary overview: Priority and activity fields mentioned in national policy documents

Reported eHealth activities	Total 2007 eH ERA	Total 2010 eH Strategies	DELTA
EHR/Patient summary	27	27	+0
Standards (technical and semantic)	19	27	+8
ePrescription	16	22	+6
Citizen card	22	25	+3
Professional card	7	18	+9*
Patient ID	24	26	+2
Professional ID	13	22	+9
Telemedicine	23	27	+4
Evaluation	5	21	+16
Legal Activities	14	22	+8

* 8 countries explicitly report „no activities“

Administrative support structures: role of competence centres

- **Differing roles of ministries across Europe: dominance of health ministry, sometimes in conjunction with other ministries**
- **Competence centres as gematik (DE), ASIP (FR) or THL (FI) are increasingly used models of organisation**
- **Underlines strong political commitment as well as complexity of eHealth as a management challenge**
- **Such bodies in part resolve the challenge of potentially ambiguous or distributed responsibilities for eHealth.**

Patient summaries and EHR systems

- EHR systems are a consistent element in almost all strategies and roadmaps
- EHR usually not defined in policy documents; often (implicitly) referring (only) to patient summary or similar basic record
- “Clinicians’ enthusiasm for electronic health records often related to perceived **benefits on their immediate surroundings** and did not necessarily relate to the NHS Care Records Service goal of geographically widespread sharing of patient data.”

Ann Robertson et al. Implementation and adoption of nationwide EHRs. BMJ 2010;341:c4564

Condition-specific summaries in Europe

To support coordinated or integrated care of chronic disease patients, a number of national strategies foresee the implementation of condition-specific patient summaries in their national EHR systems. An interesting example is Finland:

By the end of 2009, extensions to the core minimum data set for specific clinical domains had been developed for:

- emergency care,
- occupational health,
- dental health,
- respiratory diseases,
- psychiatry,
- diabetes and vascular disease treatment and prevention,
- maternity and child care.

Deployment stage of patient summary and EHR-like projects in Europe

Planning	Pilots	Implementation	Routine	Sum
18	2	5	7*	32

*includes implementations on the regional level (e.g. Italy, Spain)

ePrescription

- **ePrescription defined: electronic transfer of a prescription by a HCP to a pharmacy for retrieval of the medicine by the patient and recording of dispensation**
- **Only a few European countries have implemented a fully operational ePrescription service (and these are mainly in primary care)**
- **But the majority of Member States have it as a part of their national eHealth strategy and/or intentions**
- **Rarely patients have access to their medication profiles and are able to re-order certain repeat medications themselves, e.g. via the web**

State of ePrescribing

	eCapture	eTransfer	eDispensation
Currently available	15	9	7
Planned for next future	5	8	6
Unavailable	12	15	19

In some countries, ePrescription in primary care is not being used in part due to national legislation forbidding or not addressing the electronic transmission of prescriptions and the use of electronic signatures

Standards: a boost in activities

- ***EC IOP Recommendation*** important stimulus
- **Important role of national competence centres on standards**
 - e.g. gematik & DIMDI (DE), ELOT (EL), THL (FI) ...
- **Standards in use:**
 - HL7 v2 and v3: fifteen countries
 - CDA R2 (HL7 based) eight countries
 - ICD-10 in eighteen countries
 - SNOMED CT - ten countries are by now members of IHTSDO, many consider joining or using (small) subsets
- **Mandate 403 and resulting eHealth-INTEROP project activities closely monitored**
- **Increasing importance of conformance testing and certification**

Telehealth

- ***EC Communication* on telemedicine for the benefit of patients, healthcare systems and society (2009)**
- **All Member States pursue telehealth projects to varying degrees**
- **Widespread use at the national level is limited to Nordic countries**
- **Explicit national strategy documents for telehealth exist in a number of countries**
- **Legal issues still hamper the wider deployment of telehealth services...**
- **but first signs of tackling reimbursement issues can be observed (e.g. in FR, and UK „National framework agreement on telehealth“)**

