



**Brokerage and market platform
for personal data**

KRAKEN Overview

Data Platform Projects (ICT-13): Workshop 1

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(23rd November 2021)

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 871473



www.krakenh2020.eu



1. **General Overview**
2. **Status & Achievements**
3. **Relevant topics**
4. **Lessons learnt**
5. **BDVForum 29th November 2021**

KRAKEN OVERVIEW



EU Horizon 2020 R & I programme under grant agreement No 871473



KRAKEN is an Innovation Action part of the Big Data Value Public-Private Partnership (PPP)

36 months from December 2019 to November 2022

Atos coordination

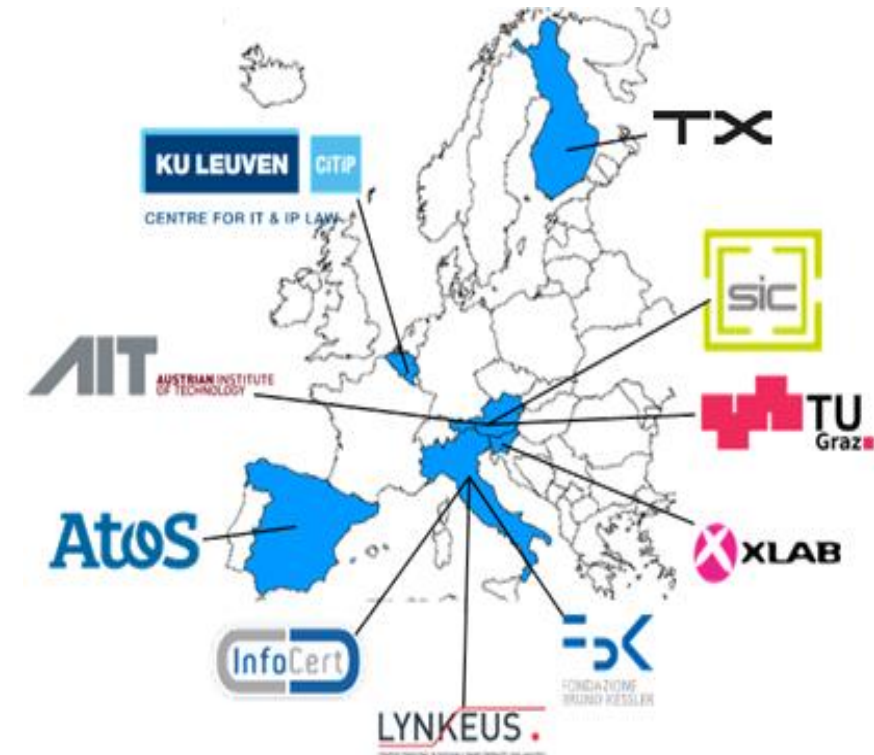


6 Countries

Spain
Italy
Austria
Slovenia
Belgium
Finland

5M €

10 Partners



Overcoming Challenges

Removing obstacles which prevent citizen's controlling and widely sharing their personal data by implementing a highly trusted and secure yet scalable and efficient personal data sharing and analysis platform adapting state-of-the-art technologies

