A Green, Fair and Growing Scotland:

A mission-oriented approach

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FUTURE ECONOMY SCOTLAND
DECARBONISE / DEMOCRATISE / DECOMMODIFY

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- Democratise the economy: giving people and local communities a greater stake and a say over the assets and decisions affecting their lives.
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EXECUTIVE SUMMARY

Scotland's economy stands at a critical juncture, facing both enormous opportunities and unprecedented challenges. The Scottish Government has set out an ambitious vision for an economy that is 'fair, green and growing', and has committed to delivering a just transition to net zero by 2045. At the same time however, recent economic performance across the UK has been weak, climate targets have been missed, and inequalities remain high. These domestic challenges have been compounded by global economic headwinds, including the legacy of the Covid-19 pandemic, Russia's invasion of Ukraine, and the election of Donald Trump as President of the U.S.

If the Scottish Government is to close the gap between ambition and delivery, it cannot rely on making minor tweaks to the status quo – or simply reheating old orthodoxies. Neither must meeting economic goals involve sacrificing social and environmental objectives. Scotland *can* build a stronger and more productive economy while also transitioning to net zero and creating a fairer society. However, achieving this will require embracing a new and more joined-up approach to policy making – one that emphasises a more proactive role for the state in shaping Scotland's economy. Perhaps most importantly, it will also require ambitious measures to mobilise and direct investment. Scotland's chronic problem of low investment has long undermined living standards, stifled innovation and held back the net zero transition. Only through an investment-led, mission-oriented approach will Scotland be able to address its social and environmental challenges while also achieving higher productivity, living standards and prosperity. The return of industrial strategy across the world in recent years has made the need for bold action even more pressing. As growing numbers of countries have embraced industrial policies to respond to 21st century challenges, Scotland cannot afford to sit on the sidelines. In practice, small economies like Scotland face a stark choice: either act boldly to shape markets, or be shaped by global market forces.

The Scottish Government has recognised this, and in September 2024 published its first Green Industrial Strategy (GIS).[1] The publication of the GIS marks a crucial first step towards embracing a more proactive, market shaping role for the state in the economy. However, to achieve the Scottish Government's vision it must go further to embrace a whole-of-government approach to rethinking the role of the state. While attracting high-quality inward investment should continue to be a priority, Scotland cannot afford to assume

> **small economies like Scotland face a stark choice: either act boldly to shape markets, or be shaped by global market forces**

that luring global investors will deliver the necessary transformation. Instead, Scotland's industrial strategy must aim to awaken the 'animal spirits' among domestic firms and nurture new industrial and technological landscapes. This requires harnessing the full arsenal of industrial policy tools, public institutions and capabilities to drive structural change. This approach must recognise that challenges such as climate change do not just require a small number sectors to transform – they require *system-wide* transformation. Crucially, growth must not come at the expense of social and economic priorities – instead growth must be *directed* to deliver sustainable and inclusive outcomes by design. As outlined in our first paper published in July 2024, structuring Scotland's industrial strategy around a mission-oriented approach offers an effective means of achieving these goals.[2]

Crucially however, industrial strategy is not just about setting out new frameworks, or embracing ambitious rhetoric. Talking about 'missions' without acting will do little to tackle Scotland's intertwined challenges. In practice, implementing a mission-oriented industrial strategy requires changes to the way that policies are delivered, the way that resources are allocated, and the way that government and public institutions operate.[3] In this paper, we assess the Scottish Government's existing approach to economic strategy and policy, and outline a strategy for transforming its tools, institutions and capabilities around an ambitious mission-oriented approach.

The first area we assess relates to the coordination of policy tools. As the Scottish Government does not have control over all key economic policy levers, it is critical that all devolved tools are fully utilised to drive transformative change. The aim should be to create a more coordinated, joined up policy landscape aiming to co-create and shape new markets – not simply 'fix' market failures. We therefore recommend the following changes to ensure Scotland's policy levers are being harnessed most effectively:

- **Public procurement**: Scotland's sustainable procurement framework has placed it at the forefront of innovative procurement practice, but more can be done to maximise its transformative potential in practice. To strengthen the framework going forward, the Scottish Government should update award criteria and guidance to emphasise public value considerations over economic criteria, and ensure that procurement teams are engaged at the earliest opportunity to shape the process. To support this, the Scottish Government should provide additional funding to invest in procurement capacity building; invest in new analytical tools to track public procurement spending and local multiplier effects; and make all Fair Work First criteria mandatory conditions for all public procurement contracts.
- **Grants and subsidies**: The Scottish Government and its agencies provide a wide range of grants and subsidies, but these have built up over time in an ad-hoc fashion and lack strategic coordination. Going forward, the Scottish Government should undertake a comprehensive review of grants for economic development, and introduce a new set of new 'challenge prize' subsidy schemes aimed at creating and shaping markets critical to Scotland's industrial strategy. New conditionalities should be introduced for grants to better align risks and rewards, including a new 'Buy Scotland' framework to ensure public funding is being used to support Scottish firms and supply chains.
- **R&D and innovation funding**: Scotland's innovation support landscape remains complex and fragmented, and business and government R&D spending is comparatively low. Going forward, the Scottish Government should undertake a comprehensive review of Scotland's innovation funding landscape to align it with industrial strategy missions; replace duplication; and encourage more collaboration. The Scottish Government should also commit to double business spending on R&D by 2030, matched with additional funding for R&D grants to be delivered through the enterprise agencies.
- **Planning, development and leasing**: To fully seize the opportunities of the net zero transition, Scotland must ensure that its bountiful natural resources are managed effectively. To achieve this, the Scottish Government should create a new Scottish Land Agency with the power to purchase, develop and sell land strategically in the public interest – working in partnership with key stakeholders to ensure that land is brought forward to deliver housing, infrastructure, new towns and regeneration projects. The Scottish Government should also explore the costs, risks and benefits of taking equity stakes in future offshore wind developments, and strengthen conditionalities attached to future offshore leases to maximise investment and job creation in domestic supply chains.
- **Taxation**: Tax incentives can play a powerful role as part of an industrial strategy, but Scotland's system of business rates reliefs is arbitrary and ineffective. Going forward the Scottish Government should undertake a review of all reliefs on business rates to identify whether reliefs could be reformed to better support Scotland's industrial strategy. This should involve examining opportunities to replace the existing suite of reliefs with a new system that provides reliefs and/or penalties that are conditional on meeting certain social and environmental practices.
- **Skills and training**: Delivering a just transition in the labour market will require proactive steps to shifting employment from carbon intensive sectors to low carbon industries. The Scottish Government and Skills Development Scotland should undertake detailed analysis to identify potential occupational transition pathways for jobs at high risk of redundancy from decarbonisation, informed by extensive engagement with trade unions and industry groups. This should be accompanied by active labour market policies and increased funding to support the reskilling and retraining of workers in carbon intensive industries.

We then assess the importance of transforming public financing institutions. Today Scotland has a robust ecosystem of public agencies which will have a crucial role to play in supporting Scotland's new industrial strategy, both in terms of the distinct roles they play individually, and the way that they interact with each other. However, implementing Scotland's new industrial strategy will require public institutions to be more active in their role as co-shapers of markets. We examine two of Scotland's most important public institutions, and make the following recommendations:

- **The Scottish National Investment Bank (SNIB)**: The SNIB should revise its investment strategy to prioritise maximising additionality in support of its missions, rather than operating primarily on a commercial basis. This should include removing the Bank's prohibition on providing concessionary finance and developing a new suite of mission-oriented financial instruments designed to catalyse investment and innovation in areas underserved by private capital. The SNIB should also aim to bolster its internal capabilities in fields beyond finance, and explore establishing a skills sharing partnership with other successful European public investment banks. The SNIB's governance should be reviewed to ensure representation from government, civil society and trade unions, and the existing advisory board should be replaced with three 'Mission Boards'. Finally, the Scottish Government should prioritise engagement with HM Treasury to secure meaningful borrowing powers for the SNIB.
- **Scottish Enterprise**: In recent years Scottish Enterprise has embraced a new mission-oriented approach, which if implemented effectively can play a key role supporting Scotland's industrial strategy. To support this, we recommend that Scottish Enterprise reorients its financial support away from generic horizontal goals towards the organisation's three missions, and moves away from playing a 'gap filling' co-investor role towards scaling up its proactive strategic investments. We also recommend it takes steps to bolster internal capacity and draw on wider external expertise, and plays a more proactive coordinating role in the implementation of Scotland's industrial strategy. We also recommend that Scottish Enterprise undertakes a major exercise to explore the causes and consequences of Scotland's low business investment, and sets targets for raising business investment in key mission areas.
- **A new state holding company**: In recent decades the Scottish Government has occasionally acted as the 'lender of last resort' – stepping in to support firms facing financial difficulties. However, implementing a successful industrial strategy will require the government to play an important 'investor of first resort' role – acting boldly to create new technological and industrial landscapes. Going forward, the Scottish Government should establish a new state-holding company to consolidate existing state-owned assets and reinvest surpluses to acquire new assets. This should be accompanied by a review of Scotland's industrial capabilities to assess whether full or partial state-ownership of key sectors could help meet industrial strategy goals. Finally, we recommend that the Scottish Government sets out more transparent and consistent criteria for intervening to rescue struggling firms.

A mission-oriented approach cuts across many sectors and departments within the Scottish Government. As such, implementing it requires new governance models to enable cross ministerial and cross-sectoral alignment, and ensure a joined-up approach to delivery. This will also require strengthening dynamic capabilities and internal capacity within public bodies. We therefore recommend the following:

- **A whole-of-government approach to industrial strategy**: The Scottish Government should establish a new Industrial Strategy Council to assume responsibility for driving industrial strategy across the Scottish Government. Chaired by the First Minister, the Council should comprise of relevant Cabinet Secretaries, the Scottish National Investment Bank, Scotland's three enterprise agencies and Skills Development Scotland – with representation from trade unions and industry.
- **Strengthening public sector capacity and capabilities**: In recent years the Scottish Government has increasingly relied on private consultancy firms to shape key policies, while public sector capacity has been eroded through austerity. Going forward the Scottish Government should prioritise investing in internal capacities over outsourcing. This could be supported by creating a new Public Innovation Lab to support its industrial strategy, providing an opportunity to test out and "sandbox" new instruments and policies that, if successful, could be rolled out more widely as part of the industrial strategy.

With any economic strategy, it is critical to be able to determine if it is succeeding or failing, or if a change in direction is required. This requires a framework for monitoring and evaluating progress – both in terms of appraising individual policy interventions, and monitoring progress of the strategy overall. To support this we recommend:

- **New policy appraisal methods**: As traditional cost benefit analysis (CBA) can often prevent ambitious policies being implemented, the Scottish Government should develop a new suite of policy appraisal methods aimed at catalysing transformational change to complement CBA. These approaches could include multi-criteria analysis (MCA), and should aim to capture dynamic effects over time.
- **Monitoring Scotland's industrial strategy**: The Scottish Government should develop a tailored dashboard of economic and non-economic indicators to monitor the impact of Scotland's industrial strategy, building on the revised National Performance Framework. These should include new metrics relating to the five opportunity areas identified in the Scottish Government's GIS.

The Scottish Government has taken the important first step in publishing its first ever industrial strategy. However, it is critical that this marks the beginning of an ongoing effort to rethink the role of the state – and not the end. In recent years the Scottish Government has received criticism for publishing a lot of well intended reports and strategies, but then falling short when it comes to delivery and implementation. Given the scale of the challenges we face, it is not enough to simply talk the language of transformative change while making small tweaks to a broken system. The time has come to match ambitious words with meaningful action.

1. INTRODUCTION: RETHINKING THE ROLE OF THE STATE IN SCOTLAND'S ECONOMY

Over the past decade, governments worldwide have increasingly recognised the need for mission-oriented policies to address the grand challenges of the 21st century, especially climate breakdown and growing inequality. Industrial policy has experienced a revival, based not solely on sectors but on bold missions that address those challenges and demand collaboration and cross-sectoral work.[4] It is increasingly being recognised that economic growth has a direction as well as a rate, and that both are equally important for creating sustainable economies and societies.[5]

The Scottish Government has recognised this by setting out a bold vision for an economy that "thrives across economic, social and environmental dimensions".[6] This ambitious vision cannot be achieved through incremental policy changes, or supporting a small number of sectors to transform. Instead, it requires a wholesale transformation of Scotland's economy across multiple different sectors, and a fundamentally different approach to economic policy.

This need is compounded by Scotland's challenging economic outlook. Scotland's economy grew by a sluggish 1.2% in 2024, and this follows a prolonged period since the global financial crisis when Scotland's economy – like the rest of the UK – has underperformed relative to other advanced economies.[7] Average earnings in Scotland today are just £8 higher than they were 16 years prior in 2008 – equivalent to an increase of just 1% over the past 16 years.[8] This is unprecedented: never in modern times have Scots seen their earnings grow so little over such a long period. The economic outlook is further challenged by unpredictable global headwinds. Donald Trump's election as US President has created considerable uncertainty for the global economy, with key Scottish markets such whisky, salmon and textiles vulnerable to any potential new tariffs.

The need for transformative change is not just limited to economic policy. While the Scottish Government has committed to becoming net zero by 2045, its interim target of reducing carbon emissions by 75 percent by 2030 was dropped in April 2024 following the Climate Change Committee's (CCC) assessment that this target was 'no longer credible'.[9] The CCC also noted that Scotland has failed to achieve eight out of twelve net zero targets to date, and that "there is still no comprehensive delivery strategy for meeting future emissions targets, and actions continue to fall far short of what is legally required."[10] Meeting Scotland's net zero target will therefore require coordinated policies to transform carbon-intensive sectors and scale up green industries. Ensuring that this transition is fair and just will require measures to tackle inequalities of income and wealth, as well as different regions of Scotland, which in some cases have increased over the past decade.

