



# *Three Layers of Systems Thinking:*

*An Anticipatory Systems Perspective*

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# This Talk will Cover....



Two problems with contemporary systems thinking



A new framing: three layers of systems thinking



A case study: system change around UK-grown beans



How the 'three layers' framework addresses the two problems

# First Problem: How can we Communicate about Systems Thinking when there is so much Methodological Diversity?



# Second Problem: Work Intensity and Remote E-Participation Make the Use of ‘Traditional’ Methodologies Problematic



## Three Foci of Systems Thinking



Thinking about the real-world systems in which innovations are to be developed, and people (including ourselves) with their partial perspectives within these systems



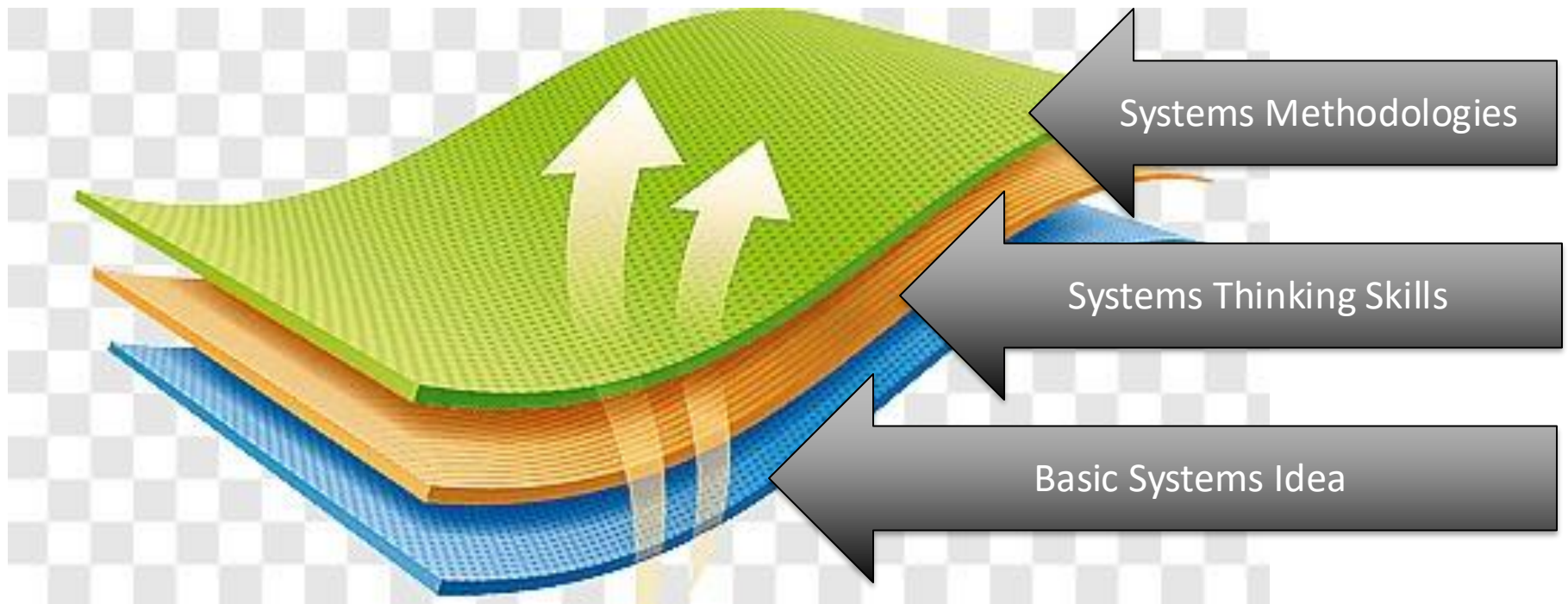
Rethinking the system's relationships, boundaries, emergent outcomes and perspectives to gain critical insights for system change



Use of specialist systems methodologies and methods for a variety of purposes in systemic innovation projects



