Extended Backcasting

[Edited version from Dstl's [Evidence Framework Approach](#) – drawing on ideas from John Robinson[1], Snowden's [Cynefin framework](#) and [Future Backwards](#) approach]

Purpose. Backcasting examines the question: "if we want to attain a certain goal, what actions must be taken to get there"[2]. It informs planning and understanding of key success factors and risks.

The workshop approach described below consists of 2 workshop elements, taking about an hour each:

- **Extended Backcasting.** A syndicate approach with two key ideas:
  - "Begin with the end in mind".
  - "to break down entrained 'modes' of thinking, to bring a fresh perspective to scenario-based analysis".

- **Shared view development.** Brings together the syndicate views using Snowden's Cynefin framework.

Extended Backcasting syndicate activity

Figure 1 provides a pictorial summary of the approach. It is recommended that different coloured Post-it® notes are used for the appropriate steps, although feel free to adopt your own colour conventions.

Figure 1: Extended Backcasting

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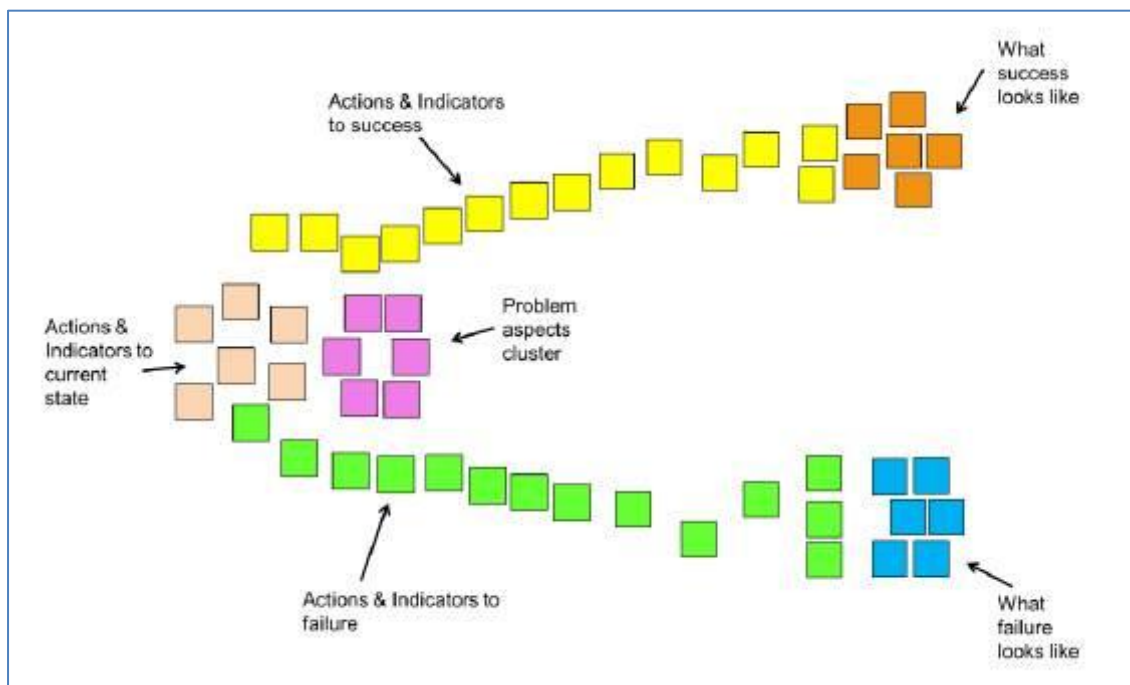
[1] Robinson, John. B. 1990. Futures under glass: a recipe for people who hate to predict Futures, vol. 22, issue 8, pp. 820–842

[2] Tinker, J. 1996. From 'Introduction' ix-xv. Life in 2030: Exploring a Sustainable Future for Canada, edited by J.B. Robinson et al. Vancouver: University of British Columbia Press

The sequence of steps is as follows:

1. **Initial Briefing.** Brief the group on the conduct of Extended Backcasting using the pictorial summary above. The Extended Backcasting phase will take approximately 1 hour, with ten minutes allocated to each step.

