



## Centre for Food Policy

Policy and practice to  
redesign food systems

# Workshop 4.4 Developing the 'Food Systems Flower' framework to support food systems approaches post-TUKFS.

24<sup>th</sup> March 2026

Rebecca Wells

Kelly Parsons

Tracey Duncombe


# Outline of workshop

- 1330-1340 Introduction (KP and RW)
- 1340-1400 Lightning Talks Ioan Fazey, Guy Poppy, Marta Lonnie, Bramble Gardiner
- 1400-1445 World Café format workshop across 3 tables (RW, KP, TD)
- 1445-1530 Feedback and plenary

# Food Systems Flower Diagram 2019

- Centre for Food Policy 2019
- 2<sup>nd</sup> in a series of 6 Policy Briefs produced by the Centre for Food Policy

Parsons K, Hawkes C, Wells R. 2019 Brief 2. What is the food system? A Food policy perspective. In: Rethinking Food Policy: A Fresh Approach to Policy and Practice. London: Centre for Food Policy



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Rethinking Food Policy: A Fresh Approach to Policy and Practice

Brief 2: Understanding the food system: Why it matters for food policy

## What is the food system?

There is more evidence than ever before that the food system is intimately connected to major contemporary global challenges, from malnutrition to climate change. This Brief looks at what the food system is, how it is defined and the implications of that definition for a fresh approach to food policy.

The food system is the interconnected system of everything and everybody that influences, and is influenced by, the activities involved in bringing food from farm to fork and beyond. It includes:

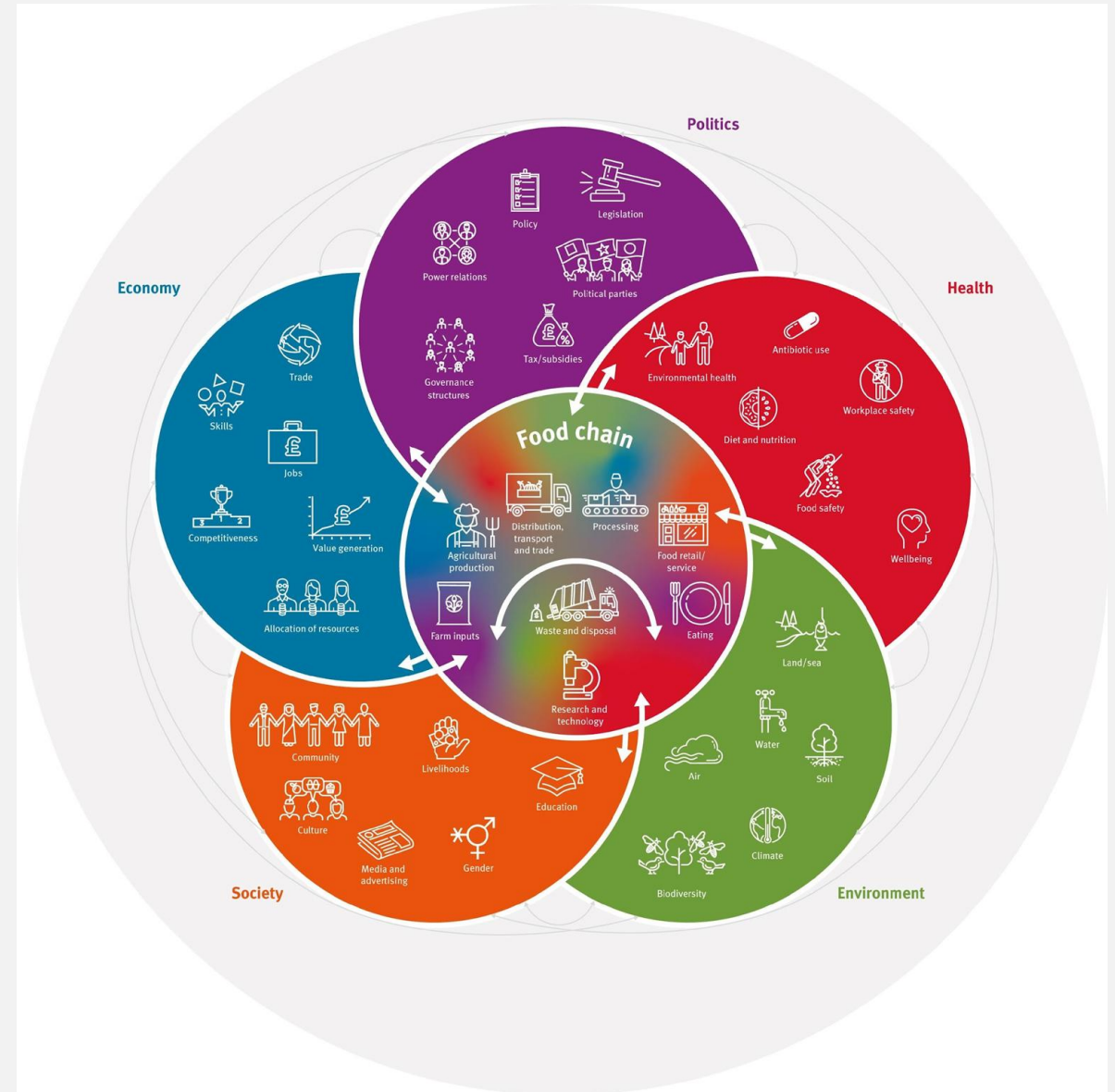
- the chain of activities from producer to consumer;
- the factors that influence the chain of activities and are influenced by it; these are drivers and outcomes of the food chain, which have economic, political, environmental, health and social dimensions;
- the many entities, institutions and people directly and indirectly involved;
- the connections between all these elements, meaning that action in one part of the system has repercussions across the system.

