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The Health Data landscape in Greece

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Contents

- Public health data sources in Greece.
- Two relevant current projects (NeHIF, X-eHealth) running by the Greek MoH under the supervision of the Secretary General for Health Services, Ioannis Kotsiopoulos.
- 1st Health Datathon in Greece.

Medical Science in change

Holistic approaches, such as **integrated care** and **patient empowerment**, conflict with the traditional way of practicing medicine.

Medicine is slowly and painfully transforming from the science of disease into the science of health.

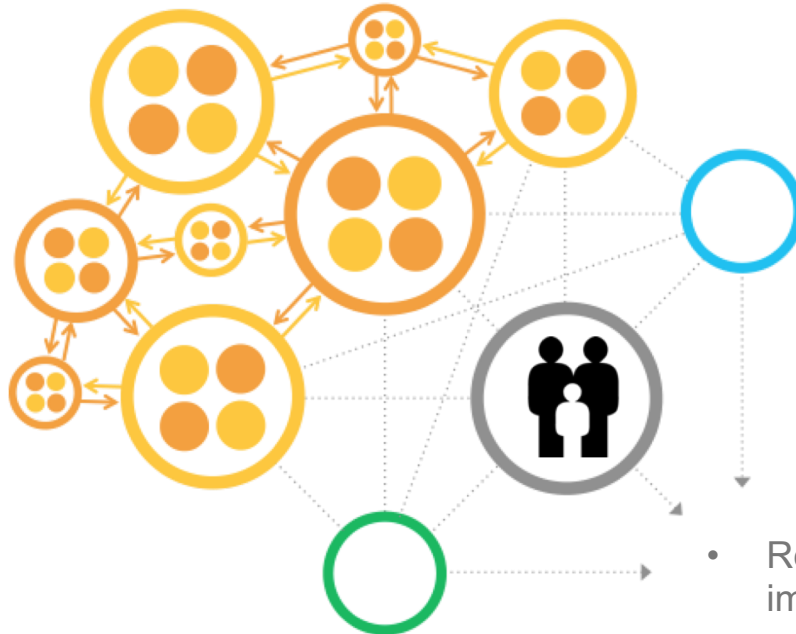
In healthcare we are beginning to realize that the real value is not in the ICT infrastructure, but to the data. Good data is the "key" to improve health outcomes, better chronic disease management and better management of population health overall.

These data must be kept and be accessible for the entire life of the citizen.

