

FROM RESEARCH TO ACTION

Research follow-through monitoring and evaluation for impact optimisation

Based on Bieseman Helena, Gommers Annick & Wittebolle Luc (2023)

Translated and adapted by Bienstman Margo (2024)

Keywords

Research impact | Research Follow-through | Monitoring tool | Evaluation | Collaborative work | Evidence-informed policy making | Spatial Planning | Environment

ABSTRACT

The research facility within the Department of Spatial Planning and Environment (VPO) conducts a wide array of studies and evaluations in a variety of topics. While most findings are published on the website, many researchers are unsure to what extent their policy recommendations are passed on by policymakers, or to what extent results are being utilized by governments, civil society organizations or other research entities. However, it is this exchange that holds the potential to instigate societal transition. To generate an impact, it is necessary to comprehend how and where research results have the most profound influence.

To address this, VPO established the DoMES tool (*Doorwerking Monitoring & Evaluatie Systeem - Impact Monitoring & Evaluation System*) within its research division. DoMES tracks the follow-through of each research output and provides insights into evaluating the implementation of its findings, thereby providing opportunities to enhance the intended impact. The system operates in two key stages: identifying target groups and selecting relevant indicators. DoMES aggregates this data into charts, highlighting types of research or elements where follow-through may be lacking and suggesting potential improvements.

The tool takes input from a multitude of researchers, with diverse focuses and working styles, in a comprehensible and standardised manner. Each researcher fills out the relevant data for their respective work. Conclusions are drawn up based on this collective input. As such, DoMES leverages the team's collective expertise and insights, enabling identification of areas where its research may be falling short in terms of implementation and impact. The tool provides the research facility an accessible way to work together on a more impactful research agenda. Moreover, it forces researchers and evaluators to critically assess the relevance of their work.

DoMES enables VPO to compile insights into its various research and evaluation projects, deepening the understanding of their mechanisms. These insights are crucial in identifying how stakeholders utilize and engage with evaluation recommendations and research output. The relationship between scientific research, societal development and policy advice is crucial but multi-layered. DoMES represents a step towards understanding its complexities a little better.

In conclusion, DoMES serves as a starting point for refining research projects and enhancing their societal impact. It prompts collaborative thought into the impact of research projects, ultimately striving for meaningful change.

1. INTRODUCING VPO

VPO (*Flemish Environmental Planning Division*) is the entity within the Department of Environment and Spatial Planning whose **core business is research, monitoring, evaluation and environmental reporting**. In this way, it contributes to the development of the Department as a centre of knowledge and expertise. VPO is a young organisation with a significant budget and workload. Each year, the division conducts more than 50 research projects using the Department's research budget of around 3 million euros. In order to streamline the research within VPO, a long-term research vision (2020-2030) has been established to organise and stimulate its internal research activities and external partnerships. Furthermore, the monitoring of the follow-through and long and short-term effects of the research results is an important aspect in guarding the quality of this research. As such, monitoring and evaluation is deemed an important focus for VPO.

To be able to grow in the follow-through of research, VPO launched a call in 2021 to **devise a system for the monitoring of research follow-through**. This continued in collaboration with Kenter & SuMa Consulting. The approach consisted of four phases, namely i) sharpening of shared notions on impact, based on literature and in consultation with a broad group of stakeholders, ii) design of the actual system with a selection of indicators; iii) test phase with a selection of studies and iv) reporting of the study results. A steering committee was elected to follow the study process. The members consisted of a broad group of actors from the Environment policy area, as well as more broadly from other Flemish departments. Each offered expertise in their respective research field.

This paper is based on the final report of this study and the lessons learned since its publication. The following paragraphs describe VPO's definition of 'follow-through' and which principles were selected and applied for the monitoring system. Then, the system itself and the test results are shortly discussed. The paper shows the first results of the system, along with some important conclusions on the added value in collaboration and impact. Finally, some opportunities of this type of monitoring system are discussed.

2. WHAT IS FOLLOW-THROUGH?

2.1 Types of follow-through

In order to track the follow-through of research and evaluation projects, a clear definition of follow-through was necessary. In the context of VPO's research results, **follow-through is seen as the extent to which research results are or can be used by the target groups, either by improving their knowledge and/or by steering their behaviour**. Follow-through can happen in two ways. On the one hand, it can manifest in **instrumental use**, which is the direct use or implementation of the research by utilising the results for a change of practice or behaviour. In this case, the research is used as a scientific source to make substantiated decisions. On the other hand, there can be follow-through as **conceptual use**, where the results trigger changes in the mindset. Less important in this context, a third form of follow-through is symbolic use, where only selected parts of the research are used for a goal that does not necessarily correlate to the research as a whole. This form was not deemed relevant for our research and is thus not explicitly considered in the rest of this paper. The three forms of follow-through can occur simultaneously.