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Shaping an effective food system

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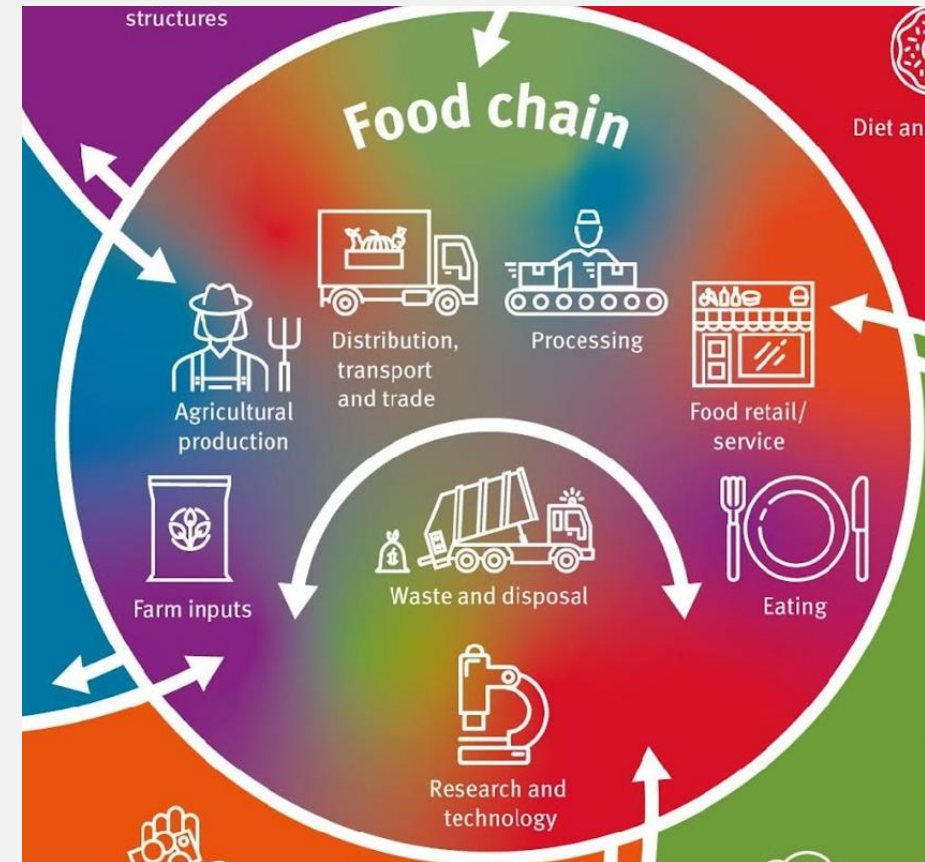
# Aims of the brief

- What does a 'food systems' approach mean for food policy?
- The diagram shows the 'food chain' and a series of interconnected domains around it, containing drivers and outcomes of the food system.



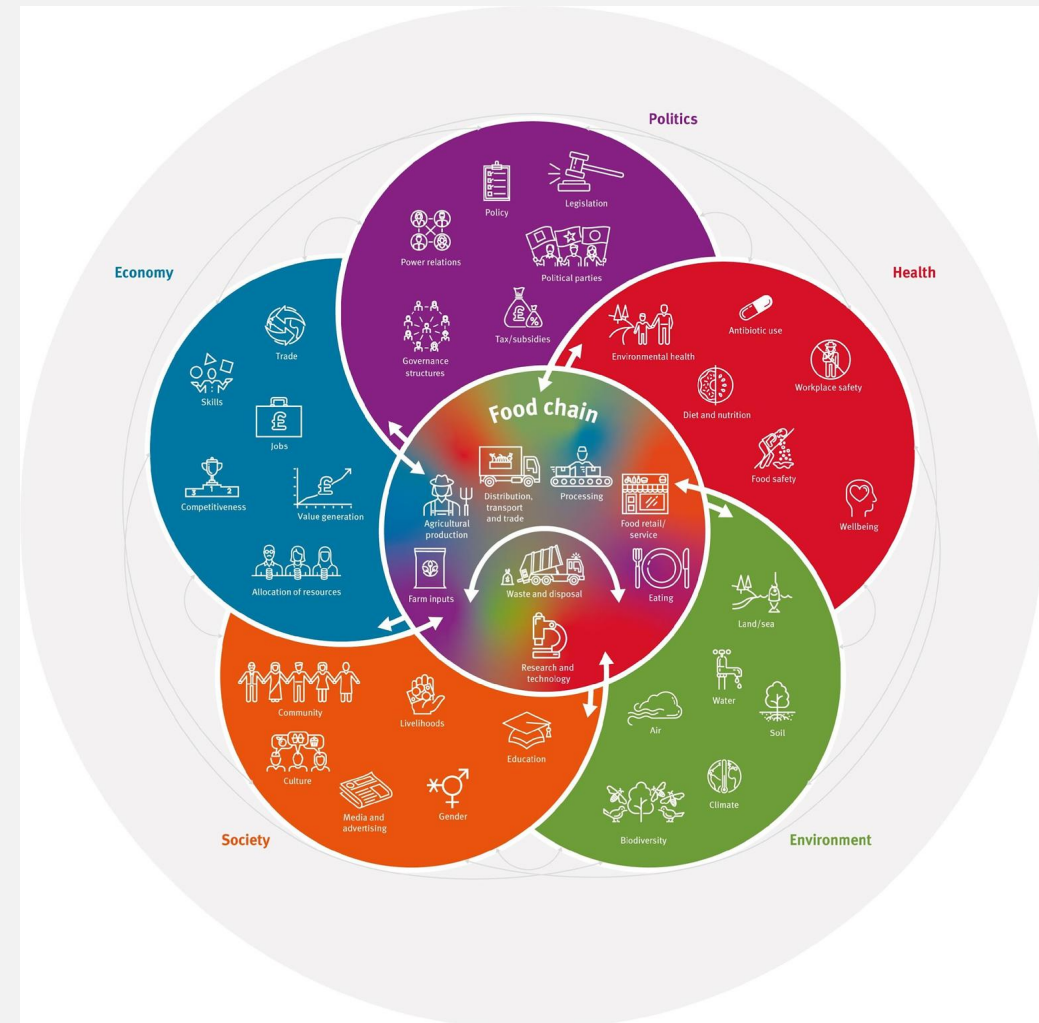
## Aims of the diagram

- Anchor is the food system as a food supply chain in the middle (farm to fork, boat to throat, etc etc)
- The term 'food systems' – complex adaptive systems – drawing on systems thinking
- At the time this was still quite unusual to think across and between different parts of a linear food system.