Health data must be released and work to our advantage

New and many data sources

Structured data, text, signals, images, video, patient generated data



New platforms

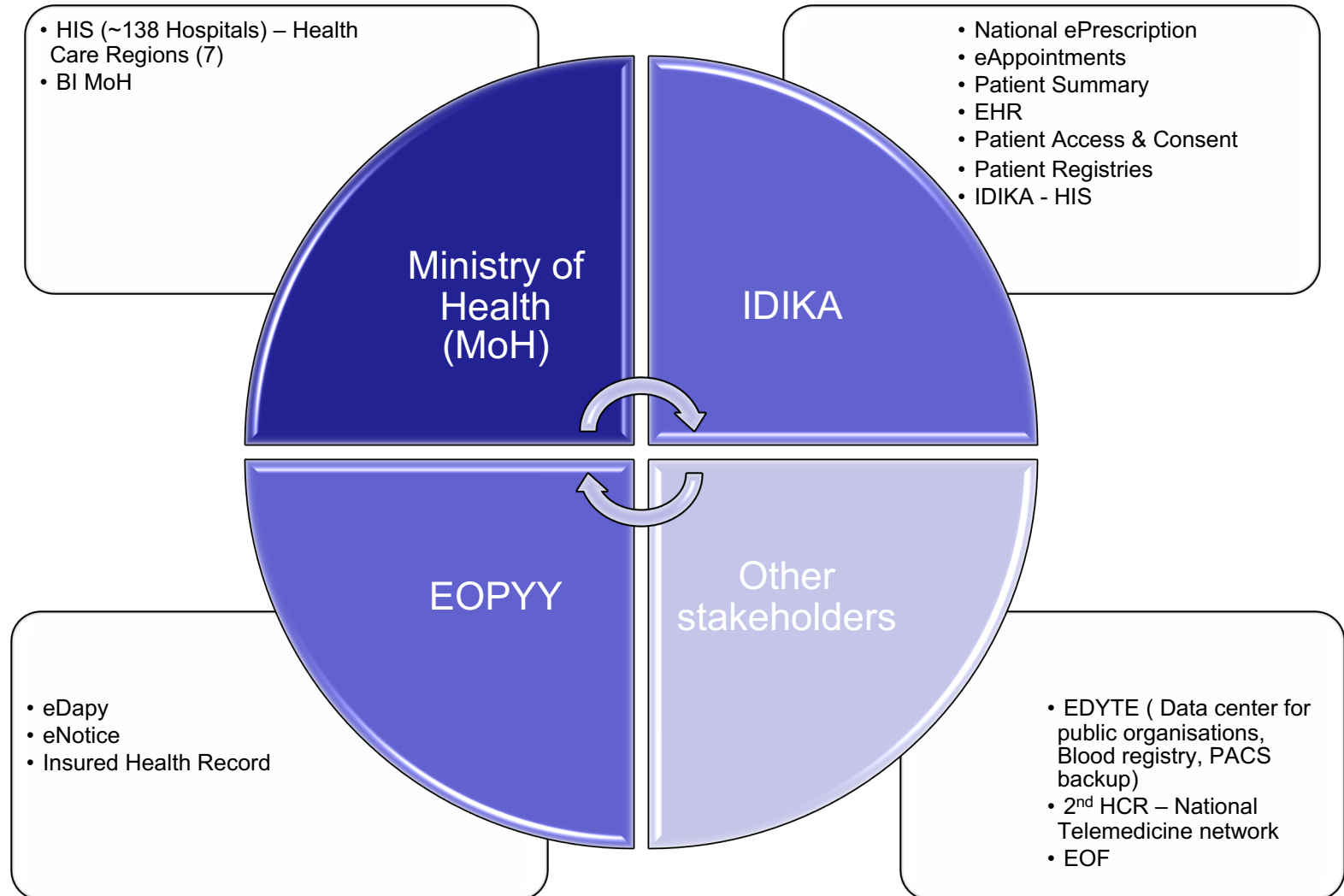
Collaborative and mobile technology platforms

Innovative Analysis Technologies

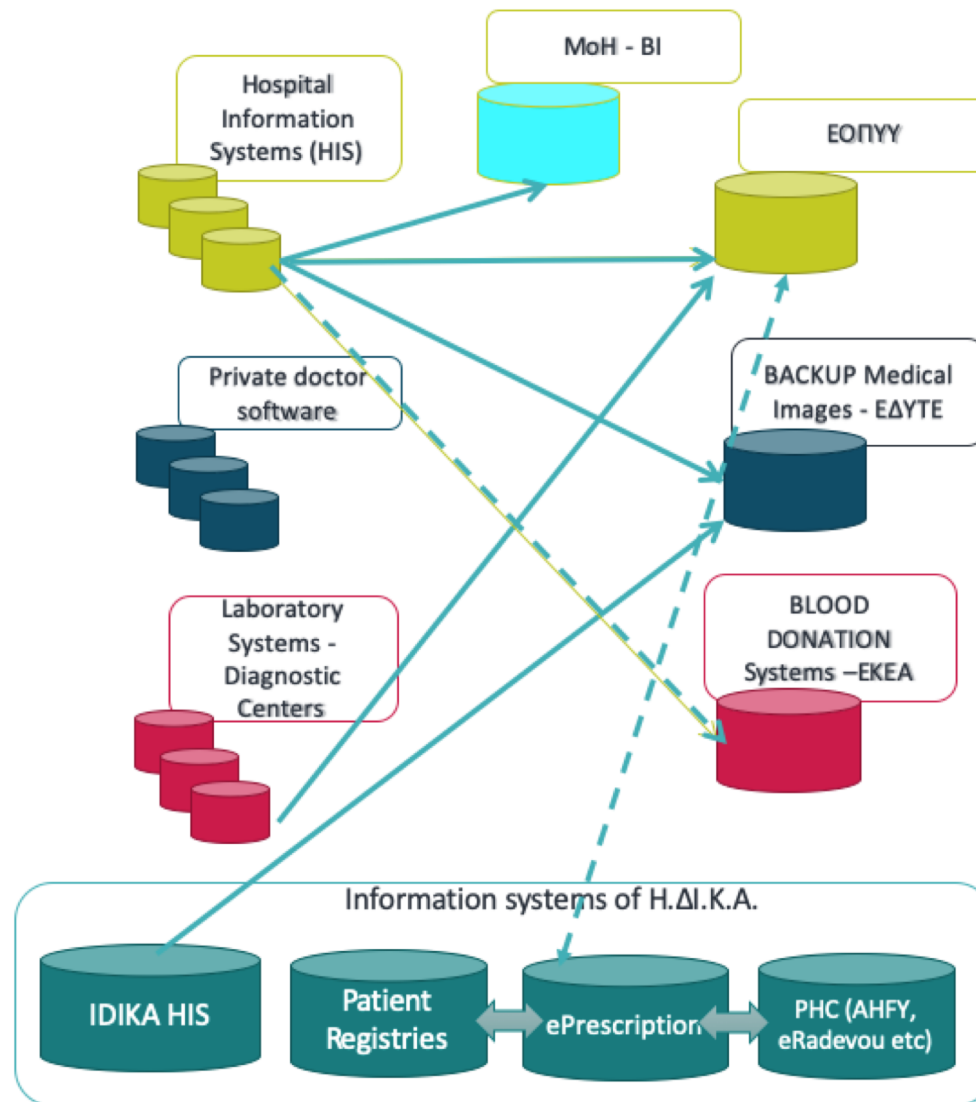
Advanced, predictive & prescriptive analytics

