

# Missions for governance

Unleashing missions beyond policy

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## ABOUT DEMOS HELSINKI

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# Foreword

Economist Hyman Minsky once quipped that there are as many types of capitalisms as there are varieties of Heinz pickles — namely, 57. As it turns out, one could say the same thing about **mission-oriented innovation policy**: there are as many varieties of it as there are countries designing and implementing it.

Indeed, the concept of missions is not new per se: for example, the idea of **economic catching-up** that captivated policymakers in the late 19th century Germany and then after East Asian countries in post-WWII era can also be seen as a prototypical form of missions. Yet, the current iteration of the mission-oriented approach is more widespread and goes deeper than ever before. Speaking in broad terms, nowadays governments leverage **two uses** of mission-oriented innovation policy: a narrow one focused on technological innovation and a broader one focused on public value.

The **narrow use** dates back to scholarly debates in the 1980s which juxtaposed mission- and diffusion-oriented innovation policies. In his **1987** seminal article, **Henry Ergas** described mission-oriented technology policies as focusing on “radical innovations needed to achieve clearly set out goals of national importance”<sup>i</sup>. In this view — which is broadly adopted to this day — missions target challenges that largely focus on **technological innovation, economic competitiveness**, and ultimately **growth**: they are a tool to find new trajectories of growth and to coordinate large scale innovation efforts towards achieving them.

The **broad use**, instead, is much more recent and locates missions in contemporary debates on the need for public sector reforms that can **empower government** to become more responsive to the wicked challenges of the 21st century. In this view, missions target challenges that have clear implications for public value: they are a pathway to improve the welfare and wellbeing for citizens across policy domains. In this perspective, as also shown by **Mariana Mazzucato**, missions can become a tool to **reframe existing policy practices** and introduce new methods and tools to help the public sector do so.

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<sup>i</sup> Ergas, H. (1987). Does Technology Policy Matter? In *Technology and Global Industry: Companies and Nations in the World Economy*, The National Academies Press, Washington, DC, <https://doi.org/10.17226/1671>. P.192.

This **timely report** emboldens this latter interpretation under the idea of “**missions as governance**”. This conceptual innovation allows us to start focusing on what kind of changes are needed in contemporary governance to successfully implement truly transformative missions. Given the scope and difficulty of the task, it can be easy for today’s policymakers to relabel existing policies and organisations as “mission-oriented” without adopting significant changes. In such context, this report constitutes **a useful compass** to interpret the challenges they are facing and start navigating them systematically.

Now, the goal is to leverage such thinking to jointly investigate, discuss, and co-create new tangible strategies for how governments can implement missions to steer ongoing societal transformations with public purpose in mind. The task is not easy, and demands humility. At times, mistakes will happen. Some ideas won’t work in practice; others maybe will. Yet, with persisting commitment, **new ways of designing, organising, and governing missions** can arise and be moulded in order to fit different needs, aspirations, and contexts. While the journey is difficult, the stakes could not be higher.

**RAINER KATTEL**

UCL Institute for Innovation and Public Purpose

# Executive summary

**Mission-oriented innovation policy (MOIP)** has provided a new approach to addressing relevant societal challenges and enhancing our collective capability to solve them. Yet, when put into practice, **MOIP faces similar challenges as other policy innovations**. For example, electoral cycles, governmental silos, low capabilities or the need for broad collaboration pose radical challenges to how the potential of MOIP is eventually translated into practice. Shifting public action, which MOIP promises, necessarily **questions the core mechanisms** that define how governments work.

If governments don't question their core mechanisms, they only use a fraction of the tools a mission-oriented approach can provide. In other words, a purposeful innovation policy can only be effective if it is governed purposefully and effectively.

Countries have not been able to unleash the potential of missions because of three challenges: (i) **ambiguity**, (ii) **incrementalism** and (iii) **mission-washing**. The ambiguity of the concept leaves policymakers without clear paths forward. In the lack of feasible alternatives, incrementalism becomes the standard go-to approach for embedding new policy rationales into old tools. As a result, mission-washing materialises as a critical risk, leading to transformative narratives with modest effectiveness.

Self-reported evidence supports this impasse. In a **2022** survey of **40+** OECD countries, practitioners were asked to define their ongoing challenges in implementing mission-oriented policies. Of them,

- only **1 in 4** had a clearly defined MOIP target,
- **less than 1 in 6** had a dedicated structure for its governance,
- only **1 in 10** had a clear plan and process for monitoring and evaluation.

Our hypothesis is that a widespread misunderstanding is affecting the debate around what MOIP is and how it can enhance our collective capabilities to address societal challenges. While MOIP is usually seen, conceived and interpreted as a new innovation policy approach, we have been missing out on an enormous opportunity to seize it as more than that: i.e., **as a vehicle to challenge established ways of thinking, doing, and implementing governance**. For example, these are questions missions could answer:

- What is the rationale behind the mandate and organisation of a given ministry?
- How do we create room for effective cross-ministerial collaboration?
- How do we enable a long-term approach to budgeting?
- How do we connect ambitious political goals with private actors' agendas?

As long as MOIP is accommodated within the strict boundaries of the existing mechanisms of governments, its impact will likely be limited or, in the best-case scenario, incrementally improving pre-existing policy performance.

This limitation is why any **government willing to explore missions' transformative potential** must first ask itself why it truly needs missions in the first place and what it wants to accomplish through them. Depending on the response, the exploration of this new vehicle might look very different and range from an incremental adjustment of existing innovation policies (or the creation of new ones) to the institutionalisation of new cross-ministerial bodies — if not the reshuffling of mandates and responsibilities across the whole of government.

## Recommendations

In this paper, we identify three main challenges and relevant recommendations to address them.

1. **Designing missions.** For mission design to be effective, the first step is ensuring the broad inclusion of public, private, and civic stakeholders. Through shared ownership and a co-designed identification of frames and objectives, governments thus secure both the **legitimacy of missions** and the **functionality of missions**.
2. **Organising missions.** Governments are effective in implementing missions when they successfully “orchestrate” the action of stakeholders across public, private, and civil society. To be an effective “orchestrator”, governments have to do two things: first, be open to **reallocating mandates and responsibilities**; and second, operationalise transformative objectives into **challenge-oriented teams and processes**.

3. **Governing missions.** To govern missions, governments must invest in developing the relevant capacities of **civil servants**. First, skills and processes that promote unbounded collaboration across and beyond government will be essential. Second, experimentation capacities will be vital to managing the long-term nature of missions, the high degrees of uncertainty, and frequently changing surroundings.

Purpose *is* the only silver bullet to make missions a valuable compass for societal transformation. In a few words, the sole adoption of the MOIP label without any relevant change in how governments operate **will fail to make transformative change happen**. All in all, the question is not *what* missions are, but *what* one *wants to do* with them. It is less about how they look in practice — as if there was only one way of making them — and more about how to devise them in a way conducive to the desired goals.

This paper's contribution is to ensure that a conscious and intentional debate can take place about our collective hopes and ambitions for transformative change. Rethinking missions as governance highlights the day-to-day challenges **practitioners** are facing when implementing mission-oriented policies, and provides a systematic way forward. We hope it empowers a mission-oriented, experimental, and collaborative governance — one that is fit for the 21st century.



# 1. Missions as policy

Between January and April 2022, the World Bank's energy price index rose by **26.3%**<sup>1</sup>. In most EU countries and in the US, these price increases have affected low-income households the most<sup>2</sup>. In Asia, reporters warn of chaos related to energy shortages, culminating in the occupation of Sri Lanka's presidential palace and the resignation of its government. It is an image reminiscent of the 1970s oil crisis, which shrunk economies, caused geopolitical tensions and showed that there is no economic sovereignty in the face of global challenges.

Governments are now under pressure to show that they have learnt from the past. In the "decade of missed opportunities" of 2010–2020, governments did not invest in clean energy as much as they could have; there was a slow growth in markets for education, care, and other social services; and even antivirals were underfunded, leading to a slower response to the pandemic<sup>3</sup>. In what may go down as the biggest government failure in history, OECD countries are still spending almost as much on fossil fuels as on clean energy.

