



**Interoperability Initiative for a  
European eHealth Area:**

# **Borderless Communication for a Healthy Europe - Introduction**

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# Vision & Context

- **Develop a conceptual base and concrete deployment perspective**
  - in two basic application fields for interoperable delivery of eHealth services
    - ID management & authentication
    - ePrescribing / messaging
  - across Europe
  - with the informal support of MSs Health Authorities
- **Patient mobility: EC public consultation on EU framework for health services**
- **The eTEN Programme supports the speedy market validation and deployment of eServices**

# Operational objectives

- identify **interoperability and connectivity issues** and priorities, barriers and gaps, and solution approaches (processes):
  - **identification** of patients/citizens and health professionals/organisations
  - **ePrescribing** and messaging
- develop a **roadmap and concrete recommendations**
  - involving all relevant actors
    - **Member State Health Care Authorities,**
    - **Competence Centres,**
    - **Industry and other stakeholders**
  - guided by an open discussion process

# Interoperability model (I) : Definition

Health system “interoperability” assures the  
continuous ability

- to exchange, understand and act on patient and other health information & knowledge
- among linguistically and culturally disparate clinicians, patients and other actors
- within and across jurisdictions in a collaborative manner.

*“Interoperability is a continual state of readiness  
– Integration is a slice through an interoperability time  
line”*

Source: NEHTA, IOp Framework, 2006

## **A key characteristic of interoperability: *fluidness***

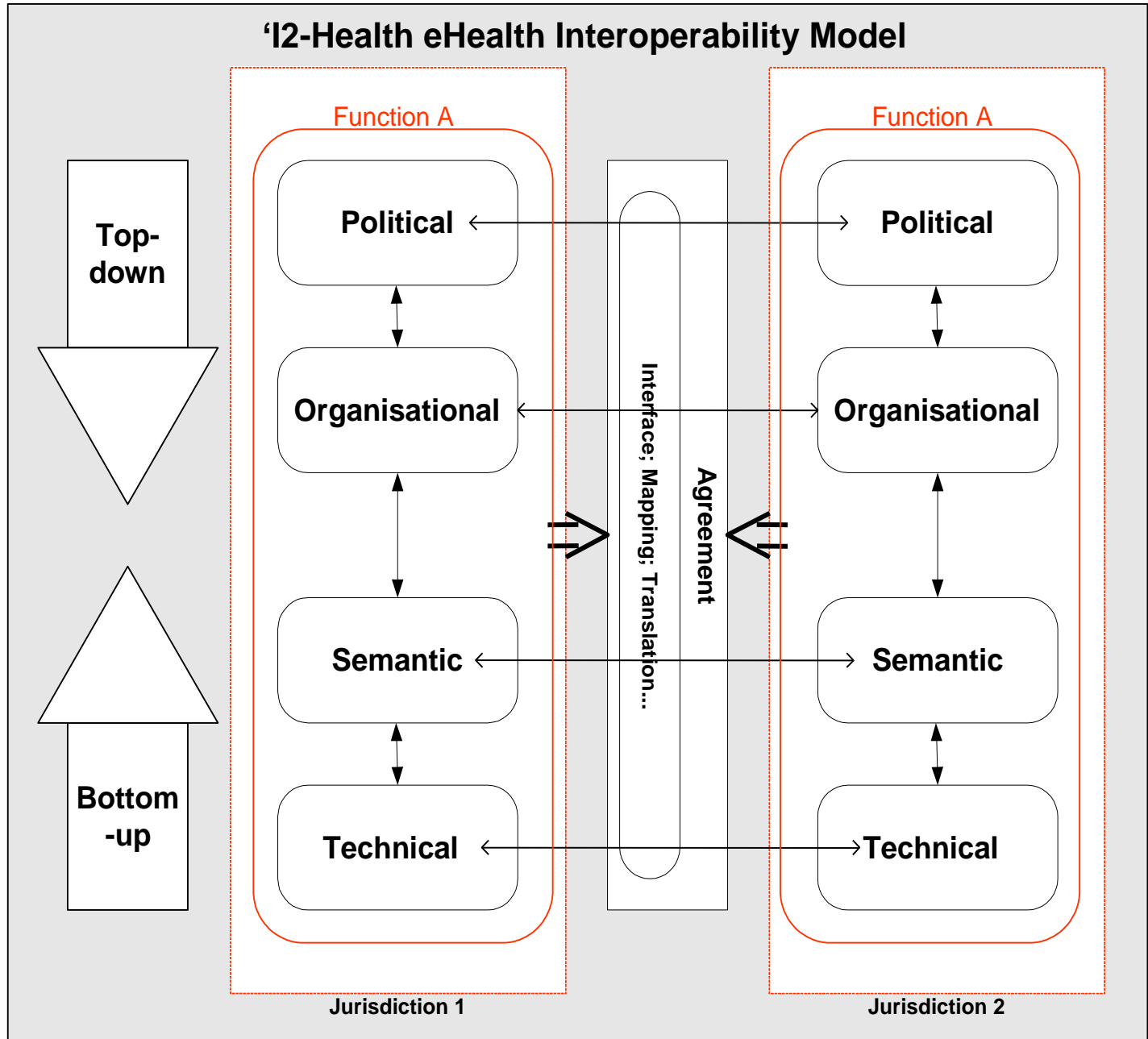
***"Systems integration is an ongoing problem because the workflow may change every day."***