# How the Three Foci of Systems Thinking Fit Together into Three Layers

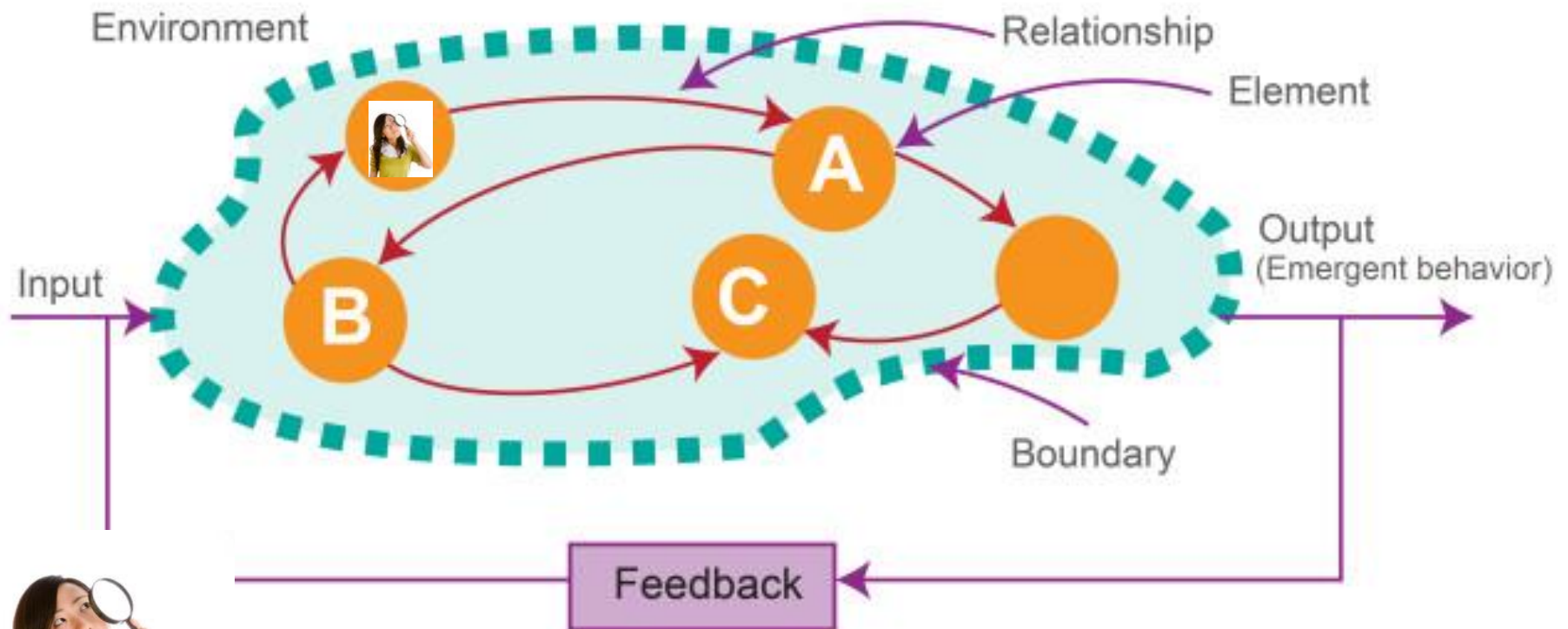


# BeanMeals: Changing Food Systems through Systemic Intervention