In this context, governments have found an applicable and realistic approach to drive forward meaningful innovation: **mission-oriented innovation policy** (MOIP). In the last decade, at least four major societal events defined the legitimacy of the need for a purposeful transformation of innovation processes:

- the approval of United Nations' 2030 Agenda for Sustainable Development<sup>4</sup>;
- the increasing acknowledgment of the urgency behind climate change — mostly visible in the work done by the Intergovernmental Panel for Climate Change<sup>5</sup>;
- the outbreak of the Covid-19 crisis<sup>6</sup>; and
- the energy and food crisis borne from the Ukrainian conflict.

<sup>1</sup> Guénette, J. & Khadan, J. (2022). *The energy shock could sap global growth for years*. World Bank, 22 June 2022.

<sup>2</sup> Blake, H. & Bulman, T. (2022). *Surging energy prices are hitting everyone, but which households are more exposed?* OECD Ecoscope, 10 May 2022.

<sup>3</sup> World Economic Forum. (2020) *The Global Competitiveness Report 2020*.

<sup>4</sup> United Nations (2015). *Transforming our world: The 2030 agenda for sustainable development*. A/RES/70/1, 21 October 2015.

<sup>5</sup> See e.g. IPCC (2022). *Climate Change 2022: Mitigation of climate change*. Working Group III contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change.

<sup>6</sup> Mazzucato, M. & Quaggitto, G. (2020). *The big failure of small government*. Project Syndicate, 19 May.

Against the contemporary landscape, the rise of MOIP seemed to provide policymakers with a new approach to enable and accelerate societal, economic and technological transformations. MOIP has been variously defined as a “co-ordinated package of policy and regulatory measures”; “a cross-sectoral and cross-policy approach”; or as a model for “large-scale interventions”<sup>7</sup>. Yet, the main premise behind its dissemination and diffusion across global policy networks is straightforward: the realisation that **in the face of the challenges posed by the 21st century, traditional innovation policy is broken**.

Against this background, the MOIP approach argues that, if governments truly mean to tackle grand challenges, there is a dire need to reappraise the rationale and mode of action that animates the design and implementation of innovation policy.

MOIP addresses specific limitations that define traditional innovation policy, including the rebuttal of a dichotomy which shaped major debates across political and academic circles throughout the last century: that is, the **dichotomy between public and private action** — or, to put it more generally, between the role of states and that of markets in economic governance<sup>8</sup>. Indeed, traditional innovation policy rationales confined the role of the public sector within strictly defined boundaries (Table 1).

TABLE 1. TRADITIONAL VS. MISSION-ORIENTED RATIONALES OF INNOVATION POLICY

	TRADITIONAL INNOVATION POLICY	MISSION-ORIENTED INNOVATION POLICY
Justification	<ul style="list-style-type: none"><li>→ Market and system failures</li><li>→ Innovation policy as economic policy</li><li>→ Aiming at system modernisation without substantive direction</li></ul>	<ul style="list-style-type: none"><li>→ Transformation failures</li><li>→ Innovation policy as transformative policy</li><li>→ Aiming at system transformation with clear and purposeful direction</li></ul>
Mindset for intervention	<ul style="list-style-type: none"><li>→ Exclusive focus on competitiveness</li><li>→ Support extant innovation processes</li><li>→ Facilitation of actors’ interaction</li></ul>	<ul style="list-style-type: none"><li>→ Wider focus on societal problems</li><li>→ Proactive determination of goals</li><li>→ Orchestration of stakeholders</li></ul>
Examples	<ul style="list-style-type: none"><li>→ Finland’s Science &amp; Policy Council</li></ul>	<ul style="list-style-type: none"><li>→ US’s DARPA</li></ul>

Source: Adapted from Figure 9 in Breitinger et al. (2021). Good practices in mission-oriented innovation strategies and their implementation. Innovation for Transformation — Results Paper 1. Bertelsmann Stiftung. DOI: 10.11586/2021027.

<sup>7</sup> See Appendix 1 for a full list of key definitions of mission-oriented innovation policy.  
<sup>8</sup> See, e.g., Mazzucato, M. (2013). *The entrepreneurial state: Debunking public vs. private sector myths*. Penguin Allen Lane, and Hekkert, M., et al. (2020). *Mission-oriented innovation systems*. Environmental Innovation and Societal Transitions, 34, 76 —79.

For how clear-cut MOIP's distinction with respect to traditional innovation policy might be, finding a clear-cut definition for MOIP is not as easy as it may seem. Such difficulty can be partially traced back to the origins of the concept of mission-orientation, and the limited scope that characterised its use in specific contexts — such as mid-20th century **military R&D management** (e.g., NASA's Apollo mission)<sup>9</sup>. Relative to its past, the aspirations for the contemporary reappraisal of MOIPs went much **beyond the technoscientific realm** to appraise the need to address societal challenges which cut across many policy domains — such as work, welfare, education, health, environment, and more. Yet, while some scholars said that this shift marked the emergence of a new generation of science, technology, and innovation policies<sup>10</sup>, the road for their materialisation is still long.

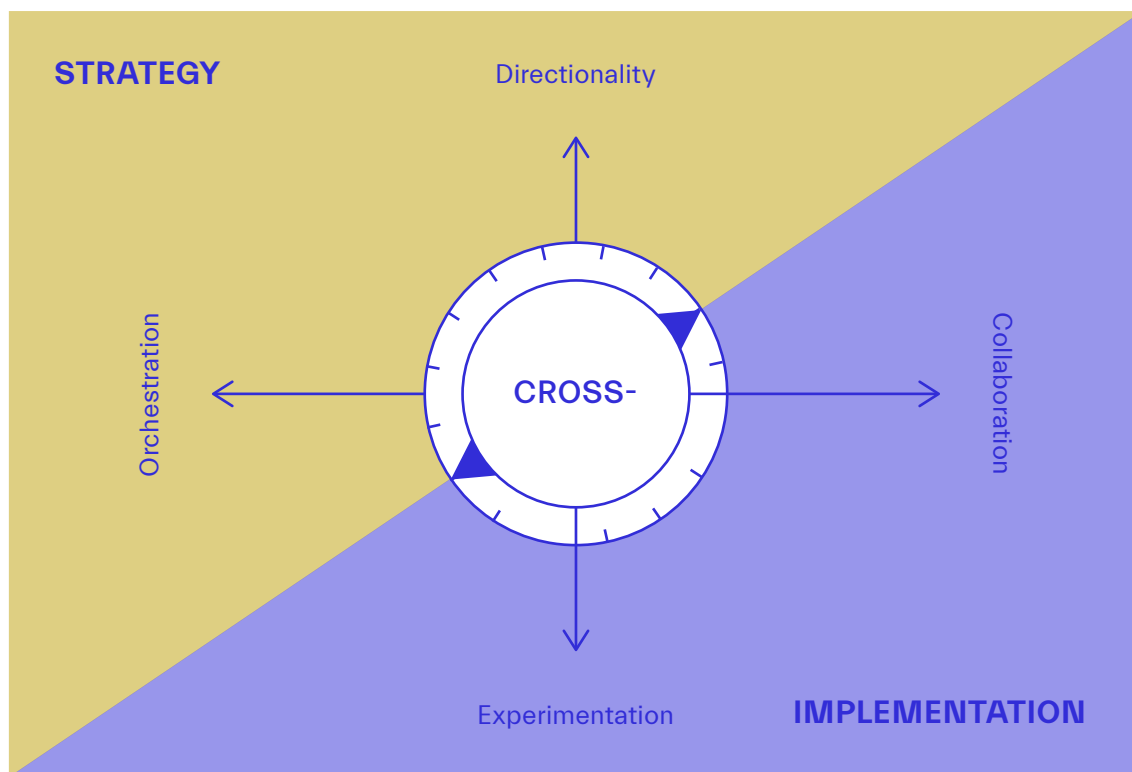
Indeed, despite the wide consensus on the need to broaden policy scope, the definition of MOIP remains plural, contested, and evolving. From the existing literature, we synthesise that its main characteristics can be summarised below into an illustrative compass (**Figure 1**):

1. **Directionality**: the ability to target a set of objectives that the actors involved in a mission can commit to pursuing through social and technological innovation.
2. **Orchestration**: the reliance on pivotal organisations empowered with capabilities and tools to steer and engage with multiple resources and stakeholders.
3. **Collaboration**: the focus on enabling and accelerating the systematic integration and coordination of multiple streams of action beyond existing structures and processes.
4. **Experimentation**: the focus on enabling and accelerating the systematic testing, revision, and learning from different solutions to tackle a given challenge.
5. **Cross-**: the commitment to leverage inputs, efforts, outcomes, and learnings from actors that have diverse institutional, sectoral or disciplinary backgrounds.

