MISSION-ORIENTED INDUSTRIAL STRATEGY

Global Insights

by Mariana Mazzucato, Sarah Doyle and Luca Kuehn von Burgsdorff

July 2024

UCL IIPP Institute for Innovation and Public Purpose

MISSION-ORIENTED INDUSTRIAL STRATEGY: GLOBAL INSIGHTS

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EXECUTIVE SUMMARY

Industrial strategy is experiencing a renaissance, with global debate rightly shifting from whether to pursue it to how best to design and implement it. This report, based on work that IIPP has done with governments around the world, focuses on the potential of industrial strategy to be a powerful tool not only for catalysing growth, but for shaping the type of growth that results, and who benefits.

The challenges worldwide are clear: global warming, weak health systems, the digital divide and rising inequality, to name but a few. A well-designed, mission-oriented industrial strategy can transform these challenges into opportunities for cross-sectoral innovation and investment. This can boost business investment and lead to jobs and growth that serve the interests of people and the planet.

With a focus on missions rather than sectors, the report advocates for an industrial strategy that serves as an engine for sustainable, inclusive economic growth, delivering transformative changes for the decades to come.

Yet getting the details right matters. Mission-oriented industrial strategy requires fundamental changes to how states govern, to avoid becoming a case of 'old wine in new bottles'. **The report's key recommendations, applicable to economies worldwide, include:**

- To address 21st century challenges like climate change, a new approach to growth is needed. Industrial strategy can be an engine for sustainable and inclusive economic growth, but only if it shifts its focus from sectors to missions. A mission to achieve net zero by a certain year, for example, would require investment, innovation and transformation across sectors. This goal is not just about renewable energy; it must include transforming how we move (sustainable mobility), how we build (green infrastructure), and how we eat (sustainable food). In this sense, this new approach to industrial strategy does not pick winners (sectors) but rather picks missions that all sectors are required to tackle.

- This requires a whole-of-government approach, with mission delivery driven from the centre of government, facilitating inter-ministerial coordination – for example, led by cross-ministerial mission boards responsible for setting direction, measuring impact (not outputs) and building delivery networks.

- It requires redesigned tools and institutions. For example, public development banks and wealth funds can provide patient, long-term, and directed capital on the supply side, while strategic public procurement can shape markets on the demand side, creating new market opportunities that correspond with mission goals.

- A reset of the relationship between the public and private sectors is needed, to design reciprocal partnerships oriented around shared goals that produce shared value. This can be done by setting conditions on access to public sector grants, loans, equity investments, guarantees, procurement contracts, bailout packages, tax benefits and other incentives that prioritise mission goals and share risks and rewards.

- Engaging civil society and labour unions in mission design and implementation is critical. It can ensure that missions resonate widely, respond to the concerns people experience in their day-to-day lives, prioritise good quality jobs, and foster bottom-up, local-level solutions.

- Instead of outsourcing their capacity, governments must build their internal capabilities for mission delivery, including the ability to take risks (instead of avoiding risks or "de-risking"), embrace uncertainty and confidently design policies and partnerships that maximise public value.

- It is also important to take a global view. How industrial strategy is designed will determine whether it reinforces systemic inequalities in the global economy or drives positive global spillovers. Challenges like climate change to not stop at borders.

This report is based on research conducted over the past several years, led by Professor Mazzucato and her team at the UCL Institute for Innovation and Public Purpose (IIPP). It offers practical insights gained from the work of the institute with governments around the world—on opportunities ranging from healthy and sustainable housing estates in London's Camden Council to the ecological transition in Brazil—that are advancing new approaches to bring economic, social, and environmental policy goals into alignment at the centre of their growth strategies.

This report is part of IIPP's Mission-Oriented Policy Hub, which builds on the institute's global work with governments to shape what mission-oriented statecraft looks like in practice. We aim to inform and constructively challenge governments on how to operationalise mission-based policy, leveraging lessons from around the world. We hope this report will aid governments that are seeking to make this change happen – striving for a bold vision, while paying attention to the vital details of implementation.

1. INTRODUCTION: A NEW APPROACH TO GROWTH

The greatest challenges facing the world today – from global warming and health pandemics, to growing inequality, and inequitable access to decent housing – are direct results of how we choose to design our economies. Overcoming these challenges will require a fundamentally different approach to economic policy that proactively steers economic activity to be sustainable and inclusive, while leaving open the many bottom-up solutions required. How this direction is set, implemented, and governed among all economic actors is the focus of this report.

These questions are more important than ever, now that industrial strategy – actions taken by a state to shape how an economy is structured and how it grows – has moved back into the mainstream. Governments around the world are explicitly rolling out industrial strategies with billions of dollars of funding directed towards promoting productivity, job creation, competitiveness, economic resilience and growth. Many governments are also seeking to link these investments to a "just green transition". However, in so doing they often revert to old models of industrial strategy that focus on picking specific sectors or technologies to receive government support. These models have been criticised for "picking winners", with far too little attention being paid to the public return on public investments. The models are not fit for 21st-century challenges, which are cross-cutting. Responding to the climate crisis, for example, is not just about renewable energy; it must include transforming how we move (sustainable mobility), how we build (green infrastructure) and how we eat (sustainable food). Similarly, responding to health crises is not just about pharmaceuticals, but about a wide array of innovation and action across policy areas and sectors. From a policy perspective, this requires inter-ministerial thinking. From a business perspective, it must involve all sectors, not the chosen few.

To ensure that the benefits of growth are distributed equitably and directed sustainably, it is critical to get industrial strategy right. Since it was founded in 2017, the UCL Institute for Innovation and Public Purpose (IIPP) has advocated for industrial, and innovation, policy oriented around social and environmental "missions" to direct growth that is sustainable and inclusive ex ante and to shape markets that work for people and the planet (Mazzucato, 2018; Mazzucato, 2021). In contrast, many governments see industrial and innovation policy as separate from social and environmental policy. This siloed approach has led to incoherent policies, with investments in social and environmental priorities too often seen as

coming at the expense of investments in economic growth, and with economic policies too often reinforcing market dynamics that operate at cross purposes with critical policy priorities.

Well-designed **mission-oriented industrial strategy** can be an engine for economic growth. It can transform challenges into opportunities for the public and private sectors to invest, innovate and collaborate, and can be governed to share the risks and rewards of this collaboration. By catalysing cross-sectoral innovation, investment and transformation, missions can generate a multiplier effect; in other words, they can help ensure that public investment leads to a much greater impact on GDP than the amount invested (Deleidi and Mazzucato, 2019). The way in which industrial strategy is crafted will influence the type of growth that results and who benefits.

This change in trajectory requires a change in theory. It requires a view of the state not just as a "market fixer" but rather as a market shaper. Rather than de-risking, it requires welcoming the underlying uncertainty and experimentation that solutions to complex problems require. It requires moving away from thinking of public financial institutions as lenders of last resort towards seeing them as investors of first resort. And it requires bringing together the lessons from Keynes on demand-side policies, Schumpeter on innovation policy, and Minsky on the dangers of financialization. Our own work on the "entrepreneurial state", market shaping, missions and the common good is central to this transition (Mazzucato, 2018; 2021; 2023). But new theory is not enough. It must be tested, incorporating lessons from practice in a humble and experimental way. At IIPP, we call this "practice-based theorising".

This report is based on research led by Professor Mazzucato and her team at IIPP. It offers practical insights gained from work with governments around the world – on opportunities ranging from healthy and sustainable housing estates in our local Camden Council to the ecological transition in Brazil – that are advancing new approaches to bring economic, social and environmental policy goals into alignment at the centre of their growth strategies.

~~FIXING MARKETS~~

CO-CREATING

~~DE-RISKING~~

WELCOMING UNCERTAINTY

~~PICKING WINNERS~~

PICKING THE WILLING

~~LEVELLING THE PLAYING FIELD~~

TILTING TOWARD A DIRECTION

~~OUTSOURCING~~

CAPACITY BUILDING

~~COST BENEFIT~~

DYNAMIC SPILLOVERS

2. INDUSTRIAL POLICY IN CONTEXT: FROM PICKING WINNERS TO PICKING THE WILLING

2.1 What is industrial policy?

Industrial policy has been around for a long time, in the form of sector-specific subsidies and investments, as well as the more comprehensive policies of some East Asian economies, including Hong Kong, Taiwan, Singapore and South Korea. However, discussion about industrial policy has been largely stifled by decades of opposition since the 1980s Washington Consensus. It is only recently that debates have shifted from *whether* industrial policy should be done, to discussing *how* it should be done.

There are several definitions of industrial policy. Some have focused more narrowly on interventions aimed at promoting specific industries, sub-sectors or firms within the manufacturing sector (Weiss, 2013). Some place a stronger focus on public–private collaboration as opposed to top-down regulation. While some definitions have focused on subsidies, others have addressed a wider array of policy tools (Juhasz et al., 2023). Broader views encompass a wider range of sectors, including service and resource sectors, or extend to the entire economy and include all government efforts aimed at fostering growth, productivity and competitiveness (Aiginger, 2014; Cimoli et al., 2009; Chang, 1995; Di Maio, 2009). In this report, we take the latter view, defining industrial strategy as an engine for driving economy-wide growth.

Industrial *strategy* refers to a set of industrial policy measures deployed together in a coordinated way to achieve objectives. These measures can take the form of supply- and demand-side interventions. The former may include grants, subsidies, loans, tax credits or other preferential tax treatment, and regulatory changes, generally aiming to incentivise specific business activities like research and development (R&D) investments by reducing their cost. The latter may include measures aimed at creating new market opportunities or expanding existing markets, through mechanisms such as public procurement, advanced market commitments, price guarantees, consumer tax credits and local content rules. Tariffs and other trade restrictions may be used to make it easier for local businesses to gain market share, with less competition.

Industrial strategy can also include both vertical and horizontal measures. Vertical industrial policies focus on specific sectors, technologies, places or missions and aim to achieve policy objectives, whether related to building the competitiveness

of key sectors, promoting diversification to improve resilience, bringing jobs back to distressed regions or aligning economic activity with sustainability and inclusion goals. Horizontal industrial policies apply to all firms across the economy and aim to establish the conditions for economic success, such as a talented workforce and high levels of business R&D investment.

Effective industrial strategy must incorporate an array of interconnected supply and demand side, and vertical and horizontal policies, and also integrate with other areas of policy, such as innovation, trade, education, labour and environmental policies.

2.2 Industrial strategy as a driver of growth

Industrial strategy is often in tension with austerity policies that continue to lure governments into a downward spiral of underinvestment and stagnating growth. These policies rely on arguments that link public debt to weak economic growth, neglecting the facts that growth requires investment, and that the sustainability of national debt depends less on the level of debt than on what the government is investing in. By investing in drivers of productivity and growth, such as education and R&D, governments can expand the productive capacity of the economy, which can bring down the debt-to-GDP ratio.

Governments around the world are resurfacing industrial strategy as the central vehicle for promoting economic growth. However, these new industrial strategies are not sufficiently new. They continue to be influenced by a neoclassical approach to economics that inherently constrains the role of the state to that of a fixer, facilitator and de-risker. This approach has been shaped by theories of the state and the economy that have a powerful hold over political imagination and have effectively limited the spectrum of policy options that are considered viable.

We argue that, to realise the full potential of industrial strategy, not only as an engine of growth but also as a tool for shaping the direction of growth and who it benefits, these economic policies should be mission oriented. This requires a new understanding of the state and its role in the economy: to recognise the role of the state in shaping markets rather than just fixing market failures, in working with willing partners from across sectors rather than “picking winners” in the form of specific sectors or technologies, and in both directing and catalysing growth. It requires investment in state capacity, to build the institutions, tools, partnerships and capabilities required for innovating, risk taking and collaborating to advance ambitious policies. Fundamentally, this new approach must recognise that **decisions about how to generate growth, boost productivity and create jobs cannot be separated from social and environmental priorities.**

2.3 New industrial strategy: From picking sectors to picking the willing

A mission-oriented industrial strategy does not pick sectors but instead picks missions. Missions are bold goals that correspond both with pressing policy challenges, such as tackling climate change or a global pandemic, and with domestic and global market opportunities, like clean energy, which attracted US$1.8 trillion in global investment in 2023, or COVID-19 vaccines, which had a market size of almost US$101 billion in 2021 at the height of the pandemic (Bloomberg NEF, 2024; World Health Organization, 2023).

Governments are increasingly using industrial strategy to direct their economies towards a green transition. Missions inform how this is done, ensuring that all sectors invest and innovate in a goal-oriented way.

In the United States, in April 2022, the Biden Administration announced its commitment to a modern industrial strategy oriented around energy security and tackling climate change, prioritising made-in-America net-zero energy technologies with a focus on energy security and supply chain resilience, meeting domestic climate targets, opening new export markets, lowering energy costs and creating new job opportunities to make the green transition a just transition (White House, 2022). The Government of Brazil announced a new industrial strategy in January 2024 organised around six missions, including in decarbonisation and the energy transition (Government of Brazil, 2024). Malaysia has identified reaching net zero by 2050 as one of the missions guiding its New Industrial Development Plan 2030 (MITI, 2024). Australia and Scotland are among the latest countries to commit to rolling out green industrial strategies aimed at achieving climate goals, building globally competitive clean energy industries, and creating good quality jobs. Although these examples are, to some extent, still defined by a sector and technology focus, by bringing climate-related goals to the centre of industrial strategy they signal a shift towards, and growing interest in, a new approach to industrial strategy.