2. **Divide into syndicates**:
   - Divide the group into two or three syndicates (no more than 5 people per syndicate recommended to enable a degree of control).
   - Get each syndicate to use different pen colours to differentiate their output from the syndicates.
   - Assign one facilitator to each syndicate. The syndicate facilitators should take an active part, sensitively guiding the technical content of the discussion so that it is 'on track' but encouraging a broad view with multiple perspectives.

3. **Describe the current state**. Syndicate facilitators begin by asking the syndicate to produce a set of issues describing the 'current state' of the problem in order to produce the evidence needed to support decisions, policies etc. [10 mins]

   - Ask participants to concentrate on specific aspects of the problem, avoiding capturing generic issues.
   - Points are summarised in a few words on Post-it® notes to form the 'problem aspects' cluster (shown in dark pink in Figure 1).
   - Aim for approximately six Post-it® notes per syndicate.
   - Ensure recorders capture a more detailed expression as to the meaning of the Post-it® notes by recording key points from the syndicate discussion about each note, if possible straight into a table on a laptop.
   - Number each Post-it® note for easy indexing in the table. Do this for all subsequent parts of the activity.

4. **Discuss Actions and Indicators that led to the current state**. The Actions and Indicators (A&Is) are the events, decision points or ideas that caused, influenced or affected the events to their immediate right in Figure 1. [10 mins]
   - Summarise these A&Is and place them to the left of the 'problem aspects' cluster -shown in pale pink in Figure 1.
   - Iteratively, start working backwards from these A&Is – placing subsequent A&Is to the left to form a logical chain of causality or influence. This process tends to break down entrained patterns of perceived causality. The syndicate facilitator should ensure that this logic is articulated, so that it can be challenged within the syndicate, and so that the recorder can capture it.
   - Where multiple A&Is relate to a single event to their collective 'right', the A&Is should be clustered roughly vertically to the left of the event.
   - It will be usual to obtain only three or four 'steps' backwards. The A&Is related to the current situation can be considered to be those things that may stop progress unless addressed and so may become project risks.

5. **What does success look like?** Ask the syndicate to consider *what 'Success' would look like* for the study - capture on Post-it® notes -shown in orange in the upper right of the diagram. [10 mins]
6. **What Actions and Indicators would lead to success?** Capture post-its on the A&Is that would lead to 'Success' (shown in yellow in the upper part of the diagram). The 'Success' and the A&I Post-it® notes begin to indicate what might be considered project critical success factors. [10 mins]
7. **What would 'failure' look like?** Capturing Post-it® notes on what 'Failure' - shown in blue in the lower part of the diagram. [10 mins]

8. **Capture the A&Is leading to failure.** Capture A&Is (green post-its in the diagram). The 'Failure' and the A&I Post-it® notes begin to indicate the risks that should be managed by the project. [10 mins]

9. **Take photographs of the Extended Backcasting diagrams .** Take photos before using the post-its in the next session.

Shared view plenary discussion

This activity produces the Shared View diagram shown in Figure 2. It is based on Snowden's Cynefin Framework .

