

A woman wearing VR goggles is shown in profile, looking upwards and reaching out with her hands. The background is a vibrant blue and purple digital space filled with glowing particles and a complex network of white lines and nodes. The overall aesthetic is futuristic and technological.

Sustainable Social Market Economies

Transforming Germany: How Mission Agencies Can Pioneer Innovative Solutions for Grand Challenges

Sustainable Social Market Economies

The German “social market economy” model has proved successful by combining economic performance goals with those targeting the inclusion of everyone in society. However, as an economic and social model, it is under increasing pressure from climate change, limited natural resources, a shrinking workforce and digital transformation. To ensure its continued success for future generations, we need to transform our economy by making it a sustainable social market economy. And to achieve this, we must focus on innovation and entrepreneurial dynamism as the essential foundation for competitiveness, prosperity and societal development. Strengthening this dynamic is crucial for maintaining current levels of prosperity while building a sustainable economy and society. Our work in this area is centered around developing research-driven strategies and actionable solutions that promote innovation and entrepreneurial activity in the service of sustainable transformation. For more information about our work, please see our webpage on [Fostering Innovation and Entrepreneurial Dynamism in Sustainable Social Market Economies](#).

[Fostering Innovation and Entrepreneurial Dynamism](#)

Sustainable Social Market Economies

Transforming Germany: How Mission Agencies Can Pioneer Innovative Solutions for Grand Challenges

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Executive Summary

This discussion paper proposes a new institutional paradigm in the field of transformative, mission-oriented policy which, in Germany, has received limited attention so far. The proposal suggests creating a thematically specialized agency that serves as a central “mission owner” and takes a lead role in the governance of transformative missions that cross established policy fields. This agency would operate independently and be located within Germany’s Federal Chancellery. It would support and shape the mission throughout its entire cycle, within the scope of its mandate. This paper addresses key issues related to the proposal, including:

- We need to fundamentally rethink and restructure our policy approach to transformational change. Our society faces enormous challenges, and the well-being of current and future generations depends on our ability to meet them. However, conventional policy approaches are no longer sufficient to address issues such as climate change, demographic change and the overexploitation of natural resources.
- Germany needs to step up its efforts to move in this direction and, as seen in other developed countries, adopt a “mission-oriented policy” that involves crosscutting policymaking.
- The challenges this shift toward a more transformative policy approach presents to established structures and coordination mechanisms include: 1) the need to reach across

policy areas and sectors, 2) the need to reconcile what initially appear to be conflicting priorities, and 3) the tension between clearly stated goals and the reality that solutions may become apparent only over time.

- Germany’s political-administrative system is currently not well prepared to fulfill these demands. Key structural barriers to transformative, mission-oriented policymaking in Germany include:

_ A high level of ministerial insularity that hinders constructive collaboration across sectoral boundaries.

_ Weaknesses in activating stakeholders.

_ The incumbent intraorganizational functional logic of the country’s ministerial bureaucracies.

To address these issues, this discussion paper proposes an institutional paradigm shift: the creation of a thematically specialized “agency” with comprehensive governance responsibility for a transformative mission that crosses established policy fields.

This mission agency would assume strategic leadership and ownership for the mission, while also mobilizing implementing actors and engaging in reflexive mission governance. Although this model has not yet been widely discussed in the German-speaking world, it appears well suited for successful policymaking activity. This discussion paper outlines

a framework for such an approach, but the specifics of the agency's (legal) design would depend on the context of implementation. We propose that this institutionalized change agent act independently within the Federal Chancellery as a central "mission owner" with responsibility for a specific mission. By doing so, we aim to highlight the mission's political priority and protect associated activities from interministerial rivalries. To ensure the agency's success, it must have adequate budgetary resources and sufficient scope for independent action within the core mission areas.

The strength of the mission agency would come from a combination of technical expertise, procedural competence, a robust network, a clear political mandate and commitment to the mission goal. The role of the mission agency clearly goes beyond that of coordinator. An important element of ensuring a political binding effect would involve releasing an annual progress report, a task that should lay with the cabinet.

Over the course of the mission cycle, the mission agency would take on a number of different tasks and functions, including:

- _ Actively supporting all phases of the mission, from formulation to implementation; monitoring progress; and regularly incorporating new findings into the mission's implementation.
- _ Taking the lead in implementing the mission's core policy instruments.
- _ Continually developing the mix of instruments used.
- _ Designing, implementing and scaling solutions-focused, cross-sectoral experimental approaches.
- _ Engaging and mobilizing relevant stakeholders and their resources throughout all phases of the mission.
- _ Stimulating public discussion.

To carry out its tasks, the mission agency will require several key capabilities. These include possessing the technical and methodological skills necessary for designing mission processes, the ability to engage in targeted integration, networking and mobilization of all relevant actors, and the capability to engage in continuous learning, which will enable the further development of the mission.

The mission agency will accomplish its tasks in part by utilizing methodological or solutions-focused, thematically specialized organizational units that have a diverse staff made up of individuals from government administration, research, business and civil society sectors.

The proposed governance model could improve upon the status quo with respect to the following aspects:

- _ A thematically specialized mission agency could help reduce coordination and ownership problems and prevent the emergence of tunnel vision with respect to individual sectoral policies.
- _ A problem-oriented approach within a newly established agency would help overcome path dependencies in carrying out missions, while insulating mission processes from interministerial political rivalries.
- _ Granting the mission agency responsibility for experimental approaches would enhance such activities and thus promote policy learning. It would also relieve the pressure typically imposed on structurally conservative ministerial systems.

The mission agency model is not a panacea for overcoming existing structural problems. However, it is particularly well-suited for missions of a transformative nature that cut across established policy fields. This is true of the shift toward a circular economy, for example, as this transformation entails significant coordination and cooperation between actors and institutions in various policy areas that have, to date, remained largely disconnected.

Some of the features we have proposed for this reconfiguration of the landscape in which innovation policy governance is conducted may also be applicable in other areas. Doing so would help encourage a stronger mission orientation.

The mission and its overarching goals must be determined through a political process, which could be codified in the coalition agreement, for example. Thus, a mission agency can be established only after the basic topic has been selected and the appropriate legal foundation put in place. At the latest, however, the mission agency should take a leading role in operationalizing and specifying the goals.

We propose conducting a pilot of the agency model outlined here, starting with the implementation of a single mission. The process should be accompanied by an evidence-based monitoring mechanism. This approach would provide an opportunity for policy learning, both with regard to the specific mission being carried out and as applied to other potential mission agencies.

1. Meeting societal challenges with systemic solutions

Germany, Europe and the world as a whole today face enormous challenges. The well-being of current and future generations depends on our ability to meet them. The greatest such challenge is climate change, which respects neither national nor sectoral boundaries. If the global community does not succeed in swiftly transforming its way of life in virtually all areas, all life on the planet is at risk. Challenges of this nature cannot be met by conventional approaches to public policy.