Missions become the vertical aspect of new industrial strategy, replacing the sector or technology focus of traditional industrial strategy. This does not mean that governments no longer need to pay attention to sectors. Instead, missions shift the focus to transforming sectors, enabling them to contribute to mission goals. Because this requires investment and innovation, missions can produce a multiplier effect – as opposed to sector-based subsidies that lack a clear direction, which might increase profits but not investment.

To tackle the climate crisis, for example, all sectors in the economy – from agriculture and mining, to manufacturing and transportation – must decarbonise. A mission focused on decarbonisation would recognise the need for cross-sectoral collaboration to solve this challenge and help catalyse an economy-wide transformation.

Policies tailored to certain sectors, as well as to certain business types, like small and medium-sized enterprises, are necessary and will vary from country to country. However, these policies should not focus on supporting specific sectors or categories of firms as the end goal. Rather, they should enable willing firms of different sizes and from different sectors to participate in investment opportunities related to mission goals. This might mean providing certain enabling infrastructure, worker training or other support to some sectors, or adapting certain policies, such as procurement.

Meanwhile, **horizontal policies should establish the conditions for economic success – including strengthening systems of innovation**. Innovation-led growth requires investing in key horizontal inputs such as research and development (R&D) and building dynamic systems of innovation that allow new knowledge and innovation to diffuse throughout the entire economy. Systems of innovation (sectoral, regional and national) embody dynamic links within and between different innovation actors and institutions (Freeman, 1995; Lundvall, 1992; MOIIS, 2019). Horizontal policies are important, for example, to ensure that a robust system of education and training is contributing to a talented workforce; to develop a well-connected innovation value chain that provides support for fundamental and applied research, commercialisation, adoption and scaling; to ensure robust competition and anti-trust policies; to invest in physical and digital infrastructure; and to put labour laws into place that ensure workers across the economy benefit fairly from company success.

In short, missions replace sectors as the vertical aspect of industrial strategy, by defining problems that engage many sectors. However, mission-oriented industrial strategy must rest on top of a solid foundation of horizontal policies, sectoral and technological capacity, and a connected ecosystem of innovation. In the next section we delve deeper into what makes a mission-oriented industrial strategy different, to avoid making the mistake of putting old wine in new bottles.

3. A MISSION-ORIENTED APPROACH TO INDUSTRIAL STRATEGY

Missions help shape economies, as well as the relationships between economic actors, to serve the common good (Mazzucato, 2023b). They can turn challenges into pathways for investment and market opportunities for businesses.

By starting with goals instead of sectors or technologies, governments can catalyse cross-sectoral investment, innovation and collaboration focused on collectively solving problems. This can lead to spillovers with a potential multiplier effect and foster economic growth that is sustainable, inclusive and resilient (see Box 1). Well-designed missions result in economic outcomes. Economic outcomes, such as growth, job creation and productivity, are not themselves the aim of the mission (Mazzucato, 2021; Mazzucato, 2023a; Deleidi et al., 2019).

Box 1: Lessons from NASA's Apollo Mission

NASA's Apollo mission – to send a man to the Moon and back within a generation – is an example of mission-oriented industrial policy. Although today's missions are more 'wicked', requiring not only technological change but also regulatory and behavioural change, there are many lessons that resonate. First, President Kennedy set a clear goal and acknowledged that it would be difficult to achieve. This meant embracing uncertainty instead of 'facilitating' and sharing risks rather than de-risking. Second, this mission required many different sectors to interact and innovate, not only aerospace. Third, it required transforming the tools of policy – procurement, for example, was transformed from a cost-plus model focussed on static metrics to a dynamic, challenge-oriented model with incentives for innovation and quality improvement. These shifts helped to catalyse the bottom-up innovation that produced camera phones, foil blankets, baby formula and software in response to the many problems that needed to be solved, such as what would the astronauts wear, how would they move, how would they eat? (Mazzucato, 2021). For every dollar invested, this mission returned US$5–7 in economic spillovers (Launius, 2008). Fourth, NASA took care to ensure that the contracts were fair: contracts with private sector partners included "no excess profits clauses", thus socialising both risks and rewards (Mazzucato, 2021).

Figure 1: 20 spillover innovations we would not have without space travel (Jet Propulsion Laboratory, 2016).

As with the Apollo mission, today's climate, health and other challenges require innovation in, and transformation across, a host of different sectors. Unlike the Apollo mission, they require much broader participation from labour and community actors to support bottom-up solutions development, build widespread support and respond to and resonate with people's needs.

Missions are not about incremental change. To leave room for innovation, they must set a clear direction without proscribing exactly how the end goal will be reached. Importantly, missions signal a long-term commitment to specific priorities. This can build investor confidence and provide greater certainty around growth expectations, which makes it easier for businesses and other partners to engage and make long-term investments linked to mission goals.

3.1 Mission-oriented policy design

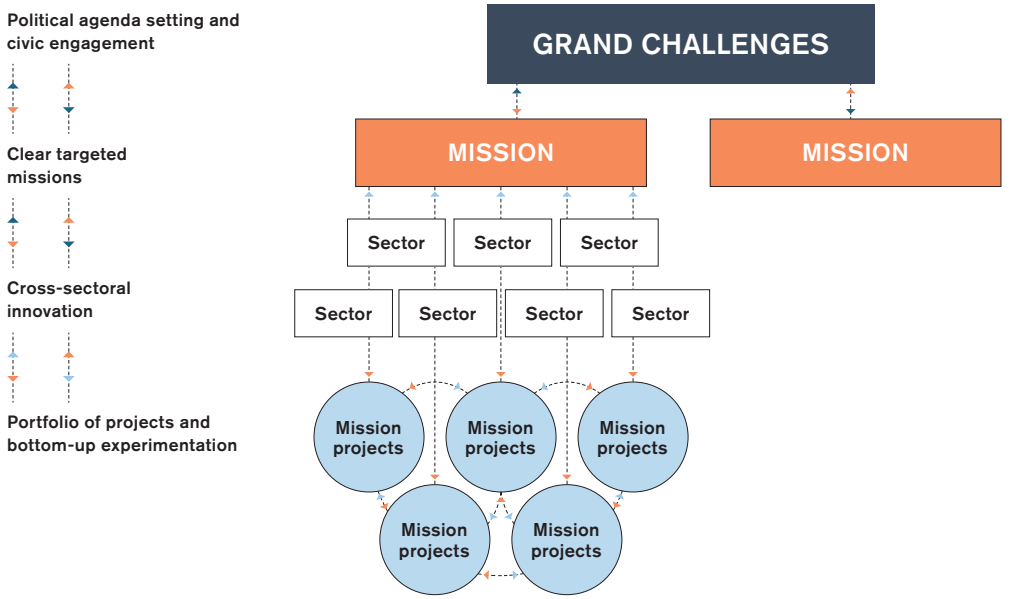


Figure 2: A mission map (Mazzucato 2018; 2019).

Grand challenges are difficult but important, systemic, and society-wide problems that do not have obvious solutions. For example, the United Nations' Sustainable Development Goals (SDGs), to which all 191 United Nations member states signed on, represent an attempt to articulate the world's 17 most pressing challenges.

Missions are concrete goals that, if achieved, will help to tackle a grand challenge. They set a clear direction for the different actors and sectors whose investment, innovation and effort is required to develop solutions. To mobilise as much cross-sectoral collaboration as possible, missions should focus less on economic outcomes and more on societal and environmental outcomes. Missions can help transform complex challenges, such as the SDGs and their 169 targets, into clear investment pathways. For example, in line with SDG 14, one of the European Union's "Restore our Oceans and Waters" mission targets is to reduce plastic litter at sea by at least 50 per cent by 2030 (Mazzucato, 2021; Mazzucato, 2023b; Mazzucato, 2019; European Commission, 2023).

Sectors are the economic sectors that need to be involved in developing solutions to specific missions, generally in collaboration with one another.

Projects are activities or programmes that solve particular problems and, in so doing, help to achieve the broader mission, such as an R&D programme focused on developing a new product, service or process that could contribute to mission success. For example, rather than thinking of electric vehicles as a mission, they can be seen as a solution to a specific problem that needs to be solved to achieve a mission (such as a sustainable mobility mission).

Principles apply across missions and define how missions should be implemented - how each sector and actor is engaged, and how each project is developed.

Key enablers, such as effective digital tools and transportation networks, cut across all missions. They are critical elements of infrastructure required to tackle each mission. Moreover, missions will serve to catalyse advancements in these areas, as advancements will be necessary to achieve the missions.

Box 2: Mission map examples

On the back of Professor Mazzucato's work, in 2019, the European Commission adopted a mission-oriented approach as part of its Horizon Europe R&D programme. The five EU mission areas chosen were:

1. Adaptation to Climate Change: Support at least 150 European regions and communities to become climate-resilient by 2030
2. Cancer: Working with Europe's Beating Cancer Plan to improve the lives of more than 3 million people by 2030 through prevention, cure and solutions to live longer and better
3. Restore our Ocean and Waters by 2030
4. 100 Climate-Neutral and Smart Cities by 2030
5. A Soil Deal for Europe: 100 living labs and lighthouses to lead the transition towards healthy soils by 2030

One challenge is that the Directorate-general (DG) for Research and Innovation was given the mandate to coordinate the five missions. This decision made it more difficult for the missions to be governed in an all-of-government way. Had they been housed in the Secretariat-General's Office, which supports the Commission President's mandate and is responsible for overall coherence of the Commission's work, the missions could have benefited more from links between different DGs.

The illustrative mission map in Figure 3 is drawn from advice in Mazzucato (2018b) that helped to shape the Commission's missions.

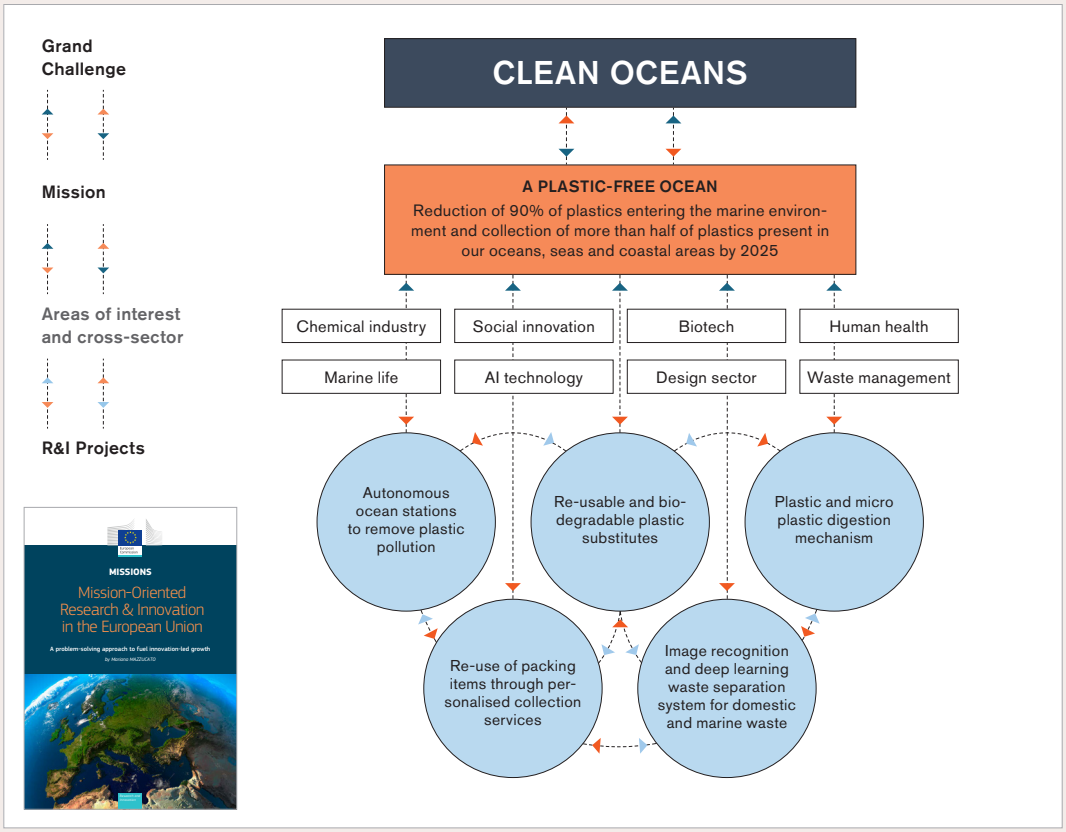


Figure 3: Mission for a plastic-free ocean (Mazzucato, 2018b).

The work of IIPP also helped to inform the UK Government's 2017 Industrial Strategy. Before this period, the UK government, like many others, had chosen "top sectors". At the time, these sectors were life-sciences, automobiles, aerospace, the creative sector and the financial sector. Through the work IIPP did with Greg Clarke, Former UK Secretary of State for Business, Energy and Industrial Strategy (BEIS), the organizing principle shifted to focus on four grand challenges: data and artificial intelligence (AI), clean growth, the future of mobility and healthy ageing.

