

Impact of Blockchain-Technology on the Finance-Function of an Industrial Company



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WHAT WE DO

The Frankfurt School Blockchain Center was **founded in 2017** by Professor Philipp Sandner. We are a **think tank and research center** which investigates implications of the blockchain technology for companies and their business models.



Consulting,
prototypes
& research



Education
& trainings



Startups advisory
& incubation



Community
& events

FACTS AND FIGURES



16 employees



100+ presentations worldwide



10 seminars



15+ research papers



20+ events



3 conferences



15 consulting & research projects

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An aerial photograph of a city skyline, featuring several prominent skyscrapers. The image is overlaid with a semi-transparent blue filter and a white network diagram consisting of interconnected nodes and lines, suggesting a global or digital network. The text is centered over the image.

Synchronizing the flow of goods, money, and accounting



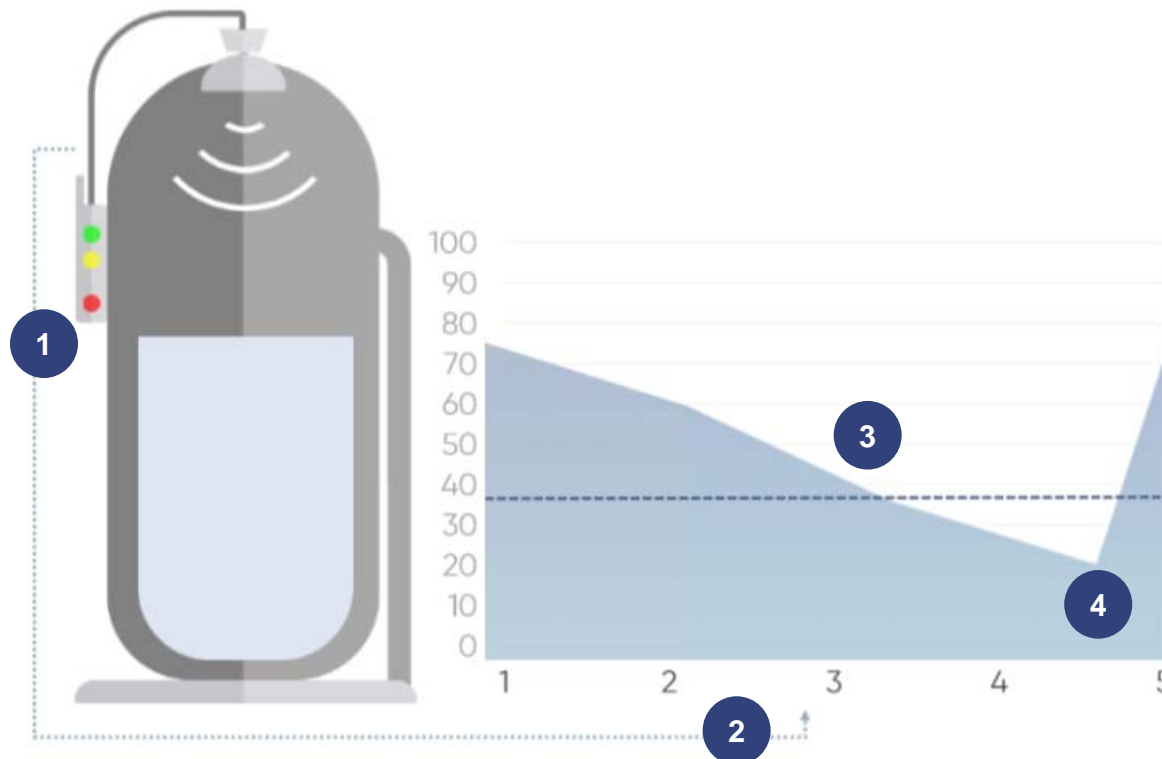
Vendor managed inventory

IoT connected sensors make the difference in automated supply chains

In order to understand the idea of a consumption-based **live payment**, it makes sense to look at a concept for **consumption based supply**.

In this Case, VMI. „**Vendor managed inventory**“ is a logistical method in which a **producer assumes responsibility** for the inventory in the **customer warehouse**.