Figure 2: Shared View Framework
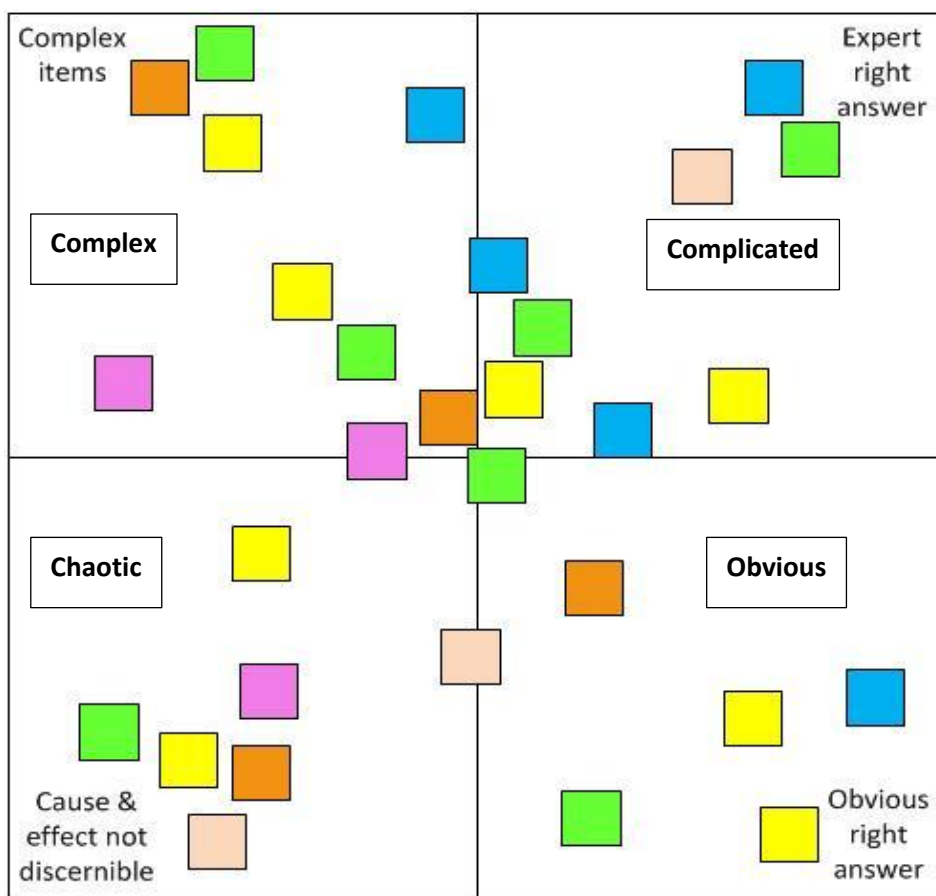
- **Briefing**.   Brief the group on:

  - **The purpose of the activity** is to develop a shared understanding of how practical or difficult it might be to address the narratives developed in the extended backcasting activity.
  - **The shared view framework**:
    - **Obvious box.** Place backcasting post-its here where a known solution exists. The rule of thumb is that these are items that have an obvious right answer that can be addressed using best practice.
    - **Complex box.** The rule of thumb is that these items have an expert 'right' answer that can be consistently and reliably calculated and can be addressed using good practice.
    - **Complex box**.   The rule of thumb is that these are items for which there may be 'many' right answers with cause and effect or relationship only obvious after the event.
    - **Chaotic box.** The rule of thumb is these are items for which we are not sure if there are 'any' right answers. There will be no patterns discernible and action here will take significant effort to detect patterns by putting in place study constraints to see what happens with actions possibly being unfruitful; such examination should be carefully assessed.

Develop the shared view

- The two plenary facilitators should ask each syndicate in turn to select an item, or cluster of related items, from their Backcasting diagram that seems to be of significant importance and to summarise it in plenary.
- Seek comments and views of where on the quadrant chart it should be located. Discuss reasons for disagreement on the location and ensure the recorders capture this.   [Ultimately the facilitator or lead analyst will make a judgement on where each Post-it sits].
- Recorders should also capture the key points of the plenary comments relating to the item/cluster and any shifts in meaning that the discussion may elicit.
- Take photographs of the resulting quadrant diagram.

Use of the Extended Backcasting outputs.

Key ideas and issues from each quadrant of the Shared View diagram are used to:

- Derive suitable ways to address project activities to achieve success, along with their resource and timescale implications.
- The rules of thumb and narrative used to describe a quadrant should be used to frame statements of work to inform project planning.

In the context of an analytical project these two bullets correspond to:

- Defining the range of analytical methods to be used and their resource needs.
- Helping to frame the Concept of Analysis – including understanding of technical opportunities and risks.