



Food and Agriculture Organization
of the United Nations

Digital traceability for food safety

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Background

- Unsafe food causes 1 in 10 people to fall ill, is estimated to kill over 420,000 people each year and causes 33 million healthy life years to be lost.
- Children under 5 years of age account for more than one third of all deaths by foodborne illnesses.
- Low-and middle-income countries experience a productivity loss of some USD 95 billion per year as a result of unsafe food.
- Many SDG's cannot be achieved if food is not safe:
 - There is not food security without food safety
 - Unsafe food cannot be traded
 - Foodborne illness will prevent children to develop to their full potential

If it's not safe it is not food

When food is not safe, SDG's cannot be met:

There is no food security without food safety

Unsafe food cannot be traded

Children carry a high burden of food-borne illness



Premise

Food safety:

- Can be compromised through many agents and at ALL steps of the supply chain
- Information needs to be updated

Requirements for food control

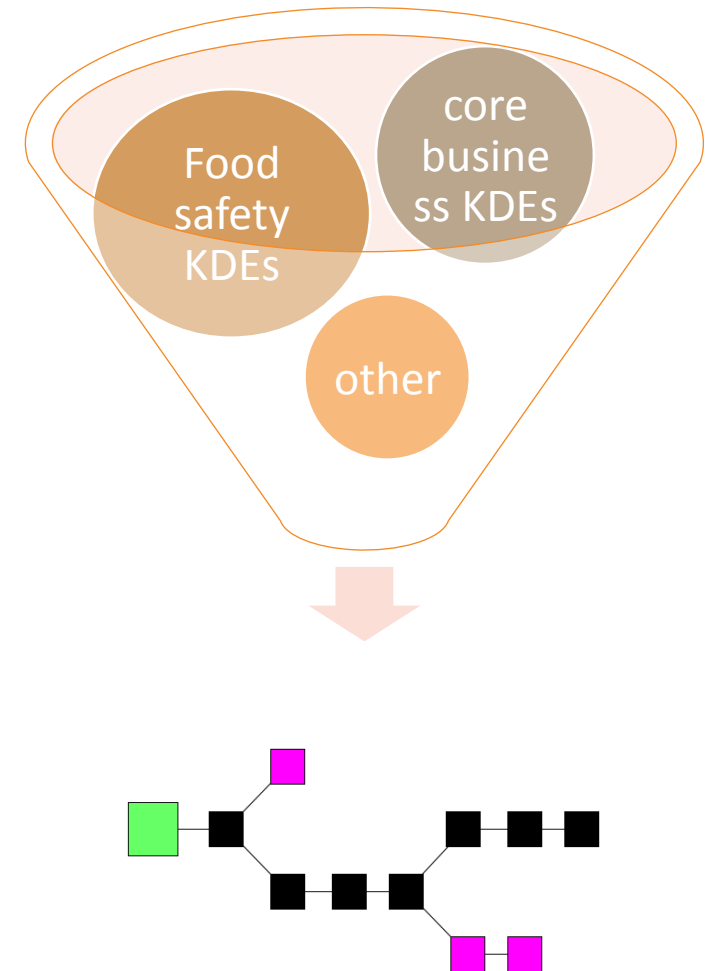
- Trust in data
- Forward and backward tracing
- Quick response time (regulators and public)



Blockchain and Food Safety

Key data elements (KDE) need to be available at various points in the supply chain to enable traceability, recalls and consumer trust. Blockchain supported distributed ledger (DL) technology will need to have consensus (inter-alia) on:

- Requirements for interoperability of many different solutions
- Clear incentives for participation in DL
- Transparent and inclusive governance of technology development





Missing enablers:

- Neutral guidance on blockchain for alignment at the international level via the International Platform for Digital Food and Agriculture
- Leadership in blockchain partnerships to address global issues such as interoperability requirements and audit criteria for blockchain governance
- Global oracles for agri-food systems data

UN organization (e.g., FAO) stand ready to serve in these capacities.

If it's not safe it is not food

**Trust in food safety is essential,
blockchains can create trust**

Immutability will create trust

Traceability will increase trust

**When food is not safe, SDG's
cannot be met.**



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Thank you