

Unpacking the development and implementation of the Birmingham Food System Strategy: a Ripple Effects Mapping study

Fleur ter Ellen, Kelly Parsons, Martin White, Alexia Sawyer



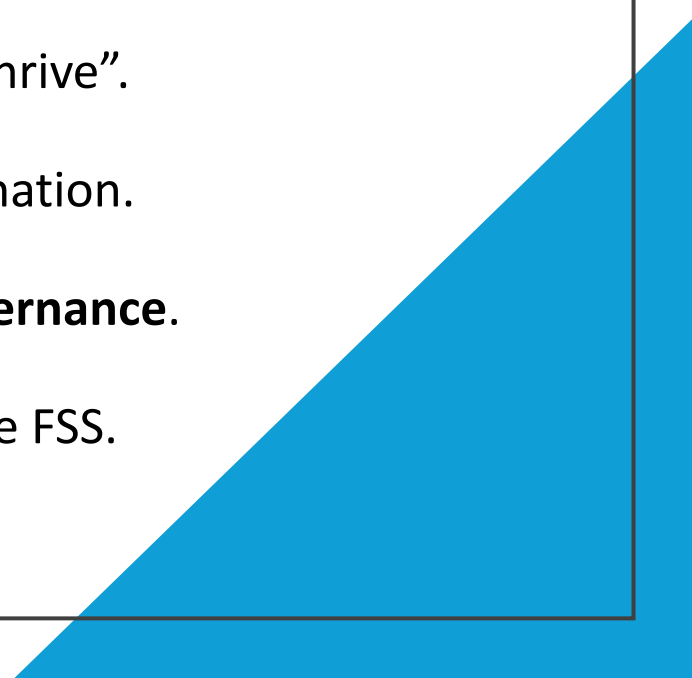
Fleur ter Ellen, PhD candidate

Erasmus MC, Department of Public Health, Rotterdam, the Netherlands

Visiting PhD student Mandala Consortium



Background

- **Food strategies** increasingly used to integrate food-related policies across sectors.
 - **Birmingham Food System Strategy (FSS) 2022–2030** co-developed with the city.
 - **Vision:** “To create a fair, sustainable and prosperous food system and economy, where food options are nutritious, affordable and desirable so everyone can thrive”.
 - Dedicated **Food System (FS) Team** to drive implementation and coordination.
 - Birmingham as a leading example of **systems-oriented urban food governance**.
 - This study explores **perceived impacts and enabling mechanisms** of the FSS.
- 

Ripple Effects Mapping (REM)

- Participatory method to evaluate the **broader impacts** of a program over time.
- Captures intended and unintended, tangible and intangible effects.
- Explores how stakeholders **perceive contributions to systems change**.
- Uses **mind mapping** to visually trace chains of events and impacts.
- Helps identify **unintended negative effects**, enabling timely adjustments.

Nobles et al. *BMC Medical Research Methodology* (2022) 22:72
<https://doi.org/10.1186/s12874-022-01570-4>

BMC Medical Research
Methodology

RESEARCH

Open Access

Ripple effects mapping: capturing the wider impacts of systems change efforts in public health



James Nobles^{1,2*}, Jessica Wheeler^{1,2}, Kirsty Dunleavy-Harris^{3,4}, Richard Holmes⁵, Alan Inman-Ward³, Alexandra Potts⁶, Jennifer Hall^{7,8}, Sabi Redwood^{1,2}, Russell Jago^{1,9} and Charlie Foster⁹



REM procedure

REM workshop	Participants	Goal	Date (2025)
Workshop 1	Food System Team (3)	Explore perspectives on the impacts	March
Workshop 2	Stakeholders (6)	Explore perspectives on the impacts	April
Workshop 3	Food System Team (6)	Refine insights, review the output	May
Workshop 4	Stakeholders (3)	Refine insights, review the output	June
Workshop 5	Food System Team & researchers (10)	Joint reflection on findings	October
Interviews	Stakeholders & FS Team member (3)	Explore perspectives on the impacts	Ongoing

Data analysis steps

Identifying **impact pathways**:
sequence of actions, activities, and outcomes in the REM.