***Miguel Cabrer, CIO, Son Llàtzer Hospital, Palma de Mallorca, Spain***

***"Whatever you plan today, your endpoints will differ."***

***Jeffrey D. Miller, VP, Hewlett Packard***

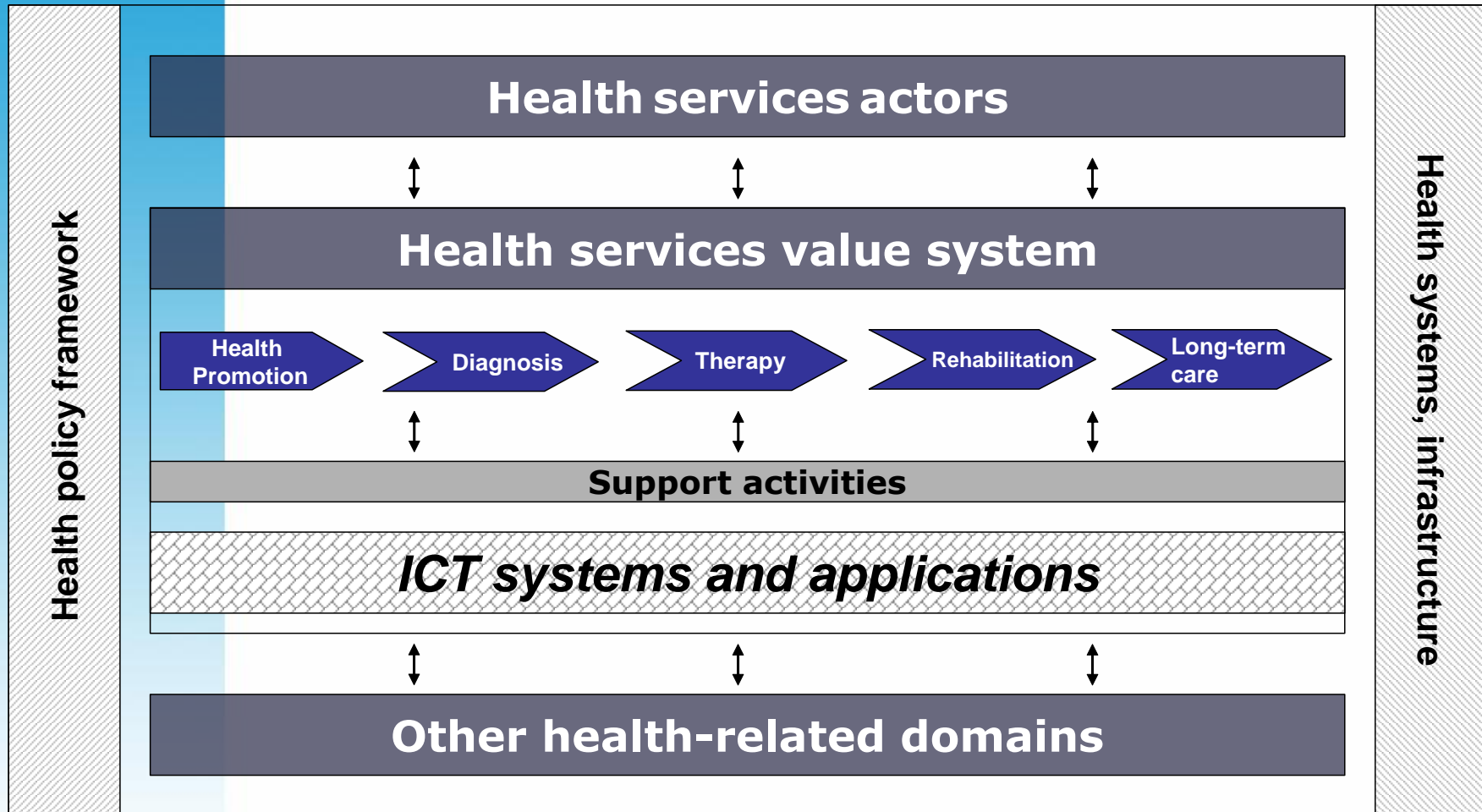
# I2-Health interoperability model (II)