There is no specific time in the decision-making process where research results can be used. Their influence differs and depends on the context. Follow-through of the same research can vary for different actors. A **follow-through chain** is used to represent the follow-through of policy research (Figure 1). Going from left to right, the chain indicates the degree of influence the researchers or research unit can have on producing relevant output that is usable and impactful for various actors.

The figure displays the input, activities and output of a research within the researcher's **sphere of control**. The input of the monitoring system is mainly located within this sphere. The next step in the chain is the intermediary outcome, i.e. the direct effects of the research. This consists of communicating results to the target groups, with knowledge increase and behavioural change as a result. An example of this is evidence-informed policy making. As the researcher has at least some control over this communication, this step is part of the **sphere of influence**. For example, the researcher can include certain target groups in the research itself or actively present the results. The outcome encompasses the last step in the follow-through chain. These are the long-term or final effects of research results, such as changes in the living environment because of behavioural change, for example, because of changes in policy. This long-term outcome is called the **sphere of interest**. While this is probably the most important one, the monitoring system will not focus on this last sphere, as it is very difficult to track. Complex causalities in the follow-through chain also complicate evaluation of this step.

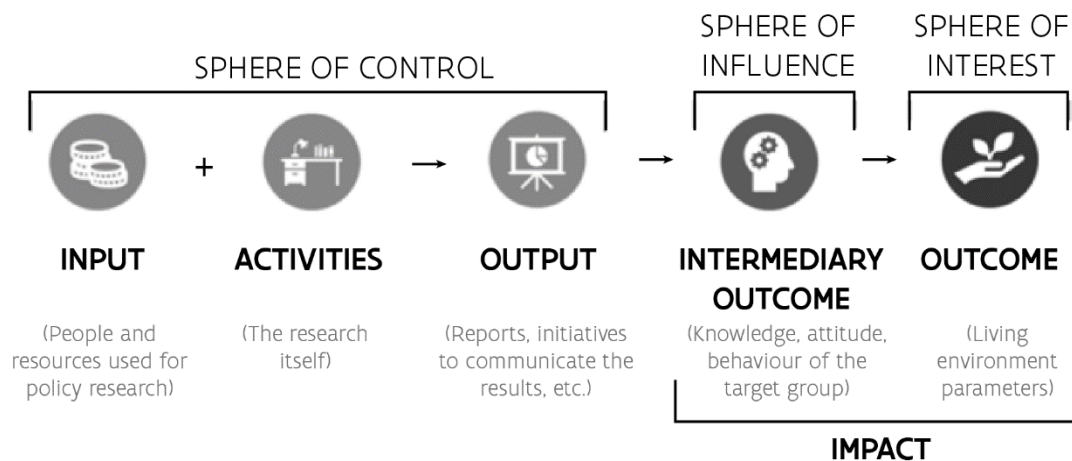


Figure 1 Follow-through chain of research, source: Gommers, A. & Wittbolle, L. (2022)

2.2 Types of follow-through paths

The target groups, that ideally should get to work with the research results, are varied. For each of these target groups, a specific **follow-through path** can be outlined. The question is 'What changes in knowledge increase and behavioural change within this target group do we aim for through our research?'. Within VPO's monitoring setup, seven follow-through paths were defined.

- 1) **Direct follow-through to policy making:**
Policy makers get to work with the results.
- 2) **Indirect follow-through to policy making:**
The results are used by other (environmental) experts in preparation for policy making (research).
- 3) **Follow-through to partners (of the Department):**

The results are used by other actors who work to realise Flemish environmental policies (for example: agencies within the policy domain, local governments, health experts, spatial planners, etc.).

4) Follow-through to a broad audience:

The results lead to an increase of knowledge in the general population, in the hope that they will adapt their behaviour.

5) Scientific follow-through:

The results lead to an increase of knowledge for scientists, who can use the results for follow-up research.

6) Economic follow-through:

Economic actors use the results (to achieve their own economic goals).

7) Internal follow-through:

Colleagues within the Department use the results to gain knowledge and implement the insights into their own research or activities.

2.3 Follow-through principles for VPO

In addition to defining follow-through and the different follow-through paths, some principles were also agreed as the basis for a valid monitoring tool within VPO. Inspiration was found in international examples, such as the 'Key Impact Pathways for Monitoring Horizon Europe' from the European Commission or the Dutch 'Circle Model'.