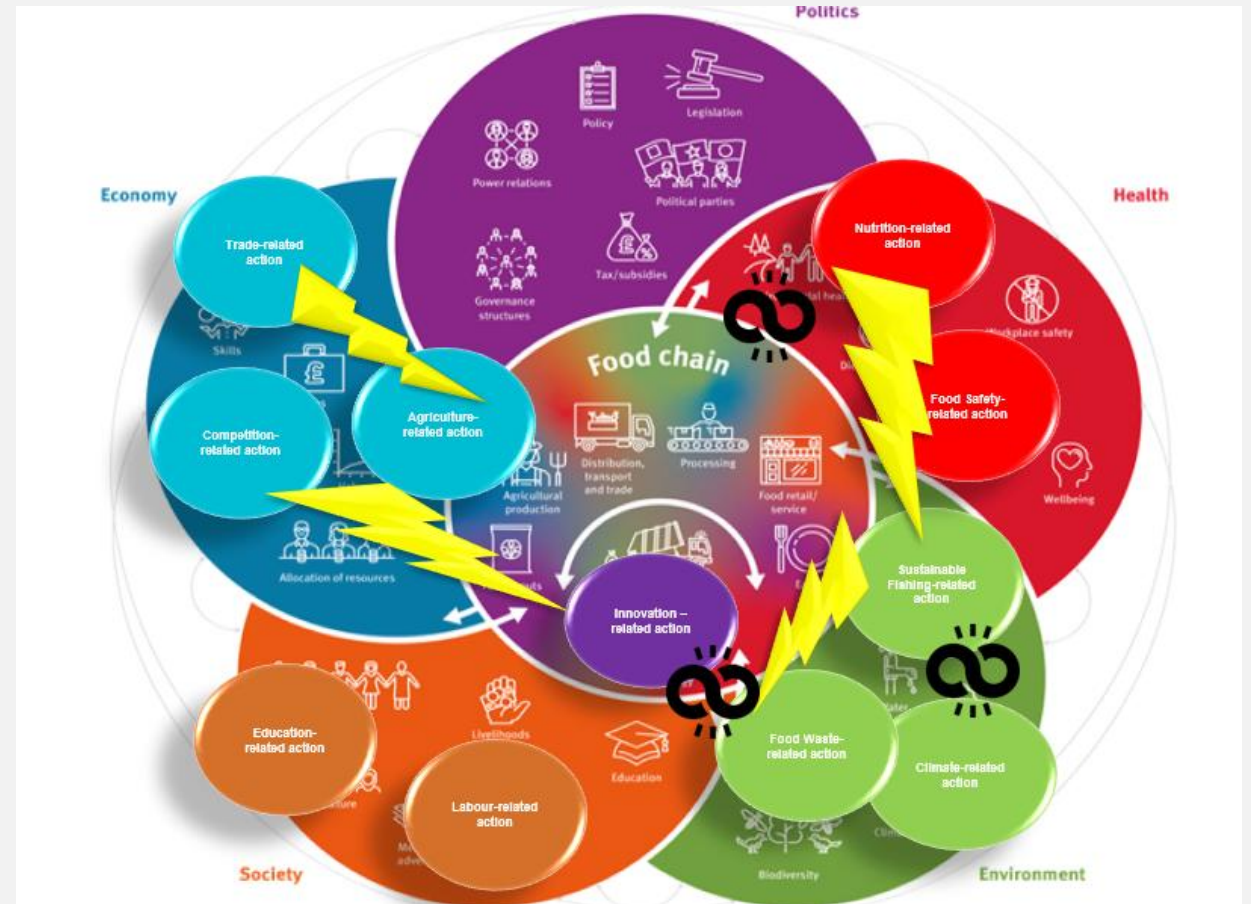
# Aims of the diagram

- As you move out further you see drivers and outcomes
- These are interlinked across 5 domains: politics, health, environment, society, economy. Drivers within the domains are also outcomes and vice versa
- This point is important – e.g. food system impacts environment, environment impacts food system



# Interlinkages enable intervention mapping

- Acting in one part of the system produces impacts in other parts of the system
- Opportunities for synergies and co-benefits as well as conflicts
- And can uncover unintended consequences
- Again drawing on systems thinking



# Potential uses as we saw them

- Deliberately simple diagram to aid communication and understanding around the idea of food systems
- Presented as a visual thinking tool – wanted to get away from very complex systems diagrams which are hard to read and understand and other food system diagrams e.g. ShiftN Global Food System map and Foresight obesity system diagram

# 7 years later – how has the diagram been used?

Bury Food Strategy  
Eat, Live, Love Food  
2020-2025



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A new [#foodsystem](#) tool is designed to support joined-up thinking - acting - about [#foodpolicy](#). It features in the latest Brief in our [series](#), which calls for more systemic policy interventions, and a focus on [benefits and unintended consequences](#): [tinyurl.com/yy3hgLzL](https://tinyurl.com/yy3hgLzL)

Issues around the food chain

An earlier post looked at the future of the *Living Field* project through a diagram of the food system used as a guide at the [Scottish Scotland conference](#) in November 2019. The diagram was constructed by the Centre for Food Policy at City University London and is reproduced here in full with permission.