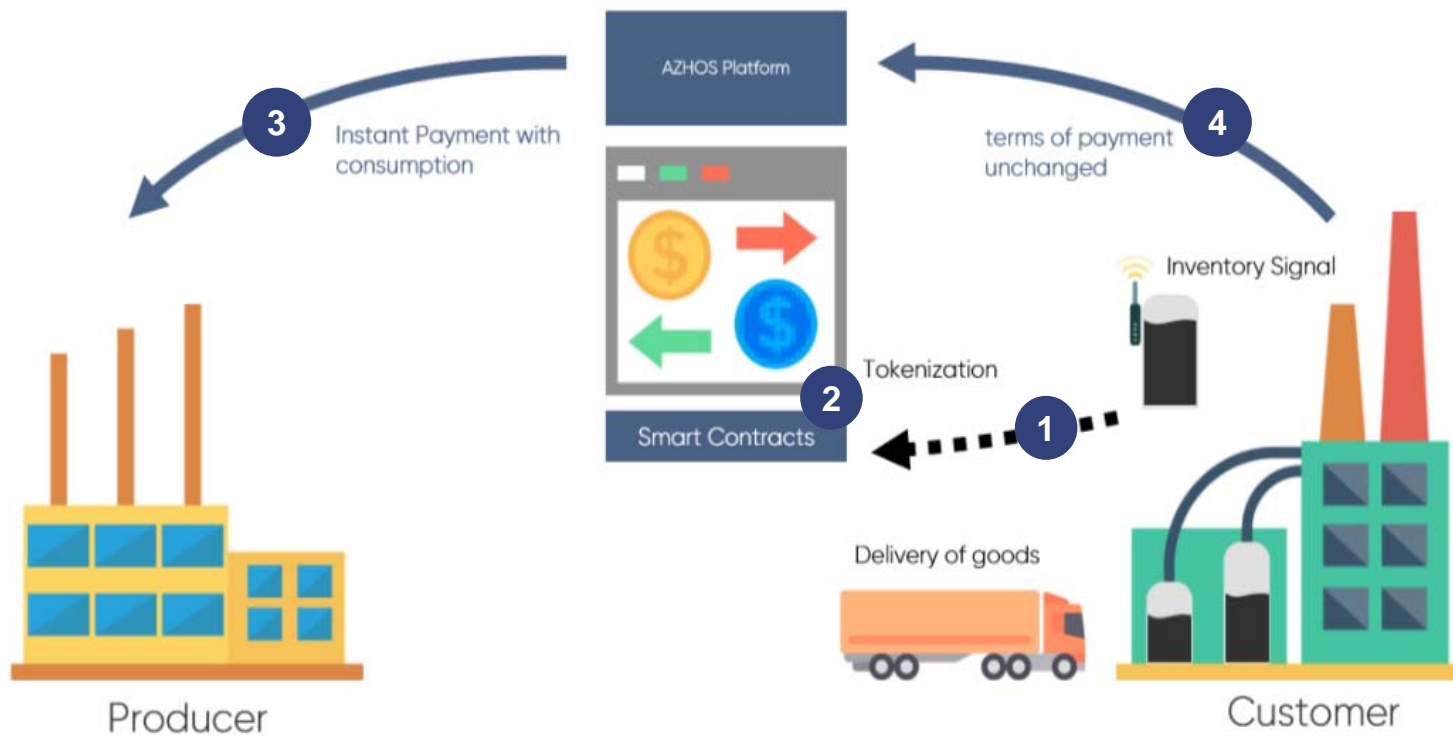
The prerequisite of vendor-managed inventory is that the **producer has access to the stock of his customer**. This insight is made **using modern sensor technology** for the visualization of stocks.



- 1 Sensor technology measures the **filling level** of a specific good and **transmits it** to the producer
- 2 On basis of this data the producer can **supervise** the different levels in **real-time**
- 3 If the filling level drops below a **predefined limit** an **automated order** of the specific good is executed
- 4 If the shipment **reaches the warehouse** the filling level is updated

Visualization procedure

How can Azhos combine the advantages of all systems and make customers benefit from it?

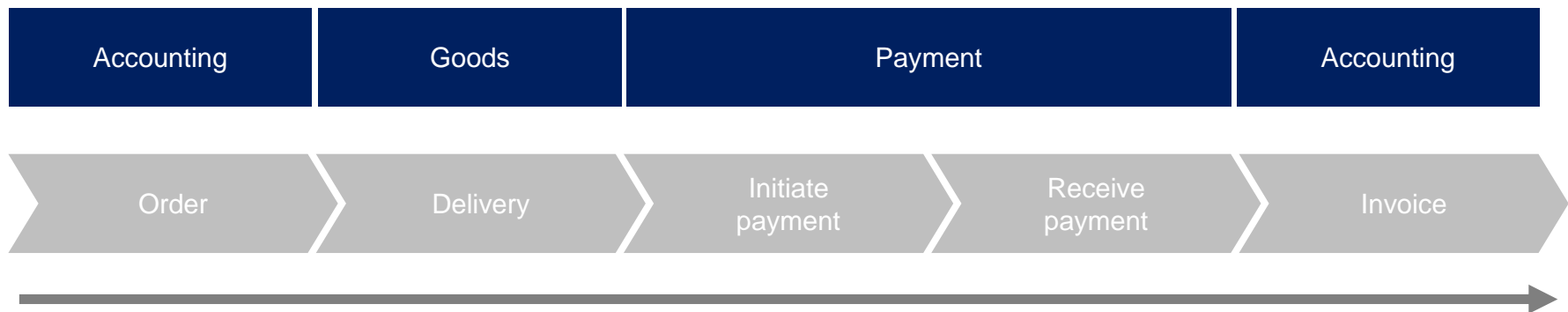


- 1** As the sensor reports a shortage it places new orders on the Azhos platform
- 2** The value of the shipment is changed into Tokens and therefore can be financed
- 3** As the sensor system measures a consumption the payment with tokens takes place simultaneously
- 4** If the shipment **reaches the warehouse** Customer pays in real-time; asynchronous payment can be bridged through factoring **house** the filling level is updated

