



Development perspectives of Short Food Supply Chains (SFSC)

Assoc. Prof. Sebastian Jarzębowski (IAFE-NIR) Dipl.-Ing. Katja Pietrzyck (University of Bonn)

10-12.12.2018



Short Supply Chain

Short Supply Chain

- Trends

Short Supply Chain - Barriers to Growth

Short Supply Chain - Development possibilities



Short Supply Chain

Short Supply Chain

- Trends

Short Supply Chain - Barriers to Growth

Short Supply Chain - Development possibilities



- Conventional food supply chains have become industrialised on a global scale, (re-) structuring over time how food is produced, accessed and consumed.
- This industrialization of the global food supply chain has been driven by the improvement of economic and yield efficiencies.
- In this context, producers, consumers and other actors in food chains have diminishing power in determining the governance of such long supply chains as well as the types of products delivered through them.
- The intensification of production associated with industrialization is also associated with broader socio-political and ecological concerns, such as food security and increased environmental degradation.



- With industrialised farming systems ecosystems have experienced a loss of biodiversity, deforestation, soil and water pollution.
- Representing an alternative to pursuing economies of scale, a route for the development of agri-food systems is an approach that uses differentiated attributes (e.g. territory; sustainability), often bundling such products with tourism and other business initiatives (Renting et al., 2008; van der Ploeg & Marsden, 2008).



Short Supply Chain

Short Supply Chain

- Trends

Short Supply Chain - Barriers to Growth

Short Supply Chain - Development possibilities



Short Supply Chain

Short Supply Chain

- Trends

Short Supply Chain - Barriers to Growth

Short Supply Chain - Development possibilities





A <u>supply chain</u> consists of two or more legally separated organizations, being linked by material, information and financial flows. These organizations may be firms producing parts, components and end products, logistic service providers and even the (ultimate) customer himself. [Stadtler and Kilger 2008].





Cooperating in various functional areas agricultural producers, intermediary (trade) companies, processing, production and service enterprises, and their clients, between which flows streams of agri-food products, information and financial resources.

[Jarzębowski and Klepacki, 2013]





Short supply chain means a supply chain involving a limited number of economic operators, committed to co-operation, local economic development, and close geographical and social relations between producers, processors and consumers

Short supply chains incorporate dimensions of proximity as:

- Geographical proximity
- Social proximity
- Economic proximity



Short Supply Chain

Short Supply Chain

- Trends

Short Supply Chain - Barriers to Growth

Short Supply Chain - Development possibilities



Short Supply Chain

Short Supply Chain

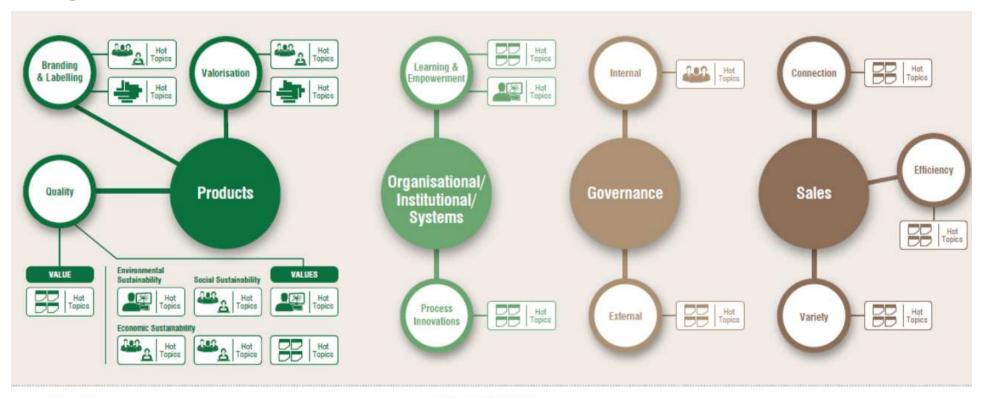
- Trends

Short Supply Chain - Barriers to Growth

Short Supply Chain - Development possibilities



Figure: SFSC Good Practices





This project has received funding from the European Union's Horizon 2020 research & innovation programme under grant agreement N^a 728055