to Introduce New Varieties of UK-Grown Beans

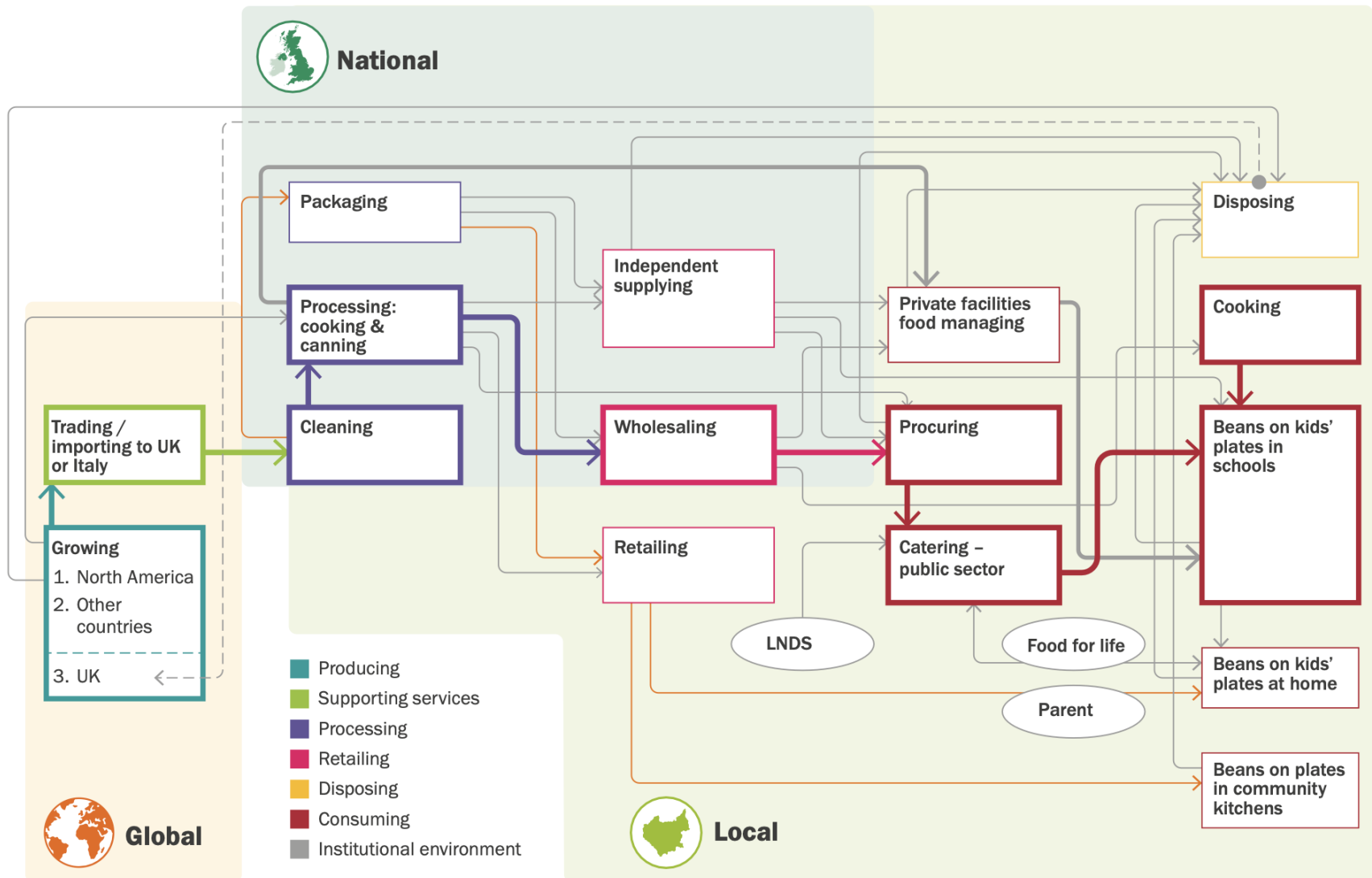


# First Layer of Systems Thinking: What is a System?

(adapted from Chowdhury, 2020)