Addressing the triple need to revitalise the economy, transition to net zero and tackle inequalities represents a significant challenge for the Scottish Government. These goals are not mutually exclusive: **it is possible to build a stronger and more productive economy while also meeting decarbonisation goals and creating a fairer society**. However, this means recognising that economic growth not only has a rate – it also has a *direction*. Pursuing economic growth as an end in itself is likely to lead to outcomes that are neither inclusive or sustainable. Instead of attempting to maximise growth with one hand, and then fixing the inevitable market failures that result from it with the other, what is needed is a *directed* growth strategy that delivers inclusive and sustainable outcomes by design.[11]

The Scottish Government has recognised this by setting out a vision for delivering an economy that is "fair, green, and growing".[12] However, delivering this in practice requires a bold new approach to economic policymaking that rethinks the role of the state in shaping economic, social and environmental outcomes. This in turn requires an ambitious industrial strategy that not only aims to *catalyse* growth, but also *directs* growth to shape economies to become greener, more inclusive, and more resilient.

In August 2024 we published 'A Mission-Oriented Industrial Strategy for Scotland: Framing Paper',[13] which set out a framework for designing a new mission-oriented industrial strategy for Scotland. Our mission-oriented framework aims to place societal challenges at the heart of a new strategy for directed growth, steering investment and innovation utilising the full arsenal of policy instruments at the Scottish Government's disposal. Because this requires cross-sectoral investment and innovation, missions can produce a large multiplier effect[14] – as opposed to sector-based subsidies that lack a clear direction, which might increase profits but not investment. Crucially however, industrial strategy must not just be about setting out new frameworks, or embracing ambitious rhetoric. Talking about 'missions' without changing business as usual will do little to tackle Scotland's intertwined challenges. In practice, delivering a mission-oriented industrial strategy will require changes to the way that policies are delivered, the way that resources are allocated, and the way that government and public institutions operate. This in turn means harnessing all the Scottish Government's available tools, institutions and capabilities, and embedding missions across the public sector. It will also require a greater willingness to take risks, and a more joined-up, coordinated approach across different government departments and public institutions.

How to effectively operationalise and implement a mission-oriented strategy in Scotland is the focus of this second paper. As a devolved nation of the UK, Scotland does not have full control over many key areas of economic policy, and faces a challenging fiscal outlook. However, this makes it ever more critical that the powers and institutions the Scottish Government has are harnessed most effectively. Achieving success will require utilising the full power of government policy to create an investment and innovation ecosystem that is focused on delivering a common goal. The rest of the paper proceeds as follows:

- In section 2 we review the Scottish Government's Green Industrial Strategy paper that was published in September 2024, identifying the need for it to be matched by a whole-of-government approach to rethinking the role of the state.
- In section 3 we identify the key devolved policy levers that should be utilised to operationalise a mission-oriented industrial strategy, and set out recommendations for how they could be transformed.
- In section 4, we assess the role of Scotland's public financing institutions, and identify lessons for how they can be transformed to support Scotland's industrial strategy.
- In section 5, we assess how public sector governance and capabilities could be reformed to ensure a whole-of-government approach to industrial strategy.
- In section 6, we set out recommendations for how Scotland's new industrial strategy can most effectively be monitored and evaluated.

2. IMPLEMENTING A MISSION-ORIENTED INDUSTRIAL STRATEGY

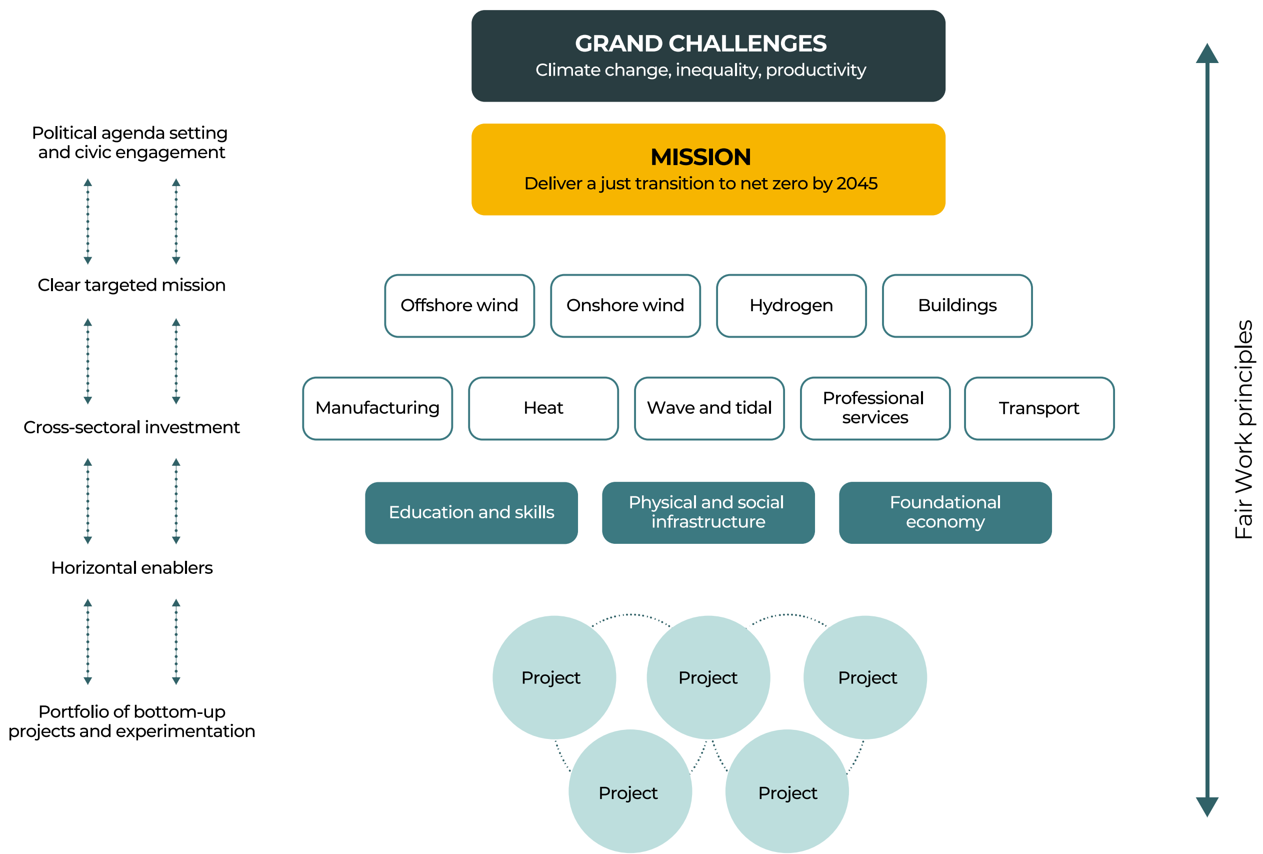
Recent years have seen industrial policy return to the mainstream of global policymaking, as countries have sought to rethink the role of the state in response to challenges such as climate change, geopolitical tension and the legacy of the Covid-19 pandemic. While industrial strategy existed well before its recent surge in application and public attention; governments have increasingly embraced more assertive policies to direct their economies towards addressing 21st century challenges.[15] In the US, the Inflation Reduction Act, the US CHIPS and Science Act, the Bipartisan Infrastructure Bill and American Rescue Plan have all played a catalytic role at stimulating public and private investment on a large scale (although questions remain over their future following the US election). The European Union has responded with the EU Green Deal Industrial Plan, the Net-Zero Industry Act and European Chips Act, while a number of European nations have subsequently set out national industrial strategies.[16] Meanwhile, international institutions like the International Monetary Fund (IMF) have started to acknowledge the role of industrial strategy in tackling 21st century challenges.[17] [18] Most recently, the new UK Government published a paper outlining its vision for a UK industrial strategy. In June 2025, the Department for Business and Trade published 'The UK's modern industrial strategy' which set out the UK Government's plans for eight high growth sectors."[19] In this rapidly changing global context, it is critical that policy in Scotland embraces the transformative policies that are required to meet the scale of the challenges it faces.

Our last paper published in August 2024 outlined a comprehensive assessment of the structural issues that Scotland's new industrial strategy should seek to address.[20] We found that while Scotland's economy has many strengths, a chronic problem of low investment has undermined living standards, hampered productivity growth, and stifled innovation. Meanwhile, the huge economic opportunities associated with Scotland's net zero transition have been hampered by a weak industrial base and a lack of investment. We also found that inequalities of income and wealth, as well as between different regions of Scotland, threaten to undermine Scotland's just transition. We argued that Scotland's new industrial strategy – if well designed and governed – provides an opportunity to transform these challenges into opportunities for economy-wide investment and purpose-oriented innovation. As such, we identified four key principles that should underpin a mission-oriented industrial strategy for Scotland, drawing on international examples:

- **From market fixing to market shaping**: Government intervention in the economy has traditionally been justified only to 'fix' perceived market failures. Across the world however, 'entrepreneurial states'[21] have acted as lead investor and risk-taker in the economy, co-creating and shaping new markets – not simply 'fixing' them. If Scotland is to tackle its intertwined challenges while responding to global developments, the Scottish Government must move away from being a market fixer, and embrace its role as a market shaper.
- **From sectors to missions**: Industrial strategy has traditionally focused on supporting a small number of selected sectors. But 21st century challenges such as climate change do not just require a small number sectors to transform – they require system-wide transformation. Rather than picking sectors, a mission-oriented approach picks problems that all sectors can tackle — but only if they transform. Whereas sectoral approaches to industrial strategy involve 'picking winners', a mission-oriented approach is about 'picking the willing'.[22]
- **From 'lender of last resort' to 'investor of first resort'**: In recent decades the Scottish Government has occasionally acted as the 'lender of last resort' – stepping in to support firms facing financial difficulties. But throughout history governments have successfully played an important 'investor of first resort' role – acting boldly to create new technological and industrial landscapes.[23] To seize new opportunities, the Scottish Government should align Scotland's ecosystem of public institutions around a mission-oriented approach, fully harnessing public funds to fuel investment across the entire innovation chain.[24]
- **Sharing risks and rewards**: How risks and rewards are shared between government and business is not fixed – it is shaped by the terms attached to contracts and instruments. A mission-oriented industrial strategy presents an opportunity to rethink the 'deal' that exists between public and private actors to reflect the state's role as market shaper. This should involve creating a more symbiotic and mutualistic partnership that better aligns risks and rewards between public and private actors.[25] Achieving this requires rethinking the way that contracts between government and businesses Scotland are designed and structured.

We then set out an illustrative missions framework for Scotland, oriented around Scotland's mission to deliver a just transition to net zero by 2045. This involves redesigning the Scottish Government's tools, institutions and capabilities to stimulate cross-sectoral investment and innovation towards tackling key challenges. This in turn can help Scotland to capitalise on existing strengths while building competitive advantages in emerging sectors, helping Scotland to position itself as a global leader in the net zero transition. The framework also featured a cross-cutting focus on skills, infrastructure and the foundational economy, with Scotland's Fair Work agenda being embedded throughout.

Figure 1: Illustrative mission roadmap for Scotland



Source: Mazzucato and Macfarlane (2024)[26] *based on Mazzucato (2018)*[27]

2.1 The Scottish Government's Green Industrial Strategy

Since the publication of our first paper, the Scottish Government published its Green Industrial Strategy (GIS) paper in September 2024.[28] We welcome the publication of the GIS as a crucial first step towards playing a more proactive role in the economy, and its emphasis on steering Scotland's economy in a green direction. However, to achieve the Scottish Government's vision we consider that it must go further to embrace a whole-of-government approach to rethinking the role of the state. In this section, we provide an overview of the key proposals set out in the strategy, and set out some areas for further development going forward, which we explore in the remainder of the paper.

Vertical opportunity areas

The Scottish Government's GIS identifies the primary goal of the strategy as helping "Scotland realise economic growth opportunities from the global transition to net zero".[29] As the paper acknowledges, while the transition to net zero presents huge opportunities for Scotland, seizing them in practice will require an economic transformation. Conventional approaches to industrial strategy involve both 'vertical' policies that target interventions in specific areas (e.g. sectors or technologies), and 'horizontal' policies that try to improve conditions across the national economy (e.g. in relation to skills, education and R&D).[30] The GIS embraces this approach, and identifies five vertical 'opportunity areas' where it is believed Scotland has the strengths and comparative advantages to compete internationally:

- Maximising Scotland's wind economy
- Developing a self-sustaining carbon capture, utilisation and storage sector
- Supporting green economy professional and financial services, with global reach
- Growing our hydrogen sector
- Establishing Scotland as a competitive centre for the clean Energy Intensive Industries of the future

These opportunity areas were informed by a study published by Climate X Change which identified 12 key sectors that have the potential to provide the greatest opportunities to the Scottish's net zero and climate adaptation economy.[31] For each of these opportunity areas, the GIS sets out a series of actions that the Scottish Government will undertake to maximise opportunities in each area.

Each of the five opportunity areas undoubtedly have a crucial role to play in delivering Scotland's net zero transition, and strengthening capabilities in these areas should remain a key priority. However, maximising the economic benefit from the net zero transition will not just require these five sectors to transform – it will require economy-wide transformation and cross-sectoral collaboration. As the Climate X Change report acknowledged, modern supply chains transcend single sectors, and transformation in one sector may be contingent on innovation in other sectors, which may require government intervention to happen on the timescale needed. As such, it is critical that strategy seeks to identify key interdependencies and 'critical pathways'; actively encourages cross-sectoral collaboration innovation and experimentation; and does not limit policy interventions to the five opportunity areas set out. In a global context, sectoral strategies have also sometimes resulted in sectors or companies receiving handouts simply due to having a louder voice or greater lobbying capacity. In Scotland, it is crucial that the industrial strategy focuses not on 'propping up' legacy industries, but on supporting old industries to renew themselves and new industries to be born. Moreover, as the Climate X Change report also acknowledges, Scotland frequently suffers from a siloed approach to policy, and a lack of "comprehensive, system-focused thinking." Scotland's new industrial strategy should provide an opportunity to implement a more coordinated and joined-up approach to policy making, and stronger alignment across government departments and public sector institutions. Although the GIS emphasises the importance of coordinating policy and partnership working, it should be careful to avoid the risk of their five opportunity areas reinforcing existing silos.