To achieve a useful evaluation of VPO's research output, it is necessary to gain insight into the **intended follow-through** of the research. A proposed objective helps to narrow down the project target to the essential aspects and in interpreting the results later on. The intended follow-through can differ from one research to the next, but the final goal is often evidence-based or evidence-informed policy making. This makes policy makers an important target group.

In order to properly understand the outcome of the monitoring system, information on some common **explanatory factors** must be included as well. On the one hand, **indicators on the intended follow-through** and scope of the follow-through need to be monitored. This also includes indicators that track the actual impact. On the other hand, it is important to **indicate to what extent the general prerequisites for follow-through** were met. These prerequisites are necessary to allow follow-through to happen (for example, without clear reports, one cannot expect target groups to comprehend the results of the study), but they do not guarantee follow-through. Both principles need to be incorporated within the monitoring system.

Besides the abovementioned distinction, the steering committee defined a **set of requirements** for the monitoring system. As such, the tool needs to comply with the following eight characteristics.

The system must:

- Evaluate the follow-through of research, not policy making or research in se;
- Try and grasp the broad scope of a research;
- Focus on research programmes (and not just on individual results);
- Focus on intermediary outcome (which is the change in knowledge increase and behavioural change of target groups);
- Provide insight into the follow-through for different types of research (data and monitoring studies, (policy) evaluations, foresight reports, etc.);
- Provide insight into the follow-through by thematic cluster;
- Provide possible explanations for the established follow-through;

- Be feasible and easy to use (flexibility tailored to the users, standardisation/protocol for higher efficiency).

3. SETUP OF THE MONITORING SYSTEM (DoMES)

3.1 DoMES templates

The preliminary DoMES tool (*Impact Monitoring & Evaluation System*) consists of two Excel-file templates: one input file to add information for each individual research and one aggregation file to gather all information from the various research projects. First, the input files have to be filled out by the research coordinator (i.e. the project manager), who should be up to date on the progress and results of the research project.

The **aggregation file** compiles all the information about the individual research projects, aggregates the indicators and thus gives insights into the follow-through at the level of research programmes. Besides that, various graphs and figures with detailed information per follow-through path are generated in this file. It also charts whether there are connections between the extent of follow-through and the degree to which the set of requirements for follow-through was fulfilled.

The **input file** consists of five different (visible) tabs. A sixth hidden tab processes the aggregation of data in the background.

- 1) The first tab offers an **explanation** on the purpose of the input file and the way in which the different tabs should be completed. This is to help colleagues complete the file.
- 2) A second tab '**ID – research**' collects **basic information** on the research project and the intended follow-through. This data encompasses, for example, the budget of the research project, the executor and the research programme it is part of. The tab additionally encourages the responsible project manager to describe the intended follow-through in as much detail as possible (in terms of the type and scope of the target group, the desired impact on the knowledge and behaviour of this group and expected timing). A sidenote here is that this tab is to be filled out before the research begins.
- 3) A third tab requires '**scores per indicator**'. This sheet collects information on the follow-through and whether the prerequisites were met. A distinction is made between summary indicators and detail indicators. The latter is scored with 0 (insufficient or no follow-through or did not meet the prerequisites), 1 (partial follow-through), 2 (sufficient or complete follow-through) or N/A (if the indicator is irrelevant for the follow-through of the particular research). The scores must only be filled out for the relevant follow-through paths. As such, not all the indicators will be addressed. The summary indicators display the extent to which the research was conducted and the prerequisites were met. Based on the detail indicators, the summary indicators receive a score between 1 and 8.
- 4) The fourth tab requests a written explanation to support the scores in tab 3. In this sheet, all the additional **qualitative data** can be added. This extra clarification is useful to understand the follow-through more profoundly and can be used as justification for the given scores.
- 5) A fifth – and final – tab shows a short **overview of the results of the follow-through**. It discusses the various relevant follow-through paths and the extent to which the prerequisites were met for the specific research.