Order and Payment

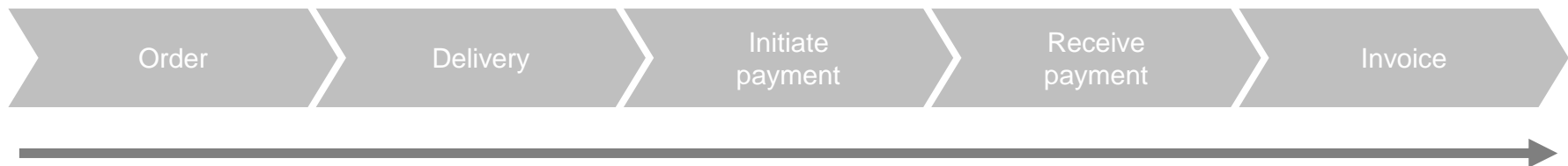


Traditional world





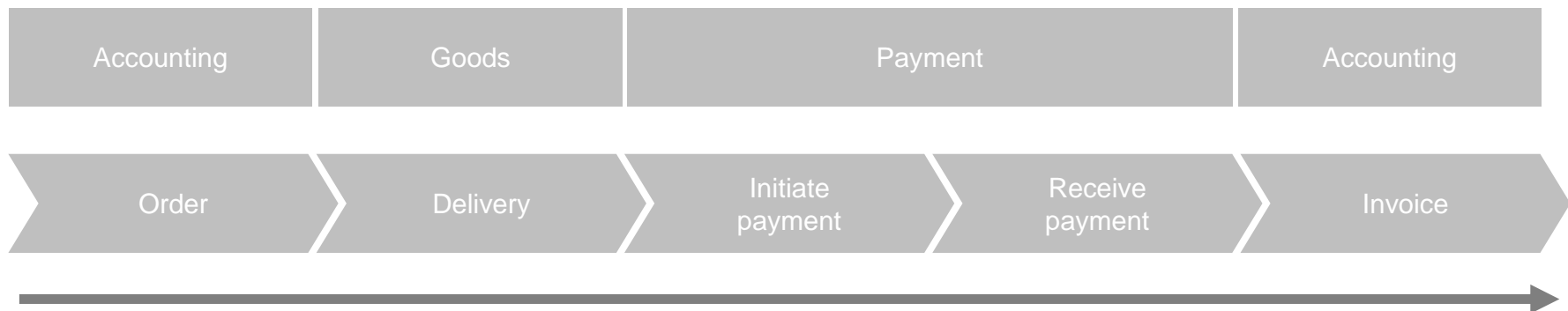
Traditional world



Blockchain: smart contracts, EUR-based



Traditional world

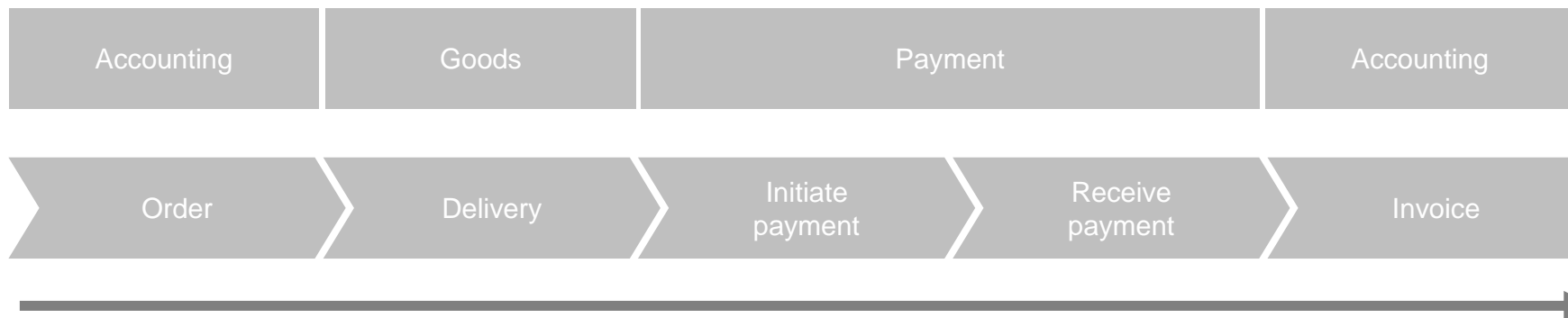


Blockchain: smart contracts, EUR-based

IBAN/wallet gateway to connect
existing world and still allow smart contracts



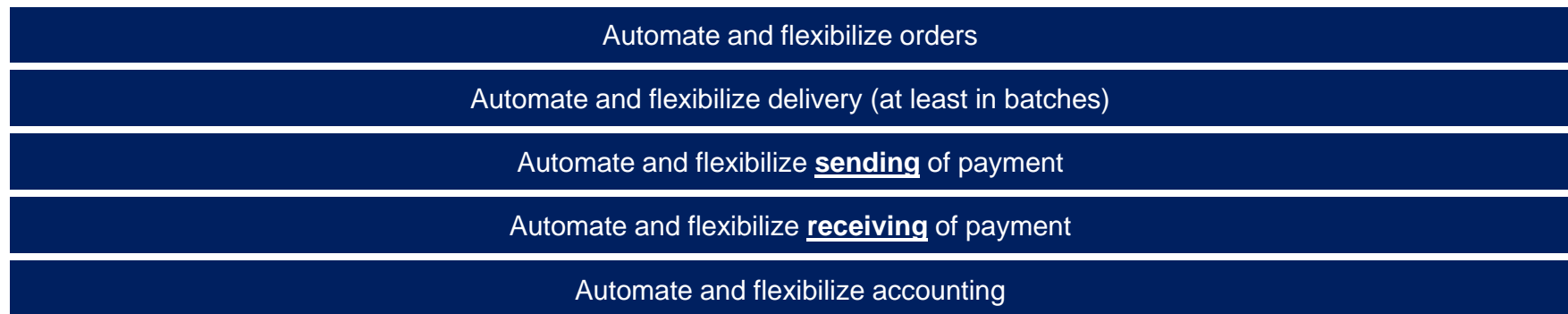
Traditional world



Traditional world



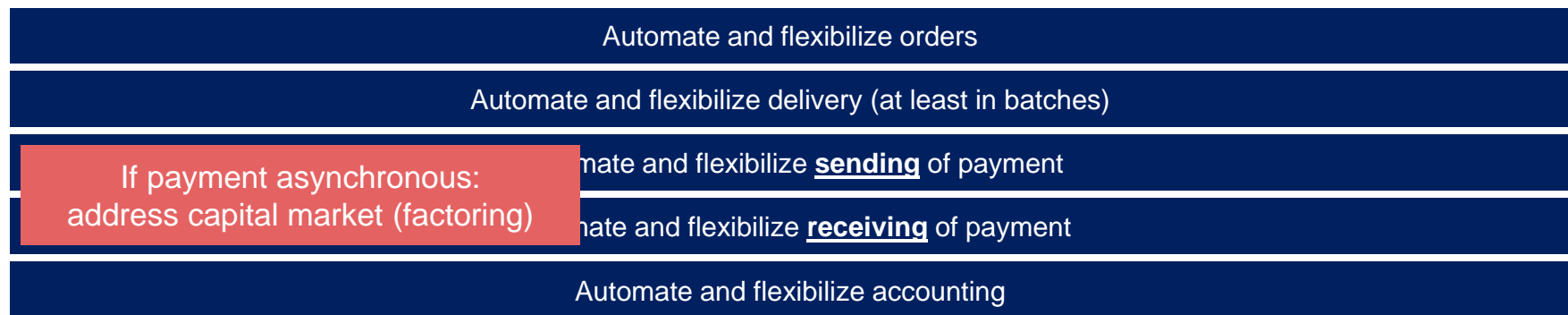
Blockchain: smart contracts, Euro-based



Traditional world



Blockchain: smart contracts, Euro-based



Traditional world