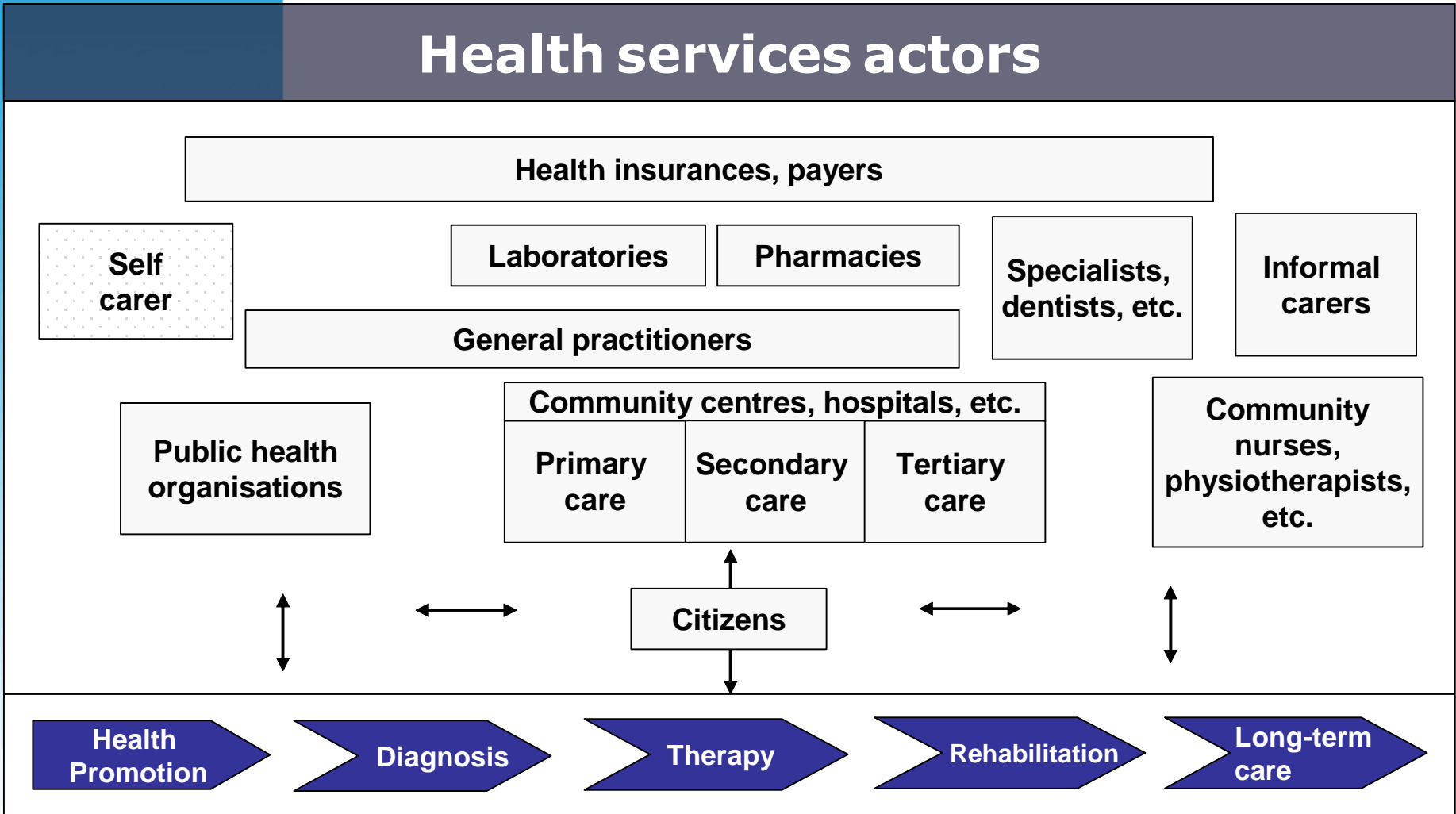
# I2-Health interoperability model (III) : 4 action levels

