# KONFID ® रू

## Secure and Trusted Paradigm for Interoperable eHealth Services

Ioannis Komnios KONFIDO Project Coordinator EXUS Software Ltd EEMA's 30<sup>th</sup> Annual Conference 4<sup>th</sup>-5<sup>th</sup> July 2017, London, UK



### **KONFIDO means "Trust" in Esperando**



#### **Our vision**

#### Develop a **holistic** solution for **interoperable** and **secure** eHealth services at European level





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#### The challenges



- User-centric approach
- Handle legal, privacy and ethical issues
- Ensure interoperability and scalability
- Validate and evaluate (ethical, technical and business)
- Commercially exploit the outcomes of the project
- Cooperate with projects such as OpenNCP and STORK



#### eHDSI and OpenNCP

OpenNCP is a part of the eHealth Digital Service Infrastructure (eHDSI) and allows for the exchange of eHealth Data in Europe

- Patient Summary
- ePrescription





#### The innovation pillars

**1**<sup>st</sup> **Pillar:** Enhancement of the trust and security of interoperable eHealth services

**2<sup>nd</sup> Pillar:** Continuous validation and proof of concept demonstrations

**3rd Pillar:** Focus on stakeholders, improving user acceptance, adhering to standards and legal and ethical directives



#### The technology pillars

- Design and implement a STORK-compliant eID infrastructure
- Implement disruptive logging and auditing mechanisms
- Exploit the new security extensions of COTS CPUs for creating protected execution environments for eHealth applications



#### The technology pillars

- Develop novel photonic encryption key generation technologies
- Build an efficient homomorphic encryption mechanism supporting secured health data storage, processing and exchange
- Develop **customized SIEM solutions** for real-time monitoring of the security of eHealth applications



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#### **Conceptual view of KONFIDO architecture**





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#### **Conceptual view of KONFIDO architecture**





#### **Validation pilots**

- Pilot sites in:
  - Italy
  - Denmark
  - Spain







EEMA's 30<sup>th</sup> Annual Conference





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#### Partners

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