Identifiers: a complex picture

- **Patient identification via citizen ID is practised in the Nordic countries, some Eastern European countries**
- **Specific patient IDs for (e)Health (as opposed to health insurance IDs or social security IDs) are only slowly being developed**
- **Healthcare professional ID systems across Europe are extremely complex (different issuing authorities, different levels of in/exclusion of healthcare professionals, e.g. midwives, nurses)**
- **eCards as ID tokens for healthcare professionals have been implemented in 9 countries**

Legal issues in eHealth

- **In many countries the use of eHealth is currently regulated by the general legal framework, in particular by laws on patient rights and data protection**
- **New legislation is often still in the process of being enacted, but slowed down through**
 - the economic crisis and
 - governmental changes
- **Amongst the forerunners in designing a legal framework adapted to the use of eHealth are Denmark, England, Estonia, Finland, France, Scotland, Slovakia, Sweden and Norway**
- **Almost all countries which do not dispose of specific regulations with regards to one or more fields of eHealth do dispose of some regulation on health data, if only through the transposition of article 8 of the EU Data Protection Directive**

Financing eHealth

- ***Recurring public budgets* dedicated to eHealth are the *exception* (Austria, England, Spain)**
- **whereas there is widespread use of projects-based financing.**
- **Sometimes private insurance companies and public Technology or Innovation Agencies (for example Tekes, the Finnish Funding Agency for Technology Development and Innovation) are involved**
- **International sources of funding are EC project financing as well as funding from the Structural Funds and the European Investment Bank**
- **Continuing obstacles are the current economic crisis and also legal challenges**

Evaluation of eHealth activities

- Evaluation is **gaining ground in all countries**
- Around one-half mention a **specific body** as being responsible for evaluation activities
- The UK is an example of almost continuous evaluations of the National Programme for IT (NPfIT) of the National Health Service in England by a wide variety of actors
- Switzerland seems to be the only country to have established a policy of applying **RIA (Regulatory Impact Analysis)** to eHealth legislation

Summary outlook

- In all EU countries political as well as stakeholder interest in eHealth policies and implementation of national or regional infrastructures has **gained great momentum**
- The overall level of awareness, activities and concrete undertakings has **considerably increased**
- EC as well as Member State initiated activities like epSOS or the preparations for the eHealth Governance Initiative have **significantly contributed**

Outlook – cont.

- Quite often policy documents are vague and imprecise both in their terminology and in their goals and concrete objectives
- Experience shows that the chance of success will be greater the **more precise the foreseen measures and applications** indeed meet a *concrete* health policy need and support its realisation
- Reaching agreement about eHealth strategies and implementing them has proven to be **much more complex and time-consuming** than anticipated
- Almost all Members States report sometimes quite serious **challenges** to the deployment of eHealth infrastructures and EHR-like systems and other applications

*Exchange of **experience** gained, also from failures, and lessons learned may prove most beneficial to all*

Thank you for your attention!

The eHealth Strategies study team

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Acknowledgement

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Neither the *European Commission* nor any person acting on behalf of the Commission is responsible for the use which might be made of the information presented. The same holds for the national correspondents, experts and officials who have contributed their insights and knowledge to the respective country reports.

The views expressed in this presentation are solely those of the authors and do not necessarily reflect those of the European Commission.



Backup Slides!

Challenges experienced by frontrunners

- **They can be found in all areas of deployment, e.g.**
 - **Ensuring wide acceptance of new eHealth applications in daily healthcare routine**
 - **Shifts in power between different organisational levels and institutions**
- **Allowing for competition and choice in IT applications & services**
- **Shift of challenges from technical and legal to more organisational responsibilities and financial issues**
- **Alignment of national, regional and local activities**
- **Systematic inclusion of patient representatives in health policy decision making process**
- **Interoperability of legacy IT systems**

Challenges experienced by newcomers

- **Lack of funding**
- **Sustained investment in infrastructure development**
- **Sustained political commitment beyond election cycles**
- **Precise set of clear priorities addressing specific needs**
- **Organisational issues – e.g., poor communication between institutions**
- **(New) legislation required**
- **Stakeholder involvement and cooperation – agreement among three main stakeholder groups: authorities, health professionals and industry**

