



Knowledge Exchange Seminar Series (KESS)

...is a forum that encourages debate on a wide range of research findings, with the overall aim of promoting evidence-based policy and law-making within Northern Ireland



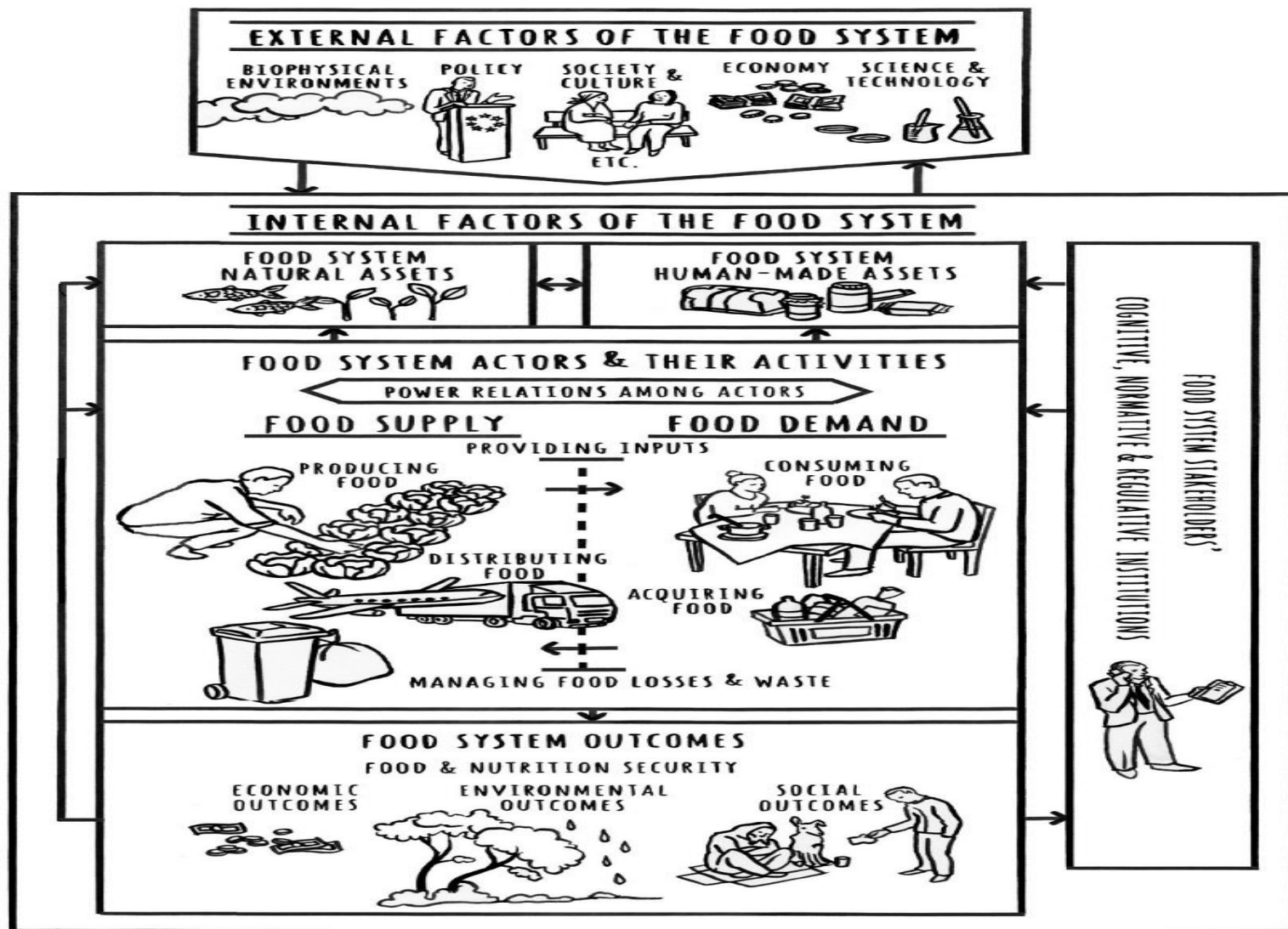
Food system planning: insights from **TRANSMANGO EU** research project and its scenarios methods