<sup>9</sup> Ergas, H. (1987). Does technology policy matter? In *Technology and Global Industry: Companies and nations in the world economy*. Washington, DC: National Academies Press, 191 –245.

<sup>10</sup> Kuhlmann, S., & Rip, A. (2018). *Next-Generation Innovation Policy and Grand Challenges*. Science & Public Policy, 45(4): 448-54, <https://doi.org/10.1093/scipol/scy011>.

FIGURE 1. THE MOIP COMPASS



Source: Demos Helsinki

Despite not having a clear definition, the rationale of MOIP can be best appreciated as that of a **conceptual and practical intermediary that links programmatic strategies** (shaped through directionality and orchestration) **with the implementation of policies** (powered by a high degree of collaboration and experimentation). In this perspective, the **MOIP compass** provides a handy heuristic to grasp the dual focus of this approach: on the one hand, aimed at ensuring that ambitious strategies translate into actual policies; on the other hand, aimed at ensuring that the implementation of the latter is tightly linked to the design of the former. Accordingly, the rationale of MOIP as intermediary can be understood as follows:

- In conceptual terms, compared to programmatic strategies, MOIP is characterised by a more precise scope; yet, compared to policy, it is focused on ambitious, complex challenges that require many of them to be addressed successfully.
- In practical terms, compared to programmatic strategies, MOIP is characterised by a stronger degree of integration among the actors involved or affected by them; yet, compared to policy, its design and implementation usually involves actors beyond established issue networks and thematic arenas.

It is this set of characteristics that, during the last decade, aroused collective attention by high-level decision-makers around the potential relevance of MOIP for innovation policy and societal transformation at large. Recently, the MOIP approach informed the Commission's **€95.5 billion** Horizon Europe research and innovation programme for the years 2021–2027. MOIP has also been adopted and experimented with by governments from across the world — including the UK, the Netherlands, Germany, Japan, and many others. Furthermore, it has played a critical role into furthering the relevance of new economic thinking and action across research and policy<sup>11</sup>. Yet, for all the action that is happening on the ground, major doubts still remain in the contemporary political and policy debate on the ability of the MOIP approach to yield meaningful results against the biggest societal challenges of our times. The question that lingers beneath them is one: for how ambitious MOIP's goal is, how can the approach be translated into practice?

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<sup>11</sup> See e.g. UCL IIPP (2022). *First five years and beyond*. Impact Report, September 2022. Available at: [https://www.ucl.ac.uk/bartlett/public-purpose/sites/bartlett\\_public Purpose/files/220902\\_iipp\\_impactreport\\_revised\\_interactive\\_art\\_updated\\_edits\\_web\\_res.pdf](https://www.ucl.ac.uk/bartlett/public-purpose/sites/bartlett_public Purpose/files/220902_iipp_impactreport_revised_interactive_art_updated_edits_web_res.pdf) (accessed 13th October 2022).

## 2. Missions as policy in practice

A recent survey led by the OECD and the Danish Design Centre directly asked practitioners about the ongoing challenges and needs they have met for the further development of their MOIP initiatives. Including responses from 227 individuals involved in MOIP and representing **40+** countries across Europe, the US and Australia, the survey concluded that<sup>12</sup>:

- Only **1 in 4** practitioners of MOIP had a clearly defined target.
- **Less than 1 in 6** had a dedicated structure for its governance.
- Only **1 in 10** had a clear plan and process for monitoring and evaluation.

Therefore, the shift prompted by MOIP for public action is not without costs. Besides providing a new approach to address relevant societal challenges and enhancing our collective capability to solve them, when translated into practice, MOIP faces similar challenges as many other policy innovations. Its promise to shift public action also **questions core mechanisms** that define how governments work. Electoral cycles, governmental silos, low capabilities or the need for broad collaboration pose radical challenges to how the potential of MOIP is eventually put into practice. In this respect, it is key to highlight how the implications of the traits in the MOIP compass identify potential tensions between the opportunities of this approach and the challenges stemming from it (**Table 2**).

<sup>12</sup> OECD & Danish Design Centre (2022). *Mission-oriented innovation needs assessment survey*. January 2022. Available at [https://oecd-opsi.org/wp-content/uploads/2022/02/OECD-DDC\\_Results-Mission-Needs-Assessment-Survey-2022.pdf](https://oecd-opsi.org/wp-content/uploads/2022/02/OECD-DDC_Results-Mission-Needs-Assessment-Survey-2022.pdf) (accessed 13th October 2022).

**TABLE 2. CURRENT OPPORTUNITIES AND CHALLENGES OF MISSION-ORIENTED INNOVATION POLICY (MOIP)**

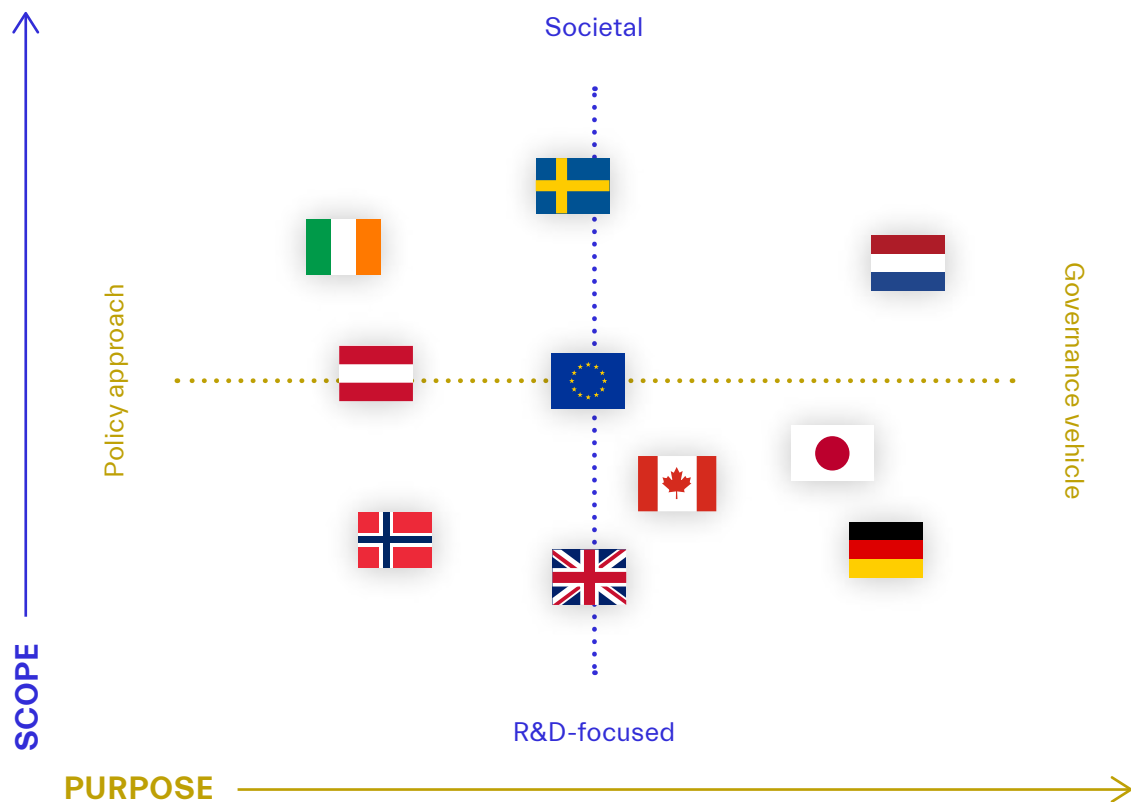
TRAITS	OPPORTUNITIES	CHALLENGES
<b>1. Directionality</b>	→ <b>Clarity:</b> Devising a joint direction, and common purpose both within innovation ecosystems and society at large.	→ <b>Persistence:</b> Going beyond policy and electoral cycles. Keeping the momentum and motivation over time. Lack of ambition.
<b>2. Orchestration</b>	→ <b>Effectiveness:</b> More focused, synergistic and complementary use of R&D and innovation policies to address societal challenges.	→ <b>Capabilities:</b> Aligning resources across the whole of government and key agencies. Dealing with silos and changing structures if needed.
<b>3. Collaboration</b>	→ <b>Openness:</b> Opportunities for networking, knowledge and resource sharing, as well as citizens' engagement.	→ <b>Coordination:</b> Managing multiple actors across policy fields. Managing conflicts. Lack of apt portfolio tools.
<b>4. Experimentation</b>	→ <b>Agility:</b> Greater flexibility within decision-making, and room to outmanoeuvre disruptions in the operational environment.	→ <b>Accountability:</b> Lack of apt evaluation tools. Allocating mandates. Managing adaptability and change within innovation portfolios overtime.
<b>5. Cross-</b>	→ <b>Legitimacy:</b> Gaining political & societal trust and fostering support to lead societal transformations.	→ <b>Commitment:</b> Lack of strategic alignment and actual actions pursued from the stakeholders involved.