# First Layer: Map of the Bean System

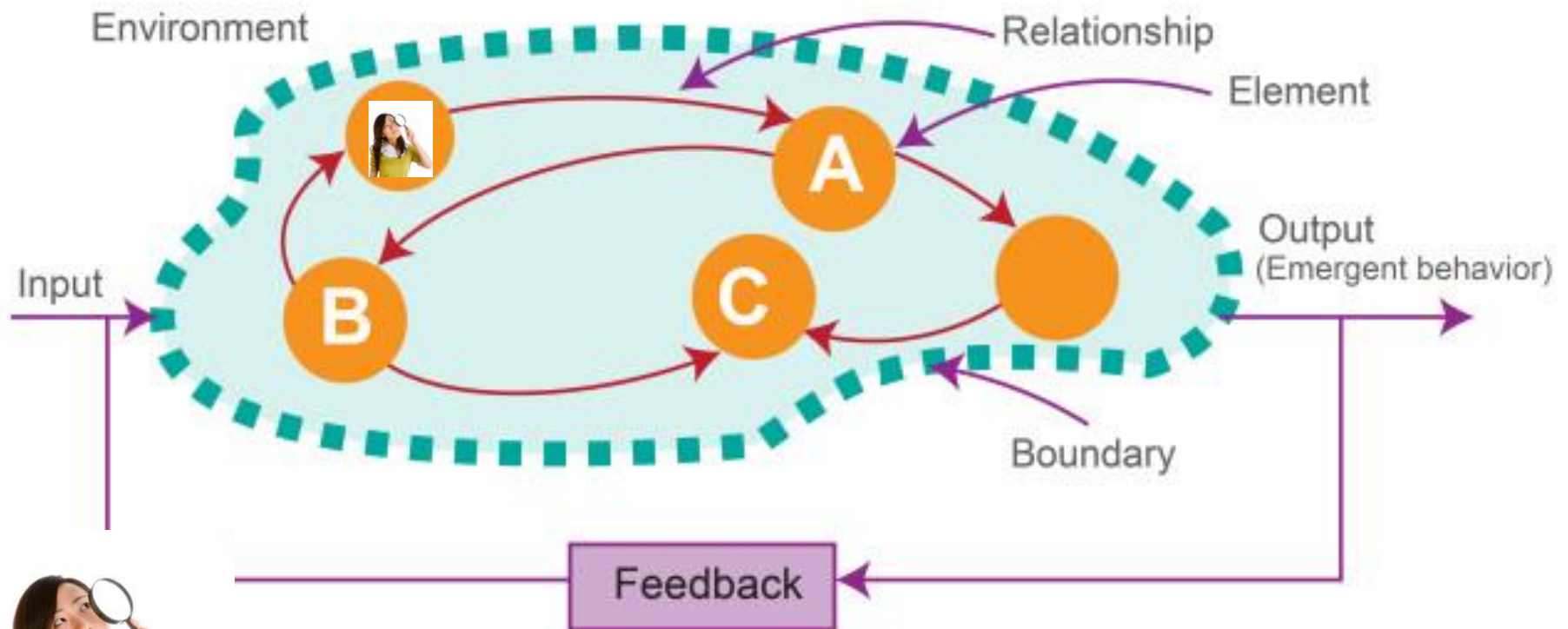


## **BeanMeals: Health-Conscious Home Cooks and Caterers Driving Innovation in