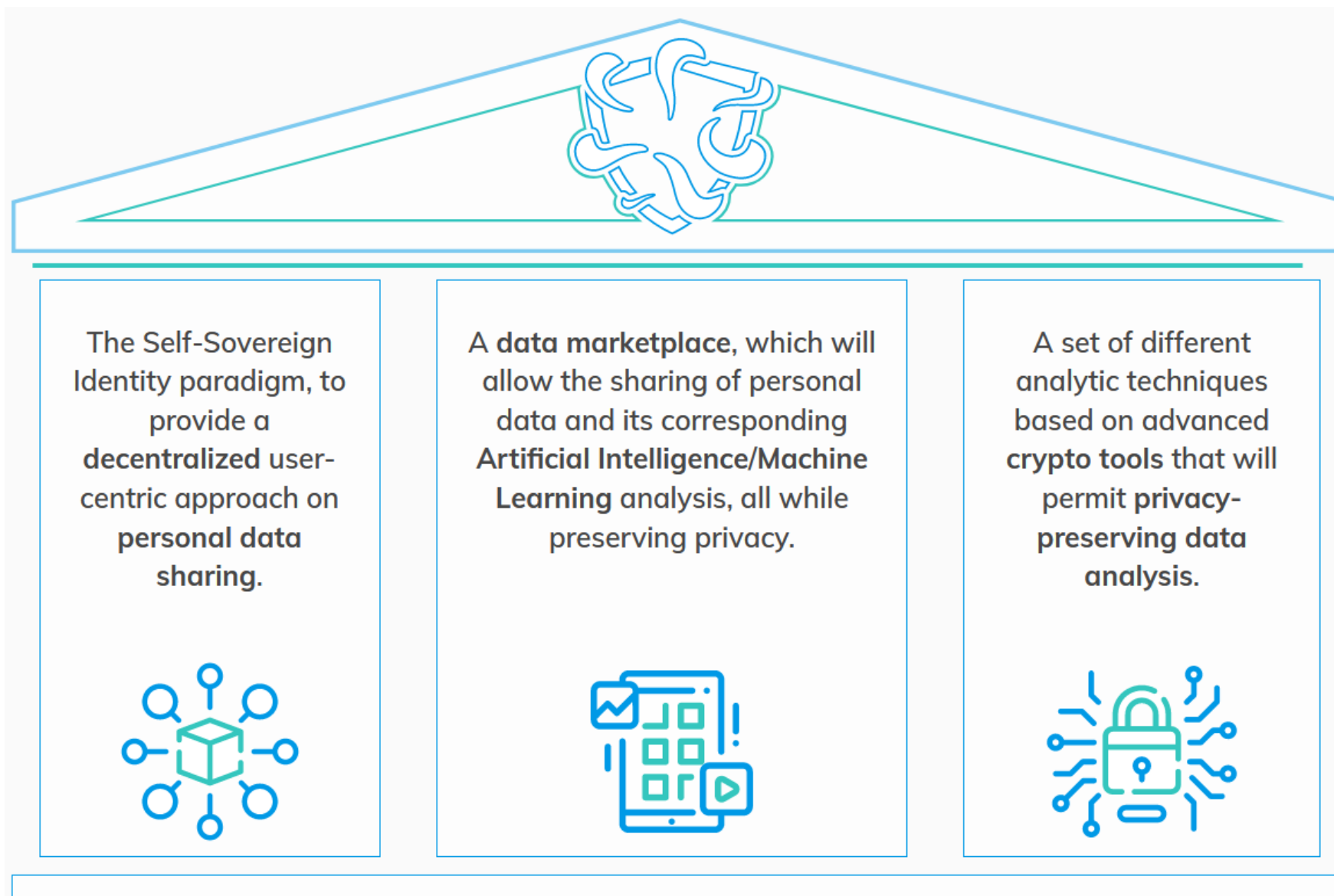
Promoting fair-trading protocols and incentive models

Demonstration in in two high-impact pilots –**Health and Education**-consolidating lessons learned for generalizing adoption in further economic sectors

Complying with regulatory and technical constraints such as data protection laws, authentication frameworks

