

# NHIC and its role in process of health service informatization



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# Baseline documents

- ◆ Strategy of governance informatization – SIVS (Resolution of Government SR No. 131 dated 27. 2. 2008)
- ◆ National concept of governance informatization – NKIVS (Resolution of Government SR No. 331 dated 21. 5. 2008)
- ◆ National strategy for information security SR (27. 8. 2008)
  
- ◆ Report on status of informatization in the branch of health services (26.3.2008). Review of current products and outcomes
- ◆ Strategic goals of eHealth – key tool of goverenance informatization in the branch of health services in Slovakia (Resolution of Government SR No. 497 dated 16. 7. 2008)



# Strategic goals of eHealth

**G1**

- To create legislative, standardizing and architectonic eHealth frame

**G2**

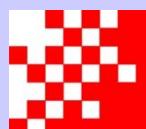
- To create secured infrastructure for materializing eHealth vision and mission

**G3**

- Informatization of processes and services in health system based on public resources

**G4**

- Support of new processes and forms of health care and health services



NATIONAL  
HEALTH  
INFORMATION  
CENTER

# WHY

- ◆ Higher quality of health services
- ◆ Increased patient safety
- ◆ Increased effectiveness
- ◆ Reduced costs
- ◆ Reduced bribery
- ◆ New forms of healthcare
- ◆ New options of telemedicine