We need instead to fundamentally change the ways in which organizations and people across key sectors and policy areas think and act with regard to the challenges at hand and each other. We need, in other words, a fundamental transformation of the systems through which they operate. The concept of mission orientation, which addresses the need for organizations and institutions to unite a broad range of stakeholders in targeting major societal challenges, has therefore attracted considerable attention among those in the policy and research communities. Debates over how best to address major societal challenges often focus narrowly on adjusting research and innovation policy. Given the complexity of these problems, we clearly need a broader, more holistic approach. A modern innovation policy is thus also a transformation policy – a policy that integrates innovation objectives into other policy areas. As such, it aims to align actors across sectors, allowing them to work together in solving societal problems.

Examples of mission orientation at the European level include the European Green Deal and the EU

missions in the Horizon Europe research program. Through these efforts, the European Commission has initiated ambitious, transformative programs.

In Germany, too, a shift toward more strongly transformative policies that look beyond incremental changes to the status quo is evident. For example, the current federal government's coalition agreement envisages a further development of the mission-oriented approach as part of the High-Tech Strategy (SPD, Bündnis 90/Die Grünen and FDP 2021). This "Future Strategy," which remained under development as of November 2022, hints at a more holistic understanding of change processes, going beyond a narrow focus on technology. In addition, the creation of a Federal Agency for Disruptive Innovation (SprinD) in 2019, the initiation of the Alliance for Transformation within the Federal Chancellery, and the efforts to establish a German Agency for Transfer and Innovation (DATI) also demonstrate a desire to set comprehensive and trend-setting change processes into motion. Something similar can be observed at the federal-state level. For example, the current government of North Rhine-Westphalia is considering the establishment of a transformation agency (CDU and Bündnis 90/Die Grünen 2022: 43).

However, the shift toward a more deliberately transformative policymaking style poses fundamental challenges to existing institutional arrangements and coordination mechanisms (Lindner et al. 2021: 12 ff.; see also Chapter 2). This is partly due to the significant increase in coordination requirements for dealing with

problems that cut across established policy fields. Another characteristic of transformative approaches is the need for productive, co-creative interaction with heterogeneous stakeholder groups (ibid.).

Such a fundamental shift – toward activity that cuts across sectoral policy boundaries – poses major challenges to any developed political-administrative system, including Germany's. Chapter 3 of this discussion paper addresses structural obstacles to implementing transformative, mission-oriented policy in Germany specifically.

These issues lead to a further question: Under what conditions can a reorientation toward transformative, mission-oriented policy and its concrete implementation succeed in Germany? This discussion paper contributes to the current debate on this issue by outlining an innovative institutional solution aimed at overcoming existing obstacles, in hopes of providing impetus for a rethinking of mission-oriented policy in Germany. This solution entails the creation of a thematically specialized mission agency situated within the Federal Chancellery, which – acting independently within the scope of its competencies – would assume a leading role with respect to a selected mission.

In this context, we use the term “agency” to represent what would in fact be a wholly new institutional solution. This has been discussed internationally in various contexts, in some cases also using the English term “agency” (Breznitz, Ornston, and Samford 2018; Kattel, Drechsler, and Karo 2022). While the German Commission of Experts for Research and Innovation rightly warns against regarding agency solutions as a “panacea” (Expertenkommission Forschung und Innovation 2022: 35), the targeted use of an institutionalized change agent offers the opportunity to overcome existing system deficits, break through path dependencies and direct the forces of various actors toward a common goal, while at the same time providing the capacities and capabilities necessary for a more deliberately transformative policy style. Transformative change implies a systemic approach,

as well as the incorporation of new constellations of actors that have not previously been sufficiently integrated into this form of sectoral policymaking. In contrast to simply further developing existing organizational solutions, a thematically specialized mission agency focused on supporting a specific mission and structured to operate with agility would offer added value far beyond its ability to break out of established patterns of activity.

Driving change responsibly, proactively and in cooperation with relevant stakeholders

In this discussion paper, we outline the model of an institution situated within the Federal Chancellery – but acting independently within the scope of its mandate – that has the technical expertise, the resources and the clear mandate to work with federal ministries and other stakeholders to actively develop and shape a mission selected and defined by government. Such an approach has yet to be explored in the German-speaking world. With an obligation to report on implementation of the mission, this agency would provide a regular overview of mission progress and of its own activities. The recommendations for action thus derived would also provide the basis for political feedback on the activities of individual ministries.

The solution proposed here deliberately goes beyond the role of a research and innovation funding entity. It is also fundamentally different from the agencies used in classic missions such as the moon landing or other technology projects (Robinson and Mazzucato 2019). Moreover, the solution presented here does not advocate the pursuit of a (state) dirigiste approach. It seeks instead to mobilize various stakeholders to collaborate constructively by anchoring their efforts in a shared approach to problem-solving. Through its structure and mode of operation, it aims to strengthen and constructively engage market forces, provide guidance to the stakeholders involved, and thereby promote effective state action in achieving the identified mission.

In the following portions of this discussion paper, we describe the functions, capabilities and institutionalization that would be necessary for a mission agency of this nature. In addition, we provide some initial thoughts on how to organize the steps leading to the agency's establishment. These reflections are relevant for several reasons: While creating the agency will require a determined political will to change existing patterns and structures of action by establishing an institutionalized change agent, it will also necessitate a step-by-step approach and constant learning along the way. This will require the newly founded organization to develop a range of suitable working modes and routines.

However, interactions with existing actors within the political and administrative systems will also have to be adapted accordingly. We therefore advocate that the agency solution outlined here should first be piloted with implementation of a single mission and accompanied by a research-driven monitoring process. This approach would offer the opportunity for policy learning, both with regard to the specific mission being carried out and for other potential use cases. For example, some of the features we have proposed for restructuring the governance of innovation policy may have wider applications beyond the context of establishing a mission agency. Individual features might be integrated into the design of the German Agency for Transfer and Innovation (DATI) announced by the German federal government, for instance, thus giving this body a certain mission-oriented character.

In this discussion paper, we will not delve more deeply into the specific legal framework best suited for a mission agency – for example, its legal form. There are several reasons for this omission. First, answers to such questions necessarily arise from the kind of in-depth analysis that is beyond the scope of this paper. Second, any specific organizational form will be the result of political negotiation processes, and thus will depend strongly on the mission to be accomplished or the problem to be solved and its context. This paper thus aims to spark

a practical and action-oriented conversation about the institutional changes required in Germany to effectively implement mission-driven policymaking. It addresses the political and institutional obstacles that must be overcome to achieve success in this endeavor. The challenges identified through this process can form a frame of reference for further analysis and more substantive elaboration of the model's details.

2. Mission orientation as transformative policy

A mission-oriented policy approach begins by identifying the societal challenges at hand and seeks to resolve them through collaborative and coordinated efforts among various stakeholders. This chapter discusses the types of issues that benefit from this approach, as well as the requirements it imposes on the policymaking process.