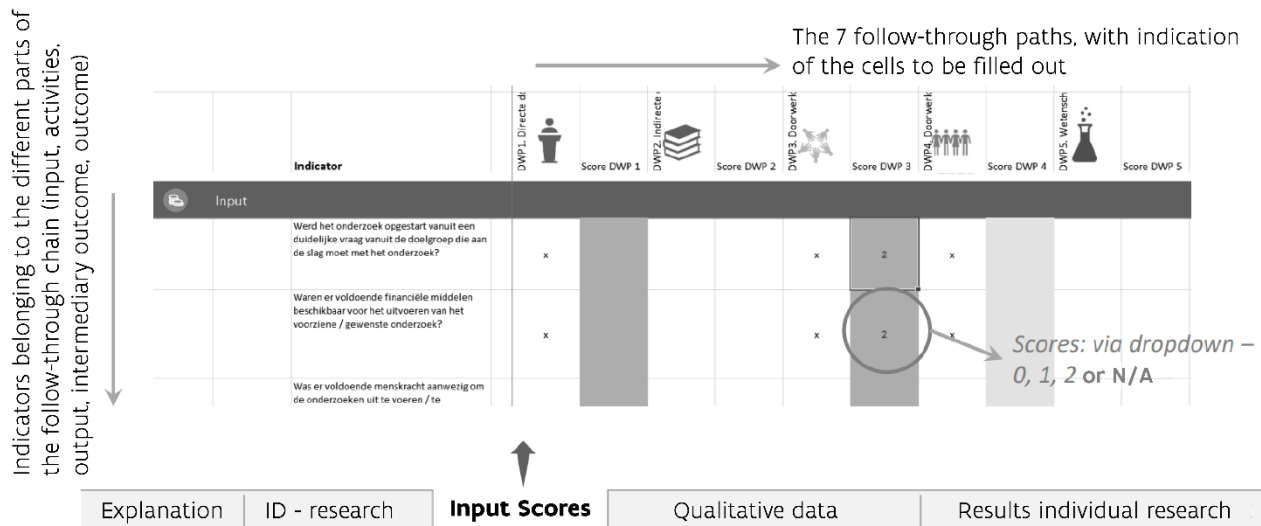


Figure 2 Overview of the input file template, source: Gommers, A. & Wittbolle, L. (2022)

The **aggregation file** in turn consists of five visible tabs.

- 1) Here too, the first tab gives an **explanation** of the purpose and method of the aggregation.
- 2) A second tab contains the **aggregation parameters**, in which it is possible to select the research type and theme on which the aggregation makes statements. This enables the evaluation of subsets of the research agenda.
- 3) The next tab gives the **result of the selection** in the previous tab, specifically a summary of research titles that comply with the selected type or theme.
- 4) The fourth tab is an **output characterisation**, which is the overview of the selected researches in terms of their **follow-through paths** and budget. This information helps in contextualising and interpreting the follow-through results.
- 5) The fifth tab shows the **aggregated results of the follow-through indicators** of the selected researches, both for the actual follow-through and the prerequisites.

3.2 Indicator selection

There is a whole list of qualitative information that needs to be gathered in order to evaluate the follow-through of a research project in a substantiated manner. Besides **two summary indicators**, a multitude of **detail indicators** were selected. The indicators are clustered according to the five links of the follow-through chain. Some indicators are relatively easy to address, others demand a deeper reasoning. As the list of indicators is too long to describe in full, this paper will cover some examples of data demanded in the monitoring system.

- 1) **Input indicators:** Sufficient financial resources? Initiated with a clear research question in mind? Sufficient time available? ...
- 2) **Activity indicators:** Is the research conducted in a high-quality manner? Did it go according to plan? Was the used methodology transparent and properly thought out? ...
- 3) **Output indicators:** Were the prerequisites for follow-through met? Were conclusions and recommendations included? Was the report published? Were the results communicated through seminars? How many actors were present for the communication? ...

- 4) **Intermediary outcome indicators:** Did the knowledge of the target groups increase? Was the question relevant for the target groups? Have the results been passed on for further research? How many times was the publication downloaded? Did the behaviour of the target groups change? Did the results influence policy making? To what extent did the determined undesirable effects occur? ...
- 5) **Outcome indicators:** Did the results of the research – through the step intermediary outcome – have an effect on the living environment? Did the research trigger innovation? Note: these last indicators are very difficult to answer and can be/are usually left blank as we focus on the intermediary outcome of the tool.

4. FIRST RESULTS

4.1 Test phase

The DoMES tool was first **tested** through 14 completed studies commissioned by VPO. Both the results and the DoMES tool itself were evaluated based on this test round. Conclusions, however, were provisional due to the limited number of studies tested.

