



transforming Europe's future with BigData & Al driven innovation

The INFINITECH Project

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Background



Historically, the financial and insurance services sectors are "conservative" (resistant to digital transformation and technology disruptions)



Digital Technologies are rapidly transforming the financial and insurance services industry



The vast majority of digital transformation applications for the finance and insurance sectors are **data-intensive** and leverage technologies on **fragmented** data sources



Endless quest for **cost-effective** applications exploiting Big Data also coming from IoT and Data Lakes





EoInfinitech

- H2020 Program Grant
 - Innovation Action
- Project Budget: 21.080.482 €
 - EC Grant: 15.870.480 €
- Timeframe: 01/10/2019-31/12/2022
- 47 Participants (Industry, Academia, FinTechs)

Tailored IoT & BigData Sandboxes and Testbeds for Smart, Autonomous and Personalized Services in the European Finance and Insurance Services

Ecosystem



INFINITECH Vision

Innovation

Market

Execution

Novel Technologies&Tools

for digital Finance Innovation & Experimentation based on IoT/BigData

Novel BigData/IoT/AI technologies leveraged on fragmented data sources

Flexible RA to map and deploy pilots, flexibility, interoperability

Disruptive Financial Services Solutions

Validate Resources, Platforms and Processes

Innovative Industry-Driven Use Cases, applied in several fields

Models for Business Validation & Commercialization, Marketplace, VDIH

Provide IoT & BigData Platforms

customized for Digital Finance

In terms of integration with banking & finance systems

Testbeds, Sandboxes, on-cloud and on-prem, common components



INFINITECH Team

Innovation



Market





Execution

Digital Finance Vendors & Integrators GFT ■ Atos **≋sia** THE FUJITSU **Hewlett Packard** Enterprise Singular Logic \



INFINITECH Overview

Innovation

Global leaders in ICT and Finance

Large BigData and IoT Vendors
Commercial Banks and Financial Institutions
Central Bank - ECB Member
Fintech / Insurancetech Organisations
Regulatory Experts
High-tech RTDs and SMEs

Regulatory tools

Coverage of Mainstream Regulations in Finance (PSD2, 4AMLD, MiFID II) Support for General Purpose Regulations (e.g. GDPR, ePrivacy) Anonymisation, Policy Management, eIDAS Integration

Globally unique pool of Data Assests 🖽

50+ Distinct Datasets with 5Vs
10s of Millions od Custimers
Billions od Transactions Processed
Thousands of Transactions per Second
Petabytes of IoT Data
Billions of Alternative Data Items (News,
Social media)

Modular & Configurable Cloud/HPC Sandboxes

SANDBOXES

TESTBEDS

8 Incumbent Testbeds / 1 Pan-European Testbed for Fintech Innovation and Experimentation

> Standardisation of Sandboxes for BigData & Al in Digital Finance

Leading edge BigData/Al technologies

Seamless and Interoperable Access to all Data Sources (SQL, NoSQL, Data Lakes) Trustful Blockchain based Data Exchange Integrated Querying (stream & data at rest) Parallel and Incremental Real-time Analytics Open Library of Al Algorithms - Open Finance APIs

Flexible Reference Architecture to map the 15 Pilots







Shaping Europe's digital future

Innovation

Open, democratic and sustainable society

- Control and protection over data
- Anonymization and encryption techniques
- Entirely ethic and legal compliance
- Coverage of regulations (e.g. GDPR, PSD2)

Technology that works for the people

- Fraud detection, AML and combat terrorism
- AI/ML respecting users privacy
- Trusted digital services
- Access to trainings and services

A fair and competitive digital economy

- Hyperconnectivity, Big Data and IoT
- Marketplace and Virtualized DIH
- Open sources information extraction
- Shared testbed to facilitate SMEs deployment



The INFINITECH Pilots (Finance)

Market



Personalized Retail and Investment Banking Services

- •KYC & Customer-centric Data Analytics
- Personalized Portfolio Management & "Democratization" of Investment Banking
- •Smart & Personalized Pocket Assistant for PFM
- •BFM tools delivering a Smart Business Advise
- Personalized Closed-Loop Investment Portfolio Management for Retail Customers



Smart, Reliable and Accurate Risk Assessment

- •Invoices Processing Platform for a more Sustainable Banking Industry
- •Real-time Risk Assessment in Investment Banking