Consequently, the UCL Mission-Oriented Innovation and Industrial Strategy (MOIIS) Commission, chaired by Professor Mariana Mazzucato and the Rt Hon Lord David Willetts FRS, developed a set of missions for each of these four areas. MOIIS worked closely with the challenge leads that were hired in the Department of Business Environment and Industrial Strategy (BEIS) to govern missions that could catalyse cross-sectoral innovation and bottom-up experimentation. Figure

4 shows a mission map drawn from the MOIIS work that focuses on ensuring the safety, sustainability and accessibility of the UK mobility system, which would require innovation across a range of different areas. The accessibility requirement, for example, would require innovation in areas related to disabilities and access.

The MOIIS commission met regularly and hosted inter-ministerial workshops between BEIS and other ministries, for example with the Department of Transport and with the Treasury. Engagement with the latter focused on how to 'evaluate' missions outside of a narrow cost-benefit analysis. The dynamic spillovers generated by missions are crucial and should be included in mission evaluation. (See Section 3.4.3 for a discussion of this point).

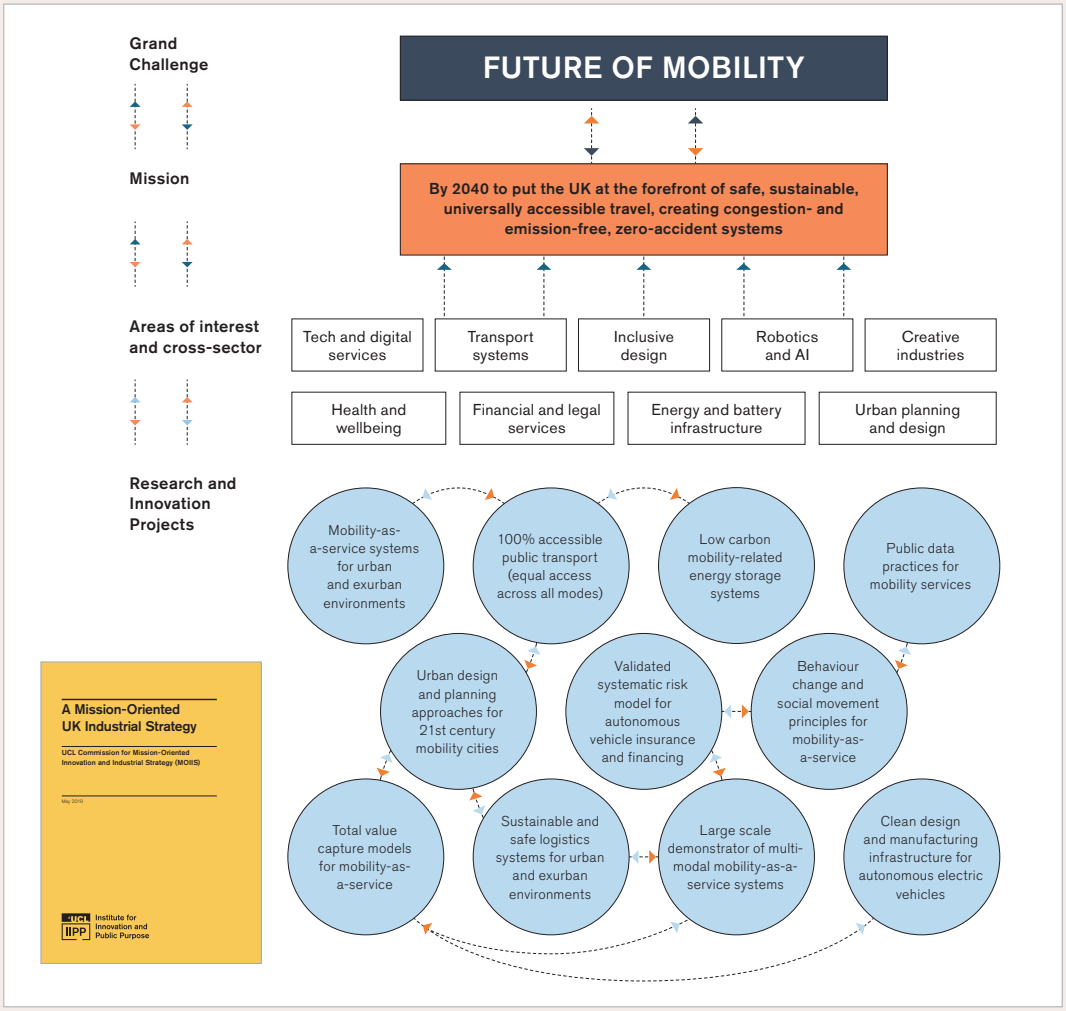


Figure 4: MOIIS mission to ensure the safety, sustainability, and accessibility of the UK mobility system (MOIIS, 2019).

3.1.1 A whole-of-government approach

Mission-oriented industrial strategy should be seen as the engine of a wider economic growth strategy, which all ministries are responsible for advancing. It should not be isolated within ministries of industry, innovation or economy. **Missions should sit above any one ministry, playing a coordinating function across policy priorities and across government.**

This whole-of-government approach is critical to ensure that the whole is greater than the sum of its parts. In practice, however, ministerial silos are difficult to overcome. Missions can break down these silos, but only if they are designed to foster alignment across ministries around shared goals, rather than being reinvented within each ministry or each strategy.

Therefore, missions should be governed by a central government body with the backing of the highest offices of executive power – for example, housed within the Cabinet Office or a similar body, with oversight from the president or prime minister – with a mandate for setting strategic priorities and facilitating cross-ministerial coordination (Mazzucato, 2021; 2023d). New governance structures are needed to enable coordination across government institutions, sectors and levels of government.

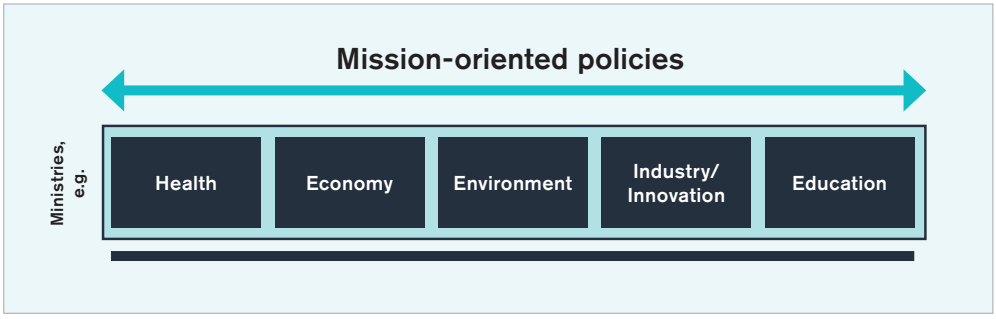


Figure 5: Missions can help coordinate different ministerial strategies around a shared vision and direction (Mazzucato, 2023a).

These new structures could include “grand challenge teams” or “mission boards” responsible for mission policy development, delivery and monitoring, and for managing a network of bottom-up innovation (MOIIS, 2019; Mazzucato et al., 2024; Labour Party, 2024). These teams should be cross-ministerial, cross-disciplinary, and well-resourced and supported. They should have a direct reporting line to senior leaders and operational autonomy to take initiative within the mission area. Political leadership is critical to ensure that missions are prioritised, there is accountability for delivery, and that civil service leaders benefit from an environment which rewards them to take risks, learn and be bold in designing the policies, tools and institutions required to implement missions.

Strong management leadership and multi-disciplinary expertise within these teams is also vital to ensure that they can navigate complex government systems in a way that is dynamic, bold and outcomes-oriented. These teams should be empowered to draw on expertise from across government departments and agencies, attracting top talent. They should be equipped to engage with business and community partners, with the acumen and confidence to set partnership terms that maximise public value while leaving enough flexibility to encourage innovation and foster bottom-up solutions development. These teams will need technical expertise in a range of areas, from subject matter expertise required to align policies and tools with mission goals, to evaluation expertise required to create a culture of learning. These teams should be empowered to set direction and to remove barriers that could prevent internal and external stakeholders from advancing solutions that will help to achieve mission goals, but they should not micromanage mission implementation.

To ensure a coordinated approach with strong ministerial sponsorship and clear accountability, these teams should report to a central “missions unit”, which would oversee all missions and report into a minster-level “mission leadership group”.

In addition, advisory councils of technical, academic and industry experts could be created to crowd in external expertise to inform mission design, implementation and monitoring, to act as champions and to help communicate the purpose of the missions to the public.

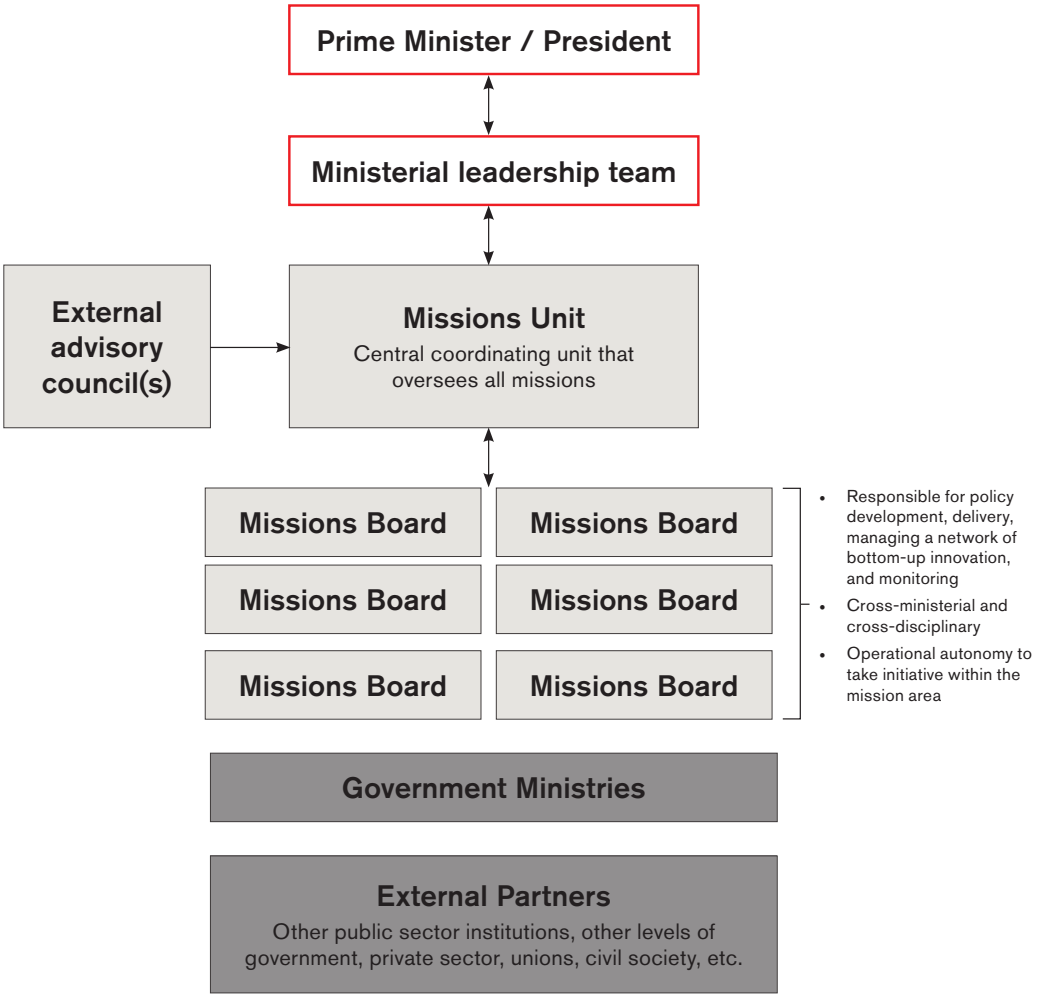


Figure 6: Potential mission governance structure (modified from: MOIIS, 2019; Mazzucato et al., 2024).

In addition, the core processes of government must reflect the priority given to missions and enable this whole-of-government approach. Missions can be embedded in mandate letters, departmental budget submissions and budget cycles (for example, with ministries instructed to identify priorities for funding that relate to mission implementation), treasury approvals (for example, with a focus on mission alignment that is not constrained by an excessive focus on cost saving) and departmental planning and reporting.

3.2 Mission-oriented tools and institutions

Governments have a wide array of policy tools and public institutions at their disposal that can play an important role in shaping markets and achieving missions, if they are designed to support mission goals. This section focuses on three areas where getting tool and institutional design right is critical to mission success: public development banks, strategic procurement policy and state-owned enterprises.

This is not to say that other tools are less important. For example, regulation and standard setting, as well as tax incentives and penalties (a significant feature of US industrial strategy) can be used to shape new market opportunities by restricting some activities and incentivising others.

3.2.1 Public financial institutions

Successful industrial strategy requires patient, long-term finance. But finance is not neutral. The way in which public finance is structured can determine where investments are made, the type of economic activity that is funded and who benefits.