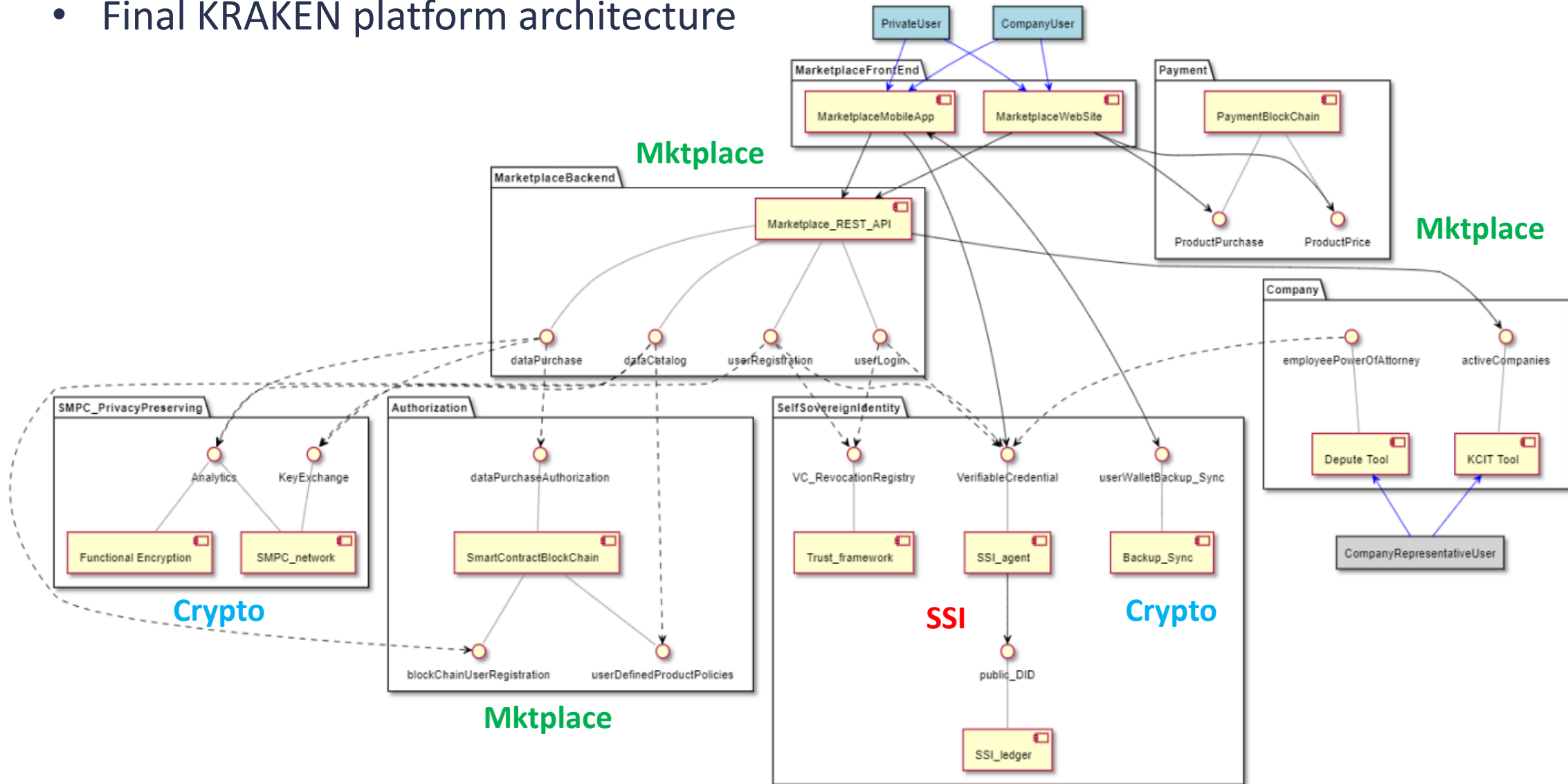
Avoid Loss of control over data enabling decentralized, open standards-based and self-sovereign identity management and user centric access control to personal data in support

Developing easy-to-understand privacy metrics and usable interfaces for end users and data Subjects metrics & Usability