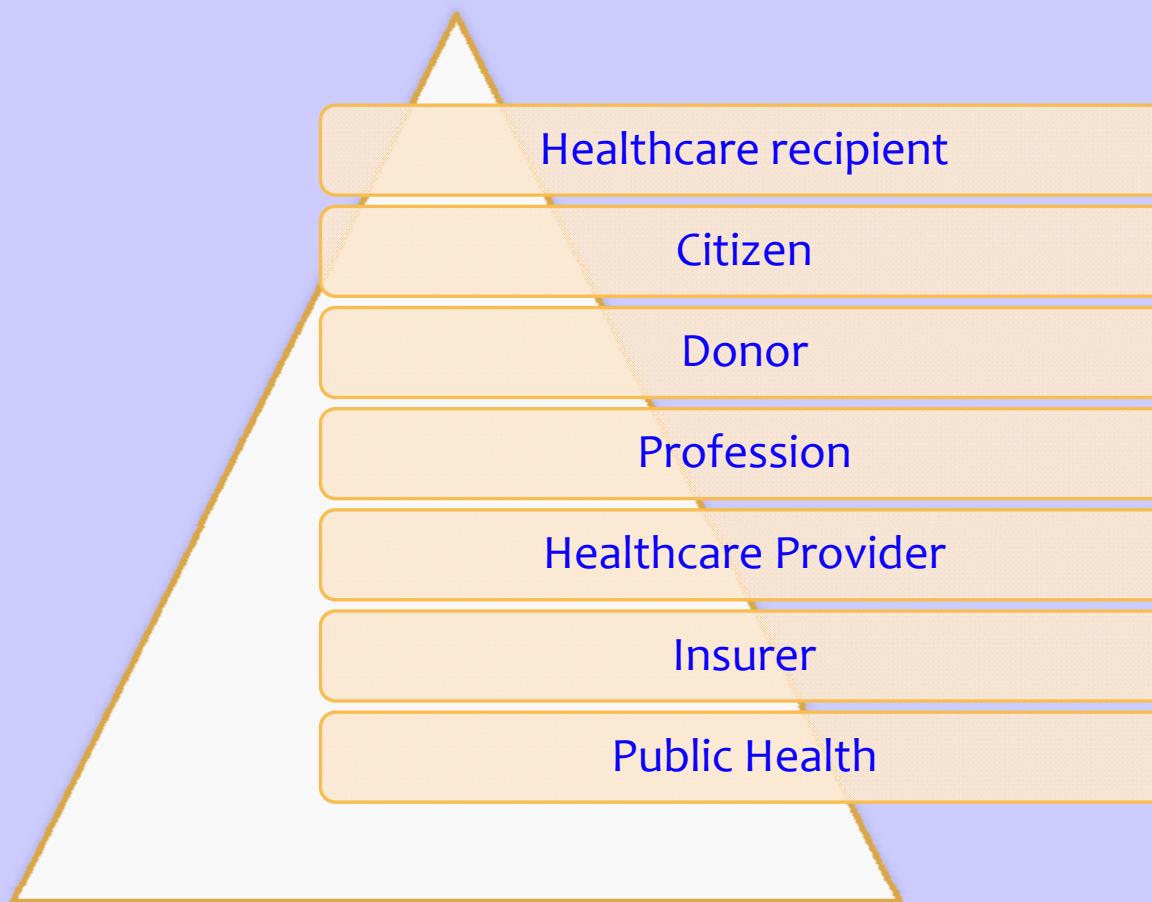
# Main eHealth components

- ◆ **NZP – National Health Portal** A unified place in network for access to health information for public and profession, including healthcare participants. NZP will fulfill relevant standards for access and a functionality
- ◆ **NZIS – National Health Information System** Integration of systems from NHIC, Surveillance Authority, Public Health, Transfusion Service, and Health Insurances offering the function of processing and exchange of health records in electronic format (basic registries, EHR, EDS, ePrescription)
- ◆ **HIN – Health Information network**
- ◆ **NZDC – National Health Data Center**