Our mission-oriented approach is designed to circumvent these issues by reinventing the vertical dimension to focus on problems that draw on many different sectors. Missions become the vertical aspect of industrial strategy, replacing the sector or technology focus of traditional industrial strategy. **It is not about the government 'picking winners', but about *'picking the willing'*** – those organisations across the economy that are willing to engage with societally relevant missions.[32] Any state support is provided on the basis of whether a firm is helping to deliver a desired outcome, not on the basis of the sector it happens to be in. Meanwhile, horizontal policies remain crucial, and should establish the general conditions for economic success – including strengthening systems of innovation.

Importantly however, missions do not seek to replace or exclude support for specific sectors and technologies. In contrast, it is essential for any industrial strategy to understand and address specific sectoral system failures that inhibit the ability of domestic firms to capture value from emerging market opportunities. As such, while strengthening capabilities in the GIS's five opportunity areas should remain a priority, an ambitious industrial strategy should not stop there. Instead, **Scotland's industrial strategy should aim to bolster sectoral capabilities *while also* catalysing wider systemic change across the economy**. In practice, the multiple intertwined challenges Scotland faces cannot be addressed simply by supporting a few selected sectors. Instead, it requires system-wide *transformation*.

We note that while the GIS emphasises the importance of aligning economic and climate policy, the 'just' part of a just transition is often absent from the strategy. For example, the strategy makes little reference to tackling inequalities or ensuring that Fair Work principles are embedded throughout. However, the Scottish Government has previously recognised that economic, social and environmental challenges are inherently interlinked – setting out a vision for an economy that is “fair, green, and growing” that “thrives across economic, social and environmental dimensions”.[33 34] These goals should not be viewed as trade-offs. **The Scottish Government’s vision for the economy is only achievable if economic policy delivers sustainable and inclusive outcomes by design.**

While the Scottish Government is already publishing a series of Just Transition Plans, these are focused on Scotland’s highest-emitting sectors which require clear and time-limited transition plans. However, if Scotland is to succeed in delivering a just transition, its principles must be included not only in plans for Scotland’s high-emitting sectors – but embedded throughout Scotland’s approach to industrial strategy. **Overcoming economic, social and environmental challenges are not mutually exclusive – but must be tackled hand in hand.** To this end, Scotland’s industrial strategy should aim to hardwire economic, climate and justice goals throughout the five ‘opportunity areas’, while also supporting the necessary economy-wide transformation. In doing so, it should aim to create a more coordinated and joined up policy landscape, with ministerial departments with key public institutions aligned in pursuit of common goals.

Cross-cutting enablers

In addition to the five vertical opportunity areas, the GIS also identifies six horizontal, cross-cutting ‘enablers’ that are critical for creating the conditions for investment and growth:

- Supporting Investment, ensuring an investment-friendly ecosystem
- Investing in strong research and development foundations
- Supporting the development of a skilled workforce
- Helping supply chain businesses to seize opportunities
- Delivering an agile planning and consenting system
- Delivering required housing

Each of these will have a crucial role to play in accelerating a just transition to net zero. The focus on mobilising and directing investment is particularly critical. As we examined in our last paper, a chronic problem of low investment has long plagued Scotland’s economy, which in turn has undermined living standards, hampered productivity growth, and stifled innovation. Similarly, to date the economic opportunities from Scotland’s net zero transition have been hampered by a weak industrial base and a reliance on foreign supply chains. While the GIS recognises the need to “fill strategic gaps in Scotland’s industrial capability and capacity”, we note that much of the focus is on steps the Scottish Government will take to attract inward investment. While attracting high-quality inward investment will continue to be important, this should not be viewed as a substitute for taking ambitious steps to mobilise investment among domestic firms. The Scottish Government already has an inward investment strategy, and Scotland has among the best FDI performance in the UK – yet business investment in Scotland remains among the lowest in the OECD.[35 36] Moreover, we note that in other areas the Scottish Government is exploring ways to attract investment by using public funds to de-risk private finance using ‘blended finance’ instruments – a trend which is on the rise globally. [37 38] However, evidence indicates that de-risking can end up being more expensive and complex than direct public investment – and may also add significant uncertainty to Scotland’s public finances.[39]

The task for Scotland’s new industrial strategy is therefore not simply to try and lure global investors, but to awaken what John Maynard Keynes called the ‘animal spirits’ within Scotland.[40] Many businesses in Scotland, both large and small, are currently experimenting in the green direction, but they are far from doing it with sufficient scale and boldly and quickly enough to make a significant difference in growth and jobs. In order for this to be done intensively, kicks and pushes are required – not just gentle nudges – and the state must itself take courageous risks.[41] In doing so, Scotland can learn from examples of successful ‘entrepreneurial states’ from around the world that have acted as lead investor and risk-taker in the economy, co-creating and shaping new markets – not simply ‘fixing’ them.[42] While the GIS acknowledged the need for more coordinated policy, it put relatively little emphasis on transforming industrial policy tools such as procurement, subsidies and financial instruments, as well as the Scottish National Investment Bank and enterprise agencies, to mobilise and direct investment towards industrial strategy goals. In our view, redesigning these tools and coordinating them more effectively will be critical if the strategy is to succeed in delivering its aims.

As we discussed in our last paper, this also presents an opportunity to rethink the 'deal' that exists between public and private actors, moving towards a more symbiotic and mutualistic partnership that better aligns risks and rewards. Achieving this requires rethinking the way that contracts between government and businesses Scotland are designed and structured. At present however, the GIS makes little reference to the terms and conditions upon which government funding and contracts will be provided to support the strategy. We consider this to be a key area for development going forward, ensuring that Scotland's Fair Work agenda is embedded throughout.

Ensuring that the public sector has the capacity and capabilities to implement the industrial strategy effectively will also be key. The UK Government's post-crisis turn towards austerity hollowed out public sector capacity across the UK, which has resulted in a growing reliance on private consultancy firms to shape policies and solve problems.[43] However, relying on consultancies and outsourcers weakens government, hollows out state capacity and often extracts value rather than creates it.[44] **If Scotland's industrial strategy is to succeed, it is important that public institutions have the capacity to think and act big**, and that building internal capacities is prioritised over outsourcing. Crucially, it will also require a willingness to move beyond outdated economic orthodoxies.

A recent paper by the G20 Task Force on a Global Mobilization against Climate Change (TF-CLIMA), co-chaired by Professor Mazzucato, identified a series of myths that contribute to global inertia and undermine political will for transformative action on climate change.[45] These myths stem from outdated economic assumptions, and are often amplified by vested interests to undermine ambitious action. In Scotland, it is critical that these myths do not prevent industrial strategy that is required. As the world changes in response to new challenges, Scotland's approach to economic policy must adapt with it.

Table 1: Myths surrounding climate change and the economy

Common myths blocking action	Counter argument
"Market signals can drive decarbonisation without direct government intervention."	Markets alone cannot coordinate the rapid and large-scale economic transformation that is needed.
"Climate action will slow economic growth."	Climate action and economic growth are not mutually exclusive
"Industrial strategy does more harm than good due to government failure and capture."	A greater risk of government failure arises from underfunded states that lack adequate capacity to implement industrial strategies that direct growth and shape markets, and that are therefore more prone to state capture
"Governments don't have the resources to address climate needs."	The problem is not simply a lack of funding but a lack of willingness to direct it towards climate action.
"Blended finance – using public funds to 'de-risk' private investments – is cheaper than public investment."	Blended finance can lead to higher long-term costs compared to public financing, particularly for low- and middle-income countries.

Source: G20 Task Force on a Global Mobilization against Climate Change (TF-CLIMA)[46]

2.2 A whole-of-government approach to rethinking the role of the state

Overall, the publication of the GIS report marks an important first step towards embracing a more proactive, market shaping role for the state in the economy. In recent years however, the Scottish Government has received criticism for publishing a lot of well intended reports, strategies and position papers, but then falling short when it comes to policy delivery and implementation. In the case of Scotland's industrial strategy, it is critical that it does not become just another buzzword, and that it is matched by concrete yet transformative policy action and delivery.

In practice, delivering a successful industrial strategy requires wholesale changes to the way that policies are delivered, the way that resources are allocated, and the way that government and public institutions operate. While the GIS sets out some important first steps in this regard, we believe that the Scottish Government must be more ambitious at utilising its tools, institutions and capabilities to create and shape new markets and drive structural change. To succeed, an ambitious industrial strategy requires a whole-of-government approach to rethinking the role of the state. This remainder paper sets out what this means in practice.

3. COORDINATING POLICY TOOLS IN A MARKET SHAPING, MISSION-ORIENTED WAY

The OECD defines industrial policies as "tools used by policymakers to affect performance outcomes in the business sector in order to achieve a pre-defined objective."[47] These include instruments such as state loans, grants, procurement, guarantees, tax-reliefs, equity stakes and other forms of state aid.[48] All governments implement industrial policies, whether they call them that or not, although the scope and scale of their use varies widely. Since the Covid-19 pandemic the use of industrial policies has soared across the world, as governments have sought to respond to climate change, the Covid-19 pandemic, and geopolitical tensions.[49]

Importantly however, use of individual industrial policies alone does not necessarily equate to transformative change. What matters is whether industrial policies are coordinated into an effective industrial *strategy* – an economy-wide plan that brings together specific industrial policies to achieve an objective. As a devolved nation, the Scottish Government does not have control over all key economic policy levers, and has a relatively constrained fiscal budget. It is therefore critical that the full arsenal of tools and policy levers the Scottish Government has at its disposal are fully utilised to drive structural change. Importantly, these tools should be strategically aligned, ensuring they are pushing and pulling in the same direction. Instead of trying to 'level the playing field', the aim should be to tilt the playing field in the direction of desired goals.

In this section we identify the most important tools, instruments and policy levers that the Scottish Government should be seeking to harness as part of its new industrial strategy. In each area we review current practice in Scotland, and then identify recommendations for Scotland's industrial strategy, drawing on academic literature and international case studies. It is important to note that this paper does not attempt to cover areas like public services or public investment in infrastructure. While both are critical for underpinning a successful industrial strategy, they lie outside the scope of this work. Instead, we focus on the key tools that the Scottish Government has to shape markets and mobilise private investment to support industrial strategy goals.

3.1 Public procurement

Scotland's sustainable procurement framework has placed it at the forefront of innovative procurement practice, but more can be done to maximise its transformative potential in practice. To strengthen the framework going forward, the Scottish Government should update award criteria and guidance to emphasise public value considerations over economic criteria, and ensure that procurement teams are engaged at the earliest opportunity to shape the process. To support this, the Scottish Government should provide additional funding to invest in procurement capacity building; invest in new analytical tools to track public procurement spending and local multiplier effects; and make all Fair Work First criteria mandatory conditions for all public procurement contracts.

Public procurement can create market demand for products and services, helping companies to grow and leading to a more competitive and innovative production ecosystem.[50] Procurement can also play a powerful market-shaping role by mobilising public purchasing power to stimulate innovation towards specific goals or missions, potentially leading to spillovers and a multiplier effect where the impact on GDP is greater than the cost of procurement.[51]

The Internet, GPS, and the aerospace and semiconductor industries are among the best-known examples of products and technologies that resulted from public strategies capable of promoting stable demand and of triggering technological innovation thanks to continuous stimulus on the supply side. Procurement policies can also reshape existing sectors — for example by attaching conditions relating to social or environmental practice. Particularly in light of Scotland's challenging fiscal outlook, public procurement is one of the most powerful policy tools the Scottish Government has at its disposal. In this section, we assess the evolution of procurement policy in Scotland, and set out a series of recommendations to support Scotland's industrial strategy. We find that while significant progress in recent decades has placed Scotland at the forefront of innovative procurement practice, more can be done to maximise its transformative potential.

3.1.1 Public procurement in Scotland today

Today the Scottish public sector spends more than £16 billion a year buying goods and services through its procurement budget.[52] How this money is allocated – and the conditions attached to it – can help to direct demand towards industrial strategy goals.

Procurement policy in Scotland has evolved significantly over the past 20 years. Throughout the 2000s, procurement policy typically operated with little regard to wider social or environmental considerations. Instead, as mirrored elsewhere across the UK and internationally, the approach largely focused on minimising legal risk, managing through metrics, and securing the best financial value on the contract – which in turn was heavily influenced by the theory of New Public Management (NPM).[53] Over the last decade however, procurement policy has undergone significant reform, and today Scotland has a leading public procurement framework that aims to maximise economic, social and environmental wellbeing. This section provides an overview of the relevant legislation underpinning public procurement in Scotland today, as well as the key policy frameworks relating to its implementation.

Scotland's legislative and policy landscape

In 2014 the Scottish Government introduced the Procurement Reform (Scotland) Act, which represented a landmark change in public procurement policy. The Act introduced a Sustainable Procurement Duty that requires that, before carrying out a regulated procurement the contracting authority must consider how, in conducting the procurement process, they can:

- improve the economic, social, and environmental wellbeing of the authority's area, with a particular focus on reducing inequality;
- facilitate the involvement of small and medium enterprises, third sector bodies and supported businesses in the process;
- promote innovation;

Table 2 below shows considerations that should be taken into account when assessing the impact of procurement on economic, social, and environmental wellbeing.[54]

Table 2: Factors influencing wellbeing in the Sustainable Procurement Duty

Economic Factors	• Availability of suitable and high-quality jobs • Measures to encourage access to procurement for local small businesses • Addressing fair work practices, including paying at least the real Living Wage • Efficient and effective transport links • Lifelong learning • Training and skills development
Social Factors	• The promotion of good quality and affordable housing • Access to education and skills • The encouragement of the voluntary sector • Looking after the most vulnerable • Activities to promote equality of opportunity and foster good relations
Health Factors	A greater risk of government failure arises from underfunded states that lack adequate capacity to implement industrial strategies that direct growth and shape markets, and that are therefore more prone to state capture
Environmental Factor	The problem is not simply a lack of funding but a lack of willingness to direct it towards climate action.

