FinTech and InsuranceTech case studies digitally transforming Europe's future with BigData & AI driven innovation

The INFINITECH Project

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This project has received funding from the European Union's horizon 2020 research and innovation programme under grant agreement no 856632

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

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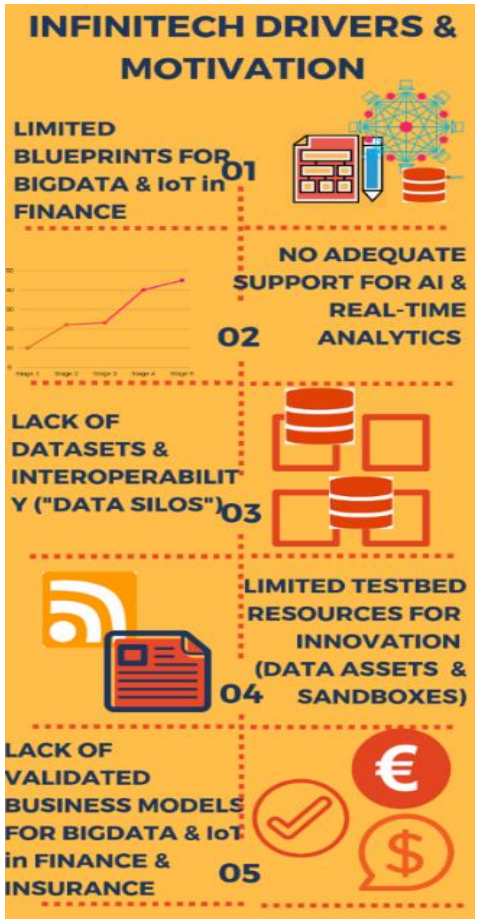
The Problem in the Financial and Insurance Sectors

- Data Fragmentation and Interoperability Barriers
- Limitations for Cost-Effective Real-Time Analytics
- Regulatory Barriers
- Data Availability Barriers
- Lack of Blueprint Architectures for BigData Applications
- Scarcity of Analytics and Standard Tools for the Sector
- No Validated Business Models



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- 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

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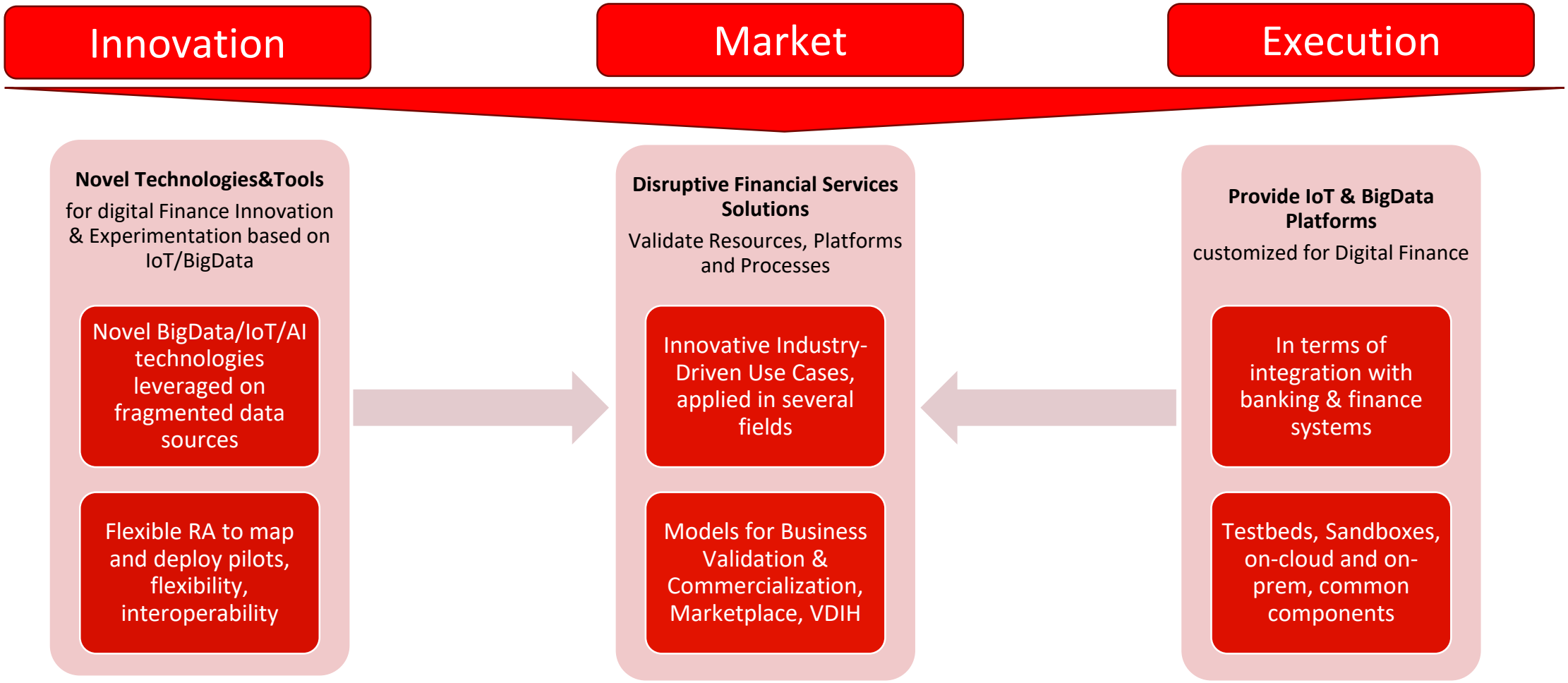
INFINITECH Vision