Our understanding of mission-oriented policy is guided by the definition formulated by Lindner et al. (2021), who describe missions as being based on a cross-sectoral and cross-departmental approach, and emphasize their transformative character with regard to goals and strategies:

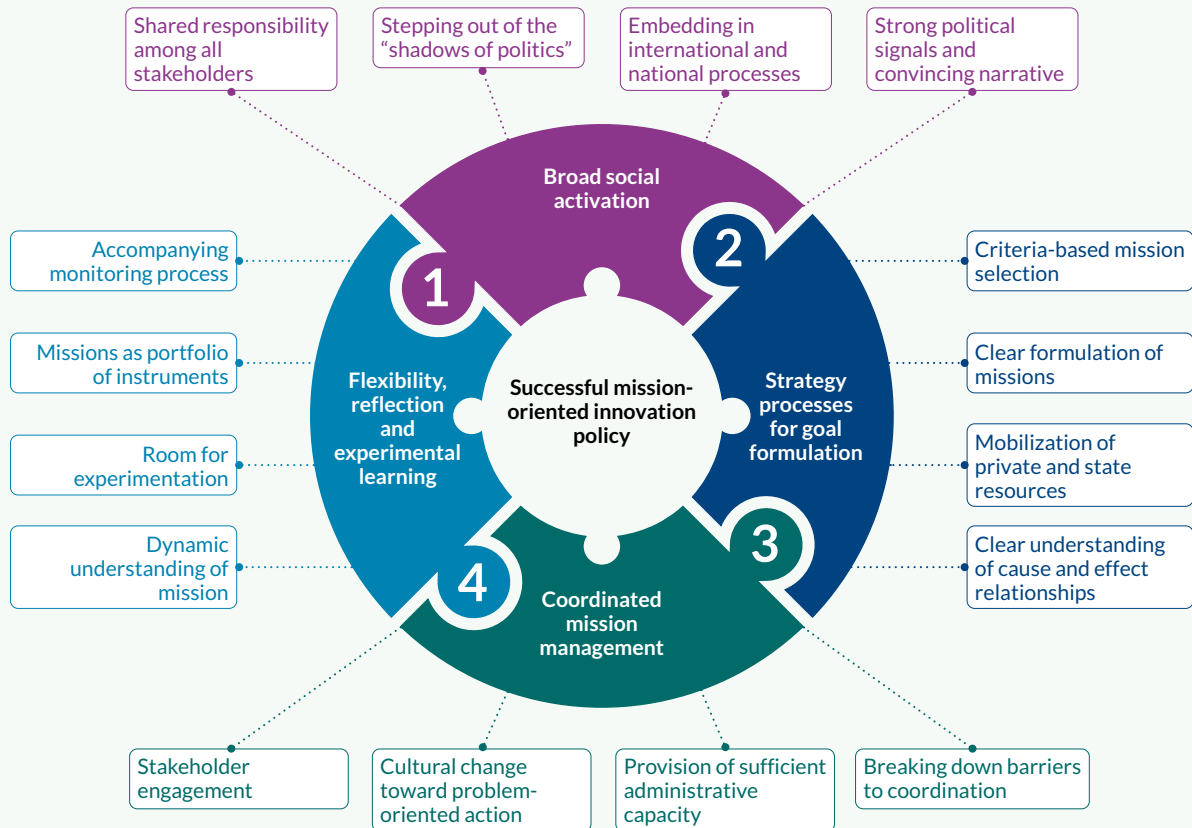
“We understand mission-oriented innovation policy as a cross-sectoral and cross-policy approach to achieving ambitious and clearly formulated goals via the generation and application of knowledge and innovation that address pressing societal challenges. The goals must be clearly defined as well as being measurable and verifiable, and they must be implemented within a clearly defined timeframe. Only when missions aim at behavioral and structural change, in addition to generating knowledge and innovation, do they contribute to comprehensive system transformations. Practices, actors and institutions must all be reconfigured as a result of the transformations” (Lindner et al. 2021: 7).

Missions come with unique challenges that must be addressed, such as the need to operate across sectors and the presence of conflicting priorities.

For example, while missions should be focused on a clear objective, the path to achieving that objective is often unclear and may only become clear over the course of the process (Wanzenböck et al. 2020). As such, successful missions require a balance of clear direction and continuity, as well as the flexibility to experiment with different potential solutions. In contrast, deterministic roadmaps and mechanistic approaches are poorly suited to meeting the specific demands of transformative missions.

In addition, missions contain a tension between top-down and bottom-up logics. On the one hand, ownership and clear signals from the state actors involved are important prerequisites for a mission's success (Lindner et al. 2021). On the other, mobilizing as many different (national, regional and/or local) actors as possible around a common goal is a necessary condition for transformative change. Internal governmental negotiation processes must therefore be combined with the ability to mobilize relevant actors – for example, through appropriate participation processes – and integrate their resources (organizational, financial and discursive) effectively. The extent to which relevant actors are willing to participate in fulfilling a mission will strongly depend on the mission's social legitimacy, among other factors. Policymakers must therefore engage in a public debate about the objectives and the means of attaining them and develop a shared understanding of the mission with the various stakeholders involved. And they must do so without allowing special interests to dilute the mission's ambitious goals.

FIGURE 1 Key building blocks for a successful mission-oriented innovation policy



Source: Lindner et al. 2021: 10–11.

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As indicated by these remarks, mission-oriented policy is comparatively demanding, with a considerable range of prerequisites. Given the significant demands on the policymaking process, it is important to clarify that the mission-oriented approach is not appropriate for every problem. Missions should focus primarily on urgent societal challenges that require transformative change and thus collective action by all stakeholders (Lindner et al. 2021; Janssen et al. 2020).

Although there is no universal recipe for successful transformative change, we can identify some basic starting points for the successful implementation of mission-oriented policy. Lindner et al. (2021) have

identified four key building blocks: 1) the broad activation of society, 2) comprehensive strategy processes to formulate mission goals, 3) coordinated mission management with access to sufficient resources, and 4) a flexible, reflexive approach that encourages experimental learning (see Figure 1). These points form the basis for the discussions that follow.

3. Structural barriers to implementing mission-oriented policies in Germany

The need to introduce strong transformative measures is widely acknowledged in Germany. However, the country's political-administrative structures and processes are inadequate when it comes to designing the transformative policies needed. We identify three interrelated problem areas at the systemic level:

(1) Coordination deficits

The lack of effective coordination across sectors and ministries is one of the biggest obstacles facing German policymakers in taking mission-oriented and transformative political-administrative action (see also OECD 2022: 330). The strong autonomy afforded each ministry in determining departmental policy (Ressortprinzip, Article 65 of the Basic Law) accounts in large part for problems observed in cross-ministerial coordination. This autonomy, which is often exacerbated by Germany's coalition-oriented parliamentary system, fosters competition among the ministries and their departments, reinforces the boundaries between them and encourages silo thinking throughout.

This presents significant structural barriers to the design and implementation of policies, particularly when multiple jurisdictions are involved and an integrative, cross-cutting approach is required. Instead of relying on "negative coordination" (Scharpf 2000) which, as seen in other national contexts, is largely limited to the formalized exchange of information, the ministries involved must push for a mode of collaboration that is

anchored in a common perspective of the policy problem at hand (i.e., "positive coordination") (Lindner 2012).