The Act also introduced Community Benefit requirements in major contracts. This means that where a public body is to tender a contract valued at £4 million or above, it must consider during the design of the tender whether or not to include Community Benefit requirements, which can include things like providing employment and training opportunities for priority groups, and making subcontracting opportunities available to SMEs and the third sector. The Act also aimed to make procurement more transparent and accessible to businesses in Scotland, with public bodies required to publish procurement strategies setting out how they intend to comply with the 2014 Act, with progress measured in their annual reports.

In 2015, the Public Contracts (Scotland) Regulations gave effect in Scotland to EU Procurement Directive 24/2014/EU. As part of the process of transposing the European Directive into national law, the Scottish Government chose to make it a requirement of contract award criteria that a contracting authority cannot make an award decision based upon price alone. Contracts instead must be awarded based on a price:quality ratio, using criteria linked to the subject-matter of the public contract in question and must include the price or cost using a 'cost-effectiveness approach'. This was followed up with the Procurement (Scotland) Regulations 2016 which established a national legislative framework for sustainable public procurement, ensuring that contracting authorities maximise the economic benefit brought to Scotland from effective and efficient public procurement spend. Today the policy framework for procurement in Scotland is set out in the Scottish Procurement Policy Manual (for Scottish Government) and the Scottish Procurement

Handbook (for the wider Scottish public sector).

In April 2023, the Scottish Government published its five-year public procurement strategy setting out a ‘high-level vision and roadmap’ for public procurement for public sector bodies to align with. The Scottish Government’s vision is for public procurement to be “at the heart of a sustainable economy to maximise value for the people of Scotland.” Objectives in its strategy are grouped in four themes:

- **Good for business and their employees**: Promoting early supplier engagement, encouraging a sustainable supply base, consider how procurement contracts are developed to reduce barriers to SMEs.
- **Good for places and communities**: Maximise community wealth building through procurement, maximise opportunities to develop, enhance and maintain a sustainable built environment, promoting the routine consideration of whole life costing.
- **Good for society**: Deliver best value while promoting economic wellbeing for people and organisations in Scotland, promoting food security and ensuring that processes are resilient in the face of any future emergency situations.
- **Open and connected**: Learning from international best practice, improving data through the promotion of consistent use of tools, platforms, and systems.

Today there are four Procurement Centres of Expertise in Scotland which provide support and guidance to all public sector bodies: Advanced Procurement for Universities and Colleges (APUC), Central Government Procurement, NHS National Procurement, and Scotland Excel. The strategic direction and priorities for public procurement in Scotland is set by the Public Procurement Group (PPG), which is made up of the heads of Procurement Centres of Expertise, senior Scottish Government procurement officials, and the Heads of Procurement across the Public Sector.

In 2020, the Scottish Government launched the ‘Sustainable Procurement Tools’ website, which provides detailed information to help public bodies optimise the economic, social and environmental outcomes of their procurement activity.[55] The website includes a number of practical tools to help public bodies embed good procurement practice to realise intended sustainable outcomes, and also hosts a large range of best practice case studies from across the Scottish public sector. While the tools aim to help public bodies embrace best practice, the Scottish Government’s Supplier Development Programme (SDP) provides support and training for SMEs and third sector on bidding for public contracts. The SDP delivers free training, online resources and guidance on how to prepare, submit and win public procurement bids.[56]

Catalysing innovation from public procurement

As noted above, since the introduction of the Sustainable Procurement Duty in 2014, Scottish public bodies have a duty to consider how in conducting the procurement process they can promote innovation. Public bodies can promote innovation in a number of ways.[57] Firstly, the Procurement Policy Handbook recommends that public bodies should focus on performance and outcomes rather than specific solutions to promote innovation. Public bodies can do this by publishing contract notices and preparing documents which describe what they want to achieve but not how it should be done. This reflects a wider shift from product procurement to functional procurement around the world in recent years.[58]

Scottish public bodies can also undertake a pre-commercial procurement exercise. Pre-commercial procurement involves buyers and sellers of products and services collaborating at an early stage, before products are priced or for sale, to define the scope and criteria for development. This approach mainly concerns R&D for public clients and aims to develop new solutions for challenges facing the public sector. Such a mechanism can stimulate the process on the demand side; this requires innovative solutions for the public sector and contextually provides preliminary feedback to the company, leading to improvements and potentially giving it a competitive advantage over product or service supply. Public bodies can also form an Innovation Partnership, which allows a public body to work with one or more partners to research and develop a product or service which is not currently available on the market and can be bought without further competition once completed.

Importantly, Scotland has established a number of mechanisms to stimulate innovation towards overcoming challenges or missions. In 2016, the Scottish Government launched the CivTech innovation accelerator. As discussed further in the below case study, each year CivTech sets annual challenges that seek to overcome problems facing Scotland’s public sector through the innovative use of technology, and invites companies to submit innovative ideas for addressing them. In 2017, the Scottish Government launched the ‘Scotland

CAN DO Innovation Challenge Fund' to support Scottish public sector organisations to work with suppliers and develop innovative solutions to policy delivery. Setting a Scotland CAN DO innovation challenge which connects public bodies with the marketplace to find innovative solutions to challenges they face. In 2022, the Scottish Government launched 'Scotland Innovates' – a supplier-led innovation service where suppliers, businesses and members of the public can submit innovative solutions to the Scottish public sector for consideration.

Case study: CivTech

In 2016, the Scottish Government launched CivTech – an innovation accelerator that invites companies to come up with innovations and products to address challenges faced by the public sector. Each year public sector organisations (who become 'Challenge Sponsors') are invited to define a problem they would like to be addressed through the innovative use of technology. Problems are posed as an open question, rather than setting out a pre-determined solution.

Successful applicants will work with their Challenge Sponsor to develop their proposal and pitch for a place in the programme's Accelerator phase, which offers both financial and practical support to develop the business and market the concept to the public sector. The process is designed to stimulate the development of a range of bottom-up solutions to public sector challenges, and reward those actors who come up with the most innovative and impactful solutions.

Since it launched in 2016, around £20 million of Scottish Government funding has been invested in the CivTech programme, with 90 companies and entrepreneurs helped to grow and develop.[59] In 2024, CivTech launched its latest round inviting applications on eleven policy challenges, including how technology can be used to reduce pharmaceutical waste; improve public engagement in policymaking; share data across public organisations more seamlessly; increase circularity in the NHS supply chain; and better understand the supply and demand of digital economy skills at the regional level.[60]

Procurement and supply chain development

In recent years the Scottish Government has also explored how procurement can be harnessed more effectively to establish new domestic supply chains. While the UK was a member state of the European Union (EU), the terms of the Treaty on the Functioning of the European Union (TFEU) prohibited public bodies from explicitly favoured national or local suppliers (unless the contract was so small that it 'would be of no interest to economic operators located in other Member states').[61] Following the UK's departure from the EU, the UK Government has passed legislation which enshrines similar principles into UK law. Provisions in the Procurement Act 2023 stipulate that "treaty state suppliers" (i.e. those which benefit from an international agreement relating to procurement) have the same rights as UK suppliers, and are not discriminated against by UK or devolved Scottish authorities.[62] In practice, this prevents public authorities from restricting contracts to UK-based suppliers, or suppliers in a particular region or county of the UK.[63] However, the application of the Sustainable Procurement Duty, as well as engaging Scottish suppliers through the Supplier Development Programme, have helped to increase the proportion of procurement spending going to domestic firms in recent years, including SMEs and third sector organisations.

In addition, in the 2020/21 Programme for Government, the Scottish Government established a new Supply Chains Development Programme (SCDP) that aimed to use public sector procurement as a catalyst for supply chain development in areas of strategic interest, drawing on the learning from the experience of the Covid-19 pandemic. The programme aimed to deliver increased coherence between public spending and the Scottish manufacturing base in order to scale up and increase national resilience to global supply chain shocks. To date the programme has focused on maximising opportunities that will arise in net zero transition, the built environment and in healthcare – and has engaged across Scotland's public sector to share learning and best practice.

As discussed in section 2, a key objective of the Scottish Government's new Green Industrial Strategy is to strengthen the breadth and resilience of Scotland's supply chains in relation to the prioritised green sectors. The strategy predominantly focuses on encouraging private companies investing in Scotland's energy transition to procure more goods and services from Scottish SMEs. A key area for consideration is therefore how public procurement can be utilised to support supply chain development in support of industrial strategy goals.

Conditionalities attached to procurement contracts

As we discussed in our previous paper, mission-oriented industrial strategies should aim to rethink the 'deal' that exists between public and private to reflect the state's role as a lead investor and risk-taker in the economy, co-creating and shaping new markets – not simply 'fixing' them. One way to do this is through the use of conditionalities. Where state funding benefits specific companies, firms can be required to undertake behavioural changes towards meeting certain public objectives. Implemented effectively, conditionalities can help create a more symbiotic and mutualistic partnership that better aligns risks and rewards between public and private actors. As such, progressive conditionalities can be a powerful tool that governments can use to co-shape investment and co-create markets with businesses, and set a 'reciprocity' relationship between public and private sectors.[64]

The Scottish Government currently makes use of conditionalities in its procurement policy through the 'Fair Work First' framework. This aims to ensure that everyone in Scotland is able to access 'fair work' – defined as that which offers opportunity, security, fulfilment, respect and effective voice. In the absence of control over employment law, the Scottish Government has adopted a framework for using its spending power to leverage employers' commitment to Fair Work. This involves applying Fair Work First (FWF) criteria to grants, public contracts and other funding being awarded by and across the public sector, where it is relevant to do so. Through this approach the Scottish Government is supporting employers who adopt fair working practices, specifically:[65]

- Payment of at least the real Living Wage;
- Provide appropriate channels for effective workers' voice, such as trade union recognition;
- Investment in workforce development;
- No inappropriate use of zero hours contracts;
- Action to tackle the gender pay gap and create a more diverse and inclusive workplace;
- Offer flexible and family friendly working practices for all workers from day one of employment; and,
- Oppose the use of fire and rehire practice.

Since October 2021, the Scottish Government has enabled procuring authorities to mandate payment of at least the real Living Wage in its public procurement exercises, where FWF practices are relevant to how the contract will be delivered; it does not discriminate amongst potential bidders; it is proportionate to do so; and the contract will be delivered by workers based in the UK. The Scottish Government currently mandates payment of at least the real Living Wage in procurement activity (subject to the above criteria around applicability and proportionality) and encourages other public bodies to do the same. To promote this the Scottish Government has published updated statutory guidance to include a chapter on FWF requirements in procurement; updated practical guidance for procurement professionals on the Sustainable Procurement Tools; and is in the late stages of developing FWF in Procurement e-learning, for launch December 2024.

At present, the other six FWF criteria are not applied as mandatory conditionalities, but are instead encouraged on a bespoke basis that is tailored to each procurement contract.[66] Public bodies are required to consider, before undertaking a procurement exercise, whether it is relevant and proportionate to include questions and conditions on FWF. The emphasis placed on FWF criteria may be influenced by the industry that goods or services are being procured from. Where public bodies are buying from industries/supply chains that are known to have issues relating to poor pay and conditions, more emphasis and weighting may be placed on conditionalities towards FWF considerations than in instances where the industry in question is known to have robust pay and conditions. As such, current practice is based on the bespoke application of principles to achieve desired outcomes, rather than a 'one size fits all' approach.

It is important to note that as FWF criteria aim to strengthen Scotland's labour market, they are typically only applied to UK-based workers involved in contract delivery. If public authorities are procuring goods or services where work is done abroad (e.g. buying equipment manufactured and packaged overseas and delivered to Scotland), FWF criteria are unlikely to be applied. However, contractors would still be required to comply with legislation on Fair and ethical trade and security and crime (including human rights abuses); human trafficking and exploitation; and a range of environmental policies. By the end of this Parliament, the Scottish Government has pledged to extend Fair Work First criteria to every type of grant, funding stream, and business; and extend the range of Scottish Government and public sector contracts that Fair Work First criteria will apply to.[67]

3.1.2 Assessing the impact of public procurement in Scotland

Each year the Scottish Government is required to publish a report assessing procurement activity in Scotland. The latest report published in 2024 (assessing data from 2021/22) found that total Scottish public procurement sector spend was £16 billion, up from £14.5 billion in 2020-21.[68] Of this, £8.9 billion was spent in Scotland, of which £3.8 billion of spend was within the local area of the purchasing body (compared to £3.6 billion in 2020-21). This generated £13.8 billion of economic activity, 130,000 full-time equivalent jobs and contributed £7.5 billion to Scottish GDP.