Source: Demos Helsinki

On the one hand, MOIP has a clear objective: the reorientation of innovation efforts towards societal goals through significant changes in deploying both public and private resources and engaging actors across society. On the other hand, the wide-ranging nature of such an objective bears profound implications for how governments lead public action. As a result, it is clear that **there is no such thing as one single way to implement MOIP**. Indeed, what the empirical data present is a variety of distinctive ways through which countries are tackling these challenges.

To make sense of what is entailed by the diverse MOIP implementation strategies that can be found in the field, the matrix shown below (Figure 2)<sup>13</sup> identifies a way to systematise them and exemplify some ways through which they have been operationalised across different contexts. The matrix is structured along two dimensions: scope and purpose.

**FIGURE 2. VARIETIES OF MISSION-ORIENTED INNOVATION**



Source: Demos Helsinki

- By **scope**, we mean the degree of width and complexity of the problem and of its relative solution. In general, problems or solutions that focus on scientific or technical advances (R&D-focused) are less complex than those targeting both such advances *and* their societal adoption for the sake of societal progress (Societal).

<sup>13</sup> The matrix is developed by the authors. It draws on two of the most influential taxonomies in the field: the one proposed by Fraunhofer ISI (Wittman, F. et al. (2020). *Developing a typology for mission-oriented policies*. Fraunhofer ISI Discussion Papers Innovation Systems and Policy Analysis No. 64. Karlsruhe, April 2020) and the one proposed by the OECD (Larrue, P. (2021). *The design and implementation of mission-oriented innovation policies: A new systemic policy approach to address societal challenges*. OECD Science, Technology and Industry Policy Papers).



- By **purpose**, we mean the logic that animates the commitment to and deployment of missions. When it's treated as a policy approach, MOIP is often confined to single specific agencies in a national or international system. However, there are countries that treat missions as a way to govern public action, and they assume a more holistic and strategic position toward achieving public goals.

A comparative analysis of case studies from across the matrix shows how each approach presents both benefits and drawbacks for public action<sup>14</sup>. On the one hand, each clearly reflects **country-specific peculiarities that fundamentally challenge the transferability of best practices in the implementation of MOIP**. On the other hand, they also show that **no approach is rid of tensions** — an insight which further obfuscates the very identification of what is “best” in the first place.

As a result, what we can infer from them is a sense that the advancement of the MOIP agenda seems hindered by three obstacles:

1. **Ambiguity:** the lack of frameworks and tools for helping policymakers navigate the key challenges posed by the implementation of MOIP. While extensive research has been conducted on the distinctive problems they pose across policymaking, there is only limited guidance on how to achieve broad stakeholder involvement, build up public sector capabilities, or evaluate MOIP outcomes<sup>15</sup>.
2. **Incrementalism:** the incremental nature of current attempts at devising MOIP by national governments as largely based on already existing policy tools. This is not a challenge per se. Yet, this may induce policymakers into taking for granted that their organisations have from the onset the right set of capabilities for making MOIP work, or that it can be easily grafted into their existing strategic and policy frameworks. In fact, this expectation is often misplaced: a problem that materialises once they face the challenge of scaling up the scope and ambition of their approach<sup>16</sup>.
3. **Mission-washing:** an abuse of its “brand” which can then translate into a mismatch between MOIP’s popularity as one of the “latest fads” across global policy networks and its actual impact on innovation and industrial policy design and effectiveness. In this perspective, the finding that most MOIP initiatives do not fully match the design principles identified by research speaks not only to the difficulty of bridging theory and practice, but also to the difficulty of addressing

<sup>14</sup> See Appendix 2 and 3.

<sup>15</sup> Haddad, C. R., Nakić, V., Bergek, A., & Hellsmark, H. (2022). *Transformative innovation policy: A systematic review*. Environmental Innovation and Societal Transitions, 43, 14 – 40. <https://doi.org/10.1016/j.eist.2022.03.002>.

<sup>16</sup> Larue, P. (2021). *The design and implementation of mission-oriented innovation policies: A new systemic policy approach to address societal challenges*. OECD Science, Technology and Industry Policy Papers. See pp.92–93. Available at [https://www.oecd-ilibrary.org/science-and-technology/the-design-and-implementation-of-mission-oriented-innovation-policies\\_3f6c76a4-en](https://www.oecd-ilibrary.org/science-and-technology/the-design-and-implementation-of-mission-oriented-innovation-policies_3f6c76a4-en) (accessed 13th October 2022).

the challenges related to MOIP implementation while being faithful to its intended principles and added value<sup>17</sup>.

For MOIP enthusiasts and practitioners, these challenges should be pondered and seen for what they are: an alarm bell for the future of mission-oriented theory and practice. While MOIP promises to help governments address grand challenges, there is no guarantee that its potential will eventually be translated into tangible impact. Conversely, it is very likely that, without preemptive action, most governments will be severely limited by the obstacles highlighted above, and the transformative ambition of the MOIP approach diluted. Hence the purpose of this white paper: taking stock of these challenges, and carving out an initial path forward for thinking about MOIP in a way that can help us address them.

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<sup>17</sup> Larue, P. (2021). *The design and implementation of mission-oriented innovation policies: A new systemic policy approach to address societal challenges*. OECD Science, Technology and Industry Policy Papers. See p.90. Available at [https://www.oecd-ilibrary.org/science-and-technology/the-design-and-implementation-ofmission-oriented-innovation-policies\\_3f6c76a4-en](https://www.oecd-ilibrary.org/science-and-technology/the-design-and-implementation-ofmission-oriented-innovation-policies_3f6c76a4-en) (accessed 13th October 2022).

### 3. Missions as governance

In the previous section, we observed how open the definition of MOIP is; how its actual implementation can differ significantly from one place to the next; and what challenges are hindering governments' ability to make the most of it. The ambiguity of the concept leaves policymakers without clear paths forward. In the lack of feasible alternatives, incrementalism becomes the standard go-to approach for embedding new policy rationales into old tools. As a result, mission-washing materialises as a key risk behind the corner of the MOIP buzz: a policy conundrum that risks compressing MOIP's ability to actually transform how we think and do industrial and innovation policy in order to transform society. Why is this happening in the first place? And how can we ensure our ability to effectively retain and exploit the transformative potential of the opportunities provided by missions?

