

## Blockchain for the Dutch dairy industry

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For most people, blockchain technology is associated with bitcoins and other cryptocurrencies: An intriguing, wild-west, fast-money, hard to understand, virtual economy, that has nothing to do with real tangible processes like the production of milk.

This is a misconception as blockchain technology brings great opportunities for the real world too. Large companies like IBM and Microsoft have become convinced about this and invested heavily in so called “Third Generation Blockchains”. These are without all the obscure “bitcoin like” features and designed specially for supply-chains.

Qlip has embraced this new technology to create a platform for the Dutch dairy Industry because it brings two big advantages for the future:

- **It helps to improve cooperation:** The technology used in a blockchain makes that you can be absolutely sure that shared data is only visible for that specific “other” stakeholder and for no-one else. In a normal central database there is always an “administrator” who can access all stored information. This unwanted feature makes dairy companies reluctant sharing data on a central platform (and thus prevents cooperation and efficiency).
- **It is a great opportunity for tracking & tracing and food provenance.** There is absolutely no possibility to tamper with data in a blockchain, without anyone (or the blockchain network itself) noticing it. This makes it the ultimate technology for food supply chains where tracking and tracing and food provenance are of the utmost importance.

The only way you really can be sure that the above-mentioned advantages really exist, is by investing in knowledge. That is the only way to be able to be certain that you can trust blockchain technology. This advice is especially relevant for business people. That does not mean that business people need to learn how to program a blockchain, but you need to understand what technical concepts are implemented so you don't have to believe that blockchain brings value, but that you know that blockchain brings value and even more important: you understand how it brings value.

in this trust for ourselves, Qlip started to build a blockchain for raw milk. Three different dairy companies participated. Every milk collection of the participating dairy companies is stored in a blockchain. You are only able to see a milk collection if you are the delivering party or the receiving party. We experienced that this new technique brings great opportunities for the future.

### Introduction

### Trust is essential

### Bring value to the Dutch dairy industry

## Plans for the future

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Our ambition is to create a new digital infrastructure for all the raw milk that is produced in Holland. With this you can make all information about milk collections available to whoever receives the milk.

This dairy blockchain could be used for several things.

- Reduction of administrative or inspection costs because all data is tamper free stored and can be provided to an inspector if you choose so.
- If a dairy producer chooses to share his production data (from the manufacturing plant) on the blockchain to, you could print a QR code on the package and so give the end consumer insight in what milk was used for his end product (i.e., infant nutrition for export markets)
- When milk is exchanged it is much easier to be sure that it is Dutch milk or foreign milk to see what type of milk it is, what the lab results are etc.