Using complexity and theory of change to transform regulation: a complex theory of change for the Food Standards Agency's 'Regulating Our Future' programme

A CECAN Evaluation and Policy Practice Note for policy analysts and evaluators

The Food Standards Agency (FSA) is a non-ministerial UK Government department whose main objective is to protect public health and consumer interests in relation to food in England, Wales and Northern Ireland. It works with food producers, suppliers and local authorities to ensure that food is safe and what it says it is. This case study focuses on the FSA's new programme 'Regulating Our Future' (ROF), through which the FSA is changing how it regulates the food sector. ROF seeks to move away from a 'one-size-fits-all' approach towards a new regulatory system that is modern, risk-based, proportionate, robust and resilient, where the costs to business of regulation are no more than they need to be. ROF also aspires to use new technology and data and to prioritise activity and resources based on an assessment of the risks that regulated firms pose.

> " For the UK to continue to be a strong, credible player in the global food economy, the regulatory regime needs to keep pace with rapid change. Leaving the European Union will change patterns of food production, trade and consumption. This will require a flexible and responsive regulatory system.— Food Standards Agency, 2018

Why is regulating the food sector a complex area?

- A large number of different actors are involved, including: the public, different kinds and sizes of food businesses, local authorities and environmental health officers.
- There are nonlinear and indirect causal paths between factors in the food system, predominantly arising from the behavioural interactions between actors as well as complicated power-agency-responsibility structures and dynamics between them. Examples include compliance practices (Gilad. 2012) and social media-reinforced feedback loops in food scares.
- The impact of these complex characteristics is exacerbated by the fast-paced nature of the food sector and an upcoming period of significant change and uncertainty as the UK prepares to leave the EU. Additionally, the new system of ROF aims to be fully operational by 2020, and the shift has to take place while maintaining a high level of assurance with respect to food safety and quality.

What was the aim of the case study?

CECAN, together with the Tavistock Institute of Human Relations, sought to explore what methodological innovations could support the FSA to navigate this complexity. In particular we looked at how **Theory of Change** might be adapted to address the complex challenge facing the FSA of designing and managing ROF.

What is Theory of Change?

Theory of Change (ToC) is well known to evaluators as an approach, technique or tool that is applied when experimental outcome evaluation designs are not appropriate. ToC, as first described by Carol Weiss (1997), has two components:

- an implementation theory, which explains how an intervention is understood to contribute to a chain of results that produce the (intended or actual) impacts; and

- a programme theory – an iterative narrative of how the programme is expected to work. Knowledge of how the programme is working, and what emerges, is used to update and expand the theory over time.

However, in practice, ToC is commonly reduced to the former: a logic map usefully describing the implementation pathway but in a linear way. This case study explored how one might improve the application of ToC in practice to better address and cope with the challenges posed by complexity.

What were the key elements of the case study?