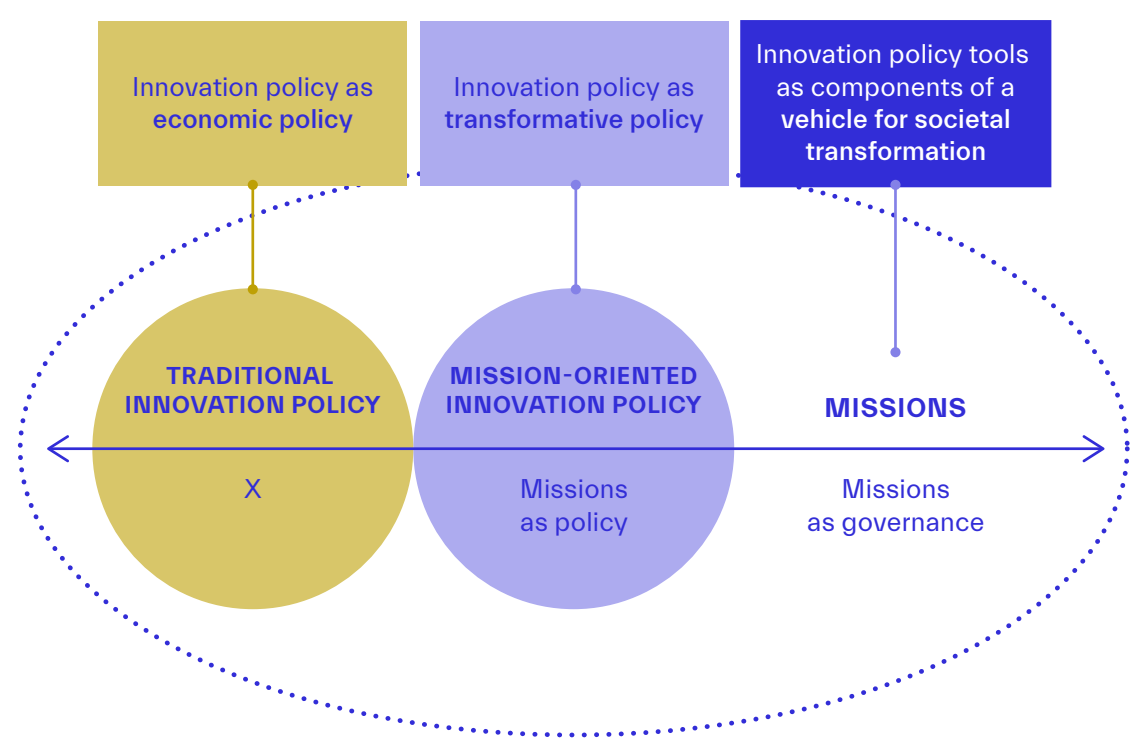
Our hypothesis is that the main reason behind this impasse is rooted in a widespread misunderstanding affecting the debate around what MOIP is and how it can enhance our collective capabilities to address societal challenges. **While MOIP is usually seen, conceived and interpreted as a new innovation policy approach, we have been missing out on an enormous opportunity to seize it as more than that: i.e., as a vehicle to challenge established ways of thinking, doing, and implementing governance.** For example, these are questions missions could answer:

- What is the rationale behind the mandate and organisation of a given ministry?
- What are the processes and resources that can underpin its work?
- How do we create room for effective cross-ministerial collaboration?
- How do we enable a long-term approach to budgeting?
- How do we connect ambitious political goals with private actors' agendas?
- How do we devise new ways to make bureaucrats and citizens work together to find out how to foster socio-technical transitions?

The promise of MOIP is that it helps countries incentivise industrial solutions for challenges of the scale of climate change. Yet, if governments don't ask themselves first the above questions, they are only using a fraction of the available tools a mission-oriented approach can provide them. In other words, a purposeful industrial and innovation policy can only be effective if it is governed purposefully and effectively.

**The only way out of this conundrum is admitting we have grounded the conversation around MOIP in the wrong debate.** Its true potential relies not only in the need to reboot innovation policy, but in the paramount opportunity it provides us with to challenge established ways of thinking, doing, and implementing governance. While critical in its own merit, the debate around MOIP implicitly envisions missions as policy: that is, as one tool among others that can be leveraged, assessed, and pondered by governments to meet specific goals. And yet, if we are to take its premises seriously (see the MOIP Compass in Figure 1), we must realise that its true potential relies on the possibility to interpret missions as governance for rewiring public action at large: that is, **as the toolbox steering multiple policies at once and consciously reorienting how governments envision their ways of working** (Figure 3). This is why, to make the most of this opportunity, governments and policymakers who develop MOIP need to stop talking about missions as policy and start exploring missions as vehicles for governing societal transformations.

**FIGURE 3. MISSIONS AS POLICY VS. MISSIONS AS GOVERNANCE**



Source: Demos Helsinki

Governance is the set of processes, structures and institutions that guide and restrain the collective action of a group of stakeholders<sup>18</sup>. As such, it involves not merely governments — but, much more holistically, how public, private, and societal actors interact with each other. Its scope travels well beyond the design, implementation and evaluation of specific policy tools, to encompass and identify the actual purpose behind the mechanisms that enable governments to bear meaningful impact on society. We argue that it is only by helping us articulate, question, and rewire these mechanisms that missions provide a unique potential for transformative change. This links up with two missed opportunities for governments:

1. **As long as MOIP is accommodated within the strict boundaries of the existing mechanisms of governments, its impact will likely be limited or, in the best-case scenario, incrementally improving pre-existing policy performance.**

Up to now, governments' potential to navigate societal transformations has been very much narrowed down by a persistent lack of capabilities. The absence of meaningful coordination mechanisms for the whole of government and for instruments and processes that involve private and societal stakeholders in the policymaking process, has prevented broader societal commitment to meaningful reform and innovation agendas. These gaps, which still disenfranchise the large majority of Western governments from their mandate to govern complex societal transformations, will not be solved by any policy tool as if by spell — not even by MOIP. However, **seeing missions as governance allows us to examine the very underpinnings of public action, and helps us find new ways to ensure they are capable of achieving their intended impact as well as of empowering private and societal stakeholders to contribute to societal transformations.**

2. **Once the debate shifts from a view of missions as policy to a view of missions as governance, the apparent dichotomy between the traditional and the mission-oriented innovation policy suddenly appears outdated.**

Growing evidence shows that, to deliver ambitious socio-technical transitions, the quality of and synergy behind a country's policy mix — including traditional (e.g., R&D tax credits) and newer instruments (e.g., innovative public procurement) — plays a much more decisive

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<sup>18</sup> Keohane, R.O. & Nye, J.S. (2000). Governance in a globalising world. In Keohane, R.O. (ed.) *Power and Governance in a partially globalised world*. NY: Routledge.

role than any single silver-bullet tool<sup>19</sup>. **To put it simply, there is no rigid contradiction between “old” and “new” innovation policies. Rather, what we need is to rewire the purpose of traditional tools as much as we need to complement them with new ones.** The best way to do so is, once more, to examine the very underpinnings of public action: how governance is designed and implemented. The next section will aim to show how Demos Helsinki is developing missions as governance with our partners in practice.

