### **Sustainable Social Market Economies**



#### © Bertelsmann Stiftung, Gütersloh

June 2024

#### **Publisher**

Bertelsmann Stiftung Carl-Bertelsmann-Straße 256 33311 Gütersloh www.bertelsmann-stiftung.de

#### Responsible for content

Dr. Daniel Schraad-Tischler Dr. Jan Breitinger

#### **Authors**

Dr. Florian Wittmann Dr. Andreas Hummler Daniel Posch Dr. Ralf Lindner

#### Translation (English)

Barbara Serfozo, Berlin

#### **Assistance**

Réka Bátor

#### Recommended citation style

This paper draws on the discussion paper Wittmann, F., Hummler, A., Posch, D., Lindner, R. (2024).

Missionen mit Wirkung: Ein Praxisleitfaden zur Formulierung erfolgreicher Missionen.

Bertelsmann Stiftung, Nachhaltige Soziale

Marktwirtschaft Focus Paper #17.

(DOI.org/10.11585/2024034)

Wittmann, F.; Hummler, A.; Posch, D.; Lindner, R. (2024): Missions with Impact: A practical guide to formulating effective missions. Bertelsmann Stiftung, Sustainable Social Market Economies, Gütersloh. https://doi.org/10.11585/2024034

#### About this paper

This Focus Paper is a joint publication of the Bertelsmann Stiftung und the Fraunhofer Institute for Systems and Innovation Research ISI and is published as part of the "Fostering Innovation and Entrepreneurial Dynamism" project at the Bertelsmann Stiftung. The approaches and recommendations for action presented are intended to provide an orientation framework for setting up mission-oriented policies and will be supplemented by follow-up research.

#### About the Bertelsmann Stiftung

Through its projects, studies and events, the Bertelsmann Stiftung stimulates debate and provides impetus for social change. Serving the public good and having a sustainable impact are the fundamental principles underlying its activities. The economic and social model being pursued in Germany should be sustainable. Effectively combining economic performance and social participation within planetary boundaries is the core idea of the sustainable social market economies. A central lever for this is the innovation and entrepreneurial dynamism in the country. Only by increasing this dynamism will it be possible to maintain today's prosperity and make our economy and society ecologically sustainable and future-proof.

#### Layout

Markus Diekmann

#### Photo

© Ayesha - stock.adobe.com

DOI 10.11586/2024078

# Missions with Impact

# A practical guide to formulating effective missions

#### **Focus Paper**

Dr. Florian Wittmann\*

Dr. Andreas Hummler\*

Daniel Posch\*\*

Dr. Ralf Lindner\*

<sup>\*</sup> Fraunhofer-Institut für System- und Innovationsforschung

<sup>\*\*</sup> Bertelsmann Stiftung

### Contents

Executive summary	5
1. Introduction: Formulating successful missions	8
Principles of mission formulation	10
2. Central aspects of mission formulation	11
2.1. General criteria for mission formulation	11
Support tool for mission formulation	17
Formulation aid for core mission statements	18
3. Mission formulation process:  Key components, procedure and contextual conditions	19
3.1 Key components and procedure	19
3.2 Designing missions for specific contexts	22
3.3 Influence of the contextual conditions on the formulation process	23
4. Summary and recommended actions	27
References	29

### **Executive summary**

In recent years, mission-oriented policy has risen to prominence as a widely discussed approach. Across several OECD countries and at the EU level, initiatives embracing a mission-oriented approach are gaining momentum. In Germany, too, calls for a more transformative policy have grown. The coalition agreement of Germany's current federal government, along with several position papers from federal ministries and the recent report by the Commission of Experts for Research and Innovation (EFI) in 2023, prominently highlight the intention to develop and deploy mission-oriented approaches. A process to translate mission-oriented policies into action was initiated with Germany's High-Tech Strategy 2025 and continues to be further developed as part of the Federal Ministry of Education and Research's "Future Research and Innovation Strategy" (2023).

## Transformative policies are very demanding

Embracing a transformative policy paradigm poses major challenges, as the translation of mission-oriented policies involves considerably more complexity than established approaches. They require a careful balancing of mission objectives, steering mechanisms and incentive structures. However, for those navigating these complexities, there is relatively little practical political experience to draw upon.

The experience to date shows that in practice, mission orientation is often superficially applied to existing policy frameworks without substantive alterations being made to policy design. In fact, earnest efforts to implement mission-oriented policies often fail due to a lack of shared orientation among the stakeholders.

# The success of mission-oriented policy depends on a clearly formulated mission

In recent years, a vigorous discussion has emerged in Germany regarding the design of mission-oriented policy, the key factors contributing to its success and its institutional frameworks. However, those tasked with crafting and implementing such missions find only limited resources in terms of specific guidance and action-oriented knowledge. This gap is particularly evident with regard to the first critical step in mission-oriented policy: formulating appropriate missions.

This step plays a critical role in determining policy impact. Those entrusted with formulating the mission are tasked with mobilizing stakeholders, ensuring the mission's legitimacy from the outset, and providing all involved parties with sufficient orientation in terms of selecting the appropriate combination of instruments and steering mechanisms.

## A practical guide to formulating effective missions

This paper aims to offer practical guidance to political actors entrusted with designing, moderating or overseeing a mission formulation process. It addresses crucial questions such as how to formulate missions to optimize their impact and what criteria the formulation process should meet to ensure that the established goals effectively guide the actions of involved stakeholders.

In addition to a **set of key principles** to guide the process of mission formulation, we provide a "**practitioner checklist**" and a **template to aid in crafting the core statement of a mission**. The checklist is intended to serve as a self-assessment tool for mission stakeholders, while the template is designed to help structure the core statement of a mission.

Moreover, this document identifies five key components of the mission formulation process and sheds light on the range of decisions that mission stakeholders must make throughout the process design phase.

To prove successful, formulation processes must adapt to the political and administrative contexts in which they take place. We therefore outline various hypothetical scenarios for such processes that account for the social, political and regulatory conditions under which a mission formulation process might take place. The aim here is to highlight those areas and aspects that should be afforded particular consideration in a given context.

## Principles of an effective mission formulation process

- The process of formulating a mission requires a shift in perspective that involves thinking in terms of potential problems and embracing an approach that reaches across ministries and sectors. Transformative missions often struggle to thrive when confined by the corset of rigid bureaucracies.
- The process of mission formulation is one of clarification in which feasible and manageable objectives are defined in terms of specific problems. The goal is to establish priorities among selected issues within societal challenges. This includes explicitly specifying which aspects are to be addressed.
- Ambitions should be tempered by pragmatic considerations. Overly ambitious, potentially unattainable goals or a too narrowly defined timeframe threaten the ability to mobilize support and undermine the legitimacy of missions. The focus should be on missions with the potential to foster transformative change in society.
- Transformative missions are complex, and their implementation may span several legislative periods. Interim goals can provide direction and prove helpful in efforts to execute specific measures.
- It should be possible to articulate a well-defined mission mandate to all stakeholders by the end of the formulation process. This involves establishing

quantifiable targets that are aligned among themselves and aim toward an overall objective which, in turn enables the selection of appropriate instruments.

- Establishing interim goals facilitates further refinement of the mission through the definition of milestones. Conversely, breaking down broader objectives into subgoals targeting specific aspects enables the transition from formulating the mission to designing and implementing measures and actions.
- To prevent missions from evolving into a disjointed amalgamation of unrelated objectives (i.e., mission creep), especially regarding interim and subgoals, it's crucial to prioritize close alignment when establishing them.
- The mission formulation process involves more than goal-setting; it also lays the groundwork for subsequent phases of instrument design and implementation. The success of both hinges on a shared understanding of the mission, stakeholder consensus on its focus and maximal legitimacy. Efforts to formulate a mission thus involve extensive deliberations and negotiations among stakeholders, making this a time-consuming process.

## Essential components of the mission formulation process

A mission is the outcome of several negotiation processes involving various stakeholders. The design and focus of each process depends on the context and conditions under which each takes place. There is no "one size fits all" approach.

However, we can draw upon past experience and research on the subject to identify five key components of the mission formulation process. Taking these components into account will assist those responsible for formulating a mission in thoroughly evaluating planned or existing frameworks, refining them and capitalizing on emerging opportunities. The components include:

1. Roles and responsibilities: Who should bear which responsibility? Which actor should assume which role?

- 2. Stakeholder participation: Which stakeholders should be involved, and for what reasons and at which stage? What role should they play in formulating the mission?
- 3. Negotiation and decision-making mechanisms: What principles govern negotiation processes? How are the objectives formalized, and who has the authority to make final decisions regarding the mission's formulation?
- 4. Embedding objectives in the respective political and administrative context: How do the mission objectives align with the current state of affairs? What resources are available for mission implementation?
- 5. Assessing mission feasibility and coherence: Have the conditions needed to accomplish the mission been established? What factors serve to legitimize the mission statement? Are there conflicts of interest with other political initiatives or missions?

#### Accounting for contextual conditions

Missions and the processes required to formulate them cannot be divorced from their political environment. In fact, political dynamics exert a significant influence on missions, shaping their trajectory and outcomes. The social, political and institutional setting of a mission not only defines its parameters but also dictates the challenges and expectations faced by mission owners during the formulation phase. These contextual factors play a pivotal role in shaping various aspects of mission development, including narrative construction, stakeholder engagement and political viability. The empirical evidence consistently underscores the necessity of considering contextual constraints when crafting missions that can garner widespread support across minis-

terial and sectoral domains.