Defining the **impacts**, and **mechanisms** enabling the impacts.

Group impact pathways into **clusters**.

Identify the **key enabling mechanisms** per cluster.

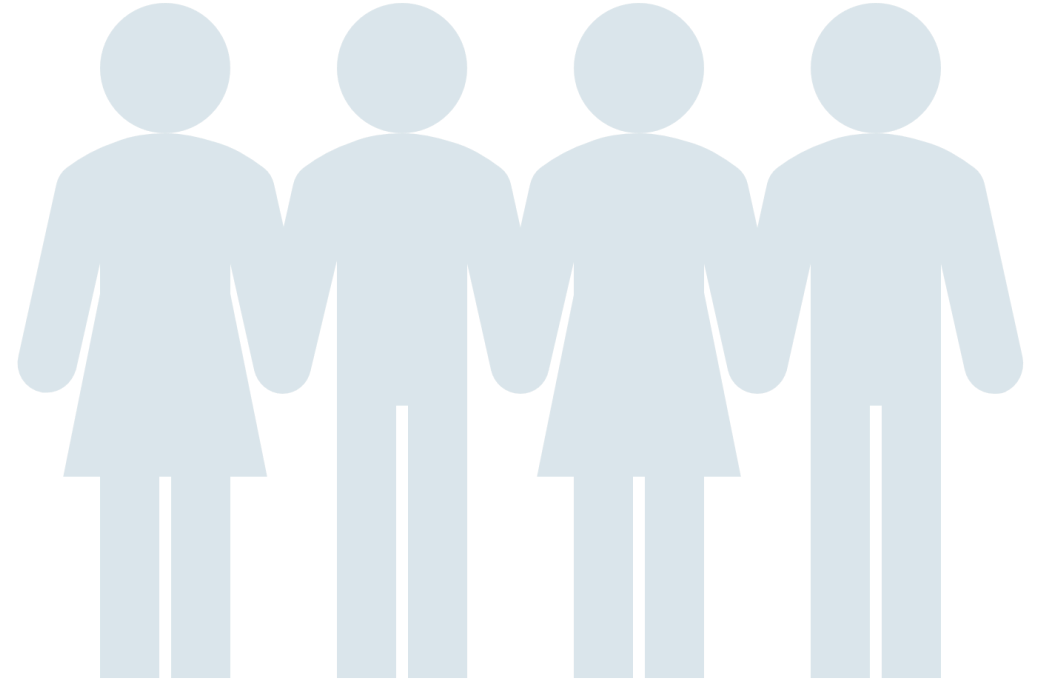
Analyse **relationships** within and between clusters.

