

ARXUM FACT SHEET

ARXUM Team

ARXUM spawned from a German based, industrial system integrator for production technology and digitalisation in the field of Industry 4.0.

The founders of ARXUM are serial entrepreneurs and have several decades of professional experience. Their areas of expertise are software development and management of listed and private companies. The founders have also help companies grow from a 0 to more than 200 million EUR turnover. ARXUM's core team consists of software developers of embedded systems, application programming, industrial PLC systems and the blockchain.

The advisory board experts come from industrial production and universities. Our advisors also have expertise in blockchain technologies and communities.

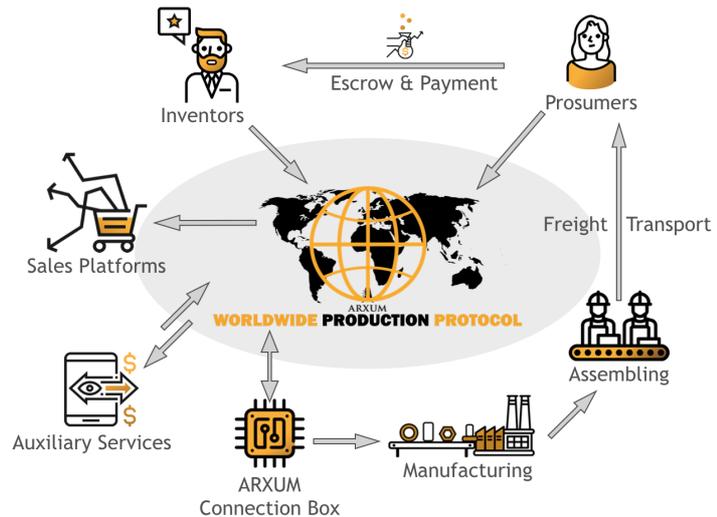
ARXUM Connection Box

ARXUM has developed the ARXUM Connection Box (ACB). This industrial IoT-device contains a **hardware wallet** based on a TPM2.0 crypto-processor. It also contains a set of non-extricable private keys that let it interact directly with the blockchain. Connecting the ACB is very simple. It has digital and analog inputs, Meterbus, Step 7 and OPC-UA protocol for PLC communication. The ACB can directly and securely sign blockchain transactions. That way machine data and machine operations are

About ARXUM

ARXUM provides innovative solutions within the manufacturing industry. The business uses blockchain technology to connect users, manufacturers and suppliers on an entirely new market place.

ARXUM's worldwide production protocol makes this possible.



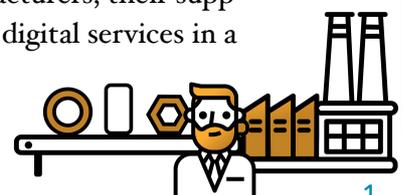
Today, manufacturers in the industry spend a lot of time negotiating, communicating, passing orders, contacting suppliers and managing IT infrastructures. Imagine if producers would be able to speed up their processes without costly IT integration, could provide customized products at no extra cost or would be able to tap into a large international market place. With ARXUM's worldwide production protocol, all this is possible. Manufacturers who connect to the protocol enter an entirely new era of new manufacturing possibilities with manifold opportunities to increase their revenue.

The protocol and the blockchain

ARXUM is currently developing the worldwide production protocol for the supply chain. It is completely new and based on blockchain technology. Because it lowers costs, increases processing speeds and delivers end-to-end visibility into production fees, timing and delivery, the protocol outperforms today's infrastructure. This particularly makes it possible for manufacturers to offer customized products for prices at mass production level. 'The protocol will provide a secure connectivity, worldwide accessibility, and rich data exchange.

The use of smart contracts

The protocol binds several manufacturers, their suppliers, transport agents and further digital services in a Ricardian smart contract on the blockchain. The smart contract



signed and integrated into blockchain applications.

Industrial Partners

ARXUM has established long-term contacts with industrial partners. The partners will participate in the first implementation of the ARXUM worldwide production protocol. A target-oriented approach secures industrial applicability and relevance.

Current Status

The ARXUM Connection Box is fully developed and ready for use. A connection of a production machine to a Blockchain application using the ARXUM Connection Box successfully took place in early March 2018.

A first initial reference application for ARXUM's worldwide production Protocol will be developed by April 2018. When finished, customers will be able to send a production order for a customized product directly to a production machine using the AX token. The order and its execution are documented on the blockchain, giving the user production tracking transparency.

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has integrated blockchain features: **protection of IP** (schematics and blueprints), **proof of existence** of goods (e.g. through the ARXUM Connection Box), and **proof of ownership** for customized products. The smart contract can also hold legal agreements on social standards and quality norms. That makes **auditing** very easy (e.g. through state authorities). Escrow and automated **payment** settlement are also included.

Utility Token

The AX utility tokens play an important role in the ARXUM production protocol.

1. Tokens are required to fuel and execute a smart contract in the ARXUM production protocol.
2. While transaction payment is possible in other currencies, payment in ARXUM tokens provides a discount to users.
3. Tokens have to be kept as a deposit by manufacturers. The deposit depends on the size of the manufacturing capacity.
4. Keeping a Tokens deposit offers special features of a premium membership for users of the ARXUM production network.
5. Tokens are used as airdrops to reward new users and as rewards for user activities.

Market Potential

All major strategy consultants like McKinsey, Deloitte, KPMG or Boston Consulting Group confirm the need for cross-linked production networks, i.e. horizontal integration. They predict, that companies will spend an incremental €250 billion on IoT in 2020 (over and above their normal technology spending) to drive technological change, services and IoT-applications growth (BCG, 2018).

Business Model

ARXUM's business model is based on the AX utility token. If the ARXUM Production Protocol is used by more and more users and accepted by more and more manufacturers and service providers, the demand for tokens will increase.

While manufacturing costs can be paid in other currencies, smart contract **transaction fees** are paid in AX tokens. These AX tokens are then frozen for a period of 3 years, so each execution of a manufacturing order reduces the number of AX tokens in circulation.

It is in the interest of ARXUM and the participants in the production network that all participating business partners are trustworthy. This is achieved by imposing a security deposit for the producers and service providers. The manufacturer's deposit obligation further reduces the number of tokens in free circulation. And because production goes on and on, the number of tokens in circulation is continuously reduced.

ARXUM generates revenues from transaction fees for production orders received by manufacturers and software license fees for the provision of interfaces to existing company IT-systems.