The food system

One of the paintings of this work is the [banking by the river](#) and [the future of the food chain](#). Our family have provided examples of [bar work](#) and [some notes on the life of the food chain](#).

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Undergraduate Student Research > Food Systems: Visual Campaigns

Food Systems: Visual Campaigns

The Assessment Task

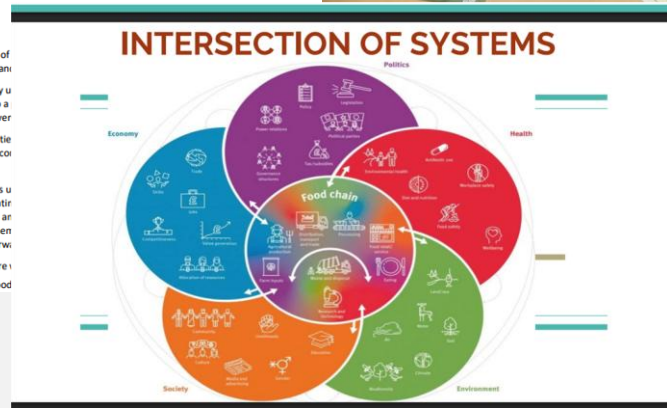
Students work in groups to apply their Food System analysis skills. They are required to identify and diagnose an issue within a food system of their choice. The group then analyses the issues using concepts, frameworks and theories delivered within the module - or identified by the students as being complementary - to develop a proposed intervention that addresses the situation. The proposal must be for a visual campaign, which is interpreted broadly as coherent range of communication assets that take some element of a visual form - social media, art, "flashmob" organisation, conferences etc - to promote an agenda. Each asset must be targeted and tailored for a specific decision-maker in the Food System. The Presentation should therefore persuade potential sponsors that the group has in-depth and critical subject knowledge of food systems thinking, which includes an understanding of specific actors, their positionality and interests within the wider context.

Food Systems Mapping is a skill increasing useful in professional research and practice - as manifest in the publication of a UK Food map by the peer review journal *Nature Food*. GSD graduate are therefore at the forefront of both subject expertise, as well as professional practice.

2021/22 Cohort | 2022/23 Cohort

## Foreword

Good nutrition is an essential part of early years, childhood, adulthood and the food environment, advocating a large number of partners engaged and develop this strategy. We thank them with them as we take our plans forward. We are delighted therefore to share achieve healthy and sustainable food



SURPLUS PEOPLE PROJECT

Surplus People Project

A social organisation that promotes and advocates for agrarian reform for food sovereignty with strategic alliances.

Civic and Social Organizations · Observatory, Cape Town, Headquarters · 860 followers · 11-50 employees

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# Research project

- Tracing use of the diagram over time using Reverse Image Searching
- Conceptualised the diagram as a Boundary Object
- RQ: How is the diagram used, by whom and in what way?

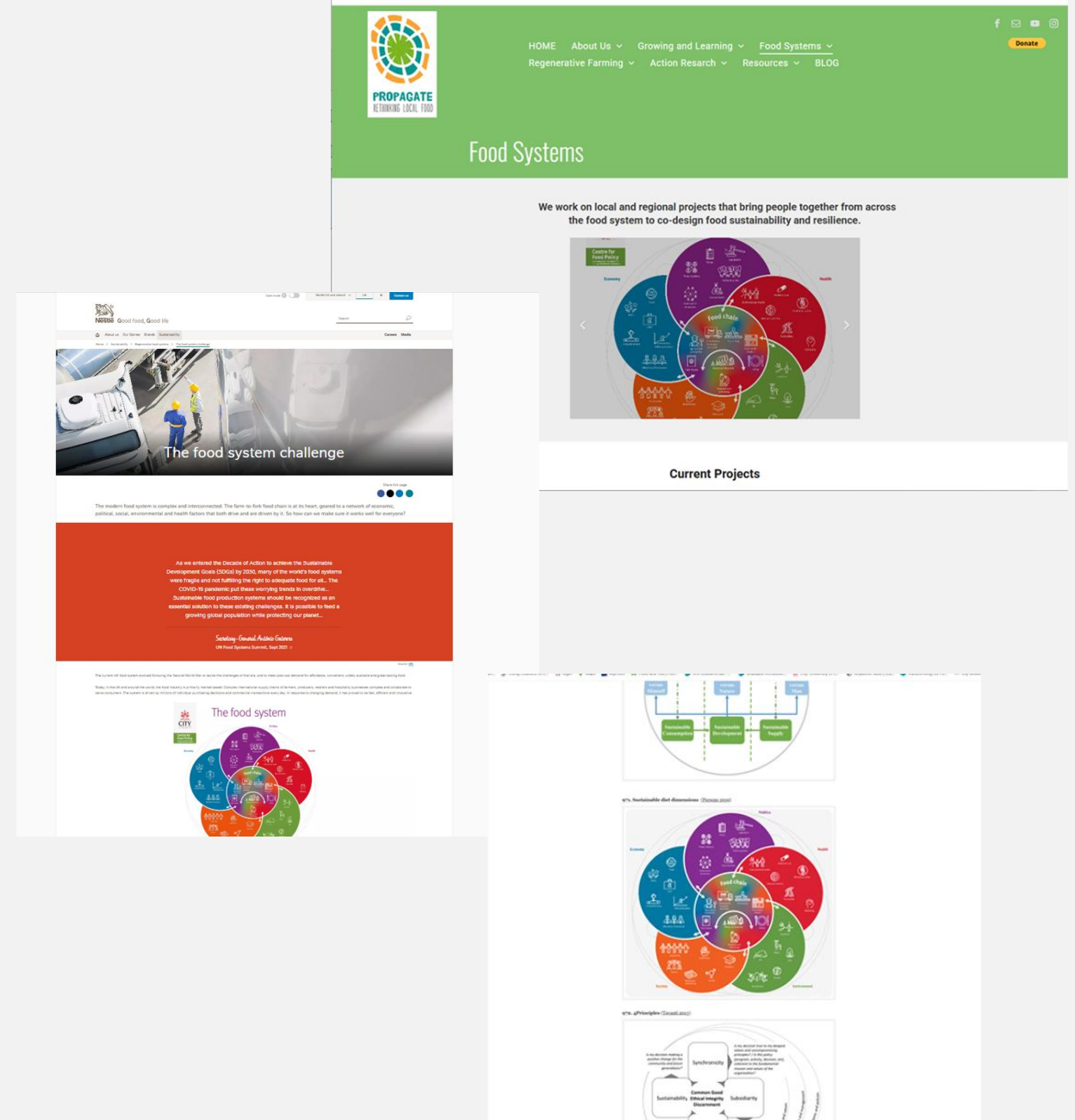
# How has it been used, by whom and in what way?