- Recording and using data leads to new knowledge to improve health care.
- The data will support medical research, real-world evidence-based medicine, personalized medicine, and health care improvement in general.

Main public eHealth stakeholders 1/2

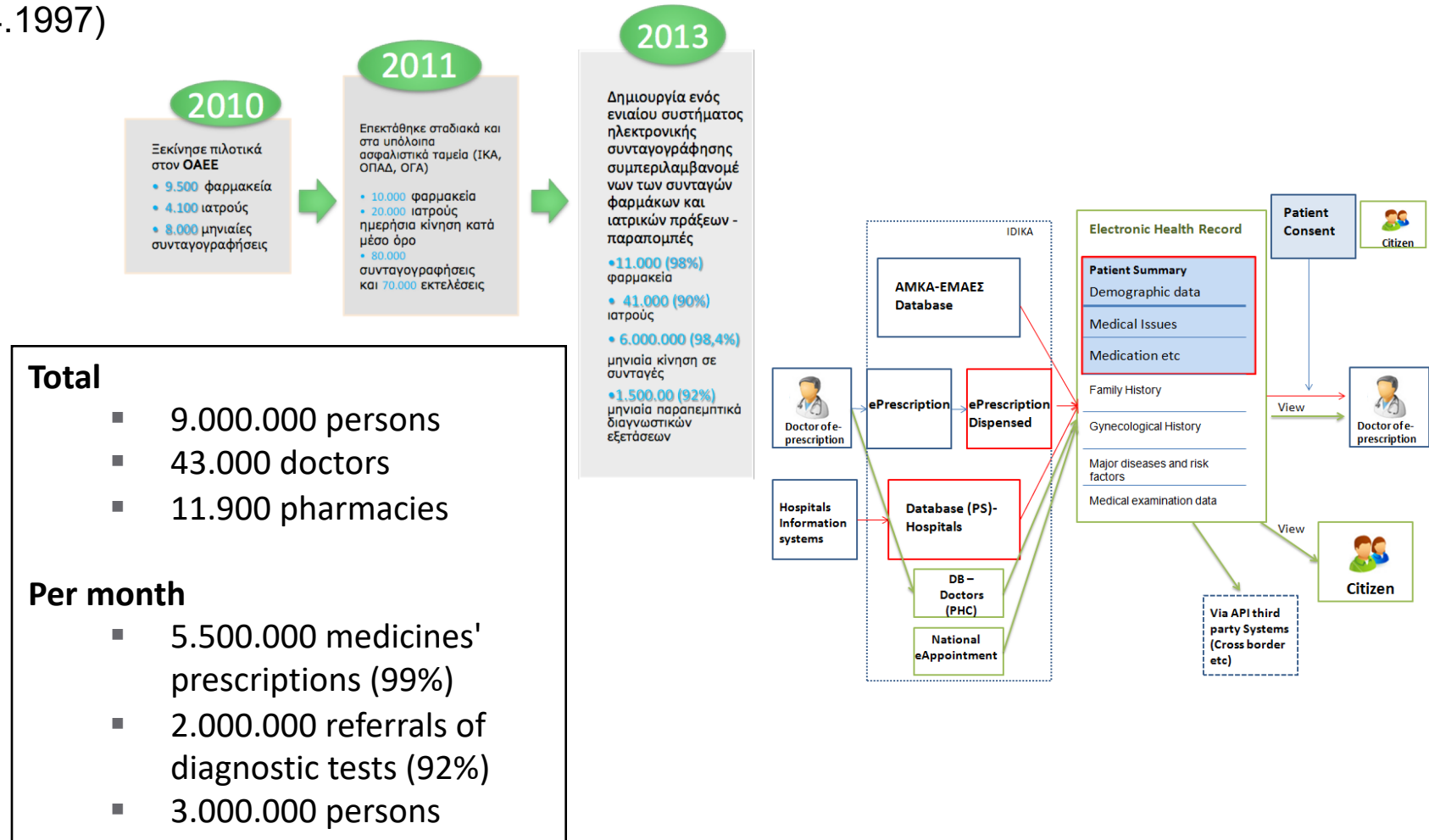


Main public eHealth stakeholders 2/2




The National ePrescription System


The implementation of an integrated electronic prescribing system was established by the law 3892/2010 (ΦΕΚ Α' 189/04.11.2010) Electronic, entry and execution, of prescriptions and orders for medical tests. In conjunction with the data protection law 2472/1997 (ΦΕΚ Α'50 10.4.1997)



SRSS - NeHIF

The cover features a background image of several European Union flags flying in front of a modern glass skyscraper. The text is overlaid on this image.

 Funded by the Structural Reform Support Programme of the European Union and implemented by KPMG and VVA in cooperation with DG REFORM


 Υπουργείο Υγείας
Ministry of Health

DESIGN AND IMPLEMENTATION OF THE NATIONAL EHEALTH INTEROPERABILITY FRAMEWORK (NEHIF)


Project Status and Deliverables

31-08-2020




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 **KPMG**

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 **IHE** Europe
Integrating the Healthcare Enterprise

Project outcomes

- Outcome 1: NeHIF Design Principles ✓
- Outcome 2: NeHIF governance requirements ✓
- Outcome 3: Use Case (UC) documentation and reference UC analysis ✓
- Outcome 4: Architecture and specification definition for one Use Case
- Outcome 5: Testing and validation of one UC through a “projectathon”
- Outcome 6: Conformity assessment model definition & regulatory framework