<p><b>Health policy:</b> <u><i>cooperation</i></u></p>	<ul style="list-style-type: none"> <li>• Vision &amp; strategies</li> <li>• Processes &amp; measures, incentives</li> <li>• Socio-economic (sustainable), legal framework</li> <li>• Accreditation and certification</li> </ul>
<p><b>Health service providers (Organisational level):</b> <u><i>collaboration</i></u></p>	<ul style="list-style-type: none"> <li>• Organisational structures and culture</li> <li>• Intra &amp; inter-jurisdictional service processes</li> <li>• Change management, behavioural change</li> <li>• Systems thinking, business process re-engineering</li> </ul>
<p><b>Semantic</b> <u><i>interoperation</i></u></p>	<ul style="list-style-type: none"> <li>• Terminologies, classifications</li> <li>• Translation</li> </ul>
<p><b>Technical / functional</b> <u><i>interoperation</i></u></p>	<ul style="list-style-type: none"> <li>• Technical standards</li> <li>• Hardware and software connectivity</li> <li>• User interfaces</li> </ul>

# IOp conceptual space (I)



## Health services actors



## Health and clinical services

- EHR/EPR
- Messages/requests like ePrescribing
- Imaging
- Workflow

## Public health

- Citizen health info
- Surveillance / epidemiology
- Statistics

## R&D

- Knowledge creation, translation and management
- Clinical guidelines
- Clinical trials

## Common infrastructure services

- Identification (doctor/patient/institution)
- Terminology
- Security

## Administration

- QA
- Reimbursement
- Supplies
- HRM

## Interoperability

- is about *continuous* change management, a long-term activity
- needs organisational support, i.e a national / European *infrastructure* (competence centres, ...)
- must focus on *processes*:
  - that implement and continuously *manage* health system IOp
  - that permit *collaboration* among providers of health care across the value system
- must be approached holistically at the policy, organisational, semantic and technical level
- is about federated systems across MSs and the Union

***Achieving interoperability is like hitting a moving target***

***Or: We need standards for adaptability***

# Consortium

**Project start: Feb. 2005      Duration: 24 months**

## Consortium:

- ***empirica* Institute for Communications- und Technology Research, Bonn, Germany (*Coordinator*)**
  - Members to *empirica*:
    - **Work Research Centre Ltd. (WRC), Dublin, Ireland**
    - **Central Research Institute of Ambulatory Health Care in the Federal Republic of Germany (ZI), Berlin, Germany**
    - **Technical University of Košice (TUK), Slovakia**
- **EHTEL (European Health Telematics Association), Brussels, Belgium**
- **(Informal) Steering Committee of Member State Health Authorities**

**Support: eTEN Program of the European Commission**



# Thank you for your attention

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