These coordination deficits can hinder the development of cross-cutting strategies that are essential for establishing a unified approach to problem-solving and reaching agreement on objectives (Warnke, Priebe und Veit 2022). As a result, discussions about transformative policies may focus primarily on individual policy areas and their respective communities, which leads to fragmented island solutions that fail to address the interplay between different policy fields, actors and instruments. This can impede the development of comprehensive solutions that promote collaboration across different areas of policy. Policy mixes of this nature, that is, measures that incorporate different policy fields, have been called for by the German Council for Sustainable Development and other advisory bodies within various German ministries (Schnappauf et al. 2022).

Strengthening political leadership at the highest level of government is one means of overcoming ministry silos and advancing the integration of specialized policies, especially since there are no such mechanisms below the level of the cabinet or the chancellor's office. However, as Fritz W. Scharpf asserted in his classic work on coordination, positive coordination is a prerequisite to proactive planning and, given the realities of ministerial bureaucracy, this may be too demanding of an expectation (Scharpf 1973: 75).

Coordination deficits of this nature have also been observed in the design and implementation of Germany's High-Tech Strategy 2025 (HTS 2025). Despite the government's claim to have formulated a common strategy, the specific mandates of individual ministries have significantly impacted the execution of tasks within the HTS 2025 initiative (Breitinger et al. 2021; Roth et al. 2021). The Expert Commission for Research and Innovation (2021: 49) has noted, for example, that current organizational structures are ill-equipped to meet the coordination needs of missions. Consequently, most missions have not been able to translate their goals into tangible action plans, nor have the participating actors established a sense of ownership or shared understanding of the issues at hand (Roth et al. 2021).

(2) Deficits in organizational structures and cultures

One of the key areas in which ministerial bureaucracies fall short has to do with the functional logics of their intra-organizational activity. In other words, the institutional arrangements and culture that shape the way they operate and interact with each other and other organizations pose challenges to the capacity to leverage expertise and creativity.

Structural challenges include incentive systems that prioritize career advancement over results, as well as rigid hierarchies. Cultural barriers can include heavily formalized procedures for communication and decision-making, personnel management practices, and a weak "error culture." Taken together, these factors make it difficult to initiate transformation processes and shift toward more participatory and experimental approaches. The demands of transformative policy are often at odds with the traditional rules, norms and procedures in policymaking (Braams et al. 2021). Consequently, the bureaucracies within ministries may struggle to fulfill their role as agents of change both within and outside their own organization.

This structural weakness has also become evident in the implementation of HTS 2025. Despite the initiative's self-imposed objective to be a learning strategy (cf. BMBF 2018: 61), there appears to have been limited progress toward achieving this goal. Although the High-Tech Forum, an expert panel, was created at the cross-cutting level, it remains unclear how much emphasis has been placed on learning processes and foresight, particularly at the mission level. In addition, no comprehensive evaluation of HTS 2025 has been conducted (Roth et al. 2021).

(3) Deficits in stakeholder activation

Ministerial bureaucracies have traditionally maintained relationships with various stakeholder groups, including citizens and the general public. In recent decades, the formats for these relationships have become more diverse and participatory. However, most interactions between these bureaucracies and the outside world fall into one of three categories. First, some interactions focus on following legally prescribed procedures, such as those governing funding flows between providers and recipients. Second, some interactions have a consultative character, seeking input from stakeholders on policy development or implementation. Third, some interactions serve purely informational functions, providing stakeholders with information about policy decisions or developments.

For a policy to be transformative and successful, it is crucial for the government to involve relevant stakeholders and policy experts from various fields in a rigorous manner. This involvement should focus on a process of co-creation and "activation" that spans every stage of the mission, from formulation to implementation. Ideally, activation goes beyond merely obtaining consultative contributions from individuals or organizations. It involves these stakeholders taking partial responsibility for the mission's success (Lindner et al. 2021).

During the implementation of the HTS 2025, shortcomings in stakeholder engagement were also observed. The potential for missions to mobilize a broad range of relevant stakeholders in order to help develop strategies and actively contribute resources to problem-solving efforts was severely underutilized (Roth et al. 2021).

The current OECD analysis of German innovation policy addresses these deficits and explicitly advocates the inclusion of underrepresented groups, agile and experimental action with respect to the private sector, and brand-creating approaches (OECD 2022: 19-29).

The German government's coalition agreement calls for a further development of the mission-oriented approach, as recommended by the Expert Commission for Research and Innovation (EFI) in 2021 and the Hightech-Forum (2021: 4). And while renaming the German government's "Hightech Strategy" as the "Future Research and Innovation Strategy" may signal a broader understanding of innovation, the details of what this entails remain unclear. At present, there is little indication that any significant changes are being made to adopt a cross-ministerial approach or innovative and open processes of strategy development.

4. “Mission possible” – How mission agencies can advance transformative policy in Germany

4.1 Why do we need a mission agency?

The deficit analysis presented in Chapter 3 points to deep-seated structural barriers within Germany’s political-administrative system that undermine the implementation of a transformative, mission-oriented policy. Against the backdrop of current debates about which governance models are best suited to facilitate successful transformative, mission-oriented policy, we propose considering the establishment of an institutionalized change agent as an alternative to the existing structures. While agency solutions are generally seen as an option for mission-oriented policy, it’s important to anchor their design in a specific context (see Breznitz, OrNSTON and Samford 2018 for an introductory discussion). This will prove relevant in Germany, where the potential for new governance structures and mission tasks have yet to be systematically explored.

Establishing an agency promises substantial added value, particularly with regard to the following issues:

- 1) Overcoming path dependencies in mission implementation by adopting a solutions-focused approach that enables the mission agency to break away from established mindsets and patterns of behavior.
- 2) Eliminating ambiguity by designating a change agent to spearhead the mission, track its

progress, and act as a primary point of contact for stakeholders across politics, administration, science, business and society.

- 3) Strengthening experimental components (and their potential for scaling up) in mission implementation by assigning responsibility to the mission agency, thereby mitigating the pressure felt by risk-averse ministerial bodies.

Although an agency’s tasks will vary depending on its mission and context, it’s worth noting that the approach outlined here may be particularly effective for certain types of problems and actors and may help to accelerate the transformation process and achieve goals more efficiently. First, a mission agency offers added value over incumbent structures when it focuses on missions with a transformative ambition, that is, those that seek comprehensive systemic change and thus operate beyond the framework of pure research and innovation (R&I) policy (Wittmann et al. 2021a). The variety of stakeholders to potentially involve come from areas as diverse as R&I, industrial manufacturing, end consumers and civil society. A broad mix of research, regulation, incentivization and information, among other things, is needed to achieve the desired transformations. In the case of purely technically oriented missions that resemble “classic” missions such as the U.S. government’s Apollo program or the French and British cooperation in developing the Concorde jet, the ratio of benefits to effort is generally less favorable when it comes to creating new structures.