To offer practical guidance with such efforts, this paper outlines a range of hypothetical scenarios for those tasked with formulating missions. These scenarios provide a framework for conceptualizing such processes and highlight the various requirements of a formulation process. While recognizing the inherent complexity of the real world, this overview highlights key priorities for each scenario and outlines the potential challenges that mission owners may have to navigate during the process.

For example, high-level policy initiatives, which often identify specific objectives to target, can inform the development of missions. Examples of this approach include the objectives outlined in the EU's research funding program, Horizon Europe or greenhouse gas reduction targets derived from climate protection agreements. Implementing this approach necessitates a dedicated translation and coordination effort within the formulation process.

## Harmonizing design with implementation

The essence of every successful mission formulation process is driven by the need for actionable outcomes. In the end, all stakeholders should have a clear understanding of the next steps to be taken. However, a well-designed formulation process extends beyond the creation of individual missions, it anticipates the institutional arrangements needed for implementation. It is crucial that the framework governing a mission be aligned with the cross-ministerial and cross-sectoral nature of a mission.

# 1. Introduction: Formulating successful missions

In recent years, mission-oriented policy has gained prominence and sparked widespread debate. As a systemic policy approach to addressing societal grand challenges, it is now being adopted in numerous countries across the OECD and at the EU level. However, despite (or perhaps because of) its rapid rise, many policymakers lack experience in the specific design and practical translation of such initiatives. Moreover, compared to other established approaches, such as research, technology and innovation policy (RTI policy), mission-oriented policies are extremely challenging to implement (Lindner et al. 2021). They require a careful balancing of mission goals, steering mechanisms and incentive structures. Currently, there is limited practical policy experience in this area.

## Mission orientation in Germany: Strategies in place, but a lack of practical knowledge

In Germany, there is a growing discussion both within academic circles and among policymakers about the need for a more transformative policy agenda that aims for substantial changes rather than mere incremental adjustments. The coalition agreement of Germany's current federal government (SPD, Bündnis 90/Die Grünen, and FDP in 2021), along with several position papers from federal ministries and the recent report by the Commission of Experts for Research and Innovation (EFI) in 2023, prominently highlight the intention to develop and deploy mission-oriented approaches. One initial effort to implement such a policy has already been made in the context of Germany's High-Tech Strategy 2025 (HTS 2025). This was further developed as part of the Federal Ministry of Education and Research's "Future Research and Innovation Strategy" (2023).

Against this background (Breitinger et al. 2021; Lindner et al. 2021; Roth et al. 2021), a vigorous discussion has arisen regarding the practical implementation of mission-oriented policy in Germany. This discussion focuses on the likely conditions for success and necessary institutional arrangements (Bohne, Hassel and

Blaschke 2023; Breitinger et al. 2021; EFI 2022; 2023; Lindner et al. 2021; 2022). While various conceptual frameworks have been debated, there remains a lack of concrete guidance and action-oriented resources for policymakers tasked with shaping and implementing missions. This applies above all to the first critical step in mission-oriented policy: formulating appropriate missions.

This publication aims to bridge this gap by providing practical support to policymakers involved in the design and implementation of missions as they navigate the process of formulating mission-oriented approaches.

### In practice, the process of formulating missions frequently falls short of expectations

While Mazzucato's (2018) call to establish clear and ambitious objectives for missions is widely recognized, the practical implementation of these principles remains a challenge. According to a recent OECD study (Larrue 2021: 9), only a handful of ongoing initiatives actually align with the criteria of a true mission. Thus, in the authors' view, the current landscape is marked more by the proliferation of missions than by the effective realization of mission concepts in practice. In this regard, "mission orientation" is often merely a new label applied to existing policy approaches, thus delivering little substantive change in how policies are conceived and executed. Consequently, in most cases, what we observe is essentially a continuation of traditional research and innovation policies under a different guise. Especially concerning the level of ambition and the formulation of objectives, only a limited number of mission-oriented projects to date have demonstrated the characteristics expected of true missions.

This is problematic insofar as the mission formulation phase, which affects structural issues (Janssen et al. 2021; Lindner et al. 2021), is a key factor in the ultimate success of mission-oriented policy (Wittmann

et al. 2021a; 2021b). The mission formulation phase (see Figure 1) has the particular function of mobilizing stakeholders and legitimizing their involvement. It also offers guidance for shaping the mission's concrete design through the selection of appropriate policy instruments. Without an effective mission formulation process, subsequent steps such as mission design (i.e., selecting suitable mixes of instruments and steering mechanisms) and implementation will lack the necessary direction and focus provided by an overarching goal (Wittmann et al. 2021b). This in turn undermines the directionality that serves as a core element of mission-oriented policy. Moreover, there is a heightened risk of simply perpetuating previously established policy patterns and administrative processes.

### Two perspectives on formulating successful missions

This publication thus offers detailed mission-formulation support to stakeholders involved in mission-oriented policy. We adopt two different perspectives here:

First, we offer practical tips for mission formulation. These insights are intended to support stakeholders during the formulation phrase – especially while moderating mission formulation processes.
 The tips can additionally serve as a checklist or set of guideposts:

- a. How should missions be formulated to optimize their impact?
- b. What are the key elements and criteria needed to formulate missions that can serve as guiding principles and provide clear direction throughout the implementation process?
- 2. Second, we adopt a perspective that focuses on missions' sometimes very different initial and contextual conditions. In doing so, we aim to account for the impacts and limitations arising from these differences within the mission formulation process itself:
  - a. When formulating the mission, what must be taken into account in order to accommodate varying contextual conditions?
  - b. Which factors are pivotal to the success of the formulation process within each relevant context?
  - With these questions in mind, which factors should mission teams pay particular attention to?

FIGURE 1 Phases of mission-oriented policies



Source: Roth et al. 2021. Bertelsmann Stiftung

#### Principles of an effective mission formulation process

- Missions require thinking in terms of current relevant problems rather than in terms of existing measures and activities. While missions of course should and must build on existing activities, they should not function as a mere recapitulation of established policy instruments and strategies. They must be conceived and designed across policy areas – that is, they must coordinate and bundle measures and instruments from different sectors.
- Missions should not be equated with societal challenges. Rather, they constitute a specification step in which realistic and manageable goals are defined on the basis of specific problems.
- Missions must define their focuses and prioritize selected problems within the broader context of societal challenges. They must explicitly indicate which aspects of the societal challenge are being addressed. A clear mandate for action must be communicated to the stakeholders involved.
- 4. The mission formulation process entails time-consuming and discussion-intensive processes of development and negotiation. It is not limited to the formulation of a concise "vision" or goal, but also lays the groundwork for the mission design and implementation phases.

- 5. There is no standardized schema for the mission formulation process. Rather, the specific focuses and challenges will depend on the approach taken. This leads to different requirements for the formulation process depending on the context.
- 6. Quantifiable goals should be defined and agreed upon, although the scope of these too will vary depending on the complexity of the mission. This is necessary in order to identify suitable policy instruments and to ensure the successful implementation of the approach.
- Given the complexity of the policy approach, missions should set goals that take several legislative periods to work through and achieve. Interim goals can serve as milestones along this path.
- 8. When formulating the interim goals to be reached over time, as well as individual substantive subgoals, care must be taken to ensure that they are closely linked. Otherwise, missions risk degenerating into a loose collection of unrelated objectives..

# 2. Central aspects of mission formulation

The formulation of a concrete mission is by no means merely an editorial act or a purely formal starting point for mission-oriented policy. Rather, the mission formulation process shapes how the mission will be understood, while also providing orientation and legitimation. Accordingly, the design of the mission formulation process is itself of vital importance. For this reason, it is important to involve relevant stakeholders and broad sections of the public even at this early stage, and motivate them to cooperate, invest and engage in activities that often deviate significantly from their previous behavioral patterns and logic (Boon and Edler 2018; Mazzucato 2018).

## 2.1 General criteria for mission formulation

If a mission is to succeed, its core statement must go well beyond a mere declaration of intent, aiming to address, motivate and inspire a variety of stakeholders in a relatively concise format. This does not preclude the further specification and detailed explanation of the mission in accompanying documents. However, the written description of the core of a mission should be meaningful in itself.

Drawing on Mazzucato (2018), these core mission statements should be crafted with reference to a short list of key principles. Specifically, actors should ensure that their missions:

- Are bold, inspirational and bear broad societal relevance;
- Provide clear direction, while also being measurable and time-bound;
- 3. Are ambitious, while still setting realistic goals;

- Are cross-disciplinary, cross-sectoral and involve diverse stakeholders: and
- 5. Are transformative.<sup>1</sup>

The specific question of how missions should be formulated beyond these principles continues to pose challenges for policymakers. The following sections therefore seek to develop these general principles in more detail.

#### Level of primary mission activity

One central aspect of mission formulation is the question of the activity level, that is the specific aspect of a societal challenge to be targeted by a mission which, in turn, determines the content and problems that will serve as the mission's focus.

In practice, the boundary between missions as strategic action-oriented goals on the one hand, and the underlying societal challenges that serve to legitimize that action on the other, is often blurred. However, it is a mistake to regard the formulation of (long-term) objectives alone as a sufficient criterion for mission-oriented policy. Nor should a simple reference to societal challenges be confused with the formulation of ambitious mission goals.