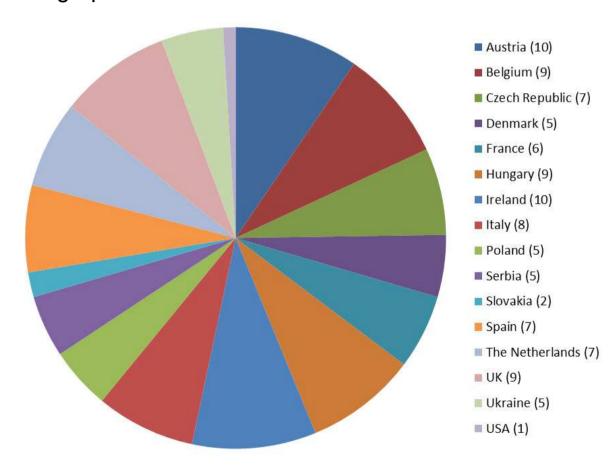








Figure: Geographical distribution of *Good Practices*





Research granted by European Commission within Horizon 2020 Programme as a project no 728055 "Short supply chain Knowledge and Innovation Network - SKIN"

| Hot Topic Thematic Module | Hot Topic Parent Categories | Hot Topic | No. Good Practices relating to Hot Topic |
|------------------------------|--------------------------------|---|--|
| Products | Valorisation | Novel approach to product development/multi-actor, co- design approach | 33 |
| | | Novel product or product range | 25 |
| | | Ways in which value is added to the products | 49 |
| | Branding & Labelling | Innovative way of communication e.g. novel labelling | 37 |
| | Quality Value | Gourmet, superior taste, different taste | 19 |
| | | Nutritional value | 19 |
| | | Freshness | 29 |
| | | Healthiness | 15 |
| | Social Sustainability | Connection between producers and consumers | 45 |
| | | Trust, sense of community | 22 |
| | | Community pride & animation | 3 |
| | | Community education | 17 |
| | | Recognition of producers | 18 |
| | | Consumer empowerment | 2 |
| | | Well-being | 11 |
| | | Profiling gender and age data of those involved in food firms/farms/SFSCs | 0 |
| | Economic | Profitability | 12 |

| | Sustainability | | |
|---|---------------------------------|--|----|
| | | Generating Local employment | 28 |
| | | Reduced economic uncertainties | 12 |
| | | Training and coaching initiatives | 9 |
| | | Synergies with other sectors e.g. tourism | 16 |
| | | Markets/events/initiative for multiple producers locally | 7 |
| | | Preservation an valorisation of small farms | 12 |
| | Environmental Sustainability | GHG emissions | 21 |
| | | Energy use and carbon footprint | 22 |
| | | Ecological soundness of production methods | 42 |
| | | Food Miles | 23 |
| | | Food Waste | 18 |
| Organisational/Inst itutional/System | Learning & Empowerment | Cross-learning between actors | 17 |
| | | Networking along the supply chain and in the region | 23 |
| | | Reduction in dependence of powerful actors in the chain | 24 |
| | Process Innovations | Achievement of efficiencies through collaboration | 37 |
| | | Logistics and distribution | 56 |
| | | Management of small product quantities | 23 |

| Governance | Internal | Decision-making structures Contractual agreements between producers/ between chain | 41 50 |
|------------|------------|---|----------|
| | | partners | 27 |
| | | Group Spirit | 24 |
| | | Mediator/facilitator | 8 |
| | External | Enabling government policies and regulatory frameworks | 3 |
| | | Use of social and environmental criteria in tenders for public procurement | 0 |
| Sales | Variety | Collaborative hubs | 26 |
| | Efficiency | Effective ordering systems | 25 |
| | | Online shop | 19 |
| | | Reliable distribution | 56 |
| | | Proximity (spatially extended) | 6 |
| | Connection | Social media | 28 |
| | | Meet the producer' brokerage events | 14 |
| | | Collaborative hubs | 22 |
| | | Reconnection and relationships | 30 |