# National Health Portal

## Key Players

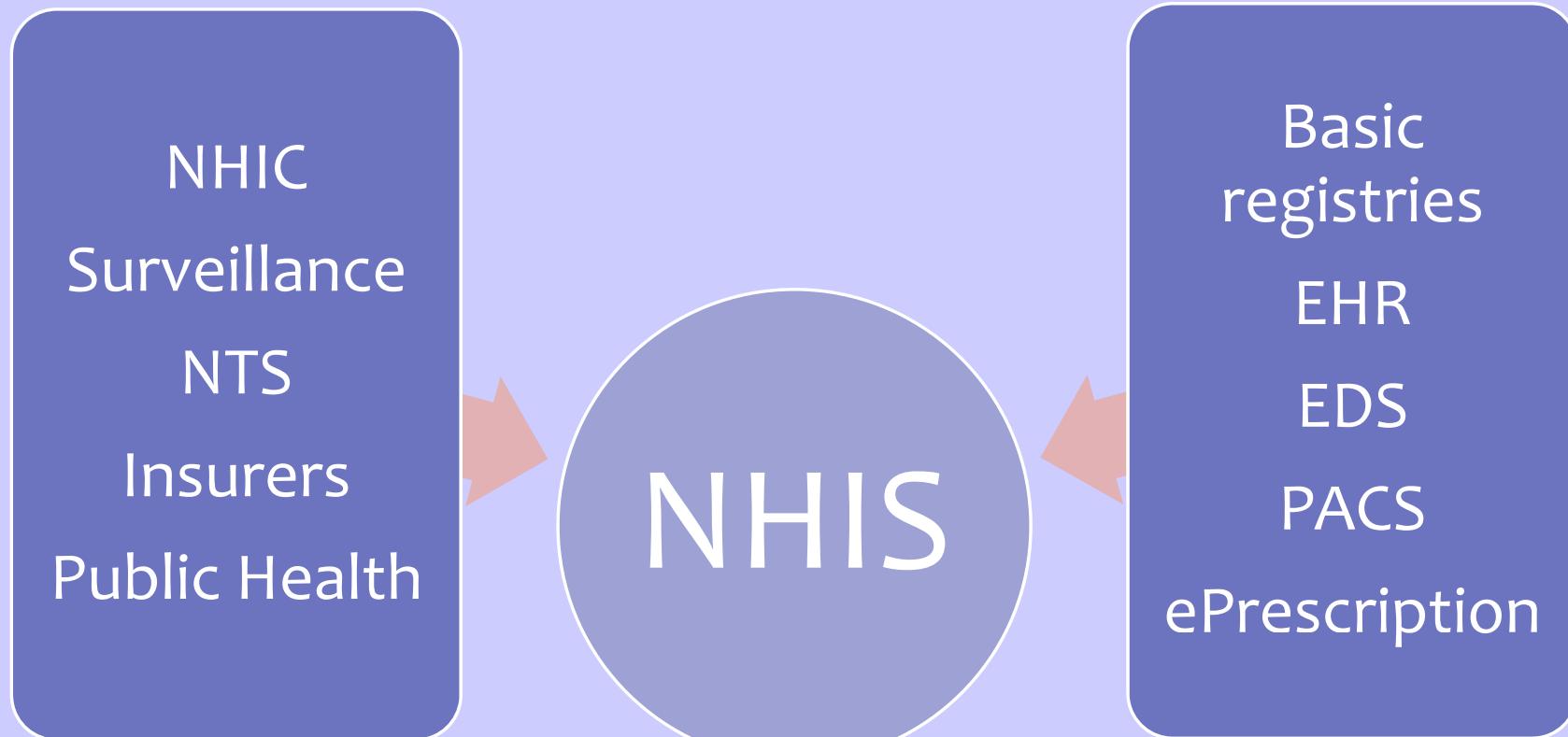


# NHIS

## Service Provision



# National Health Information System



# eHealth Components

ID	Komponenty	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45		
1	Národná legislatíva	sZ	P	mZ	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P									
2	Legislatíva EÚ	P		P																																												
3	Národné normy a dátové štandardy	sZ	Z	sZ	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P									
4	Medzinárodné normy a štandardy	P	sZ																																													
5	Architektonický rámec	Z	mZ	sZ	Z																																											
6	Certifikácia / akreditácia / HTA	sZ	mZ	Z	mZ	Z																																										
7	Sietová vrstva HIN	mZ	mZ	Z	mZ	sZ																																										
8	Podpora HIN	mZ	mZ	mZ	Z	sZ																																										
9	Dátové úložiská v rámci HIN	mZ	mZ	Z	mZ	sZ																																										
10	PKI infraštruktúra v rámci HIN	sZ	mZ	sZ	Z	Z	P																																									
11	Registre	sZ																																														
12	Infraštruktúra pre EHR	mZ	mZ	Z	Z	sZ																																										
13	Infraštruktúra pre EDS	mZ	mZ	Z	Z	sZ																																										
14	Národný zdravotný portál	mZ	mZ	mZ	mZ	Z																																										
15	Switch Point	mZ	sZ	mZ	mZ	mZ																																										
16	Elektronický preukaz PZS (HPI)	Z	mZ	Z	mZ	sZ																																										
17	Elektronický preukaz poistenca	Z	Z	Z	Z	Z																																										
18	Infraštruktúra pre ePreskripciu	mZ	mZ	mZ	Z	sZ																																										
19	Infraštruktúra pre el. clearing	mZ	mZ	mZ	sZ																																											
20	Integračný middleware	Z	mZ	mZ	Z																																											
21	Samostatné ambulantné IS	Z	mZ	mZ	mZ	P																																										
