

Food information systems and their design (part 1 of 5)

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Based on materials from:

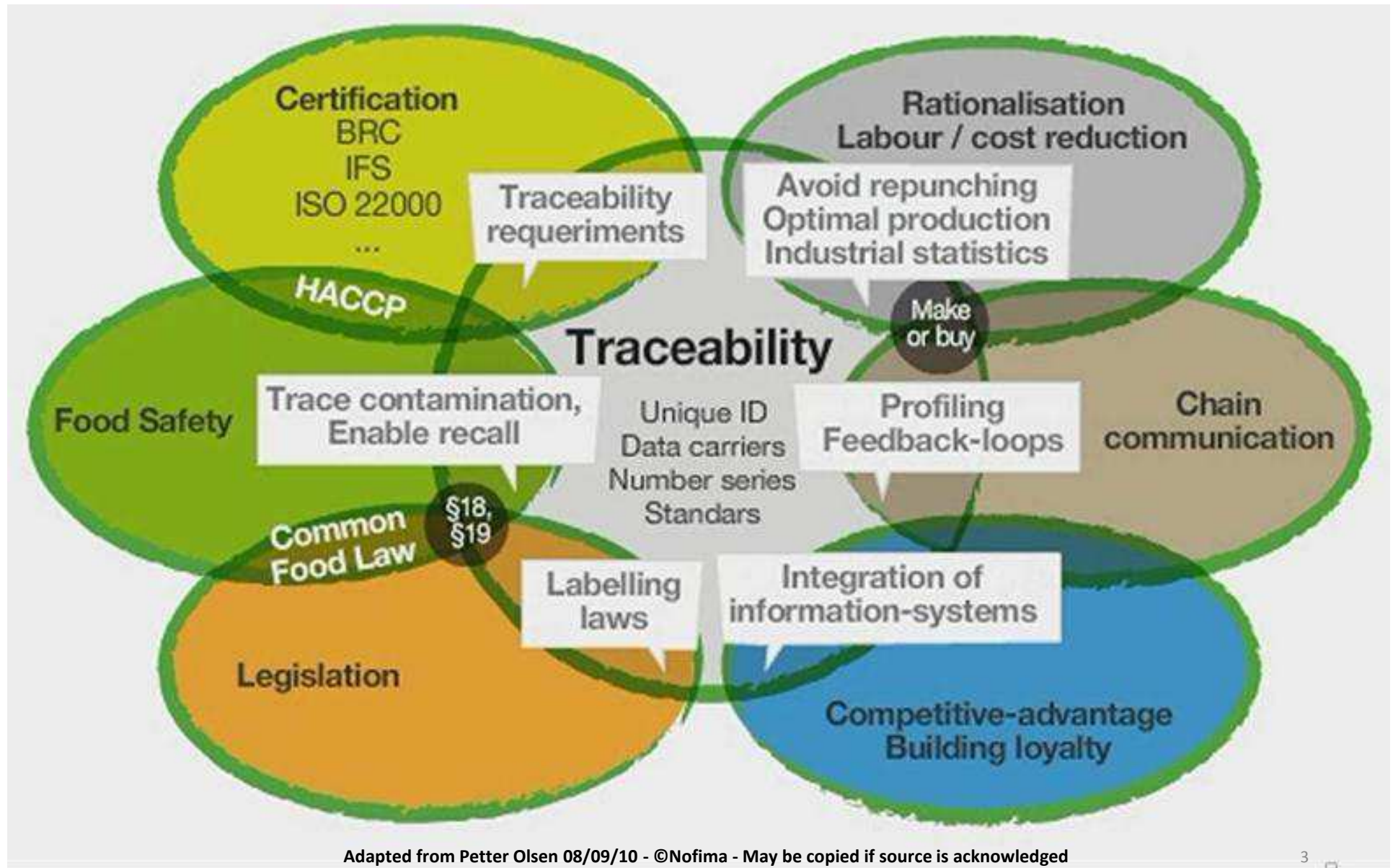
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The agenda – Day 2

- Review of Day 1
- Food information systems
- Examples of traceability systems
- Practical exercise

Traceability drivers in the food sector



Stakeholder benefits - “Our clients want traceability because...”

- Market differentiation by having documented evidence of
 - practices of social or religious nature (such as fair trade or Halal) or
 - adherence to certain standards (such as GAP, GMP and HACCP)
- To show foods that originate in a certain area (“Made in ...”) or are prepared in a certain fashion (“Taste of ...”)
- To improve internal efficiencies (such as reducing stock holdings)
- To calculate parameters related to sustainability (such as food miles, carbon foot print, fossil energy savings, ...)
- To get feedback of performance of products, especially for the feed – animal – food chain (e.g. IPM and intensification)
- To help prevent fraud

Day 1 - Traceability presentations

- The smarter food vision
 - The global food trade system
 - The example of the European Union
 - Information systems
 - The vision of smarter food
- Electronic traceability – The theory
 - Traceability concepts
 - Stakeholder views
 - Why traceability is important
 - Traceability principles
 - Implementing traceability
 - Stakeholder benefits of electronic traceability

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Chain food information management systems from a functional point of view

- National single window systems and ePermit systems

Customs management



- Food safety oriented systems
- Animal and carcass tracking

e-traceability systems



- Fair trade
- Religious
- No child labour

Ethical compliance



- Sustainability tracking
- Compliance to specific food standards

Standard compliance



- IUU fishing
- Export/import licenses
- Shipment registration

Legal compliance



- Transparency systems

Marketing focus



The different levels of data

5 levels of traceability information

1. Legally required key data

export data, company certification, registration details

2. Remotely available additional data

in case of food alert, product recall or withdrawal etc.