In addition, not every challenge is suitable for mission-oriented policy approaches (Lindner et al. 2021). A mission agency, as outlined here, seems particularly appropriate when the underlying problem cuts across incumbent ministry structures and sectors, such as those addressing sustainability, climate change, demographic change and health issues. In such cases, a mission agency could help overcome ministerial competition and coordination problems. It can also mediate between different stakeholders that take different approaches and actions in targeting solutions to a specific problem. By contrast, a mission whose focus lies within the remit of a single ministry potentially has a clear “mission owner” and, because discussions are conducted through internal channels, has little need to coordinate across different policy areas. Generally speaking, we can anticipate having to face cross-cutting problems of this nature in all of the areas being addressed by the German government’s Future Research and Innovation Strategy.¹ An example of this are the efforts to create a circular economy, which is part of the “resource-efficient economic activity, clean energy and sustainable mobility” action area targeting the global challenge of sustainability. Furthermore, there are also limitations regarding the granularity and time horizons of missions. The model proposed here is considered particularly relevant for medium-term objectives that can only be achieved over several legislative periods. While short-term objectives conflict with the processes involved in launching a mission agency, long-term objectives such as the energy transition raise the question of whether a fundamental restructuring of the ecosystem of actors may be better suited for the task. Similarly, neither small-scale nor extremely broad missions appear suitable for a single mission agency to handle on its own. In the case of the latter, it may

1 The Future Strategy addresses the following areas: resource-efficient economic activity, clean energy and sustainable mobility; climate protection and the preservation of biodiversity; improving health for everyone; securing Germany’s and Europe’s technological sovereignty and harnessing the potential of digitalization; engaging in the sustainable use of space and oceans; strengthening social resilience, diversity and cohesion.

be necessary to consider building multiple mission agencies, whose roles and relationships with each other must be defined separately.

4.2 Functional requirements

In this section, we discuss the functions and tasks of the proposed institutional change agent. Developing a clear understanding of these roles and activities is critical to determining the skills and competencies needed. It is also important to consider the conditions under which a new institutional solution of this kind can add value.

Drawing on the requisite conditions for transformative missions and previous experiences with mission-oriented policies in Germany and elsewhere (see, for example, Larrue 2021; Janssen 2020; Roth et al. 2022), we identify four central, largely interdependent functional requirements that a mission agency should fulfill.

Strategic leadership – formulating goals and translating them into actionable instructions

Successful mission agencies are built on comprehensive and systematic processes that formulate their specific mission, develop their impact-oriented design, and define suitable governance mechanisms for implementing and steering their missions (Roth et al. 2022). A mission agency must therefore be able to design strategies with processes that are aligned with the political framework in which they operate. They must also thoroughly engage the relevant stakeholders (with external support, if necessary) in carrying out these processes. These strategy processes serve to formulate the mission together with the involved stakeholders and to draw on verifiable objectives in specifying the agency’s activities. They also aim to create a shared sense of the problem at hand and responsibility for developing solutions. In this regard, it is important to mobilize so-called strategic intelligence in the form of policy and

foresight analyses, impact assessments and similar documentation, and to actively integrate this intelligence into the process moving forward.

Mission ownership

A mission agency must take on a managerial role with primary responsibility for achieving the mission as it leads all associated actors through the phases of mission formulation, design and implementation. Defining its role as such, which can involve referring to the agency as a “transformation enabler” or change agent, should not be limited to the agency’s internal communications. It is equally important to credibly communicate this definition of their role to external partners who are involved in or affected by the mission. By bearing clear responsibility for the mission and acting credibly as a thought leader in driving the mission forward, the agency can overcome the unclear responsibilities and ministerial competition that often arise with cross-departmental task assignments, and thus fulfill its commitment to constructive cooperation. Once it has achieved this, it can be perceived as a credible point of contact for individuals from various sectors and departments and can therefore mediate between different interests. At the same time, the agency would act as the “face” of a mission and engage in public debate to promote visibility and discussion of the issue.

Stakeholder activation and involvement in implementation

The continuous and intensive involvement of all relevant stakeholder groups is essential for the success of missions. The relevance of actors depends on the specific mission context, but it is important to involve actor groups outside established structures and to think of participation more broadly. If mission-oriented policy is to succeed, it cannot end with the implementation of strategy processes that determine objectives or the design of missions. Transformation requires the broad support and participation of stakeholders from start to finish – from goal formulation all the way through to

implementation. Involving relevant stakeholders in this way ensures the productive use of their expertise and timely feedback – also throughout the implementation phase.

Another task of an institutionalized change agent involves activating private sector actors by obtaining their binding commitment to investments or other contributions to transformation. A mission agency must therefore do more than simply cooperate closely and creatively with different stakeholder groups. It must also have the ability to master participatory procedures and execute them transparently and credibly.

It must also carry out public relations tasks, which include being proactive about participating in the relevant (political) discourses associated with the mission.

Reflective mission governance for learning missions

During their implementation phase, transformative missions are characterized by a high degree of complexity and dynamism. Being able to learn from the successes and failures experienced during implementation while integrating this knowledge into further steps in the process is crucial to the successful execution of transformative missions. It is therefore important to monitor on an ongoing basis a mission’s progress, all the while making adjustments on the basis of these feedback loops as a means of improving and developing the process. This explicitly includes trying out new solutions and allowing for experimental approaches. Particularly in the case of highly complex transformative missions, where there may be uncertainty regarding how well a problem or potential solutions are understood, it may be useful to conduct mission-related policy experiments or pilots to gain insights into the impact of certain measures (Expert Commission on Research and Innovation 2021: 52).

4.3 Structure, competencies and institutionalization

An operationally independent agency reporting to the Federal Chancellery

The proposed agency’s key feature is the operational autonomy it exercises as mission owner within the scope of its political and legal mandate. To be situated within and accountable to the Federal Chancellery – but not subject to ministerial boundaries – the agency should be required to provide annual progress reports to the Chancellery. Ideally, the agency would also benefit from the support of an advisory board whose members are drawn from Germany’s political, bureaucratic, business, academic and civil society spheres. This design has several advantages, which help meet the functional requirements outlined above in the following ways.

First, creating an external mission agency that reports within the government hierarchy at a high level, but outside of the traditional ministry structure, would credibly signal the mission’s political and social relevance (Lindner et al. 2021: 19). This would ensure continuity across legislative periods. Driven by the agency as mission owner, the mission would be established as a common project of the federal government. This high political status would create a strong mandate for stakeholder engagement. Second, subordinating the mission agency directly to the Federal Chancellery would make it a neutral mediator that is not aligned with any single ministry. This would “depoliticize” the mission, ensuring that it is not led by any single ministry or political party. The agency’s head should be appointed via a consensual procedure to ensure broad support from the governing coalition parties.

Rather than forcing missions into established sectoral policy logics, the proposed agency model offers an opportunity to rethink missions in terms of their underlying challenges. This solution-focused type of governance would thus disrupt established norms in coordination and ensure openness to different approaches that include promoting

innovation, and improving overall conditions in the subject area, regulation, or technology transfer activities. This would overcome the difficulty of pursuing mission-oriented policies as pure research and innovation efforts, making it easier to mobilize stakeholders from other sectors or technical fields (Roth et al. 2021).

