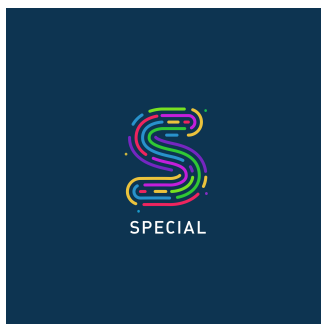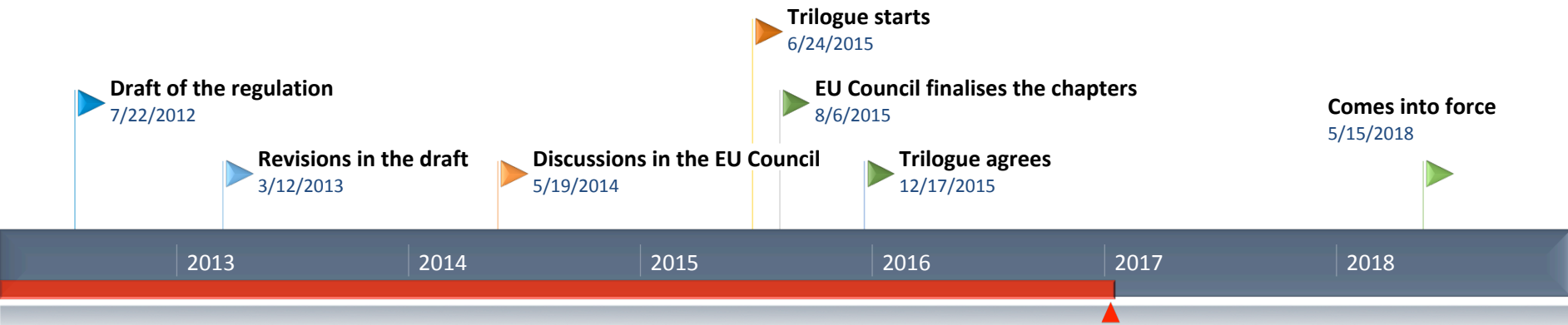Horizon 2020
European Union funding
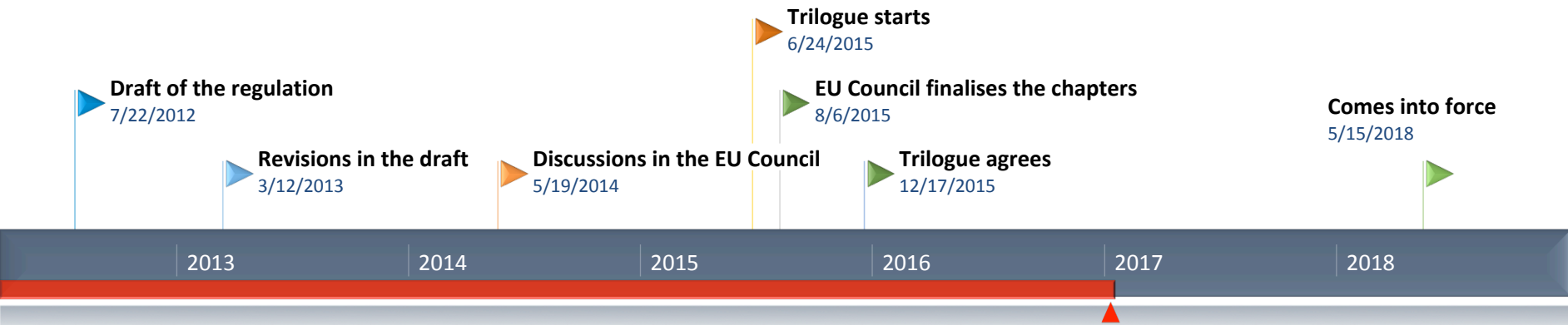for Research & Innovation

Scalable Policy-awarE Linked Data arChitecture for prIvacy, trAnsparency and compLiance