Clear benefits of blockchain technology

1

Decreased costs for accounting processes
through automation of accounting

2

Reduction of working capital
through measuring assets by sensors

3

Improving cash management and treasury
by smoothening cash flows

4

Contraction of balance sheet
because securitization of silo is possible (off balance)

These are financial metrics: time for the CFO to take action

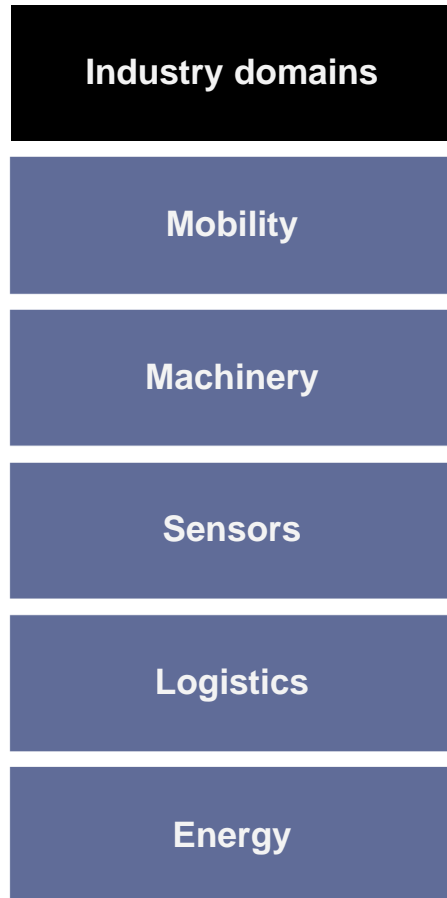


Connecting sensors of supply silos directly with automated purchasing processes. Silos will re-stock themselves and conduct **automated payments denoted in Euro** with smart contracts.