Between mandate, policymaking power and the departmental principle

Embedding a mission agency effectively within the existing political institutional system, with its strong departmental principle, established practices and distribution of competencies, will not be easy. Overcoming challenges that affect the entirety of our society will require both political will and adjustments in our modes of interaction. That said, the specific form of such adjustments will depend on the context of the individual mission and the actors involved.

The proposed mission agency would function in a complex institutional environment, responding simultaneously to the circumscribed independence granted by its own mandate, the policymaking power of the Federal Chancellery and the departmental authority wielded by individual ministries. For this reason, we envision the agency, as an institutionalized change agent, to play a strong role as a process coordinator with high levels of technical and subject-area competence. The mission agency would work to coordinate the actors involved and implement its own measures within a clearly defined core area, as well as mediate between various stakeholders.

To ensure that the requirements outlined above are met, the mission agency should not be limited to a purely coordinating role. This means it must be furnished with a long-term budget and appropriate staffing, along with adequate competencies and a sufficiently broad range of action. For the core area of key mission policy measures (such as essential funding programs or infrastructure investments), the mission agency must be given sufficient scope

for shaping policy even as it continues to respect the departmental principle (e.g., by conditionally delegating parts of the mission budget to ministries, sharing responsibility for selected policy instruments, introducing co-financing mechanisms, etc.). Given the importance of the mission, new resources will have to be found to fund the agency’s activities, and additional budget reallocations should be considered as necessary.

The overall mission process will require ministries to interact more closely even outside the context of core mission activities. This could be encouraged through incentive systems promoting cooperation, or the creation of a joint mechanism for negotiation with and between the ministries on potential measures. The Federal Chancellery could take the lead in implementing these mechanisms. Depending on how the agency is ultimately designed, this close interaction could also be achieved by amending the Joint Rules of Procedure of the Federal Ministries (GGO) or the Rules of Procedure of the Federal Government (GOBReg).

The agency’s annual mission progress reports, when published, should include statements from the participating ministries and be approved by the cabinet to strengthen other stakeholders’ commitment to the joint effort.

Mission agency’s competencies and tasks

As an institutionalized change agent that both supports and drives forward the entire process of mission formulation, the mission agency will have multiple roles and functions in the mission formulation, design and implementation process. Its key tasks in this regard are especially likely to include the elements described in Figure 2.

To some extent, the mission agency will serve as a moderator (see also section 4.5 on establishing the agency) that works with stakeholders to further specify and operationalize mission goals set at the political level. However, the agency will also play a central role particularly in the areas of mission design and implementation. One key aspect of the

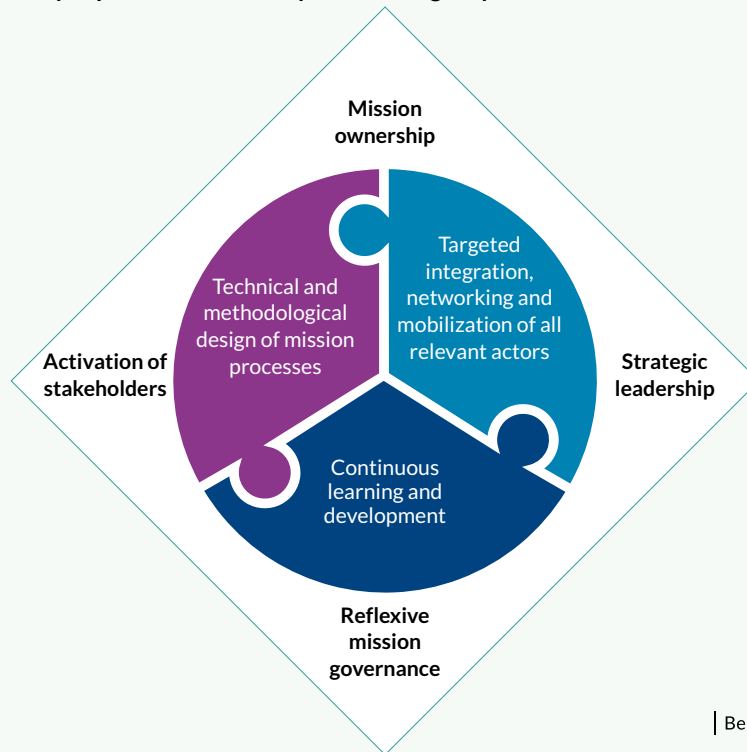
FIGURE 2 Key tasks of a mission agency over time

Functional requirements	Mission formulation	Mission design	Mission implementation
Mission owner	Organization/support of the formulation process	Develop a targeted mix of instruments	Provide public information on mission progress. Identify areas where more action is needed; shape “mission narrative”
Strategic leadership	Operationalize/add detail to mission goals	Further develop instrument mix	Evaluate and further develop mission and its goals; identify measures and action areas
Stakeholder activation	Mobilize new and established actors; work with them to formulate shared goals	Solicit input from heterogeneous stakeholder groups; promote bottom-up dynamic	Stimulate public debate, align messaging with stakeholders
Reflexive mission governance	Produce strategic intelligence to ensure systemic perspective	Verify that new/existing measures fit with mission objectives	Continuously analyze and monitor mission progress; implement complementary measures and further develop experimental approaches

Source: Authors

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FIGURE 3 Primary capabilities needed by a mission agency



agency’s mission design responsibilities will involve mobilizing various resources toward achievement of the mission goal, building on its analysis of the policy mix. As one element of this task, the agency will likely create and manage incentive systems for public- and private-sector actors. In terms of implementation, the mission agency will communicate externally and continue to develop the mission by monitoring progress and identifying areas that require further action. The agency will also address transformation system failures (see Weber and Rohrer 2012), using solutions-focused and cross-sectoral experimental approaches to relieve pressure on typically conservative ministerial systems (see also Braams et al. 2022). Rather than distribute these experimental approaches among various actors, the mission agency will concentrate responsibility for these tasks, allowing for a more structured and systematic approach and providing useful insights for further mission development.

4.4 Capacities necessary for a mission agency

As we examine the question of how a mission agency can be embedded within the incumbent institutional architecture, we must also clarify the capabilities an agency of this kind should have in order to fulfill its desired functions. Drawing on previous research, this chapter suggests that an agency responsible for mission-oriented policy should possess three primary capabilities, each reflected in the body’s organizational and leadership routines (see Kattel and Mazzucato 2018; McLaren and Kattel 2022; Karo 2018). As it will be playing an institutional role in a system characterized by considerable ministerial autonomy, the mission agency will need these capabilities in order to act as a key driver of transformative innovation policy. As shown in Figure 3, we consider three capabilities to be most critical: 1) the technical and methodological competence

to design mission processes; 2) the ability to integrate, network and mobilize all relevant actors in a purposeful way; and 3) the ability to engage in continuous learning and development.