In practice, the way that many missions are formulated today still appears to be rooted in the logic of "challenge-oriented policies" (Daimer, Hufnagl and Warnke 2012; Boon and Edler 2018), which can be regarded as a preliminary stage of mission-oriented policy. Although this framework entails a reference to societal challenges in its formulation of goals, it lacks the specific references to, and options for action that characterize missions (Daimer, Hufnagl and Warnke 2012: 223). By conceiving missions' role as "translat[ing] broad

<sup>1</sup> At this point, we deviate from Mazzucato (2018), who cites openness to different types of solutions as a criterion. Instead, we propose transformativeness as a criterion. In our view, this better expresses the uncertainties about the specific way forward, since differing combinations of solutions (technological, regulatory, social, economic, etc.) may be necessary at different levels (Wurm and Wittmann 2023a).

FIGURE 2 Hierarchy levels in the context of missions



Source: Authors' elaboration.

Bertelsmann Stiftung

challenges and political orientations into 'doable' problems to be solved," mission-oriented policy approaches can close this gap between overarching challenges and realistic, achievable individual activities (Robinson and Mazzucato 2019: 938). In this context, Larrue (2021: 9) also refers to a "narrowing down" process, whereby the focus of the mission is concentrated on selected aspects. Building on Fujimura (1987), Robinson and Mazzucato (2019) argue that three different hierarchical levels can be distinguished: i) societal challenges, ii) missions and iii) specific problems (see Figure 2).

Missions are positioned between overarching societal challenges and specific problems that are part of the overall challenge. Within the framework of a mission, societal challenges thus constitute the frame of reference for activity aimed at providing effective contributions and clearly defined approaches to overcoming the challenge. Missions therefore constitute a selection of particularly relevant (and addressable) problems in the context of societal challenges that are intended to be overcome.

#### Focus on selected problem clusters

From the perspective of legitimacy, it might seem natural to define the goals as comprehensively as possible. Yet such formulations often fail to reflect constraints on the scope of possible actions and on the availability of resources. Unrealistic or overly comprehensive objectives can undermine the legitimacy of such approaches (Lindner et al. 2021). The call for cross-sectoral, transformative approaches (Mazzucato 2018)

also often gives the impression that missions require "thinking big." This is encapsulated in the catchphrase "big science to meet big problems," an approach taken by traditional technology-driven missions (moon landing, etc.).

However, given the complexity and "wickedness" of societal challenges (Wanzenböck et al. 2020) such as climate change, aging societies and so on, a mission will typically make only a partial contribution to overcoming a challenge, rather than solving it in full. Formulating a mission therefore always entails determining a focus, setting priorities and making a selection. Accordingly, missions can only ever address particularly urgent individual aspects of a societal challenge. Focusing in this way also prevents the diffusion of responsibilities – a key challenge of mission-oriented policy (Lindner et al. 2022). Ultimately, missions that are too broad in scope threaten to overburden the administrative process due to the large number of participating stakeholders and fields of activity.

One key step in formulating a mission is therefore not only to define goals, but also to be conscious of what is being *excluded* from the selected area of focus. Bergek, Hellsmark and Karltorp (2023) illustrate this using the (negative) example of Sweden's climate targets for the industrial sector, which have different action requirements and options depending on whether the focus is manufacturing, the consumer sector or even the consideration of emissions in raw material extraction processes. This increases the risk of a mission creep, which can overload initiatives with an abundance of

measures, stakeholders and institutions. A clear delineation of the mission's focus of activity must therefore prevent the goals from being lost behind the complexity of the problems being tackled.

One example of successful delineation of this kind can be seen in the "Soil Deal for Europe," an EU mission situated within the broader framework of the societal challenge of biodiversity (European Commission 2021a). Instead of tackling the problem of declining biodiversity as a whole, this mission focuses on a specific cluster of biodiversity problems - those related to soil health - and responds to it with a focused set of goals. The aim is to activate transformation potential with long-term positive effects. To this end, research-based approaches and incentives are combined with improved measurement and testing standards in order to bring about fundamental behavioral and legislative changes relating to the treatment of European soil resources, all in the context of reforms to the EU's common agricultural policy. The mission therefore has the potential to have a transformative impact even beyond the narrow mission area.

### Mission ambition level and transformational potential

A mission's ambition level is therefore not derived primarily from its reference to a societal challenge, but rather from the way in which the identified problems are addressed. While missions with a sharp focus on selected problems and a high level of ambition can have a clearly transformative effect,² broadly formulated but unambitious or vague missions that only subsume indirectly related goals are less effective. They will do little to contribute to changing the status quo.

To craft missions in the sense of ambitious goals, which can thereby serve as instruments of transformative policymaking, actors must take the following considerations into account:

 Ambitious goals mean that missions carry the risk of failure, as the objectives will not necessarily be achieved. If the intention is only to perpetuate existing trends, or if the goals are both foreseeable and achievable without determined effort, there is no need for a mission. For political leaders, this level of ambition means to accept the risk of failing to achieve their goals. In this regard, objectives are to be understood as incurring *political* rather than *legal* responsibilities, and should therefore be negotiated and agreed at this level as well. Ultimately, the journey is the destination for missions – that is, even if a mission narrowly fails to achieve a goal, the change processes initiated may set into motion positive developments that can serve as the basis for new or revised missions.

2. A high level of ambition requires a broad understanding of change dynamics. Effecting transformative change requires the use of a variety of sources of societal leverage (e.g., technology, regulation, incentives, investments, communication, etc.). Thus, rather than limiting their field of view to technological solutions, missions should expand their focus to encompass far-reaching changes in institutional structures, working patterns and behavior. This usually implies a cross-sectoral and cross-policy perspective involving a variety of actor and stakeholder groups, as the changes desired will affect different areas of society, and cannot be realized by individual entities acting in isolation from one another. In particular, this means that in order to have a truly transformative effect, missions will usually have to step outside the traditional field of research and innovation policy and seek targeted cooperation with other sectors and areas of expertise. For this reason, transformative change cannot be achieved through research funding alone. Rather, it will require a coordinated mix of instruments comprising funding, changes to the policy environment, regulation, investment, communication and so on.

For example, seeking to bring about behavioral changes is an important lever in reducing the rising number of cancer deaths.

However, missions in this area will fall short if, like Germany's National Decade Against Cancer, they are conceived primarily as research and innovation strategies. Instead, implementation of the measures must take into account key existing intersec-

<sup>2</sup> See also the highly focused and well-delineated proposals for transformative missions in the context of the circular economy outlined in a study by the Bertelsmann Stiftung in conjunction with the Fraunhofer ISI and the Wuppertal Institute (Hummler et al. 2023).

tions with health policy, labor law, education policy and so on (Wittmann et al. 2020).

3. Missions require thinking in terms of problems rather than in terms of existing policies and goals. Even though missions rarely emerge in isolation from established policy fields (see Larrue 2021), the process of formulating a mission requires a change of perspective. Alignment with existing measures is important. However, mission statements should not be the result of an "editorial process" that merely aggregates or updates goals associated with existing measures. This does not mean starting with a tabula rasa, but it does imply that a clear focus on the problem must serve as the starting point for formulating the mission. Only on this basis can missions offer added value compared to the status quo.

The implementation of the missions associated with Germany's High-Tech Strategy 2025 illustrates these problems, as this process has often been dominated by a continuation of existing, established instruments rather than the development of a targeted policy portfolio (Roth et al. 2021). Instead of a bundle of coordinated measures aimed at addressing clearly identified problems, the strategy has often brought existing instruments with a general reference to the theme together under the umbrella of the mission, without supplementing these measures with new, well-targeted instruments.

#### Quantification and clarification of targets

Clear objectives are often associated with a quantification of the specific goals – that is, there is an expectation that missions will strive to realize concrete, measurable targets. While quantification should in many cases help to make the goals more concrete, it should not be seen as a panacea in itself. Complex objectives in particular (such as "improving quality of life") are difficult to capture by means of a single figure. Accordingly, a formulated mission must express a clear goal that is unambiguously defined for all stakeholders, leaving no

room for interpretation. Otherwise, much can be lost in translation during the mission's implementation process, as the various stakeholders involved may interpret and construe objectives – and thus their mandates for action – differently (Wittmann et al. 2021c).

In addition to quantifying the goals, as will ideally be done, it is always necessary to clarify these objectives during the process of formulating the mission. For instance, on the one hand, it is important to communicate which problems associated with a societal challenge the mission will contribute to overcoming (e.g., coal phaseout, sustainable energy supply or a functioning circular economy). On the other hand, it also vital to clarify exactly which aspects of these fundamental transformations the mission specifically addresses, and what specific objectives are being pursued. Without such clarification, missions risk degenerating into vague and seemingly arbitrary declarations of intent.

One good example of how goals can be better concretized is offered by one of the Dutch missions in the field of health (part of the state's "top sectors" initiative). Derived from the overarching goal of increasing average life expectancy by five years by 2040, the specific aim is to reduce the difference in life expectancies between lower and higher income groups by 30% (Breitinger et al. 2021; Topsectoren 2019).

This more detailed formulation of the goal, and particularly the qualification of the overarching goal by using an additional target condition, prevents the mission from developing in unintended directions – for example, toward a one-sided, strong increase in life expectancy in the upper income brackets.