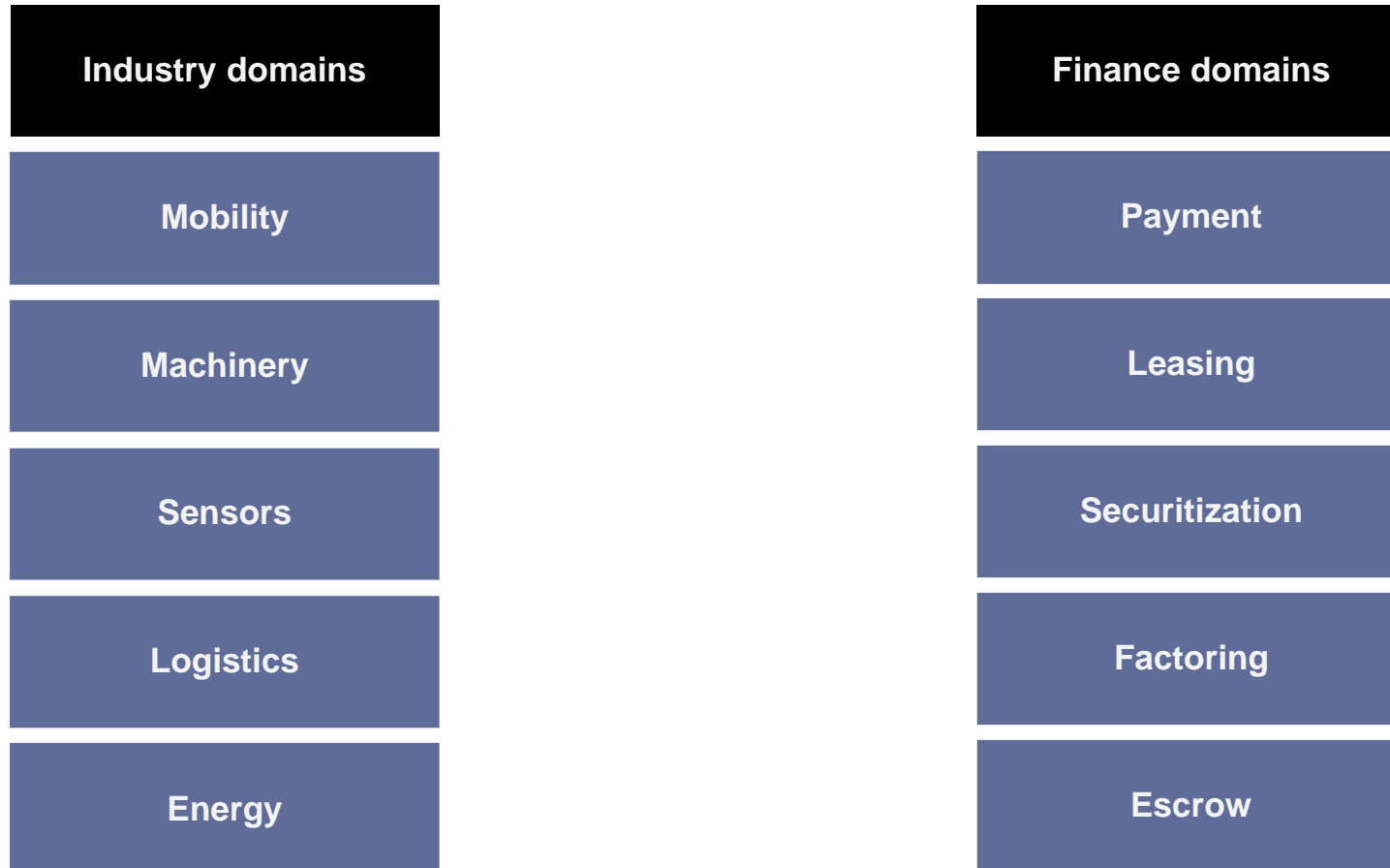
Allow IoT devices and machines to handle secure and instant payments with a E-Money license. Enabling logistics use cases.