Current status- work achieved

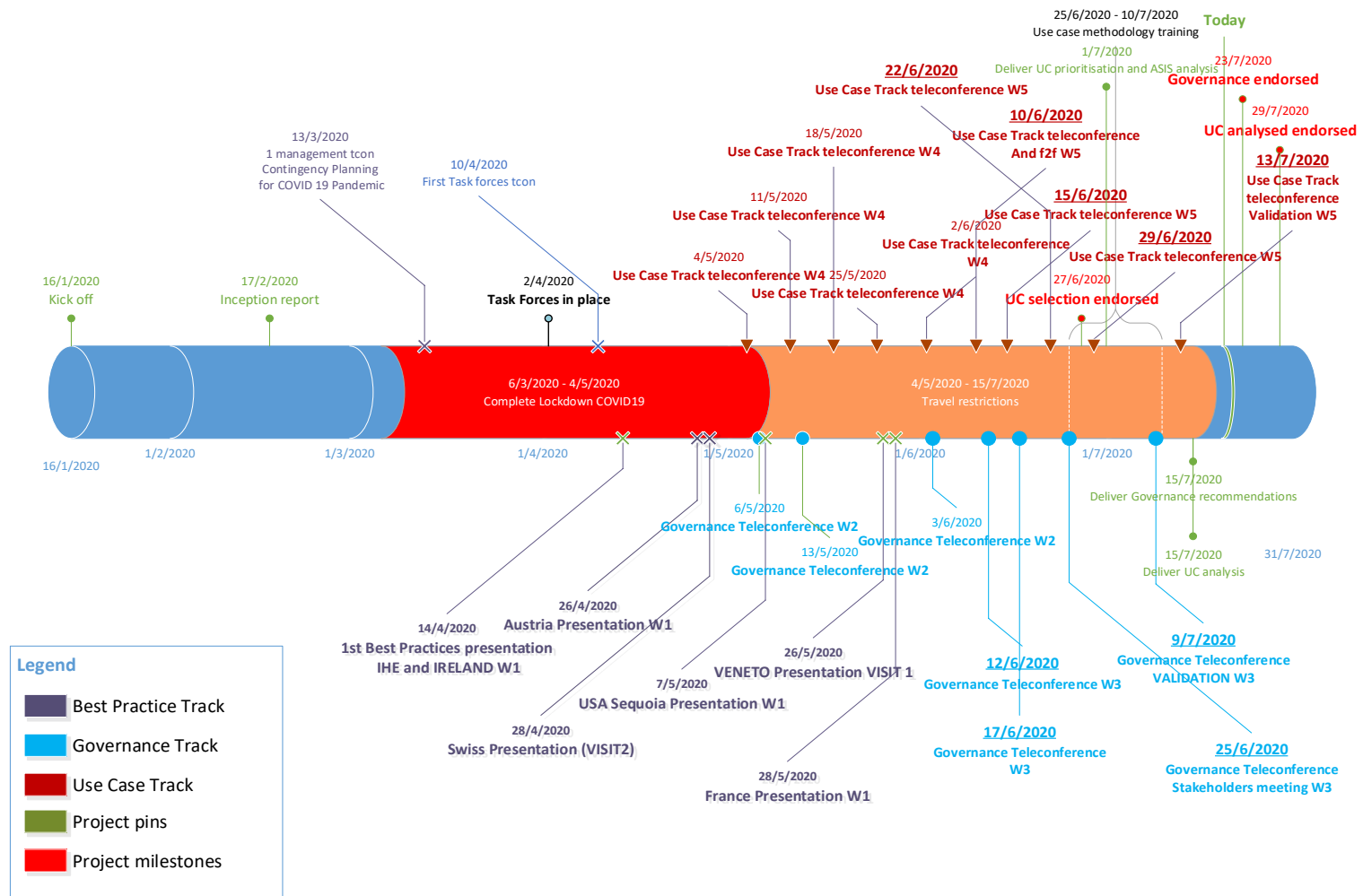
- Presented several best practices
 - Ireland, Austria, France, USA, Veneto Region, Switzerland, other
- Refined the 10 Use cases
 - Selected the use case to be analysed
 - lab reports/results cross community and intra-hospital
- Established a task force of experts (MoH)
- Invitation process to other stakeholders

- Proposed Interoperability Governance Recommendations
- Established a Stakeholders' engagement plan
- Reviewed an open interoperability architecture
- Established a use case roadmap
- Defined realization scenarios
- First Training program completed

Future Work

- Extend WG with Vendors
- Create the interoperability specifications for the selected use case
- Define a testing strategy
- Provide educational sessions
- Provide legal support
- Provide recommendations for conformity assessment
- Organise a Projectathon for the selected use case

Meetings and workshops



Workshop Contributors, co-creators Members of the MoH working groups

- Dr. Panagiotis Bogiatzidis, 3rd Regional Health Authority Director
- Dr Dimitrios Tsalikakis, 4th Regional Health Authority Director
- Mrs Elpida. Kyriakou, Head of IT Department at Evangelism Hospital
- Mr. Athanassios. Kelepouris, Division of Electronic Governance, Head of Electronic Health Services Department, MoH Greece
- Mrs Asimina Boubaki, Mrs. Division of Electronic Governance, Electronic Health Services Department, MoH Greece
- Mr. Vaggelis. Stamatiades, CIO 5th Regional Health Authority of Thessaly and Central Greece
- Dr. Stergiani (Stella) Spyrou, CIO 3rd Regional Health Authority of Central Greece
- Mr Dimitrios Katehakis, Head of Centre for eHealth Applications and Services at FORTH, ICS
- Dr. Dimitrios. Kounalakis, General doctor at Heraklion Crete
- Dr. Sotiris. Pavlopoulos, Biomedical and Electrical Engineer, PhD
- Mrs. Panagiota. Sideri, Director of Informatics and Data Management, KETEKNY
- Mrs. Elpida. Fotiadou, Deputy IT Director at IDIKA
- Mrs. Panagiota. Alexoglou, IT department 7th Regional Health Authority of Crete.
- Mr. George. Moschovakis, Former Deputy CEO of Venizelio Hospital
- Dr. Konstantinos Chalkias, Executive member, KETEKNY
- Dr. Lefteris. Thireos, General Practitioner, Director of NHS – Vari Health Centre, Secretary General-Athens Medical Society
- Mr Michalis Papadakis, CIO Onassis Cardio-Surgery Centre
- Dr. George Dafoulas, Medical Doctor, Clinician
- Mr Ioannis Asproloupou, Senior Engieenr at IDIKA SA
- Mr Kostas Michalitsis, Deputy Director at IDIKA SA
- Mr. Nikos Vagalis, Head of department at IDIKA SA
- Mr Kostas Mathioudakis, Head of department at IDIKA SA
- Mr Athanassios Staveris-Polykalas, Special advisor at the Ministry of Digital Governance,
- Dr Kostas Tzamaloukas, Specia advisor at the Ministry of Digital Governance
- Mr Parisis Gallos, Advisor to the President of EOPYY
- Dr Pantelis Messaropoulos, President of KETEKNY
- Chrisostomos Gounaris, Member of the Board, KETEKNY
- Mr Konstantinos Tsourdinis, CIO at Xanthi Hospital
- Mr Vassilios Aggelidis, CIO at Kavala Hospital
- Dr Aggelina Kouroubali, Researcher at FORTH

