

SHORT SUPPLY CHAIN KNOWLEDGE
AND INNOVATION NETWORK

New Skills and the Role of the AKIS

Innovation Workshop

In this report on New Skills & AKIS (13-14th February
2019, Dublin, Ireland)

Get inspired by our Good Practices relevant to New Skills & the AKIS

- Foodture
- Exclusive Escargot
- Béal Cheese
- Kylemore Farmhouse Cheese



SKIN Innovation Challenge Workshop

Short Food Supply Chains (SFSCs) are constituted by interrelations between actors directly involved in the production, processing, distribution, and consumption of food products. SFSCs enable producers to increase profit margins but require the development of new skills right across the Agriculture Knowledge and Innovation System (AKIS) in order to stimulate their initiation; as well as innovation and entrepreneurship within them.

What is an AKIS?:

“The term Agricultural Knowledge and Innovation Systems (AKIS) is used to describe the whole knowledge exchange system: the ways people and organisations interact within a country or a region. AKIS can include farming practice, businesses, authorities, research, etc. and can vary a lot, depending on the country or sector.” - [Reference](#) -

There is a need for understanding the mechanisms of how new skills are developed in AKISs to support European actors in SFSCs. There are major differences in skills, knowledge and network integration among actors within social/professional groups: farmers, food producers and innovation support professionals etc. Some actors are enabled to perform better under the same conditions. Furthermore, different policy and regulative conditions frame the possibilities of actors in different member states. SFSCs often require special skills that many (producer & innovation support) actors don't have, creating added barriers to economic success.

The fourth SKIN ICW – New Skills and the AKIS – explores relevant lessons learned in the SKIN project so far and provides recommendations concerning skills and capabilities needed within AKISs to develop SFSCs.



Teagasc organised the New Skills and the AKIS ICW in Dublin, Ashtown. The workshop took place over two days at Bord Bia's (Ireland's food marketing board) Thinking House and Teagasc's Food Research Centre. The event was attended by diverse people: farmers, scientists, experts and many others with a specific or general interest in alternative food systems.

The ICW covered the following topics:

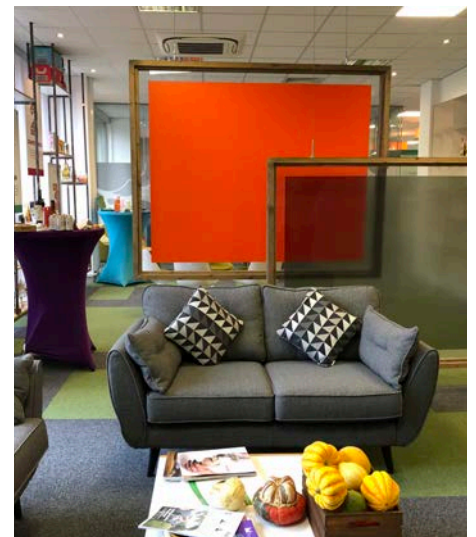
- Mapping the AKIS & the role of the consumer in the AKIS
- Opportunities for Improving the Business of D2C (direct to customer) Agricultural Production
- Organisational & Business Models
- Skills for new and emerging production paradigms: multi-actor panel discussion

Day 1: Bord Bia's Thinking House Overview

Bord Bia is the Irish state agency for the promotion of Irish food. Bord Bia's Thinking House, which opened in 2016, is a state of the art consumer research and market insight centre which provides access to a range of research and data to assist food companies. The Thinking House offers food producers an innovation hub that includes a Trends Zone, a packaging and branding gallery; the Living Room, which facilitates qualitative focus and discussion groups; a Library providing access to databases and reports without incurring prohibitive costs; and a flexible working space designed for workshops, meetings and presentations.



Those attending the ICW were first offered a tour of the Thinking House learning how it is a core access point to the AKIS & offers meaningful and innovative insights to food businesses. Thereafter the consortium utilised the Thinking House's flexible working space for the workshop and presentations that followed.