22	Samostatné lekárenske IS	Z	mZ	mZ	mZ	P																																										
23	Samostatné laboratórne IS	Z	mZ	mZ	mZ	P																																										
24	Rádiodiagnósticke IS / PACS	Z	mZ	mZ	Z																																											
25	Nemocničné IS	Z	mZ	mZ	P																																											
26	IS národnéj transfúznej služby	Z	mZ	mZ	Z																																											
27	IS pre Integrovaný záchr. systém	Z	Z	mZ	Z	mZ																																										
28	IS pre záchranné služby	Z	mZ	mZ	mZ	mZ																																										
29	Objednávanie / eReferrals	Z	mZ	mZ	Z																																											
30	ePreskripcia	sZ	mZ	Z	Z	Z																																										
31	Informatizácia verejného zdrav.	mZ	mZ	mZ	mZ	Z																																										
32	Monitoring / hodnotenie poskyt. ZS	Z	mZ	mZ	mZ	mZ																																										
33	Integrácia aplikácií do NZP	mZ	mZ	mZ	sZ																																											
34	Call centrum pre eHealth	mZ	mZ	mZ	Z																																											
35	Telemedicínske aplikácie	Z	mZ	mZ	Z	Z																																										
36	Evidence based medicine support	mZ	mZ	mZ	Z																																											
37	IT podpora DRG	mZ	mZ	mZ	mZ	mZ																																										
38	EU mobilita poistenca / pacienta	mZ	sZ	Z	sZ	mZ																																										
39	eLearning v eHealth	mZ	mZ	mZ	mZ	mZ																																										
40	IT v nových oblastiach medicíny	Z	mZ	mZ	Z	Z																																										
41	Výskum a vývoj v oblasti eHealth	Z	Z	Z	Z	Z																																										
42	Viacnásobné využitie tokenu	sZ	mZ	Z	mZ	sZ																																										
43	Integrácia s eGovernmentom	sZ	Z	mZ	sZ	mZ																																										
44	PR / celospoločenská akceptácia	sZ	Z	sZ																																												
45	IS subjektov verejnej správy v zdrav.	mZ	Z	mZ	Z																																											

