

# **Food information systems and their design** (part 4 of 5)

Presented by:

**Gwynne Foster**

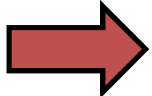
[g.foster@mweb.co.za](mailto:g.foster@mweb.co.za)

Based on materials from:

Dr Heiner Lehr

[heiner@syntesa.eu](mailto:heiner@syntesa.eu)

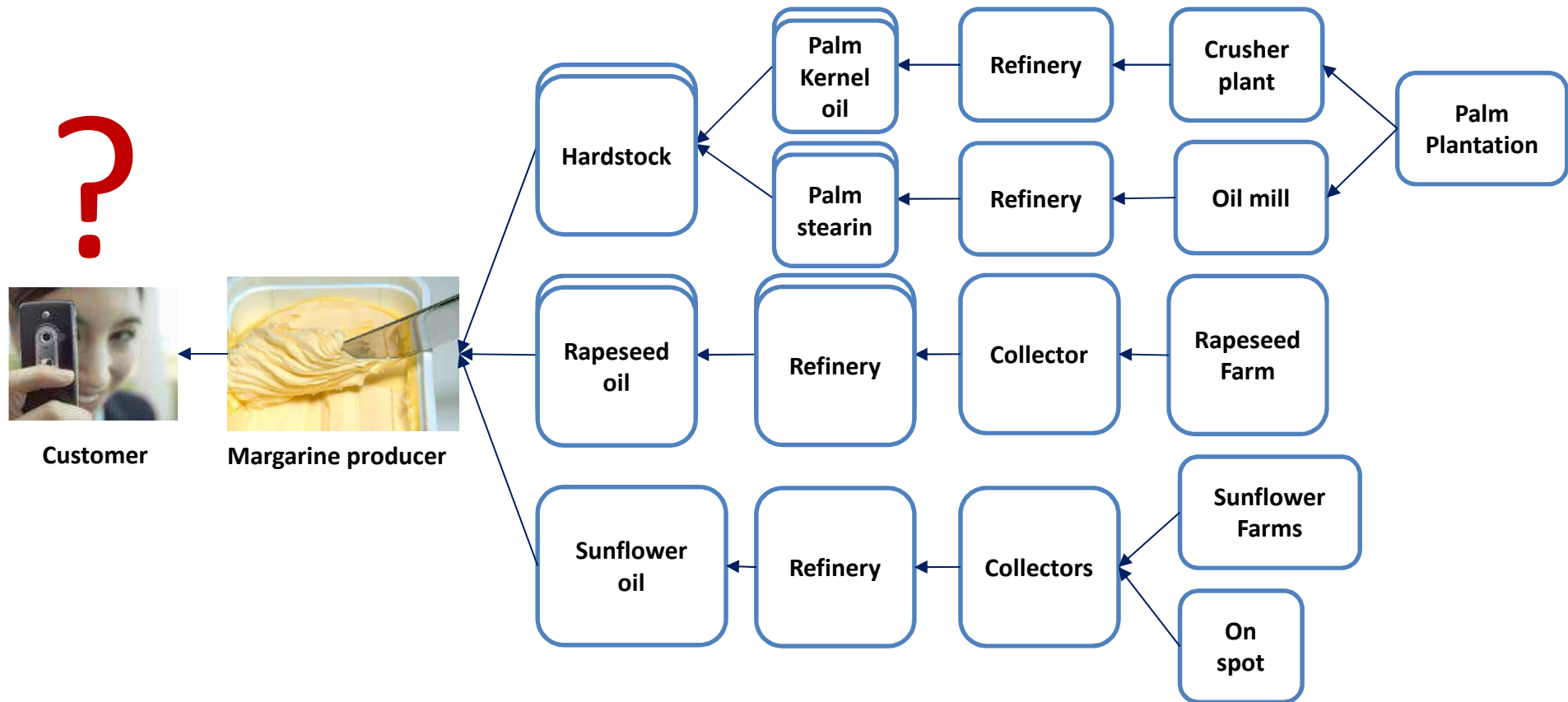
## The agenda – Day 2

- Review of Day 1
- Food information systems
- Examples of traceability systems
  - a. Livestock (South Africa)
  - b. Chicken (China)
  - c. Export grapes (India)
  - d. Additional case studies:
    -  • Palm Oil (RSPO)
    - Halal
- Practical exercise