AKIS Mapping Exercise

Following introductory presentations from coordinator Dr Fedele Colantuono, University of Foggia; and Dr Áine Macken-Walsh of Teagasc, an AKIS mapping exercise was undertaken. The Biographic-Narrative Interpretative Method (BNIM) was used to interview Steven Ryan of Exclusive Escargot. The aim was to identify all the AKIS actors interacted with by Exclusive Escargot from its creation up until currently. The BNIM technique involves the interviewer following an open approach to the interview and adopting an active listener role to provide space for Steven to present his own narrative. Different individuals, actors, organisations and institutions were identified and presented on a flipchart using post-its. Áine Macken-Walsh took the role of the interviewer and John Hyland took post-it notes where appropriate and placed them on a flipchart. Áine explained; "taking a focus on the whole Agriculture Knowledge and Innovation System (AKIS) allows us to map all of the various actors involved in and supporting short food chains – and also to identify those who may not be currently involved, but have skills and resources to bring and new opportunities to exploit".

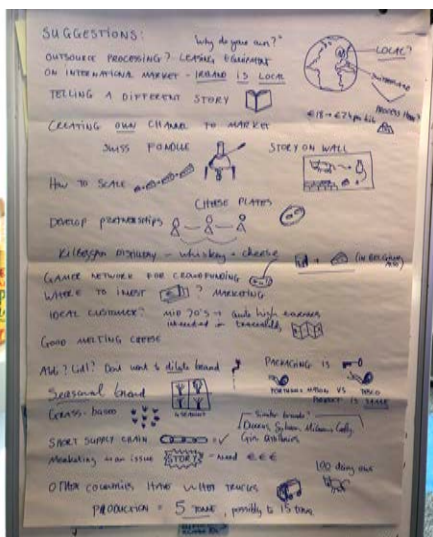


During the BNIM exercise Steven identified a host of actors and institutions where he attained knowledge he could apply to his enterprise (yellow post-its). These included some Greek farmers, an Irish farmer, Enterprise Ireland, the internet etc. Conversely, there were structural holes in the system that if in place would have made sourcing knowledge considerably easier (pink post-its). He bemoaned the lack of: an innovation broker related to snail farming in Ireland, lack of Irish snail processors, and a lack of general information relating to snail farming.

At the end of the exercise, wider participants of the workshop became involved. They were encouraged to offer insights to what systems are in place in their own counties which could potentially assist Exclusive Escargot (blue post-its). For instance, in Austria profitable examples of farming enterprises were used to promote farming practices ("My Farm, My Way"), whereas in Belgium food piloting processing sites are particularly helpful for farmers in Stevens's predicament.

Thereafter, participants were divided into three groups to carry out their own mapping exercise using the BNIM method demonstrated by Áine. Each of the groups had one SFSC food producer who was interviewed with the aim of mapping each of their respective AKISs. Post-its were used in the same manner as before to document actors/stakeholders/institutions.

Once the mapping exercises were complete, participants were invited to view posters showing SKIN Good Practices related to new skills and the role of the AKIS. Participants were provided with a brief overview of the enterprises and an opportunity to ask questions pertinent to the themes of the ICW.



Opportunities for Improving the Business of D2C

Patrick Crehan of C.K.A. presented to the audience opportunities for improving D2C (Direct 2 Consumer) relations in the context of SFSCs. Most consumers live in urban environments. If producer-processor-vendors (PPVs) based in rural areas and operating D2C models are to reach greater numbers of consumers, they must meet them where they live and work and spend most of their days (i.e. in the city). Their systems for marketing, sales and distribution must reach much deeper into the cities. They need to target them with meaningful messages, based on an understanding of modern values, modern consumer needs and the modern digital economy. Many PPVs are enthusiastic and good at production but need to up their game in terms of pricing, marketing, distribution and sales.