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Backup Slides

Some lessons learned for successful eHealth implementation

- **Put the healthcare system and the clinical needs first (e.g. ECS in Scotland)**
- **Assure „buy-in“ from all relevant stakeholders (e.g. Austria stakeholder involvement working groups)**
- **Establish a permanent organisation with the specific task of managing the conceptual development of an EHR, ePrescribing and other applications (e.g. Gematik in Germany, ASIP in France...)**
- **Do eHealth for quality's sake! Don't expect financial savings.**

Standards: key challenges and recommendations

- **“Standards use could be further spread if national legislation made them mandatory and agreed on a complementary set (examples are Snomed CT versus ICD-10 and HL7 versus EN/ISO 13606)”**

Country report

- **Set standards centrally to ensure communication between local systems**
- **Provide long term standardisation policy and an elaborated interoperability framework**
- **Organise and support health professional engagement in standards development, especially of clinical record standards**
- **Invest in education and training in the use of standards**
- **Address IPR issues and costs**

Standardisation of patient summaries

- **The work on the epSOS pilot specifications is making a major impact**
 - it has demonstrated the importance of technical and semantic standards and
 - has highlighted the need for action at Member State and European level to consider global approaches to standardisation and concrete international actions
 - Member States are establishing national technical committees / groups to “nationalise” what is happening in epSOS
- **The European Digital Agenda issued by the EC will further facilitate these developments. It foresees various actions to improve ICT standard-setting and enhance interoperability through coordination.**

The need for evaluation

- ***“Policy learning as a result of policy evaluation can be more important than the direct results delivered by the evaluation”***

National Correspondent

- **Key activity in the policy-cycle**
 - provides insights into success or failure of a policy or project
 - leads to new policy goals and new methods of implementation
- **Need for a systematic policy of evaluation**
- ***“Evaluation should be systematic and ongoing, not a one-off assessment”***

Independent Review of NHS and Social Care IT, UK

Insights from the statistics

- **Usability and utilisation are key**
 - Average correlation of utilisation to benefit: 0.98
 - Average correlation of utilisation to net benefit: 0.91
- **Most of the investment is not the IT**
 - ICT cost as share of total: 38%
 - ICT costs as share of health service provider organisation costs: 45%
- **Most initiatives will remain financial investments in non-financial returns**

Observations on impacts

- **Types of benefits**
 - At the point of care: mainly quality and efficiency from better informed decisions
 - Cash gains may be realised when leapfrogging from paper-based admin processes
- **EHRs facilitate meeting information-intensive goals**
 - Continuity of care (Rhône-Alpes, Lombardy, Kronoberg, Israel, Andalusia)
 - Epidemiology & other public health statistics (Andalusia, Sofia, Geneva, Israel)
 - Waiting time management (Andalusia, Scotland, Sofia, Kolin)
 - Out of hours and A&E healthcare provision (Scotland, Kronoberg, Andalusia)

The EHR IMPACT conclusion *There is no silver bullet*

- **Transferability of the ERHI sites is limited by the political, structural, and health system environment**
- **The need for interoperability also limits transferability between sites**
- **No right or wrong approach, just a good way to do it:**
 - **Clear objectives derived from needs of health service delivery**
 - **Fitting the political environment – opportunities and threats**
 - **Fitting cultural specificities, especially when planning implementation**

EHR IMPACT: Relevance to i2010 objectives

- **EHRI findings consistent with most i2010 goals**
 - Access, inclusion, quality, effectiveness, efficiency
- **It is not consistent with goals for economies of scale because:**
 - Costs, benefits and utilisation are broadly correlated
 - Investment is step by step
 - EHRI found only cases with < 10 million population

Observations & lessons from the ECS in Scotland

- **Engagement** with all stakeholders **before** design is complete and **implementation** begins
 - The largest single estimated cost, over 50%, was the time of doctors needed for engagement, compared to the 10% for ICT
- **Patient safety, the original goal**, was about one-third of estimated benefits
- The **consent of patients** and citizens can be achieved effectively and efficiently
- Step by step progress takes longer, but is more effective in **realising a net benefit and managing risk**
- **Interoperability** can be achieved, enabling integrated care

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