Out of a total of 6,359 regulated contracts that were awarded, a total of 2,016 suppliers committed to paying the real Living Wage. However, as this data relates to 2021/22, it predates the decision to make payment of the rLW a mandatory condition. 71% of reporting bodies provided evidence of how they were addressing climate change through procurement, while 63% provided evidence of how they were promoting innovation. In addition, 78% of all contracts valued at or above £4 million included some kind of community benefit requirement. Importantly, when measuring the broader social and environmental impact of procurement spending, the Scottish Government does not use monetary metrics. Instead, success is measured in terms of outcomes measured on a case-by-case basis. These outcomes are aligned to Scotland's National Performance Framework (NPF), which comprises 11 'national outcomes' that reflect a range of economic, social and environmental factors. These in turn are aligned with the UN Sustainable Development Goals (SDGs). We discuss the NPF in more detail in section 6. As the Scottish Government has noted:[69]

> *"The Scottish Government does not endorse monetary gauges to measure social impact in procurement as part of the procurement process. Scotland's progress towards inclusive growth is outcomes-focussed rather than using a monetary measure. The use of monetary gauges to measure social impact infers that they are fixed and stable across geographical locations and over time for every contract which invites translation issues. Instead, the Scottish Government's approach is that the social impact should be considered on a case by case basis and it is the impact rather than a monetary value that is important in considering what is desired in delivering the particular contract".*

Following the publication of Scotland's new procurement strategy in 2023, progress will be assessed every year against each of the four strategy aims –'good for business and their employees','good for places and communities', 'good for society', and 'open and connected'. Progress will be assessed using both qualitative and quantitative data from across the public sector, which in turn will align with National Performance Framework outcomes.

In 2023 Harkins Research and Consultancy were commissioned to compare sustainable procurement outcomes and practice achieved in Scotland against comparable models in other parts of the UK.[70] The report found that "Scotland is regarded as a leader in the field of sustainable procurement, which is due to the ongoing dedication and commitment amongst the Scottish Government and key stakeholders to continue raising standards and maximising outcomes." The report also highlighted that the Scottish Government's approach of not monetising social impact was seen as best practice.

Overall, it is clear that Scotland has made significant progress towards using public procurement more strategically. The introduction of the sustainable procurement duty and Community Benefit requirements have successfully shifted practice away from focusing only on price and instead towards wider economic, social and environmental objectives. Meanwhile, initiatives such as CivTech and Scotland CAN DO have successfully helped to drive innovation towards tackling challenges. Notably, the Scottish Government's approach represents a positive improvement from the UK Government's 'social value' approach. The UK'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 wellbeing. Although the social value-based approach signals an important development beyond traditional approaches to procurement, it has a number of key limitations.[71] Firstly, 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. Secondly, 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 finally, 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.

While Scotland's sustainable procurement framework aims to address some of these shortcomings, evidence suggests that similar issues can sometimes arise in practice due to practical barriers. The Scottish

Government recently commissioned a study to review the impact of Scotland's sustainable procurement duty that interviewed 43 people working in procurement across the country. The study found that while sustainable outcomes are sometimes being embedded at the core of the contract as "business as usual", this is not consistent across the public sector. As the study notes: "many considered it a wasted opportunity that sustainable procurement was currently conceptualised as an add-on rather than a core element of practice."[72] A key challenge therefore relates to ensuring that sustainability criteria are applied *consistently* across the public sector at the core of contracts. Another barrier identified relates to the lack of early engagement in the procurement process. In some instances procurement teams get involved relatively late in the process, by which time the opportunity to shape projects with sustainable objectives in mind is much more limited. As the same recent study noted:[73]

"In almost all cases, procurement teams are involved mainly in the 'middle third' of contract delivery and management which involves supporting the tendering process. Although there is some level of involvement by procurement teams in the pre-tender stage, there was general consensus that earlier initiation of this involvement would generate better outcomes."

As such, while the sustainable procurement framework represents a significant step forward, evidence indicates that there is room for improvement to ensure it is being fully harnessed across the public sector in practice.

3.1.3 A mission-oriented approach to public procurement

Mission-oriented procurement recognises the critical strategic role that commissioning and procurement can play in shaping markets that align with government policy goals. Under a mission-oriented approach, procurement seeks to shape markets to achieve long-term missions, and to maximise public value rather than the more commonly targeted 'social value', which tends to function as a short-term, peripheral, and ad hoc consideration. It takes a dynamic view of public value, looking not just at the additional social or environmental benefits that a supplier might be able to provide today (for example, number of apprenticeships), but at how the contract can best support the objectives and theory of change of a mission.

What is public value?

There are different conceptual frameworks for defining what 'public value' means among academics and policy practitioners. Traditional approaches focus on private sector actors as the dominant value creators and limit the state's role to market failure correction and seeking "value for money". A more nuanced understanding of public value refers to the value that is created collectively by the public sector, the private sector and civil society based on the social and environmental outcomes that governments are seeking to achieve. This conceptualisation moves beyond seeing the state's role as one of fixing market failures to embracing its role in shaping markets and directing growth, and beyond efficiency and cost to consider social and environmental outcomes.[74]

The traditional approach to public value focuses mainly on welfare improvements through the correction of market failures – instances where markets are unable to provide maximal welfare to their participants. According to this logic, markets fail to provide maximal welfare only in very specific cases of market failure (e.g., contexts where incomplete information or externalities exist). From this perspective, societal goals are implicitly defined by the market through the aggregation of citizen preferences. For example, if society valued environmental services, a market for environmental services would emerge. The price at which such services would sell, in the absence of externalities and other market imperfections, would correspond to the value society collectively assigns to environmental services. This approach relegates governments to a responsive, narrow role, limiting their potential to shape markets that deliver better outcomes for people and the planet.

Within this framework, public policy is justified if the welfare created exceeds the cost of the intervention. This idea is captured by the concept of 'value for money' (VfM). A theory of public value that addresses these limitations must begin with a conception of the public good not merely as a corrective response to failure, but as an objective in itself, one that is only achievable through a collective process of value creation. According to the "economics of the common good", the state is a co-creator of value, in conjunction with other economic actors.[75] [76] This framework emphasises the importance of the state's role in setting a clear direction and encouraging private, public and civil society actors to collaborate, innovate and invest through mutualistic relationships to achieve common goals and produce shared value. Accordingly, the state is responsible for shaping and creating markets rather than simply fixing them, and for defining objectives that reflect priorities that are collectively valued by society. [77] Instead of viewing markets as abstract entities that function independently, they should be understood as outcomes shaped by interactions among public, private and civil society actors. This understanding of public value provides a framework for designing and evaluating the impact of government actions not merely in terms of efficiency and short term gains but also in terms of their contributions to long-term societal and environmental wellbeing.

Figure 2: Social value vs. Public value

Social Value	Public Value
Value outputs and outcomes	Value outputs, processes & relationships
Technocratic	Political and participative
Static market analysis	Dynamic market analysis
Understand value through the common lens of monetisation	Weigh up multiple and sometimes conflicting forms of value
Focused on what will be delivered	Focused on who will deliver it

Based on Mazzucato and Wainwright, 2024 [78]

A public value approach to procurement would differ from conventional practice in three key dimensions – what is valued, how it is assessed, and how decisions are made:[79]

- A public value approach would value things that are often overlooked, including the impact on the direction of the wider market rather than just the specific value delivered by the supplier to the commissioner. This view recognises that procurement can result in multiplier effects, generating value within the wider economy that is complex and interconnected. Processes and relationships would also be valued, rather than just outcomes.
- A public value approach would broaden the scope to examine how a good or service being procured can contribute to long-term mission outcomes. Public value would be relevant to the core of the contract, rather than confined to discussions about how suppliers can offer additional and incremental add-on benefits to financial criteria. This doesn't exclude demanding additional social criteria from a contract, but it significantly broadens the spectrum of what can be sought and how. Value would also be assessed dynamically (over time) not statically (at a single point in time).
- The decision-making process would give more weight to political and value-based arguments, and place less emphasis on technocratic and quantitative approaches to evaluating value. Decision-making would take on a more explicitly political dimension, rather than being primarily a technocratic exercise. High-quality processes within the public sector itself would be valued. Although procurement is often presented as technical and non-political, choosing between different types of value is appropriately part and parcel of the job of public managers and elected leaders. High-quality processes within the public sector would be valued – as would. Importantly. benefits would be evaluated dynamically over time, and would consider across multiple variables beyond monetised metrics

Case study: Mission-oriented procurement in Camden

In recent years IIPP has worked closely with Camden Council to design and test a new public value-driven approach to procurement. During the COVID pandemic in 2020, the ex-Leader of the Council, Georgia Gould, co-chaired the *Camden Renewal Commission* with Professor Mariana Mazzucato, which aimed to find a way to address the social inequities revealed by the pandemic.[80] The Commission proposed four missions, and IIPP and Camden subsequently collaborated to explore how the council's procurement policy could be redesigned to support these missions.

In order to test what a mission-oriented procurement approach could mean in practice, IIPP and Camden designed a 'Mission Incubator' to rethink a service specification from a missions perspective.[81] The contract chosen for the test was for Long-Term Care and Support (hereafter referred to as 'Homecare'), commissioned by the Adult Social Care. The Homecare service seeks to ensure the provision of care and support in the home for adults who have a range of support needs. The Incubator brought together officers from Adult Social Care, the Estates Mission team, and the Procurement Service over a series of four workshops. The incubator surfaced three key opportunity areas for Camden:[82]

The Homecare service model could adopt a hyperlocal, place-based approach that draws on the strengths of local neighbourhoods; reimagine and expand the role of care workers, co-creating services with them and building their capability to play a more strategic place shaping role; and deepen the commitment to relational working.

Camden could change its procurement processes to enable participatory and collaborative commissioning; prioritise suppliers with mission characteristics by setting strong conditions within procurement contracts to shift suppliers' behaviour; and reform contract management and evaluation by using data for learning rather than just for accountability.

Camden could also change its ways of working to embed a partnerships approach, and empower and motivate procurement officers by shifting focus from operating with regulations towards a model where the question of 'What would create the most positive change for the residents of Camden in line with our mission?' takes on a greater weight.

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

In some many respects, Scotland has already made significant progress in moving towards a public value-oriented public procurement model. As outlined above, under the sustainable procurement duty, contracting authorities are required to consider how the procurement process can improve economic, social, and environmental wellbeing (which aligns closely with the public value framework); facilitate the involvement of SMEs and third sector bodies; and promote innovation. Contracting authorities are not permitted to make an award decision based upon price alone, and benefits are already measured using a wide range of non-monetary outcomes aligned to Scotland's National Performance Framework. While this represents commendable progress, there remains room for improvement to more fully align with a public value approach to support the Scottish Government's new industrial strategy.

Embedding public value in procurement decisions

As noted above, public value considerations should be embedded in the core of the contract, rather than being seen as incremental add-on benefits to financial criteria. While sustainable outcomes are sometimes being embedded at the core of the contracts, evidence indicates that this is not consistent across the public sector, as discussed above.[83] As the public sector is not a single contracting authority, but made up of many separate entities, procurement processes and the consideration of economic, social, and environmental wellbeing can vary. Part of the issue may lie in the language and criteria public authorities are required to use when assessing and awarding contracts.

Although contracting authorities are not permitted to make an award decision based upon price alone, contract award criteria must be designed to assess and award on the basis of value for money (VfM). This in turn must be determined using the Most Economically Advantageous Tender (MEAT) contract award criteria that has been common across the UK. It is currently Scottish Government policy that all

Regulated Procurements are awarded based on MEAT.[84] In this framework however, guidance states that 'economic' should not be simply interpreted as 'price', but in the context of the sustainable procurement duty outcomes and the Scottish Government's wider vision for the economy that "thrives across economic, social and environmental dimensions". In practice however, the strong emphasis put on terms like 'value for money' and MEAT may act to reinforce a perception that price is the most important consideration, even if technically that is no longer the case. As procurement is undertaken by many different entities across the public sector, with varying degrees of capacity, it is likely that MEAT is being interpreted differently – with some teams still emphasising economic criteria over wider sustainable procurement outcomes.

It is notable that the UK government's recent Procurement Act 2023 has moved away from using MEAT as the framework for awarding contracts, instead removing the 'economic' and replacing it with 'Most Advantageous Tender' (MAT). In justifying this change, the UK government's procurement green paper stated that it wants "to send a clear message that public sector commercial teams do not have to select the lowest price bid", as it was determined that some authorities were still interpreting MEAT as meaning 'lowest price'.[85] The guidance accompanying the Act states that the change from MEAT to MAT "is not a change in policy" but that "the change is to clarify and reinforce for contracting authorities that tenders do not have to be awarded on the basis of lowest price/cost, or that price/cost must always take precedence over non price/cost factors."[86] As procurement is a devolved issue, this change does not apply to public sector procurement in Scotland – however the same problems regarding the misinterpretation of MEAT are likely to apply here.

In light of this, **we recommend that the Scottish Government also moves away from using MEAT as the framework for awarding contracts and replaces it with 'Most Advantageous Tender' (MAT**), following the UK Government's lead. This change should be used as an opportunity to re-emphasise the importance of embedding sustainable procurement outcomes at the very core of contracts – from the start to the end of the process – which can be included in updated guidance issued to contracting authorities. This guidance should emphasise that sustainable procurement outcomes should be embedded throughout the process, and not viewed as an 'add-on', and that value-based criteria should be emphasised over quantitative and value for money criteria. Importantly, these criteria should aim to align with Scotland's industrial strategy goals, ensuring that public purchasing power is actively directing investment and innovation in the desired direction.

As discussed above, another key barrier preventing the embedding of sustainable procurement outcomes at the core of contracts relates to the lack of early engagement in the procurement process. While there is sometimes involvement by procurement teams in the pre-tender stage, often they do not get involved at a stage where a project has been approved, at which point the ability to influence the project is limited to incremental changes.

We therefore recommend that going forward, **procurement teams are engaged at the earliest opportunity in the process, including the planning of scoping stages of projects** where the scope to embed a public value approach is greatest. As above, procurement teams should be encouraged to embed sustainable procurement outcomes as a 'golden thread' throughout the process, not just as an incremental add-on.