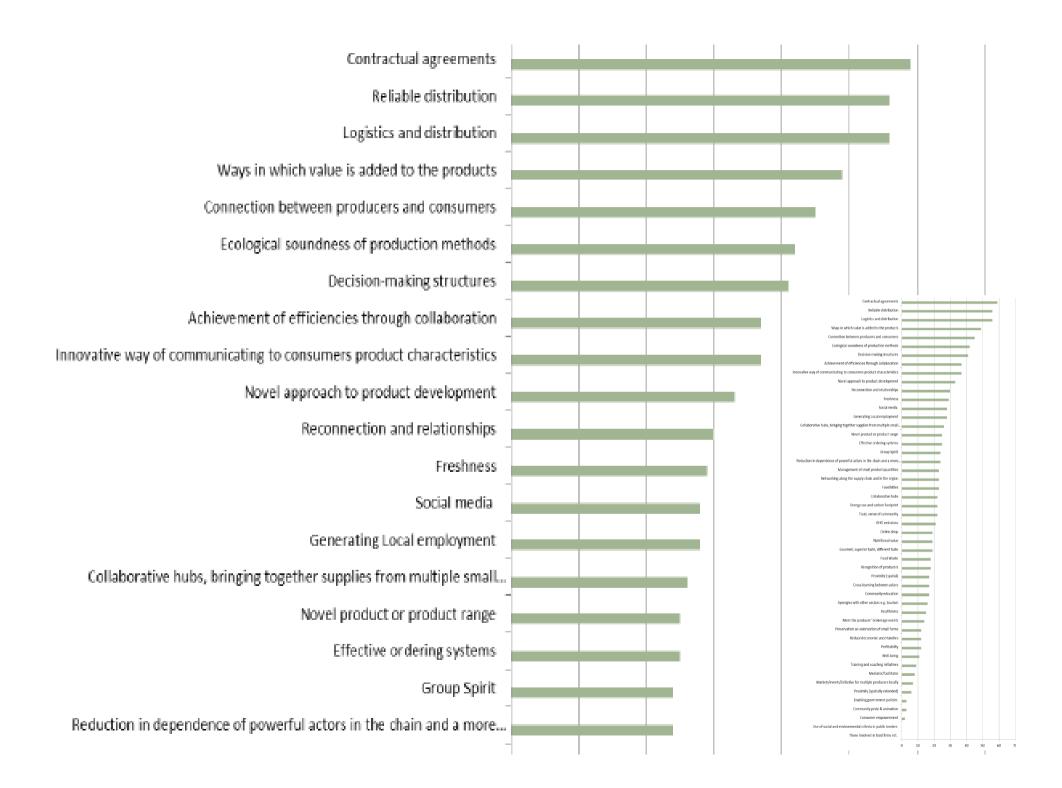
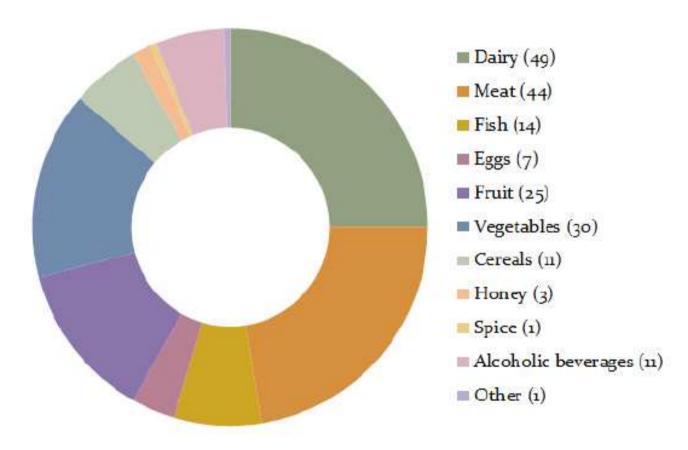




Figure: Food products featured





Research granted by European Commission within Horizon 2020 Programme as a project no 728055 "Short supply chain Knowledge and Innovation Network - SKIN"



Figure: SFSC Points of Sale

| Points of Sale | | No. |
|----------------|--|-----|
| On-farm sales | Farm shops/Farm collection | 14 |
| | Farm based hospitality (e.g. table d'hôte, B&B) | n |
| Off-farm sales | Farmers' markets and other markets | 14 |
| | Farmer-owned retail outlet | 12 |
| | Retailer partners | 22 |
| | Hotels, catering companies, restaurants | 7 |
| | Food ingredients sector: food and beverage producers | 1 |
| | Hospitals, schools etc. | 2 |
| | Delivery schemes (e.g. veg box) | 24 |
| | Vending machines | 1 |
| | Internet sales | 22 |



Research granted by European Commission within Horizon 2020 Programme as a project no 728055 "Short supply chain Knowledge and Innovation Network - SKIN"