Industry meets finance on the level of devices



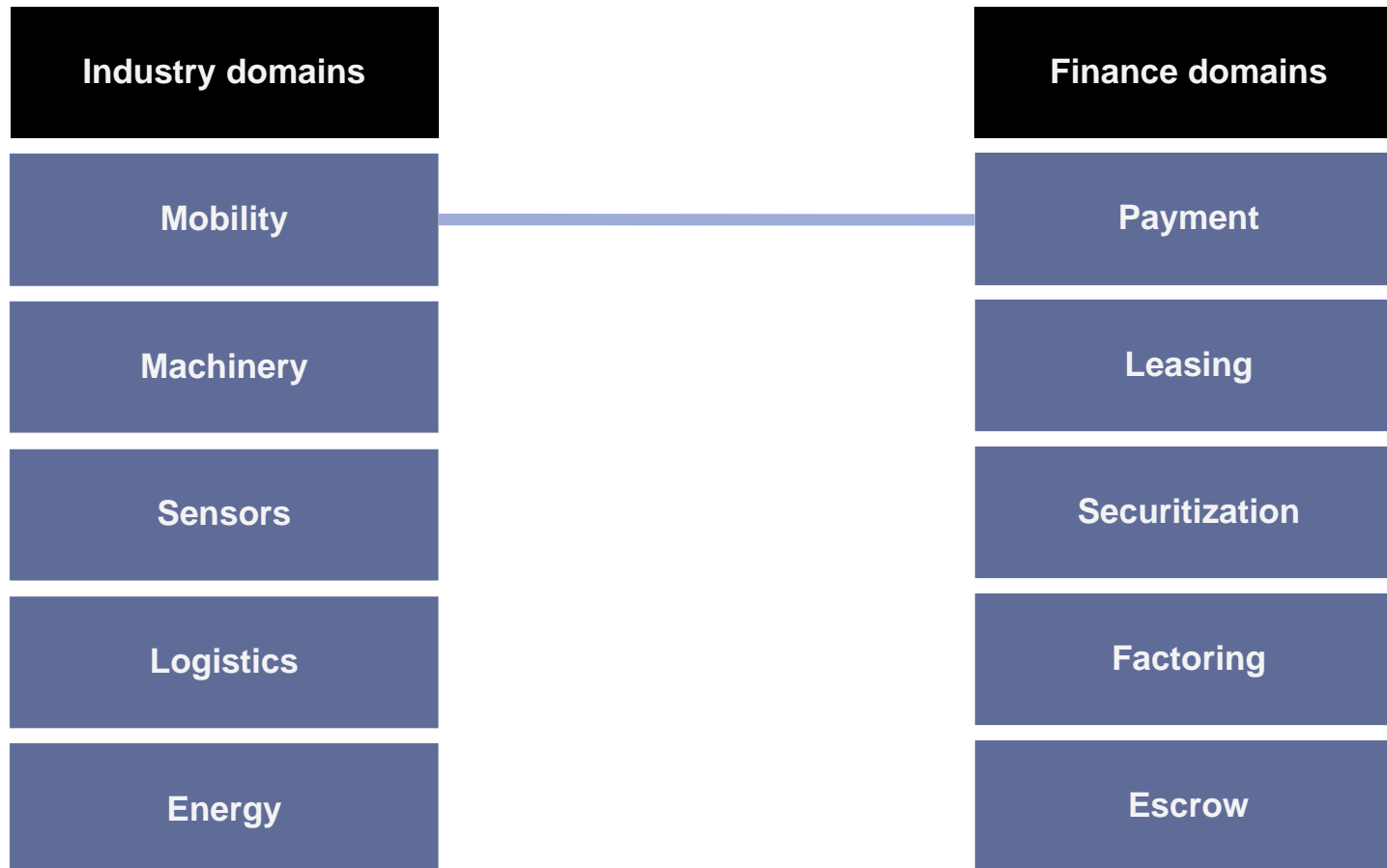
Industry meets finance on the level of devices



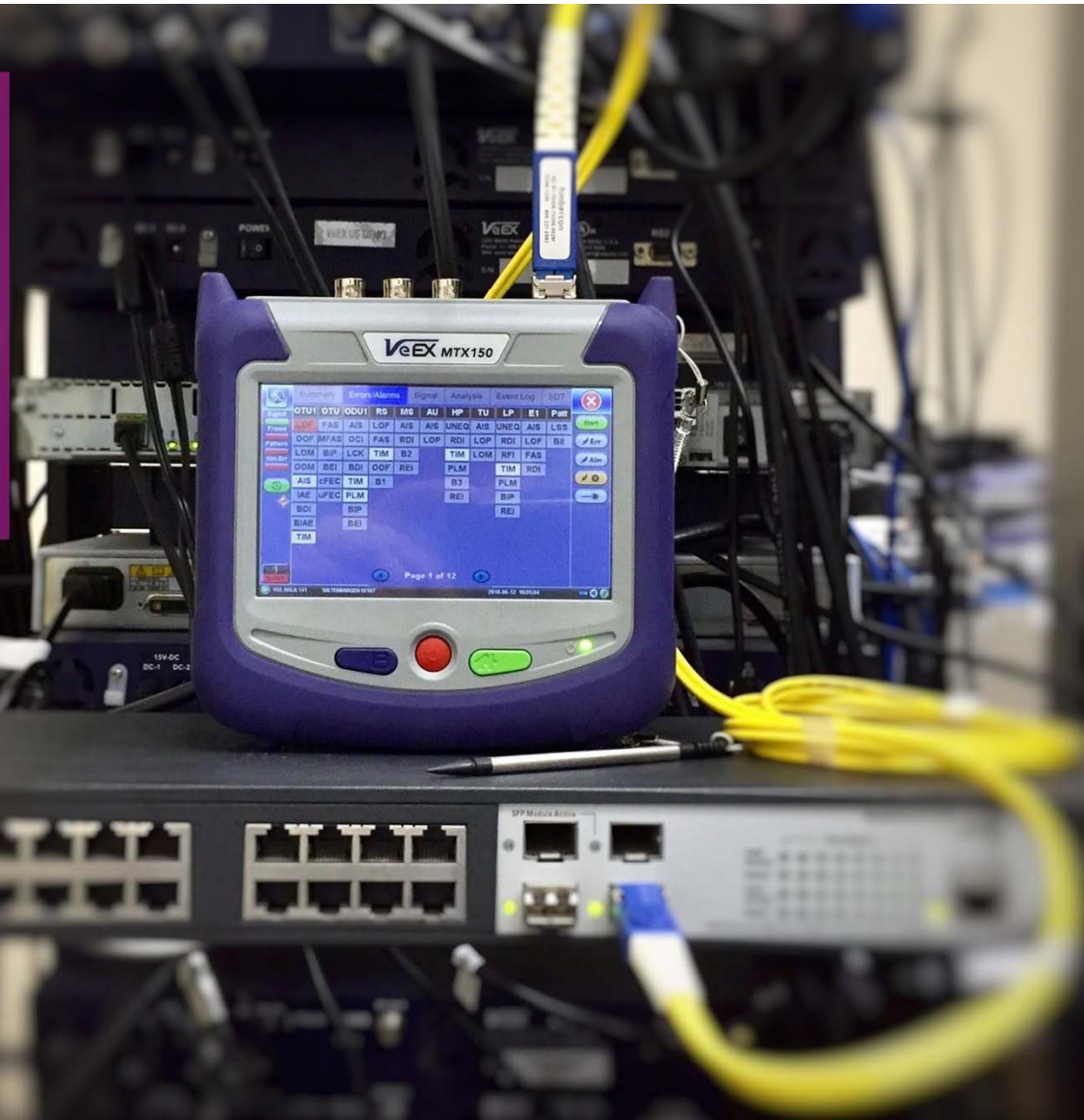
A white semi-truck with a chrome grille and a white trailer is driving on a two-lane asphalt road that curves to the right. The road is flanked by dense evergreen forests. In the background, majestic mountains with patches of snow rise under a blue sky with scattered white clouds. A small dark car is visible further down the road ahead of the truck.