User category	Illustrative	Explanatory	Analytical	Mapping aid	Total
Academic	16	15	6	4	41
Civil Society	6	5	3	1	15
Policy	0	8	3	0	11
Industry	1	3	0	0	4
Other	2	0	1	0	3
<b>Total</b>	<b>25</b>	<b>31</b>	<b>13</b>	<b>5</b>	<b>74</b>

Sou

# 1. Illustrative

- ‘Illustrative’: uses the diagram to encapsulate the idea of a food system without much explanation of how food systems operate.
  - Propagate Scotland ‘Food Systems’
  - Nestlé n.d. ‘The food system challenge’
  - Computing for Sustainability ‘1000 sustainable Images’



# 2. Explanatory

- Some description of the food system or systems approach to food, e.g. interactions, drivers, outcomes, complexity.
  - One Earth paper (Davies, 2020)
  - DAERA - Northern Ireland Food Strategy Framework (2024)
  - Understanding Glasgow project, n.d. 'The Food System and Health'

Outline  
Main Text  
Acknowledgments  
References  
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Cited by (21)

Figures (2)

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**The food system**

surprising, therefore, that the SAPA report uncovered a range of theoretical perspectives, conceptual frames, and units of analyses that have been used for understanding the dynamics of the food system. This creates challenges in terms of comparing and combining findings, consolidating learning, and synthesizing promising actions. However, the complex configuration of social science research reflects the diversity of the food system (Figure 2) and also the diffuse nature of its governance.

**Figure 2. Mapping the Food System**  
This figure from Parsons et al. represents the complexity of the overlapping political, economic, health, social, and environmental systems that shape and are shaped by the food system.

**Governmental Actors and Policies**  
Although the availability of food was not perceived to be an issue in the EU (at least prior to the coronavirus disease 2019 [COVID-19]), access to safe and nutritious food remains problematic for many European countries. In addition, the highly globalized EU—which currently imports around half of the food purchased in the EU—faces geopolitical issues around food security and system resilience. However, explicit food policies within the EU are fragmented and an overarching framework. It is hard to navigate, access, and understand, particularly for smaller, less well-resourced countries.

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Northern Ireland Food Strategy Framework  
*Food At The Heart Of Our Society - A Prospectus For Change*

### 3. A Food Systems Approach

The Food Strategy Framework signals a radical change in approach to food policy for Northern Ireland. Reflecting the different strategic drivers anticipated during the coming decades, the Framework seeks to build a food system that will address economic, environmental and social sustainability. It places a major focus on the need for behavioural change to deliver the desired outcomes.

A Food Systems approach embraces all the elements and activities that are involved in feeding a population: the production, processing, distribution, supply, marketing, consumption of food and drink and handling of waste; and the consumer values and behaviours that influence these processes (see Figure 2).

The food system and health

# 3. Analytical framework

- Diagram as a scaffold for analysis, e.g. using domain headings: health, environment, economic, social, political
- Smith, Wells and Hawkes (2022) on primary school curriculums and food literacy
- Tobi et al (2019) on sustainable diet dimensions in food labelling.
- UK Parliament PostNote (2020) 'A Resilient UK Food System'

International Journal of Environmental Research and Public Health

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Institutional Review Board Statement  
Informed Consent Statement  
Data Availability Statement  
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Appendix A  
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Appendix D: List of Curriculums That Met the Inclusion Criteria Analysed against the FL Framework. Source: Authors  
References  
Article Metrics

Appendix B

The food system

Figure A1. The food system. Source: [4]

Appendix C

Table A2. Example of the food literacy framework (under Themes 1-3), which are divided into subgroups. The total score for each subgroup was used to create framework by the authors. In England, Relationship Technology (R&T) and Science curriculums include the authors.

POSTNOTE 626 June 2020 A resilient UK food system Page 2

**Box 1: What is the 'Food System'?**  
The Centre for Food Policy describes the food system as "the interconnected system of everything and everybody that influences, and is influenced by, the activities involved in bringing food from farm to fork, and beyond."<sup>12</sup> This includes processes and actors (businesses, workers, etc.) that contribute to producing, processing, retailing and consuming food. Taking a food systems approach to resilience is broader than looking at the resilience of individual supply chains. This is because, as well as incorporating supply chains, a food system includes the wider social, economic, environmental and political factors that affect its activities, goals and outcomes (see diagram below, adapted from a diagram produced by the Centre for Food Policy).<sup>13</sup>

**Environmental threats**  
Climate change poses an increasing threat to the functioning of the food system. Short-term extreme weather events, such as droughts and floods, are forecast to increase in frequency in the UK.<sup>14-17</sup> Globally, such events have already been shown to be major contributors to sudden losses in food production,<sup>18</sup> and can disrupt the logistical infrastructure needed to distribute food.<sup>14</sup> Longer-term stresses like increasing water scarcity or sustained temperature rise can cause regions to become unsuitable for growing crops,<sup>19-47</sup> and help spread pests and diseases to new areas.<sup>48-50</sup> Biodiversity loss also disrupts the food system. Declines in the number and diversity of animals and plants can reduce the amount of food harvested from habitats through activities like fishing,<sup>51,52</sup> or lower agricultural yields by reducing pollination,<sup>53</sup> soil fertility<sup>54</sup> and pest control that wild species may provide.<sup>55-57</sup>