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INFINITECH Team

Innovation

Universities and Research Centers

NUI Galway OÉ Gaillimh
UNINOVA
Fondazione Bruno Kessler
University of Glasgow
University of Nicosia
University of Piraeus Research Center
ORT France
CTAG Centro Tecnológico de Automoción de Galicia
Jožef Stefan Institute
Boğaziçi Üniversitesi 1863
gradiant

Market

FinTechs & High-Tech AI/IoT SMEs

CROWD POLICY
privé technologies
jrc
Finance Innovation
COPENHAGEN FINTECH
UNPARALLEL
agroapps
dwf
INNOVATION SPRINT
reportbrain
Roessingh
UBITECH
LEANXCALE
Innov-acts
wenalyze

Financial & Insurance Institutions

ABI Lab Tecnologia utile
aktif bank
BANKA SLOVENIJE EVROSISTEM
NATIONAL BANK OF GREECE
Posteitaliane
Bank of Ireland
Banking & Payments Federation Ireland
Santander
ΔΥΝΑΜΙΣ
Bankia
Liberbank
GENILLARD & CO
Bank of Cyprus

Execution

Digital Finance Vendors & Integrators

GFT
Atos
sia
IBM
FUJITSU
ENGINEERING
Hewlett Packard Enterprise
Singular Logic

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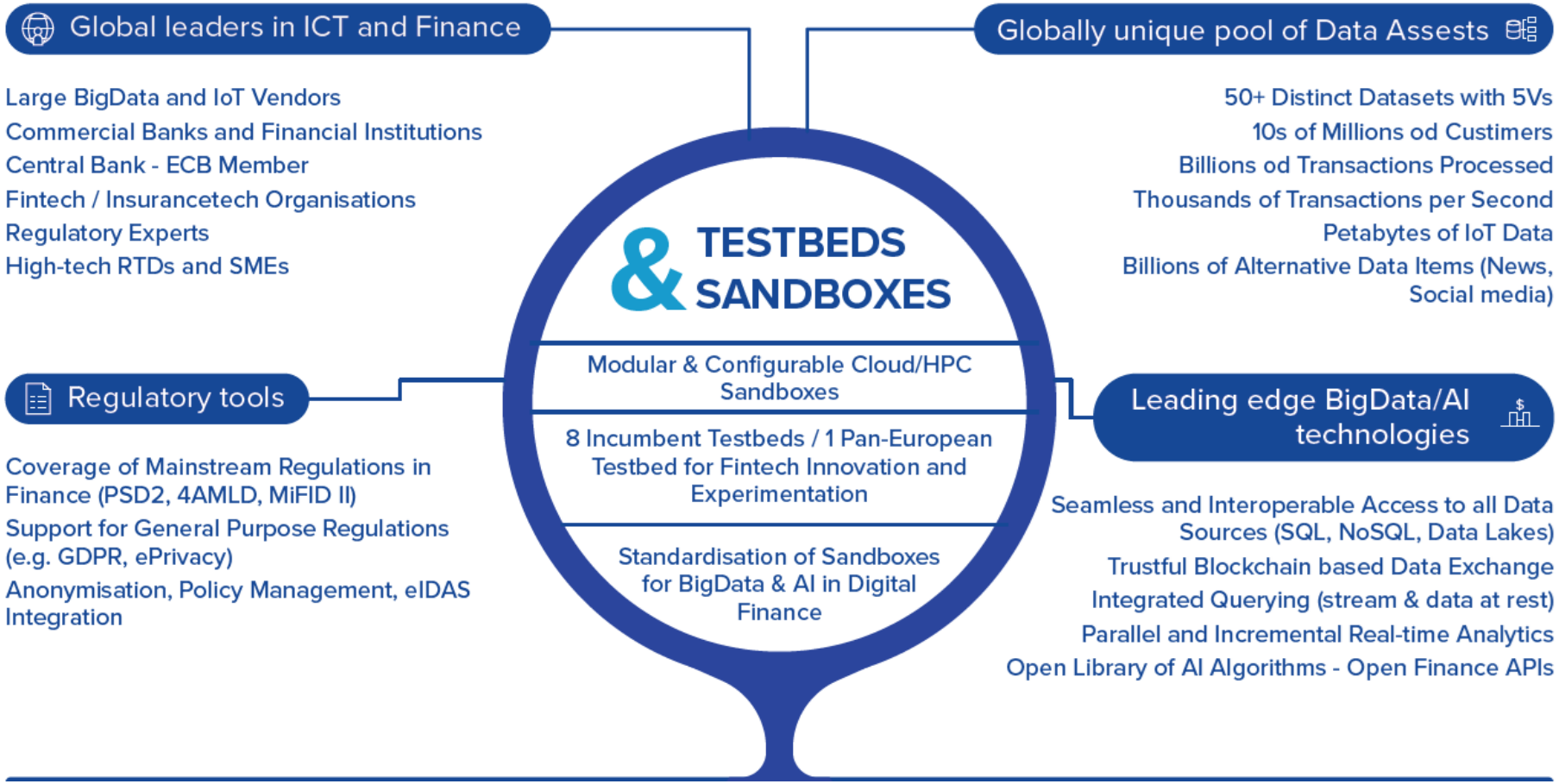
INFINITECH Overview

Innovation



- **Flexible Reference Architecture to map the 15 Pilots**

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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

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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

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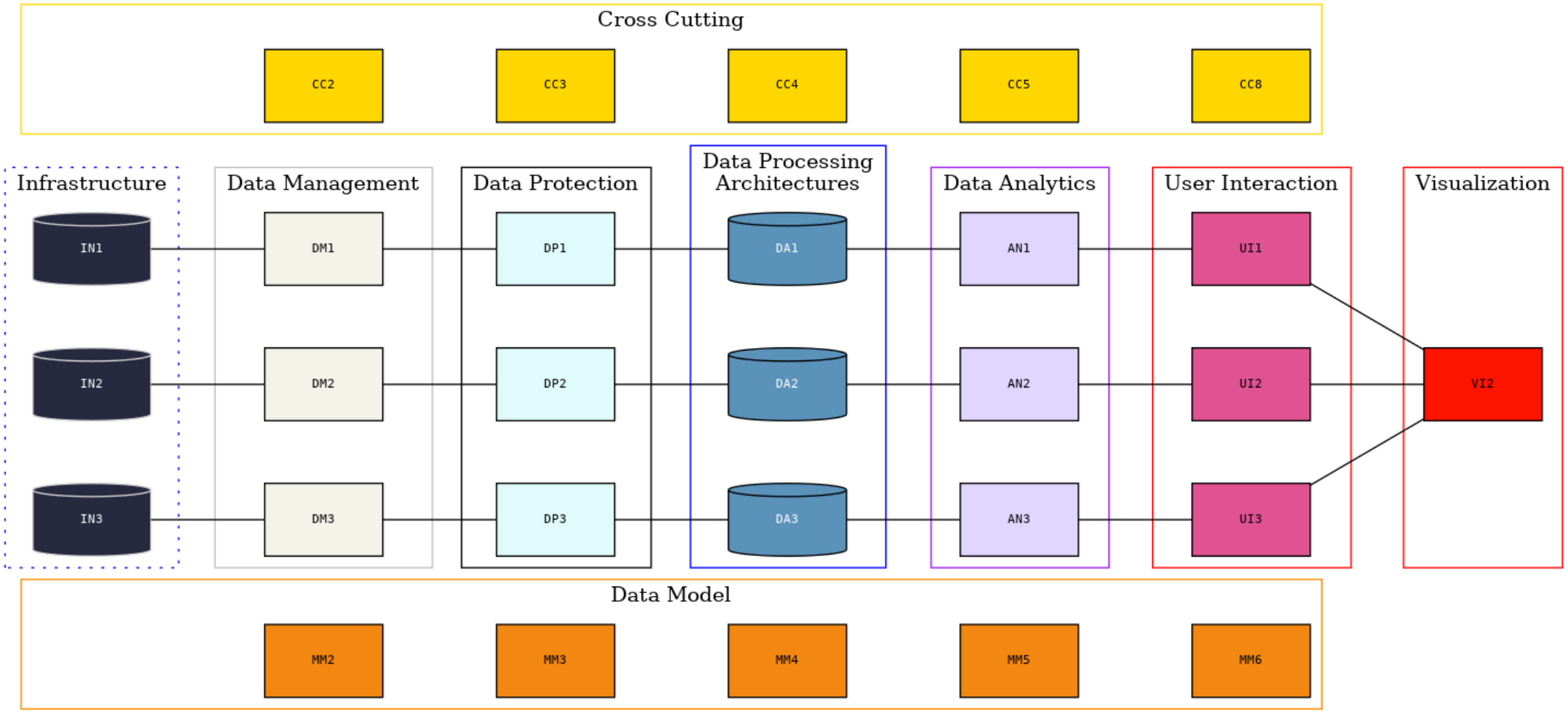
INFINITECH Reference Architecture