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TRANSMANGO



Food is Produced in a Complicated System

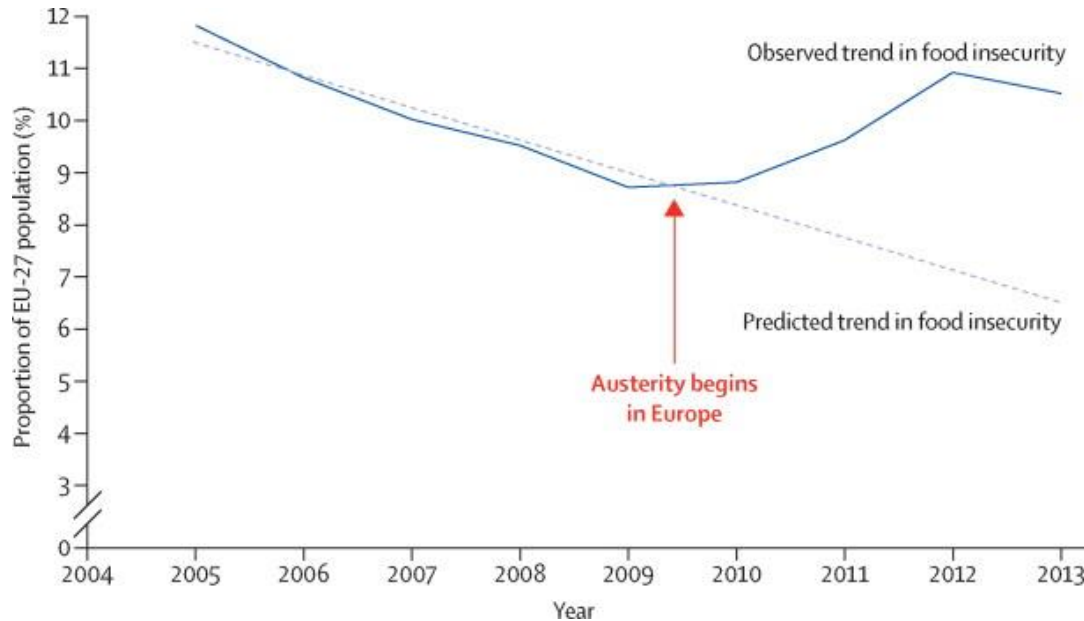


Food Security

‘Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life.’ (World Food Summit, 1996).



Evidence of lack of FNS in Europe



Source: Loopstra et al, 2015

In the WHO European Region

1 in 3 11-year-olds is **overweight or obese**



In the WHO/European Region

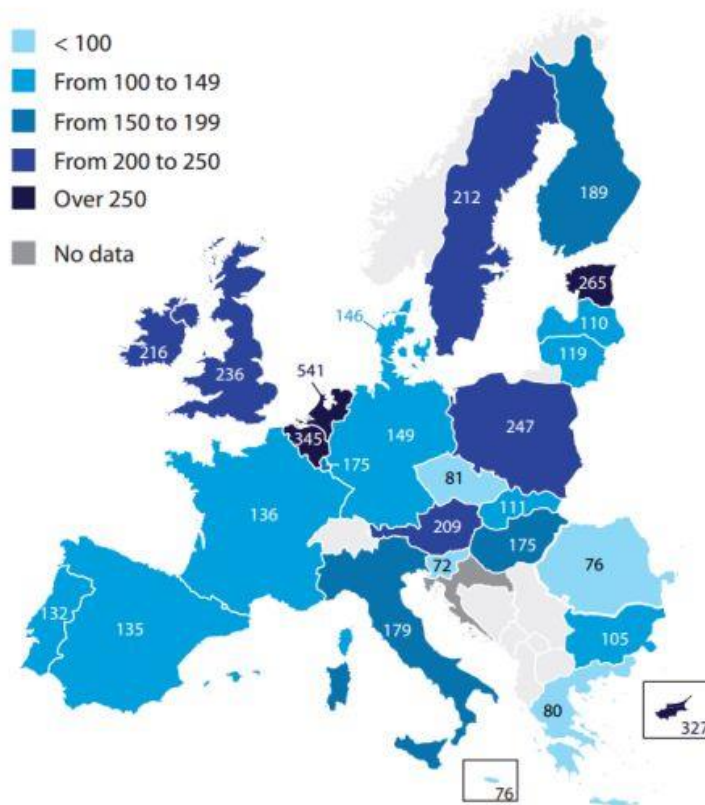


over 50% of people are **overweight or obese**



over 20% of people are **obese**

Estimated total food waste in the EU, 2010 (kg per capita)



Evidence of lack of FNS in Europe

Data source: [Technology options for feeding 10 billion people](#), STOA 2013.

