

Pilot Demonstrators and Industrial Use Cases



Data Marketplaces: Interoperability for the Internet of Things Industry 4.0 data for federated marketplaces

Edgar Fries, Siemens AG

i3-MARKET – The missing link between Europe's data marketplaces



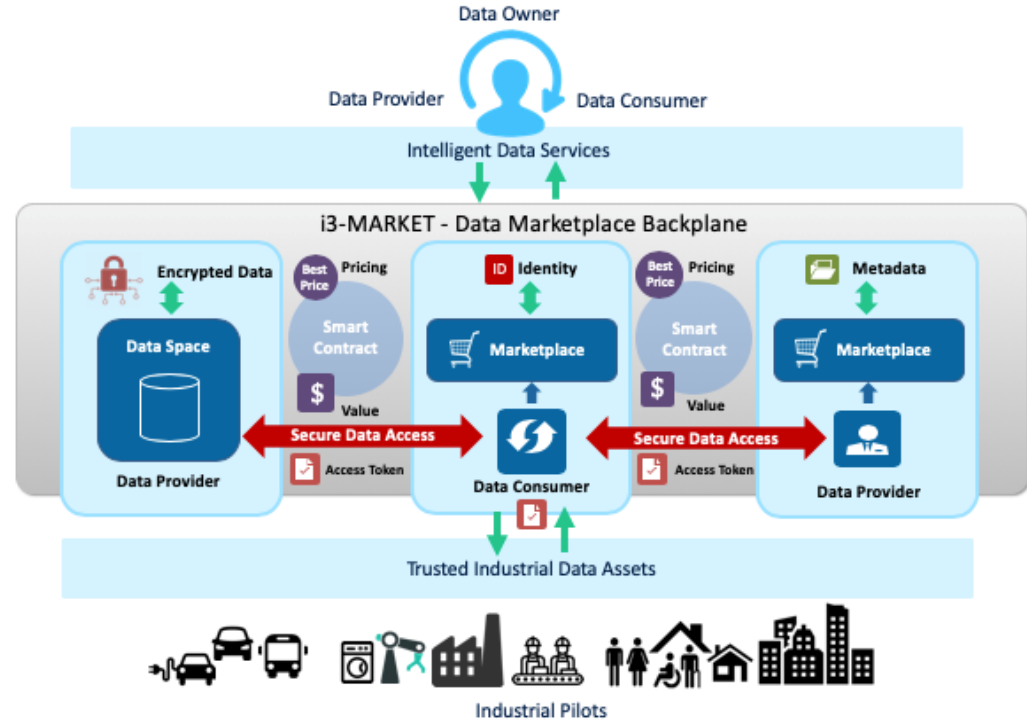
Data-driven collaboration between data providers and consumers

Challenges

- Today's data marketplaces are large closed ecosystems without support for data exchange across their boundaries.
- Provide technologies and solutions for a
 - trusted (secure, self-governing, consensus-based and auditable)
 - interoperable (semantic-driven) and
 - decentralized (scalability) infrastructure
- Sharing of sensitive personal or industrial data assets lacks high security standards for data platforms
- Lack of secure tools for incentivizing the data trading

Approach

An open-source i3-MARKET backplane with trusted and secure software tools for incentivizing data trading across various marketplaces.



i3-MARKET: Project participants

3

Universities

5

Large
Industries

5

SMEs

SIEMENS Atos

IDEMIA
segmented identity

IBM

GFT

Project
Coordinator:



NUI Galway
OÉ Gaillimh



UNIVERSITAT POLITÈCNICA
DE CATALUNYA
BARCELONATECH

European
DIGITAL SME
Alliance

guardtime



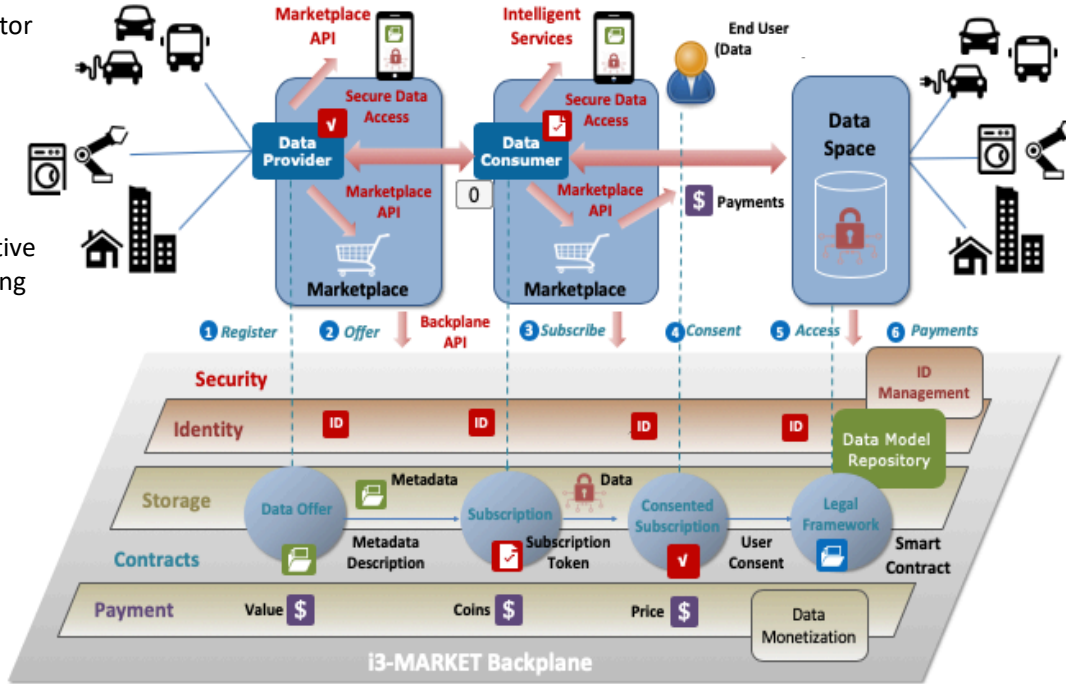
UNPARALLEL

Telesco Technologies
Information Communication Technologies

Vision of i3-MARKET

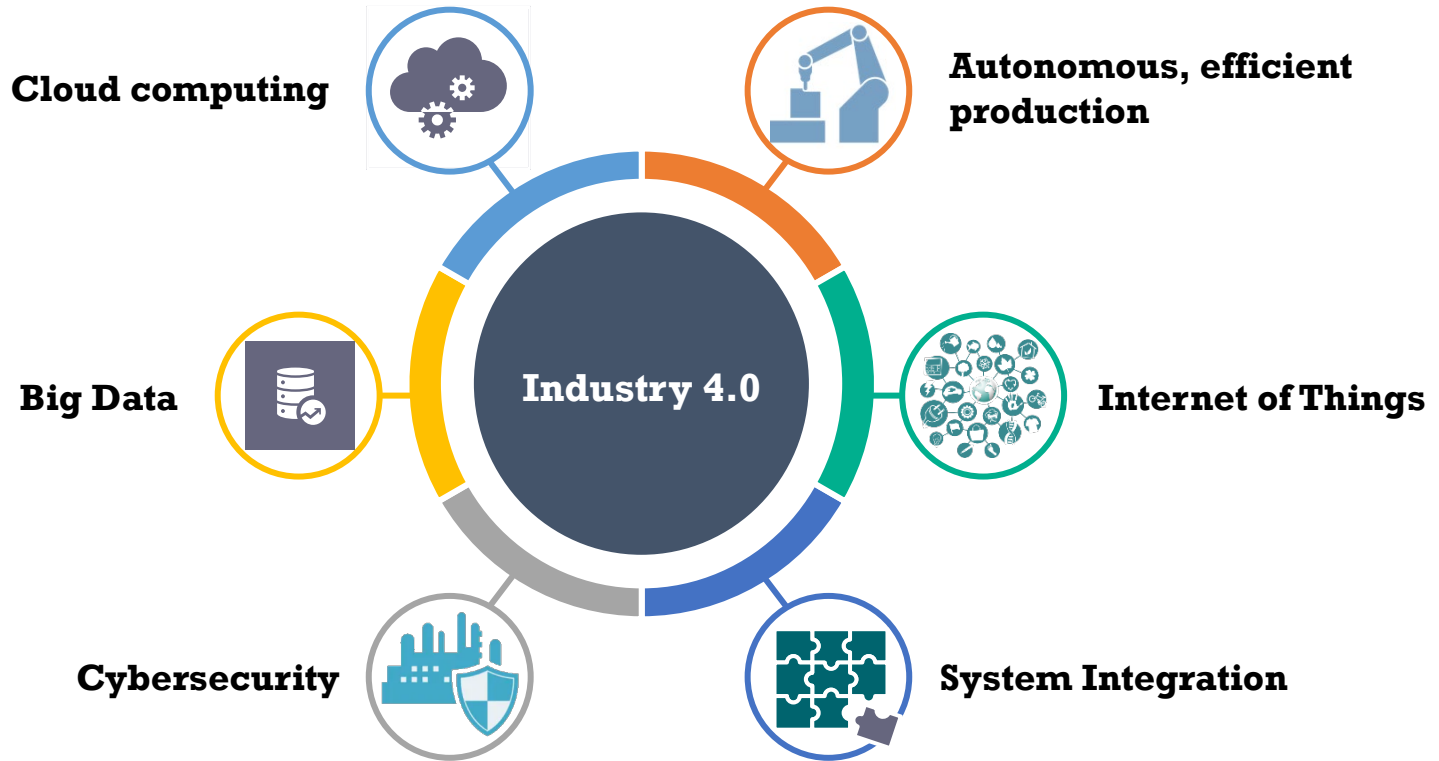
Three Industrial Pilots

- Automotive Sector by Atos
- Industry 4.0 by Siemens
- Wellbeing & Active and Healthy Aging by IBM

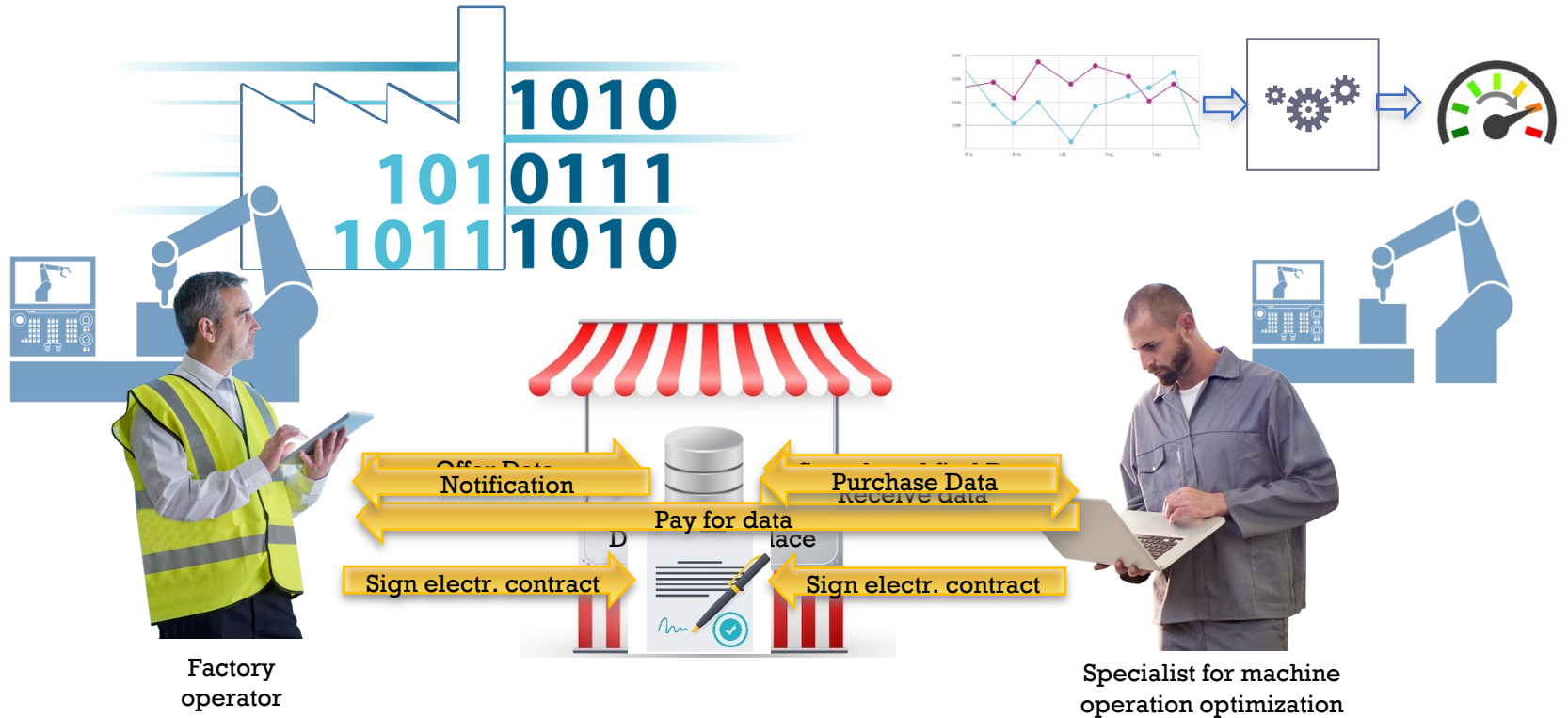


- Openness:** every marketplace is allowed to participate in the federated data market
- Fairness:** all participants of the ecosystem are treated equally
- Security and Privacy:** data owners control with whom their data is exchanged
- Interoperability:** missing standards, common APIs and shared semantic data models
- Consensus-based ruling:** all stakeholders have equal voting rights and must reach consensus to extend the network, change policies, etc.
- Incentivizing:** data providers are motivated to offer their data assets
- Non-centralized control:** mitigates the risk that a central authority can control and dictate policies, prices, etc.