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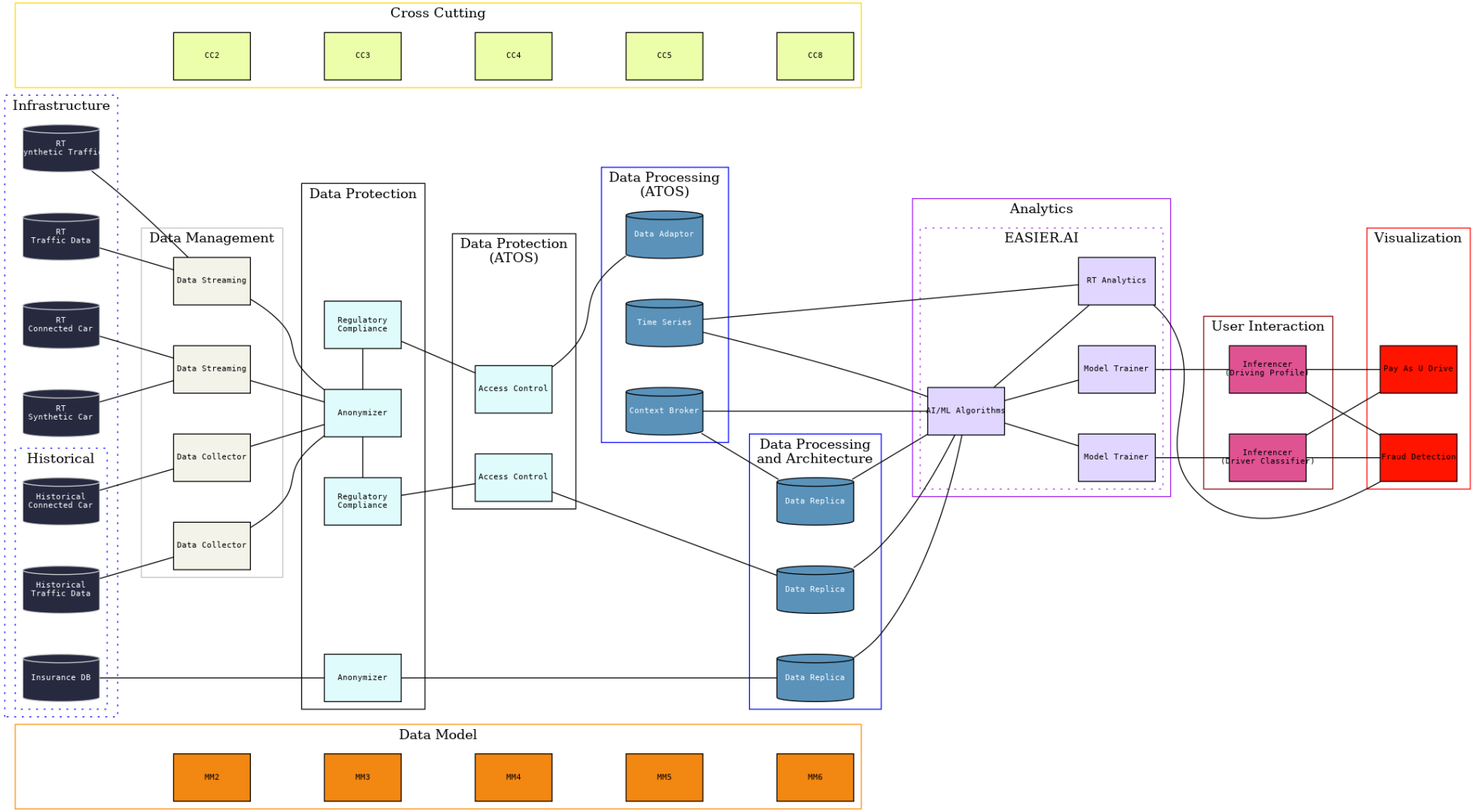
A Workflow Example