Some of the most effective vehicles for distributing financial capital that is patient and favours long-term returns are dedicated public financial institutions: from public development banks to sovereign wealth funds to local, community-oriented funds. In many countries, public development banks play an important role in providing patient long-term finance (Mazzucato and Macfarlane, 2018; Lazonick and Mazzucato, 2013). There are over 500 public development banks worldwide, 90 per cent of which are classified as national development banks (NDBs). As of June 2023, NDBs manage total assets valued at over $20.2 trillion (Xu et al., 2023). There are also various categories of public wealth funds around the world that operate at different scales, with diverse guiding objectives. National wealth funds are investment funds owned by national governments that typically manage domestic state-owned assets, such as public enterprises and real estate. Sovereign wealth funds are similar to national wealth funds, but typically invest in international assets globally and often play an important macroeconomic role in managing foreign exchange reserves or offsetting the fluctuations of global economic impact on domestic economies.

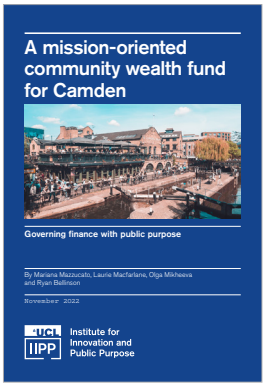
Mission-oriented industrial strategies require not just patient, long-term finance, but directed finance. To help deliver directed finance, public

development banks and wealth funds can be designed with a mission-oriented mandate. This requires the design of financial products to reflect and be responsive to mission goals, and it requires a different risk appetite. The status quo of modern public finance is to "de-risk" private finance through a variety of direct and indirect means, including loans, grants, guarantees, and debt- and equity-based instruments. However, **missions require public financial institutions to become lenders of first resort, not last resort.** In this way, the state can take on some of the risk of investing in innovation, which is inherently uncertain and often requires long timelines before profits are realised, and crowd in private investment that would otherwise not invest (Macfarlane and Mazzucato, 2018).

Mission-oriented public development banks can take a portfolio approach to these investments. In some cases, by sharing in the upside, they can reinvest the profits from successful investments in new opportunities and cover losses when some investments inevitably fail. It is critical to structure investments to ensure that both risks and rewards are shared fairly. This can be done by integrating conditionalities into public funding agreements that require profits over a certain threshold to be shared, or allow equity or royalty rights, or a portion of intellectual property rights, to be retained (Mazzucato 2013; Macfarlane and Mazzucato, 2018).

Public development banks play an important role in driving clean energy development and diffusion, and more broadly in decarbonising the economy. For example, KfW, Germany's NDB (which held €546.4 billion in assets as of 2020) aligns its lending activities with three "megatrends": (1) climate change and the environment, (2) globalisation and technological progress, and (3) demographic change. To ensure its lending aligns with the first megatrend (climate change and the environment), the bank makes its low-interest loans conditional on decarbonisation requirements. KfW has been critical in shaping a new market in Germany for energy-efficient buildings. As part of the Energy-Efficient Refurbishment and New Construction programme, KfW offers loans of up to €100,000 with preferential interest rates of 0.75 per cent per annum, notably lower than the long-term rate of 2.68 per cent. Upon the completion and subsequent certification of the building, demonstrating adherence to the requisite energy standards, debt relief of up to 25 per cent is granted. The higher the energy efficiency, the greater the relief. Similar efforts are ongoing in Germany for green steel (Mazzucato and Macfarlane, 2023).

Wealth funds can also be designed with a mission-oriented mandate. For example, IIPP worked with Camden Council to design a mission-oriented Community Wealth Fund (CWF) to support the four missions it adopted in 2021 (Mazzucato et al., 2022; see Box 8). Camden Council launched its £30 million fund in 2024, which now provides repayable loans, equity finance and business support to people, businesses and organisations across the region. In designing the CWF, IIPP advised the council to ensure the fund is evergreen over the long term; has a diversified portfolio of investments; develops a co-investment profile that attracts additional private and public investors; engages citizens; and empowers their ownership of economic decisions in the borough. Lessons from the local level can inform national-level policy instruments. For example, the UK government plans to implement a National Wealth Fund, which can learn from the CWF.



Box 3: Patient, long-term, and mission-oriented finance in Scotland

Scotland, like the rest of the UK, faces chronically low business investment and falling funding for public investment (OECD, 2024; Government of Scotland, 2023). In 2020, the Scottish Government established the Scottish National Investment Bank (SNIB) to make strategic long-term investments in support of missions set by the Scottish Government, informed by Mazzucato and Macfarlane (2019). Its initial missions included:

- Net-Zero Mission: Achieving a just transition to net zero carbon emissions by 2045
- Place Mission: Extending equality of opportunity through improving places by 2040
- Innovation Mission: Harnessing innovation to enable Scotland's people to flourish by 2040 (SNIB, 2022).

With an initial £2bn in committed funding from the Scottish Government, the bank invests in projects that align with these missions, offering up to £50 million per investment. It operates independently to support high-risk, high-impact projects that private investors might otherwise overlook. Its investment strategy includes equity, debt and fund investments, aiming to stimulate private sector co-investment.

One innovative aspect is the bank's application of 'mission covenants' to its investments. These covenants require the businesses it has invested in to report regularly on their mission impact compared to what was expected. In turn, this performance is included in the bank's regular mission impact reporting. If investments do not meet expectations around mission impact and the business is unable to remedy the situation, then the bank reserves the right to implement an exit mechanism.

Since its inception, SNIB has committed over £415 million, leveraging additional investments totalling more than £1 billion. In the 2022/23 financial year, SNIB committed £221 million in new investments. Among other results, these investments supported renewable energy projects generating 1.8 GWh, equivalent to powering 450 homes. The bank's investments have created approximately 2,300 jobs and supported 43 patents (SNIB, 2023).

3.2.2 Strategic procurement policy

Public procurement is a critical lever for governments. The total value of global public procurement budgets is approximately US$13 trillion per year (World Bank, 2023b) and accounts for about 20–40 per cent of national public spending among OECD countries (OECD, 2023b). For the most part, public procurement has been approached with a view to managing down costs and risks and prioritising efficiency, fairness and the prevention of corruption. Under this paradigm, the emphasis has been on evaluating direct financial costs and benefits, and on following narrowly defined processes. The fact that the procurement function often sits within legal and finance teams rather than teams responsible for policy strategy is emblematic of how it is generally seen and deployed.

However, procurement budgets can be used more strategically. **Procurement policy is a highly influential demand-side industrial strategy tool that has the potential to shape new market opportunities that act as a stimulus for innovation and investment in line with government policy priorities.**

To realise the potential of public procurement, a 'new economics' of procurement that is centred around public value is needed. A public value approach specifies the desired outcome, not the solution. Instead of considering only the direct value delivered by a supplier at a single moment in time, with the measurement of value

reduced to monetised equivalents, it considers how the good or service being procured contributes to mission outcomes, and its impact on the wider market through spillover effects over time. It also values relationships, setting conditions on access to procurement contracts to ensure mission and values alignment and prioritising suppliers that are willing to engage on these terms, ensuring that solutions work for a given place, and putting more emphasis on shared learning.

While procurement models that go beyond the efficiency approach do exist, they remain limited in scope. For example, the functional procurement approach specifies a function without specifying the exact product that will be procured to fill this function. This approach recognises the potential of governments to act as lead buyers and to leverage procurement to catalyse innovation but has most frequently been restricted to use in defence procurement. A related model – outcomes-based procurement or payment-by-results – aims to spark innovation in service delivery but remains relatively marginal and can be challenging to structure in a way that avoids perverse incentives.

The recent wave of industrial strategies includes changes to procurement policy that emphasise buy-local provisions. In Brazil, for example, procurement is being actively redesigned as a lever for realising industrial strategy goals with new local content rules. In the US, the Buy Clean Initiative aims to promote the use of low-carbon, 'made-in-America' construction materials in federal projects.

However, the potential for public procurement to create market demand for products and services that align with the government's goals or missions, and to maximise public value, remains significantly under-realised.

Box 4: Sweden: Transforming school meals

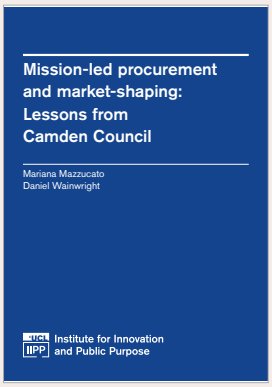
Sweden has set the aim of becoming the first fossil-free welfare nation in the world (Fossil Free Sweden, 2021), not only aiming to reduce emissions but also to enhance wellbeing at the same time (Fossil Free Sweden, 2024). The overall objective is for Sweden to have zero net emissions by 2045 (ibid). The Fossil Free Sweden initiative has worked with 22 industries to create roadmaps to show how they can enhance competitiveness by going fossil-free. Industry groups themselves have led the production and now own the implementation of these roadmaps, with a process and standard set by Fossil Free Sweden.

The food system is a critical factor in this journey, and Sweden has focused on school meals as an important lever to transform the market. As the country's food strategy says, "Public procurement processes should be used to better guide towards and respond to society's aspirations and laws" (Ministry of Enterprise and Innovation, 2017). To this end, the Swedish National Food Agency has supported a range of municipal experiments to implement the strategy and look at the potential of procurement. Vallentuna ran a 'reverse procurement' test, where local suppliers offered what they had for school lunches, meaning sales were based on supply rather than demand, and children ate seasonal and locally grown food (Livsmedelsverket, 2023).

Similar work is taking place elsewhere in Europe. Initiatives include 'organic districts' in Italy, where "farmers, citizens, public authorities, and other local actors realise a formal agreement aimed at the sustainable management of local resources" (SchoolFood4Change, 2022); a new B2B platform in Ghent that connects city purchasers with local suppliers; and a "catalogue of food" in Slovenia that aims to make public food procurement more transparent (ibid).

In all these examples, intentional and innovative approaches to procurement create market opportunities, not just for local food suppliers, but for technology companies and others as well. Within the mission-oriented paradigm, the value of procurement is not the extent to which it is able to reduce cost but rather the extent to which it succeeds in catalysing investment and innovation-yielding solutions to policy challenges, and transforming sectors, shaping markets and contributing to growth that aligns with wider policy goals (Mazzucato and Wainwright, 2024).

Box 5: Community-led procurement in Camden Council



IIPP worked closely with Camden Council, a UK Local Authority, to design and test a new public value-driven approach to procurement that aligns procurement activity with the council's four missions (Mazzucato and Wainwright, 2024; see Box 8).

Importantly, this work emphasized the difference between a public value-driven approach and a social value-based approach. The United Kingdom's Public Services (Social Value) Act 2013 requires government bodies to consider a wider array of factors beyond price, related to potential positive spillovers that could impact local economic, social and environmental well-being. A social value-based approach signals an important development beyond traditional approaches to procurement. However, the approach has three key limitations: 1) commitments from suppliers are often peripheral to the contract, meaning they are subject to less monitoring and more likely to be negotiated away if circumstances change; 2) commitments tend to be ad hoc and not strategic, meaning that commitments secured across a commissioning body do not necessarily drive their core policy goals; and 3) commitments are overly focused on easily measurable outcomes, meaning that they are often seen as a tick box to complete rather than requiring deeper values alignment.

Camden recognises procurement policy as a critical, strategic lever for achieving these missions. In the context of Camden, mission-oriented procurement is understood to mean a focus on market shaping and public value, including fostering more suppliers that are mission and principles aligned; place-based commissioning to engage residents in the commissioning and procurement cycle; understanding interactions between different commissioned services; identifying and valuing the social capital created through contracts; and alignment of outcomes with missions.

Informed by this work, Camden Council is redesigning its approach to procurement.

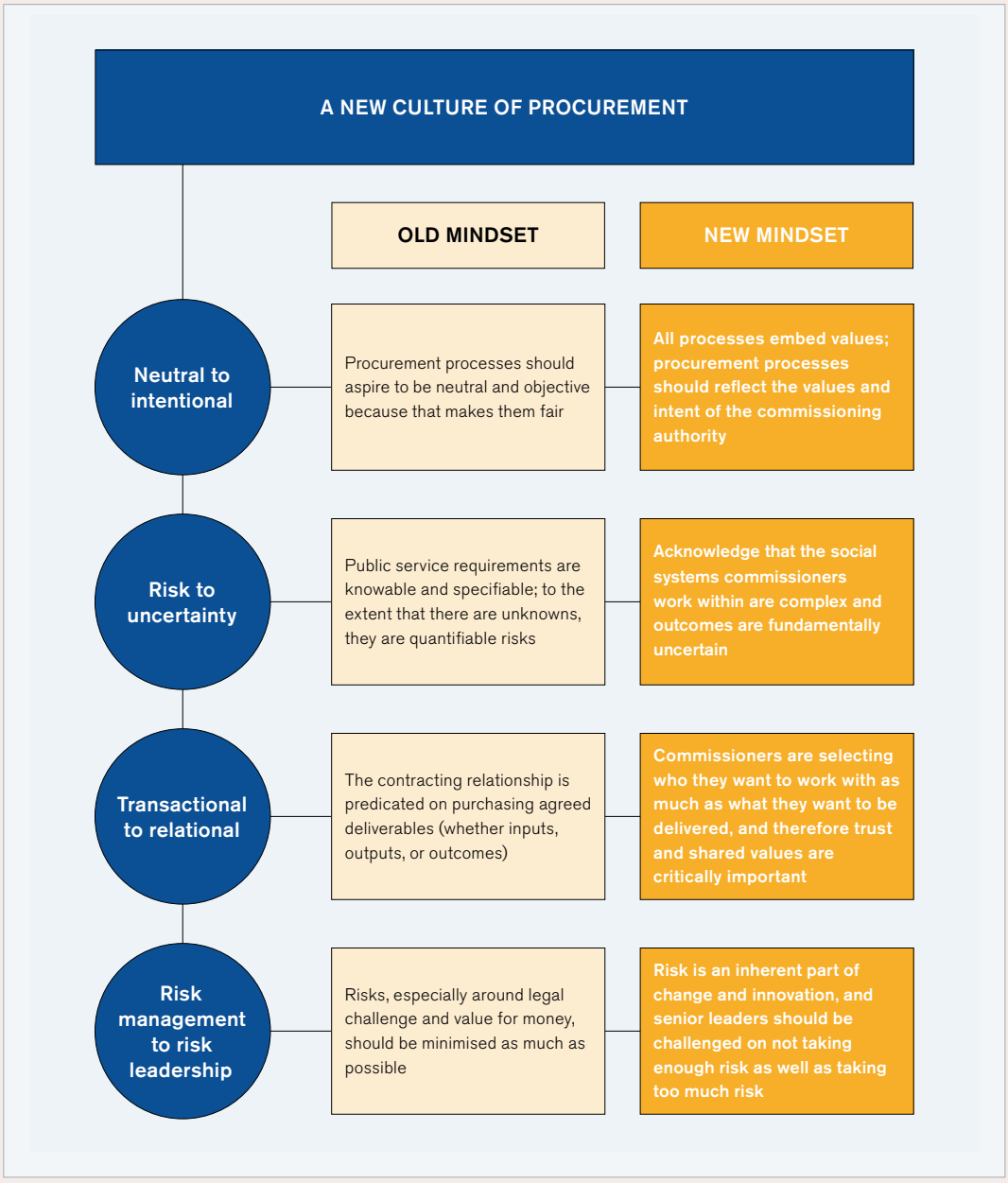


Figure 7: Mission-driven procurement requires a new culture in the civil service.