Using Locally-Grown Dried Beans**



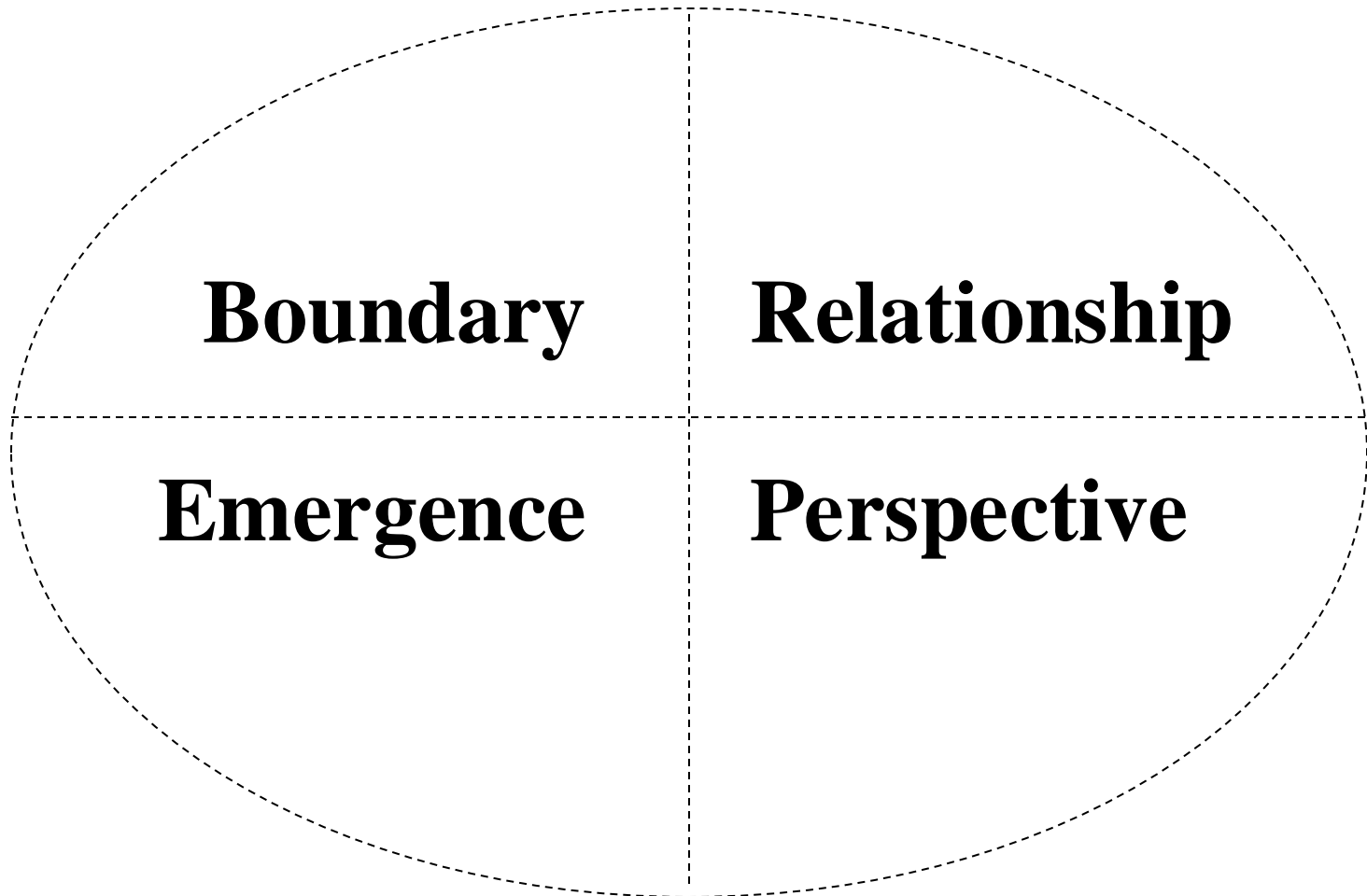
# First Layer of Systems Thinking: What is a System?

(adapted from Chowdhury, 2020)