Some Causes: Policy Incoherence and Deficiencies

In the EU:

- FEAD (Fund for European Aid for the Most Deprived) and other social schemes not providing a high enough level of support;
- Increases in food taxation affecting the ability of the poor to access healthy foods;
- CAP direct payments favouring arable and livestock production over horticultural production;
- Food advertising regulated only by voluntary codes allowing for the marketing of unhealthy foods to continue;
- Non-flexible food safety and quality standards;
- Trade liberalisation disconnects consumers from the site of their food's production and the conditions therein

Importance: The relevance of this problem for Northern Ireland

- Lack of integrated food policy
- 23% in food poverty; 28% of children (Belfast Trust, no date)
- 5% malnourished, higher for vulnerable groups e.g. elderly (14%) (Department of Health, 2015)
- Adults in NI: 37% overweight; 25% obese (Bates et al, 2014)
- Recognition of the need for leadership and an integrated approach
- Relevant to a number of 2016/2017 Hot Topics:

Importance: The relevance of this problem for Northern Ireland

- Relevant to a number of 2016/2017 Hot Topics:
 - Public finance
 - Governance
 - Agriculture
 - Environment
 - Education
 - Social development
 - Health
 - Land



TRANSMANGO: research which aims to address the various problems of food and nutrition insecurity

- TRANSMANGO is a study which aims to investigate the current **problems the European food system** faces.
- It looks at where there may be **vulnerabilities** for even worse problems in the future, and conversely, where future **improvements** for the food system might be found.
- TRANSMANGO understands that food is produced and consumed in a **complicated system** and therefore considers the problems and potential **solutions from a range of perspectives** including social issues, economics, human behaviour, technology, institutions, agriculture and the environment.



TRANSMANGO: research which aims to address the various problems of food and nutrition insecurity

TRANSMANGO uses a range of research methods to address the complicated issue of food and nutrition security including *scenarios-guided transition pathways*.

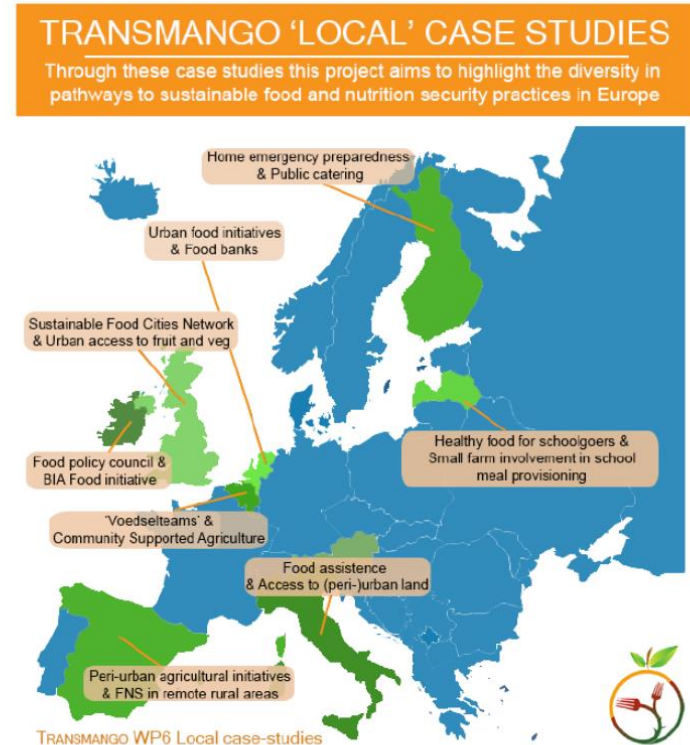


Figure 1 Map of TRANSMANGO case studies in EU

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Scenarios-guided transition pathways

Step 1: Visualising ideal futures: In TRANSMANGO, workshop participants first brainstormed what the key elements of an ideal future food system would look like.