3.2.3 Mission-oriented state-owned enterprises

State-owned enterprises (SOEs) are often uniquely positioned to support industrial strategy goals, due to their position at the boundary between the public and private sectors (Mazzucato and Gasperin, 2023). However, SOEs have often been set up as independent, arm's-length delivery vehicles, rather than vehicles for achieving policy goals. If governed in a mission-oriented way, instead of being insulated from public policy, SOEs can help to support sectoral transformation, foster the development of new solutions and shape markets in alignment with industrial strategy missions.

In some countries, state holding companies responsible for certain aspects of SOE governance and policy coordination have been created. This model may be pursued with a view to insulating SOEs from political capture, creating opportunities for a portfolio approach in which financial surpluses from some SOEs can be reinvested in restructuring or expanding others, coordinating market activities and sharing knowledge across SOEs, or aligning SOE mandates with national economic policy priorities or missions. While the latter function is less common, examples include the French holding company Agence des participations de l'État, responsible for 83 SOEs, which has a 'shareholding doctrine' that sees SOEs as instruments through which to achieve national policy objectives (Kumar, 1993; SASAC, 2018; Mazzucato et al., 2021; Agence des Participations de l'État, 2022).

Holding companies are just one approach to aligning SOEs with policy goals. This alignment can be embedded, for example, in individual SOE governance structures and mandates, and in the approach taken by the ministries responsible for overseeing them.

3.3 Mission-oriented partnerships

The fact that capitalism is not working for many citizens – with real wages stagnant in many countries, private debt mounting due to the financialized structure of businesses and the financial system, and the planet warming irreversibly – means we must revisit the way we are designing economic systems, structures and partnerships. The International Trade Union Confederation (ITUC) reports that even though the world is three times richer than twenty years ago, 70% of people are denied universal social protection, 84% of people say the minimum wage is not enough to live on, and 81% of countries have allowed violations of the right to

collectively bargain (ITUC). The labour share of global GDP, which is the fraction of an economy's output that goes to workers, has declined by six percentage points since 1980. In the US and UK, only 20 per cent of finance goes into the productive economy, with the rest flowing into finance, insurance, and real estate (FIRE) (Mazzucato, 2021). Furthermore, in 2023, S&P 500 companies transferred $795.2 billion to shareholders through stock buybacks (S&P Dow Jones Indices, 2024). Approximately half of this amount came from the 20 largest firms. Five of the world's largest listed energy companies transferred $104 billion through share buybacks and dividends in 2023 (Ambrose, 2024). Tax havens collectively cost governments between $500 billion and $600 billion a year in lost corporate tax revenue (Shaxson, 2019).

Rewards are being siphoned out of the economy to a small percentage of actors. Big pharmaceutical companies are a case in point. Even though value is created by many different actors and institutions – with the US government, for example, investing over $40 billion a year in health innovation – the prices of drugs do not reflect this public contribution. From 2007 to 2016, the 19 pharmaceutical companies included in the S&P 500 Index spent US$297 billion repurchasing their own shares – through stock buybacks – equivalent to 61% of their combined R&D expenditures over this same period (Tulum and Lazonick, 2018). Even during a global pandemic, pharmaceutical companies reaped the rewards of a system set up to favour high drug pricing, the protection of corporate Intellectual Property (IP) rights, and shareholder value over the production of stakeholder value. These problems transcend the pharmaceutical industry.

We need to build an economy that has reciprocity at the heart of partnerships between economic actors. Missions offer a north star that helps to engage businesses from across sectors, the research community, different levels of government, civil society and trade unions in working towards a shared purpose. Governments set the direction, but they do not achieve missions alone. Mission-oriented industrial strategy is characterised by "leading with purpose, governing in partnership" (Mazzucato et al., 2024).

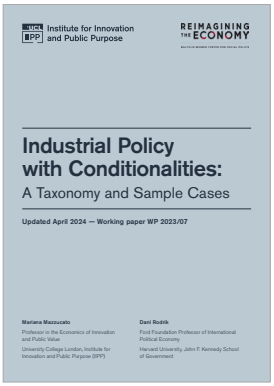
3.3.1 Purpose-oriented public–private collaboration

To maximise the public value of industrial strategy, governments must thoughtfully and confidently design the terms that shape public–private collaboration. Through industrial strategy, governments provide substantial benefits to firms, including billions of dollars' worth of public funding. Access to these benefits should be conditional on firms behaving in ways that benefit the public. Modern industrial

strategy offers an opportunity to forge a new social contract between the public and private sectors.

A reset is needed regarding how the public and private sectors relate to one another. To redirect finance away from windfall profits that benefit a small number of people, a broad slate of reforms is required. The design of public–private collaboration is one critical place for this reset to occur.

Governments' mode of partnering with business is too often driven by a fear that businesses will leave or refuse to invest in activities that align with policy goals or create jobs. They are often concerned with being viewed as "business-friendly" or "open for business". **Instead, governments should focus on designing partnerships oriented around shared goals that produce shared value,** and on sending a signal to businesses that they are opening new market opportunities that align with policy goals. A more reciprocal relationship can be established by setting clear conditions on access to public sector grants, loans, equity investments, guarantees, procurement contracts, bailout packages, tax benefits and other incentives to ensure a public return on public investments that maximises not just private profits but also public value. More symbiotic, as opposed to parasitic, partnerships between government and business can shift the focus from redistributive policies, like tax and spend, to predistributive policies that aim to get economic relationships right in the first place. One tried-and-tested predistributive policy is conditionality.



Governments have the power to embed well-designed conditionalities in the policies that define which firms can access which benefits, and in the contracts that establish the terms of public–private partnerships. Conditionalities can require firms to behave in ways that align with the public interest, including by prioritising (Mazzucato and Rodrik, 2023):

- **Access:** Ensuring equitable and affordable access to the resulting products and services (e.g., through pricing and intellectual property rights)
- **Directionality:** Directing firms' activities towards socially desirable goals (e.g., reduction of carbon emissions)
- **Profit-sharing:** Requiring profitable firms to share returns with the government (e.g. via royalties or equity stakes)
- **Reinvestment:** Requiring profitable firms to reinvest profits in productive activities (e.g., research and development or worker training) rather than unproductive ones (e.g., shareholder buybacks).

For example, the Oxford-AstraZeneca COVID-19 vaccine, developed with the help of UK Government investments in R&D, manufacturing and advance purchase agreements, included provisions to keep prices low, limit profits during the pandemic, and ensure knowledge-sharing for public health (Cross et al. 2021). These conditions shaped public-private collaboration to prioritise public health goals, in contrast with, for example, the use of strategic patenting by other companies to block competitors and keep vaccine prices high.

Conditions have been embedded in recent industrial strategies to align policy instruments with policy goals. The US CHIPS and Science Act (Box 6) and Brazil's Health-Economic Industrial Complex (Box 7) offer two examples.

Box 6: US CHIPS and Science Act

The 2022 CHIPS and Science Act aimed to boost semiconductor production in the US, providing approximately $53 billion in incentives for semiconductor research, development, manufacturing and workforce development (Mazzucato and Rodrik, 2023).

IIPP advised the US Department of Commerce on how to incorporate various forms of conditionality into the Act and Notice of Funding Opportunities. The conditionalities that were embedded include prohibiting the use of government funds for stock buybacks or dividends and indicating a preference for applicants who generally commit to avoiding stock buybacks (National Institute of Standards and Technology and United States Department of Commerce, 2023). Additionally, recipients with projects costing $150 million or more must share profits with the Government if they exceed a certain threshold. Applicants seeking more than $150 million in direct funding must also provide a plan for access to childcare for facility and construction workers. Applicants must also outline how their proposal aligns with the program's priorities, such as workforce development and investment in R&D, and how they will contribute to broader impacts, including with respect to climate and environmental priorities. Contrary to concerns that these conditions might be regarded as overly burdensome, the response has been strong. In the year after launching the first Notice of Funding Opportunity, over 600 expressions of interest were received from companies across 42 states, and companies announced over $166 billion in investments in semiconductor and electronics manufacturing (White House, 2023).

This example demonstrates how the US government is using industrial strategy to

influence private-sector behaviour and achieve broader policy objectives. However, these conditionalities could arguably have been stronger, with greater external accountability and transparency. Many take the form of application criteria, rather than explicit requirements – with proponents required to submit plans and make commitments as part of the application process, which are then evaluated and subject to negotiation behind closed doors post-bid.

It can be challenging to calibrate conditions on access to public sector support in a way that balances flexibility with accountability. While it is important for governments to avoid being overly prescriptive about how conditions are met, to ensure room for innovation, it is also important to avoid a process that lacks transparency and minimum standards. This may require changes to procurement rules or other policy frameworks, and innovative approaches that bring different stakeholders to the negotiating table, such as community benefit agreements. To ensure that the public interest is maximised in a transparent and accountable way, consideration should be given to designing the conditionalities embedded in industrial policies, where possible, to be ambitious, fixed and measurable and established in a consultative way with communities and labour unions.

Box 7: Productive development partnerships within Brazil's Health Economic-Industrial Complex

The Brazilian Government created its national health service, the Unified Health System (SUS) in 1989, which established health as a universal right for all Brazilians. However, by 2021, Brazil confronted mounting challenges in its health sector, exacerbated by the COVID-19 pandemic. The period between 1982 and 2002 saw dwindling health investment and tariff reductions, which spurred a surge in imports of active pharmaceutical ingredients (API) and a sixfold increase in imports of finished product imports (Mazzoleni and Póva, 2009). Established in 2007, the Health Economic-Industrial Complex (HEIC) emerged as a solution to mitigate the growing trade deficit.

HEIC took a mission-oriented approach, aligning an overarching societal goal of health for all with concrete economic objectives. To strengthen Brazil's technological and manufacturing capacity, while upholding the universal right to health, HEIC has prioritised the design of public–private relationships aimed at maximising public value.

HEIC's productive development partnerships (PDPs) aim to widen healthcare access and boost the technological capabilities of the country's health-pharmaceutical sector. Setting up a PDP and gaining access to Brazil's domestic market is conditional on technology transfer and access agreements. AstraZeneca and Brazil's Fiocruz signed a technology transfer pact during the COVID-19 pandemic in July 2021. Within a month of receiving the API in March 2022, Fiocruz dispatched its inaugural vaccines to the National Immunisation Program (NIP), taking advantage of Brazil's position as a key vaccine producer in Latin America.

PDPs have led to price reductions of up to 30 per cent for strategic health products, which have yielded significant savings for the Ministry of Health. They have also enhanced governmental oversight by revealing cost information, which has helped to counteract monopolistic practices like price collusion. As of 2021, 81 active PDPs have facilitated technology transfer and domestic production of numerous healthcare products (WHO, 2023).

3.3.2 Participation and co-creation

Importantly, missions should not be understood as a top-down or prescriptive approach to policy making. While the goals must be clear and bold, and play a coordinating function, it is important for governments to leave open how they will be achieved to foster innovation and engage a wide array of actors in an outcomes-oriented way. Ideally, the goals should address society-wide challenges and resonate with a wide range of people, speaking to priorities that people care about in their day-to-day lives, building excitement, and sparking the development of bottom-up solutions informed by different expertise and lived experience.

Vitally, labour unions must be given a meaningful seat at the table in shaping industrial strategy. A successful industrial strategy will have transformative impacts on the economy, potentially leading to growth and new jobs in some areas, and contraction in others. How this change is managed is critical. The success of industrial strategy depends on giving labour unions a strong voice in shaping the nature of the jobs that result, the role of workers in participatory innovation, and the support available to workers whose jobs may be disrupted.