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Challenges

- Map Use Cases into Workflows and data pipelines
- Provide Innovative and specialized Technological Building Blocks for BigData, IoT and AI
- Provide infrastructures, components and toolkits for seamless data management for cost-effective real-time analytics, advanced algorithms and data manipulation
- Exploit DLT (blockchain) technologies at the edge or within the pipeline
- Tailor Experimentation Infrastructures (i.e. Testbeds and Sandboxes) for different use cases
- Scale to 15 Large-Scale Pilots
- Distribute computing from egde to central HPC
- Business models development and validation in the scope of the pilots

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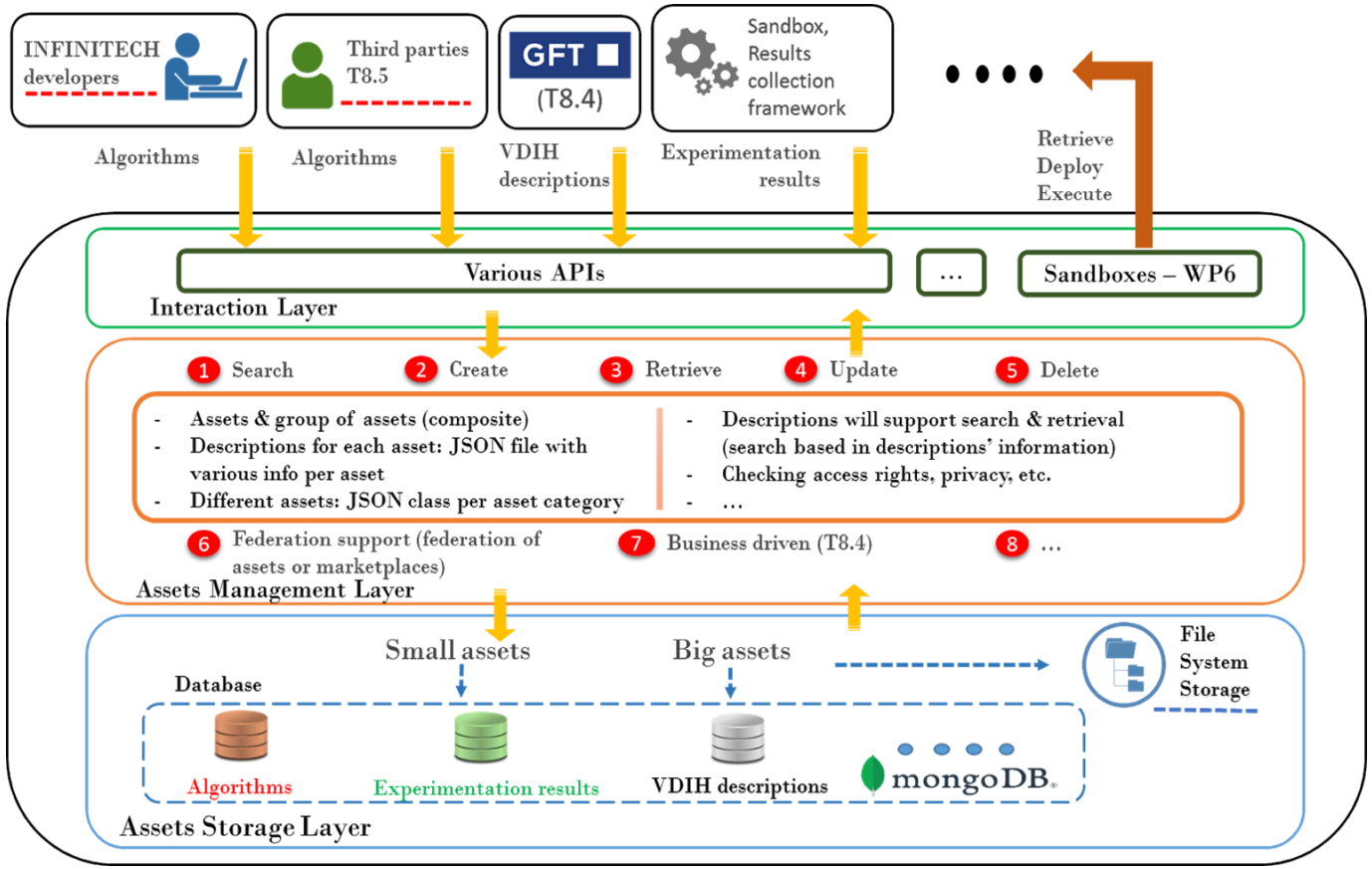
Marketplace, VDIH and ISA

