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The power of blockchain for your company

Dear business owner,

Blockchain technology offers businesses in the food sector a powerful tool for improving transparency, reducing costs, enhancing security, and streamlining operations. By adopting blockchain, your businesses can build greater trust with your customers, operate more efficiently, and remain competitive in an increasingly digital and globalised market.

This handy booklet introduces the power of blockchain and how it can positively affect your business.

Afterwards, if interested, you can also complete our survey at https://public.eurocyinnovations.com/surveys/block4sme_project_survey_submit.

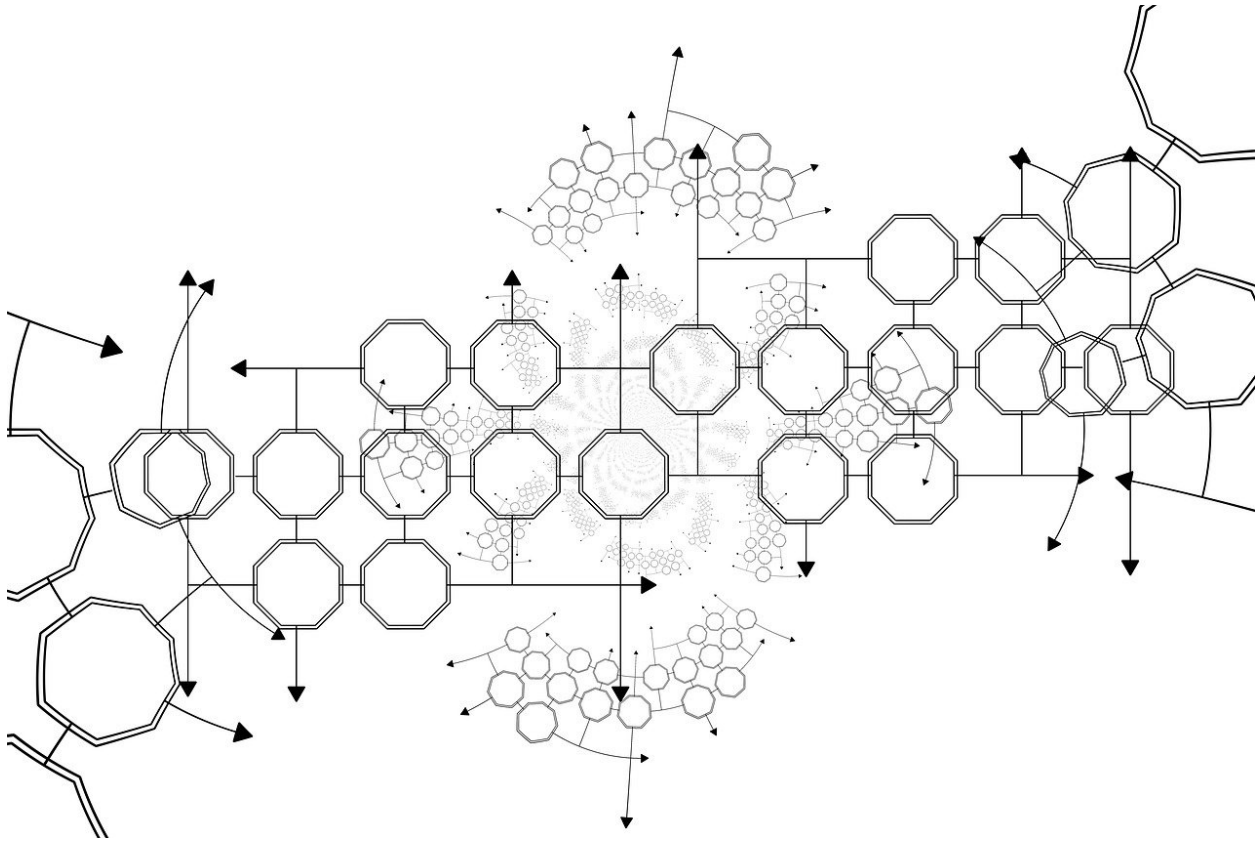
Warm regards,

A handwritten signature in blue ink, appearing to read "Karel Van Isacker".

Karel Van Isacker
CEO


What is a blockchain?

A blockchain is a type of digital record-keeping system. Imagine it as a long chain made up of many small blocks, where each block is like a page in a ledger or a record book. Each block contains a list of transactions or pieces of information, and once a block is full, it is linked to the previous block, creating a chain of blocks.