Results Food System Team perspective

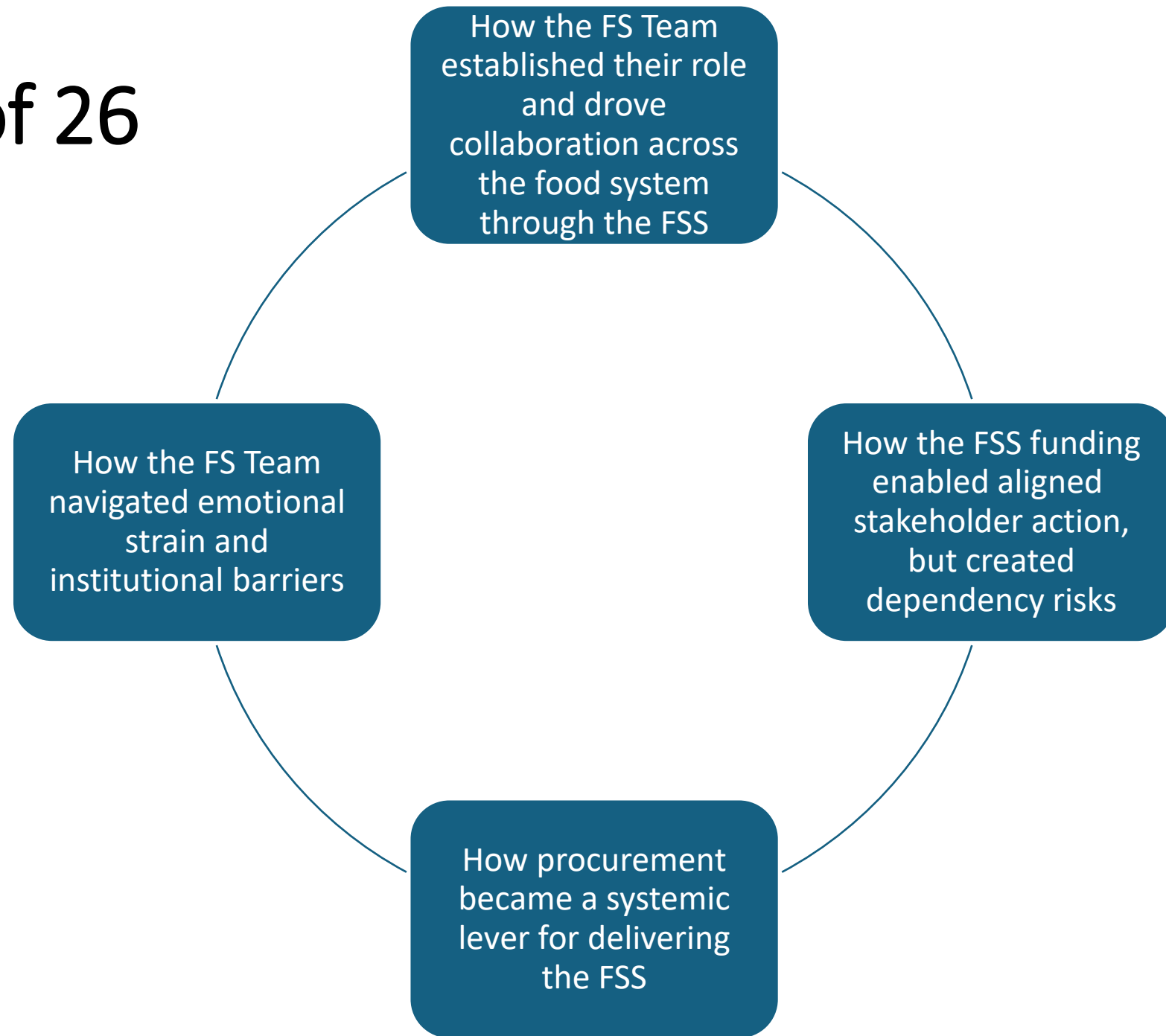
Total participants: 6

Outcomes:

- 26 impact pathways identified



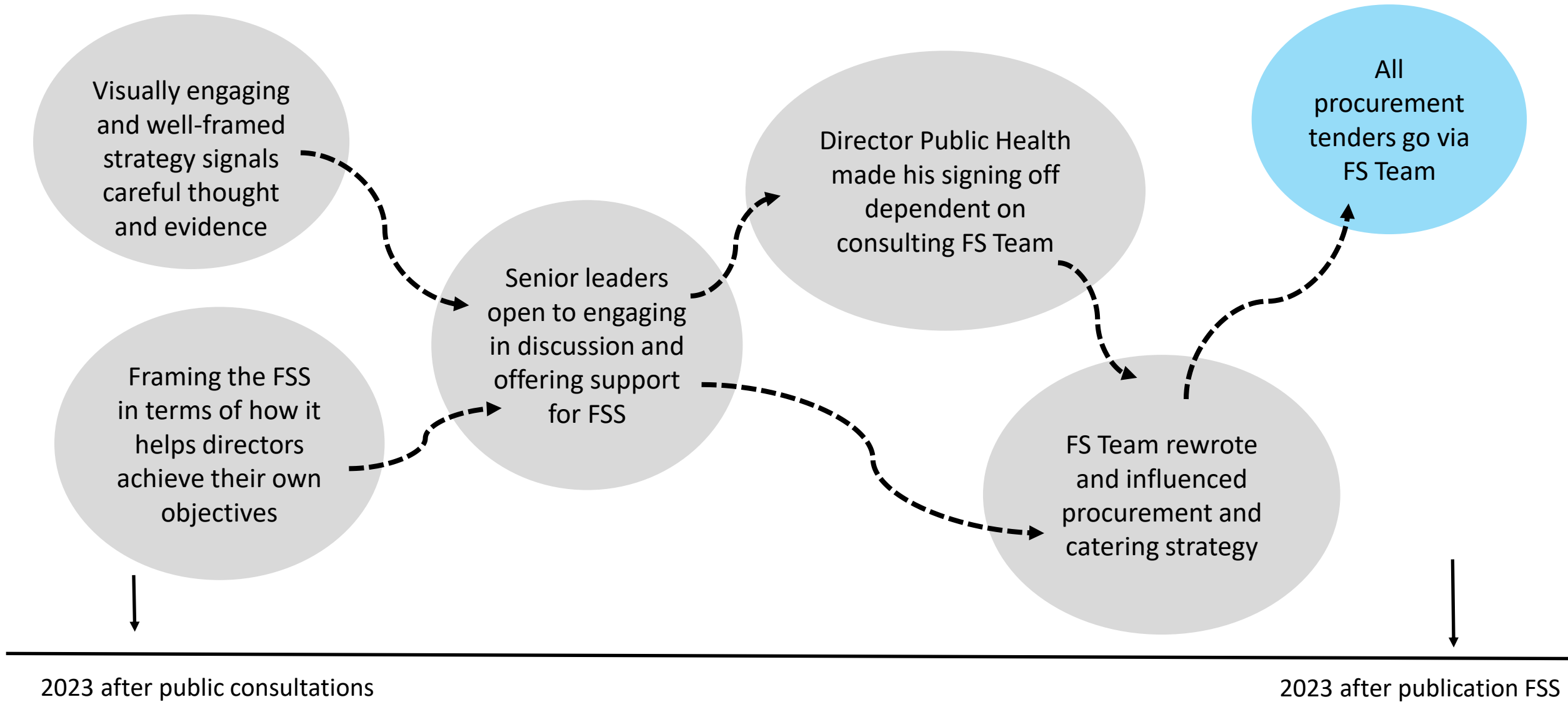
4 clusters of 26 pathways



Impact: Procurement processes within city council are reshaped in line with the objectives of the FSS

Key enabling mechanisms:

- 1) Strategic alignment of food system goals with senior leaders' agenda's
- 2) Director used authority to ensure the FS Team's involvement in procurement strategy



Insights from FS Team perspective

- **Dedicated, well-resourced FS Team** enabled coordinated city-wide action.

“A huge amount of what you can influence doesn’t take budget, it just takes time.” (FS Team member)

- **Co-creation** built trust and connected stakeholders.
- **City-wide, systems-oriented strategy** strengthened city-wide relationships.
- **Strategic alignment with senior leadership** helped embed FSS goals in procurement processes.
- **Bridging role** generated workload and emotional strain.
- **Limited institutional memory** forced the FS Team to repeatedly navigate processes under time pressure.