#### Time horizon

Another aspect closely linked to quantification and clarification is the specification of the time horizon within which the mission objectives are meant to be achieved. Here, empirical practice ranges from rather short-term missions of up to a decade <sup>3</sup> to long-term

<sup>3</sup> For example, the Build Back Better U.K. program adopted in 2021 sometimes specifies very short time horizons ranging from the "mid-2020s" to 2028 or 2030 (HM Treasury 2020).

missions that foresee achievement of their goals only in the distant future (e.g., in 2050).

The formulation of transformative missions with very short time horizons (such as a single legislative period) seems to be unsuitable for the ambitious mission-oriented policy approach given its cross-sectoral nature, the comprehensive negotiation processes needed and the steering mechanisms that need to be developed (see Lindner et al. 2022).

In addition, achieving comprehensive changes in a given area within such a short period of time does not seem credible. Such short-term objectives can probably be better addressed through innovation challenges or individual action strategies, or may alternately serve as interim goals within the framework of longer-term missions.

On the other side of the scale, very long-term missions face a number of challenges. First, long time horizons often make it unclear which intermediate steps will be necessary, thus producing a disconnect between the goal and the specific mandate for action. It is of course clear that a mission does not allow for the creation of an exhaustive, fixed plan that addresses the initiative's entire duration. Nevertheless, there is a need to define the scope of activity within the reflexive approach of mission-oriented policies, and then adjust this as necessary. Second, long-term time horizons make it easier to postpone necessary actions into the future, so that long-term objectives can lead to a wait-and-see attitude, or even a situation in which important details are allowed to slide.

For this reason, it seems appropriate to us either to formulate mission goals with an average time horizon of several legislative periods (approximately 10 to 20 years), or alternatively to formulate long-term future-oriented missions (>20 years). In both cases, it will be necessary to define suitable interim goals in order to provide sufficient guidance for all participating stakeholders. In this regard, when formulating these interim goals, it also makes sense to take the time horizons of individual legislative periods into account.

The EU mission striving for climate-neutral cities offers one such example of a staggered approach with interim targets. Within this mission, the formulated goal is for 100 selected cities to achieve the target by 2030, but an extension to all other cities by 2050 is planned. The selected cities are thus meant to serve as experimental test beds and innovation hubs. In addition to this interim objective, the mission goals are qualified by conditions relating to a cross-sectoral and demand-led approach (European Commission 2021b).

### Further specification of the mission via interim objectives and subgoals

In addition to quantifying and qualifying goals and defining time horizons and goal hierarchies, missions can also be further concretized through the specification of interim goals and subgoals. Interim goals are defined temporally – that is, they define milestones on the way to achieving the overarching mission goal. This can be seen in the context of the Horizon Europe mission on climate-neutral cities, which includes interim targets up through 2030. In contrast, subgoals address individual aspects of the overall objective, each representing a further step toward the mission's concrete operationalization. They also represent a bridge to the area of mission design, with the goals each supported by specific activities and instruments.

Examples of this can be found in the core mission statement of the Circular Flanders initiative in Belgium, which breaks down the general goal of reducing resource consumption into subgoals respectively for households and industry. Similarly, the Industrial Decarbonization Challenge of the U.K. Research and Innovation agency includes interim goals and subgoals for certain developmental stages on the path toward a climate-neutral industrial cluster.

#### Mission statement: Circular Flanders

"The aim will be to reduce the material footprint of Flemish consumption by 30% by 2030. The amount of residual household waste will therefore fall from 146 kg per inhabitant to 100 kg per inhabitant by 2030. The aim will also be to reduce the amount of industrial waste by an equivalent percentage by the same date" (National Energy and Climate Plan 2020).

## Mission statement: Industrial Decarbonization Challenge

"The Industrial Decarbonization Challenge (IDC) is contributing to the UK's drive for clean growth by supporting the UK's six largest industrial clusters in their mission to decarbonize at scale. Together, the IDC and U.K. industrial partners will lay the foundation for developing at least one low-carbon industrial cluster by 2030 and the world's first net-zero industrial cluster by 2040" (UK Research and Innovation 2019).

While the question as to the necessity of subgoals cannot be answered in general terms, it should be noted that subgoals should do more than serve as a list of different fields of possible activity. Rather, actors should ensure that the subgoals address individual mission aspects that are substantively closely linked, and which build on one another or follow different time sequences.

#### Goal hierarchies and multiple objectives

Another challenge when formulating missions is the often implicit combination of different approaches and different fundamental goals. For example, missions may appear to be a means not only of achieving societal goals, but also of increasing economic power and reaching other objectives, so that missions in fact seem to promise a number of advantages all at once. The combination of different objectives, potential solutions and alternative interpretations may at first glance appear to be attractive as a means of expanding mobilization and enhancing legitimacy. However, attempting to address different unlinked objectives in parallel within the context of a single mission increases the risk of goal conflicts (Bergek, Hellsmark and Karltorp 2023). For example, within the framework of the EU's twin transition, the attempt to develop a synergetic policy approach addressing both sustainability and digitalization (Wurm et al. 2023a) has generated various tensions arising from the underlying economic objectives. In this example, this includes the question of whether digitalization can contribute to the sustainability transitions or even serve as the goal of sustainability efforts, as well as the question regarding the extent to which sustainability-relevant solutions are even worth striving for if they offer no or only limited economic added value.

Thus, potential goal conflicts and tensions, for example between sustainability and economic policy objectives, should be considered and ideally clarified when formulating the mission. Here, "less is more" applies as well, as overloading missions tends to reduce the clarity of objectives without necessarily mobilizing additional stakeholders.

#### **Support tool for mission formulation**

The previous sections have outlined the key aspects and requirements associated with formulating a mission successfully. On this basis, we have developed a self-reflection tool that can serve as a checklist and guide for stakeholders engaged in

formulating missions. Using the following questions, stakeholders can critically scrutinize the initial versions of a mission formulation, and use the results to develop these drafts further:

#### 1. Legitimation:

- a. Why is the mission relevant?
- b. What societal challenge and what specific subproblems does the mission address?

#### 2. Goal formulation:

- a. What goal is to be achieved?
- b. How will you determine that the goals have been achieved? Are all dimensions of the goal clearly defined and (ideally) quantified?
- c. Are there goal conflicts between the mission's different objectives?

#### 3. Ambition level, change and delineation:

- a. What kind of change is the mission seeking to effect?
- b. In what fields will activity be needed in order to bring about the desired changes? What areas do not need to be addressed in this way?

#### 4. Concretization:

- a. What is the time horizon for achieving the goal?
- b. Are there interim goals that define milestones for the mission's implementation?
- c. Are subgoals necessary for individual substantive aspects of the mission?

#### 5. Feasibility:

- a. Given existing constraints regarding resources and the scope of potential activities, are the goals realistically achievable?
- b. Does the identified time horizon provide sufficient time to achieve the goals?
- c. Are there interdepartmental budgets for mission implementation?
- d. Can the desired effects be achieved and observed within the mission's spheres of activity, and within the mission's time frame?

#### Formulation aid for core mission statements

The following fill-in-the-blank texts are intended to provide assistance in formulating the core statements of a mission. These texts should not be

seen as a rigid framework, but rather as inspiration and as an initial guide to how a mission's core statements can be structured:

#### Mission with interim goals:

By [YEAR], [RELEVANT ACTORS] will achieve a reduction/increase of [TARGET SIZE] in the area of [RELEVANT SECTORS] amounting to [QUANTITATIVE TARGET VALUE].
BY [YEAR] we will reach [QUANTITATIVE INTERIM GOAL].

#### Mission with intended state as a goal, along with sector-specific subgoals:

By [YEAR], [PARTICIPATING STAKEHOLDERS] will have reached [TARGET STATE], meaning that [CLARIFICATION OF CONCEPT/DELINEATION] will be [QUANTIFIED TARGET]. To this end, in [SECTOR 1], [QUANTITATIVE subgoal 1] will be achieved by [YEAR], and in [SECTOR 2], [QUANTITATIVE subgoal 2] will be reached.

## 3. Formulating a mission statement: Key components, procedure and contextual conditions

A mission statement is the end result of negotiations between various stakeholders. While the previous section identified the different elements involved in formulating a mission, this section focuses on the process of formulating a mission and the components that need to be considered. It should be noted here that the focus of the formulation process can vary from initiative to initiative, so there is no "one size fits all" approach.

#### 3.1 Key components and procedure

A total of five key components can be identified as part of the mission formulation process. Depending on the context, these may be addressed in different sequences, and they may manifest in different ways. The following overview describes each of these key components, which have been specified on the basis of current research (see also Arnold et al. 2019: 63-64; Wittmann et al. 2021a):

- Roles and responsibilities:
- Stakeholder participation
- Negotiation and decision-making mechanisms
- Embedding objectives in the relevant context
- Evaluating the feasibility and coherence of the mission's formulation

It is crucial to view these components not as a *fixed framework*, but rather as essential aspects of any mission formulation process that can be flexibly employed and weighted according to the mission's level of ambition.

#### Roles and responsibilities:

Public actors typically occupy a central position in the mission-formulation process. However, both their tasks (e.g., moderation, leadership, etc.) and their underlying

responsibilities (e.g., federal government vs. individual ministries) may differ, especially as the key stakeholder during the mission formulation process will not necessarily be the central "mission owner" who later oversees the mission's design and implementation. The key questions in this regard are as follows:

- Who bears overall responsibility for the mission formulation process? Are there multiple stakeholders whose participation is essential?
- What role will these stakeholders play?