# **CASE STUDY: PALM OIL**

# Margarine – a truly complex product



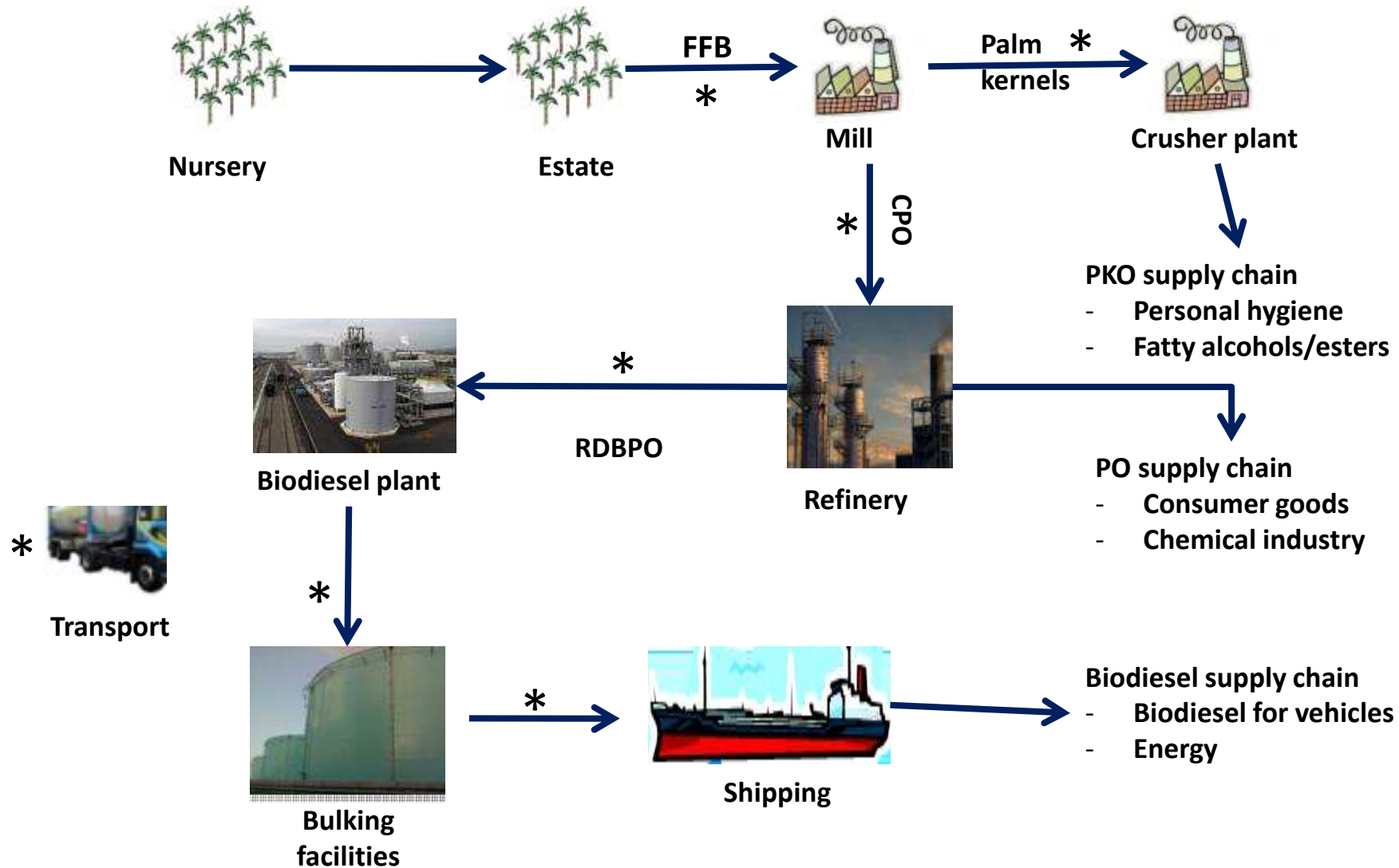
## Challenges in the margarine supply chain

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- Rapeseed silos hold material from 80 farmers
- Rapeseed oil production is a continuous process
  - Batch sizes of 3-6 months - equivalent to about 2,500 truckloads of rapeseed, potentially from different suppliers and different silos
- Crude rapeseed oil is stored in silo.
- During refining, freshly crushed oil can be mixed with oil from a crude oil silo.
- Sunflower oil is partially bought on the spot market – no data.
- Crude oil is transported by ship from three different collection silos with hundreds of farmers delivering to each silo
- Nothing is uniquely identified.
- Governance? Who owns the data?



# Palm oil/biodiesel supply chain



## Palm oil sustainability

contributing to the devastation of the rain forests?

Does your shopping basket contain KitKat, Hovis, Persil or Flora? If so, you may be contributing to the devastation of the wildlife-rich forests of Indonesia and Malaysia, where orangutans and other species face extinction as their habitat disappears.