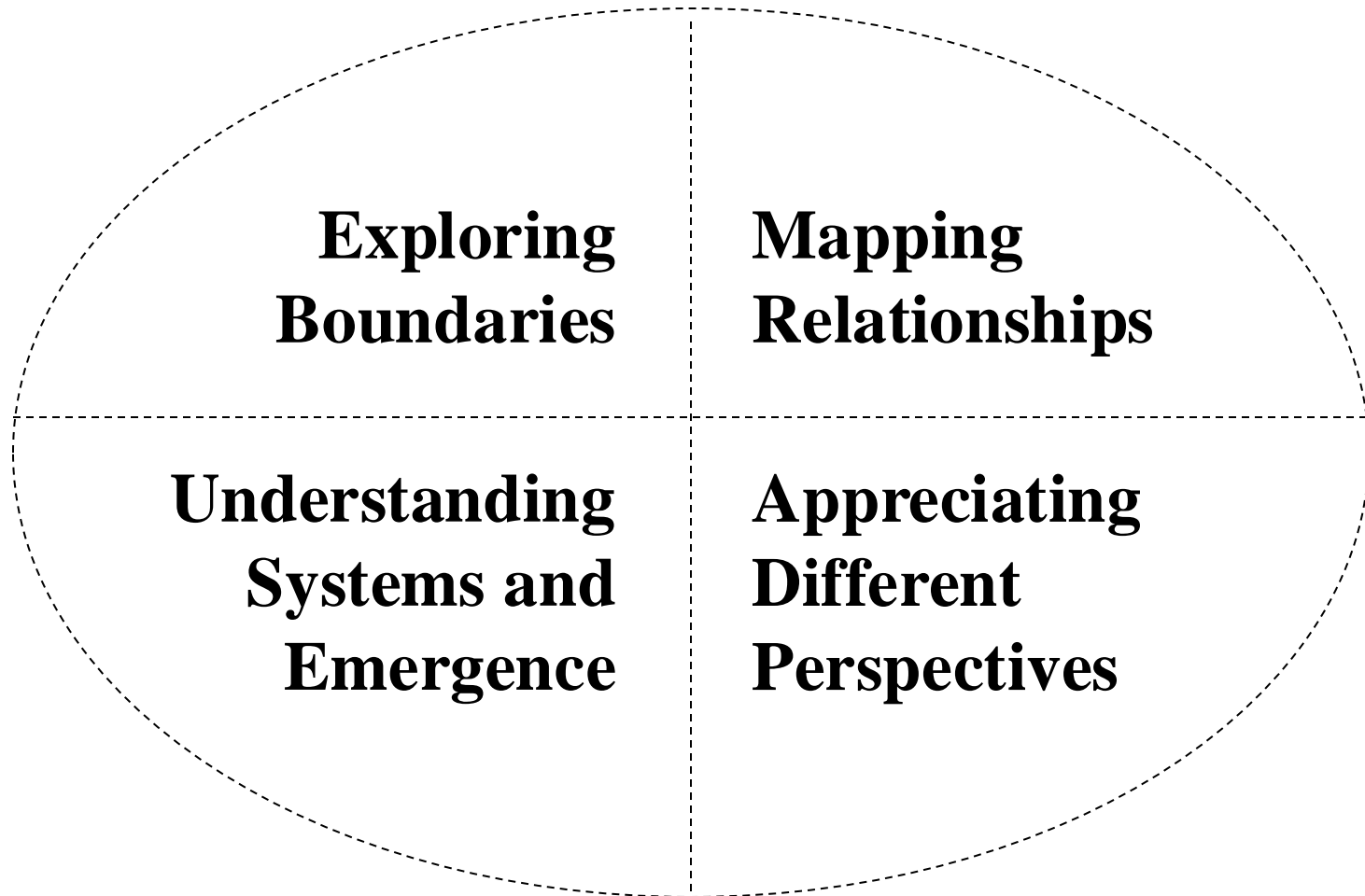
# Second Layer: Four Systems Thinking Concepts

(adapted from Cabrera et al, 2008)



# Second Layer: Four Systems Thinking Skills

(adapted from Cabrera et al, 2008)

