Selecting complexity-appropriate evaluation approaches
Choosing an evaluation approach

- Wide range of approaches available
- No simple, mechanistic way of selecting the right ones for your needs
- Hybrid designs likely to be most useful
  - mix may change over course of the evaluation
- Three key, interrelated considerations
Choosing an evaluation approach

Evaluation purpose

Evaluation design

Feasible designs

System attributes

Adapted from:
Useful questions: clarifying purpose

How will the findings be used?

**For Listening and Building:**
- To ensure diverse voices are heard
- To build trust and legitimacy
- To generate champions for change

**For Learning:**
- To build understanding
- To manage risk and uncertainty
- To improve this policy
- To improve similar policies

**For Accountability:**
- To establish if the policy:
  - ... was implemented as intended ...
  - ... is having the impacts anticipated ...
  - ... is delivering value for money?
Useful questions: system attributes

Is there a good, common understanding of the system and its complexity - for example:

- **Agreement**: Are viewpoints aligned, OR
  - Are there multiple perspectives OR even
  - Controversy?

- **Certainty**: Is there a clear understanding of what influences outcomes and how:
  - Is there a clear direct relationship between your intervention and outcomes, OR
  - Do many factors influence outcomes in ways that are difficult to understand and predict
  - Have unanticipated outcomes occurred
  - Can you clearly define the scope of the evaluation?
  - Do outcomes differ depending on context?
  - Is the policy (and the system in response to this) still evolving?
Developmental evaluation (Quinn Patton)

- Developmental Evaluation
  “provides evaluative information and feedback” to
  “change initiatives in complex dynamic environments” in ways that
  support the ongoing development of the innovation

Key principles:
- Developmental purpose
- Evaluation rigour
- Utilisation focus
- Innovation niche
- Complexity perspective
- Systems thinking
- Co-creation
- Timely feedback

(Patton, McKegg and Wehipeihana, 2015)
Useful questions: feasible designs

Are the evaluation methods and approaches affordable and proportionate in terms of:

- the expertise required
- the data available or obtainable
- the information you need / the risks of getting the answer ‘wrong’?

Are key stakeholders comfortable with the approach proposed:

- Is the approach acceptable
- Is there an appreciation that the level of quantitative rigour and certainty of outcome may be limited, even using sophisticated evaluation methods
Evaluation approaches

- Far from agreement
- Close to agreement
- Far from certainty
- Close to certainty

Far from agreement:
- Determine what conditions are needed to make a difference

Close to agreement:
- Assess how much the policy is making a difference, if at all

Far from certainty:
- Build consensus & shared understanding
- Support adaptive management & enable agents for change
- Build understanding of the system
- Establish how the policy is working, if at all

Close to certainty:
- Participatory
- Build consensus & shared understanding
- Support adaptive management & enable agents for change
- Build understanding of the system
- Establish how the policy is working, if at all

Working within a theory of change framework:
- Experimental / Statistical
- Configurational
- Generative causation
- Modelling / Predictive
- Adaptaive / Emancipatory

Simple
Complicated
Complex
How the Supplementary Guide can help ...
<table>
<thead>
<tr>
<th>Evaluation question</th>
<th>Approach / method</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is important to different groups, who can champion change?</td>
<td>Most significant change</td>
<td>Most significant change is an iterative participatory process that aims to clarify the values held by different stakeholders. Participatory system mapping brings stakeholders together to build a system map and develop trust and mutual understanding. Structures conversations about whether and how the policy is delivering change, can be used to develop the theory of change. If begun at the option appraisal stage, forms a consistent framework for design, monitoring and evaluation through piloting and full implementation.</td>
</tr>
<tr>
<td>What levers are generating change, what may be inhibiting change?</td>
<td>Big data and associated methods</td>
<td>Might ultimately allow local emergence of system dynamics that subsequently spread throughout systems to be understood. Can provide near real time data to support learning.</td>
</tr>
<tr>
<td>How well was the policy implemented? How can this be improved?</td>
<td>Participatory, adaptive approaches</td>
<td>Generates trust and shared understanding, champions and agents for change.</td>
</tr>
<tr>
<td>Is the policy making a difference, by how much?</td>
<td>Experimental approaches</td>
<td>Provides robust evidence of whether a policy has made a difference, and to what extent.</td>
</tr>
<tr>
<td></td>
<td>Statistical association</td>
<td>Weaker than experimental approaches.</td>
</tr>
<tr>
<td>Complexity challenge</td>
<td>Approach / method</td>
<td>How it helps</td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>--------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Sensitivity to context</td>
<td>Generative causation, configurational and system mapping and modelling</td>
<td>Treats context as a variable affecting outcomes, rather than a factor to be isolated and controlled, which in complex systems is often not possible</td>
</tr>
<tr>
<td>Openness/open system</td>
<td>System mapping</td>
<td>Can guide division of a programme wide theory of change into multiple ‘nested’ theories to split complex programmes into more readily manageable segments without losing sight of the interactions between sub-systems and between the system and the wider environment</td>
</tr>
</tbody>
</table>
| Multiple interactions and influences       | System mapping and modelling                           | Can capture the key influences and interactions and guide construction of complexity-appropriate theories of change  
Provides a framework for exploring the strength and importance of relationships affecting outcomes and impacts |
| Long, indirect causal chains linking inputs to impacts |                                                                 |                                                                                           |
| Continual change, difficult to predict outcomes arising from e.g. feedbacks, non-linearity, tipping | Computational system modelling                         | Provides exploratory tools in domains that are complex and “theoretically-insecure” (i.e. where there is little or no widely agreed and accepted theory) based on the system in question                                    |