What does this mean for individual farm businesses? An **AKIS** could:

- **Consider farms as businesses rather than production unit.**
- Consider farmers not only as producers, but as **entrepreneurs** that need a comprehensive modern understanding of all aspects of running a business, including sales, marketing and distribution (though they needn't engage in all of these activities themselves, they can engage in partnerships with other businesses).
- Make a clear distinction between B2B (sales to other businesses such as processors and supermarkets, domestic and international) and B2C (sales to consumers, mainly local...) in particular **D2C** (direct to consumers, not just passing trade...) in terms of the business functions of selling, marketing and distribution.



- Provide farmers with a comprehensive understanding of **consumer psychology and dynamics** key concepts such as community, cohort, segment, Maslow's hierarchy of needs, identity, life-style, value, meaning, customer journeys, moments of truth, event and experience marketing, data privacy, the role of content (text, image, video, etc.).
- Provide farmers with a comprehensive understanding of **business thinking** and the (conceptual) tools and technologies that apply to sales, retail and distribution, sufficient to enable them to articulate a plan or strategy, commission work from service providers and monitor their work for effectiveness.
- Provide farmers with **life-long-learning skills** that will enable them to learn not only from other farmers, but from other sectors and entrepreneurs about everything that is happening across all sectors in retail, sales, marketing and distribution.

Patrick also suggested that the interest of a group of producers could be best served by creating a new "cooperative" structure that is somehow jointly owned and managed. There is no single model and it is highly likely that not all options have been sufficiently explored, leaving scope for innovation and new thinking.

Organisational & Business Models

Martin Collison's presentation commenced with discussions focused on the EU's food supply chain structure. This hour glass arrangement has millions of farms and tens of thousands of wholesalers and food processors but only 134 major food retail groups for 500 million consumers. However, will this structure survive digitalisation & consumer changes?



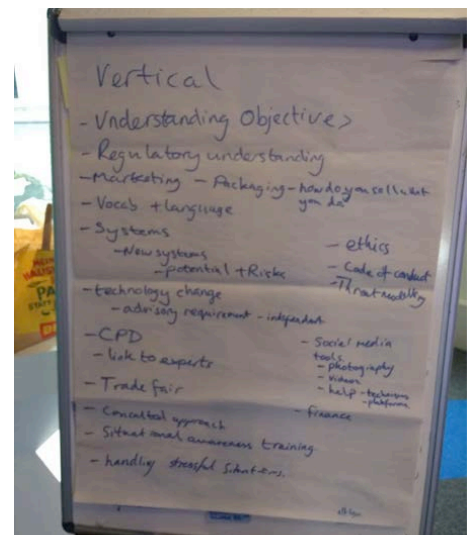
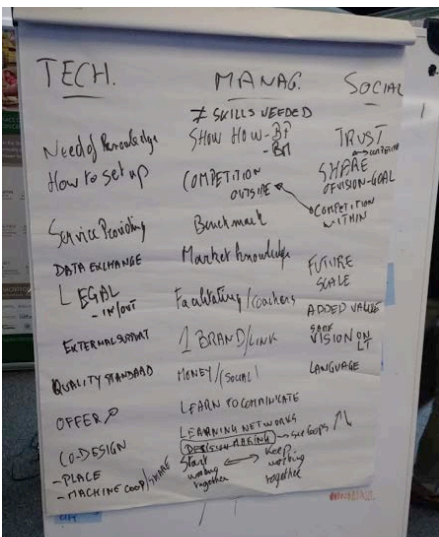
The next five to ten years will see more change than in two generations due to a confluence of four major change factors:

- **Consumer change** – lifestyles and food choices changing, more focus on added value, convenience, provenance, food waste, health.
- **Commercial & supply chain change** – new routes to market & new business models & growth of collaboration.
- **The march of technology** – particularly digitalisation which will radically change production & supply chain models
- **Social changes** – ‘jobs for life’ gone, multiple retraining needs during ‘a career’, millennials have a different set of expectations of work.