Industry 4.0: Key Elements



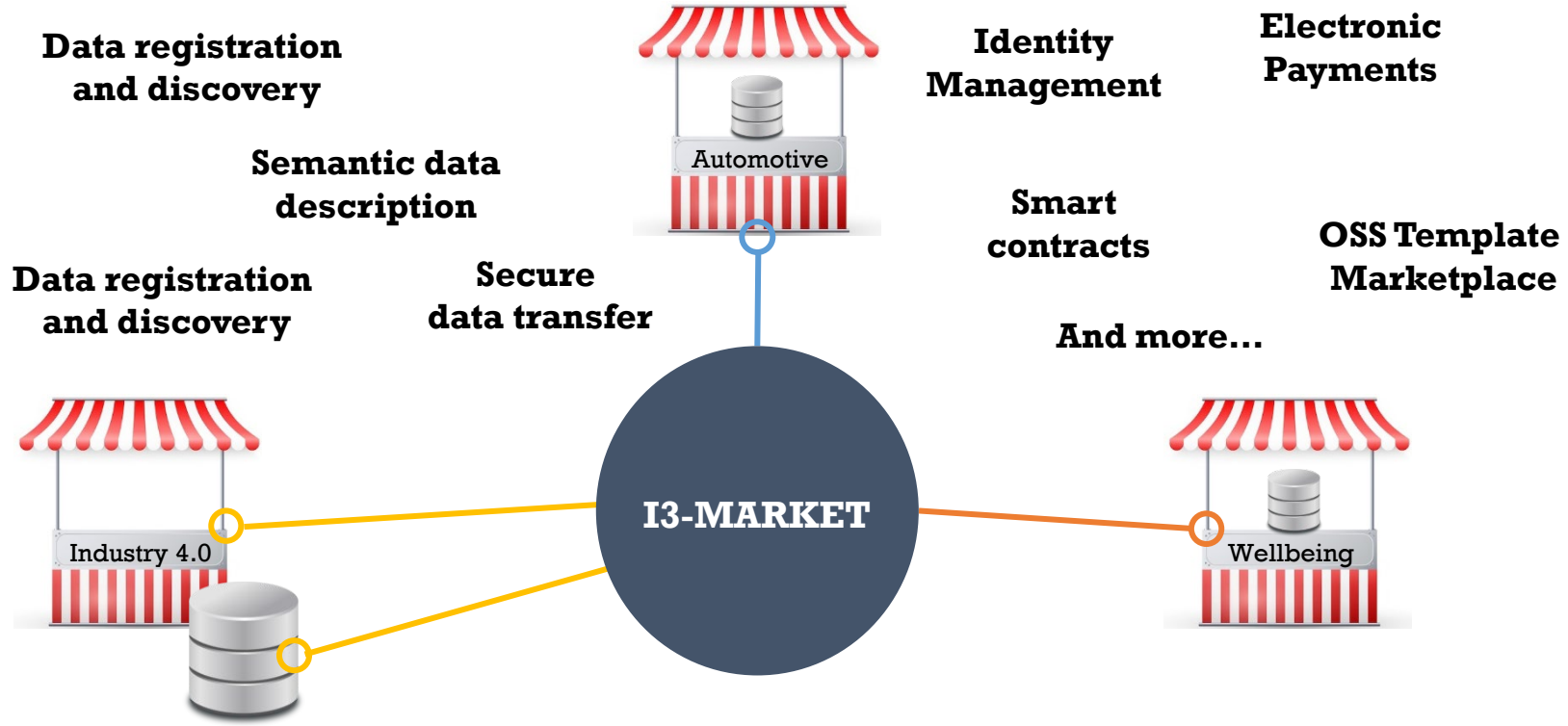
Use Case: Optimization of production machines



Factory operator

Specialist for machine operation optimization

i3-MARKET offers services to marketplaces



| Contact

Published by Siemens AG

Edgar Fries

Senior System Architect

T SSP ADM-DE

Freyeslebenstr. 1

91058 Erlangen

Germany

E-mail: Edgar.Fries@siemens.com