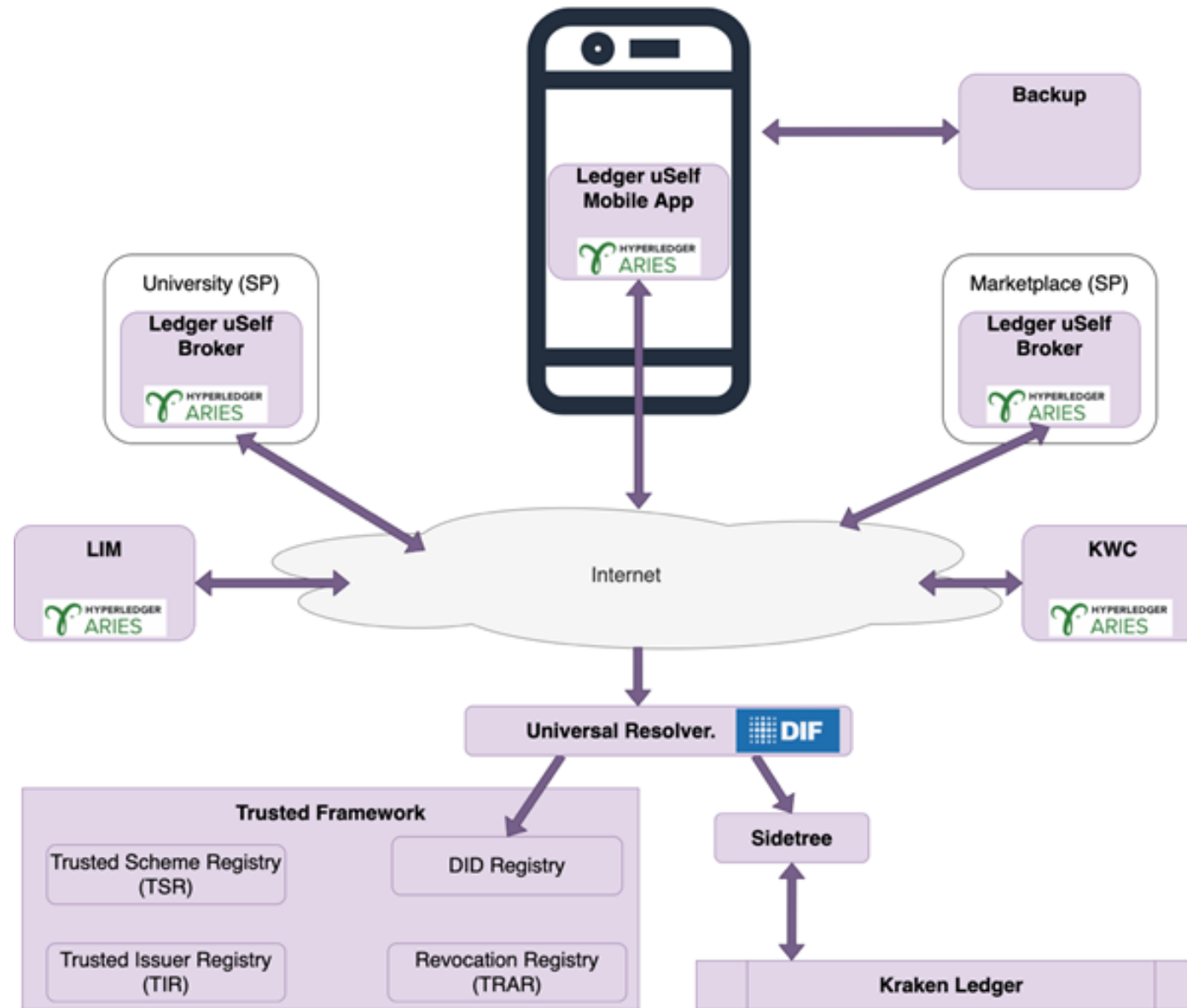
Main achievements M1-M24

- Final KRAKEN platform architecture



Main achievements M1-M24 SSI solution

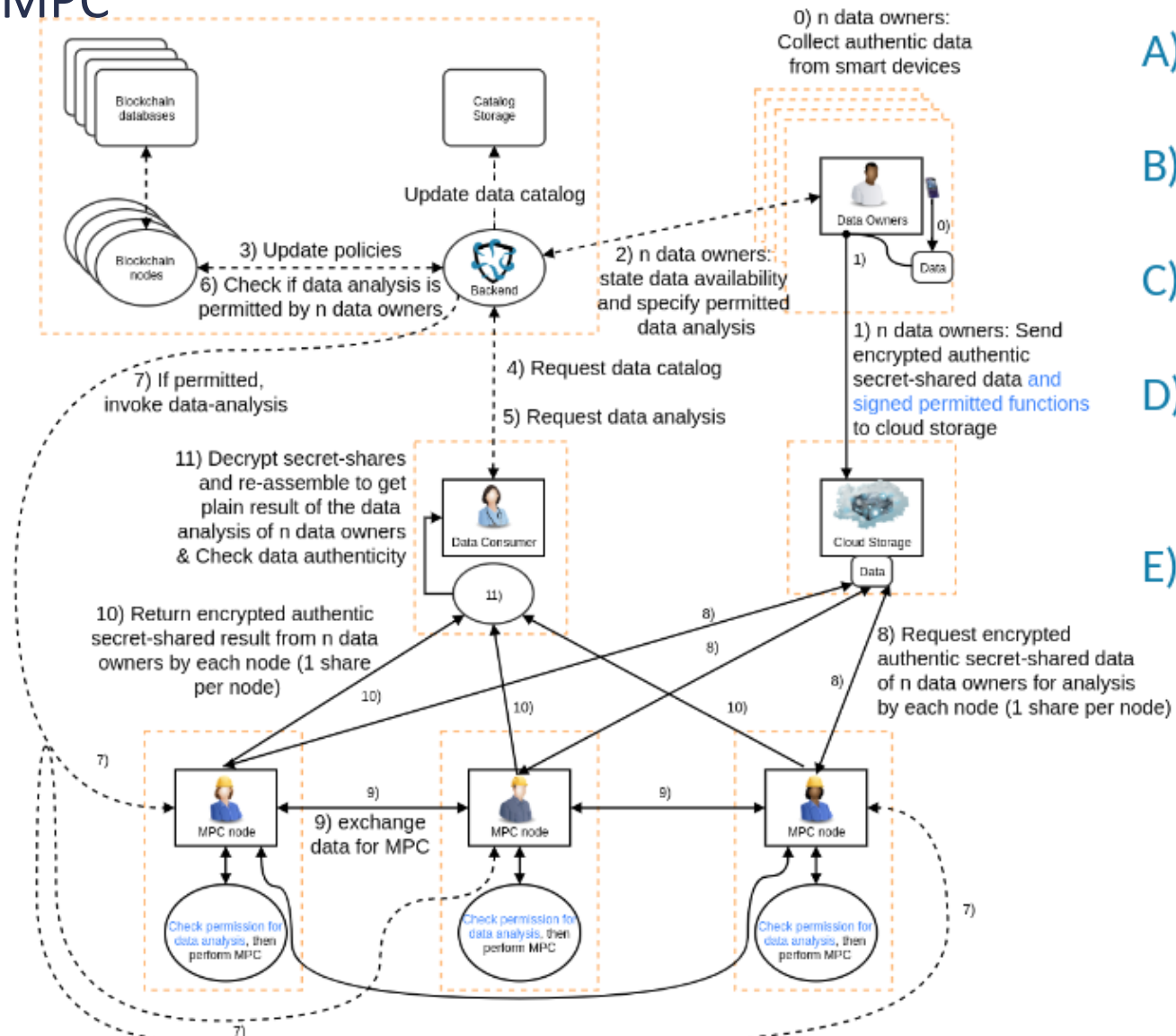
- SSI components



Main achievements M1-M23 Crypto solution