With these forecasted changes in mind, participants were broken into groups and asked to focus on one of the following three questions:

- Question 1 - **Horizontal collaboration** - working with other businesses of a similar type i.e. the skills needed for a group of food companies (or farmers) to work together effectively
- Question 2 - **Vertical collaboration** - the skills needed to work effectively with other companies up or down the supply chain
- Question 3 - how can co-operatives, **hubs** or other **Collaborative business models** ensure that members skills are used to deliver effective collaborations



Participants were asked to discuss the question amongst each other in three groups where a designated person wrote ideas on a flipchart.

Horizontal cooperation describes cooperation between two or more actual or potential competitors. Technical, management and social skills were deemed important with regards horizontal collaboration. Technical skills included brokerage, machinery sharing, external support, data exchange, service provision etc. Some management skills judged to be important were benchmarking, learning networks, communication, and best practice. Trust and competition from within the organisation were just two of the social elements critical for horizontal collaboration.

Vertical cooperation depicts collaboration with other entities along the supply chain. The skills required by SFSCs identified to effectively collaborate in such a manner include regulatory understanding, marketing, having similar objectives, an ability to adapt to technological change, networking capabilities (with advisors and experts), social media tools, and a capacity to deal with demanding and stressful situations. Situational awareness training was suggested as one approach to foster vertical cooperation. Situational awareness is the mental picture of a food producer's current environment and assists them in anticipating potential opportunities and problems.

The final question asked was how can **co-operatives;** hubs or other collaborative business models ensure that members' skills are used to deliver effective collaborations. Openness, solidarity, trust, integrity, and communication skills were all deemed pertinent. Participants suggested that short online videos and inspirational and motivating case studies on collaboration were particularly useful to foster skills related to cooperation. Organisations should also conduct a skills audit of their members to assess where latent and underutilised collaboration skills could be utilised. In a broader context education should promote the advantages of skills which are conducive to cooperation. School going children should be taught the skills necessary for working together in an effective manner as well as undertaking entrepreneurship and internships. Thereby, when children reach working age they are already well versed in skills that enable cooperation.

The BIA Innovator

Dr Anne Kinsella Bia of Teagasc presented to the audience the BIA food hub which will be completed in Teagasc's Mellows Campus in Galway in 2020. Bia is the Irish word for food and BIA is an acronym for:

B - Business Start-up, development and growth

I - Innovation, Incubation & Information

A - Advice, Assistance & Accelerator

The BIA innovator will work across 4 key themes:

1. Food innovation and entrepreneurship; will be the first food infrastructure project in Ireland to have multi food sector support at one location, including key specialisms in meat, dairy, prepared consumer foods & seafood and a dynamic and supportive learning environment;
2. Culinary education and upskilling in an immersive learning environment;
3. Experiential food tourism;
4. Rural development and community rejuvenation.

The innovation hub will provide a place to learn where businesses can develop and grow, innovate, and seek advice. The aim of the hub therefore is to enable producers to upscale products from an idea to full scale development. Anne described how the food innovation hub will be a powerhouse of culture and food tourism growth. As a legacy contribution to the Galway European Region of Gastronomy 2018, it will become a centre of food culture experiences in the West of Ireland from 2018 up to Galway's Capital of Culture 2020. The food hub will provide a new and engaging visitor attraction and will give tourists, be they individuals, families or groups a new all-weather visitor experience to enjoy.



Day 2: Teagasc Food Research Centre

Tour of Teagasc Food Research Centre and Keynote Speech

Substantial elements of the Irish AKIS are found in Teagasc, the Irish semi-state body responsible for agricultural research, education, and extension. Teagasc's research centre in Ashtown, Dublin, has a strong knowledge transfer base that supports the food sector in terms of novel processing technologies, sensory science, nutritional composition and product safety. Teagasc provides research as well as specialist commercial services to a range of clients ranging from multinational food companies and SMEs to smaller food producers. Therefore, a tour of Teagasc's Food and Research Centre provided an excellent opportunity for those attending the ICW to attain a sense of the advantages of having a cohesive and interconnected AKIS experience to enjoy.