#### **Stakeholder participation:**

The integration of all pertinent stakeholders and representatives across affected policy domains stands as a foundational pillar in the formulation process (see Bergek, Hellsmark and Karltorp 2023). This involves paying meticulous attention to the scope, timing and different functions (informative, consultative, co-creative, co-determining) of the participation mechanisms and processes (Rowe and Frewer 2005; Wiarda et al. 2023). The various stakeholders' involvement and participation in the mission's formulation can fulfill different functions and objectives. In particular, involving diverse stakeholders can help:

- Identify substantive gaps in the mission's formulation;
- Avoid the selection of solutions that are not practically feasible; and
- Increase initiative legitimacy, while forestalling potential opposition by helping to anticipate and involve affected stakeholders at an early date.

At the same time, participation processes will necessarily be shaped by the underlying issue's urgency and the availability of resources, both of which will define the

framework for the mission's formulation. Yet whatever the circumstances, policymakers should work to maximize the positive effects of such processes as effectively as possible. Key questions for consideration are:

- Which stakeholder groups will be involved in the formulation process?
- How will these be identified and selected?
- What is their function in the formulation process?
- At what point will they be involved?

#### Negotiation and decision-making mechanisms:

The process of formulating a mission statement involves various negotiation processes at different levels. These include the definition of shared objectives, the specification of their scope and the selection of which stakeholder groups to involve. These negotiation processes can be supported and strengthened by the use of suitable participation formats such as expert committees, (regional/thematic) dialogue events, the use of foresight processes and so on. These processes will vary particularly with regard to their design, duration, sequence of elements, the identity of the stakeholders involved and the number of different negotiation arenas (centralized, decentralized). In addition, the scope of a negotiation process will in reality be subject to varying time and resource constraints, typically depending on the initial context. Key questions for consideration are:

- How will the negotiation process be structured?
- Who will make the final decision on the formulation of the mission, or has to approve it?
- How will the goals be codified?
- What is the focus of the negotiation processes?
- How much time will be allowed for the negotiation process?
- How iterative will the formulation process be?

#### Embedding objectives in the relevant context:

Even if missions require policymakers to think in terms of the problems being addressed, the process of formulating a mission cannot be conducted in isolation

from the surrounding context. Policymakers must therefore keep in mind the prevailing perspectives on key problems and solutions within the mission area (Wanzenböck et al. 2020; Wurm et al. 2023b). At the same time, they must consider the existing landscape of instruments and stakeholders, budget and resource constraints, and any advantages offered by political windows of opportunity or societal debates. Finally, it is important to develop credible and realistic goals. Key questions for consideration are:

- How will goals be compared with the status quo, or analyzed to derive potential ways forward?
- What resources are likely to be available to the mission? Are these sufficient in view of the goals? Is there a budget for cross-ministry activities?
- How will expert and stakeholder knowledge be integrated into the formulation process?

### Evaluating the plausibility and coherence of the mission's formulation:

The final component involves reflecting on and critically reviewing the mission objectives to ensure that they are realistic despite a high level of ambition. Accordingly, any ideas regarding the formulation of goals must be reviewed to ensure they are feasible in the context being addressed (see also Bergek, Hellsmark and Karltorp 2023). This is true not only of the goals to be set, but also of aspects such as the time horizon and the delineation of the mission's field of activity. The formulation process should be regarded as complete only when there is sufficient consensus among stakeholders that the product of their work:

- Fulfills the central requirements of a mission;
- Clearly expresses the impact logic and logic of action; and
- Identifies important context factors (e.g., involvement of relevant stakeholders, potential obstacles, possible goal conflicts with other missions and policies).

At the same time, policymakers should be aware that the mission-oriented policy approach requires that mission goals, instruments and administrative mechanisms be regularly reviewed and revised as necessary. This is especially true in the case of long-term transformative missions. However, it should also be noted that impact may become measurable only after the passage of some time.

For this reason, it is important to avoid automatically equating the absence of short-term effects with the failure of a long-term mission of this kind. In many cases, the impact associated with mission-oriented policies will become visible only after a considerable delay (Foray 2022). Key questions for consideration are:

- Does the mission as formulated fulfill key requirements (e.g., consistency, quantification/qualification of objectives, time horizon, etc.)?
- What factors serve to legitimize the mission's formulation? Is this formulation feasible and helpful in the context being addressed?
- What external influences could affect the mission?
- Are there conflicts of interest with other political initiatives or missions?
- Have interim goals or milestones been identified in such a way that the mission's ongoing success and impact logic can be regularly reviewed?

FIGURE 3 Components of the mission formulation process

#### Stakeholders Structure and context Goals **Evaluating the Embedding** Roles and Stakeholder feasibility and objectives in the responsibilities coherence of the participation relevant context mission's formulation Type of negotiation Determination of Identification of all Identification of Review of key overall responsibility affected policy areas process Open or political and societal requirements for strong leadership by mission formulation: for the mission and relevant windows of formulation process: stakeholder groups single stakeholder, opportunity Consistency, definition cross-ministry and qualification of for instance with a federal ministry. Determination of the coordination, iterative Integration of expert goals, time horizon, etc. Federal Chancellery, structure, etc. scope and role of and stakeholder stakeholder knowledge Comparison of participation: Determination of time ambition level with Identification of all Informative, frame and focus Comparison with the realistic achievability of stakeholders relevant (delineation) of the consultative, status quo and to the formulation: co-governance, etc. negotiation process identification of Affected departpossible solutions: Check for goal conflicts ments/ministries. Determination of Identification of Existence or absence and synergies with political levels selection procedure formal (final) of already effective external factors (other (federal states, decision-making (selective, representamission-relevant missions or policies). municipalities), etc. tive, open, etc.) and mechanisms: measures, institutional review of mission time of stakeholder Individual ministerial solutions, technololegitimacy (social and inclusion (depending decision, cabinet gies, innovations, etc. political acceptance) on role in formulation decision, parliamentaprocess) ry approval, etc.

Source: Authors' elaboration.

## 3.2 Designing missions for specific contexts

As previously noted, the individual components of the mission formulation process do not have a fixed order or weighting. Rather, they will depend on the context in which they are being employed. Mission formulation processes do not take place in a political vacuum. Rather, they are embedded in existing political dynamics and developments (Edler et al. 2023; Wittmann et al. 2021b). The prevailing social, political and institutional context will thus influence the process by which a mission statement is formulated in terms of possible narratives, actor mobilization, political feasibility, etc.

The following section outlines a number of conceivable starting points for mission formulation processes, described as ideal types. These approaches are derived from existing missions and the literature on mission-oriented policy (Janssen et al. 2021; Larrue 2021; Lavoie 2022; Reale 2021) and differ in terms of the key stakeholders involved, the dominant incentives, and their underlying conceptions of problems and solutions (Wanzenböck et al. 2020).

High-level policy initiatives: High-level objectives or strategies deriving from the international or supranational level, or all-of-government strategies, can provide a frame of reference for the development of missions by specifying concrete objectives that are to be achieved (e.g., the reduction of greenhouse gas emissions on the basis of climate protection agreements, Sustainable Development Goals, etc.). In such circumstances, missions serve as an instrument for achieving exogenously given goals.

The goals expressed within the Horizon Europe research framework program are an example of this type of mission approach. On the one hand, this program's various missions themselves relate to higher-level policy initiatives such as the European Green Deal or the EU's climate-change adaptation strategy (European Union 2021). On the other hand, the missions formulated in the Horizon Europe program in turn provide their own political impetus and serve as the basis for various interpretations at the level of national policy, for example in Austria (BMBWF 2022).

We must caution that high-level policy initiatives do not automatically lead to corresponding translation into missions. Even in this case, intermediate political levels' willingness to engage in implementation still play a decisive role in initiating the mission formulation process. In this context, the OECD (2022: 214) has indicated that Germany needs to enhance its integration with EU policies in order to increase the leverage effects of such policies.

Politically relevant challenges: Certain problems sometimes gain relevance within the political and societal discourse at specific points in time. Because they are considered to be of great importance with reference to an overarching concern, a window of opportunity for action opens. The goal of technological sovereignty is one such example.

However, the precise details of the problems and the array of possible solutions are often unclear in such contexts (see also the "state of disorientation" referenced in Wanzenböck et al. 2020). These are often identified and specified only once addressed within the framework of the mission. For example, the goal of maintaining or establishing technological sovereignty can be seen as one such case of a politically relevant challenge. Assessments of the actual and potential impact of current and possible future crises (including the COVID-19 pandemic and the Russian war of aggression in Ukraine) on global supply and value chains has led policymakers to place a higher priority on reducing national and European dependency on external nations within key technological fields. The urgency of this need has come to be felt broadly, particularly in the political and business spheres. Yet conceivable solutions, objectives and even the concept of technology sovereignty itself are still rather vaguely defined (Edler et al. 2023).

Political consensus on goals or problems: A more concrete form of these rather diffuse political challenges can emerge when there is a consensus among relevant stakeholders that a certain future state should be achieved or a current state should be modified. In contrast to the political challenge, in which there is still a fundamental lack of clarity regarding the mission's starting points, this context is characterized by a preexisting consensus at the level of the problem analysis or desired goals. In the case of a consensus on goals, the desired future state is clearly defined, whereas the solutions and possibly also the problems to be addressed remain unclear. One example of a consen-

sus on goals can be found in the current discussions of transformation toward a circular economy. Here, a desired goal has been defined, although it remains somewhat vague. However, the potential solutions and associated missions, at least in Germany, have not yet been clearly specified (Hummler et al. 2023).