sZ - silne závisí od  
 Z - závisí od  
 mZ - v menšej miere závisí od  
 P - dostáva podnety a požiadavky od

Príklad 1: národná legislatíva silne závisí od legislatívy EÚ  
 Príklad 2: národná legislatíva dostáva podnety na zmene od jednotlivých komponentov eHealth

# Priorities

Year 2009	Year 2010
Advanced phase	Advanced phase
Network layer of HIN Registries National Transfusion Service	Data storage in frame of HIN PKI infrastructure in frame of HIN Ambulatory IS Pharmacy IS Labs IS IS for Integrated Rescue System
Development phase	Development phase
National legislation National Health Portal ePrescription Multiple use of token Acceptance/ Media	Support to HIN Radiodiagnostic IS / PACS Hospital IS Integrating middleware Integration with eGovernment

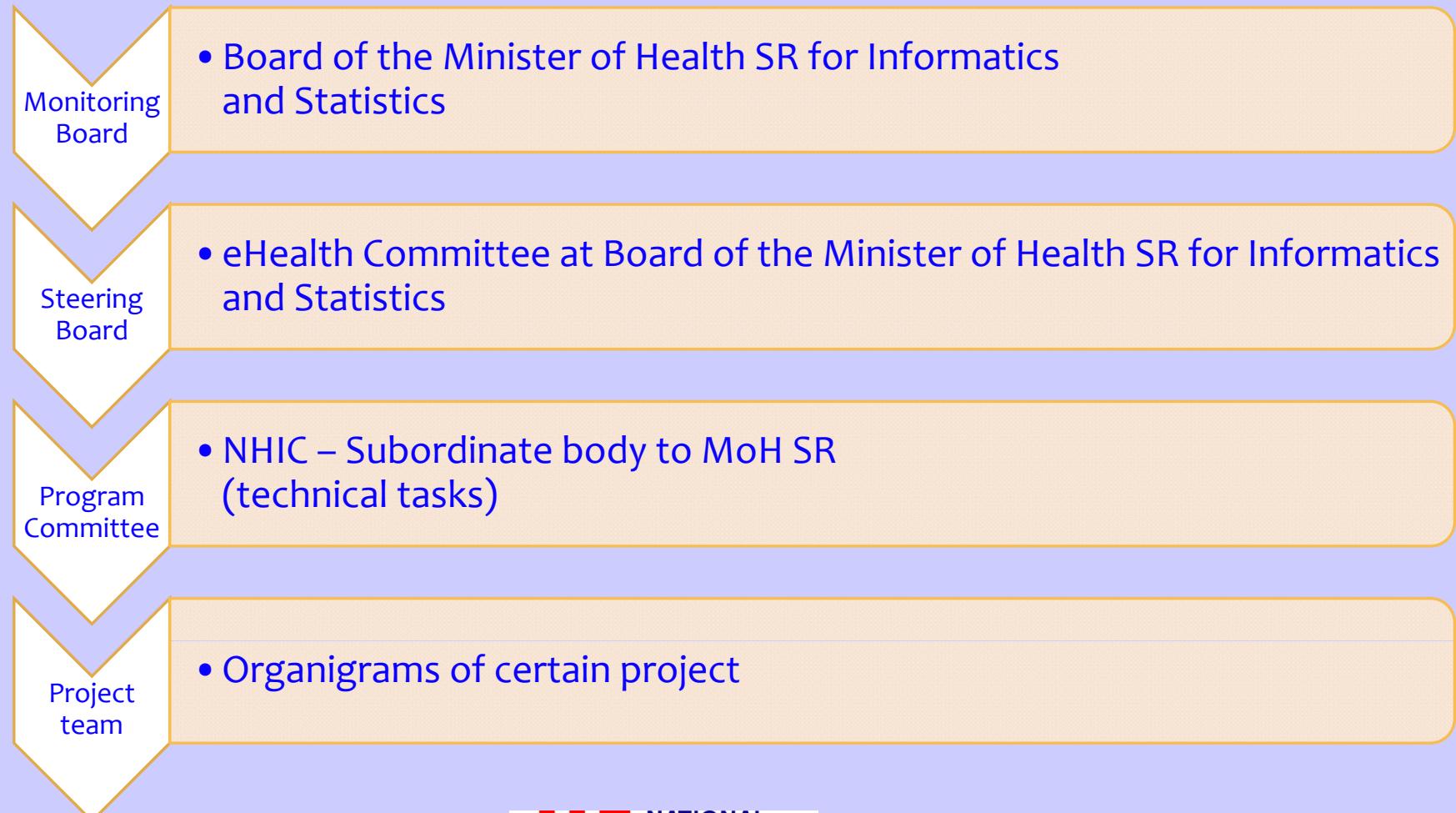


# HOW

- ◆ Global consensus
- ◆ Service for all
- ◆ Transparency
- ◆ Coordination, interaction, and mutuality
- ◆ Interoperability and compatibility
- ◆ Safety
- ◆ Investment protection
- ◆ Program management
- ◆ Implementation
- ◆ Assessment of materialized steps



# Managing Structures of the Program



# **Committee and team roles**

## **Monitoring (controler) committee**

- ex post assesment of the program
- ex ante assesment of certain programs

## **Steering (aproving) board**

- strategic components
- program memorandum, budget and concept

## **Program (executive) board**

- Coordination of projects, preparation of outputs
- interim assesment of program