Report by Martin Hickman

From: Adhityani Arga, Reuters  
Published July 12, 2007 12:00 AM

### Palm Oil Firms Burning Indonesia Forests

**JAKARTA -- Palm oil companies are burning peat forests to clear land for plantations in Indonesia's Riau province, despite government pledges to end forest fires, environmental group Greenpeace said on Thursday.**

listed on your market shelves as biscuits or your Kitchen "vegetable oil".  
away, is very visible in the rich forests of Indonesia, where being chain-sawed for palm-oil plantations. Thirty felled daily in a burst of habitat that is taking place on a scale almost unimaginable in the West.

Palm oil: the biofuel of the future driving an ecological disaster now

Ian MacKinnon in Kalimantan  
The Guardian, Wednesday 4 April 2007  
[Article history](#)



Seeds from palm oil plants. Photograph: Dimas Ardian/Getty



## Palm oil sustainability

[www.betterpalmoil.org](http://www.betterpalmoil.org)

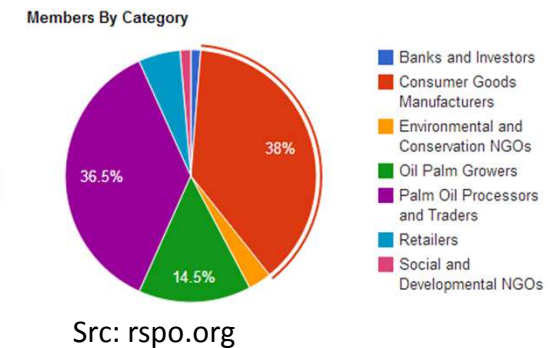
- **Extremely efficient oil plant, also apt for biodiesel**
- **Commodity ingredient for many food (and non-food) products**
  - Margarine and spreads
  - Cooking oil(s) for home and industrial use
  - Bakery products
  - Sweets and cocoa replacement
- **But: commercial forest utilisation needs to be done sustainably**
- **Main issues**
  - Conservation of endangered species and landscapes (in particular peat)
  - Green House Gas emissions, land use and forest burning
  - Rights of indigenous people
- **Result:**
  - New EU regulation for biofuels puts palm oil under pressure
  - Most food companies don't use the name palm oil on their ingredient list
  - Consumer (representatives) very concerned with the replacement of ingredients by palm oil derivatives (e.g. chocolate)



# The Roundtable for Sustainable Palm Oil

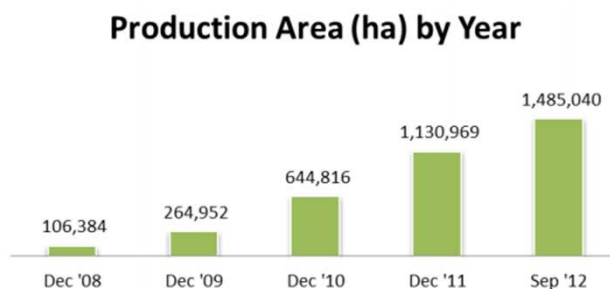
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- **Established in 2004 as a multi-stakeholder association**
  - Initial cooperation between Aarhus United UK Ltd, Migros, Malaysian Palm Oil Association and Unilever together with WWF starting in 2001
- **Standard setting organisation (ca. 750 members)**
  - Sustainable palm oil production (206 mills)
  - Sustainable supply chain certification (621 facilities)
- **Three supply chain mechanisms**
  - Certificate trading with no link to the origin
  - Mass balance (“green in, green out”) – chain of custody type system
  - Segregation with batch level traceability
- **Currently uses electronic transaction system by UTZ Certified**
  - Monitor sustainable volumes traded
  - Ensure buyers that volumes purchased are certified