Market



ISA INFINITECH STAKEHOLDERS ALLIANCE

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

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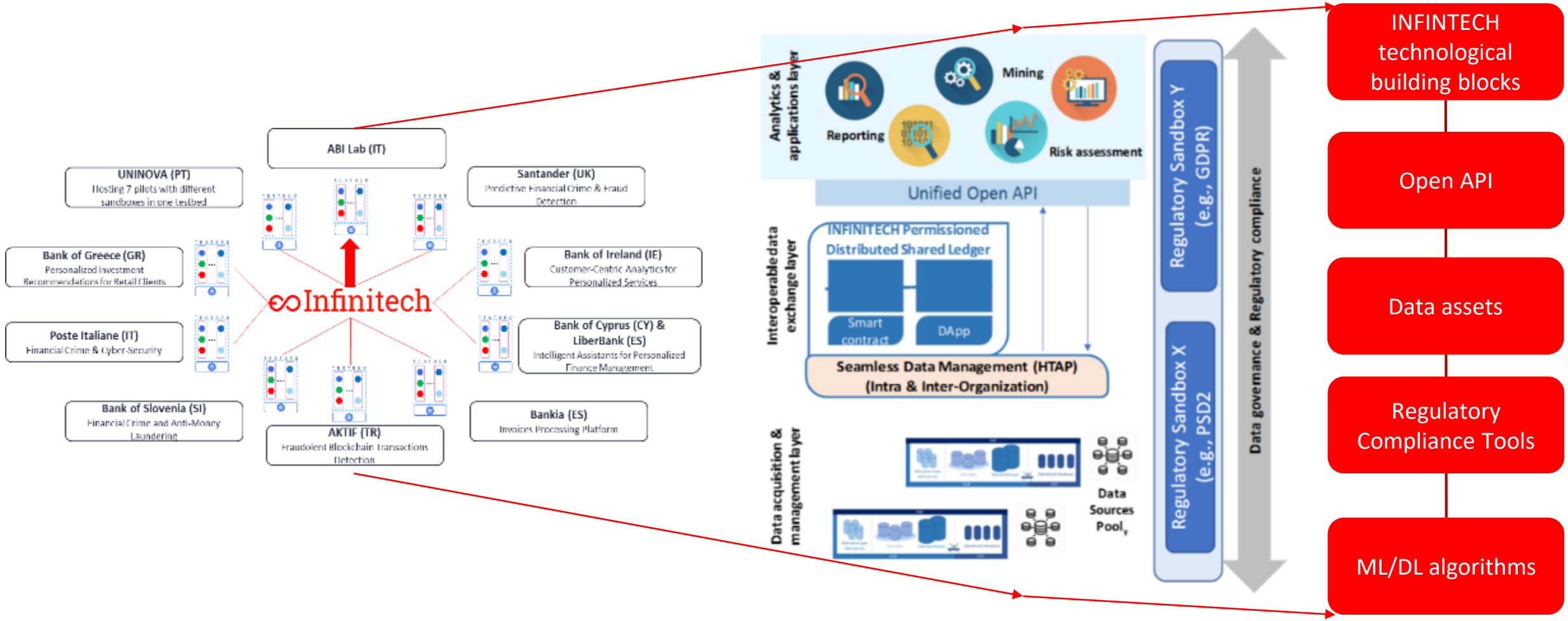
Testbeds, Sandboxes & Building Blocks

Execution



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Thank You

Ernesto Troiano – INFNITECH Project Manager – GFT Italia

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