- Data analytics using SMPC



- A) Data Owner uploads data
- B) Data Owner makes data available
- C) Data Consumer requests analysis
- D) MPC Nodes perform analysis (privacy-preserving!)
- E) Data Consumer gets (only!) result

Main achievements M1-M23 Marketplace solution



1. Definitions

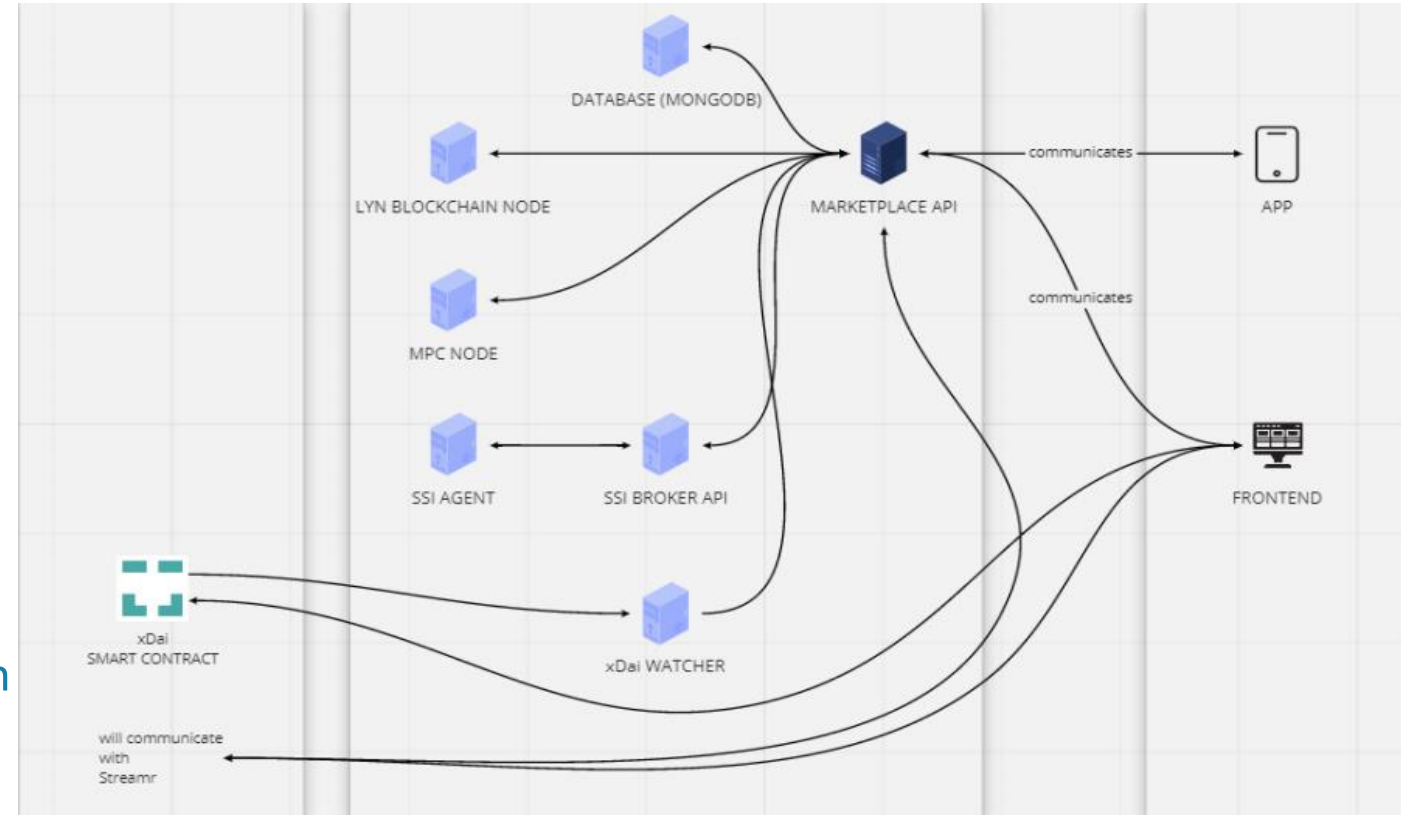
1. Legal framework implemented in architecture and front-ends
2. KRAKEN network topology and policies