John Hyland and Brídín McIntyre led a tour of Teagasc's Ashtown Facility, introducing workshop participants to Teagasc scientists working at the frontier of **emerging technologies in food quality, food bioscience and food industry development**. The support structures available via Teagasc are a beneficial resource for Irish food producers. The tour encapsulated food industry development in relation to ancient and heritage cereals, the Prepared Consumer Foods Centre, food bioscience, meat quality and novel process technologies, a pilot bakery, and the Sensory Science Suite. The tour was followed by a keynote speech & a discussion of emerging production paradigms hosted by Dr Patrick Crehan, C.K.A who contributed a keynote speech titled 'Skills for new and emerging production paradigms'. Patrick highlighted how the **SKIN Foresight Report** demonstrated the increase in entrepreneurial initiative and investment activity in relation to new production models based on urban farming and vertical farming, production based on hydroponic, aeroponic and dryponic systems, animal-free systems for production of meat, poultry, fish, milk and leather products, alternative protein production based on insects or cellular-agriculture using algae, yeast and fungi. However, it is imperative that we ensure that an AKIS prepares SFSC producers for this emerging opportunity.

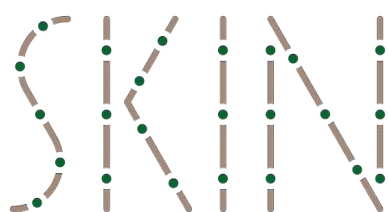


Conclusion

This ICW yielded multiple suggestions for strengthening AKISs for SFSCs. As each SFSC is different, it will require different knowledge forms. However, a number of cross-cutting themes of potential were identified.

Themes of Potential	AKIS actors/actions
Horizontal & vertical collaboration	<ul style="list-style-type: none">• Appropriate extension supports (e.g. promoting 'situational awareness') among SFSCs actors• Development of collaborative business models, demonstrating/demystifying how collaboration can be achieved
Extension/brokers with 'foresight'	<ul style="list-style-type: none">• Extension must include a focus on international innovations that may not already be operational in their own contexts, building capacity to foresee and nurture new innovations• Farms demonstrating new innovations should be used as sites for learning (e.g. 'My Farm, My Way', Austria)
Farms as businesses & partners	<ul style="list-style-type: none">• Consumer insights & psychology, innovation in product design, branding, marketing, distribution are crucial for farms.• Farms may have these skills themselves or otherwise can create partnerships with other businesses• Extension should be inter-professional, delivering coordinated, diverse support to farmers

Themes of Potential	AKIS actors/actions
<p>Hubs providing a 'one stop shop'</p>	<ul style="list-style-type: none"> • Hubs are necessary for farmers/producers to become aware of & conveniently access the myriad supports they require • The BIA innovator model offers: <ul style="list-style-type: none"> B - Business Start-up, development and growth I - Innovation, Incubation & Information A - Advice, Assistance & Accelerator • Teagasc's Food Research Centre in Ashtown provides, <ul style="list-style-type: none"> • novel processing technologies/trials • sensory tests with consumers • nutritional composition analysis • product safety analysis
<p>Urban & hi-tech farming</p>	<ul style="list-style-type: none"> • To achieve food security, urban and hi-tech farming is required. • Extension must reach into non-traditional agriculture, to stimulate and support: <ul style="list-style-type: none"> • urban farming and vertical farming, • production based on hydroponic, aeroponic and dryponic systems • animal-free systems for production of meat, poultry, fish, milk and leather products, • alternative protein production based on insects or cellular-agriculture using algae, yeast and fungi



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Innovation Workshop



The SKIN Workshop about "New SKILLS and the Role of AKIS" was organised by Teagasc, with the strong collaboration of Cassovia, EFB, CKA and all project partners