"If we don't know where we want to go, it makes little difference that we make great progress."
(Donella Meadows,
Envisioning a Sustainable





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Step 1: Visualising ideal futures:

Topic	Number of Priority 'Dots'
Integrated Food Policy	24
Systemic Food and Nutrition Education and Culture	19
Diversified Food Production Systems	17
Nutrition and Healthy Diet	16
Eliminate Waste	14
Community Food	9
Ethical Marketing and Informed Consumers	8
Regenerative Low Carbon Economy	8
Alternative Supply Chains	6
Capacity Building	2
Land Access	1

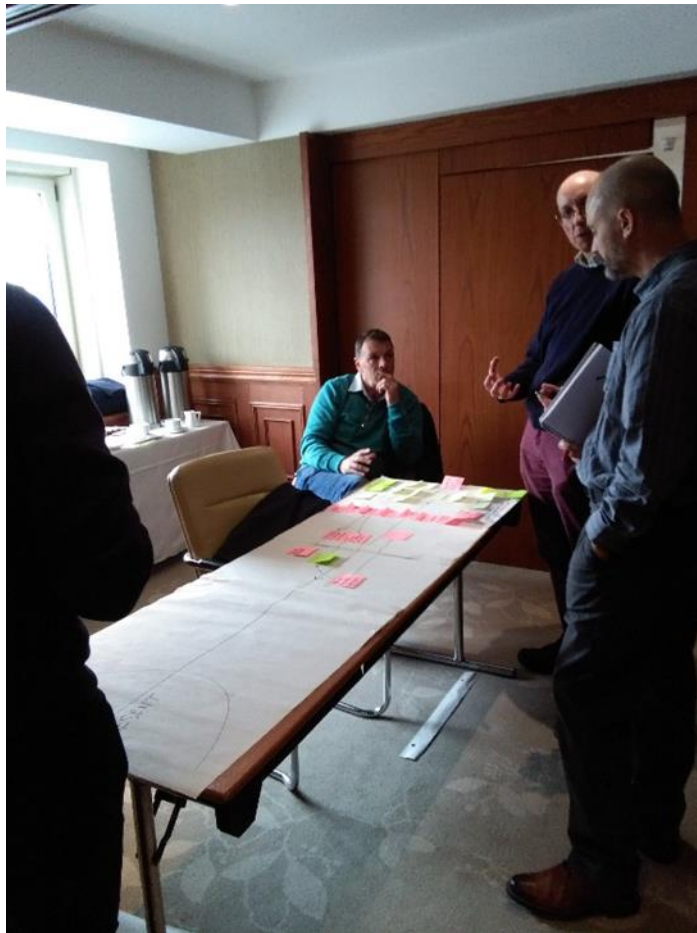
Irish case
study data:
vision
element
groups,
listed
according to
priority

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Step 2: Develop step-by-step plans to achieve this ideal future using back-casting

- Back-casting involves working backwards from the desirable future vision, rather than forward, from the present (forecasting).





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Step 2: Develop step-by-step plans to achieve this ideal future using back-casting

Sub-Objectives	A: An integrated <i>environmental</i> policy dealing with food to be achieved. Covers all areas of environmental concern and should include issues of animal welfare	B: An integrated <i>social</i> policy to be achieved with strives for a healthy populace and supports social justice in the food system	C: An integrated <i>economic</i> policy is achieved which addresses economic viability throughout the food chain, from producers to consumers
END	<ul style="list-style-type: none"> -Paris Climate agreement goals met: -GHGs emission have been reduced -Increasing level of adaptability to the adverse impact of climate change -Greater resilience in food production systems 	<ul style="list-style-type: none"> -‘Eat real food. Mostly plants. Not too much’. (Michael Pollan). Through progressive policies, a state has been achieved where Pollan’s advice reflects societal norms of food consumption -There is increased access to affordable healthy food, -There is increased awareness of the importance of plant-based diets -There is greater consumer knowledge around what constitutes healthy diets 	<ul style="list-style-type: none"> -Economically viable <u>polycultural</u> food production systems are widespread -This has come about because consumers are paying more for their food, partly because they have increased resources to pay more, and partly because there has been a change in consumers’ mindsets around the true cost of food, not only its economic cost, but also its embedded environmental and social costs
Step 6	<ul style="list-style-type: none"> -The general public begin to fully grasp the significance of the ‘greening’ of Irish agriculture -Public support for ‘green’ policies more generally grows -More ‘green’ politicians for whom environmental concerns form the basis of their decision-making are elected 	<ul style="list-style-type: none"> -National ministerial briefs are re-shuffled to create a holistic Department of Food, Health and the Environment. This department is responsible for a number of initiatives including: <ul style="list-style-type: none"> -Public health campaigns around food consumption -Sugar and fat taxing -Facilitating planning at local level for healthy diets -Local level policies are used as the basis for national policies on the same issues 	<ul style="list-style-type: none"> -Food systems are re-oriented away from <u>industrialised</u> production and <u>globalised</u> chains -This is evidenced by how producers now pool resources for efficiency -Also, new forms of logistical systems are created to support alternative production chains -The role of new types of food system intermediaries are created and fostered