Payments between vehicles in traffic – combining smart and IoT devices. This allows autonomous vehicles to pay, bill and receive Euro in an automated way.

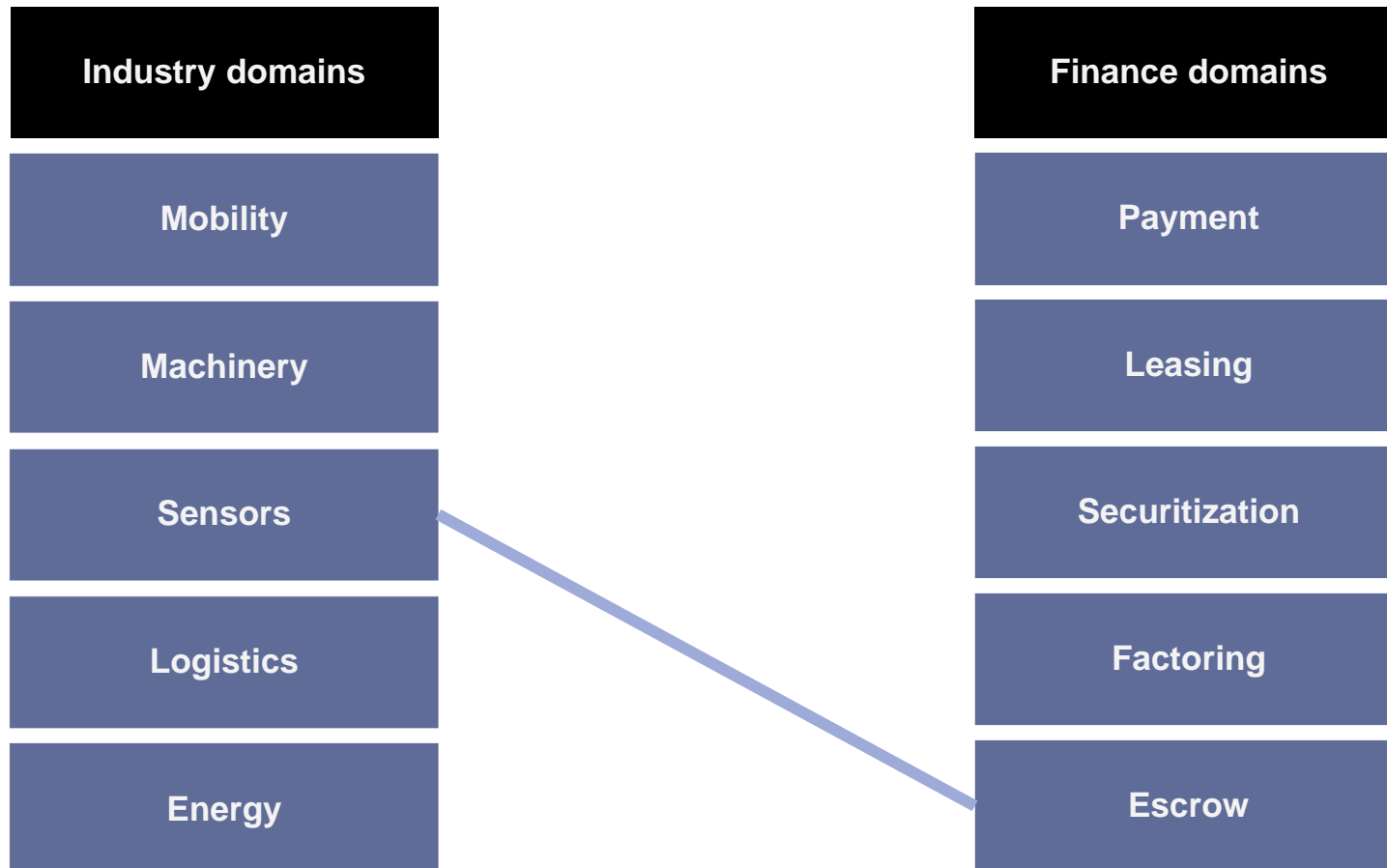
Industry meets finance on the level of devices