In a next phase, internal trainings were organised to introduce the researchers to the new tool. A **multitude of colleagues** joined the DoMES trajectory for a beta version of 75 research projects. This **collaboration** allowed expansion of our knowledge on the monitoring of follow-through in a more profound manner than the test phase, created opportunities to learn how to handle the practical roll-out of the tool within the Department and gave insights in ways to improve DoMES. All the research projects conducted by this group of colleagues in the period 2020-2023 were extensively tested. In this phase, all the input data were thus completed retrospectively. For future use, the tool will have to be filled out progressively throughout the research process.

Evaluation of this set of test runs shows which follow-through path seemed most important within VPO. Internal follow-through and follow-through to policy makers are deemed most significant, followed by follow-through to partners of the Department.

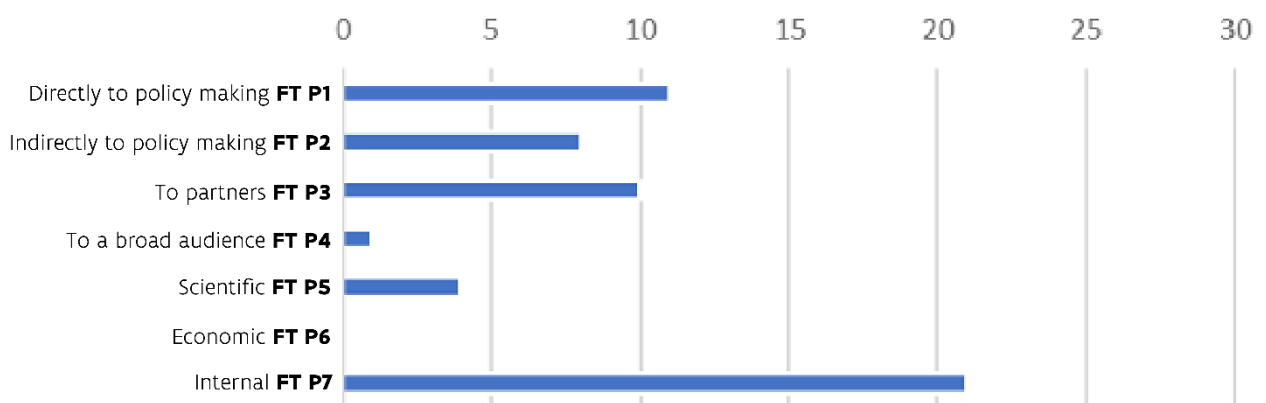


Figure 3 Number of projects with certain follow-through paths as priority

With regard to the effective follow-through of these intended follow-through paths, the first results that could be derived from the test portfolio show that **for most studies the prerequisites were more or less satisfied**. However, the extent of follow-through that effectively took place,

scored significantly lower. The following figure displays this schematically. Figure 5 and 6 respectively show the extent to which the prerequisites were met and the actual follow-through achieved. It appears that internal follow-through is easiest to achieve. Policy makers and partners, however, are harder to reach, even if the follow-through prerequisites were met.

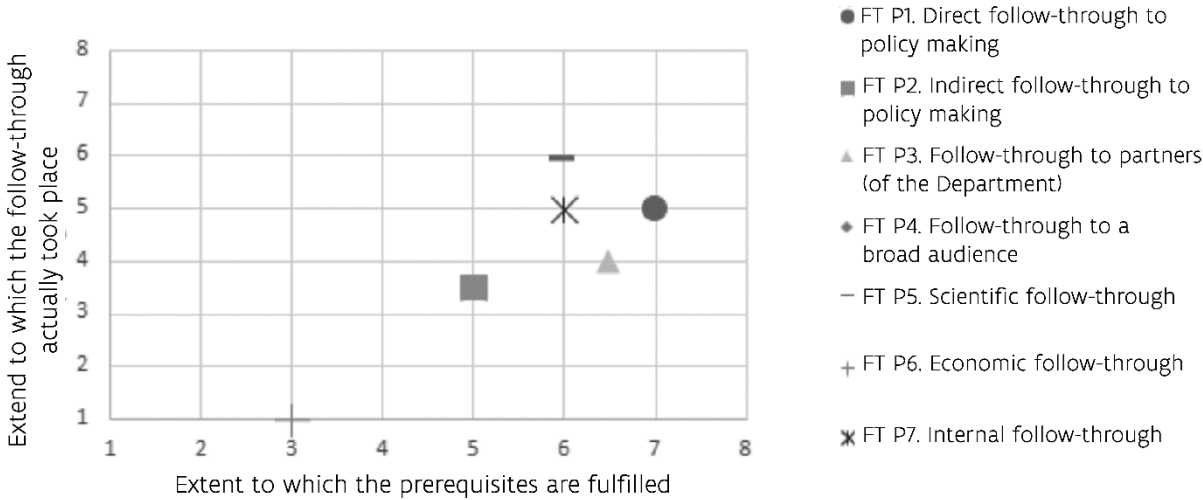


Figure 4 The extent to which follow-through occurs vs. the extent to which the prerequisites are fulfilled (based on 14 studies), source: Gommers, A. & Wittbolle, L. (2022)