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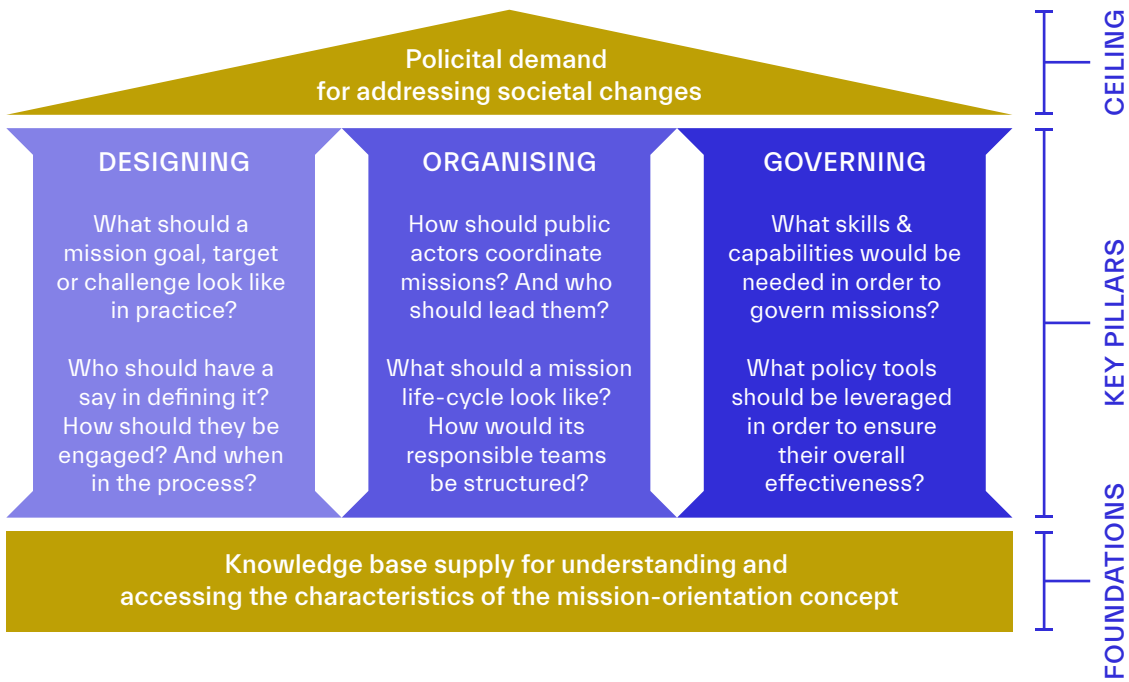
<sup>19</sup> See Kivimaa, P. & Virkamäki, V. (2013). *Policy Mixes, Policy Interplay and Low Carbon Transitions: The Case of Passenger Transport in Finland*. Environmental Policy and Governance, 24(1), 28–41, <https://doi.org/10.1002/eet.1629>; Scordato, L. et al. (2018). *Policy mixes for the sustainability transition of the pulp and paper industry in Sweden*. Journal of Cleaner Production, 183, 1216–1227, <https://doi.org/10.1016/j.jclepro.2018.02.212>; or Raven, R. & Walrave, B. (2020). *Overcoming transformational failures through policy mixes in the dynamics of technological innovation systems*. Technological Forecasting and Social Change, 153, <https://doi.org/10.1016/j.techfore.2018.05.008>.

## 4. Missions as governance: Recommendations

Notwithstanding the shift in perspective from policy to governance, missions still appear as an approach with lots of potential which has yet not fully come to fruition. This is not surprising given that what missions are proposing to achieve is no less than a radical shift in how we address the hardest challenges of our times. It is therefore no wonder that time and effort are essential to determine whether and how they can do so in practice. Yet, this is exactly where most of the debate around missions might be missing a relevant point: the fact that there is nothing inherent to missions per se that can help governments address such challenges. Indeed, missions come with no blueprint on how to be enacted — rather leaving ample room for different goals to be targeted. The question is less whether missions can achieve transformative change or not, and more whether or not the governments that deploy them are committed to use them as a tool to challenge how they think of, do, and implement governance.

Our hypothesis is that that is where missions' transformative potential might rest and could be further explored. To this account, missions can be compared to a house that is still under construction ([Figure 4](#)). The dense knowledge base available provides its foundations. The growing political demand around it represents its ceiling. Yet, what most governments still miss are the pillars: concrete governance solutions to design, organise, and govern missions that can reconcile missions' promises with political aspirations.

FIGURE 4. THE HOUSE OF MISSION-ORIENTED INNOVATION



Source: Demos Helsinki

Crucially, there is no single way of building these pillars. This is why any government that is willing to explore missions’ transformative potential must first ask itself why it truly needs missions in the first place, and what it wants to accomplish through them. Depending on the response, the exploration of this new vehicle might look very different and **range from an incremental adjustment of existing innovation policies (or the creation of new ones) to the institutionalisation of new cross-ministerial bodies – if not the reshuffling of mandates and responsibilities across the whole of government.** Providing a bird’s eye view of key questions posed by missions to public action at large, the remainder of this section identifies three main challenges that can help frame and make sense of them: designing, organising, and governing missions.



## (i) Designing missions

The first challenge concerns the design of missions. Designing missions entails framing, debating, and deliberating upon contemporary societal challenges to better understand those that can be addressed within given resource constraints. Here lies the paramount element of public and collective choice which makes mission design an inherently normative and political act: it demands the definition, specification, and prioritisation of a clear-cut set of objectives among many other possible ones.

As such, the broad inclusion of public, private, and civic stakeholders into the mission design process is key to secure:

- the **legitimacy of missions**, i.e., by ensuring their collective ownership,
- the **functionality of missions**, i.e., by encouraging the identification of frames, arguments, and objectives that can go beyond policy and electoral cycles.

Through an inclusive and participatory process, missions can:

1. provide a rallying point for actors who might otherwise clash with each other during the change process;
2. facilitate coalition building;
3. give them a ‘North Star’ to pursue; and
4. inspire action.

To this account, missions ask governments to reflect on how to nurture a broad consensus on grand societal challenges: who should have a say in defining them (i.e., stakeholders, citizens, etc.)? And how should they be engaged?

### CASE STUDY 1: REDESIGNING BUSINESS FINLAND’S MISSION CRITERIA

Demos Helsinki helped Finland’s largest public innovation agency, Business Finland, to develop its own interpretation of the mission-orientation concept to support Finnish companies in addressing societal challenges and positioning themselves in relation to future large markets. In doing so, Demos Helsinki gathered data through background research, expert interviews and internal workshops with Business Finland’s high-level personnel and developed an operational model which could take into account the organisation’s distinctive characteristics. As a result, extensive concept material was created to help Business Finland, including: i) a two-stage assessment process for new missions; ii) a set of engagement tools for the involvement of external stakeholders in their design; and iii) mission criteria for steering the evaluation, selection, and communications of related projects.

## (ii) Organising missions

The second challenge concerns the organisation of missions. Missions bundle together many diverse policy tools, activities, and mechanisms to tackle a given challenge. As a result, they are effective when they succeed in “orchestrating” the action of stakeholders across the public, private, and civil society. This has two implications for governance:

1. For governments, appreciating their role as “orchestrators” paves the way for a critical reappraisal of currently well-established allocations of mandates and responsibilities, and consolidated organisational structures. For example, what role do they assign for which ministries and agencies? What is the role of the PMO? Who needs to be coordinated?
2. The political and organisational infrastructure that is capable of addressing shared and transformative objectives also entails their operationalisation into challenge-oriented teams and processes. This infrastructure can be based on collaboration — both across and beyond the public sector — and experimentation — providing room for testing, learning, and iterating different ways of addressing societal challenges.

Exploring a mission-oriented approach hence entails the exploration of context-specific answers to questions such as: in order to orchestrate multiple stakeholders, how should mission teams be structured? And what should an organised mission look like in practice?

### CASE STUDY 2: DEVELOPING FINLAND’S NATIONAL FRAMEWORK FOR MISSION-ORIENTED INNOVATION POLICY

So far, the use that Finland has made of the mission-oriented approach has been rather fragmented, with only a few projects and national funding instruments beginning to implement its principles.<sup>20</sup> Yet, concurrent developments suggest the presence of a strong momentum and opportunity for change within the whole research, development and innovation (RDI) field. In this context, Demos Helsinki is supporting the Finnish Government by exploring the potential for mission-oriented (innovation) policy framework to act as an orchestrator of RDI ecosystems — and its broader societal stakeholders — to address grand societal challenges, as well as the premises upon which such a role can be enacted in the national context. The project is funded by the Government’s analysis, assessment and research activities and commissioned by the Finnish Prime Minister’s Office. The work is steered by eight ministries and two public agencies — thus representing a strategic whole-of-government effort to map needs, mandates, accountabilities, and functions in the RDI field, to study opportunities to use missions to solve grand societal challenges.