H2020-ICT-2016-1 Big Data PPP: privacy-preserving Big Data technologies (ICT-18-2016) call

Technological problem - General Data Protection Regulation supporting consent and transparency

Trilogue starts
6/24/2015

Draft of the regulation
7/22/2012

EU Council finalises the chapters
8/6/2015

Comes into force
5/15/2018

Revisions in the draft
3/12/2013

Discussions in the EU Council
5/19/2014

Trilogue agrees
12/17/2015

| 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |

General Data Protection Regulation

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2013 2014 2015 2016 2017 2018

Companies whose business models rely on personal data

Data subjects who would like to declare, monitor and optionally revoke their (often not explicit) preferences on data sharing

Regulators who can leverage technical means to check compliance with the GDPR

# Technological problem - General Data Protection Regulation supporting consent and transparency
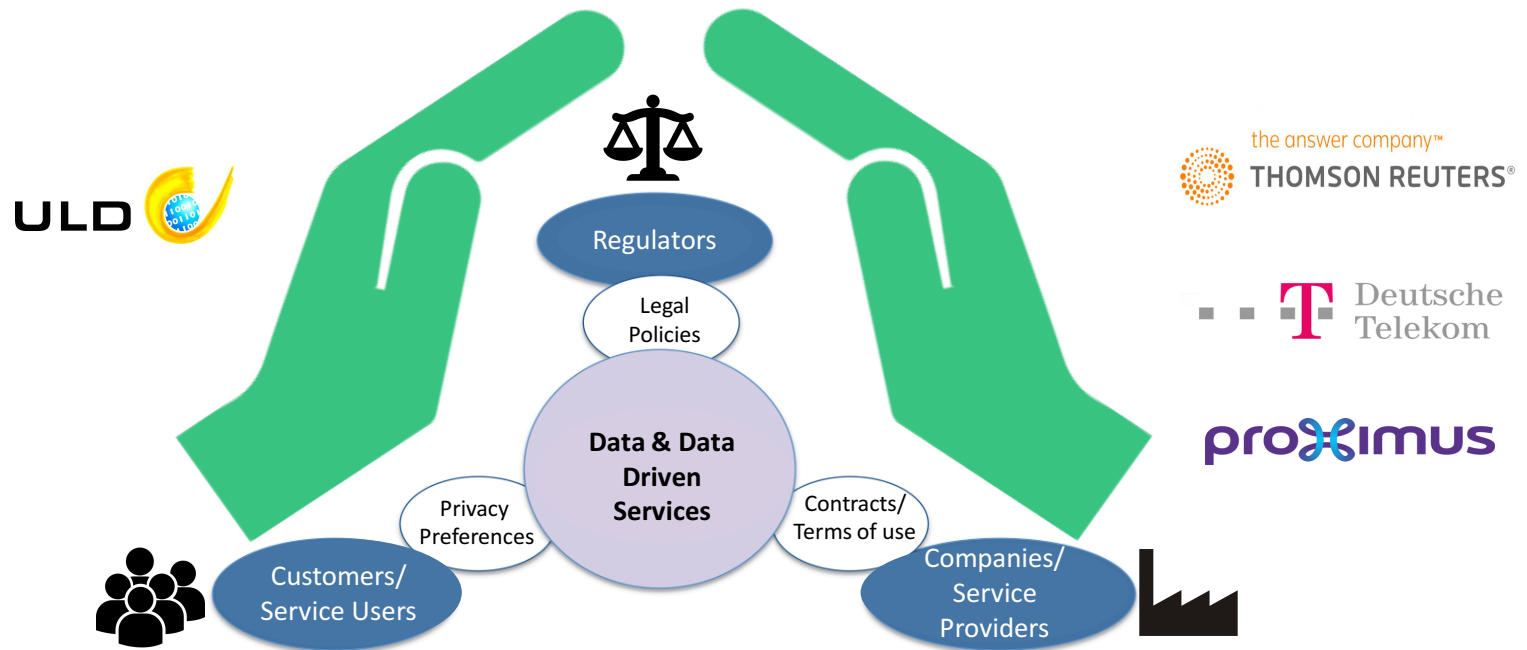
Technological problem - General Data Protection Regulation supporting consent and transparency

