# Knowledge Synthesis Methods

## 2.  Solution scanning[1]

**Summary of method**

A structured, step-wise methodology to identify a long list of available actions, interventions or approaches, in response to a broad challenge. A list is gathered through consultation with a wide range of stakeholders, and continues to be circulated through networks until five new people have seen it and add nothing.

Solution scanning forms the first step in Summaries of evidence.

**Key references**

Sutherland WJ, Gardner T, Bogich TL et al (2014). *Solution scanning as a key policy tool: identifying management interventions to help maintain and enhance regulating ecosystem services.* Ecol Soc 19:3. doi:10.5751/ES-06082-190203.

**Examples of application in policy**

This method was used to identify a long list of possible actions that constitute 'sustainable intensification' of agriculture, during the Sustainable Intensification Platform (http://www.siplatform.org.uk/) funded by the UK Department for Environment Food and Rural Affairs (Defra; Dicks *et al.* in prep). The most promising actions from among the list were prioritised by a group of stakeholders to inform subsequent research activity.

| Solution scanning | |
|---|---|
| Cost | 1 month (FTE) |
| Time required | Can be completed within 1 month, if needed. Maximum 3 months |
| Repeatability | Low to Moderate. There is no definitive list<br>New possibilities occur over time |
| Transparency | High (if conducted well) |

---

[1] A guidance note from Dicks LV, Haddaway N, Hernández-Morcillo M, Mattsson B, Randall N, Failler P, Ferretti J, Livoreil B, Saarikoski H, Santamaria L, Rodela R, Velizarova E, and Wittmer H. (2017). *Knowledge synthesis for environmental decisions: an evaluation of existing methods, and guidance for their selection, use and development – a report from the EKLIPSE project.*

| | |
|---|---|
| Risk of bias | Moderate. Contents of the list depend on who is asked to contribute. Conducted properly, a very wide range of stakeholders should be included and the risk of bias reduced |
| Scale (or level of detail) | Independent of scale (any) |
| Capacity for participation | High |
| Data demand | No data required |
| Types of knowledge | Science/technical/opinion; Tacit |
| Types of output | Written list of options |
| Specific expertise required | None. The consultees who build the list should have practical experience in the policy area |

| Strengths | Weaknesses |
|---|---|
| Powerful tool at an early stage in the policy cycle<br><br>Suitable for very broad topic areas | Does not provide any evidence for the effects/impacts of the different solutions |