Irish case study data: snapshot of some of back-casted plans

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Step 3: Testing the back-casted plan in the context of various different possible future scenarios:

Circumstances change and scenarios are used in research to help us overcome our own assumptions when planning.

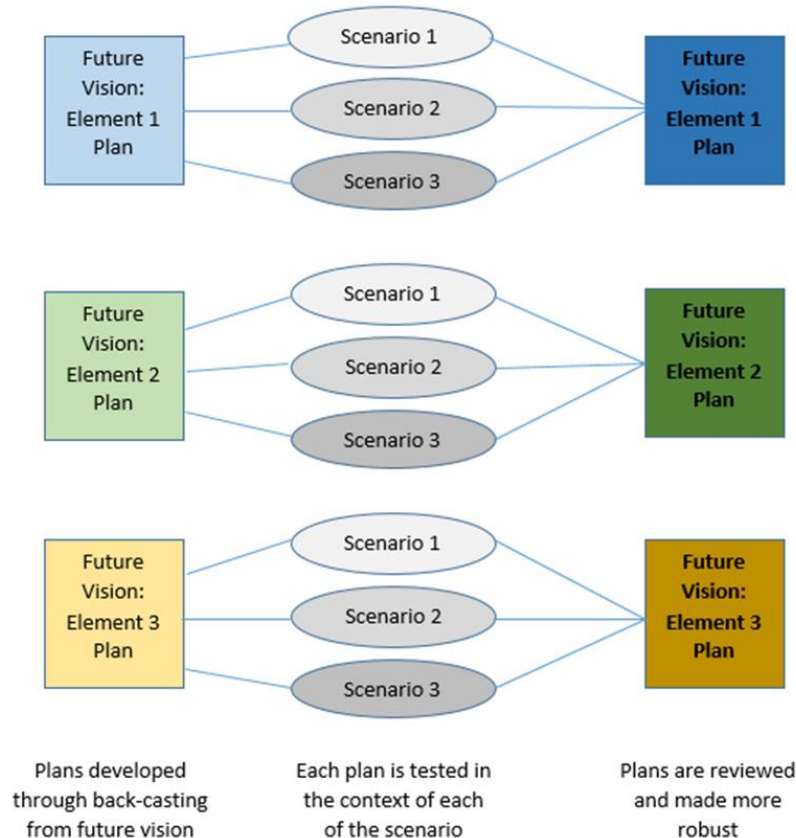
Scenarios are 'what if' stories, told in words or images, used to explore the uncertainties of the future.