1) Technical and methodological design of mission processes

To steer mission processes successfully, the agency must first have the technical capability to integrate different perspectives and develop a collectively shared understanding of the missions it is leading. In this regard, the role of a mission agency goes well beyond that of a mere service provider. Rather, it must be able to actively shape mission processes, stimulate public debate about the mission and potential realization strategies, and ultimately serve as the core steward of a compelling mission narrative. The agency would thus have both internal and external impact, respectively, on the government’s work and on outside stakeholders’ ideas and expectations. The agency’s external function would also involve influencing the public debate about specific missions. To accomplish this, the agency would have to systematically collect data on the mission’s core subject area, while also analyzing and reflecting upon these findings as part of its daily activities.

As the main point of contact on all issues associated with the mission, the agency would be seen as an „honest broker“ able to mediate between different ministries and stakeholders on the basis of its technical expertise in mission-related matters. Its credibility would stem in part from the deliberate outsourcing of this responsibility to an actor that is external to the ministries and able to act independently within the scope of its mandate. However, the agency’s staffing policy would also play a key role here. We believe this capability is best realizable through multidisciplinary teams tasked with addressing specific sociotechnical problems in their entirety, rather than focusing on individual technologies or sectors. These teams should build broad analytical capabilities that go beyond purely economic and sector-specific

analyses, encompassing the vital learning and transformation processes as well that arise during mission implementation.

Second, in realizing this capability, the agency should not attempt to impose its singular view of the mission’s subject area or seek to exert absolute control over the public debate. It should instead coordinate closely with the relevant stakeholders to progressively develop a shared understanding of how the overall mission processes can best be designed and carried out. The agency’s core responsibilities would thus include bringing together divergent views of the core problem, compiling possible solutions, exploring conceivable compromises, and using its methodological expertise to enrich these collective processes of analysis, reflection and negotiation. For example, the agency should use targeted methods of strategic foresight or “horizon scanning” to generate additional input informing the mission’s development. This capability therefore goes beyond simply processing the input provided by the various stakeholders; instead, it aims to produce an understanding of the problem and its solution that is shared by stakeholders across the political, bureaucratic, academic, civil society and business worlds. For this reason, a consistently solutions-focused agency should possess cross-cutting, methodologically specialized units that can provide mission processes with insight deriving from their specific fields (see also the recommendations in Weber et al. 2021: 145). Such units would focus on individual topics such as monitoring/evaluation, stakeholder participation, policy analysis or strategic foresight, furnishing additional guidance as needed.

2) Targeted integration, networking and mobilization of all relevant actors

Mission success cannot be attributed to the activities of a single actor. Instead, it relies on the interaction between different actors within an institutionalized ecosystem that the agency has helped establish and which is focused on achieving the specific mission. To accomplish this,

the agency must facilitate long-term cooperation between actors in the formulation, design and implementation stages, utilizing collaborative mechanisms to foster a high level of commitment. The agency’s own work will be subject to some tension here: On the one hand, it will guide participants from the top – by orienting them toward the common mission goal, encouraging stakeholders to contribute, evaluating progress and making any necessary adjustments to the mission roadmap. On the other, its interventions in mission processes should always be responsive to bottom-up dynamics and market-side contributions from the various stakeholders.

This capability thus promotes the development of a diverse ecosystem around a specific mission. Key political and bureaucratic actors – such as the Federal Chancellery, the ministries, and their downstream agencies and promotional banks such as KfW – would initially sit at the center of this ecosystem. However, other public and private stakeholders, including any relevant local authorities, would also come together here regularly, with their contributions giving mission processes greater legitimacy and impact. This would include companies, research institutions, associations, and representatives of NGOs and social initiatives.

At its core, this capability implies that the agency can incorporate highly diverse stakeholder views and interests when formulating, shaping and implementing a mission, and that it can forge coalitions around a mission that will endure until it is achieved. The agency thus acts in many respects as a network organization. This is particularly critical because robust networking will be essential in obtaining a broad-based understanding of the mission’s subject area, as well as in developing suitable solutions.

To this end, a mission statement prepared under the leadership of the mission agency could be used to strengthen ecosystem cohesion. This joint statement would allow all mission stakeholders and supporters to commit publicly to the goals,

while also specifying and documenting their individual contributions, for example. Regular events enabling the various stakeholders and other supporters to discuss mission progress would also strengthen the bottom-up dynamic by promoting interaction between participants. This would create publicly visible points of reference for mission activities, which in turn would help motivate other stakeholders to participate. Further supplementing this capability, the mission agency’s specialist expertise in the field of transformation would enable it to identify and engage stakeholders that were underrepresented, only loosely connected or unorganized, thus preventing the mission from being captured by better-organized interests.

In parallel with its creation of the ecosystem, the agency should also cultivate close contacts with people engaged in day-to-day government and bureaucratic work. We therefore propose that the participating ministries second selected subject-area experts to the agency for a period of up to four years. After returning to their original employers, these figures could play an important role in implementing the mission from within their ministries, bringing their newly acquired technical and methodological knowledge to bear there. At the same time, the model must give highly qualified candidates an incentive to seek employment within the mission agency itself, using it as a possible step forward in their career paths.

3) Continuous learning and development

In addition to helping shape a collective understanding of the mission and fostering networking within the mission ecosystem, the agency must also contribute actively to the mission’s implementation. The agency should not regard itself purely as a service provider or coordinator, but rather as an active driver of the implementation process, responding flexibly to changing circumstances and providing suitable stimulus to further develop the mission as needed.

The example of UK Research and Innovation (UKRI) in the United Kingdom demonstrates the value of reproducing the societal heterogeneity of these mission ecosystems within an agency’s own structures. Drawing staffers from industry, academia and civil society (not just from the ministerial bureaucracy) will help to engage business-sector stakeholders more successfully, thus securing deeper commitment (Breitinger et al. 2021: 59).

The fact that missions change over time can pose a particular challenge here (Janssen et al. 2020). This means the agency will also have to adapt, perhaps by adjusting previously announced (interim) goals or modifying the instruments it has selected. While the organization should encourage stakeholder participation throughout, these activities may also shift focus over the mission cycle. In the earliest phases of a mission, such efforts should aim at securing a broader range of substantive input, and at enhancing the social legitimacy of the strategies and tools being used. In later stages, stakeholder participation should be used to mobilize resources for implementation and to generate critical reflections on the mission’s progress. A mission agency must accordingly be able to analyze the mission’s development on an ongoing basis, while also reviewing its own capabilities and adapting them as needed to support the mission’s development.

The recruitment policy outlined above, in which staff is drawn from a variety of ministries and sectors in order to provide a systemic perspective, will buttress this capability. But fulfilling these tasks will also require an internal culture open to institutional learning, along with the willingness to try out different instruments and approaches, analyze their results with an open mind, and draw conclusions from them.