In contrast, in cases where there is a consensus on the problems, these problems are clearly defined, but the future scenario and the details of likely solutions remain vague at the time of discussion. This type of circumstance was evident in the case of Germany's phaseout of nuclear power. There, a consensus regarding the problem (i.e., the phase-out of nuclear energy sources) had been emerging since the late 1980s, but a solution strategy was seriously discussed and implemented only beginning at the turn of the millennium (albeit without the aid of mission-oriented policy) (Selje 2022). A more recent example can be seen in efforts to decarbonize the cement industry, for example. While there is agreement here on the long-term goal of reducing emissions, solution strategies and sustainable or viable business models have not yet been clearly defined.

Acute emergency situations: Ongoing crisis situations (e.g., the Russian attack on Ukraine) constitute a special case in which there is a need for a comprehensive transformative approach. Due to the immediacy of the shock, the urgency is greater here than in the case of longer-term but still pressing problems (such as climate change). The early days of the COVID-19 pandemic, and the response to it, represented this type of contextual situation. The crisis triggered by the outbreak of the pandemic, which affected all areas of society, created a need for rapid and far-reaching adjustments and transformations in a variety of fields (vaccine development, healthcare system, work organization, etc.). Under such circumstances, the corresponding mission formulation processes are subject to particularly great time and expectation pressures and must be able to take the increased uncertainties of a highly dynamic situation into account (Lavoie 2022; Reale 2021).

The following Table 1 (on page 24) provides an overview of the key characteristics of and differences between these initial contexts for the various components of the formulation process. It should be noted again that these are ideal types; in reality, it will often

be difficult to distinguish clearly between such situations. Nonetheless, this analytical distinction can help provide some indication of the differing focal points and key characteristics of the various mission formulation processes, contexts and components. The component related to assessing the plausibility and coherence of the mission statement is not discussed separately here, as it is significant regardless of the context.<sup>4</sup>

# 3.3 Influence of contextual conditions on the formulation process

As can be seen from Table 1, the contextual conditions giving rise to a mission has an influence on the determination of a mission's focus and on the way in which the various components of the mission formulation process manifest. Although this presentation can serve only as a rough guide, it indicates which aspects should be given particular consideration in each given situation, and what possible challenges and obstacles need to be taken into account during the mission formulation process. In the following, as a means of further explaining these implications, we formulate brief guidelines for each of the four situations in which political actors may find themselves tasked with shaping a transformation-oriented mission formulation process.

#### High-level policy initiative

Due to the preexisting set of objectives, the task of the state moderator in this case is primarily to translate these objectives into concrete and manageable action-oriented goals. If necessary, the moderator may also be responsible for interpreting the higher-level policy statement within a national or regional context (e.g., in the case of a European or international obligation). The formulation process should focus in particular on potential solutions, while defining missions that center on implementation. The key focus is the definition of starting points for carrying out a solution.

In this context, key challenges are especially likely to include unrealistic objectives and a lack of feedback from stakeholders who are crucial to implementation,

TABLE 1 Key characteristics of and differences between initial contexts for various components of the formulation process

Starting point Starting point					
	High-level policy initiative	Politically relevant challenge	Political consensus on goal or problem	Acute emergency situation	
Examples	EU missions (Climate-neutral cities)	Demographic change, technological sovereignty	Nuclear energy phase- out, coal phase-out, mobility transition, circular economy	COVID-19 pandemic	
		Role of state stakeholders			
Role of state stakeholders	Process leadership and guarantor for implementation	Moderator and communicator	Moderator and guarantor of focus on goals	Process leadership and implementation, communicates urgency	
Interlocking mission formulation and design processes	Starting point	Preparation	Implementation plan	Integration of implementation	
		Stakeholder participation			
Туре	Reduction of potential opposition	Analysis of problem	Downstream, limited or comprehensive depending on situation	Early and limited	
Function	and/or solution, legitimation	Reduction of potential opposition	Reduktion potenzieller Blockaden	Provision of resources, avoidance of implementa- tion problems	
		Formulation process			
(Decision)-making mode	Top-down	Bottom-up	Hybrid (bottom-up and top-down)	Top-down	
ource: Authors' elaboration.				Bertelsmann <b>Stiftu</b> i	

with the result that such missions can largely remain political declarations of intent with no prospect of realization. Stakeholders are particularly important in this context. While they cannot call the higher-level policy statement itself into question, they certainly have the opportunity to jeopardize the success of the mission by standing in its way. In such cases, it is advisable to use participation processes that are specifically aimed at involving and mobilizing stakeholders through consultative procedures at the least. Involving stakeholders is therefore particularly important for the development of suitable options for action (formulation of subgoals or interim goals), but not for the formulation of the goals themselves. Once engaged on a consultative basis, stakeholders can be tasked with interpreting or translating the higher-level policy statement into context-specific options for action. This offers a good opportunity to motivate these participants, and helps to bridge the disconnect between political ambition and actual implementation.

At the same time, the top-down nature of the high-level

statement gives public actors somewhat greater room for maneuver, as the fact that the overarching goal has been set externally limits the potential for conflict within the goal-setting processes. In this regard, it is important that the political leadership sends clear and consistent signals regarding the coming transformation requirements. If the goals are clearly stated, the mission formulation process can also be relatively linear – that is, less iterative – and can thus be completed within a relatively short time frame. Moreover, a mission formulation process of this kind offers the opportunity to send strong signals to all stakeholders, that changes are pursued seriously and with high priority.

#### Politically relevant challenges

Goals associated with a politically relevant challenge tend to be rather vaguely defined, but widely supported. This opens up political opportunities that facilitate broad consensus-building efforts, and thus make far-reaching transformation possible. On the other hand, this initial situation is usually accompanied by a comprehensive and potentially lengthy process of negotiation and mission formulation. One example of this is the lengthy scientific, political and societal discourse around man-made climate change and the measures taken in response (Wamsler et al. 2020; Weingart, Engels and Pansegrau 2008).

In this context, the primary role of a public actor is that of a moderator who promotes an integrative decision-making process, and thus crafts a feasible mission out of the multitude of action-oriented options and goals while preventing capture by individual interests. The temptation to set priorities and focus too early or too late is among the key risks and challenges here, as this can weaken a mission's momentum. Incentives to break off the formulation process prematurely, before reaching consensus between the various stakeholders, are also a concern. In this case, the mission would ultimately lack clear direction. Due to the vagueness of the initial objectives, mobilizing and soliciting the participation of a broad range of stakeholders is necessary from the outset. This allows them to serve as sources of co-creation, and to help identify and judge potential solutions. Ultimately, one topic of discussion in the participation mechanisms should focus on how these events can be used to encourage relevant stakeholders to commit themselves to the ongoing process.

#### Political consensus on goal or problem

As in the case of high-level policy initiatives, the advantage of the "change of state" starting point is that either the desired goal or the problematic status quo are predefined, and there is broad recognition of the fundamental need for action. For this reason, the search for potential solutions again sits at the center of the negotiation and mission formulation process.

However, in contrast to the high-level policy situation, there is here a clear delineation of the problem or desired goal. Particularly when aided by the involvement of relevant stakeholder groups, this offers the potential to find well-defined starting points and solution strategies for the identified problem. To enable this process, policymakers must first open up the space for dialogue regarding possible goals and solutions. Public actors play a key role here both as moderators or facilitators of the discussion, and later in helping to build consensus. The key challenges here include the risk of committing to certain solution options too early, as well as the

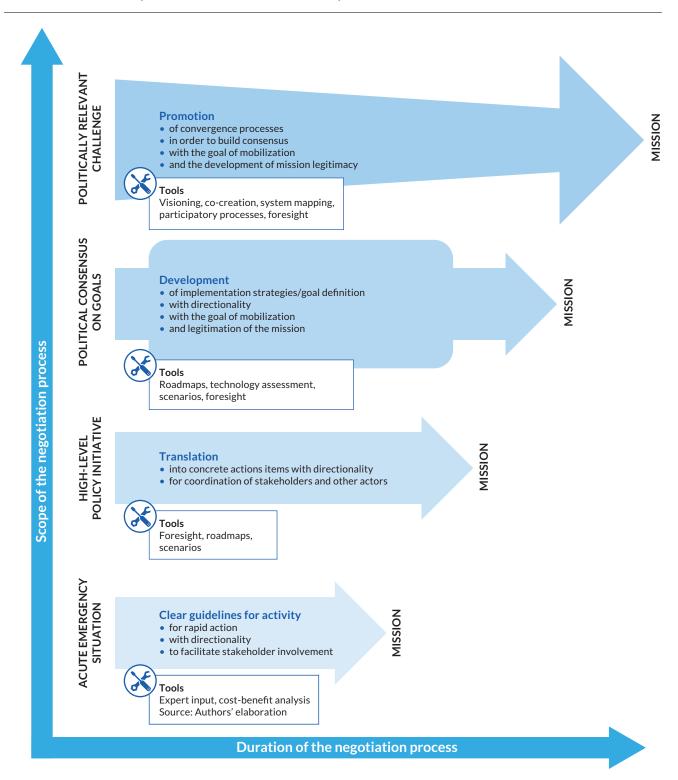
potential opposition mounted by influential individual stakeholders, which can undermine the formulation process. Stakeholder involvement is downstream in that it is aimed at developing suitable implementation options, defining the field of activity and specifying the options for action. One possibility here is thus to organize a competition soliciting ideas for potential solutions, a process that will tend to be bottom-up or decentralized. In this way, a number of formulation processes aimed at the same goal or problem can be pursued in parallel.