- At the heart of the case study was a series of four workshops with members of the ROF programme team at the FSA, including senior programme managers and the FSA's social science team.
- Each workshop built on the results of the previous workshop(s), as well as emerging programme and programme team needs.
- This led to a successive sharpening of the theory of change narrative, programme outcomes and evaluation design parameters.
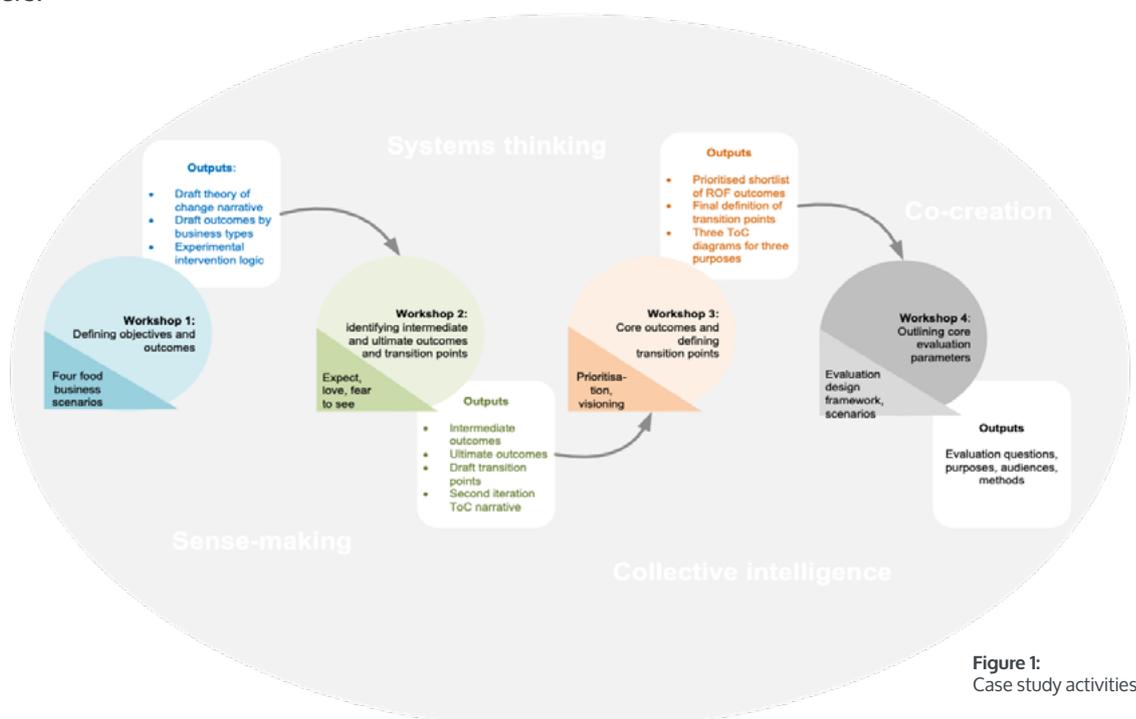

Figure 1:
Case study activities

What methodological innovation was involved?

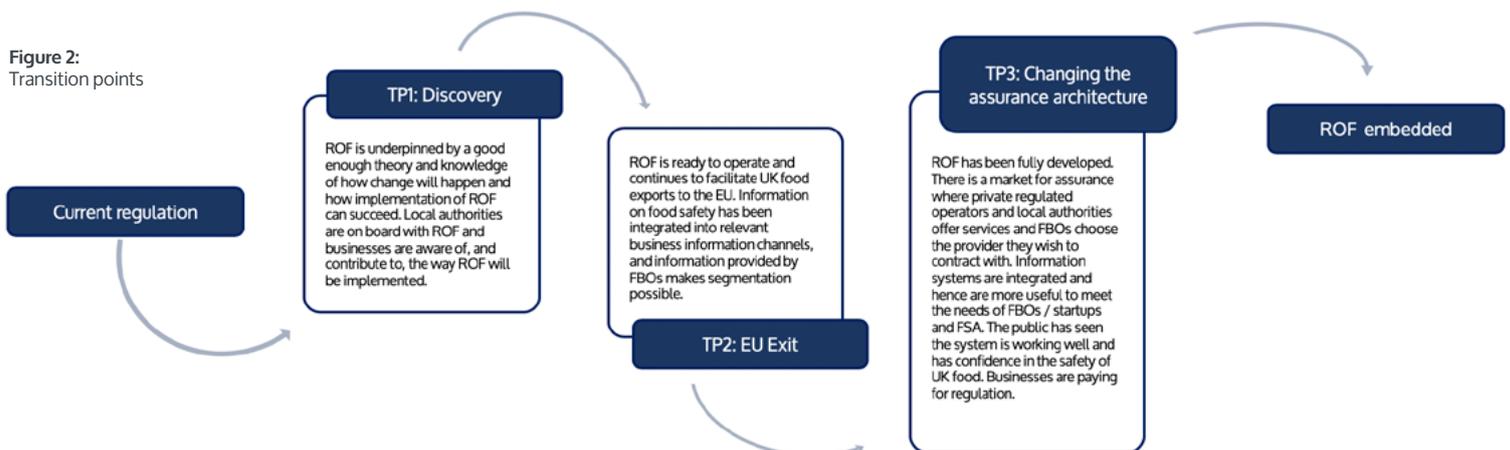### Multiple interdependent theories of change

