How to make a *phenomenon-based* knowledge synthesis

Vast amounts of scientific knowledge exist to support policy-making. Yet, finding and using the most relevant knowledge is increasingly challenging given the growing amount of knowledge available. Compiling research knowledge into easily understandable knowledge synthesis can facilitate the uptake of knowledge as a part of evidence-informed decision-making.

This guideline outlines the key steps in designing and compiling a knowledge synthesis. It is suitable for researchers and experts in various roles in the science-policy interface, such as science communication specialists. Choose the most appropriate way to make your own knowledge synthesis and contribute to evidence-informed decision-making!

1. Consider the rationale and target audience of the knowledge synthesis

Is the knowledge synthesis

demand-centred or **producer-centred?**

For example

Has a certain stakeholder requested knowledge of your expertise area?

Or

Has the scientific community identified a need to communicate research on a related topic?

What are the target audiences of a knowledge synthesis?

Is it relevant for

☐ policy-making,

☐ businesses,

☐ or civil society?

A knowledge synthesis is not in itself a guarantee for impact. Therefore, it is important to invest in interaction with the target audience at the design stages of the synthesis. This is particularly important in designing producer-centred synthesis.

2. Select the types of knowledge to be included

Will the knowledge synthesis include only summaries of peer-reviewed research, or will it also include

☐ researchers' expert assessments,

☐ assessments of future trends,

☐ policy recommendations?

Consider the following questions

1) Is there a sufficient amount of peer-reviewed research on the topic?

2) Can available peer-reviewed research be applied easily?

If you answer no to either of these questions, the inclusion of expert analysis is likely to be useful or even necessary.

3. Identify appropriate methods and sources for the knowledge synthesis

You can use the following methods for gathering knowledge:

☐ Knowledge requests to third parties (e.g., Statistics Finland),

☐ Reviewing existing publications,

☐ A short round of interviews,

☐ Written knowledge request using a template.

Use AI to help you review reports on the topic. For example, you can prompt a generative AI to translate and summarise a PDF report into one page, under three descriptive headings or under targeted questions.

Ensure that the knowledge included in the synthesis is multidisciplinary.

A multidisciplinary approach to the synthesis may improve its relevance to the knowledge users.

If there exists any good quality international reviews or synthesis on the subject, try to utilise their key findings where applicable.

5. Write in a clear and concise manner

Attach a one-page summary containing the main messages of the synthesis.

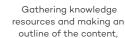**Highlight the key messages using sentence headings.**

Aim to start each chapter with the main points. Provide supporting evidence and background information only after the main point has been presented.

Separate different types of knowledge from each other, for example visually or through headings.

4. Plan the division of labour

Producing a knowledge synthesis includes many steps, in which different skill sets are useful.

To ensure the quality of the final synthesis each of these steps should be carefully carried out:

1.

Gathering knowledge resources and making an outline of the content,

2.

Ensuring the clarity and consistency of the content,

3.

Ensuring the accuracy and quality of knowledge, for example by providing a quality check round for knowledge producers or external evaluators.

How to gather knowledge with a template

You can gather knowledge from researchers in writing using a template. For example, you can use a questionnaire or other written instructions. In the template, you can specify the topic and the questions you want the researchers to provide evidence on, as well as guidelines on the length of the answers. Finally, knowledge templates gathered from several researchers are synthesised into a single knowledge synthesis.