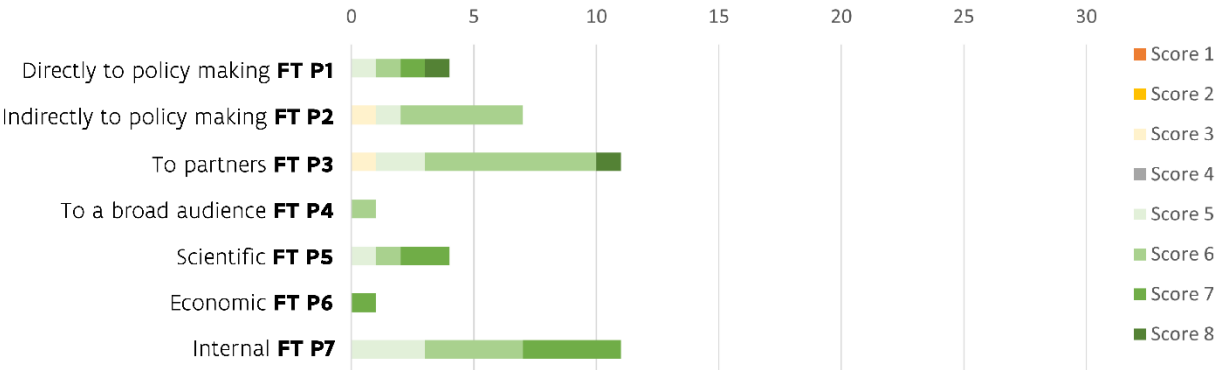


Figure 5 Extent to which the conditions for follow-through were met

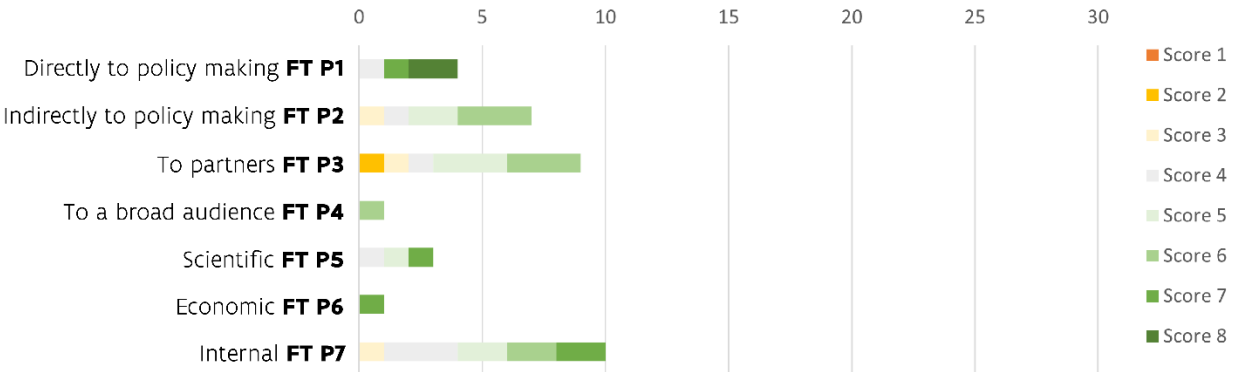


Figure 6 Extent to which follow-through was achieved

To determine the cause of the lesser degree of follow-through, a zoom towards the results per follow-through path seems useful. The aggregation file per follow-through path shows two **graphs indicating the direct follow-through of both knowledge and behavioural change of the target group** (Figure 7 and 8). For the path 'direct follow-through to policy making', for example, the knowledge transfer can be derived from whether the result was received and looked through, whether there was an exchange about the topic, etc. All of this has an influence on the scope of the follow-through. The behavioural aspect can be derived from a figure in the aggregation file whether the research led to the inclusion of certain topics in the political agenda, whether alternatives were discussed, whether policy decisions were talked through or if the results were implemented into new policies.