Strengthening procurement capabilities

As with all areas of government policy, ensuring that the public sector has sufficient capabilities to deliver effective procurement policy is key. With regards to procurement staff, around the world there has historically been an emphasis on identifying risk and ensuring that contracts are compliant with relevant legislation. While these continue to be core skills, moving to a mission-oriented approach to procurement requires individual and organisational capabilities that reflect a more dynamic and proactive stance, and an ability to work with systems and uncertainty. The growing importance of investing in procurement capabilities has been widely recognised, including by the OECD which recently noted that:[87]

> *"... dynamic global trends make public procurement a more complex function than ever, requiring a more complex skillset for public procurement officials that implement public procurement procedures. The capacity of the public procurement workforce is a crucial element of a sound procurement system that delivers efficiency and value for money in the use of public funds. Therefore, professionalising the public procurement workforce has become a priority in countries' public procurement reforms.*

As will be discussed further in section 5.2, implementing a mission-oriented approach requires investments in new capabilities and ways of working. A particularly important role is played by the capabilities of teams in charge of setting tenders at an early stage, and managing the process throughout. When wider sustainable procurement and public value outcomes are at the core of the contract, rather than simply financial considerations, this involves making important value judgments. This is a very different role to one focused on securing best value for money, identifying risk and ensuring that contracts are compliant with relevant legislation. Instead, it requires procurement 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, not least because it requires the procurement teams 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.

In recent years the Scottish Government has invested in building, developing and retaining the skills and capability of public procurement professionals. This has included establishing a Professionalisation Strategy to ensure that teams are better able to manage the complexity that is driving Scotland's social, economic, environmental challenges. For over a decade the Scottish Government has also been running the 'Procurement People of Tomorrow' (PPoT) programme – a partnership with academia that aims to "leave a sustainable legacy for the procurement profession in Scotland by growing our own talent to address industry-wide skills shortages."[88] The PPoT aims to build and sustain a public procurement talent pool that focuses on engaging with young people to build their skills and promote procurement as a career choice of young people. The PPoT was recently cited as an example of best in practice by the OECD in its paper 'Professionalising the public procurement workforce'.[89]

In recent years however, budget cuts stemming from UK government austerity has undermined the ability to invest in procurement, and has led to hiring restrictions in some cases. As noted above, the application of the sustainable procurement duty has varied across the public sector, in part reflecting capacity constraints. In light of the strategic importance of procurement to Scotland's industrial strategy, **we recommend that the Scottish Government provides additional funding to invest in procurement capacity building**, ensuring that sustainable procurement outcomes are fully embedded across Scotland's public sector. For a relatively small sum of money, we consider that this could have a disproportionate impact supporting Scotland's industrial strategy.

Dynamic evaluation and multipliers

As noted above, a key element of a public value approach to procurement is that benefits are assessed dynamically (over time) not statically (at a single point in time). This should apply to both the economic impact of procurement spend, and broader social and environmental impact.

With regards to the economic impact, the Scottish Government currently assesses the impact of procurement spending on GDP, economic activity and employment. It also tracks how much procurement spending is spent in Scotland, and the local area of the purchasing body. However, the value of procurement does not just relate to this initial spend, but in the spillover effects – whether through new technologies that have been developed, local wealth retained, or a contribution to the fundamental drivers of human capital in a local area.[90] [91] In this way, missions can have a multiplier effect, with each pound invested by the government crowding in private sector investment and catalysing innovation (see box below). Even investments that ended or failed can deliver positive spillovers.[92]

Public spending and the multiplier effect

In economics, the 'multiplier effect' refers to the idea that an increase in public spending and investment can generate a larger knock-on effect on other parts of the economy. This means that, if well designed, increases in public spending and investment can lead to a much greater impact on GDP than the amount initially invested.

The precise impact of public spending on growth, and the size of fiscal multipliers, remains subject to considerable debate and uncertainty. However, it is clear that not all public spending is equal: some types of expenditure can generate significantly larger multipliers than others. While public investments generally have stronger multipliers than government consumption spending, evidence by Deleidi and Mazzucato (2018) found that investments guided by mission-oriented policies – those aimed at addressing major cross-sectoral challenges (e.g. the net-zero transition) – can generate larger 'supermultipliers' than standard capital investment (e.g. on infrastructure).[93] Permanent changes in the rate of growth of mission-oriented public expenditure also generate the largest effect in terms of labour productivity, investments and output growth, 'crowding in' more resources from private companies. This is because the policy intervention is aimed at shifting multiple sectors in a new and more productive direction and crowding in private sector finance, generating an embedded `ripple effect'.

It is therefore critical that evaluation methods aim to capture these dynamic effects. Following the 2008 global financial crisis, high-income economies significantly underestimated the size of multipliers generated by their fiscal stimulus by relying on problematic assumptions.[94] As the New Economics Foundation has shown, the static, one-size-fits-all approach that the Office for Budget Responsibility (OBR) uses to evaluate multipliers may be considerably underestimating the multiplier effect of certain public investments.[95] As such, it is critical that the Scottish Government uses dynamic evaluation methodologies that aim to capture the spillovers generated by mission-oriented public investments over time.

In recent years the Scottish Government has embraced Community Wealth Building (CWB) as part of its economic strategy, and in March 2025 introduced the Community Wealth Building (Scotland) Bill – the world's first piece of legislation supporting the approach.[96] Community Wealth Building is a relatively new approach to economic development which seeks to redirect wealth back into the local economy, and place control and benefits into the hands of local people.[97] Progressive procurement of goods and services is one of the five foundational pillars of Community Wealth Building, which aims to develop diverse and dense local supply chains that can create and retain more wealth locally.

A key aim of a CWB approach is to keep money circulating domestically and minimise leakage from local economies. As will be discussed further in section 3.2, developing new supply chains will be key to the success of Scotland's industrial strategy. Public procurement can play a key role by awarding contracts that deliver public value outcomes, including supporting the creation of new local supply chains and jobs. However, key to whether this supports Community Wealth Building or not is what happens to the money once it has been awarded to the contract winner in terms of second round multiplier effects. Does this money then get spent once again in local supply chains, recirculating wealth locally and supporting jobs, or does it flow overseas – in which case it leaks out of Scotland's economy?

At present a key barrier to assessing this relates to data. To assess the impact of procurement spending and identify opportunities for greater economic benefits, it is essential that robust data is collected, monitored, and made publicly available. While the Scottish Government gathers high-quality data at the tier 1 level (i.e. where procurement budgets are initially spent), we understand it does not comprehensively collect data on tier 2 data i.e. where this money gets spent further down the supply chain. This therefore makes it difficult to assess the dynamic multiplier effects of public procurement spend, and whether public procurement is generating local multipliers and supporting Community Wealth Building objectives.

We therefore recommend that **the Scottish Government invests in creating new analytical tools to track public procurement spending and local multiplier effects**. By establishing greater visibility over the dynamic impact of procurement spending, procurement authorities can better capture the dynamic impact of spending, and use procurement more strategically to support domestic supply chains. Enhanced data would also provide valuable insights into Scotland's supply chain capacity more broadly, helping to inform the design of Scotland's wider industrial strategy.

Renewing the social contract: strengthening conditionalities

As noted above, the Scottish Government already makes use of conditionalities through the 'Fair Work First' framework which aims to shape better outcomes in the labour market. At present however, the only mandatory Fair Work condition attached to procurement contracts is 'paying the real Living Wage', while the other six FWF criteria are not applied as mandatory conditionalities, but are instead encouraged on a bespoke basis that is tailored to each procurement contract.

However, by the end of this Parliament, the Scottish Government has pledged to extend Fair Work First criteria to every type of grant, funding stream, and business; and extend the range of Scottish Government and public sector contracts that Fair Work First criteria will apply to.[98] In order to ensure that all recipients of public funds are Fair Work employers, **we recommend that the remaining Fair Work First criteria are made mandatory for all public procurement contracts** (above a reasonable financial threshold).

In addition, going forward there is also scope to review and expand the range of conditionalities attached to procurement contracts to support a mission-oriented industrial strategy, and better align the share of risks and regards between the public and private sectors. As shown in Table 3, Mazzucato and Rodrik (2023) provide an analytical taxonomy of different types of conditionality, based on distinctions along four dimensions (A-D) – as well as a range of international case studies.[99] While the broad capabilities required for effective industrial policy may be common across countries, the design of actual conditionalities must consider the specific opportunities and constraints presented by local context.

In practice, what conditionalities are most appropriate to attach (beyond Fair Work) will vary according to what is being procured, and for what purpose. For procurement that is supporting innovative new products (e.g. through CivTech), funding could come with conditions attached to ensure that the Scottish Government is able to share in the upside of any future success. This could include, for example, provisions granting the Scottish Government equity stakes in future spin outs, or agreements which enable the Scottish Government to retain ownership of a proportion of the intellectual property their support helped to create. In other cases where procurement contracts are being awarded to established firms, conditions could be attached relating to emissions performance, using procurement as a lever to accelerate decarbonisation in the private sector.

Table 2: Taxonomy of different types of conditionality

A. Type of firm behaviour targeted	• Access: ensuring equitable and affordable access to the resulting products and services (dependent on areas like pricing and intellectual property rights); • Directionality: directing firms' activities towards socially desirable goals (e.g.net zero) • Profit-sharing: requiring profitable firms to share returns (e.g. via royalties or equity with government); • Reinvestment: requiring reinvestment of profits into productive activities (e.g. such as R&D or worker training).
B. Fixed versus negotiable/iterative conditions	The distinction between program requirements that are fixed, apply uniformly, or have a clear schedule of incentives/conditions determined by firm characteristics, versus those that are variable, negotiable, or are determined in a process of iteration and consultation with potential recipients of benefits.
C. Risks/rewards sharing mechanism	The extent to which the risks and rewards of the program are shared between the public and private sectors. On the downside, what are the arrangements for cost sharing, if any at all, when the program under-performs or fails? On the upside, how are the excess profits shared, if at all?
D. Measurable performance criteria & monitoring and evaluation	The presence of explicit, quantitative, or measurable criteria used to ascertain compliance with conditionality. Is there a plan in place to monitor and evaluate and/ or audit the extent to which conditions are met? How is this assessment made and by whom?

Source: Mazzucato and Rodrik (2023) [100]

3.2 Grants and subsidies

The Scottish Government and its agencies provide a wide range of grants and subsidies, but these have built up over time in an ad-hoc fashion and lack strategic coordination. Going forward, the Scottish Government should undertake a comprehensive review of grants for economic development, and introduce a new set of new 'challenge prize' subsidy schemes aimed at creating and shaping markets critical to Scotland's industrial strategy. New conditionalities should be introduced for grants to better align risks and rewards, and a new 'Buy Scotland' framework should be introduced to ensure public funding supports Scottish firms and supply chains.

Recent research from the IMF has found that there were more than 2,500 industrial policy interventions worldwide in 2023.[101] The recent surge in industrial policies has been driven by large economies, with the United States, China and European Union accounting for almost half of all new measures in 2023.[102] Two-thirds of these measures were motivated by the need to respond to challenges such as climate mitigation, supply chain resilience, and security considerations.

In the US, it is estimated that the Inflation Reduction Act (IRA), US CHIPS and Science Act, the Bipartisan Infrastructure Bill will spur over $2.4 trillion in private and private investment over the next ten years.[103] Since the IRA was introduced, companies have announced more than $242 billion in new investments to build the clean energy economy in industries like electric vehicles, batteries and energy storage, clean energy manufacturing, clean power generation, and many others.[104] It has been estimated that the IRA has successfully attracted over $110 billion of investments into the EV and battery sectors alone, thanks in part to its clean vehicle tax credit. Significantly, a number of the measures included in the IRA contained conditionalities to incentivise the use of domestic components and firms (see case study). Similarly, the US CHIPS and Science Act made wide use of conditionalities, including in relation to worker protection, community benefit, sustainability, profit sharing and shareholder buyback limitation conditions.[105]

Case study: Conditionalities in the U.S. Inflation Reduction Act

The U.S. Inflation Reduction Act contained an estimated $393 billion of subsidies for the development and deployment of clean technologies. One of the distinctive aspects of the IRA is that many of these subsidies – such as those relating to clean vehicles and renewable energy projects – are conditional on meeting local content requirements.

The IRA's clean vehicle tax credit scheme seeks to make electric vehicles (EVs) more affordable by subsidising the purchase of both new and used vehicles.[106] To qualify for the tax credits however, the EVs must meet certain requirements. Firstly, they must be assembled in North America (i.e. the US, Canada and Mexico). Secondly, a certain percentage of the critical minerals (40% by 2024 and 80% by 2026) contained in the vehicle battery must either be extracted or processed in the US; be extracted or processed in a country with which the US has a free trade agreement; or have been recycled in North America. However, a vehicle does not meet this requirement if it contains any critical minerals 'extracted, processed, or recycled by a foreign entity of concern', which includes countries such as China. Thirdly, a certain percentage of the value of the battery components of the EVs (50% by 2024 and 100% by 2028) must be manufactured or assembled in North America. Again however, a vehicle does not meet this requirement if any 'components' contained in its battery are 'manufactured or assembled by a foreign entity of concern'.

Similarly, IRA tax credits for renewable energy projects contain new provisions to incentivise the use domestic of over imported renewable energy products.[107] While those engaged in renewable energy production and investment were already entitled to base tax credits, the IRA means that tax credits can increase by 10% if certain domestic content requirements are met. These requirements come in two forms: firstly, renewable energy projects only qualify for the bonus tax credits if they use 100% domestic steel and iron for construction materials. Second, a certain percentage, which varies by year and type of renewable energy project, of the components incorporated into an eligible renewable energy project must be produced in the US.