X-eHealth



Wrap-up



- **Scope:** X-eHealth aims to develop the foundations for a common framework for **medical imaging, discharge letters, laboratory results and rare diseases**
- **Time:** 24 Months



X-eHealth

Main Health Trends



Personalized Medicine

Privacy & Security of my Health Data Prevention



Individual Planned Care

Portability of Healthdata
Access and availability of Electronic Health Record and Personal Health Record



Exchange of data

Between persons | family relatives and Next kin; GP and HCP
EU Cross-Border
International & Global



Secondary use of Healthdata

Public Health; Research
Genomics; Data Quality
Artificial Intelligence

Citizens



This

Healthcare Professionals

in Un

Agreement

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Agreement

Healthcare Organisations



Policy Makers

X-eHealth: Project Scope

X-eHealth Objectives

X-eHealth project aims to **lay the foundations to advance** the integration process of the eHealth services features into the already in place European Cross Border **Patient Summary**.

The key goals are to:

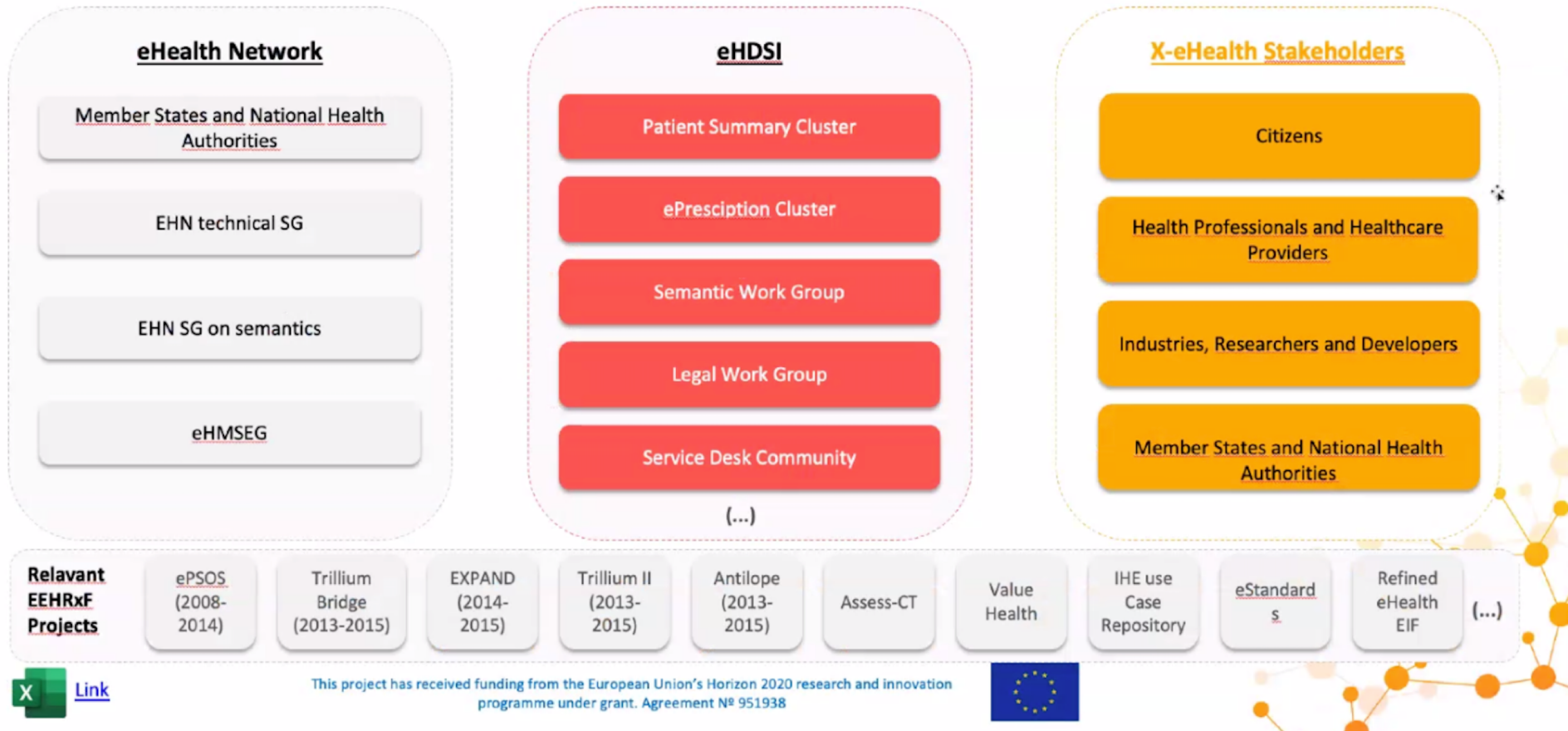
- Improve the **healthcare quality and safety** for citizens by allowing them to access and manage their electronic health record from any place in the EU;
- Contribute to **standardisation and harmonisation** of eHealth services in the EU by setting European agreements on diverse levels of interoperability;
- Contribute to **defragmentation of European services**;
- Facilitate **interaction between patients and healthcare** providers, to support prevention and citizen empowerment.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant. Agreement N° 951938



X-eHealth: Expected Results

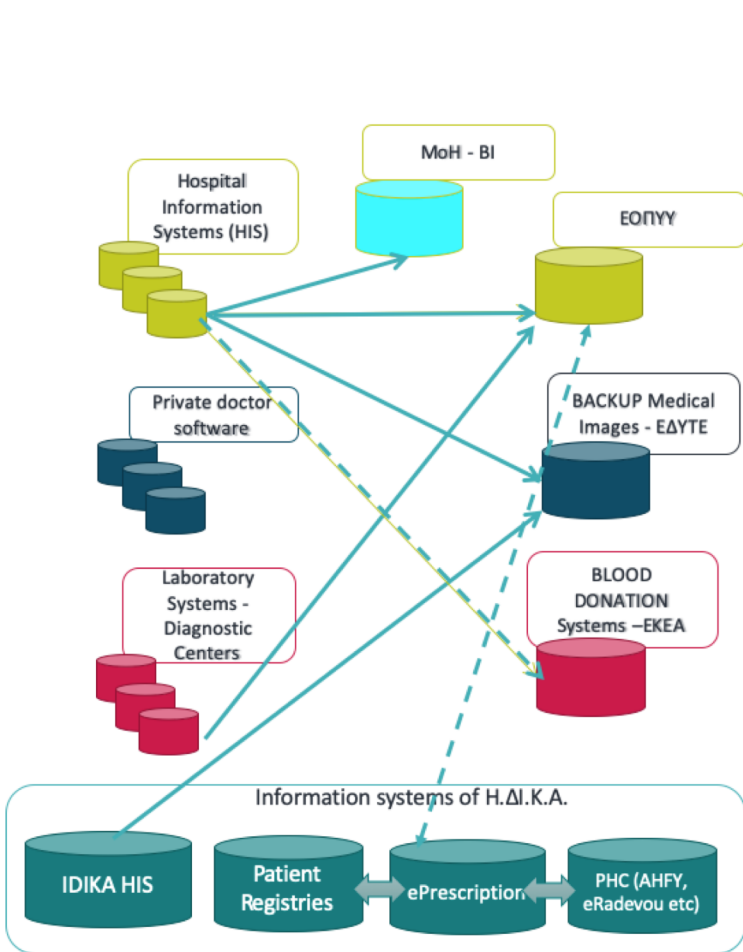
Demonstrate the EEHRxF use cases, Influence & Engage eHealth Stakeholders



