LIKE TWO PEAS IN A POD

Organic and Digital Transformation in the Out-Of-Home-Catering Sector

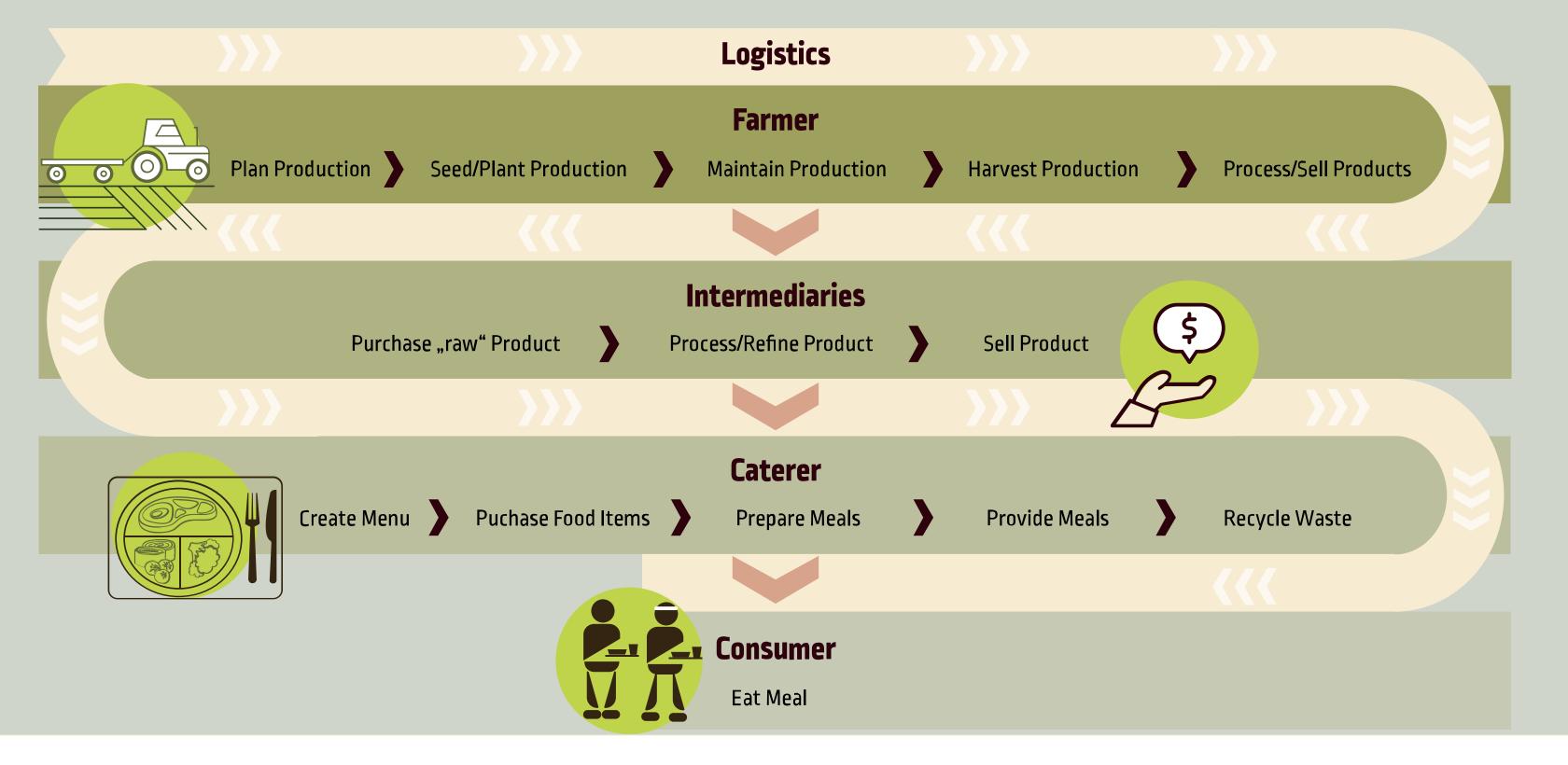


Dieter Hertweck

dieter.hertweck@reutlingen-university.de

hakenberg@hs-rottenburg.de Tim Hakenberg

AS-IS STATE



- » Communication remains within boundaries off each sub-system (as indicated by differently colored lanes)
- » Process is straight forward and follows a strict hierarchical order, yet transparency is very low
- » Greatest power lies with the player that buys and distributes food items in a large scale - they define the market
- » With every processing step, the previous steps get more and more diluted