The U.S.'s use of local content requirements in the IRA has generated criticism from some other countries. In March 2024, China alleged that the IRA's clean vehicle tax credit and renewable energy tax credits discriminate against goods of Chinese origin, in violation of World Trade Organization (WTO) rules.[108] After engaging in "consultations" earlier this year, China formally asked the WTO to establish a panel to examine its complaints, and the case will be reviewed over the next two years.[109] In addition, the EU has stated that the local content requirements in the IRA "come in gross violation of the international trade architecture that is enshrined in the WTO statutes."[110]

In response to developments in the U.S., as well as Russia's invasion of Ukraine, the EU introduced the EU Green Deal Industrial Plan and European Chips Act.[111] The Green Deal Industrial Plan aims to counter the EU's import dependency for key commodities and technologies by placing it at the forefront of markets that will emerge as a result of global decarbonisation efforts. Significantly, the European Commission also relaxed state aid rules under the 'Temporary Crisis and Transition Framework', which now enables member states to provide more generous subsidies for green industries and technologies.[112] In response, many countries have set out national strategies, with Germany launching a new Climate and Transformation Fund and France establishing the 'France 2030' investment plan to speed up the ecological transition.

The growing use of interventionist green subsidies by large economies presents a challenge for small advanced economies like Scotland. However, in recent years many small European countries have also introduced new subsidies to shape new markets and support nascent green industries. Many have sought to capitalise on relaxed state aid rules to launch new funding initiatives to bolster investment in domestic green industries (see box below).[113] Revised rules now permit EU countries to provide state subsidies for renewable energy generation; the decarbonisation of industrial production processes; and investments in "sectors strategic for the transition towards a net-zero economy".[114] Some recent examples of small countries that have recently had strategic subsidies approved by the European Commission are shown in table 4 below.

Table 4: Subsidies introduced by small European countries to support net zero

Country	Amount	Instruments	Aim
Denmark (Feb 2024)115	€240m (DKK 1.8bn)	Grants, concessionary loans and guarantees	To support investments in 'strategic goods' for net zero – including the production of wind turbines and electrolysers, as well as key components and raw materials
Austria (Sep 2024)[116]	€2.7bn	Grants to be awarded through a competitive bidding process	To support companies active in the industrial sector to decarbonise their production processes. Expected to bring 10.5 million tonnes of CO2e savings until 2040.
Portugal (Sep 2024)[117]	€1bn	Grants	To support investments in strategic sectors for net zero – including batteries, solar panels, wind turbines, heat-pumps, electrolysers, carbon capture

As described in section 2, the huge economic opportunities associated with Scotland's net zero transition have been hampered by a weak industrial base. In crucial sectors like offshore wind, a relative lack of domestic supply chains has meant that much of the work has been carried out by overseas companies from across Europe and beyond.[118] This in turn has meant that Scotland's renewables boom has not yet translated into domestic job creation in the way that the Scottish Government expected. Despite more than doubling its renewable electricity generation over the last decade, the number of jobs for every £1m of turnover made by offshore wind companies has fallen dramatically in recent years – falling from 6.1 in 2018 to 0.7 in 2022.[119] [120] Moreover, a reliance on imports to develop Scotland's renewable energy infrastructure has meant that Scotland's low carbon and renewable energy economy (LCREE) balance of trade (measured by exports minus imports) has widened dramatically in recent years – increasing from £185 million in 2018 to £407.5 million in 2022.[121]

If Scotland is to maximise the economic benefits of the net zero transition, it is clear that proactive measures are required to nurture new industries and support the creation of new domestic supply chains and jobs. There is therefore a strong case for targeted interventions to shape new markets and support nascent green industries. As discussed in section 2 however, rather than helping incumbent firms continue with 'business-as-usual', the goal of these interventions should be to support old industries to renew themselves – and for new industries to be born.

Given Scotland's constrained fiscal budget, it is critical that any subsidies are well-designed, and deliver value for money as well as transformational impact. In this section we focus on subsidies in the form of non-repayable grants, which according to the IMF is the most common subsidy instrument being used globally to promote climate goals.[122] We then explore the use of financial instruments in section 4.

The impact of Brexit on subsidy control in Scotland

As a member of the EU, rules around subsidies in the UK were governed by the EU's State Aid Regime. State aid rules are a key component of the EU single market, and aim to prevent governments from providing financial support that could distort competition and affect trade by favouring certain undertakings or the production of certain goods. Under the EU State Aid regime, member states have to notify the European Commission about any proposed subsidies, and provide an ex-ante analysis of the 'market failure' being addressed, unless they are below a certain 'de minimis' threshold. Importantly however, State Aid exemptions are permitted in areas that fall within the scope of the General Block Exemption Regulation (GBER). These are activities that have been exempted from State Aid rules due to certain social, development or environmental objectives, and include things like regional aid, support for SMEs and start-ups, support for environmental protection and aid for research and development. While a member of the EU, the UK consistently spent less on State Aid expenditure relative to other major European countries, illustrating the UK's historic reluctance to implement industrial policies.[123]

Following the UK's departure from the EU, EU State Aid rules no longer legally apply in the UK. Instead, rules on subsidies are governed by the UK Subsidy Control Act (2022), which came into effect in January 2023. While the substantive subsidy rules under the new UK regime remain similar in scope and intent to the EU rules, there are some notable differences. As noted above, under EU rules, all subsidies had to be notified and authorised by the European Commission before being implemented, unless they fell within the scope of a relevant block exemption. In contrast, the new UK regime empowers UK public authorities to self-assess subsidies before granting a subsidy, with only certain large subsidies needing to be referred to the CMA's Subsidy Advice Unit.[124]

Importantly, the new UK regime includes 'streamlined routes' which enable public authorities to fastrack certain subsidies without the need to assess them against the subsidy control principles. At present there are three streamlined routes, covering subsidies relating to research, development and innovation; net zero; and local growth.[125] As such, while the underlying principles remain similar to that of the EU, the new UK subsidy control regime may provide the Scottish Government and public authorities with more flexibility to implement tailored subsidies relating to the delivery of a just transition in Scotland. However, subsidies that are contingent on the use of domestically produced goods or services, often known as 'local content' subsidies, are explicitly prohibited under the Act. This is because such measures are prohibited under the World Trade Organization (WTO) Agreement on Subsidies and Countervailing Measures (ASCM), of which the UK is a signatory.[126]

As noted above, in recent years the EU has relaxed state aid rules under the 'Temporary Crisis and Transition Framework', which now enables member states to provide more generous subsidies for green industries and technologies.[127]. Revised rules now permit EU countries to provide more generous state subsidies for renewable energy generation; the decarbonisation of industrial production processes; and investments in "sectors strategic for the transition towards a net-zero economy".[128] Given Scotland is in competition with other countries to develop competitive green industries, it is critical that Scotland's subsidy regime remains responsive to developments in Europe and elsewhere.

3.2.1. The existing landscape in Scotland

Today grants and subsidies for economic development in Scotland are provided by a wide range of government departments and public agencies. These include numerous Scottish Government departments and public bodies; Scotland's three enterprise agencies; local authorities – as well as various UK Government departments and public bodies.

At present, the Scottish Government does not publish data on the amount of money spent on public grants for economic development, or a comprehensive list of all publicly funded grants and subsidies that are available. However, Scottish Enterprise's 'Find Business Support' website provides a database of some of the funding schemes currently available for businesses in Scotland.[129] At the time of writing, there are 187 grant schemes published on the website, which include grants funded by the Scottish Government, local authorities, the three enterprise agencies – as well as a range of third sector delivery partners. Grants cover a wide range of activities, including business start-ups, skills development, innovation and R&D, export opportunities, business digitalisation and the net zero transition. A comprehensive review of all grant schemes available in Scotland is beyond this scope of this report. In this section, we assess the Scottish Government's strategy towards grants and subsidies. We then review the specific financial support provided by Scotland's three enterprise agencies separately in section 4.

In recent years the Scottish Government has launched a number of grant schemes aimed at accelerating the transition to net zero. Many of these aim to support the decarbonisation of existing sectors and industries, while some also target particular regions of Scotland. Examples include:

- **The Emerging Energy Technologies Fund (EETF)**: In 2020 the Scottish Government announced £180m of funding to support the development of the hydrogen sector and carbon capture and storage (CCS), including Negative Emissions Technologies (NETs) in Scotland.[130] The funding, which is being provided over five years, is intended to support the Scottish Government's ambition of 5GW installed hydrogen production capacity by 2030. In 2022 a £10m Hydrogen Innovation Scheme was launched as the first tranche of the hydrogen funding programme, which aims to support the development and demonstration of renewable hydrogen technologies and products.[131]
- **Scotland's Heat Network Fund**: In 2022 Scottish Government launched Scotland's Heat Network Fund (SHNF) to support the roll-out of zero emission district heat networks and communal heating systems.[132] The scheme offers capital grants to businesses and organisations in the public, private and third sectors to develop heat network projects.
- **Scottish Net Zero Emission Bus Challenge Fund (ScotZEB)**: In 2021, Transport Scotland, Scotland's transport agency, launched the Scottish Zero Emission Bus Challenge Fund (ScotZEB), which aims to accelerate the roll out of net zero bus infrastructure in Scotland. To date the scheme's two phases (ScotZEB1 and ScotZEB2) have awarded over £100m of grant funding to companies and consortia to develop the market for zero emission vehicles and infrastructure. We discuss the ScotZEB initiative further in the case study below.
- **Home Energy Scotland scheme**: In 2022, the Scottish Government launched the Home Energy Scotland (HES) Grant and Loan Scheme.[133] The scheme offers grants of up to £15,000 to homeowners in Scotland to install energy efficiency improvements and clean heating systems. The scheme also offers interest-free loans to cover additional costs. The scheme is managed and delivered by Energy Saving Trust, but funded by the Scottish Government. To date over 15,000 homeowners have benefitted from the scheme.[134]

As will be discussed further in section 4, a wide range of subsidies are also provided to businesses in Scotland by Scotland's three enterprise agencies: Scottish Enterprise, Highlands and Islands Enterprise, and South of Scotland Enterprise. These include grants relating to business start-ups, R&D and innovation, the net zero transition – as well sectoral subsidies targeted towards priority areas such as clean heat and hydrogen.

3.2.2. Conditionalities and award criteria

As with procurement, conditionalities for grants and subsidies in Scotland stems from the Fair Work framework. For public sector grants awarded on or after 1 July 2023, the default position is that Fair Work First criteria for paying at least the real Living Wage and providing appropriate channels for effective workers' voice will be mandatory, while the other criteria are encouraged. By the end of this Parliament, the

Scottish Government has pledged to extend Fair Work First criteria to every type of grant, funding stream, and business; and extend the range of Scottish Government and public sector contracts that Fair Work First criteria will apply to.[135]

As with procurement, FWF criteria are typically only applied to grants where the economic activity will be delivered by workers based in the UK. As many public grants are only eligible to businesses based in Scotland (or have significant activity there), this is often not an issue. However, if subsidies relate to economic activity that may involve contracting with firms from overseas, FWF criteria are unlikely to be applied to foreign suppliers. This has led to criticism of some subsidy schemes, which have been accused of biasing foreign competitors over domestic Scottish firms. As foreign firms often have lower labour costs and employment rights, in some cases domestic suppliers have argued that they have been left at a competitive disadvantage in grant tenders. One such example is the Scottish Net Zero Emission Bus Challenge Fund (ScotZEB) scheme mentioned above, which has awarded over £100m of subsidies to firms to accelerate the roll-out of net zero buses in recent years (see case study below).

Case study: Scottish Net Zero Emission Bus Challenge Fund

In 2021, Transport Scotland, Scotland's transport agency, launched the Scottish Zero Emission Bus Challenge Fund (ScotZEB). The scheme awarded grant funding to "forward-thinking companies to disrupt the bus and coach market, and help make zero-emission vehicles the default choice for all operators from now on." The scheme operated in two phases (ScotZEB1 and ScotZEB2), and invited companies and consortia to bid for funding to develop the market for zero emission vehicles and infrastructure. In 2022 ScotZEB1 awarded £62 million of subsidy to nine bus operators, while in 2024 ScotZEB2 awarded £42m to a consortium led by a company called Zenobē.[136]

Scotland has a longstanding and successful bus manufacturing industry, led by Alexander Dennis, the UK's largest bus manufacturer, headquartered in Larbert. In 2023 the firm reported a turnover of £458 million and employed approximately 1,000 staff across its Scottish operations. The company has won multiple accolades for its employment practice, most recently being named 'Employer of the Year' at the TEC Partnership Apprenticeship Awards 2025.[137] In recent years the company has also made significant investments in decarbonisation, including repurposing its Larbert factory in 2023 to increase its capabilities to expand its capacity for producing zero-emission buses.[138]

Despite this industry success, figures obtained by Paul Sweeney MSP revealed that only 162 of the 523 vehicles (31%) ordered through the ScotZEB fund were awarded to manufacturers based in Scotland.[139] In contrast, 361 vehicles were awarded to manufacturers based outside of Scotland, including 287 (55%) based in China. In September 2024 Alexander Dennis announced that 160 Scottish jobs were at risk of redundancy, stating that the company had "been forced to make this decision despite record levels of funding for zero emission buses being made available from both the UK Government and the Scottish Government."[140] The company cited an "uneven playing field" in government funding, arguing that zero-emission bus grants had disproportionately favoured competitors from "lower-cost and lower-security economies." It specifically criticised the failure of subsidy schemes to provide additional consideration or weighting towards domestic manufacturers. In the case of ScotZEB Phase 2, the evaluation criteria were weighted primarily towards financial cost (40%) and deliverability (30%), with market transformation accounting for 20% and 'wider community and decarbonisation benefit' – including local job creation – receiving only a 10% weighting.[141] With the assessment weighted towards financial criteria, the company argued that the process favoured overseas firms facing lower labour costs and employment rights. The firm also alleged that domestic manufacturers were placed at a further disadvantage due to the asymmetric application of Fair Work First criteria, stating that:[142]

"In Scotland, UK-based vehicle manufacturers are at an additional disadvantage when in receipt of Scottish Government funding as they must adhere to advanced Fair Work First standards… while no such requirement is made of suppliers whose production takes place in other countries. Neither are bus operators incentivised or rewarded for choosing companies that meet Fair Work First standards when funding is awarded. This not only puts domestic manufacturers at further competitive disadvantage, but also undermines the value of this flagship policy as government-funded work is shipped offshore."