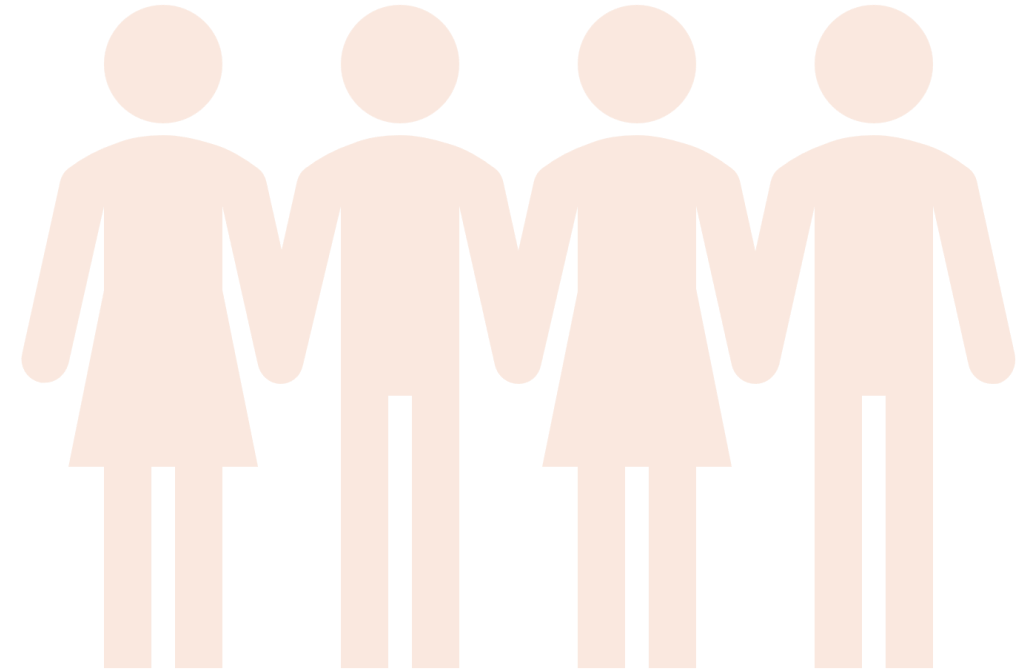
Results food system stakeholder perspective

Total participants: 8

- Food-related community organisations (n=4)
- Food businesses (n=2)
- Academic food research (n=1)
- Food-focused voluntary network (n=1)

Outcomes:

- 17 impact pathways identified



2 clusters of 17 pathways



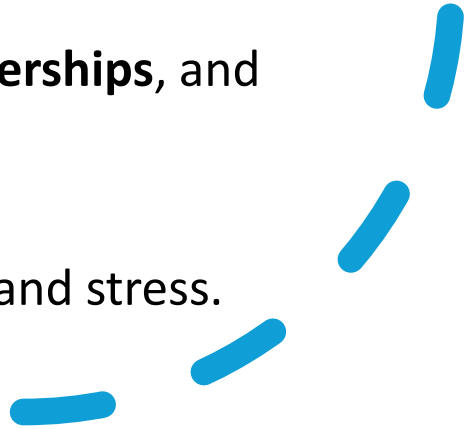
How co-production shaped an inclusive FSS, drawing on existing stakeholder networks