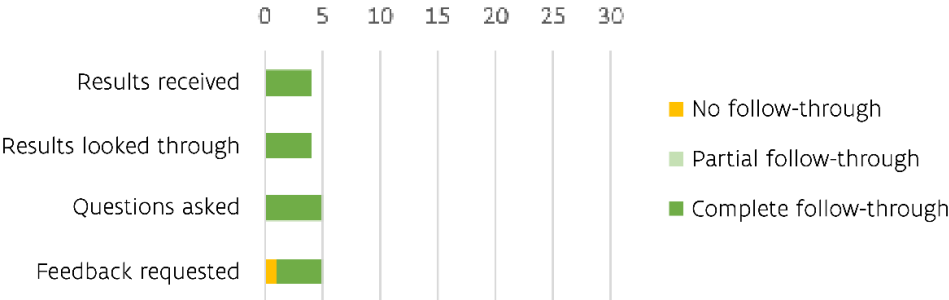


Figure 7 Detail of follow-through: Knowledge increase (for FT P1: Directly to policy making)

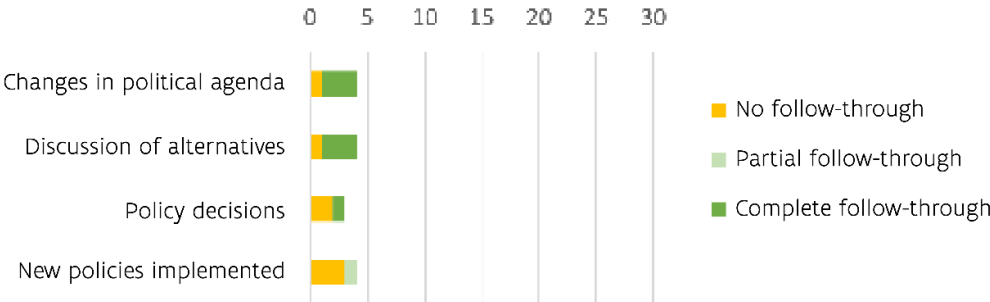


Figure 8 Detail of follow-through: Behavioural change (for FT P1: Directly to policy making)

Besides that, the aggregation file generates an overview figure providing insight into the **typology** of the most common **bottlenecks concerning the 'prerequisites for follow-through'** (e.g. bottleneck regarding demand for the research, input, activities or output). An example of this bottleneck overview from the file showcases the importance of a demand from target groups in order to achieve follow-through (Figure 9). This way of operating allows quick assessment of the possible points for improvement to increase future follow-through. One last figure included in the DoMES aggregation file, shows the **unwanted follow-through**. It can be determined for each follow-through path whether (partly) unwanted follow-through took place.

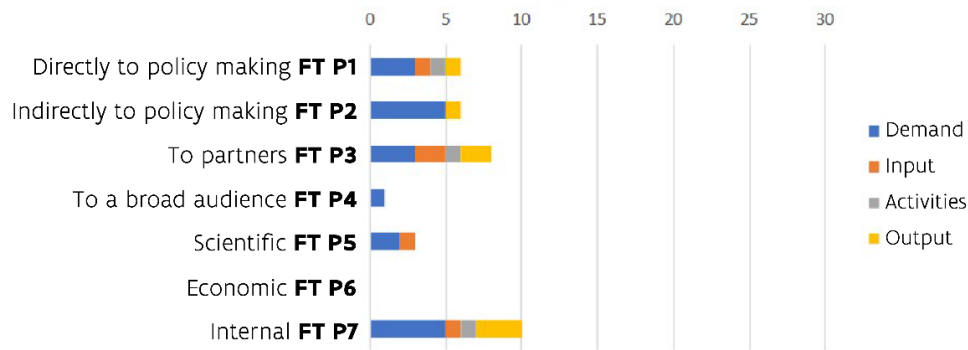


Figure 9 Overview of possible bottlenecks for the conditions of follow-through

4.2 Collaborative effort and gains

The testing phase of the DoMES tool also clarified the amount of **effort** that is needed to collect all the necessary input data for monitoring follow-through. The high commitment rate could create high expectations of the tool's results. The time needed to monitor follow-through via DoMES was estimated using a process schema with the distribution of actors and responsibilities. Some of the process steps can be integrated into the standard process for starting and finishing a research order, making the monitoring more efficient. For example explicitly determining the target groups can already happen during the first research draw-up. The expectation during the test phase was that people became more familiar with the tool so it would be easier to complete. In the end, DoMES should add value, and not be an extra burden. While DoMES as a whole is a team effort, the workload itself is rather individual.