**Geopolitical threats**  
The UK imports 47% of its food<sup>3</sup> and is particularly reliant on imports for key produce like fruits and vegetables.<sup>58</sup> This makes the food system vulnerable to disruptions in trade brought about by geopolitical issues, conflict or political instability in food producing regions. Leaving the EU is widely seen as a potential risk, in part because 28% of UK food is imported from the EU and 60-65% of all the UK's agricultural exports go to EU countries.<sup>59-61</sup> However, some see it as a potential opportunity to build resilience by putting more emphasis on local production or importing food from a broader range of countries.<sup>60,62,63</sup> The level of disruption and the effect on food system resilience will depend on the future trade deals that are secured.

**Public health threats**

The Global Food Security Food Systems Resilience programme<sup>64</sup> has expanded on this, describing a resilient food system as one that is **robust** (shielded from disruptions), can **recover** quickly after disruption and **reorient** to accept alternative outcomes (such as accepting seasonal availability of some foods or reduced meat diets).

The term resilience is sometimes used interchangeably with

The food system

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Three attribute areas were selected as a focus for the study, with databases selected to recognise food choice research designs used in different disciplines. Sustainable food system frameworks (Figure 1) often include economic and cultural domains in addition to health, social and environmental ones. However, these were excluded from this study in line with other literature on the topic viewing such schemes (e.g., protected designated origin labels) as markers first and foremost of geographical indication, more reflective of ethnocentric concerns than altruistic or environmental ones [19,28,29].

Figure 1. Domains within a sustainable food system framework [30]

The nutrition attributes included in this review related to the nutritional content and nutrition-health claims of food. This included labelling schemes displaying information related to food energy and nutrient content (macro and micro), nutrition-related health claims, and the 5-a-day logo. Sensory and hedonic attributes such as flavour and textural preferences were excluded.

Environmental attributes included labelling schemes related to carbon emissions, water footprints, more general ecological and environmental sustainability claims, biodiversity and organic production methods. Schemes with an insufficient evidence-base regarding their environmental impact, e.g., genetically modified organisms [31], were excluded.

# 4. Mapping aid/Interactive tool

- Takes analysis one step further, through interactive engagement, by groups in workshops, for example.
  - Dumfries and Galloway Sustainable Food Partnership (n.d.)
  - Warwick University 2022 - Food Systems: Visual Campaigns, student presentations
  - Fit4Food 2020 Promoting Healthy and Sustainable Diets: roadmaps for change, online workshop



promotion of HSD.

- During a congress for participants to build knowledge around the complexity of the promotion of HSD and for facilitators to adapt and improve the map with new perspectives



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Food Systems: Visual Campaigns

**The Assessment Task**

Students work in groups to apply their Food analysis skills. They are required to identify and diagnose an issue within a food system of their choice. The group then analyses the issue using concepts, frameworks and delivered within the module - or by the students as being entry - to develop a proposed solution that addresses the situation. The result is for a visual campaign, which is as broadly as coherent range of communication assets that take some element of form - social media, art, "poster" design, conferences etc - to promote an Each asset must be targeted and for a specific decision-maker in the Food The Presentation should therefore potential sponsors that the group has and critical subject knowledge of food thinking, which includes an listing of specific actors, their ability and interests within the wider

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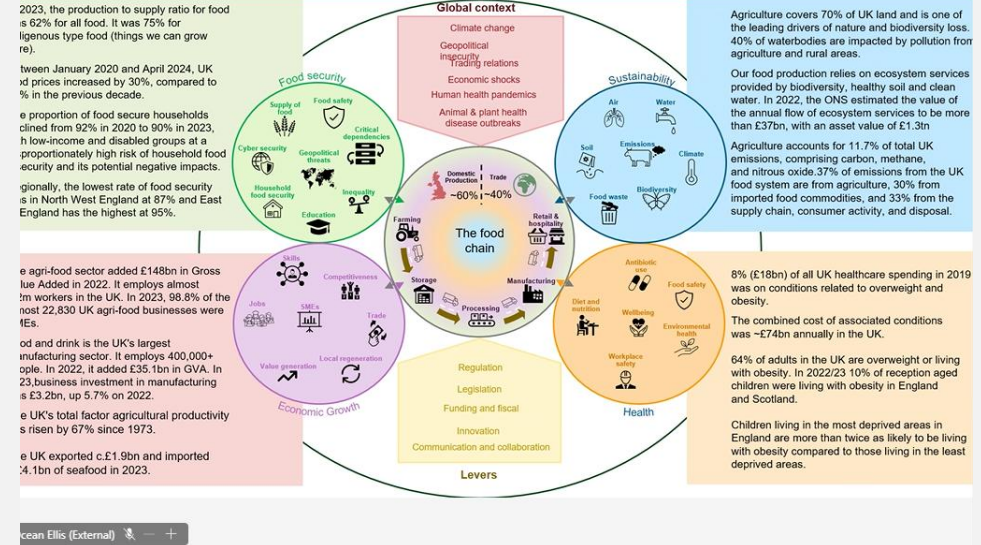
Figures 3 and 4. Different workshop settings (face-to-face and online meetings). Workshops organised by the Living Lab for Health at IrsiCaixa.

# Adaptation of the diagram

- Creating a new version inspired by the flower, utilising certain elements but making others bespoke to the organisation

- Greencore 2024 Sustainability Report
- DEFRA Food Strategy Presentation

## Problems with the food system are well understood



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Greencore

## Influencing the Food System

Systems are complex webs of interconnected elements, so vast, it is impossible to trace all influences and connect all symptoms with causes. The 'food system' is no different, it spans the globe and is intricately connected to changes in politics, economies, society and health, and the environment.