Drawing from ex ante programme evaluation and management in complex settings in international development, we introduced the use of nested, or layered, theories of change, where the enactment of one ToC contributes to the context for another ToC at a different system level. In this case study, there were three purpose-focused, interdependent ToCs:

1. **A theory for managing change**. This focuses on the change agency role of the FSA itself. It relies on seeing the programme, the people affected by it and the FSA as part of the same complex system. Coupled with this is the benefit of articulating how change can happen within in the system and the roles the FSA will take on to facilitate it.
2. **A programme theory** for ROF that is fed and developed by the knowledge generated by the developing programme.
3. **An implementation theory** for ROF, setting out the implementation pathway from activities to outcomes, including steps for achieving real time evaluation of the programme as it unfolds and using the knowledge produced to refine the programme and its ToCs.

Transition points

To make ToC more appropriate for the complexity and uncertainty of the dynamic system that the FSA works within, we also introduced the concept of transition points:

- Over the course of a three-year programme, for example, there could be four or five transition points, with each representing significant change from the status quo. These points are neither predictive nor temporal and represent 'best bets' on expected change.
- Between TP0 and TP1 a reasonably detailed sequence of events can be described with some confidence that leads up to TP1.
- Beyond that, defining an expected, or hoped for, pathway is more difficult. However, the space between the remaining transition points can be sketched from the outset to give the overall programme a shape.
- As the impact of the early steps of the programme are understood it becomes possible to provide more detail for later on.

Figure 2:
Transition points

What learning and insights did this CECAN case study produce?

- The experience provided valuable insight into how a theory-driven and complexity-sensitive approach can be melded with the more formal requirements of programme management in getting ROF in place.
- The creation of a ToC for an emerging intervention in the space of complexity can be described as a 'layering' process. It is conceptually impossible - and undesirable - to set out the change process completely at the beginning. Instead, if we operate in the space of uncertainty of creating an 'intervention' into a complex system, it is helpful to break this space down, and start from simple illustration or 'map'. This allows those working with the system to see possible causal chains and also gaps - issues, questions, categories that still need to be worked through – and understand where to go next.
- Use of ToC creates space for exploratory conversations on the challenges faced by programmes that are already underway.

- Placing complexity upfront freed up workshop participants to engage in non-linear thinking (e.g. recognition that emergent changes alter the context and therefore the plan).
- ToC development creates an opportunity for exploring the behavioural aspects of the programme and how changes to actors' capacity to act is a key aspect of programme design and delivery.
- In the absence of counterfactuals, conformation biases can be challenged through the development of 'theories of no change' (i.e. theories on programme failure).
- Developing a ToC adds to knowledge of the data needed to understand the impact and progress of the programme providing a valuable supplement to the more linear and formal aspects of programme performance management.
- The workshops revealed that ToC used in this way creates a shared capacity to keep track of the performance and interdependence of core multiple components by providing a comprehensive perspective on the unfolding programme.

What are the implications for future policy evaluation?

As well as these insights, this collaboration between CECAN, the Tavistock Institute and the FSA also generated a range of impacts:

- Redesigning food regulation in the UK to be more modern, risk-based, proportionate, robust and resilient
- Building capacity in using Theories of Change in complex settings
- Disrupting the policy cycle status quo: early embedding of evaluation & complexity thinking which would not otherwise have been available
- Building capacity to express and evaluate pathways to a new model of regulation
- Informing the FSA's business case for ROF
- Bringing together expertise across FSA to share learning in a rapidly changing environment
- Changing the way academics and policy makers co-create knowledge and share expertise

References and further information

- CECAN Case Studies reports https://www.cecan.ac.uk/case-studies
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CECAN has developed a set of co-produced case studies, working with government departments and agencies to tackle their intractable evaluation challenges in complex policy area. These case studies have involved sustained dialogue and an orchestrated succession of activities and relationship building. They are providing experiments in bringing together the expertise of evaluation practitioners, methods and domain specialists, social and natural scientists and policy analysts to develop shared understandings of evaluation challenges and to identify evaluation needs and solutions.