Governments can prioritise civil society, community and labour union participation in mission-oriented industrial strategy in various ways.

Strong labour protections, education and welfare provisions are a necessary

foundation upon which mission-oriented industrial strategy should rest. Tools such as sectoral bargaining, which allows labour standards to be negotiated with an entire sector rather than with each company individually, can lead to improvements in job quality that extend to many firms, not only those receiving government support. Building on these foundations, conditions on access to public funding and other benefits can further require firms that benefit from government support to pay fair wages; provide jobs that are safe, secure and benefit from important social protections; invest in worker training; and commit to neutrality or to providing a safe environment for union organising. They can also require different forms of community engagement and investment. Ideally, such requirements should be established in a consultative, transparent and accountable way. Community benefit agreements are one tool for empowering communities to advocate for terms that align with their needs.

A place-based lens, supported by strong national to local collaboration, is also critical. It is important for solutions to benefit from local-level and user-based insights, for progress to be visible, and for policy instruments that fall within the remit of different tiers of government to be joined up. Cities or regions may also opt to become test beds for innovative demonstration projects that can subsequently be scaled up. How a mission translates into implementation will vary from place to place, as will the specific support and policy measures required to enable implementation, depending on local-level realities (Mazzucato et al., 2024). Lessons should be captured and shared across regions and nations, through feedback loops that facilitate learning. US industrial strategy includes a strong focus on place-based investment, notably prioritising investment in economically distressed regions, which requires state and local-level capacity for implementation to ensure that funds are flowing where they need to go and are structured to have their intended benefit. However, despite strong progress on macroeconomic indicators, implementation is running into challenges at the local level and many Americans do not feel that US industrial strategy benefits them (Gangitano, 2023).

The voices of marginalised groups can also be explicitly prioritised in industrial strategy missions. In Colombia, for example, the government has made designing policies in the interests of the “popular economy” – that is, the economic activities (often informal) that most of the population engages in, at the community level – a cross-cutting priority for achieving the bold goals set out in its National Development Plan.

In addition, in partnership with civil society, labour unions and business, governments can develop principles to help guide their missions. In Barbados, the Social Partnership developed principles related, for example, to worker empowerment,

citizen participation and "sharing the burden and the bounty" between the public and private sectors (see Box 8). In Australia, the Australian Council of Trade Unions (ACTU) developed nine principles to help shape the government's industrial strategy, including the need for "First Nations Justice", "Good Jobs and Training For All", and "Most Need, Most Risk, Most Support". Another example is a framework recently published by IIPP that sets out a mission-oriented and human rights-based approach to housing, which underlines the importance of embedding human rights-based principles in how the housing crisis is tackled (Mazzucato and Farha, 2023; see Figure 8) – recognizing that at least 1.8 billion people are living without a home or in grossly inadequate housing, including in informal settlements, and many more find themselves facing unaffordable rents and evictions, rising housing costs and energy poverty, or living in homes ill-suited to increasingly frequent extreme temperatures and climate-related disasters, such as floods and hurricanes (International Monetary Fund, 2022).

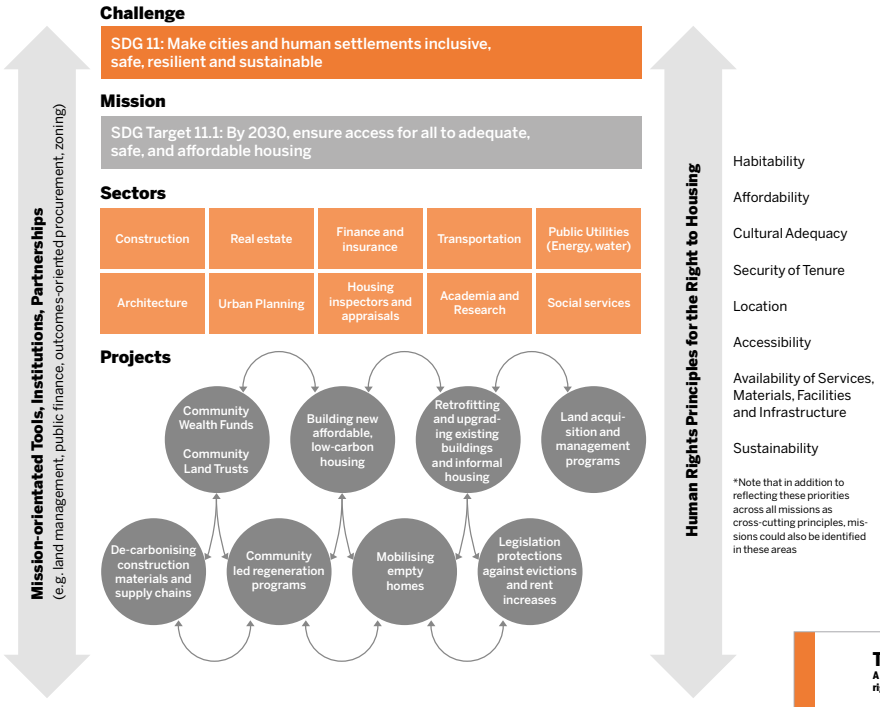


Figure 8: A mission-oriented and human rights-based approach to housing (Mazzucato and Farha, 2023).

Box 8: Participatory missions in Camden

The London Borough of Camden faces deep social, economic, and health inequalities. While it hosts numerous businesses and cultural sites, 43 per cent of Camden's children grow up in poverty, and the borough has a significant ethnicity employment gap. In response to these challenges and to build a more inclusive community, Camden Council launched Camden 2025, a vision developed with input from citizens through assemblies, public events and surveys. Following the COVID-19 pandemic, the need to address inequality became even more urgent, leading to the establishment of the Camden Renewal Commission in September 2020.

The Camden Renewal Commission, co-chaired by Professor Mariana Mazzucato and former Council Leader Georgia Gould, developed four key missions to guide the borough's recovery:

1. By 2030, ensure that those people in positions of power in Camden reflect the community's diversity.
2. By 2025, provide every young person with access to economic opportunities that ensure their safety and security.
3. By 2030, guarantee that everyone eats nutritious, affordable and sustainable food daily.
4. By 2030, create creative and sustainable estates and streets in Camden.

These missions aim to reduce inequality and create a fairer, healthier and more sustainable local economy. Camden Council has fostered meaningful community participation and innovation in the context of its mission programme. For example, the "We Make Camden" grant provides funding and support for community-led projects. Early successes include community-driven food initiatives, youth engagement summits and pilot projects for sustainable housing and public spaces (Conway et al., 2022).

These four missions are now shaping how Camden Council is designing its tools – like public procurement (see Box 4) – and institutions – like community wealth funds (see Section 3.2.1).

Box 9: The Social Partnership in Barbados

The Social Partnership was created in Barbados in 1993 as a tripartite forum for dialogue and collaborative problem solving among government, trade union and employer representatives, with a view to developing a united response to the country's social and economic challenges. Social Partnership meetings are chaired by the prime minister. A sub-committee of the Social Partnership generally meets monthly and refers to the full Social Partnership matters that relate to strengthening the partnership or to advancing the social and economic development of the country. The Social Partnership agrees on protocols to guide its work every few years. The most recent protocol took the form of six missions announced on May 3, 2023, which the government, through the Social Partnership, aims to achieve by 2030. The Social Partnership offers a strong basis for collaboration among government, private sector and labour leaders in Barbados oriented around the common good (Mazzucato, 2023d).

The Social Partnership has helped to ensure that Barbados' missions are governed with clear principles around capital–labour relations, identity and inclusion. Through consultations with the Social Partnership, the Government of Barbados developed eight principles that cut across the country's six missions. These principles are: protecting the planet; safeguarding and promoting Barbados' culture and identity; enfranchising workers and reducing poverty; encouraging innovation and digitalisation; protecting the health, safety, and food security of the people of Barbados; leveraging Barbados' geographical location as a logistics hub; fostering citizen participation and cocreation; and designing symbiotic partnerships that share the burden and the bounty between the public and private sectors and labour. The intention is for every policy, tool, institution and partnership that is leveraged to achieve Barbados' missions to be designed in a way that accounts for these principles (see Figure 9).

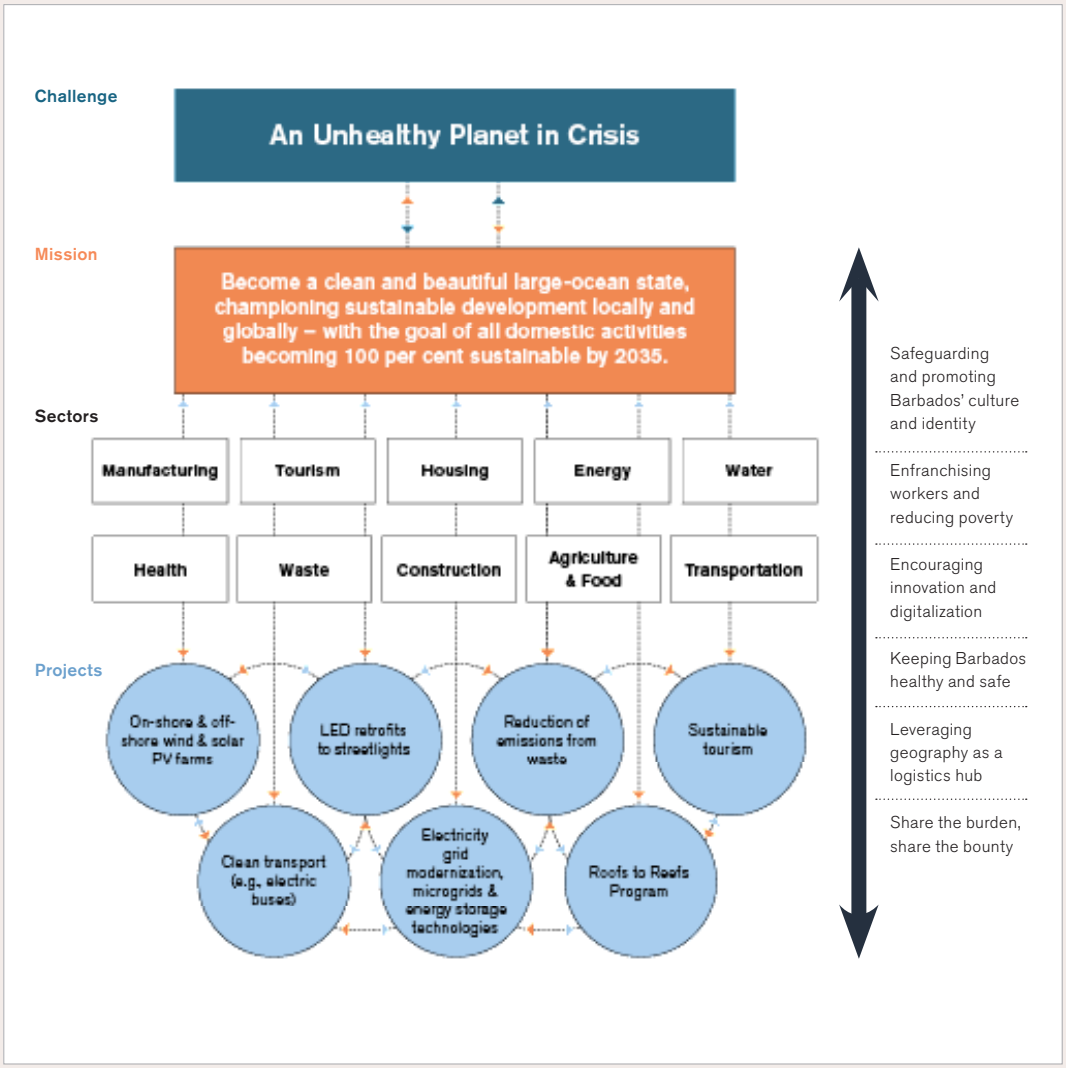
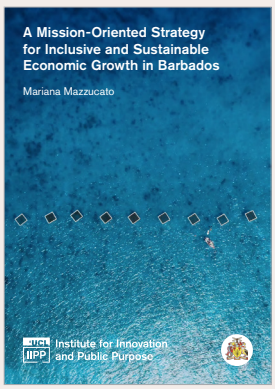


Figure 9: Principles in Barbados missions, ensuring the how matters as much as the what (Mazzucato, 2023d).



3.4 Public sector capabilities

A mission-oriented industrial strategy requires leaders within government to recognise their role as value creators who are responsible for directing and shaping economies. This shift demands a more proactive and dynamic role for the state, not least because it requires the state to take risks through choosing a particular direction of change. Realising this potential will require governments to invest in their own capacity to operate in ways that are more dynamic, risky, iterative and networked.[1]

This idea goes against the grain of policies that have downsized and dismantled key structures of government around the world. There is an ongoing trend of governments outsourcing core capacities to large consulting firms. The consulting industry has grown rapidly over the past 20-30 years. Today, the global consulting services market is estimated to be worth around $700 to $900 billion (Wooldrige, 2023). The Big Four — Deloitte, EY, KPMG, and PwC — reported global revenue increases of between 8% and 18% in their 2023 annual results (O'Dwyer and Walker, 2023). This trend is undermining the ability of governments to learn-by doing because there are systemic disincentives for large consultancies to help clients learn, creating a parasitic culture of dependency. What is more, when activities are outsourced to consultancies as a way to legitimate political and corporate decisions or "rubber stamp", decision-making processes can be obfuscated and transparency lost. Finally, governments are losing bright candidates to consulting firms (Mazzucato and Collington, 2023). Indeed, investing in government capacity means both developing the capabilities of existing civil servants and creating mechanisms to attract top talent to work within government.