## **Project teams**

- workout of allocated projects

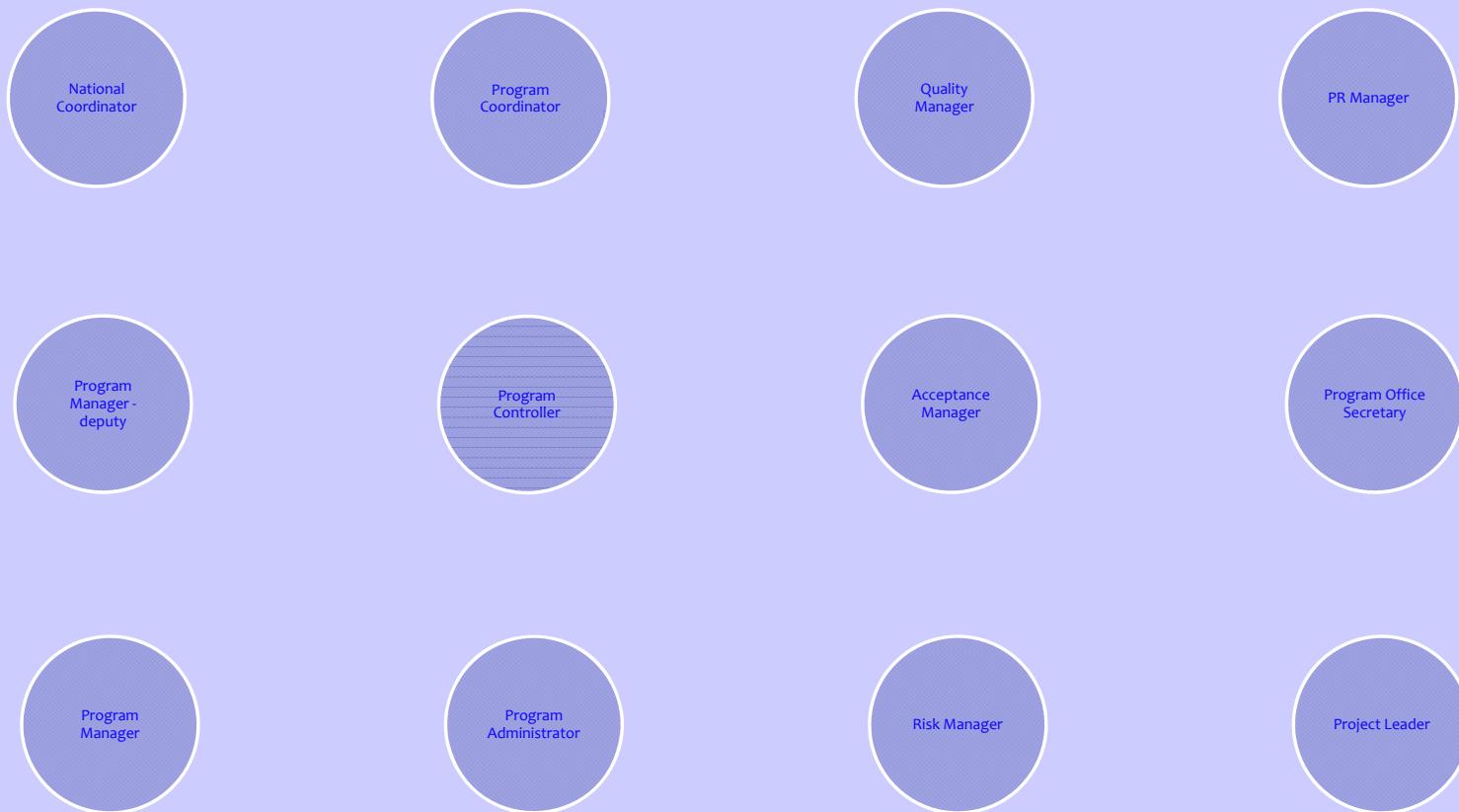


# Continuity of main steps

ID	Activity	2008	2009	2010	2011	2012	2013
1	Strategic goals of eHealth	█					
2	Preliminary steps before trials		█				
3	NHIC inclusion to Programu		█	█	█	█	█
2	Feasibility studies		█	█			
4	First calls, tenders			█			
5	Priority projects / actions			█	█		
6	First legal changes				█		
8	First asset to citizen				█		
7	Projects and actions 2nd wave				█	█	█
8	Next asset to citizen					█	█
9	Projects and actions 3rd wave					█	█

# Transformation of NHIC

## National eHealth Operator



# NHIC preparation for fulfilling its role within eHealth Program Office

- ◆ Vision, Mission, Values, Strategic Goals
- ◆ Change of organization's structure
- ◆ Engaging new roles
- ◆ Staff training
- ◆ MIS
- ◆ ...



# Mission of NHIC

- ◆ Enforce informatization of health system
- ◆ Support and manage proceeding implemented eHealth solutions
- ◆ Secure flexible information base for eligible subjects
- ◆ Offer specialized informational and learning services in area of medical sciences, health care, and health informatics



# Vision of NHIC

- ◆ **To become a natural dominium of health informatization**
- ◆ **To enforce and support promotion of quality, safety and efficacy of all health services by means of NZIS and NZP**
- ◆ **To implement information systems on top European level**
  - ◆ information on health status and health care
  - ◆ Reducing administrative load in health system
  - ◆ Eliminating duplicate outputs
  - ◆ Quality monitoring
  - ◆ Support of patient's decision taking
  - ◆ Promote availability of health services
  - ◆ Support for new forms of health services
  - ◆ Medical and healthcare eLearning



# Goals of NHIC

To become National e-Health Operator in frame of NZIS, NZP, and other solutions

To create standardizing and architectonic frame for informatization of health system