## Adoption

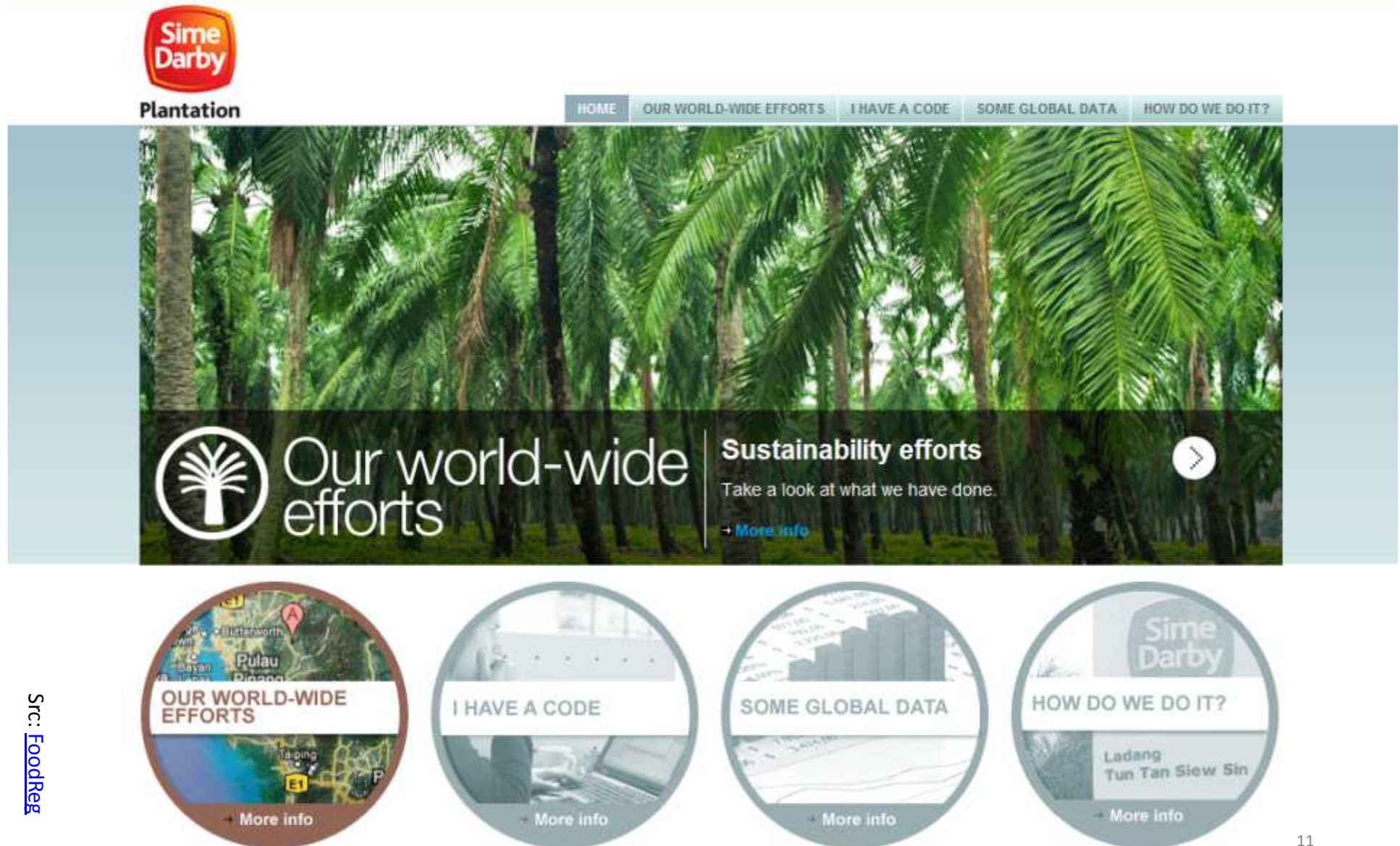
- Adoption of the standard and supply chain mechanisms is progressing
  - Certificate trading is subject to greenwashing criticism
  - Traceability system is being studied and might be replaced
- RSPO is under pressure from other emerging standards
  - North-South conflict and perceived unfairness of cost distribution



Category	Production (Mt)	Certified (Mt)	Notes
<b>Growers</b>	16,192,235	6,724,287	Combined volume of CPO and PKO (not including PK)
<b>CPO volumes</b>	14,584,647	5,556,999	CPO and CSPO volumes
<b>PKO volumes</b>	1,607,588	1,167,288	PKO and certified PKO volumes
<b>Processors &amp; Traders</b>	24,853,375	1,911,353	Total handled and total certified (CPO, PKO, PK and Derivatives)
<b>Consumer Goods Manufacturers</b>	5,754,200	2,330,830	Total volume PO and derived products sold in own brands
<b>Retailers</b>	254,616	185,201	Total volume PO and derived products sold in own brands
<b>Total certified</b>		<b>4,427,384</b>	

Src: [RSPO Annual Communication of Progress 2012](#)

# Engagement with stakeholders



Src: FoodReg



## Learnings from the RSP0

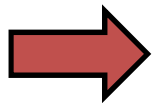
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- Industrial food production is complex
- Communication of sustainability is also complex
- Making sustainability information available is a long term project
- Chain food information requires collaboration by all
- Layered model allows for basic control and value creation, but leaves space for individual companies to differentiate themselves on the market

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## Continued in part 5

**ACKNOWLEDGMENTS:** This presentation is based on material prepared by Dr Heiner Lehr, who acknowledges contributions by Francisco Blaha and Gwynne Foster, Xifrat Daten AG, FoodReg and Yakin IT Sdn Bhd. Financial support from the European Commission for research projects is gratefully acknowledged. This deck of presentations was made possible by SATNET and UN ESCAP and the author is very thankful for this opportunity.

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