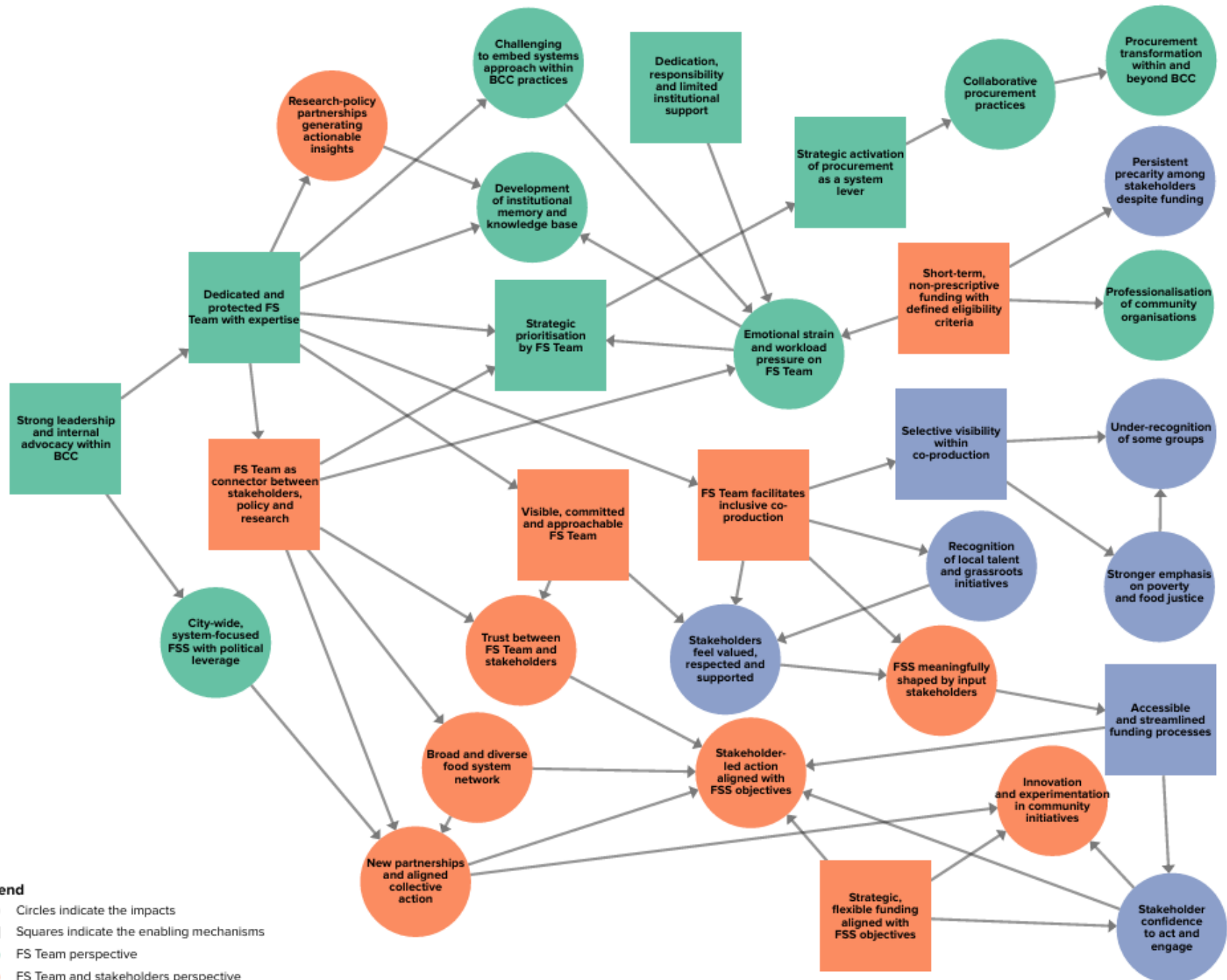
How FSS funding and support enabled aligned stakeholder-led action and a broader movement in a context of funding precarity

Insights from stakeholder perspective

- **Inclusive co-production** of the FSS, fostering recognition and trust.
- Reliance on **existing networks** risked reinforcing familiar viewpoints.
- **Link between funding and strategic objectives** provided an incentive to align initiatives:

“The FSS showed we were on the right path [...] and that the council could be a partner or funder [...] That was a big impact from the FSS, how it justified and encouraged us” (Stakeholder, community organisation).

- Funding and FS Team enabled **new ideas, partnerships**, and increased **stakeholder confidence**.
 - **Short-term funding** contributed to uncertainty and stress.
- 



- Legend**
- Circles indicate the impacts
 - Squares indicate the enabling mechanisms
 - FS Team perspective
 - FS Team and stakeholders perspective
 - Stakeholders perspective

Methodological reflections

Strengths

- Mechanism-focused analysis: explains how and why impacts occur
- REM revealed process-oriented and relational impacts: groundwork for tangible impacts
- REM supported adaptive learning and enabled reflection

Limitations

- Only perspectives of involved participants
- Underrepresentation of food production, safety and business actors

Key recommendations



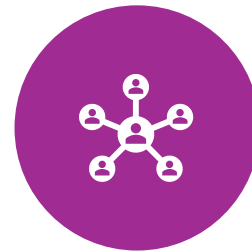
Invest in **meaningful co-production** to enable stakeholders to take ownership.



Establish a **dedicated team** to ensure sustained coordination and collaboration.



Use **public procurement and strategic funding** as **key levers** for local food system change.



Recognise and support the emotional demands of bridging and coordination roles.



Build **future monitoring** on identified impacts and enabling mechanisms.



Thank you!

f.terellen@erasmusmc.nl



Transforming UK Food Systems Conference, 23-24 March 2026



#TUKFS26