To finalize creation and use effectively the system for collection, processing, and dissemination of data related to healthcare

To create information and communication frame

To support learning in area of medical sciences, healthcare, and medical informatics



# NHIC values

Competence

Objectivity

Europeanship

Openness

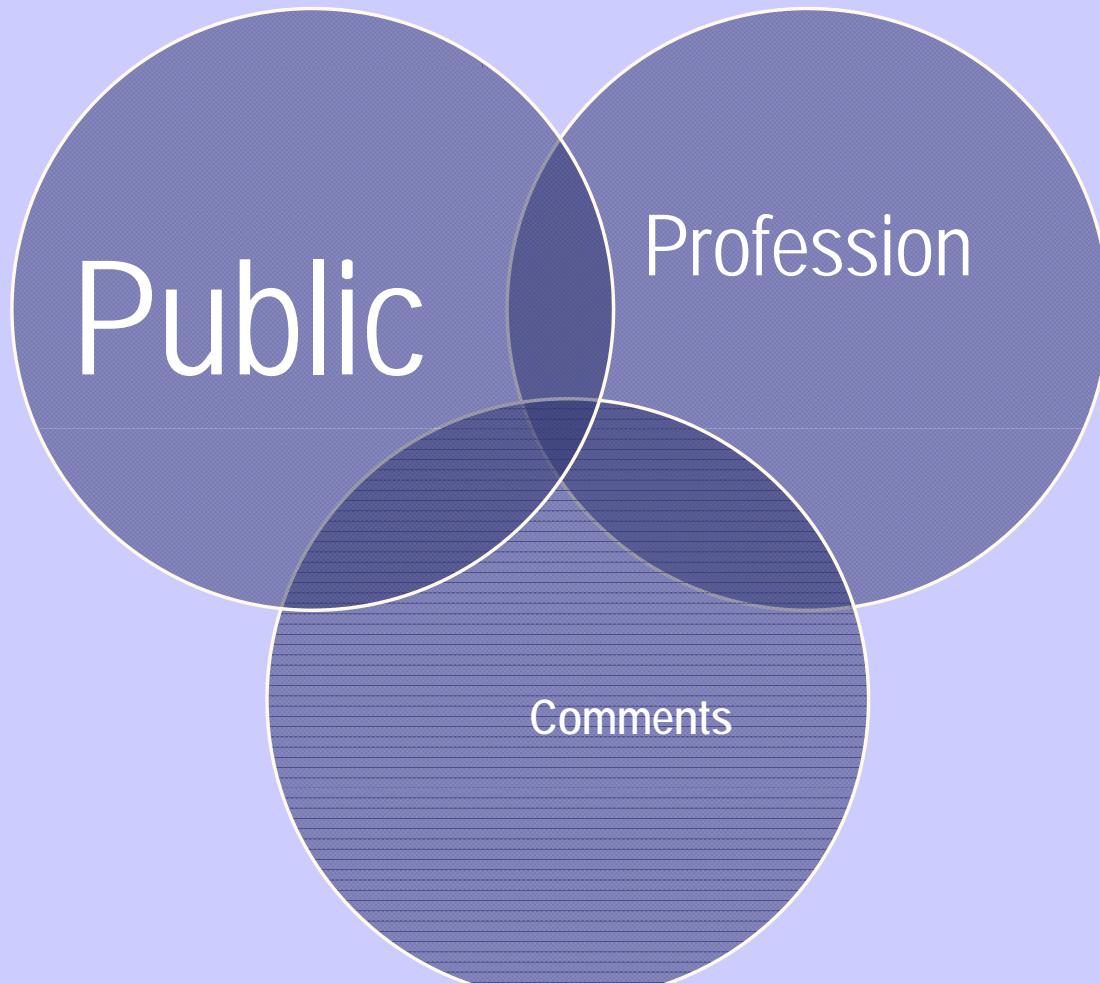
Credibility

Neutrality

Criticality



# eHealth forum



## Contacts

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# Thank you for your attention