The Distributed National Electronic Health Record

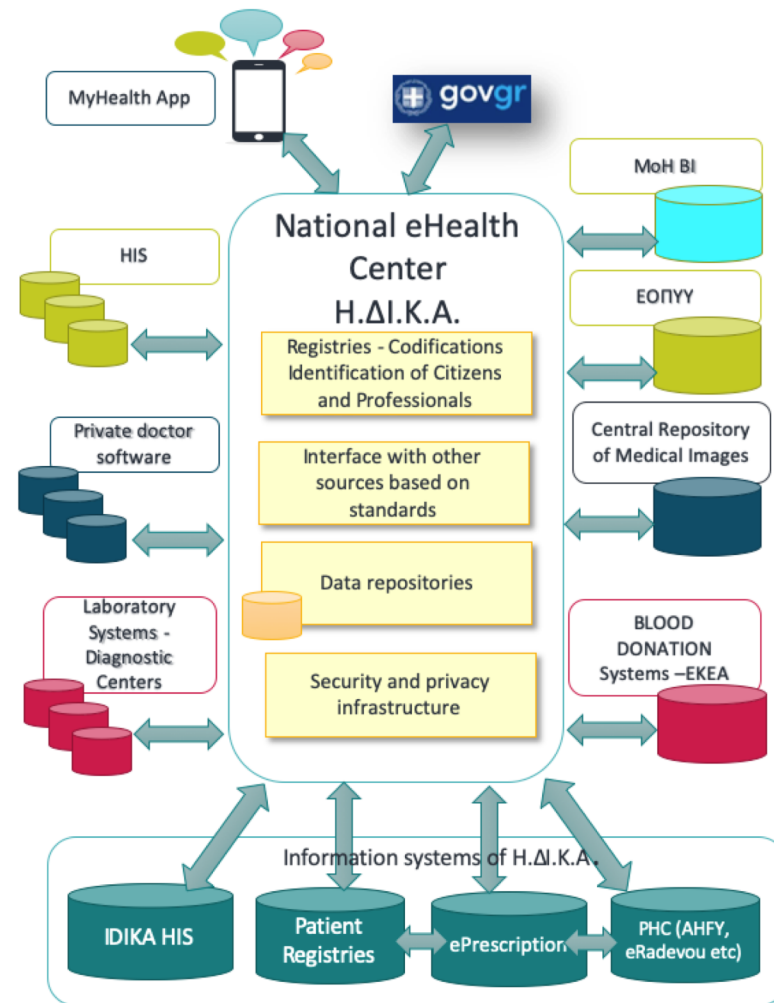


National eHealth network



MoH, Office of Secretary General for Health Services

Basic
Infrastructure
Development
→
Development of
the individual
nodes



1st Health Datathon in Greece (2019)



1st Health Datathon in Greece with real world data in the framework of the 45th Annual Panhellenic Medical Conference, co-organized by EEMEPY (www.e-healthnet.gr/), EELLAC and Athens Medical Society.

In collaboration with the Greek Ministry of Health and IDIKA (National ePrescription system).

In the 1st Health Datathon, we have explored the possibilities for different groups (such as developers, statisticians and healthcare professionals) to collaborate on unanswered questions and unmet needs both in the clinical field and in the administration of health services.

Opportunities

Long term

- The openness of data and architectures that we are aiming will attract business to develop apps that will interact with the public services and provide added value to citizens.

Short term

- The organisation of a summer school next year in collaboration with the Greek MoH and other organisations for knowledge and best practice transfer on the issues of AI & Big Data in the Health domain.
- Perform pilots of AI best practices.
- Organise the 2nd Health Datathon in Greece.

Closing remarks

- ❖ Health care systems need to innovate to meet future needs.
- ❖ ICT will allow the transformation to take place.
- ❖ However, it is not just about technology, it requires:
 - ✓ Political will and **leadership** to set direction and policy
 - ✓ The right **incentives** to encourage healthcare providers and citizens to adopt new ways of working
 - ✓ New ideas for **services** that have positive impact for individuals and society.

Thank you ...

Haralampos Karanikas