Public sector capabilities can be broken down into three interconnected layers: state capacities, organisational routines, and dynamic capabilities of public organisations.

1 The objective of the UCL Institute for Innovation and Public Purpose (IIPP) is to rethink the state. This includes designing and delivering a new curriculum for civil servants and bringing together global public sector organisations with a mandate to shape and co-create markets through IIPP's Mission-Oriented Innovation Network (MOIN). In an effort to merge theory and practice, IIPP is developing a Public Sector Capabilities Index, which will be the first global measure of where government capacity is strong and where further public sector skills are needed (UCL IIPP, 2024).

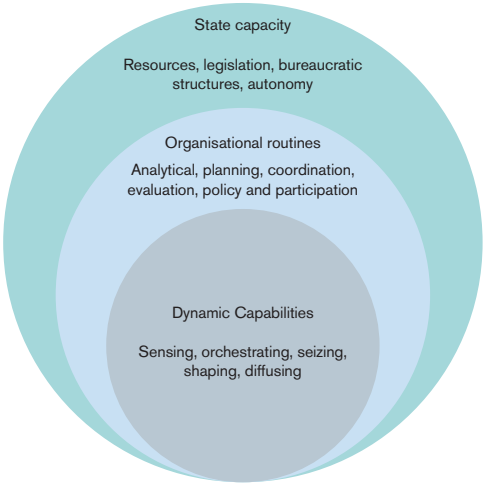


Figure 10: The three dimensions of public sector capabilities (Kattel et al., 2024).

State capacity involves establishing coherent bureaucratic institutions staffed by civil servants who possess expertise that is pertinent to their roles. This includes the ability to mobilise and allocate financial resources through mechanisms like taxation and investment. This concept builds on Max Weber's ideas and emphasises the state's political 'autonomy', which refers to its capacity to operate without undue interference from economic actors and interest groups.

Organisational routines encompass the abilities required to mobilise a set of resources, including financial assets, tangible and intangible assets, and employee skills, to meet organisational objectives. In public organisations, these routines are embedded in both formal and informal routines and can be categorised into six types that are essential for performing policy functions: analytical, planning, coordination, evaluation, policy and participation. These capabilities typically focus on maintaining stable and consistent organisational performance. However, these stable routines should ideally be complemented by adaptability and the incorporation of innovative processes, which is achieved through a subset of organisational capabilities known as dynamic capabilities.

Dynamic capabilities are specific abilities that enable organisations to adapt their resources, processes and skills in response to an evolving strategic environment (Kattel et al., 2024).

More specifically, the following dynamic capabilities are important for the successful development and implementation of mission-oriented industrial strategy: coordinating within and across government actors; designing policies, tools, institutions and partnerships that are mission- or outcomes-oriented;

designing and negotiating contracts that lead to symbiotic public–private collaboration; engaging in user- and citizen-centred public service design; governing data and digital infrastructure to serve mission goals and the interests of the common good; and monitoring and evaluating progress to enable learning and adaptation in a context of uncertainty (Mazzucato and Kattel, 2020; Mazzucato et al., 2024).

The next three sections explore three core areas – public innovation labs, digital capabilities, and dynamic evaluation – in more detail.

3.4.1 Public innovation labs

Developing public-sector appetite for risk taking and experimentation, and empowering civil servants to embed these capabilities to achieve policy goals, will not happen quickly. Some governments have recognised this challenge, creating dedicated spaces – often called innovation labs – that are explicitly set up to "sandbox" innovative ways of developing policy. One example is the Chilean Government's Laborarotorio de Gobierno, which was established in 2015 as a state agency under the Chilean Ministry of Finance.

These spaces create permission for making mistakes and learning from them. They can enable a more agile approach to prototyping and scaling policy solutions that may be needed for mission success; for example, new procurement rules that are mission-oriented and enable innovation.

Public innovation labs can support mission-oriented industrial strategy in several ways (Mazzucato, 2022):

(i) **Learning through sandboxing:** Sandboxes are a virtual or physical space that civil servants can use to work with stakeholders and test solutions in a safe environment. One example is a "regulatory sandbox" that allows selected firms to work with regulators to jointly explore, trial and test innovative products, services and business models with exemptions from some regulatory requirements.

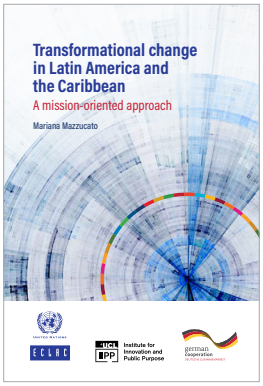
(ii) **Participation:** In most cases, innovation labs are designed to enable co-creation with citizens, businesses and other parts of government.

(iii) **Mission-led approach:** These spaces can be dedicated to designing public policies and services that align with mission goals, becoming drivers of outcomes-oriented innovation that better equip governments to work effectively with partners in the pursuit of mission goals.

(iv) **Building capabilities:** Innovation labs work according to the principle of learning by doing. They encourage risk-taking and experimentation and, in the process, help to develop and demonstrate the value of dynamic public service capabilities.

(v) **Peer learning:** Public innovation labs function as platforms for knowledge sharing and demonstrating best practices. They play a valuable role in sharing lessons from both successes and failures across government actors.

However, public innovation labs are typically small and tend to be short-lived. While a key strength is flexibility, labs are comparatively easy to shut down, defund or ignore, and their survival depends on political patronage. Labs also face constraints in terms of operational capacity and their favoured (design) methodologies, which clash with standard policy processes and bureaucratic structures. It is critical for these labs to be treated seriously as tools for achieving the government's goals. Vitally, dynamic capabilities should be embedded across government, rather than only isolating them in a specific public lab-type institution.



3.4.2 Digital capabilities

Although digital tools have become pervasive, government capabilities have not always kept pace. Digital tools are central across all areas of government operations, from capturing data to inform policy design, to managing complex information and service delivery systems, to ensuring that services and information reach citizens where they are, when they need them, in ways that work for them. They are also central to the market dynamics that governments are responsible for regulating and shaping.

A key area in which digital capabilities intersect with industrial strategy design is digital public infrastructure (DPI). DPI is "society-wide, digital capabilities that are essential to participation in society and markets as a citizen, entrepreneur, and consumer in a digital era" (Eaves et al., 2024). DPI can include digital identities, digital payments, and consent-based data sharing (UNDP, 2023). These and other areas of DPI are an important foundation for mission-oriented industrial strategy.

However, technology is not neutral. Civil servants need digital capabilities to design DPI with a view to maximising its public value; for example, to ensure that it is inclusive, accessible, interoperable and publicly accountable. Public value

maximisation can be informed by the following "common good" design principles: purpose and directionality, co-creation and participation, collective learning and knowledge-sharing, access for all and reward-sharing, and transparency and accountability (Mazzucato, 2023b). Well-designed DPI can support business innovation, enable citizen participation, and allow for more adaptive and responsive services that meet the needs of the people, businesses or organisations they are intended for (Eaves et al., 2024).

Box 10: Embedding purpose in the civil service through missions in Bangladesh

In 2007, only 10 per cent of Bangladeshi civil servants used computers, which resulted in slow, manual and paper-based public services. Citizens faced significant inconvenience, costs and corruption to access essential services. The government's administrative and transactional costs were high. As Bangladesh aimed to transition from a least developed country (LDC) and address issues like food security and corruption, the Digital Bangladesh goal was set to help transform the nation by 2021. However, centralised decision-making and a lack of innovation tools hindered public service improvements. In response, the Prime Minister's Office launched the Aspire to Innovate (a2i) initiative. Aligned with the country's national strategy, Smart Bangladesh Vision 2041, the initiative aims to drive inclusive, citizen-centric digital transformation.

Smart Bangladesh Vision 2041 is driven by six socio-economic missions:

1. High-income: GDP per capita of at least $12,500
2. Poverty-free: 0 per cent extreme poverty and under 3 per cent poverty
3. Macroeconomically stable: Low inflation (4–5 per cent), low deficits (5 per cent of GDP), increased investment (40 per cent of GDP), and increased tax revenue (20 per cent of GDP)
4. High human development: 100 per cent high-school education including digital literacy, and 100 per cent health financing for everyone while making the best use of the country's demographic dividend
5. Sustainable urbanisation: 80 per cent urban nation with 100 per cent electrification, the majority of which comes from renewable sources
6. Service at fingertips: 100 per cent public services paperless and cashless, and at the fingertips of 100 per cent citizens in the way they desire

Guided by these missions, a2i cultivated a citizen-centric public service culture centred on purpose, autonomy and competence. The initiative introduced the goal of reducing TCV (time, cost and visits) for citizens to access services, making innovation a means to enhance citizen experience. Civil servants were given autonomy to experiment and the 'licence to fail' through the Service Innovation Fund, supporting over 1,187 innovation pilots with US$4.5 million in funding. Empathy training and service process simplification equipped civil servants with tools to understand and address citizens' challenges. This approach fostered a sense of purpose and competence, encouraging civil servants to innovate and improve public services.

Recognising that digital expansion alone does not ensure inclusion, a2i designed a 'phygital' public infrastructure combining digital and physical elements to enhance accessibility. Over 9,000 digital centres, located within walking distance for villagers, provide over 300 services, including birth registration and financial services. To encourage women, especially those from rural areas, to access services, women were recruited to operate these centres. This inclusive approach ensures that digital services reach marginalised communities, promoting both digital inclusion and gender equality (Goulden, 2024).

3.4.3 Dynamic evaluation

Monitoring and evaluation must evolve to align with the goals of mission-oriented industrial strategy. Static measures like cost benefit analyses, which look only at the direct impact of a policy in monetised terms, emphasising cost reduction and efficiency, and reductive macroeconomic indicators like GDP, fail to consider the wider transformative and long-term impacts of well-designed mission-oriented industrial strategy.

If defined as time-bound, clear and measurable goals, missions carry inherent success metrics that can be used to determine whether the mission has been achieved. However, these goals are generally long-term, and indicators for tracking progress, fostering learning and iteration, and creating accountability in the interim are important.

A dashboard of economic, social and environmental indicators can be used for monitoring the success of missions. Indicators should reflect mission goals as well as values that are important in how the mission is achieved; for example, related to distributional (equity) effects (Zehavi and Breznitz, 2017). Evaluation frameworks

should consider not only whether a policy intervention is working but who it is working for and why; go beyond the direct impact of the intervention to consider its dynamic spillovers and economic multiplier effects as well as its wider societal impacts; and consider impacts at both the project and portfolio levels (Mazzucato et al., 2020; Mazzucato et al., 2024). Importantly, missions can have significant positive effects even if the mission fails.

Accordingly, accountability can be based on a wider definition of public value creation, including indicators that reflect second-order effects and ecosystem-wide transformation, a portfolio approach that takes a systems view rather than evaluating each investment, project or partnership individually, removal of barriers to transformation and, ultimately, achieving or not achieving the mission goals.

	Market fixing	**Market shaping/mission-oriented**
Justification for the role of government	Market or coordination failures: ▪ Public goods ▪ Negative externalities ▪ Imperfect competition/information	All markets and institutions are co-created by public, private and third sectors. Role of government is to ensure markets support public purpose
Business case appraisal	*Ex-ante* CBA-allocative efficiency assuming static general relationships, prices, etc.	Focused on systemic change to achieve mission–dynamic efficiency (including innovation, spillover effects and systemic change)
Underlying assumptions	Possible to estimate reliable future value using discounting/monetisation of externalities/risk assessment; system is characterised by equilibrium behaviour	Future is uncertain because of potential for novelty and non-marginal change; system is characterised by complex behaviour
Evaluation	Focus on whether specific policy solves market failure and whether government failure avoided (Pareto-efficient)	Ongoing and reflexive evaluation of whether system is moving in direction of mission via achievement of intermediate milestones. Focus on portfolio of policies and interventions, and their interaction
Approach to risk	Highly risk averse; optimism bias assumed	Failure is accepted and encouraged as a learning device

Figure 11: Moving from a market-fixing to a market-shaping approach to evaluation (Mazzucato, Kattel and Ryan Collins, 2020).

3.5. Industrial strategy and global cooperation

Industrial strategy is often critiqued for being protectionist, providing advantages to larger, better-off economies at the expense of low and middle-income countries. However, this is not a fixed feature of industrial strategy. As this report has shown, industrial strategy includes a wide array of tools and can be designed in very different ways to influence the distribution of resources across industries

within an economy. How it is designed will determine whether it reinforces systemic inequalities in the global economy, increasing trade friction, or helps to address these inequalities, driving innovation and economic growth with positive global spillovers.