The key advantage of this scenario is the clear definition of the goal, and thus of the desired change in state. This clarity allows the mission formulation process to begin with a technical and factual orientation, ensuring a mission that can achieve the desired target state with maximum efficiency. However, this also requires a higher level of expertise on the part of the moderator, as this entity must be able to reliably judge the advantages and disadvantages of competing solution strategies.

#### **Acute emergency situation**

In contrast to the other scenarios, the acute emergency situation is much more strongly characterized by hierarchically organized mission formulation processes taking place under great time pressure. If participatory formats are used in the formulation process, they mainly serve as a means of gathering information and consulting with experts, as well as to coordinate activities and implementation functions. The situation's inherent urgency makes mobilization processes less relevant, though in some cases they may be invoked and conducted hierarchically due to the state of emergency. In this scenario, the rapid formulation of clear mission goals appears to be essential. The mission formulation process serves in particular as a means of weighing the costs and benefits of various options. The process must take appropriate account of the great time pressure, the need to make decisions under conditions of uncertainty, and the dynamic context.

FIGURE 4 Model-based depiction of various mission formulation processes



Source: Authors' elaboration.

Bertelsmann Stiftung

## 4. Summary and recommended actions

The potential effectiveness of mission-oriented policies in driving transformative change with impact is widely recognized. However, experience shows that policies based on this concept are often far less effective in practice than hoped. In part, this is due to the fact that the label of "mission orientation" is "slapped on" to existing policy approaches without actually changing their mechanisms of action. But even more commonly, earnest efforts to execute mission-oriented policy have failed due to a lack of shared direction among the policymakers and stakeholders. To address this gap, this paper presents practical recommendations for navigating the essential components of a mission formulation process.

# Effective mission-oriented policies are rooted in a sound formulation process

The success or failure of mission-oriented policies depends significantly on the formulation of the mission itself. This contribution thus aims to aid actors in government tasked with designing, moderating or guiding the mission formulation process.

## Societal challenges are not equivalent to missions

Merely identifying a societal challenge such as "combating climate change" cannot be equated with formulating a mission. It is important to set clearly defined and delimited subgoals that can realistically be addressed within a mission's framework. Beyond measuring goal attainment and establishing timelines, careful attention must be given to the ambitions and scope of a mission.

## Draw upon specific problems when defining missions

Emphasis should be placed on missions with goals that can potentially amplify their transformative impact on overarching societal challenges through a leverage effect. In this context, we advocate for a *pragmatic approach* to mission formulation. Overly bold, potentially unattainable goals or a too narrowly defined timeframe threaten the ability to mobilize support and undermine the legitimacy of missions. In such instances, the success of a mission remains uncertain.

# Formulation processes must be designed and carried out across ministries and sectors

It's important to conceive the process of mission formulation from the outset as one that reaches across ministries and sectors. When confined by the corset of a rigid bureaucracy, very few transformative missions can deliver their intended impact. Since missions focus on clusters of problems that form the basis for the development of a mix of measures, it's important to define objectives that involve a variety of policy fields. They should not be "squeezed" into the framework of ministerial jurisdictional responsibilities.

#### Mission formulation processes must adapt to their context and leverage existing opportunities

From the outset, the respective context, political dynamics and opportunities must be considered when organizing and moderating mission formulation processes. To provide guidance in this regard, four scenarios have been defined that represent the conditions of various mission formulation processes. Each of these scenarios leads to different requirements for the formulation process. For example, while "high-level policy

initiatives" require special translation and coordination efforts, and "politically relevant challenges" place particular demands on consensus-building, mission formulation processes in "acute emergencies" are characterized primarily by the need for clear government guidelines on the immediate implementation of policies and measures.

# The focus of the formulation process depends on the specific baseline conditions

Both the components of the formulation process – particularly with regard to negotiation processes and stakeholder involvement – and the orientation and methodology of moderation must be tailored to the realities of each political and societal context. These are the prerequisites to formulating missions that are met with widespread approval and support across ministries and sectors.

# Addressing mission design and implementation during the formulation process

In the end, a successful mission formulation process should go beyond merely formulating individual missions; it should foster the political will to think several steps ahead together. Not every institutional arrangement is suitable for every mission, and every strategy must define its individual steering mechanisms. It is important that these mechanisms, like the missions themselves, are met with acceptance and supported across ministries and sectors. Only then can the phase of formulating a mission statement transition into successful phases of mission design and implementation.

### References

Arnold, Erik, Tomas Aström, Helen Andréasson, Kalle Nielsen, Martin Wain, Maja Tofteng, Rolf Røtnes. (2019). Raising the Ambition Level in Norwegian Innovation Policy. Final Report. Brighton: technopolis group.

Bergek, Anna, Hans Hellsmark and Kersti Karltorp. (2023). "Directionality challenges for transformative innovation policy: lessons from implementing climate goals in the process industry." *Industry and Innovation* 30 (8), 1110–1139. https://doi.org/10.1080/13662716.2022.2163882.

BMBWF – Bundesministerium für Bildung, Wissenschaft und Forschung (Eds.). 2022. Mehr Lebensqualität und Nachhaltigkeit durch Forschung und Anwendung. Umsetzungsrahmen für die EU-Missionen von Horizon Europe in Österreich. Vienna.

Bohne, Maik, Anke Hassel and Daniela Blaschke (2023). Innovation als Schlüssel zur gerechten Transformation. Acht Impulse für die Zukunftsfähigkeit des deutschen Innovationsmodells. Eds. DPZ – Das Progressive Zentrum e.V. Berlin. https://www.progressives-zentrum.org/wp-content/uploads/2023/03/Grundlagenpapier\_Tech-for-Transformation\_innovation\_als\_schluessel\_zur\_gerechten-1.pdf (Download Sept. 9,2023).

Boon, Wouter, and Jakob Edler (2018). "Demand, challenges, and innovation. Making sense of new trends in innovation policy." *Science and Public Policy* 45 (4), 435–447.

Borrás, Susanna, and Jakob Edler (2020). The Transformative Roles of the State in the Governance of Socio-Technical Systems Change. Ed. Fraunhofer Institut für System- und Innovationsforschung. Karlsruhe.

Breitinger, Jan C., Jakob Edler, Thomas Jackwerth-Rice, Ralf Lindner and Daniel Schraad-Tischler (2021). Good practices in mission-oriented innovation strategies and their implementation. Ed. Bertelsmann Stiftung. Gütersloh. https://doi.org/10.11586/2021027.

Daimer, Stephanie, Miriam Hufnagl and Philine Warnke (2012). Challenge-oriented policy-making and innovation systems theory: reconsidering systemic instruments. Innovation system revisited – Experiences from 40 years of Fraunhofer ISI research. Ed. Fraunhofer Institut für System- und Innovationsforschung. Stuttgart. 217–234.

Edler, Jakob, Knut Blind, Henning Kroll and Torben Schubert (2023). "Technology sovereignty as an emerging frame for innovation policy. Defining rationales, ends and means." Research Policy 52 (6). 104765. https://doi.org/10.1016/j.respol.2023.104765

EFI – Expertenkommission Forschung und Innovation (Ed.) (2022). Gutachten zu Forschung, Innovation und technologischer Leistungsfähigkeit Deutschlands 2022. Berlin. https://www.e-fi.de/fileadmin/Assets/Gutachten/2022/EFI\_Gutachten\_2022.pdf (Download Sept. 28,2022).

EFI – Expertenkommission Forschung und Innovation (Ed.) (2023). Gutachten zu Forschung, Innovation und technologischer Leistungsfähigkeit Deutschlands 2023. Berlin. in. https://www.e-fi.de/fileadmin/Assets/Gutachten/2023/EFI\_Gutachten\_2023.pdf (Download Sept. 9,2023).

European Commission (2021a). "EU Mission: A Soil Deal for Europe." https://research-and-innovation.ec.europa. eu/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe/eu-missions-horizon-europe/soil-deal-europe\_en

European Commission (2021b). "EU Mission: Climate-Neutral and Smart Cities." https://research-and-innovation. ec.europa.eu/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe/eu-missions-horizon-europe/climate-neutral-and-smart-cities\_en (Download Oct. 4, 2023).

European Union (Ed.) (2021). Regulation (EU) 2021/695 of the European Parliament and of the Council of 28 April 2021 establishing Horizon Europe – the Framework Programme for Research and Innovation, laying down its rules for participation and dissemination, and repealing Regulations (EU) No 1290/2013 and (EU) No 1291/2013. https://eur-lex.europa.eu/eli/reg/2021/695/oj

Foray, Dominique (2022). "The Economics of Incomplete Plan: on Conditions, Procedures and Design of Future Mission-Oriented Innovation Policies." Review of Public Economics 243-(4/2022). 123–146. https://doi.org/10.7866/HPE-RPE.22.4.6.