What makes a blockchain special is that it is decentralised and secure. Instead of being stored in one central place, the information in a blockchain is copied and shared across many computers, called nodes. This means no single person or organisation controls the entire blockchain. Each time a new block is added, all the computers on the network check and agree that the block is valid. This process makes it very difficult for anyone to tamper with the information because they would need to change it on all the computers at the same time.

Every block in the chain contains a unique code called a "hash," which is like a fingerprint. It also includes the hash of the previous block, which links them together and ensures that no block can be changed without altering all the following blocks. This makes the blockchain very secure and reliable for recording and verifying information.



Blockchain technology can bring about greater transparency, efficiency, and accountability in the food sector. By ensuring that every stage of the food supply chain is accurately documented and easily accessible, blockchain helps in building a more reliable and trustworthy food system. This not only enhances consumer confidence but also supports food producers, processors, and distributors in maintaining high standards of quality and safety.

Food production

Blockchain technology can significantly enhance the food sector by improving transparency, traceability, and efficiency throughout the supply chain. One of the primary benefits is the ability to trace food products from their origin to the consumer's table. By using a decentralised and immutable ledger (a digital record that stores transactions in a decentralised and secure manner), each stage of the food production process can be recorded and verified. Farmers can document the growth conditions, treatments, and harvesting details of their crops. This traceability ensures that consumers and retailers can verify the authenticity and safety of food products, promoting trust and confidence in the food they purchase.

Example: Farmers can use blockchain to record the growth stages and treatment of crops, ensuring transparent and trustworthy information about food origins.

Food processing

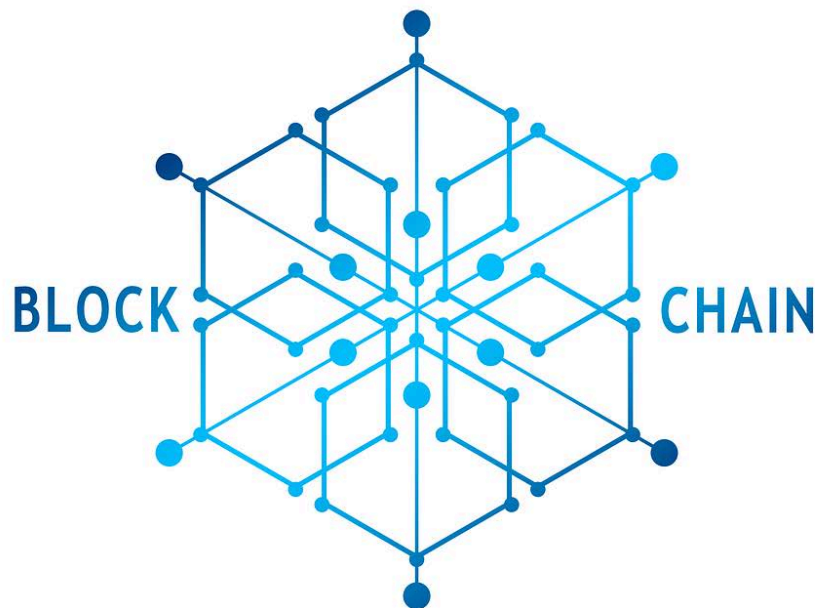
Blockchain can provide detailed records of each step involved in transforming raw materials into finished products. This includes information on processing methods, storage conditions, and quality control measures. Having a transparent record helps in ensuring that all food safety standards are met and allows for quick identification and rectification of any issues that arise. For example, in the event of a contamination outbreak, blockchain can help quickly pinpoint the source and scope of the problem, facilitating efficient recalls and minimising health risks.

Example: Food processors can track and document each step of food transformation, from raw materials to finished products, ensuring quality control and safety compliance.

Food distribution

Blockchain offers a robust system for monitoring and verifying the transportation conditions of food products. Distributors can record data on temperature, humidity, and handling conditions during transit. This ensures that food products are transported under optimal conditions, maintaining their quality and safety until they reach the retailer or end consumer. The use of blockchain also helps in reducing food waste by providing real-time information on inventory levels and expiration dates, enabling better stock management and timely distribution.

Example: Distributors can use blockchain to monitor and verify the transportation conditions of food, ensuring products are delivered fresh and in good condition.



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