Centre for the Evaluation of Complexity Across the Nexus
<table>
<thead>
<tr>
<th>Approach</th>
<th>More feasible if ...</th>
<th>Less feasible if ...</th>
<th>Specialist skills and resources</th>
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<td>Participatory and adaptive</td>
<td>Appropriate range of stakeholders are willing and able to engage actively in the</td>
<td>The findings must be seen to be rigorously objective and the evaluators need to</td>
<td>Experience working embedded partnership, with stakeholders.</td>
</tr>
<tr>
<td>approaches</td>
<td>evaluation</td>
<td>retain independence from the system</td>
<td>May require experience working to reach individuals and contexts.</td>
</tr>
<tr>
<td></td>
<td>Useful when policy is participatory or has an empowerment objective</td>
<td></td>
<td>Support for evaluators immediately can be difficult environment provided to help evaluators</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>keep objectivity as far as possible, including stress.</td>
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<td>System mapping and modelling</td>
<td>Appropriate range of stakeholders are willing and able to engage actively in the</td>
<td>More challenging where there is a high degree of ambiguity or many relevant</td>
<td>Facilitation skills, the ability to work collaboratively and to keep a clear oversight of the</td>
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<tr>
<td></td>
<td>mapping or modelling exercise</td>
<td>relevant influencing factors operating on different scales (time or geographical)</td>
<td>work, will be required. Specialist facilitators and systems can be an efficient way of rapidly</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>synthesising key informant interviews and existing data (see synthesis of evidenced conclusions, so can</td>
</tr>
<tr>
<td>Generative causation</td>
<td>It is possible to formulate theoretical assumptions about the influence of context</td>
<td>More challenging where and the behaviours.</td>
<td>where time and funding is limited.</td>
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### Table 4: Answering evaluation questions

### Table 5: Tackling different aspects of complexity

### Table 6: Circumstances affecting feasibility

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<td><strong>Participatory and adaptive approaches</strong></td>
<td>Appropriate range of stakeholders are willing and able to engage actively in the evaluation</td>
<td>The findings must be seen to be rigorously objective and the evaluators need to retain independence from the system</td>
<td>Experience working emphasis partnership, with stakeholders. May require experience to reach individuals and organizations. Support for evaluators in high-stress environments can be difficult environments. Provided to help evaluators maintain objectivity as far as possible.</td>
</tr>
<tr>
<td><strong>System mapping and modelling</strong></td>
<td>Appropriate range of stakeholders are willing and able to engage actively in the mapping or modelling exercise</td>
<td>More challenging where there is a high degree of ambiguity or many relevant influencing factors operating on different scales (time or geographical)</td>
<td>Facilitation skills, the ability to work collaboratively and to keep an appropriate level of oversight of the work, while maintaining the high level of objectivity.</td>
</tr>
<tr>
<td><strong>Generative causation non-linearity, tipping</strong></td>
<td>It is possible to formulate theoretical assumptions about the influence of context and the behaviours.</td>
<td>More challenging where there is complexity and the system is robust, where time and funding are limited.</td>
<td>Specialist facilitators and resources. Can be an efficient way to synthesise key information, existing data (see synthesis) and evidenced conclusions, where time and funding are limited.</td>
</tr>
</tbody>
</table>
In summary

In complex and adverse settings

- Use a complexity lens to analyse situation
- Prepare yourself (and other stakeholders) for unpredictability and uncertainty
- ‘Map’ the system (systems mapping, theory of change)
- Consider innovative evaluation approaches and hybrid designs
- Work hard to get, and keep, stakeholders on board
- And be willing to change the approach in response to changing situation or understandings
And above all

Any questions?
For more information

- CECAN: [https://www.cecan.ac.uk/](https://www.cecan.ac.uk/) for information and events related to complex evaluation across the Nexus
- Tavistock Institute for evaluation support
  [http://www.tavinstitute.org/](http://www.tavinstitute.org/) or [d.hills@tavinstitute.org](mailto:d.hills@tavinstitute.org)
- Risk Solutions: for evaluation and system mapping support
  [https://www.risksol.co.uk](https://www.risksol.co.uk) or [helen.wilkinson@risksol.co.uk](mailto:helen.wilkinson@risksol.co.uk)
- [https://www.betterevaluation.org/](https://www.betterevaluation.org/) for information about evaluation strategies and methods