3. Government inspection data

legally required to be made available to remote or on-site inspection

4. Recommended information

for traceability purposes on the basis of Good Practices, Codes of Conduct and general industry knowledge

5. Optional information

each company might want to define in order to streamline their business

OBLIGATORY

quantity of information

The role of regulations in the establishment of paperless systems

Regulations play a vital role in adopting paperless trade systems

- **Legal framework of all-electronic transactions**
 - Place electronic transactions at the same level as paper transactions (including accepting the validity of e-signatures)
 - Incentivise the submission and management of electronic information
 - Regulate data confidentiality and security and make offenses liable
- **Definition of data sets required for specific purposes**
 - Food safety, disease control, legality of trade, determination of origin, ...
- **Support for globally unique identification**
 - Promote the use of globally unique identifiers and avoid the creation of country-wide or even ministry-specific identification schemes
- **Support for international standards for data exchange**
 - Recognise the need to exchange information in an automated fashion
 - Support for international schemes and standardisation by e.g. ISO, GS1

Definition

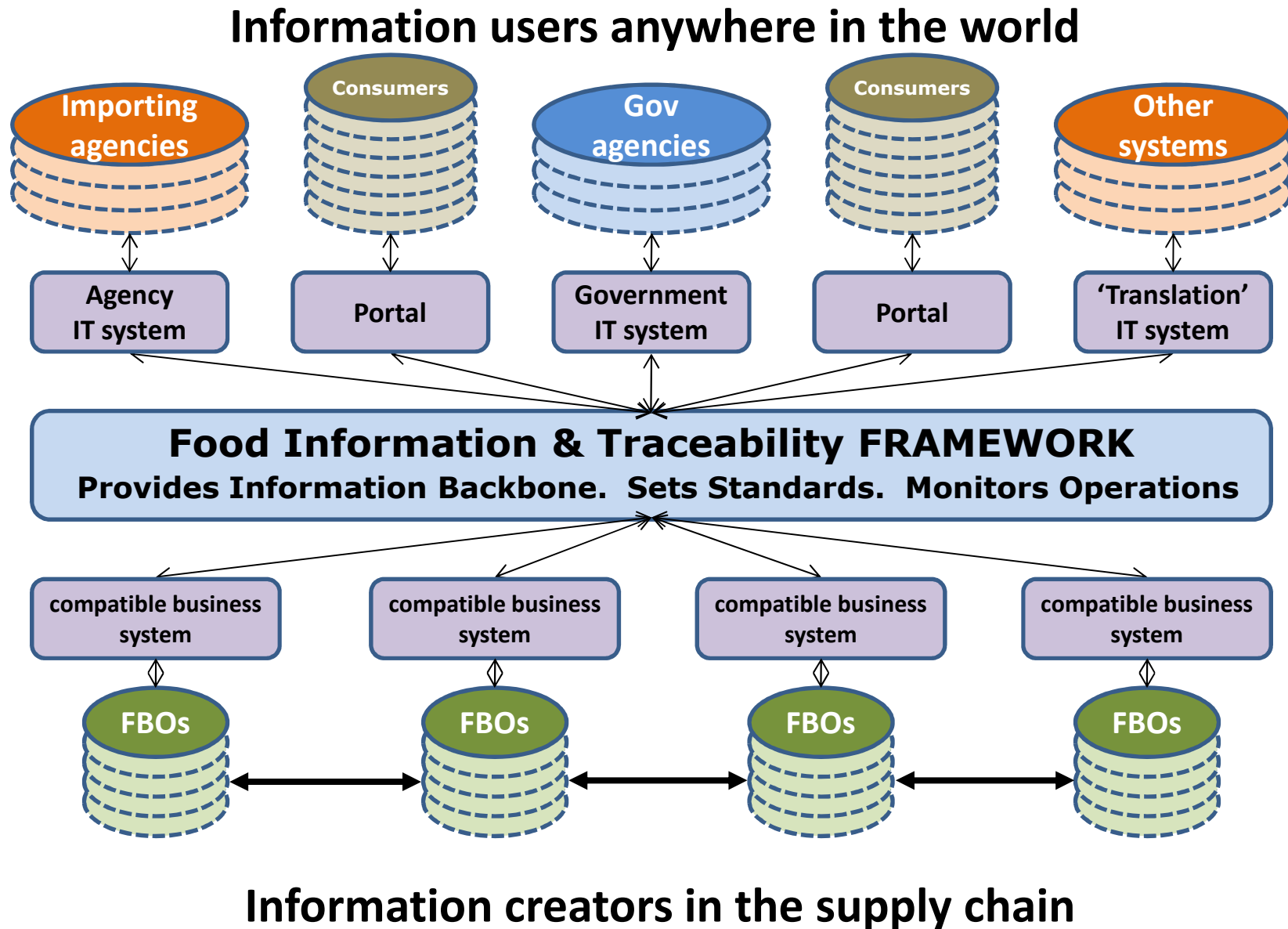
Food Business Operator (FBO)

- the natural or legal persons responsible for ensuring that the requirements of food law are met within the food business under their control; *(EU General Food Law)*
- the person or persons responsible for ensuring that the prescribed requirements are met within the food business under his or her control and include both the management of the food business as well as the person with overall authority on site or in the specific establishment.

The FBO shall be accountable for third party arrangements, where responsibility for such operations is under the control of a third party food producer.

(South African Standard Operating Procedure relating to FBO registration with the Department of Agriculture, Forestry and Fisheries)

Systematic view



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 - ➔ a. Livestock (South Africa)
 - b. Chicken (China)
 - c. Export grapes (India)
 - d. Palm Oil (RSPO)
 - e. Halal
- Practical exercise

Continued in part 2

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