The food system is shaped by these elements, including their underlying forces which all affect the type of food we see on our shelves. But it also exerts its own influence. It affects our health, the use of land and resources, and is a major source of employment in our society.

Greencore exists within this system and is shaped by these influences. We also recognise our responsibility and the opportunities we have to positively impact the environment in which we operate. We sit at the centre of an intricate network of stakeholders to prepare an average of 25m units of food products per week. Our stakeholders include ingredient producers, suppliers and our customers, and we have an opportunity to work with these groups to deliver healthier and more sustainable outcomes for all.

However, many challenges remain, and mapping the food system and its connections helps to better understand and prioritise where to focus our efforts. These are the pillars of our Better Future Plan and how we are working to create a more sustainable food system that benefits people and the planet.

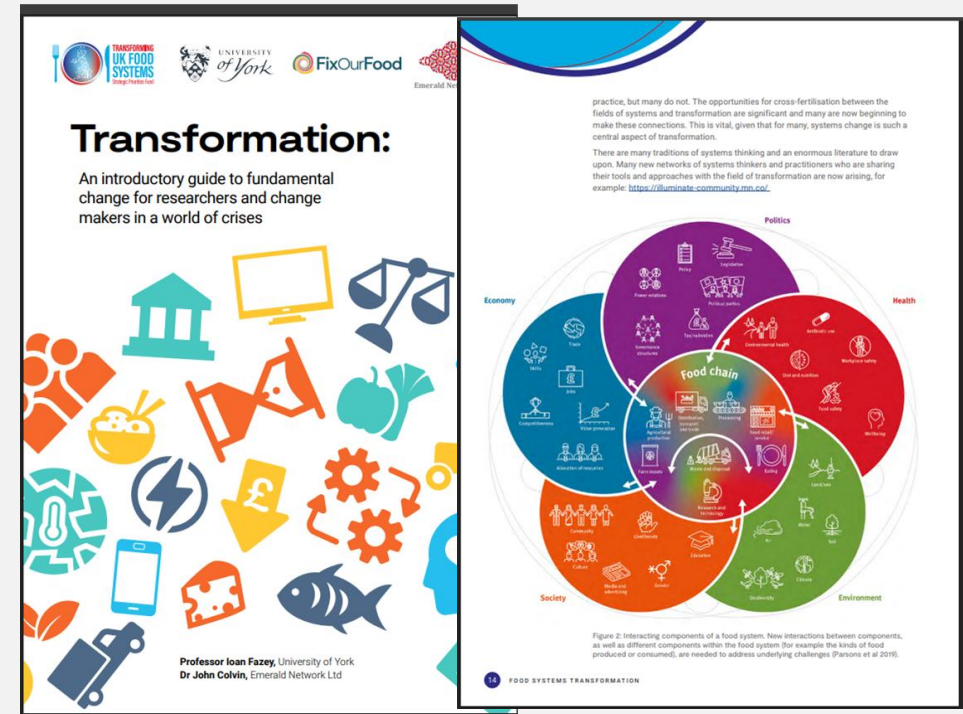
\*Average units produced per week that are either a part of or, an accompaniment to meat or seafood in a meal.

## Greencore and the Food System

Report by: compiled by Pearson et al. Center for Food Policy, City University of London.

# Lightning Talks (5 mins each) 1340-1400

- Profesor Ioan Fazey (illustrative)
- Fazey, I and Colvin, J. (2023). *Transformation: An introductory guide to fundamental change for researchers and change makers in a world of crises - A Report for the Transforming UK Food Systems SPF Programme*. University of York, Emerald Network Ltd.



# Lightning Talks (5 mins each)

- Professor Guy Poppy (explanatory)
  - BBSRC Call Text for Transforming UK Food Systems Programme
  - Bhunnoo, R. and Poppy, G.M., 2020. A national approach for transformation of the UK food system. *Nature Food*, 1(1), pp.6-8.

comment

## A national approach for transformation of the UK food system

Transformation of the food system at the national scale requires concerted action from government, business and civil society, based on sound evidence from the research community. A programme for transformation of the United Kingdom's food system, for healthy people and a healthy environment, is described here.

Riaz Bhunnoo and Guy M. Poppy

Healthy people and a healthy environment are intrinsically linked through food, and it is only by taking a systems approach to food that the transformations needed to achieve human and planetary health can be delivered. A food systems approach encapsulates the actors, activities and outcomes involved in agriculture, aquaculture, processing, manufacture, retail, consumption and waste, alongside the interdependencies, pressures and drivers (Fig. 1).

The food system is highly interconnected and complex. A food systems approach avoids consequences from interventions in one part of the system adversely affecting



Fig. 1 | The food system. The food supply chain at the core of the food system, has interdependencies with politics, health, environment, society and economy. Credit: Centre for Food Policy, City, University of London

The Food Systems SPF is an interdisciplinary programme of research that will help transform the UK food system by placing healthy people and a healthy natural environment at its centre. It will address questions around what we should eat, produce and manufacture in the UK and what we should import. In doing so it will consider the complex interactions between health, environment and behavioural factors, while taking into account wider needs for different groups in society. This will enable a joined-up approach across healthy and accessible diets and sustainable food production and supply, delivering coherent evidence to enable concerted action from government, business and civil society. Any transformation should be safe, fair and economically viable, taking into account livelihoods, financial reward structures and delivery of public goods<sup>9</sup>.

Healthy people and a healthy environment are intrinsically linked through food, and it is only by taking a systemic, holistic, interdisciplinary approach, otherwise known as a 'food systems approach' that we can deliver the changes that are required. A system is a set of things working together as part of an interconnected whole. The food systems approach encapsulates the actors, behaviours and outcomes involved in land use, agriculture, aquaculture, storage, processing, manufacture, retail and consumption, alongside the interdependencies, pressures and drivers (see Figure 1 for a representation of the food system).