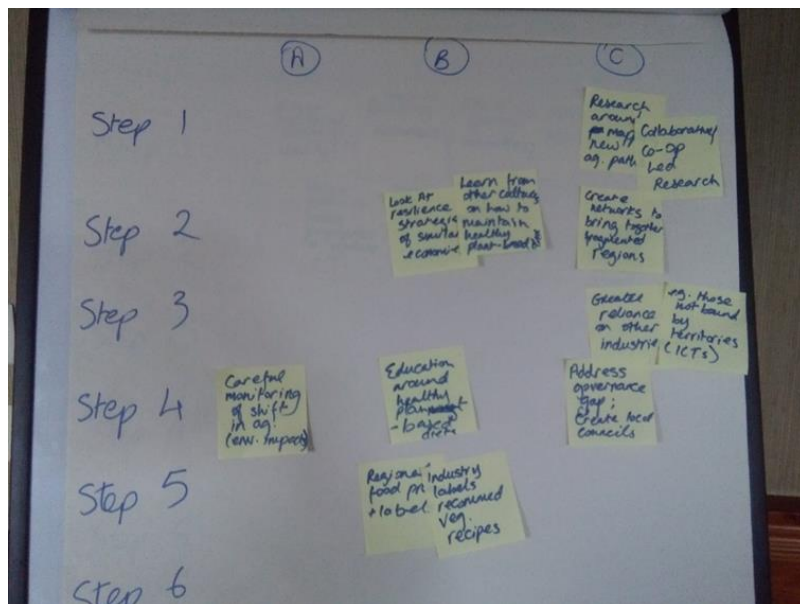


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Step 3: Testing the back-casted plan in the context of various different possible future scenarios:

The final step is to test the plans in the scenario context and changes plans to make them more robust





Step 5	<p>-Due to the growing success of transitions away from current, largely livestock-focused modes of agriculture towards those with a lesser environmental impact, there begins to be wholesale support of these new systems among farmers</p> <p>-The mentalities of farmers' changes towards one which <u>recognises</u> the relatively damaging nature of an agricultural system which focuses on livestock production</p> <p>Again, a focus on economic potentials will allow this step to be achieved. Also, supports could be given for diversification, e.g. grants from EU</p> <p>ACHIEVED IN THIS SCENARIO</p> <p>ACHIEVED IN THIS SCENARIO</p>	<p>-Industry responds to demands from consumers for more healthy food options</p> <p>-In addition, manufacturers simplify food labels making it more transparent for consumers to understand exactly what they are eating by, for example, including details on the level of food processing on packaging</p> <p>Rise in consumer consciousness re. health and environmental impacts of food choices</p> <p>Regional food promotions and labels</p> <p>Industry create food labels which describe vegetarian recipes</p> <p>This step should also be happening earlier in the timeline</p>	<p>-Procurement plays a large role in supporting a transition towards economic viability</p> <p>-This begins with a change in the parameters for procurement, particularly in the public sector</p> <p>-Once 'green' public procurement is established, this can be used to leverage power for alternative producers and to encourage this type of procurement in the private sector</p> <p>-This can be supported by providing tax incentives for companies to procure local food</p> <p>-'Bright spot' models of procurement lead the way on this</p> <p>Emphasis on the economic benefits of sourcing locally, short food supply chains etc.</p> <p>ACHIEVED IN THIS SCENARIO</p> <p>ACHIEVED IN THIS SCENARIO</p>
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Results:

- Bringing together results from all eight case studies three guiding principles for practice-led re-design of the food system have been identified:

Re-design principles



ReDP1: Re-enforcing food entitlements of traditional and newly emerging vulnerable groups



ReDP2: Re-connecting sustainability and health



ReDP3: Re-linking food systems that foster urban-rural synergies

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Implications and Recommendations

The achievement of these goals can and should be supported by appropriate policy actions.

Relating to policy de-siloing (connecting vertical and horizontal policy levels, or policy themes)	Relating to cross-sectoral and/or chain based cooperation
<ul style="list-style-type: none">• Demonstrate concrete commitment to a diversification of agri-food production• Introduce educational reforms to greater embed the topics of healthy diets, cooking skills and sustainable food systems into curricula• Facilitate alternative means for food to reach consumers by short-circuiting existing conventional food chains for greater economic and environmental sustainability e.g. introduce legislation to support public procurement for sustainable food	<ul style="list-style-type: none">• Facilitate the creation of networks to assist in sustainable food system advocacy work• Facilitate the development of private procurement policies which emphasise the use of food derived from a more sustainable system• Work to reduce the production of 'surplus' food, as well as facilitating the repurposing of said surplus food, thus reducing food waste

Irish case study:
policy recs arising from scenarios-guided transition pathways workshop

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Implications and Recommendations

The research methods detailed in this brief could certainly be deployed in the Northern Irish context in order to develop context-specific policy recommendations to support food and nutrition security in the region.





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Thank You

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Northern Ireland
Assembly



Queen's University
Belfast



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