- Policy management framework
  - ❖ Gives **users control** of their personal data
  - ❖ Represents **access/usage policies** and **legislative requirements** in a **machine readable format**

- Transparency and compliance framework
  - ❖ Provides information on how data is **processed** and with whom it is **shared**
  - ❖ Allows data subjects to take **corrective action**

- Scalable policy-aware Linked Data architecture
  - ❖ Build on top of the Big Data Europe (BDE) platform **scalability and elasticity mechanisms**
  - ❖ Extended BDE with **robust policy, transparency and compliance protocols**

Software components - Foundations
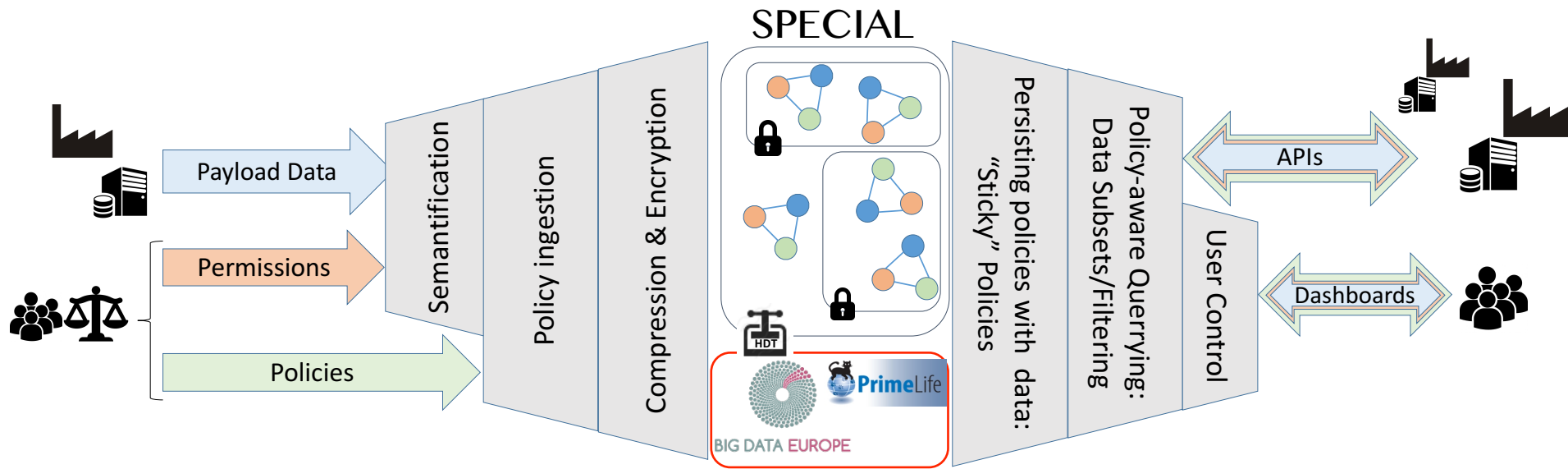
- **Big Data Europe** scalability and elasticity
- **PrimeLife** policy languages, access control policies, release policies and data handling policies

Blockchain Opportunities & Challenges

- Link events
- Interoperability
- Immutability

- Authentication & Access Control
- Protection of trade secrets
- Non-repudiation

- Logging incorrect data
- Not logging the data at all
- Rectification and erasure
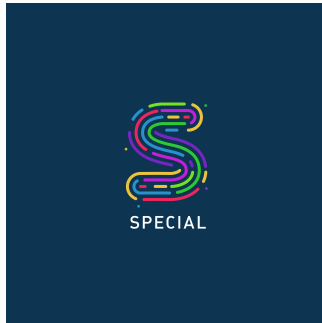
Scalable Policy-awarE Linked Data arChitecture for prIvacy, trAnsparency and compLiance

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