# DIGITAL WORLDS OFFER  INFINITE POTENTIAL.

## FOOD

Food industry processes can be mapped – from the smallest link in the supply chain through production and the cold chain to the consumer – using trustworthy sensor data. UBIRCH seals production data directly at source. This offers the advantages of high transparency, easier recalls, and automated legally compliant documentation. Equally important benefits are the credibility of eco and organic labels as well as consumer confidence in digital production chains.

## DOCUMENT CERTIFICATION

Fraudsters are always inventive. And forge much more than just products. Test marks, certificates and attestations are also being counterfeited. The more professional they are, the harder it is to detect their work. And when it is detected, the damage has usually been done. UBIRCH recently developed a block-chain-based procedure for forgery-proof documents that, among other things, prevents fraud and manipulation, and digitally underlines the value of certificates. To achieve this, this innovative solution anchors each document to relevant details in the block chain.

## PHARMA

In the future, pharmaceutical companies will be able to use IoT to digitally map processes involving everything from the supply of chemicals through production and specialist transport to finished packaging on-site at the customer. UBIRCH creates the preconditions for sensor data authenticity, legally compliant documentation, and process chain transparency across all participants.

## ENERGY SUPPLIERS

The energy industry is in a state of upheaval. Rather than large centralized plants, in the future decentralized infrastructures comprising sensor-rich wind turbines, PV systems, and private-home solutions will come to dominate the energy landscape. UBIRCH enables every producer and consumer, no matter how small, to reliably record and bill every transaction. Likewise, thanks to UBIRCH, the execution of critical switching commands in the Smart Grid will become dependent on local verification.

## MANUFACTURING

Networked data-driven production is becoming increasingly commonplace thanks to sensor-rich networks that enable suppliers to deliver just the right parts and parts data to the manufacturer. During production, machines log data into the blockchain and invoice their use directly in the ERP system. But this only works if the data provided by the machines is completely dependable and enjoys the trust of all those involved, regardless of their location.

## SMART CITIES

Whether it is to record air quality, to indicate when garbage cans need emptying, or to turn the traffic lights green to let an ambulance through, IoT sensors are being increasingly used in cities. UBIRCH guarantees data integrity – something that is essential to the safe operation of the city's infrastructure, the provision of digital services, as well as full public transparency.

## INSURANCE

In the future, insurance companies will not only be able to calculate risks individually using IoT sensors built into insured objects but, thanks to UBIRCH, also settle claims automatically using smart contracts. Since the insurer can verify data sealed at source at any time, this is even possible if the insurer is not directly connected to the insured object's IT.

## MEDICAL DEVICES & HEALTHCARE

Digitalizing the health care system represents a mammoth task. In the future remote-controlled robots will conduct surgery, samples will be analyzed using telepathology, and critical medical devices will generate forgery-proof log files for administered drugs and body measurement data. The UBIRCH solution guarantees the reliability of these data and stores them in a legally compliant manner.