» Food origin / regionality is harder to track the more processing steps are involved

Farmers

Distribution Channels:

Switching to organic food production offers higher profits for farmers. However, farm shops and farmer's markets yield the highest profits, limiting large-scale transformations with bigscale purchasers like canteens.

Electronic Data Sheets:

Canteens need labeled food product data compatible with their IT-systems, but there's a gap between farmers' unlabeled raw items and canteens' obligation to have detailed declarations on allergens, ingredients, etc.

Goods Bundling:

One of the primary reasons for non-transparency is the necessity to process and bundle food items to match the requirements from canteens with the offers of (multiple) farmers.

TRANSFORMATION BARRIERS

Intermediary / Processor

Demand / Supply:

The value of a product is often determined by criteria like price, brand, marketing. Due to the lack of transparency in the value chain, it's difficult to assess anything else but the price, putting organic products at a disadvantage.

Digitalization:

Intermediaries face challenges gathering information from manufacturers and integrating suppliers into their systems for a unified purchasing platform.

Logistics:

Although logistics is crucial for all sub-systems, it is traditionally handled by intermediaries. Due to the smaller production and purchasing volumes of organic products, logistics is often a barrier to organic conversion in the out-of-home-catering

Canteen System

Price Sensitivity:

Public institutions are price-sensitive and obliged to tender across Europe. Public and private institutions have to juggle the price and quality expectations of customers and the hosting business (contract content).

Different Customer Focus:

The focus of customer demand is on regional and vegetarian/vegan food, as opposed to organic food.

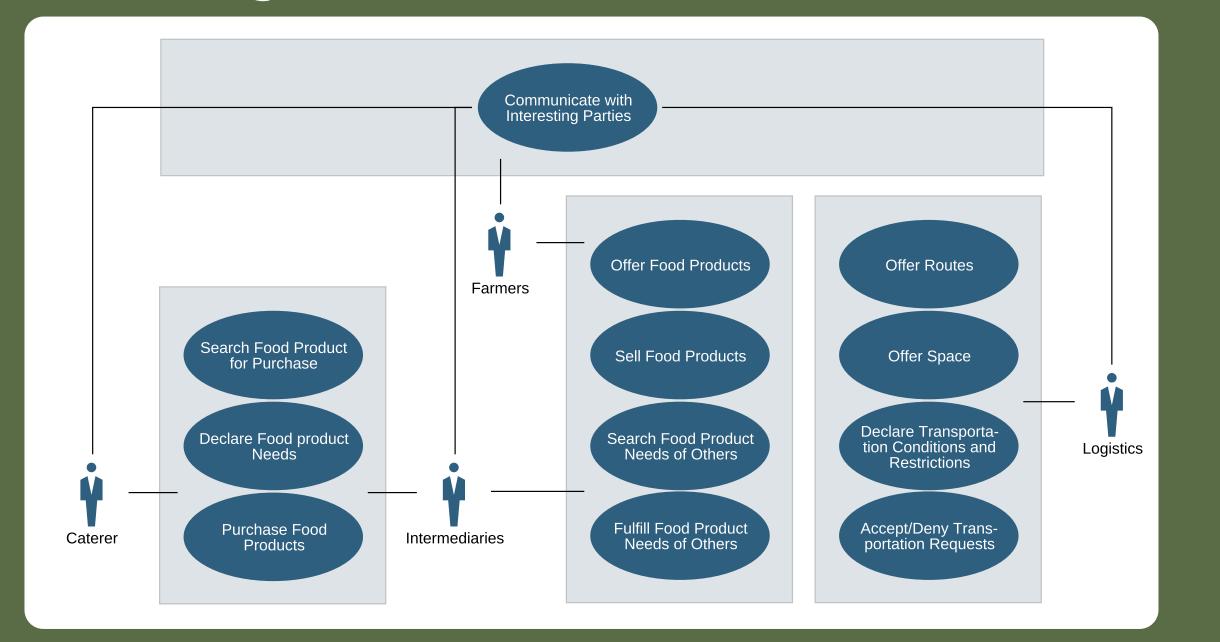
Dependency Triangle:

Actors in the canteen system tend to pass the responsibility for making necessary, albeit uncomfortable, changes on to others. Although there is a consensus that if someone were to take responsibility, the expertise lies with the caterer and should therefore be used by them to initiate important dietary changes.

context.

TARGET STATE

Use Case Diagram



Req.1 Include farmers, intermediaries, logistics, and caterers as potential users of the platform **Req.2** Enable all user groups to create product offers **Req.3** Enable all user groups to create product requests **Req.4** Provide an overview of other users in my region, including some sort of distance mapping **Req.5** Include a search function for offers and requests

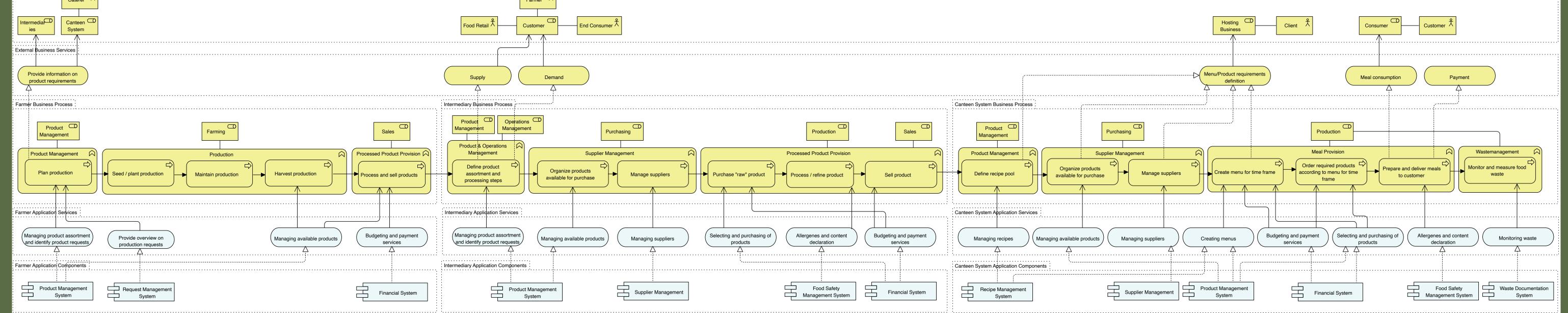
Req.6 Enable contacting other users of interest

Req.7 Digitally match product offers with requests of different users, notify the users about a match

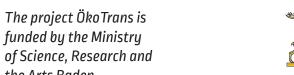
Req.8 Enable the use of a uniform product data sheet, and provide automated data sheet generation

Platform Architecture Design

J		
Visual Paradium Enterprise(Scheerer(Reutlingen University)) Farmer Motivation	Intermediary Motivation	Canteen System Motivation
Organic Transformation Economic or personal interest in converting to organic farming -> Find distribution channels for organic products -> Information collection from to various sources and defining way of conversion -> Evaluation of economic success	Organic Transformation Evaluation of business opportunities for organic products - Perform cost / benefit- and risk analysis and evaluation of possible transformation possible transformation products - Engage in organic product - Evaluation of market possible transformation paths	Organic Transformation -> Involve all Stakeholders in transformation -> Hosting Consumer Consumer ->
External Roles and Actors		
Caterer Å	Farmer X	



Due to the 2D nature of the model, it was unclear and messy to link the required Application Services and Application Services and Application Components are doubled or tripled, if they serve more than one sub-system group.



the Arts Baden-Württemberg

MINISTERIUM FÜR WISSENSCHAFT, FORSCHUNG UND KUNST

Baden-Württemberg

E C





Hochschule für Forstwirtschaft Rottenburg lochschule für Angewandte Wissenschafter