Short Supply Chain

Short Supply Chain

- Trends

Short Supply Chain - Barriers to Growth

Short Supply Chain - Development possibilities



Short Supply Chain

Short Supply Chain

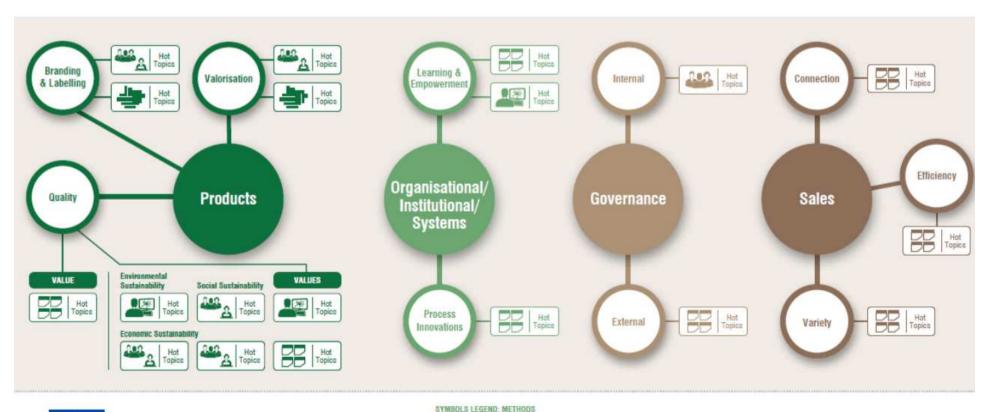
- Trends

Short Supply Chain - Barriers to Growth

Short Supply Chain - Development possibilities



Barriers to Growth for Producer-Processor-Vendors













Barriers to Growth for Producer-Processor-Vendors

- Most of the barriers to growth fall into the following highly interconnected categories:
 - Distribution and delivery,
 - Marketing and sales,
 - Product and service innovation.
- Addressing weaknesses under these headings will involve
 - Providing greater convenience for consumers
 - Working better and more effectively with existing retailers and distribution networks
 - Working with new and emerging actors in distribution and delivery
 - Provide richer more engaging customer experiences
 - Providing better product in terms of taste, nutrition and lifestyle support.



Short Supply Chain

Short Supply Chain

- Trends

Short Supply Chain - Barriers to Growth

Short Supply Chain - Development possibilities



Short Supply Chain

Short Supply Chain

- Trends

Short Supply Chain - Barriers to Growth

Short Supply Chain - Development possibilities





Scenarios / Schemas for Future Growth

- Improve the Retail Experience
- Adopt a Multichannel Sales and Distribution Strategies
- Systematically Develop the Relationship with the Consumer
- Create Economies of Scale and Efficiencies Based on Collaboration
- Tap into the Circular Bio-Economy



Scenarios / Schemas for Future Growth

- Improve the Retail Experience
 - Better signage and use of smart packaging and QR codes
 - Use of alerts and proximity marketing
 - Better online visibility
- Adopt a Multichannel Sales and Distribution Strategies
 - Shared shop or rented space used by retail consortium
 - Online ordering using click-and-collect
 - Use of automated vending machines
- Systematically Develop the Relationship with the Consumer
 - Meeting customers where they are (at home, at work ... during the week, at the weekend...)
 - Accept orders in advance
 - Meet needs in terms of taste and seasonal needs.



Scenarios / Schemas for Future Growth

- Create Economies of Scale and Efficiencies Based on Collaboration
 - Exploring technology enabled collaboration and sharing models for ...
 - Food processing (shared plant and equipment ...)
 - Transport and logistics
 - Restaurants and food service
 - Retail based on concepts such as Retail as a Service
 - IT Infrastructure based on systems such as Shopify and Big Commerce
- Tap into the Circular Bio-Economy
 - Agriculture is no longer a rural phenomenon. Food is mainly consumed in the city. Food waste is mainly produced in the city. Many opportunities for employment and new businesses creation as well as for food security and food waste management



Short Supply Chain

Short Supply Chain

- Trends

Short Supply Chain - Barriers to Growth

Short Supply Chain - Development possibilities



Short Supply Chain

Short Supply Chain

- Trends

Short Supply Chain - Barriers to Growth

Short Supply Chain - Development possibilities



- Due to the benefits of short supply chains, there has recently been an increase in the number of initiatives supporting the development of such initiatives in the agri-food sector.
- These models have become an alternative to the globalized structure of the agri-food sector.
- They enable "*reconciliation*" between the two *extreme links* in the supply chain and satisfying the needs of both the *consumption* and the *production* side.
- Achieving growth will remain a challenge for traditional short food supply chain (SFSC) producers.
- There is an increasing number of ways to obtain it, in many cases at lower cost, with greater convenience and with lower impact on the environment.



THANK YOU FOR YOU ATTENTION!