Fujimura, Joan H. (1987). "Constructing 'Do-able' Problems in Cancer Research: Articulating Alignment." Social Studies of Science 17 (2), 257–293. https://doi.org/10.1177/030631287017002003

Hummler, Andres, Ralf Lindner, Daniel Posch, Henning Wilts, Florian Wittmann and Daniel Wurm (2023). "Deutschlands zirkuläre Zukunft: Wie Missionen die Transformation zur Circular Economy beschleunigen." Focus Paper #15. Ed. Bertelmann Stiftung. Gütersloh. https://doi.org/10.11586/2023064

Janssen, Matthijs J., Jonas Torrens, Joeri H. Wesseling and Iris Wanzenböck (2021). "The promises and premises of mission-oriented innovation policy—A reflection and ways forward." Science and Public Policy (48), Artikel-Nr. 3. https://doi.org/10.1093/scipol/scaa072

Larrue, Philippe (2021). The design and implementation of mission-oriented innovation policies. A new systemic policy approach to address societal challenges. Paris: OECD. https://doi.org/10.1787/3f6c76a4-en

Lavoie, Marie (2022). "A public health mission in Canada in response to the coronavirus disease 2019 (COVID-19) pandemic." Global health journal 6 (4), 231-236. https://doi.org/10.1016/j.glohj.2022.12.002

Lindner, Ralf, Jakob Edler, Miriam Hufnagl, Simone Kimpeler, Henning Kroll, Florian Roth, Florian Wittmann and Merve Yorulmaz (2021). Missionsorientierte Innovationspolitik. Von der Ambition zur erfolgreichen Umsetzung. Ed.Fraunhofer Institut für System- und Innovationsforschung ISI. Karlsruhe. https://www.isi.fraunhofer.de/content/dam/isi/dokumente/policy-briefs/policy\_brief\_missionsorientierung.pdf (Download Sept. 20, 2021).

Lindner, Ralf, Florian Wittmann, Thomas Jackwerth-Rice, Stephanie Daimer, Jakob Edler and Daniel Posch (2022). "Deutschland transformieren: Missionsagenturen als innovativer Baustein zur Bewältigung gesamtgesellschaftlicher Herausforderungen." Focus Paper #4. Ed. Bertelsmann Stiftung. Gütersloh. https://doi.org/10.11586/2022146

Mazzucato, Mariana (2018). Mission-Oriented Research & Innovation in the European Union. A problem-solving approach to fuel innovation-led growth. Brussels: European Commission - Directorate-General for Research and Innovation.

National Energy and Climate Plan (2020). National Energy and Climate Plan. – Draft translation. Brussels: Belgian Government. https://energy.ec.europa.eu/system/files/2020-09/be\_final\_necp\_parta\_en\_0.pdf (Download Oct. 3, 2023).

OECD (2022). OECD-Berichte zur Innovationspolitik: Deutschland 2022. Agile Ansätze für erfolgreiche Transformationen. Paris: OECD Publishing. https://doi.org/10.1787/9d21d68b-de.

Reale, Filippo (2021). "Mission-oriented innovation policy and the challenge of urgency: Lessons from Covid-19 and beyond." *Technovation* 107. 102306. https://doi.org/10.1016/j.technovation.2021.102306.

Robinson, Douglas K. R., and Mariana Mazzucato (2019). "The evolution of mission-oriented policies: Exploring changing market creating policies in the US and European space sector." *Research Policy* 48 (4), 936–948.

Roth, Florian, Ralf Lindner, Miriam Hufnagl, Florian Wittmann and Merve Yorulmaz (2021). The future of mission-oriented policies. Final report of the Scientific Support Action to the German High-Tech Strategy 2025 – volume 1. Ed. Fraunhofer Institut für System- und Innovationsforschung ISI. Karlsruhe.

Rowe, Gene, and Lynn J. Frewer (2005). "A Typology of Public Engagement Mechanisms." *Science, Technology, & Human Values* 30 (2), 251–290. https://doi.org/10.1177/0162243904271724.

Selje, Tom (2022). "Comparing the German exit of nuclear and coal: Assessing historical pathways and energy phase-out dimensions." Energy Research & Social Science 94. 102883. https://doi.org/10.1016/j.erss.2022.102883.

SPD, Bündnis 90/Die Grünen and FDP (2021). Mehr Fortschritt wagen. Bündnis für Freiheit, Gerechtigkeit und Nachhaltigkeit. Koalitionsvertrag zwischen SPD, Bündnis 90/Die Grünen und FDP. Berlin.

Topsectoren (Ed.) (2019). "Factsheet Dutch Solutions to Grand Challenges. Ministry of Economic Affairs and Climate Policy." https://www.topsectoren.nl/binaries/topsectoren/documenten/publicaties/2019-publicaties/september-2019/23-09-19/factsheet-dutch-solutions-to-grand-challenges/Factsheet+Dutch+Solutions+to+Grand+Challenges.pdf (Download Oct.4, 2023).

UK Research and Innovation (2019). "Area of investment and support: Industrial decarbonization." https://www.ukri.org/what-we-do/our-main-funds-and-areas-of-support/browse-our-areas-of-investment-and-support/industrial-decarbonisation/ (Download Oct. 4, 2023).

Wamsler, Christine, Niko Schäpke, Carolin Fraude, Dorota Stasiak, Thomas Bruhn, Mark Lawrence, Heike Schroeder and Luis Mundaca (2020). "Enabling new mindsets and transformative skills for negotiating and activating climate action: Lessons from UNFCCC conferences of the parties." *Environmental Science & Policy* 112. 227–235. https://doi.org/10.1016/j.envsci.2020.06.005

Wanzenböck, Iris, Joeri H. Wesseling, Koen Frenken, Marko P. Hekkert and K. Matthias Weber (2020). "A framework for mission-oriented innovation policy: Alternative pathways through the problem–solution space." *Science and Public Policy* 47 (4), 474–489. https://doi.org/10.1093/scipol/scaa027.

Weingart, Peter, Anita Engels and Petra Pansegrau (2008). Von der Hypothese zur Katastrophe. Der anthropogene Klimawandel im Diskurs zwischen Wissenschaft, Politik und Massenmedien. Opladen. ISBN: 9783866499270.

Wiarda, Martijn, Vladimir C. M. Sobota, Matthijs J. Janssen, Geerten van de Kaa, Emad Yaghmaei and Neelke Doorn (2023). "Public participation in mission-oriented innovation projects." *Technological Forecasting and Social Change* 191. 122538. https://doi.org/10.1016/j.techfore.2023.122538.

Wittmann, Florian, Miriam Hufnagl, Florian Roth, Ralf Lindner and Henning Kroll (2021a). A Framework for Formative Evaluation and Impact Assessment of Mission-oriented Innovation Policies. Final report of the Scientific Support Action to the German High-Tech Strategy 2025 – Volume 2. Ed. Fraunhofer Institut für System- und Innovationsforschung ISI. Karlsruhe.

Wittmann, Florian, Miriam Hufnagl, Florian Roth, Merve Yorulmaz and Ralf Lindner (2021b). From mission definition to implementation: Conceptualizing mission-oriented policies as a multi-stage translation process. Ed. Fraunhofer Institut für System- und Innovationsforschung ISI. Karlsruhe. https://www.isi.fraunhofer.de/content/dam/isi/dokumente/cci/innovation-systems-policy-analysis/2021/discussionpaper\_71\_2021.pdf (Download 30.8.2021).

Wittmann, Florian, Miriam Hufnagl, Florian Roth, Merve Yorulmaz and Ralf Lindner (2021c). "From mission definition to implementation: Conceptualizing mission-oriented policies as a multi-stage translation process." Fraunhofer ISI Discussion Papers Innovation Systems and Policy Analysis No. 71. Ed. Fraunhofer Institut für Systemund Innovationsforschung ISI. Karlsruhe.

Wittmann, Florian, Florian Roth and Miriam Hufnagl (2020). First Mission Analysis Report of the Scientific Support Action to the German Hightech Strategy 2025. Setting the stage: Positioning the missions in the socio-technical system. Ed.Fraunhofer Institut für System- und Innovationsforschung ISI. Karlsruhe. https://www.isi.fraunhofer.de/content/dam/isi/dokumente/ccp/2020/Hightech%20Strategy%202025%20-%20first%20mission%20 analysis%20report.pdf (Download April 28, 2021).

Wurm, Daniel, and Florian Wittmann (2023a). "Pursuing a Mission-Oriented Twin Transition: Directionality for Systemic Digital Innovation." Mission-Oriented Innovation Policies for the Twin Transition. Ed.Wuppertal Institute for Climate, Environment Energy. A CO:DINA research report. Wuppertal. 1–31. https://doi.org/10.1016/j.techfore.2023.122538

Wurm, Daniel, and Florian Wittmann (2023b). "Selecting transformative policies: Acknowledging situational differences for policy design." Mission-Oriented Innovation Policies for the Twin Transition. Ed.Wuppertal Institute for Climate, Environment Energy. A CO:DINA research report. 32–46. https://doi.org/10.1016/j.techfore.2023.122538

#### **Bertelsmann Stiftung**

Carl-Bertelsmann-Straße 256 33311 Gütersloh Germany Phone +49 5241 81-0

#### Dr. Daniel Schraad-Tischler

Director Sustainable Social Market Economies Phone +49 5241 81-81240 daniel.schraad-tischler@bertelsmann-stiftung.de

#### Dr. Jan Breitinger

Senior Project Manager Sustainable Social Market Economies Phone +49 5241 81-81328 jan.breitinger@bertelsmann-stiftung.de

www.bertelsmann-stiftung.de/innovation