Figure 1. An indicative representation of the food system produced by City University of London. For more information on the food system depicted here, see 'The Centre for Food Policy Brief'<sup>10</sup>

It is important to frame issues in this systemic, holistic way because the different parts of the overall food system are highly interconnected, and can interact in complex and non-linear ways. A food systems approach avoids unintended consequences from interventions in one part of the system adversely affecting another (for example, simply growing more vegetables

with government departments, is focusing on transformational change of the UK's food system for healthy people and a healthy environment'. It brings together academia, government, business and civil society organizations within interdisciplinary concepts to provide

67% of men were classified as overweight or obese in 2019, with diet-related chronic disease accounting for £6.1 billion of annual National Health Service spending (around 9%) and generating a wider economic loss of more than £54 billion per year (3% of UK GDP). UK data look at fish and

<sup>9</sup> *Nature Food*, Learning and Leadership Commission (2020) *Our Future in the Land*. Online: <https://www.nature.com/articles/s41560-020-0068-9>  
<sup>10</sup> Bhunnoo, R., Bhunnoo, L., Webb, K. (2021) *What is the Food System? A Systems Perspective on Transforming Food Policy*. In: *Food Systems Policy and Practice*. London: Centre for Food Policy. [https://www.city.ac.uk/~media/city/~/media/department-of-food-policy-and-practice/food-policy-and-practice-2021.pdf](https://www.city.ac.uk/~media/city/~/media/department-of-food-policy-and-practice/food-policy-and-practice/food-policy-and-practice-2021.pdf)

# Lightning Talks (5 mins each)

- Dr Marta Lonnie (analytical/interactive)

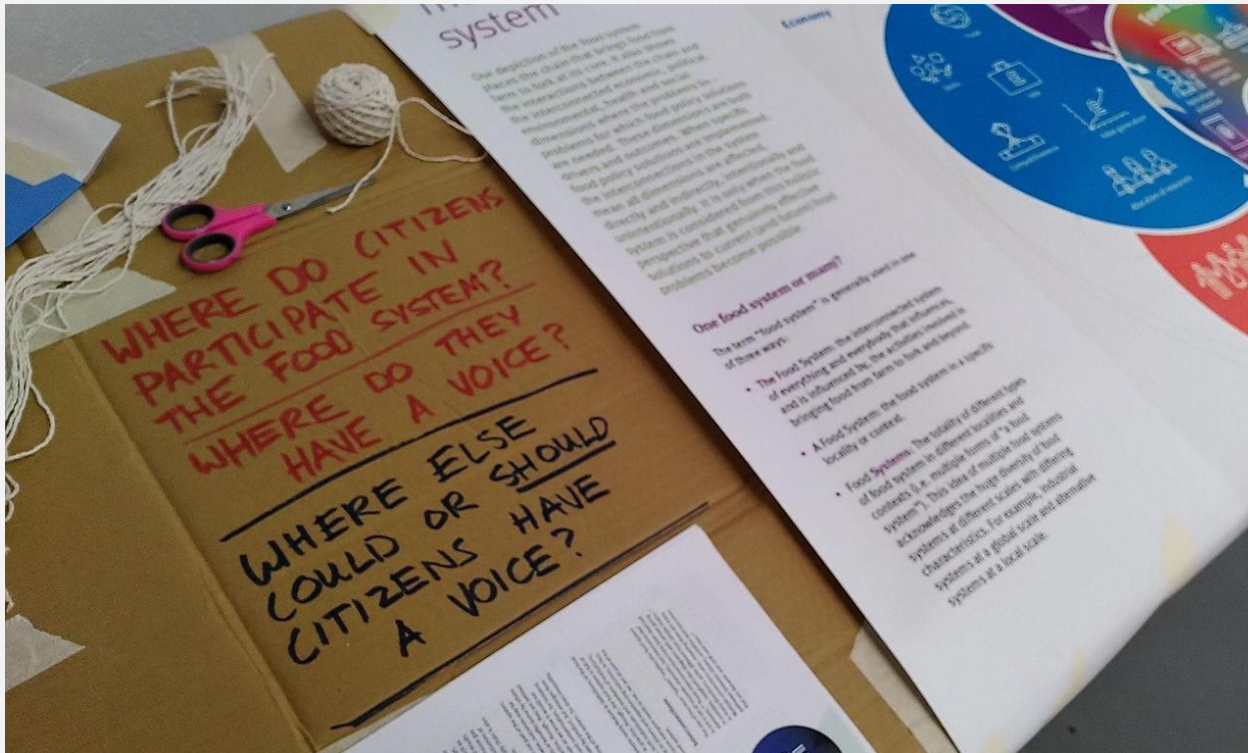


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# Lightning Talks (5 mins each)

- Bramble Gardiner (interactive)



# 1400-1445 World Café (15 mins each table)

- **Questions for all three groups:**
  - How might you use the diagram in your work in this way?
  - How could the diagram be adapted to facilitate use in each category?
  - What guidance could we provide for users?
- **Table 1 Illustrative/Explanatory (RW)**
  - Design changes?
  - Is there anything missing?
  - Normative model including e.g. goals for FS transformation?
- **Table 2 Analytical (KP)**
  - What might help to facilitate use of the diagram as a framework (e.g. SHEEP, using petals)
  - Neutral vs normative model for analysis?
- **Table 3 Interactive (TD)**
  - Which formats could be helpful?
  - What types of materials could be used - online/physical?

# Feedback

- Table 1 Summary (RW)
- Table 2 Summary (KP)
- Table 3 Summary (TD)

**Next steps and Thank You!**

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# Transforming UK Food Systems Conference, 23-24 March 2026



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