<sup>20</sup> Demos Helsinki’s government-funded research on this is expected to come out in spring 2023. For this case, Demos Helsinki is leading a consortium comprised of UCL Institute for Innovation and Public Purpose, BIOS, and 4Front.

### (iii) Governing missions

Last, the third challenge concerns the everyday governance of missions. The intentional adoption of missions as a logic of action founded on collaboration and experimentation has implications that stretch beyond organisational arrangements, and which highlight the skills and capacities of the core of governments: their **civil servants**.

- Fostering unbounded **collaboration** across *and* beyond government might require civil servants to nurture new skills — such as community management or systems thinking — or to devise new tools to incentivise stakeholders' engagement and resource sharing.
- Making the most of **experimentation** might entail providing front-line managers with a higher degree of decision-making autonomy, or the development of ways to facilitate the systematic leverage of accumulated knowledge and learnings. In addition, this demands new practices of monitoring and evaluation.

As such, missions beg one last set of questions to governments: what capabilities would be needed to enable civil servants to accomplish transformative objectives? And what policy tools — old and new — should be leveraged to ensure both their ability to succeed, as well as effective monitoring and evaluation?

#### CASE STUDY 3: NURTURING EU MISSIONS' CAPACITY FOR GOVERNANCE

The EU Commission has a mission of delivering 100 climate-neutral and smart cities by 2030. This requires innovations on many different fronts: technological, social, financial, and entrepreneurial. In turn, it also requires rethinking how we organise and govern collective action in a way that supports efforts for accelerating their development and diffusion. In this context, Demos Helsinki is a member of the NetZeroCities consortium — a programme funded by Horizon Europe that unites municipalities, researchers and practitioners from all over Europe committed to advancing the goal of 100 climate-neutral cities by 2030. Via NetZeroCities, Demos Helsinki is playing a proactive role in: i) advocating for and disseminating an understanding of missions as based on experimentation and collaboration; and ii) searching for and developing policy tools that secure national and regional support to strengthen NetZeroCities and the EU Mission as a whole.

## 5. Unleashing missions through experimentation

This white paper started by observing that, notwithstanding the momentum behind MOIP, only few governments have been able to (incrementally) experiment with it. Our hypothesis is that the main reason behind this impasse is rooted in a widespread misconception affecting the policy debate around what MOIP is and how it can enhance our collective capabilities to address complex societal challenges. While the prevailing narrative around MOIP stresses its potential as a new innovation policy approach, it has been minimising its potential by missing out on an opportunity to be much more: an instrument to challenge established ways of thinking, doing, and implementing governance.

The transformative potential of missions cannot be unleashed if accommodated within the boundaries of existing structures, processes, and mechanisms of government. Conversely, to unlock the possibility of transformative change, governments need a profound rethinking of how their branches operate with each other and with external actors: a rethinking of how governance is planned and implemented. Doing so entails intentional commitment from the whole of government to uncompromising collaboration and experimentation. To clear the ground around what this commitment entails, we have explored three misconceptions that, in our opinion, influence how we implement missions.

- **Missions are not only a policy approach — they are a vehicle for governance.** While missions are usually referred to as a new generation of innovation policies, available benchmarks show how they do not substitute but complement existing innovation policies and that their scope can encompass several innovation policies — or even go beyond them. We do not need missions because the old generations of innovation policy are outdated as such, but because they can help us reconsider their purpose and rewire their design and use to achieve new, more ambitious objectives.

- **Missions are not a blueprint — they are a malleable tool.** As existing benchmarks highlight, there is no such thing as one single way of doing missions, but a rich variety of approaches from which inspiration can be taken. We do not need them because they provide us with a new blueprint for innovation policy, but rather because they can be adapted to different goals, problems and opportunities. In a few words, they are a tool that can be used differently in different contexts to address societal challenges.
- **Missions are not a silver bullet — they are a compass.** The popularity of missions might lead some to assume it as a seemingly magical solution to any challenge. Yet, this is not the case. Rather than as a silver bullet, they should be seen as a compass targeting new directions and helping us chart new ways to structure, process, and use the potential of government. We do not need missions because they can solve grand societal challenges *per se* — but rather because using it as a compass can help us figure out together new solutions to govern collective action more effectively to chart new ways to navigate within existing structures and processes.

The source of these misunderstandings is related to the degree of intentionality behind the use of missions by any government or entity. Indeed, one of the key pitfalls we can see among emerging mission practice in Europe is that many governments take an incremental approach. Governments hope that missions can be integrated into existing policy mixes and developed by existing policy capacities. Yet, this often results in incremental adjustments to current policies and institutions — with only little change in their effectiveness. At times, a conscious effort to develop the capacity for a full-fledged missions approach and capacity may require a clear separation from existing policy infrastructures, and therefore take shape by means of strong political leadership; new managerial and organisational set-ups; or both.

In a few words, **the sole adoption of the MOIP label without any relevant change in how governments operate will fail to make transformative change happen.** Conversely, what truly may make the difference is governmental commitment to promote and orchestrate the kind of uncompromised collaboration and experimentation that can help us address some of the greatest societal challenges of our times. This commitment cannot be achieved without a recognition of the paramount needs of our societies, and a transparent debate about the goals and means needed to address them. This is why purpose is the only silver bullet that can make missions a valid compass for societal transformation: **all in all, the question is not about what missions are, but about what one wants to do with them.** It is less about how they look in practice — as if there was one and only way of making them — and more about how to devise them in a way that is conducive to the desired goals.

It is in light of this view that the purpose of this white paper is also envisioned: not only as providing the necessary knowledge base around missions; but also as ensuring that a conscious and intentional debate can take place about our collective hopes and ambitions for transformative change in the first place, and how to leverage missions for doing so in the second. Right now, under the leadership of the Finnish Government, Demos Helsinki is studying the opportunities that Finland has to develop a national framework for mission-oriented innovation policy under this premise. This white paper serves not only as a preliminary basis for nurturing an alignment about the scale and potential of this effort, but also as a broader call to action for any other stakeholder that is curious and committed to further with us our collective exploration of this vehicle. The time to get serious about societal transformation is now. It is up to you and me, then, to turn on the engine and put this vehicle into motion.

# Appendixes

## Appendix 1: Definitions of mission-oriented innovation

DEFINITIONS OF MISSION-ORIENTED INNOVATION	
<b>OECD &amp; Danish Design Centre (2022)</b>	"[...] it establishes a clear outcome towards the societal challenges and an overarching objective for achieving a specific mission (e.g. setting clear goals and roadmaps towards carbon neutrality or approaching the system differently to radically change mental health for young people)."
<b>Larrue (2021)</b>	"[...] a co-ordinated package of policy and regulatory measures tailored specifically to mobilise science, technology and innovation in order to address well-defined objectives related to a societal challenge, in a defined timeframe. These measures possibly span different stages of the innovation cycle from research to demonstration and market deployment, mix supply-push and demand-pull instruments, and cut across various policy fields, sectors and disciplines."
<b>Wittman et al. (2020)</b>	"[...] 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 behavioural 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."
<b>Mazzucato &amp; Dibb (2019)</b>	"[...] mission-oriented strategies translate challenges in concrete problems which require many organisations and sectors to collaborate."
<b>Robinson &amp; Mazzucato (2019)</b>	"The[ir] role [...] is to translate broad challenges and political orientations into "doable" problems to be solved"

## Appendix 2:

# International benchmarking methodology

To cover the larger amount of variance among existing international approaches to MOIP, we leveraged the two-dimensional matrix stemming from this analysis to select one case study for each quadrant (see Figure 1). Then, within each quadrant (i.e., subset of countries), we selected the case studies according to two selection criteria: 1) on the one hand, country comparability with Finland (e.g., in terms of geographic and economic dimension); 2) on the other hand, diversity in their implementation approach (i.e., in terms of how they reformed their innovation policy or governance to embed elements of mission-orientation)<sup>21</sup>. As a result, we selected the following four countries:

- **Norway:** An R&D-focused policy approach focused on funding streamlining;
- **Sweden:** A society-wide policy approach focused on stakeholder mobilisation;
- **Japan:** An R&D-focused governance approach focused on R&D actors' coordination;
- **Netherlands:** A society-wide governance approach focused on industrial evolution.