2. Development:

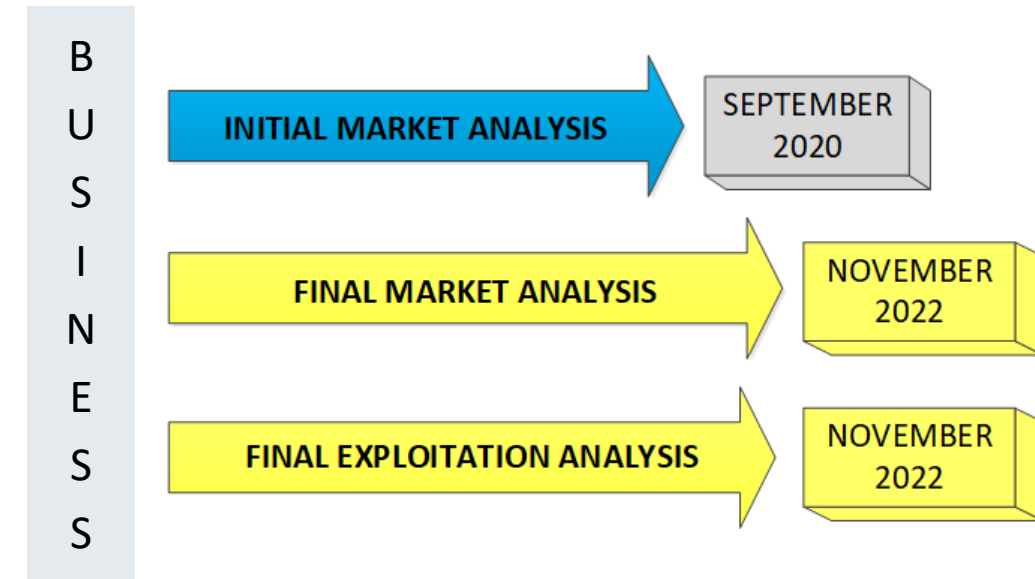
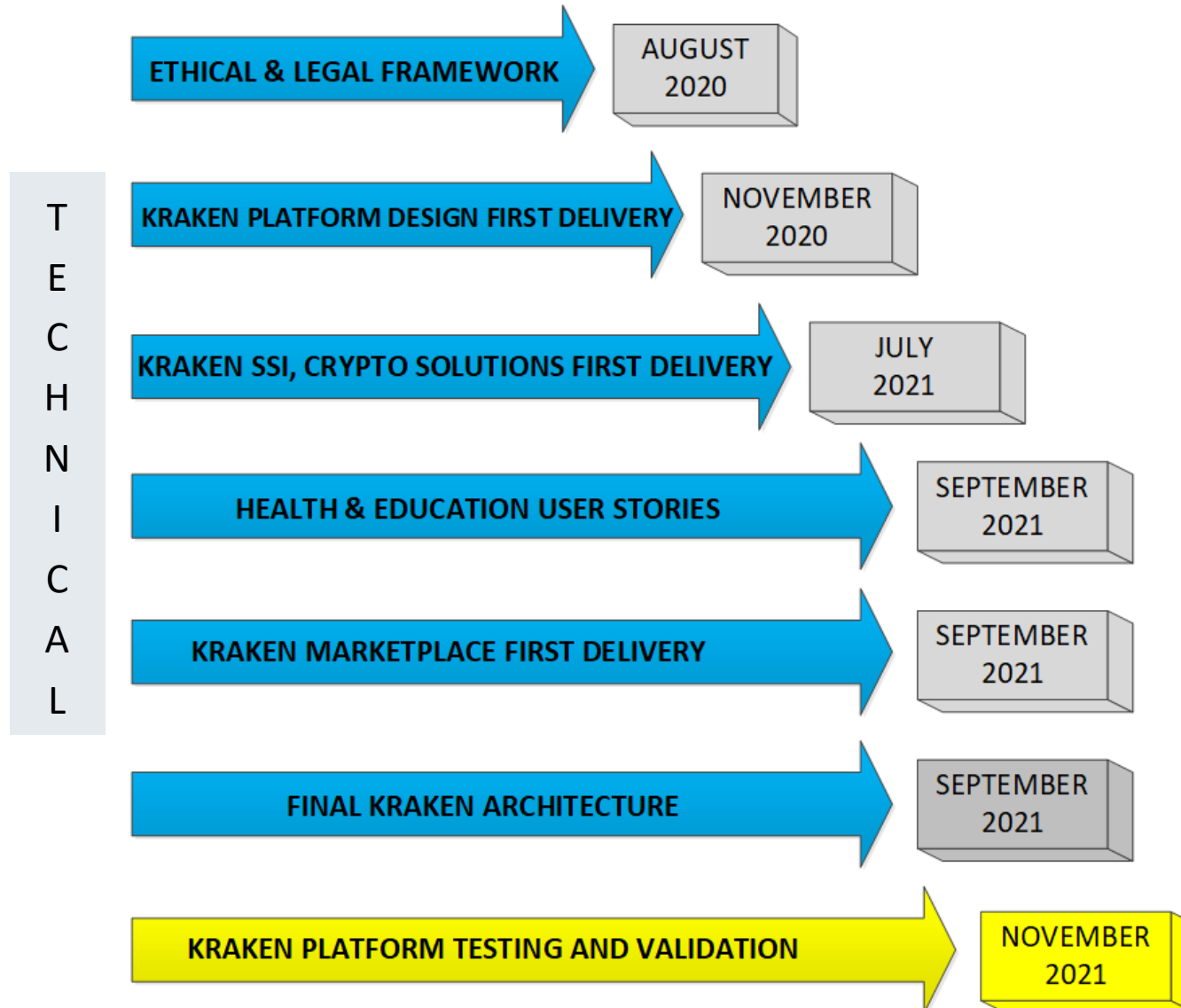
1. Back-end with integrated systems toward completion
2. User workflows for BIO batch data and EDU data exchange implemented
3. Preliminary legal validation

3. User and market requirements gathering:

- Multiple requirements gathering sessions with potential users
- Key business cases defined: batch data, Data Unions, SMPC
- FIAT payments system designed



Main achievements M1-M23



- SSI standards and specifications are evolving quickly and not completely defined yet. Need to react actively (e.g. EBSI/ESSIF).
- Integration of different technologies implies effort and coordination: SSI-marketplace, SSI-Crypto, SMPC-Marketplace.
- Marketplace user malicious behaviour need to be considered in deep.

EUROPEAN BIG DATA VALUE FORUM

#EBDVF2021

NOV 29th 14:00 - 15:00 PM

**'User engagement with privacy-preserving data sharing
platforms: challenges and opportunities'**



Organized by



EUROPEAN
BIG DATA
VALUE FORUM

NOV 29th 14:00 - 15:00 CET

Organized by



SEBASTIAN RAMACHER
(ATT)
Scientist of cryptography

EUROPEAN
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DAVIDE ZACCAGNINI (Lynxus)
Blockchain-based biomedical
data exchange at scale

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NOV 29th 14:00 - 15:00 CET

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ÁNGEL PALOMARES (Atos):
Senior Cybersecurity
and Privacy Expert



Thank you for your attention !

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Atos

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