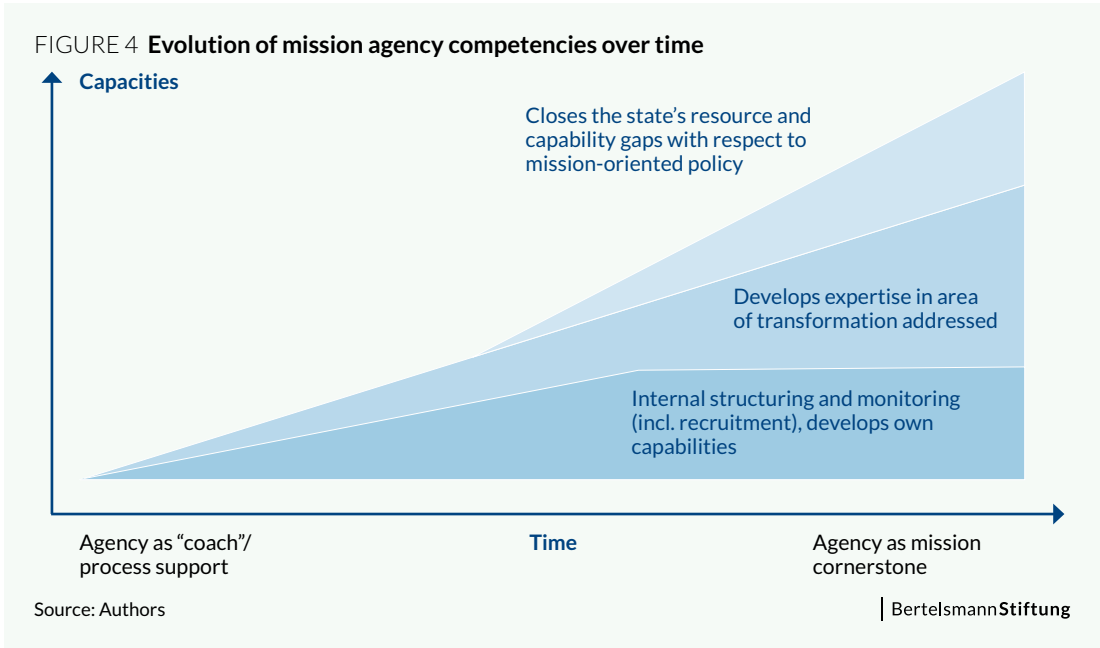
4.5 Establishing a mission agency

Effective missions are grounded in a democratic decision-making process that defines its objectives. This process should provide a framework for the activities of the agency commissioned to implement the mission. Ideally, the creation of an agency for a specific mission or problem area should already be agreed upon in the coalition agreement to create political binding effects that foster stakeholder buy-in. The legal basis for the mission agency’s purpose, structure and functions should then be established through the Bundestag (Errichtungsgesetz).

With this foundation in place, the mission agency can specify its goals and the activities needed to achieve them. However, common practices need to be adopted across the agency, which is likely to take considerable time. It is important to allocate ample time for the entire process, as defining a mission’s objectives and how they will be achieved is critical to the agency’s public image and legitimacy.

Engaging in dialogue with various stakeholders while developing a shared understanding of the mission and goals is one of the key tasks in this initial phase. The agency will therefore need to act more as a “facilitator” of the formulation process and demonstrate expertise in engaging various stakeholder groups. Over time, the agency’s task set would change to focus on activities such as developing a monitoring system and examining mission progress, expanding and deepening its expertise as well as its understanding of how to implement mission-oriented policies (see Figure 4).

The solution proposed here should be applied as a “test run” for future missions and accompanied by evidence-based monitoring. Although one legislative term may not be sufficient for a full evaluation of the mission agency, the process for getting things underway offers ample opportunity to identify areas for improvement and further development.



Learning will take place on several levels, two of which are particularly relevant. First, at the level of the mission agency, internal work processes, stakeholder involvement, governance arrangements in the broader ecosystem and interactions with ministries will be examined. The lessons learned at this level will prove useful for future missions addressing other challenges. Second, learning will take place through the application of individual instruments. This includes insights gained by adapting the mix of instruments and identifying promising approaches with the potential for upscaling.

5. Conclusion

Current policymaking practices in the institutional environments of most developed economies are insufficient to address the most pressing challenges of our time. The same is true for the Federal Republic of Germany. Achieving transformative change involves instituting a fundamental shift in how stakeholders in various sectors and policy fields behave and interact with each other.

However, a shift of this nature presents fundamental challenges to the German institutional landscape and its coordination mechanisms. The current structures, processes and capacities of German ministerial bureaucracies are limited in their ability to successfully initiate and implement complex system transformations. Several structural barriers hinder transformative, mission-oriented policymaking in Germany. These include the dominance of the departmental principle, which undermines constructive cooperation across sectoral boundaries, as well as the lack of a shared approach to problem-solving, and the internal functional logics of ministerial bureaucracies.

To address these deficits, this discussion paper suggests promoting institutional innovation by establishing a dedicated mission agency. Such an agency, if properly designed, can create the necessary conditions for successful transformative policymaking.

Our main considerations and suggestions, which would require further adaptation to individual contexts and formal specifications for practical implementation, are as follows:

- The creation of a mission agency (or, should piloting prove successful, multiple agencies for different missions) can offer added value for addressing complex problems that require transformative change and cut across established administrative and ministerial structures. This is true, for example, of transitioning toward a circular economy, which entails significant coordination and cooperation between actors and institutions in various policy areas that have, to date, remained largely disconnected. However, for other situations, the additional effort required in establishing a mission agency may be inappropriate.
- A dedicated mission agency that operates within its mandate and focuses on thematic areas within the remit of the Federal Chancellery could help reduce coordination and ownership problems, prevent the dominance of specific sectoral policies, and break existing path dependencies, thereby shielding the implementation of missions from the logic of political competition between ministries.
- The mission agency should assume the lead role in specifying mission objectives, actively monitoring their responsible implementation, and providing input for their further development. Missions must therefore have the necessary resources, competencies and discretionary scope to carry out their mandate in their core issue area, which can strain budgetary allocations.

- The agency should also play a central role in designing, implementing and evaluating experimental approaches and thereby reduce uncertainties in the mission process while generating ideas relevant to the mission's further development and governance. This requires creating organizational conditions that facilitate learning and reflexivity.
- The modes of operation within the agency should include thematically oriented work units that are supported by cross-sectional units focused on methodological matters. Diversity among the staff should be prioritized, which entails recruiting individuals from the administration, business, research and civil society communities.
- The power of an institutionalized change agent stems from several factors, such as its expertise, procedural competence, networking ability, clear political mandate, and commitment to the mission objective. To create a strong political binding effect, the agency must issue an annual progress report that outlines the results of its activities and specifies recommended actions. This report should be discussed in the cabinet to ensure accountability and progress toward the mission objective.
- At the same time, the agency should serve as the main point of contact for the mission externally and function as a "network organization," establishing an (institutionalized) ecosystem around the mission that involves all relevant stakeholders in its formulation, design and implementation. The agency should also proactively address the broader societal discourse on the mission topic, functioning as a mediating, mobilizing and enabling actor that exerts an integrative effect on the socio-technical system.
- To establish a mission agency able to create impact, it's essential to begin with a carefully formulated mission that has undergone a thoughtful and deliberate process. Establishing a mission agency entails broad coordination within a coalition government and, given the cross-cutting nature of such an agency, it needs support from all government parties. This process can take place at any time during a legislative period and should, ideally, be documented in a coalition agreement and then realized through the appropriate legislation.

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