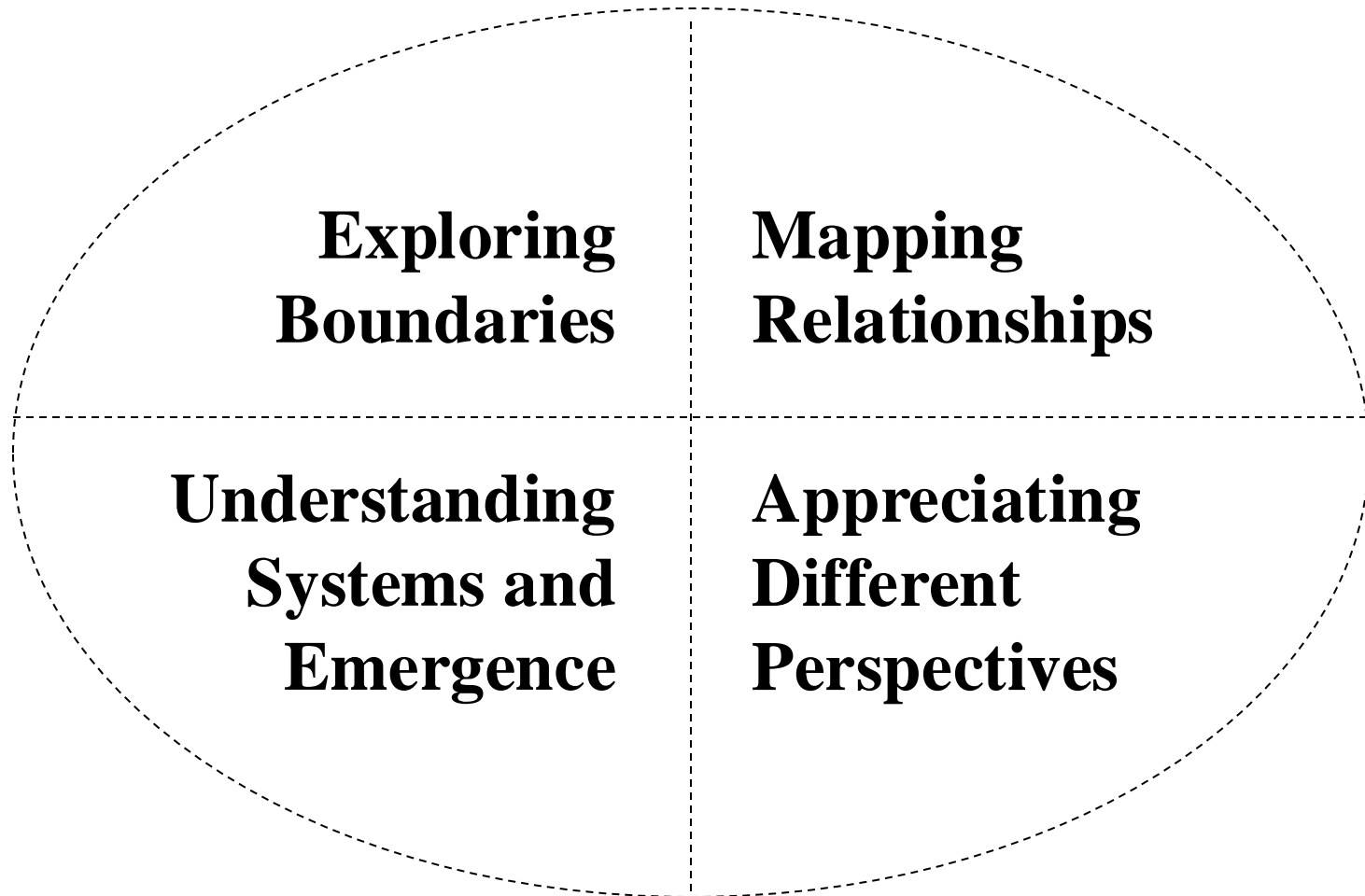


# BeanMeals: Working with Children in Schools and Families to Increase their Consumption of Beans



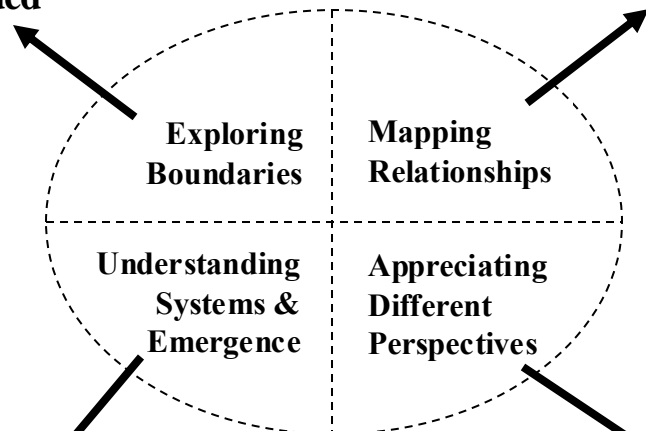
# Second Layer: Four Systems Thinking Skills

(adapted from Cabrera et al, 2008)



## Third Layer: Emphases of Different Systems Approaches

Approaches for exploring value and boundary judgements about what should be included in or excluded from analysis