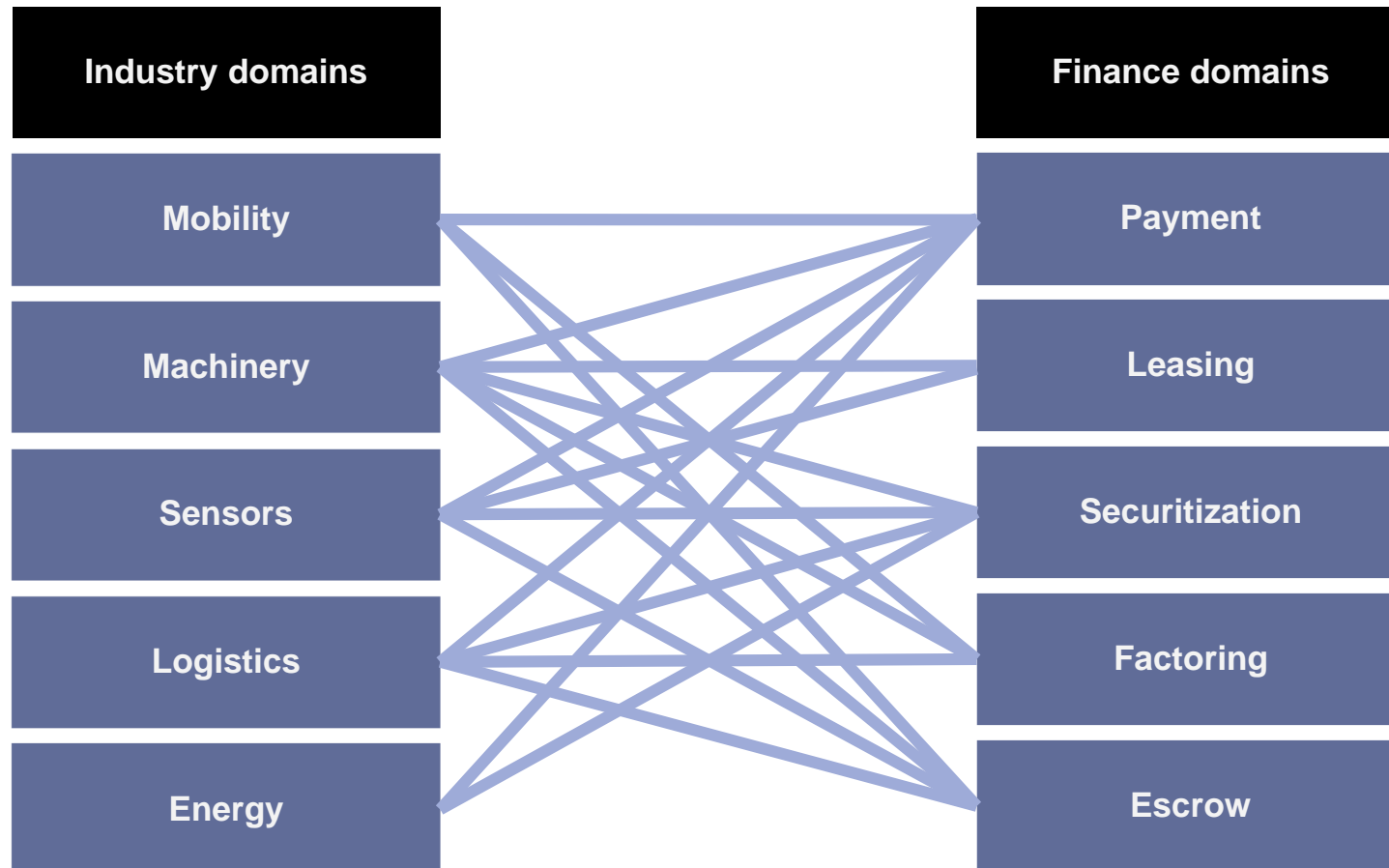
New business models will be possible:
e.g. a weather service, where sensors automatically sell data for Euro.



Industry meets finance on the level of devices



Industry meets finance on the level of devices



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