After that the selection process has led to the identification of sufficiently complementary countries, the four case studies have been explored through the lenses of one and the same analytical framework. This included: 1) a specification of their main characteristics – such as key promoters, budget, and length of the programme; 2) an illustration of their context; 3) an articulation of their implementation approach – based on the three key pillars illustrated in the briefing paper (designing; organising; and governing)<sup>22</sup>; and 4) an identification of their key learnings and challenges. At the end of each case study, a visual mock-up of their own governance model for the implementation of MOIP is also presented. All key information has been drawn from the mission-oriented innovation policies online toolkit compiled over the last few years for the OECD STIP Compass<sup>23</sup>.

Besides identifying what is the state of the art in the field, the purpose of this benchmark study is to gauge potential learnings and spot interesting features out of these case studies based on their distinctive approach to the implementation of MOIP. In such a perspective, it is of peculiar interest to analyse how each country addressed the key questions reflected by the three pillars of designing, organising, and governing missions. This is the analytical dimension where critical differences can be spotted, as well as the one where the practical implications of different approaches to the implementation of MOIP can be better grasped in a more vivid and tangible manner.

<sup>21</sup> One additional factor is constituted by geographic diversity – with 3 within-EU cases and 1 extra-EU case.

<sup>22</sup> For more information, see Section 3. and Figure 3. *The house of mission-oriented innovation*.

<sup>23</sup> The OECD STIP Compass – Mission-oriented innovation policies online toolkit is available at this [link](#)



## Appendix 3:

### International benchmarking results

This appendix illustrates the diversity of key contemporary interpretations and approaches to mission-oriented innovation across four national case studies. In line with this goal, the four countries have been selected via criteria that maximise diversity in scope and purpose of their MOI approach while comparable with Finland's political economy (see Appendix 2 for more info). The chosen countries (Norway, Sweden, Japan, and Netherlands) have hence been compared across four dimensions: 1) rationale; 2) context; 3) implementation; and 4) lessons learnt. A synthetic overview of the results is provided in Table 1.

**APPENDIX TABLE 1. COMPARATIVE CASE STUDY OVERVIEW**

TRAITS	NORWAY	SWEDEN	JAPAN	NETHERLANDS
<b>Rationale</b>				
<b>Scope</b>	R&D-focused	Society-wide	R&D-focused	Society-wide
<b>Purpose</b>	Policy approach	Policy approach	Governance vehicle	Governance vehicle
<b>Context</b>				
<b>Lead</b>	Agency-level	Agency-level	PMO-level	Ministry-level
<b>Budget</b>	70–120NOK/year (ca. 7–12M€)	750–900MSEK/ year (ca. 70–84M€)	23BYen/year (ca. 187M€)	ca. 2.85B€/year (+ 2.05B€ private)
<b>Timeframe</b>	2016–2022	2012–current	2020–current	2018–current
<b>Implementation</b>				
<b>Designing</b>	Top-down	Bottom-up	Mixed	Mixed
<b>Organising</b>	Steering-based	Ecosystem-based	Steering-based	Matrix-based
<b>Governing</b>	Centralised	Decentralised	Centralised	Mixed
<b>Lessons learnt</b>				
<b>Benefits</b>	Agility	Mobilisation	Visionarity	Holism
<b>Drawbacks</b>	Societal diffusion	Cohesiveness	Marketability	Heaviness

Source: Demos Helsinki

The rationale dimension enshrines the two measures which shaped country selection in the first place: that is, scope and purpose. In the former case, Norway's Pilot-E Programme and Japan's Moonshot R&D Program concentrate on overcoming key R&D-focused challenges with key societal implications; on top of that, Sweden's Strategic Innovation Programmes (SIPs) and the Netherlands' Top Sector approach embed elements focused on the societal adoption and the diffusion of innovation. In the latter case, Norway's Pilot-E and Sweden's SIPs represent distinct, specific policy tools in a broader innovation strategy environment; conversely, Japan's Moonshot and the Netherlands' Top Sector approach are governance vehicles for the orientation of many policy actions and instruments.

The context dimension shows how such different rationales are hence reflected in different degrees of political salience – partially evident in the correlation between the centrality of MOIP's lead and the sizeability of the budget allocated for it. Indeed, agency-level programs (Norway and Sweden) entail considerably lower budgets than ministry- and PMO-level ones (Japan and Netherlands) with a range spanning from the ca. 7–12M€/year of Norway's Pilot-E to the ca. 2.85B€ of Netherlands' Top Sector approach. In terms of timeframe, Sweden's SIPs are the oldest program (2012) – even if the roots of the Dutch Top Sector approach go as far as before that (2011). On average, however, MOI programs are on average relatively young (5–6 years) – a fact which contributes to the limited availability of proper evaluations.

The implementation dimension further exemplifies the implications of different rationales to how each country addressed key practical questions – such as how to design, organise, and govern missions in practice. While hardly possible in the context of this exercise to pay justice to their own peculiarities in high detail, it is indeed nonetheless possible and useful to synthesise how they differ on each of these levels.

- In terms of design, the two governance strategies blend together tools of top-down prioritisation with processes for largely bottom-up idea definition (Japan) and goal specification (Netherlands) whereas the two policy approaches are either markedly top-down (Norway) or bottom-up (Sweden).
- In terms of organisation, the two R&D focused approaches are steering-based – e.g., revolving around the decisions of high-level boards (Norway) or councils (Japan) – while the society-wide approaches rely on structures including non-public actors – e.g., thematic ecosystems (Sweden) or sectoral teams (Netherlands).
- The same differentiation is found at the governing dimension, at which R&D-focused approaches show relatively centralised decision-making based on small programme management teams (Norway) or directors (Japan) while society-wide approaches integrate decentralised autonomy (Netherlands) or are even based on it (Sweden).

Finally, multiple and complementary lessons learnt can be drawn out of their comparison — each with benefits as well as drawbacks for innovation policy and public action writ large.

- Norway's Pilot-E hones in on pre-existing complementarities among different R&D funding tools to streamline sustainability-oriented innovation value chains: as such, it empowers public agencies with greater agility in the use of public funding, and yet is limited by the lack of mechanisms for encouraging its societal diffusion.
- The SIPs promoted by Swedish agencies strongly stimulate the engagement of different actors by promoting the creation of innovative alliances — a fundamental prerequisite for ensuring MOIP's impact — and yet they lack mechanisms for ensuring the overall cohesiveness of their bottom-up actions and agendas.
- Japan's Moonshot helps break the mould of pre-existing R&D trajectories to open windows and propel the efforts of knowledge actors at a visionary scale; and yet, their focus on the marketability and societal impact of such efforts is preliminary.
- Last but not least, the Netherlands' Top Sector approach represents one of the best examples globally available of MOIP — capable of matching relevant engagement capabilities with ambitious visions for the collective good. Yet, its governance model is highly complex, and hard to manage or even monitor in the first place.

While no final word can be said yet on the impact achieved by most of these programs — let alone on their preferability with respect to the peculiarities of the Finnish context — this exercise aimed to showcase key, unresolved tensions which characterise each of the four approaches being studied, and that up to a degree inevitably pertain to the implementation of MOIP: an approach to governing societal transformations whose operationalization is still in its early days and therefore requires strong flexibility and openness to experimentation.

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