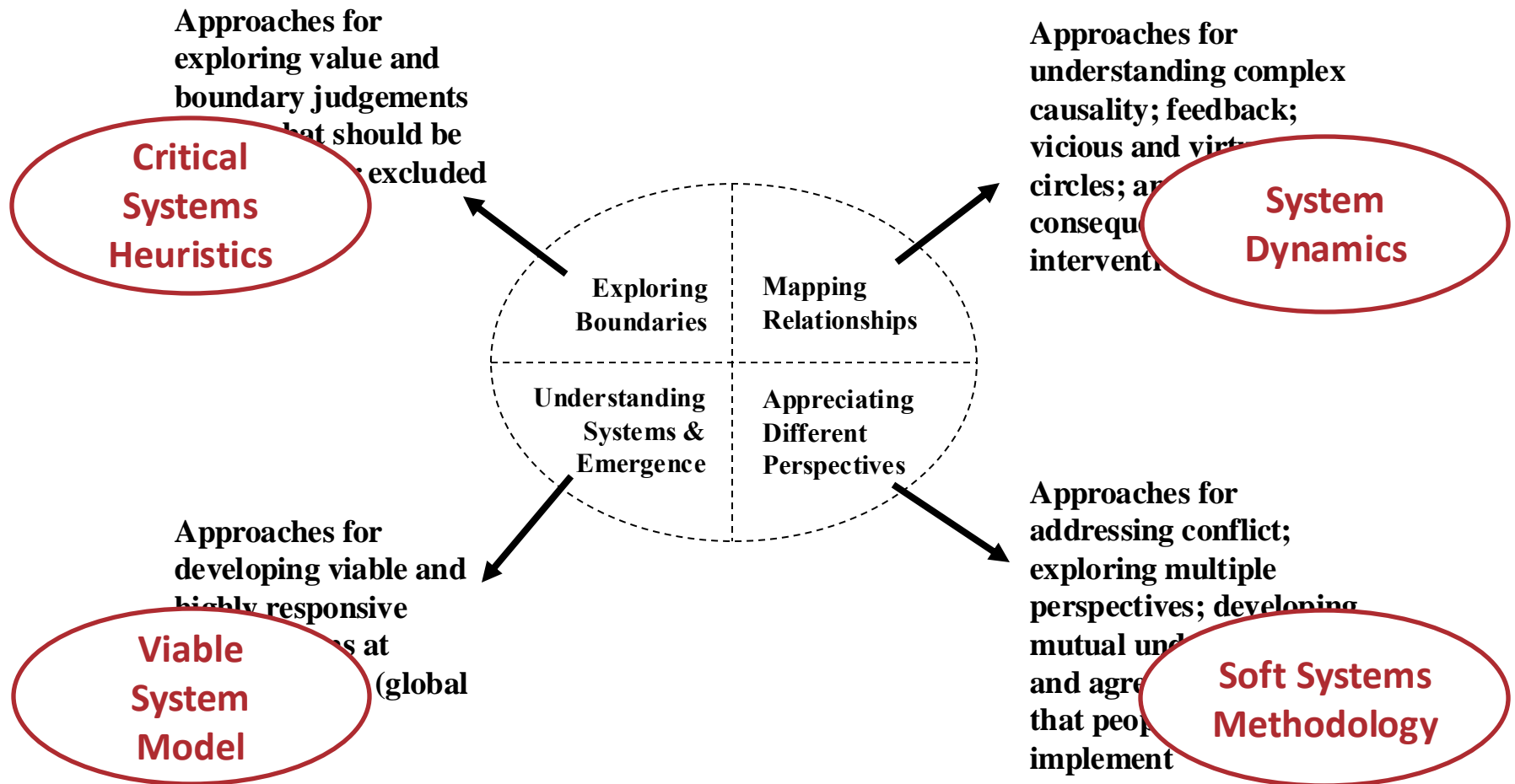


Approaches for understanding complex causality; feedback; vicious and virtuous circles; and the possible consequences of intervention

Approaches for developing viable and highly responsive organisations at multiple levels (global to local)

Approaches for addressing conflict; exploring multiple perspectives; developing mutual understanding; and agreeing solutions that people are willing to implement

# Third Layer: Emphases of Different Systems Approaches



# BeanMeals: Viable System Modelling and Critical Back-Casting (Critical Systems Heuristics with Idealized Design)



## **In Conclusion: How does this Address the Two Problems with Contemporary Systems Thinking?**