As of 2023, two coordinators were appointed to oversee the distribution and use of the DoMES tool, to smoothen the input process and create an accessible point of contact for questions. In the starting phase of the tool's general roll-out, they were also tasked with encouraging all colleagues to join the monitoring project. Collaborative work is crucial in generating conclusions about the successes and bottlenecks of follow-through. Working together on this tool with all the research colleagues creates a collaboration on a common goal between colleagues who would otherwise never work together because of their different expertise.

5. ADDED VALUE OF THE DoMES TOOL

Although the DoMES tool is still in its testing phase, it is already possible to draw some conclusions regarding the added value of such a monitoring system.

The research conducted by Gommers, A. and Wittebolle, L. (2022) showed that with the DoMES tool, VPO is a **forerunner in monitoring the follow-through of its research results** at the level of a research portfolio. The testing phase proved that DoMES offers added value by systematically evaluating the follow-through of research results. Based on the insights and lessons learned about knowledge or behaviour, research projects can be adapted in order to increase the chances of follow-through. This should allow VPO to make a **leap of quality** within its research and evaluations. Research and evaluation questions will be better formulated towards the target group and a more recognizable framework, to answer all the indicators, can be found in all investigations to increase the impact. As such, monitoring follow-through increases the societal relevance of the conducted research. Furthermore, insights taken from DoMES can be used as justification for the allocated funds. By objectifying research follow-through and promoting researcher collaboration,

DoMES fosters an environment of self-evaluation. Researchers become more aware that their results should and can have follow-through, which is particularly important for a governmental institution like VPO that operates with taxpayer money. Thus, focusing on the societal value of its work is paramount.

Moreover, the DoMES tool provides a form of **objectification of the follow-through results**. The use of scaled scores for the various indicators means that the results are comparable and interpretable. The demanded written substantiation of the scores ensures a certain control on the subjectivity of the system. DoMES helps **communication** on (the follow-through) **of research results** and encourages the integration of follow-through aspects in the research agenda.

Another significant benefit of the DoMES tool is that it offers an overview of the different research results within VPO. Interaction among large groups of colleagues is not always straightforward, as each person has their own area of expertise. DoMES consolidates common or shared obstacles, making these issues easier to address collectively. Despite the broad range of topics, many researches or evaluations follow a similar trajectory. Adapting one's approach based on the lessons learned by others allows for more efficient and profound improvements. At a more abstract level, focusing on follow-through and impact fosters a common goal within the research facility. While each researcher has their specific focus, everyone aims to contribute to a more sustainable and just society. The DoMES tool aims to increase attention to qualitative research and evaluation results, follow-through and evidence-based policy making. While it has started in VPO, the hopes are to expand the use of the tool to further entities of the Department of Environment and Spatial Planning. Furthermore, the tool or its approach to monitoring and evaluation might inspire other (research) institutions interested in research on follow-through.

6. OPPORTUNITIES

DoMES offers numerous opportunities for follow-up research. While it does not directly address how to influence societal processes through research, it provides an initial step in understanding the extent of a research's follow-through. Environmental issues have garnered increasing political attention over the past few decades, and it is the responsibility of the Department of Environment and Spatial Planning to guide this discussion with factual evidence. Research and evaluations on climate change, just transitions, and spatial distribution issues is being conducted within VPO. It is crucial that these insights are adopted by policymakers. Collaborative and structured efforts to deliver the necessary information to the right stakeholders are key.

The DoMES tool aims to streamline insights into the follow-through of research, thereby indirectly improving the communication process and influencing policymaking and public behaviour. Another strength of the DoMES tool lies in uniting a diverse group of researchers across different fields. This systematic approach to collaborative monitoring fosters general cooperation and learning from each other's experiences. Despite the variety of topics addressed, the shared goal among various research institutions is to reach relevant target groups and create an impact through research.

Lastly, in monitoring impact, DoMES also enables the creation of additional impact. While defining the necessity of research or an evaluation and identifying its intended recipients is often done implicitly, actively considering the desired outcomes and impact gives greater importance to this aspect of the research. A clear understanding of the sphere of control is essential as a first step to guiding impact within the sphere of interest, where significant changes occur.

SOURCES

Bieseeman, H., Gommers, A. & Wittebolle, L. (2023), *Monitoring en Evaluatie van de doorwerking van omgevingsonderzoek*. VTOM, 1.

Gommers, A. (Kenter) & Wittebolle, L. (SuMa Consulting) (2022), *Methodologische uitbouw van een monitoring- en evaluatiesysteem om de impact en doorwerking van onderzoeksresultaten te meten*, commissioned by VPO (Departement Omgeving).