Predictive Financial Crime and Fraud Detection

- •Operation Whitetail Avoiding Financial Crime
- •Platform for Anti Money Laundering Supervision
- Analyzing Blockchain Transaction Graphs for Fraudulent Activities
- •Real-time cybersecurity analytics on Financial Transactions' BigData



The INFINITECH Pilots (Insurance)

Market



Personalized Usage-Based Insurance Pilots

- Personalized insurance products based on IoT connected vehicles
- Real World Data for Novel Health-Insurance products



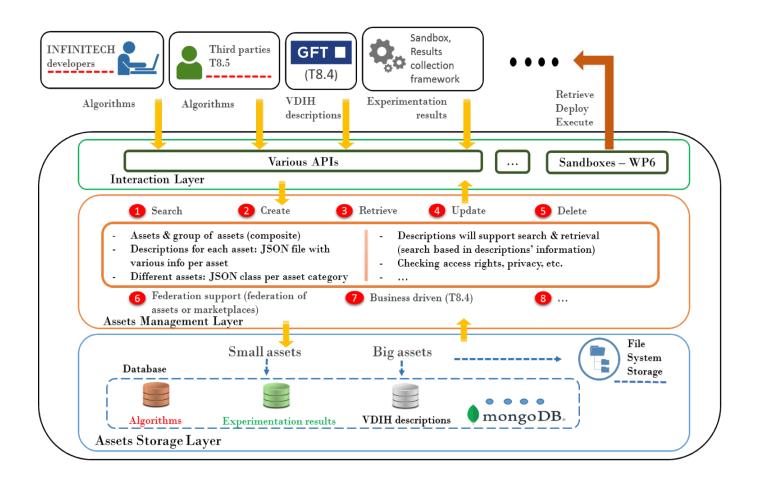
Configurable and Personalized Insurance Products for SMEs and Agro-Insurance

- Alternative/automated insurance risk selection product recommendation for SME
- Big Data and IoT for the Agricultural Insurance Industry



Marketplace, VDIH and ISA







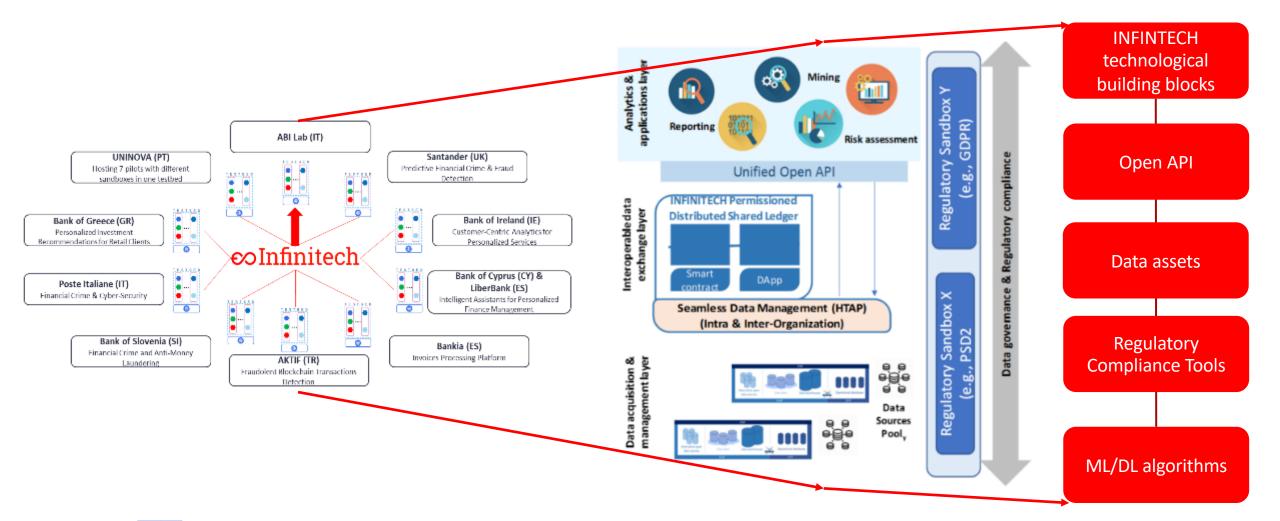
ISA is the main vehicle for engaging relevant stakeholders

- Stakeholder ecosystem
- Structured communication
- Privileged access to information
- Collaboration with R&I
- Newsletter with focused information



Testbeds, Sandboxes & Building Blocks

Execution





Thank you for the attention

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