Importantly, orienting industrial strategy around missions means aligning it with challenges that are often global in scope. For example, tackling climate change is a global challenge that will not be overcome if some countries achieve their nationally determined contributions (NDCs) and others do not. NDCs will be harder to achieve if governments lack the fiscal space needed to advance their own mission-oriented industrial strategies, if investment is being diverted to more lucrative opportunities elsewhere, or if the global market opportunities available to businesses based in these countries are being limited by trade barriers.

Moreover, achieving missions in one country often relies on global supply chains. Notably, decarbonising energy and transportation systems requires access to critical minerals that are based in certain countries, largely in the Global South.

Therefore, it is critical to embed principles of global equity in how mission-oriented industrial strategies are designed, and to ensure that they are coordinated and aligned with *global* missions linked to the SDGs. This requires careful design that avoids problematic forms of protectionism that could significantly impact the ability of other countries to achieve inclusive and sustainable economic growth.

Equity will also need to be placed at the heart of global financial and trade regimes; otherwise, industrial policies will be less viable for small to middle-income countries. It is critical that all countries are allowed the fiscal space to advance such strategies. This requires reform to the global financial system to deal with issues such as sovereign debt crises. The Bridgetown Initiative has been successful in bringing global attention to this agenda (Mazzucato, 2023d). There is a notable opportunity to align the mandates of multilateral, regional and national public development banks around shared missions aligned with the SDGs (Mazzucato, 2023c). If an MDB or regional development bank (such as the African Development Bank) lends in a mission-oriented way to a NDB (for example, the Development Bank of Southern Africa), and if the NDB then lends to the private sector with conditions attached linked to transformational change, then a multiplier effect can result that goes way beyond the total funds in MDBs and NDBs. To borrow language from UN Secretary-General Antonio Guterres, this could lead to an SDG multiplier.

Industrial strategy has the potential to be mutually beneficial or generate tensions. Enhanced fora are needed for inclusive dialogue to resolve disputes and ensure

the benefits of industrial strategy are shared.

These topics are a focus of forthcoming work from the Group of Experts to the G20 Task Force for the Global Mobilization Against Climate Change, co-chaired by Professor Mariana Mazzucato and Dr Vera Songwe.

4. COMMON MYTHS THAT IMPEDE MISSION-ORIENTED INDUSTRIAL STRATEGY

While interest in mission-oriented industrial strategy is growing, its success can be impeded by old assumptions about what industrial strategy should focus on, its role in catalysing and directing growth, and the government's role in implementing it. Some of these myths and misconceptions are highlighted below. Examples from countries advancing new approaches to industrial strategy are referenced for illustrative purposes. In many respects, these countries exemplify ambitious, promising approaches to industrial strategy; however, implementing a mission-oriented approach to industrial strategy is not easy and these examples highlight potential challenges and pitfalls.

	Myth		Reframe
1.	Growth is the mission.	→	Growth is the result of missions.
2.	Digital transformation, skills development and R&D investment are missions.	→	Digital transformation, skills development and R&D are examples of horizontal conditions for mission success.
3.	There is no money.	→	There is money if missions help to expand the productive capacity of the economy.
4.	Industrial strategy must pick winners.	→	Industrial strategy should pick the willing.
5.	The process of defining missions is technocratic.	→	Missions are about big-thinking government working in partnership with citizens, labour and business.
6.	The public sector should de-risk the private sector.	→	The public and private sectors should share risks and rewards.
7.	Missions are top-down.	→	Missions should be designed to stimulate bottom-up solutions.
8.	Missions are easy.	→	Missions require embracing difficulty.

Figure 12: Debunking myths about mission-oriented industrial strategy

1. Myth: Growth is the mission.
   Reframe: Growth is the result of missions.

Governments may be compelled to set growth, or macroeconomic indicators such as GDP, as a mission, rather than seeing growth as an outcome of well-designed missions. In the UK, the Labour Party has set out an ambitious, mission-oriented agenda. Some of its missions, such as achieving clean energy by 2030, reflect the potential of missions to bring economic, social and environmental goals into alignment, catalysing growth on the way to achieving a goal that benefits people (lower bills and greater energy security) and planet (carbon emissions reduction). However, one of its missions is to "kickstart economic growth" and "secure the highest sustained growth in the G7 – with good jobs and productivity growth in every part of the country making everyone, not just a few, better off" (Labour Party, 2024). While this mission is vital, it is more likely to be achieved by setting ambitious goals that require innovation and investment. The resulting innovation can generate spillovers, boost productivity and lead to a multiplier effect. Macroeconomic indicators like GDP should be understood as the outcomes rather than the targets of economic policy.

2. Myth: Digital transforation, skills development and R&D investment are missions.
   Reframe: They are horizontal conditions for mission success.

Governments may identify a horizontal condition for mission success as the mission. For example, Brazil's industrial strategy makes digital transformation one of its missions, instead of framing it as a cross-cutting enabler that will be required to achieve all missions (Government of Brazil, 2024). Investments in areas such as advanced digitalisation, seamless transportation networks and a highly skilled workforce are vital, but they are a means to an end, not the goal itself. Importantly, missions will provoke advancements in these areas where needed to achieve mission goals.

3. Myth: There is no money.
   Reframe: There is money if missions help to expand the productive capacity of the economy.

Many governments continue to fall into the trap of austerity, believing that they must focus on public debt reduction and wait for growth before investing in social and environmental priorities, to keep the debt-to-GDP ratio in check. For example, the European Parliament recently passed new debt reduction rules that are putting pressure on EU states to adopt austerity measures that will limit the fiscal

space available to invest in climate and social priorities. This decision reflects a failure to recognise that debt-to-GDP is a ratio. Focusing on debt reduction (the numerator) at the expense of investing in the long-run drivers of investment-led growth (the denominator) will not reduce debt-to-GDP and may even cause it to escalate.

Importantly, the rules governing international finance are similarly limiting the fiscal space available to low- and middle-income countries to make vital investments that are necessary for climate change mitigation and adaptation, social inclusion, health and economic development. There is enough finance globally to tackle big challenges – the problem is that finance is not going where it needs to go. The climate crisis provides a good example. The estimated $4 trillion p.a. needed to fight climate change and achieve the SDGs represents just 1 per cent of total global financial assets, currently valued at more than $470 trillion (UNCTAD, 2023). In 2023, countries collectively spent US$7 trillion to subsidise fossil fuels, substantially more than the current $4.3 trillion climate financing gap (Black et al., 2023). Companies also continue to invest in fossil fuels. Based on projections by the industry analyst Rystad Energy, the 20 largest oil and gas companies are expected to invest $932 billion in developing new oil and gas fields in just nine years (Global Witness, 2022).

4. Myth: Industrial strategy must pick winners.
   Reframe: It should pick the willing.

The default is to focus industrial strategy on specific sectors or technologies. In the US, for example, although the Biden Administration's industrial strategy has focused on clean energy goals and horizontal investments (for example, in transportation and digital infrastructure, and R&D), it has also prioritised sector-specific investments, notably in building a globally competitive US semiconductor industry through the CHIPS and Science Act. While these investments could yield important outcomes, not only for the US economy but also for the environment and for workers – particularly given the conditions set on access to CHIPS funding – their sector specificity may limit their potential to catalyse innovation or spur economy-wide transformation and concentrate the state's big bets within one sector and area of technology. In contrast, by orienting industrial strategy around bold policy goals instead of around sectors or technologies, missions create opportunities for willing firms from all sectors, can have a greater catalytic effect on innovation and growth, and align a country's broader growth strategy with its sustainability and inclusion goals.

5. Myth: The process of defining missions is technocratic.
   Reframe: Missions are about big-thinking government working in partnership with citizens, labour and business.

Industrial policies may get bogged down in technocratic language that fails to resonate with people or to create a clear north star for cross-sectoral investment, innovation and collaboration. For example, the first mission in Brazil's industrial strategy is "sustainable and digital agro-industrial supply chains for food, security, nutrition and energy" and its corresponding target for 2033 is to "increase the share of the agro-industrial sector in agricultural GDP to 50% and achieve 70% mechanisation of family farming establishments, with the supply of at least 95% of the market for nationally produced machinery and equipment, ensuring environmental sustainability" (Government of Brazil, 2024). While this mission brings together economic, wellbeing, climate and security goals, its framing may not be clear and inspiring in terms of its relevance to people and communities, or in terms of the transformation required to achieve this target across sectors. It could be reframed as, for example, "every Brazilian will have access to three meals a day that are healthy and sustainable", a goal that would require investment and innovation across sectors (for example, agri-food, transportation, energy, information and communications technology, and manufacturing), investment in key enablers (such as mechanisation of farms) and redesign of key policy tools (for example, public procurement of school meals). This mission could result in improved health and wellbeing outcomes, contributions to climate and sustainability goals, and increased productivity and growth, but the likelihood of success could increase if it was framed to spark widespread interest and engagement and to speak directly to the needs of people.

6. Myth: The public-sector should de-risk the private sector.
   Reframe: The public and private sectors should share risks and rewards.

Through industrial strategy, governments provide substantial benefits to firms. By setting conditions on access to public funding and other benefits, governments can orient public-private collaboration around common goals, share both the risks and the rewards of investment and innovation (including through profit sharing), and maximise the public value of public investments (including by ensuring affordable access to the resulting products or services, or requiring reinvestment of profits in productive activities like R&D). Instead of focusing on being business friendly, governments can create market opportunities for business that align with their missions and ensure that how the businesses receiving support operate

is good for people and the planet. In the case of the CHIPS and Science Act in the US, for example, important conditions have been placed on access to CHIPS funding, including limiting shareholder buybacks, requiring workforce development plans, mandating commitments to sustainability in construction and operations, and sharing profits. These conditions signal clearly the intent of the US government to share risks and rewards, but whether or not their ambition is realised in practice is still to be seen. Some conditions are clear and measurable, but many have been established as application criteria, with company commitments subject to closed-door negotiation post-bid. Maximising the public value of industrial strategy investments requires a thoughtful, confident approach to designing public–private collaboration that prioritises mission-alignment and public value creation, and that is transparent, accountable and informed by community consultation.

7. Myth: Missions are top-down.
   Reframe: Missions should be designed to stimulate bottom-up solutions.

Governments may be tempted to specify not only the mission, but how the mission will be achieved. However, being overly prescriptive about how to solve a challenge can stifle innovation and lead to sub-optimal outcomes. For example, a mission to achieve net zero could be designed to spark innovation in building materials and construction through specific, measurable, ambitious targets, without the government specifying that these targets must be achieved through a specific technological approach like modular housing or passive house design. Industry and community partners might choose to employ these approaches but would have the flexibility to identify and potentially develop new approaches that may be more effective in achieving the desired goal, less expensive, or better customised to the local context. Instead of employing a top-down approach, missions can stimulate the development of multiple, bottom-up solutions.

8. Myth: Missions are easy.
   Reframe: Missions require embracing difficulty.

Mission-oriented industrial strategy should not be mistaken for being easy. It is not enough for a minister, president or prime minister to declare a mission-oriented strategy. Success requires thoughtful redesign of key public sector institutions and tools, a new approach to partnerships, and investment in building the capacity of the civil service. Realising the full potential of mission-oriented industrial strategy requires a fundamental shift in how governments work.

5. Conclusion

Industrial strategy is on the rise around the world. At the same time, there is a growing recognition that economies will not be inclusive, sustainable or resilient in the face of crises unless they are designed this way from the start. Mission-oriented industrial strategy connects these dots, bringing economic, social and environmental goals into alignment.

Countries must decide what missions can help direct their economies. The challenges leading to these missions are similar globally: global warming, weak health systems, insufficient access to decent housing, and the need to govern our digital platforms in the public interest. How they play out will depend on local contexts and the ways that different stakeholders come together. A mission-oriented approach will ensure that industrial strategy creates opportunities not only for companies, but also for cross-sectoral innovation, investment and public–private collaboration that contribute to solving problems that matter to people and the planet. This is not about moderating growth; on the contrary, because missions require investment and innovation, they generate solutions (technological and organisational changes) with dynamic spillovers, like those that allowed us to reach the moon (camera phones, software, baby formula, etc.). Missions can lead to a new direction for growth that changes how value is created and distributed across the economy ex ante, enabling a predistributive approach.

Mission orientation that goes beyond window dressing requires fundamental changes in how governments work, to ensure that key institutions and tools are fit for purpose, that partnerships between economic actors are mutualistic, that new voices are brought into decisions about how the economy functions, and that the state has the necessary capabilities and confidence. The successful implementation of mission-oriented industrial strategy requires letting go of old assumptions about the role of the state in the economy, and instead recognising and investing in its transformational capacity.

We hope this report will aid governments that are seeking to make this change happen – striving for a bold vision, while paying attention to the vital details of implementation.

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About the Institute for Innovation and Public Purpose

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IIPP works with partners to develop a framework which challenges traditional economic thinking, with the goal of creating, nurturing and evaluating public value in order to achieve growth that is more innovation-led, inclusive and sustainable. This requires rethinking the underlying economics that have informed the education of global public servants and the design of government policies.

IIPP's work feeds into innovation and industrial policy, financial reform, institutional change and sustainable development. A key pillar of IIPP's research is its understanding of markets as outcomes of the interactions between different actors. In this context, public policy should not be seen as simply fixing market failures, but also as actively shaping and co-creating markets. Re-focusing and designing public organisations around mission-led, public purpose aims will help tackle the grand challenges facing the 21st century.

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