In July 2025 Scotland's bus industry received a further blow when Alexander Dennis announced plans to close its manufacturing facilities in Scotland, resulting in the loss of up to 400 jobs in Scotland.[143]

Again the company cited unfair competition rules as a contributing factor, stating that current policy "does not allow for the incentivisation or reward of local content, job retention and creation, nor does it encourage any domestic economic benefit." This example underscores a central challenge for Scotland's industrial strategy. Domestic firms frequently compete with international rivals that benefit from lower labour costs and, in some cases, receive substantial state support from their respective governments. As nations around the world adopt increasingly assertive industrial policies, it is essential that the Scottish Government's approach to subsidies and procurement does not unintentionally place domestic firms at a competitive disadvantage. Striking a balance between supporting local industry and adhering to competition and state aid regulations remains a critical and complex task.

As noted above, in recent years a growing number of countries have introduced green subsidies that aim to prioritise the use of domestically produced goods or services over imported ones. In some cases (such as the U.S. IRA discussed above), this includes explicit 'local-content' rules requiring a certain proportion of materials to be sourced from domestic suppliers or workers. In other cases, public authorities have used indirect mechanisms such as giving a greater weighting to social value criteria, which domestic firms may be better placed to deliver.

As noted above, the UK Subsidy Control Act prohibits subsidies that are explicitly contingent on preferences for domestically produced goods or services over imported ones, often known as 'local-content' subsidies. However, the Scottish Government could apply different award criteria and weightings to put a greater emphasis on social and environmental criteria, including those relating to domestic job creation – therefore indirectly supporting domestic firms. In the case of the ScotZEB2 grant scheme discussed above, the weightings applied in the assessment were heavily skewed towards financial considerations, while 'wider community and decarbonisation benefits' – which includes local job creation – was only given a weighting of 10%. As such, there is scope to explore whether subsidy schemes can be redesigned to help strengthen domestic industry without breaching legal requirements – learning from international lessons.

3.2.3. Reforming subsidies to support Scotland's industrial strategy

As outlined above, today there is an extensive array of public grants available in Scotland that cover a wide range of activities. While many of these initiatives may remain worthwhile, the launch of Scotland's new industrial strategy presents an opportunity to review the subsidy landscape, and ensure that scarce public funds are being utilised most effectively. In this section we set out three steps for reforming subsidies to support an ambitious industrial strategy: reviewing and streamline the existing subsidy landscape; introducing new market shaping subsidies; and strengthening conditionalities to support fair work and domestic industry.

Review and streamline the existing subsidy landscape

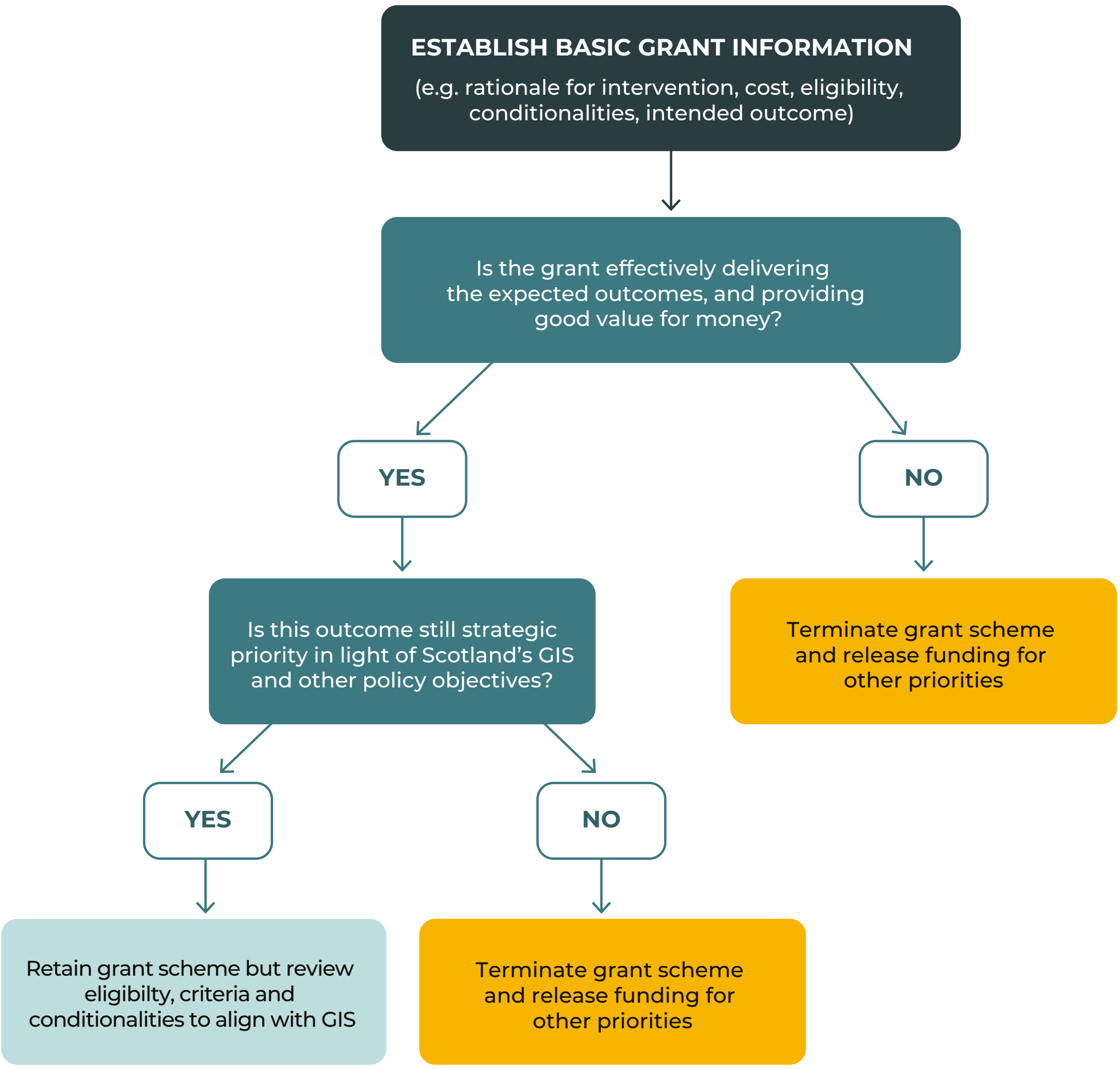
Today grants for economic development are administered by a wide range of bodies - including government departments, arms-length public bodies, third party delivery partners, and the three enterprise agencies. Many of these grant schemes have built up over many years in a somewhat ad-hoc fashion. While some schemes may have made sense at the time of their creation, they may no longer represent the best use of scarce public funds.

At present, we understand that the Scottish Government does not centrally collect detailed information on the amount of money spent on grants for economic development across the public sector. Before undertaking reform of subsidies, it is firstly critical to understand how existing funds are being spent, and the outcomes they are delivering. As a first step, **we therefore recommend that the Scottish Government undertakes a comprehensive review of grant funding for economic development in Scotland**. This exercise should aim to gather information on all grants and subsidies provided for economic development in Scotland – including those administered by central government, public bodies, the enterprise agencies, and third-party delivery partners. The review should be undertaken in partnership with Scotland's three enterprise agencies.

After gathering essential information about each grant (e.g. rationale for intervention, cost, eligibility, conditionalities, intended outcomes etc), each grant should be assessed using a robust framework to determine whether they remain fit for purpose. A simplified decision tree for undertaking this review is presented in Figure 3 below. Firstly, the assessment should aim to determine whether each grant is effectively delivering its intended outcomes, and delivering good value for money. As will be discussed further in section 6, the impact of subsidies should be assessed dynamically over time, including the impact of any spillovers, rather than statically. Value for money should consider wider social and environmental benefits, as well as economic benefits. If the assessment determines that any grant is failing to deliver the intended outcomes, or there is insufficient evidence of impact, the scheme should be terminated in order to release funding for other priorities.

For grants that are delivering the intended outcomes, the assessment should then aim to determine whether this intended outcome is still a strategic priority in light of Scotland's GIS and other policy objectives. In order to rank relative priorities against each other, a framework for scoring outcomes should be developed based on a qualitative assessment of the Scottish Government's policy priorities. Grants that are delivering outcomes that are no longer a strategic priority should be reviewed and, if necessary, terminated in order to release funding for other priorities. Grants that are still delivering against strategic priorities should be retained but subject to a review. This should seek to re-appraise the value of the grants, eligibility, award criteria and conditionalities to identify whether it could be redesigned to have a more transformative impact on their desired outcomes.

Figure 3: Decision tree to inform review of Scotland's subsidy landscape



We also recommend that the review aims to clarify the roles of organisations administering grants and subsidies in Scotland. Today grants are provided via a plethora of different bodies - including government departments, arms-length public bodies, third party delivery partners, and the three enterprise agencies. Navigating this landscape can prove time-consuming and confusing for businesses. We consider that, in most cases, Scotland's enterprise agencies represent the most effective vehicles for distributing grants to businesses for economic development. The enterprise agencies have strong relationships with businesses, significant in-house capacity and expertise, and a detailed understanding of Scotland's economic development landscape – and are therefore well placed to act as a 'one stop shop' for businesses seeking support. Grants relating to strategic sectors or infrastructure (e.g. transport) or households should continue to be administered by the relevant government department. While there may continue to be other special cases where the Scottish Government or third party partners are better placed to administer grants, the enterprise agencies should act as the primary vehicles for distributing subsidies to businesses.

Introduce new market-shaping subsidies to support industrial strategy goals

In neoclassical economic theory, subsidies are typically only justified to address certain identifiable market failures, such the presence of externalities or incomplete information – and only in cases where the 'intervention' does not cause a 'government failure'.[144] In Scotland today, many existing subsidies are aimed at addressing market failures – such as those relating to R&D and innovation, start-ups and SMEs, and public goods (e.g. nature restoration).

However, as we discussed in our previous paper, the market-fixing framework fails to explain the catalytic role that states have historically played driving industrial transformation and innovation. Across the world, many different types of public actors have been responsible for actively shaping and creating markets, not just fixing them; and for creating new wealth, not just redistributing it.[145] In particular, high-risk, patient state funding has been responsible for many major technological breakthroughs, which were subsequently commercialised by the private sector once returns became more certain. This has typically involved both grant funding in early-stage research and debt and equity finance to support downstream commercialization. In these cases, 'entrepreneurial states' have acted as a lead investor and risk-taker in the economy, co-creating and shaping new markets, not simply 'fixing' existing ones.[146]

As such, in addition to streamlining the existing subsidy landscape, the Scottish Government should explore opportunities for creating new subsidies aimed at creating new markets catalysing investment and innovation towards industrial strategy goals. This is particularly important in light of the rapidly changing global context. As noted above, in recent years growing numbers of countries have introduced new and often substantive subsidies to support nascent green industries. While this alone does not necessitate that Scotland must do the same, if Scotland is to be competitive in global green supply chains it is critical that domestic firms are not left at a competitive disadvantage.

As such, we recommend that the Scottish Government undertakes a comprehensive assessment to identify where well-designed subsidies could play a transformational role in supporting the objectives of the GIS. This should involve assessing existing sectoral and technological capacities, supply chains and comparative advantages – as well as likely needs in future as Scotland transitions towards net zero. This should seek to include the five 'opportunity areas' prioritised in the GIS, but should also extend to related sectors and supply chains. Importantly, the aim should not be to target a subsidy towards a specific sector or solution, as has often been done to date in Scotland (e.g. hydrogen or clean heat). Solution-specific grants can be merited where there is a clear need to strengthen capabilities in strategically important areas. However, subsidies that target pre-determined sectors or solutions can also inhibit cross-sectoral innovation and experimentation. In pre-supposing what the optimal solution is to a problem, governments can overlook opportunities for innovation. Instead, we recommend that new subsidies focus on clearly defined outcomes or missions that aim to stimulate a wide range of bottom-up solutions. One way of doing this is through the use of challenge prizes.[147]

Challenge prizes offer a reward to whoever can first or most effectively solve a specific problem.[148] Different forms of challenge prizes have long been used by governments to spur innovation. Notable early prizes include the Longitude Prize (launched to encourage the invention of new methods to calculate longitude at sea for the benefit of British navy and merchant operations, awarded in 1765), the Academy of Besancon's Prize for Substitute Foods (awarded in 1773, making the potato into a popular human foodstuff in Europe) and the French Society for the Encouragement of Industry Prize (awarded in 1826 and spawning the commercial hydraulic turbine).[149] After falling out of favour for centuries, government interest in prizes began to re-emerge in mid-2000s, sparked by the success of prizes such as the Ansari X PRIZE that pledged $10 million to the first group to launch a private manned and reusable space vehicle into space twice in two weeks. Subsequently, the Obama administration in the U.S. sought to advance the application of prizes as a key innovation tool across all policy areas, including medicine and energy. In recent years, challenge prizes have been embraced to spur innovation internationally, including in the UK.[150] Although challenge prizes can be effective ways to stimulate mission-oriented innovation, their effectiveness depends greatly on how they are designed.[151]

The Scottish Government has already embraced this mission-oriented approach to innovation in public procurement via the CivTech programme, as discussed in section 3.1. Given the success of CivTech, there are opportunities to embrace a similar approach in relation to grant funding. In 2022, the Scottish Government announced plans to launch a 'National Challenge Competition on Economic Transformation' (NCCET) that would provide funding of up to £50 million to the project or projects with greatest potential to transform Scotland's economy. To date however, the challenge has not been launched – and it remains unclear whether it is still in the pipeline. Going forward, **we recommend that the Scottish Government establishes a series of new 'challenge prize' subsidy schemes aimed at promoting the goals of Scotland's industrial strategy.** While the previous NCCET targeted a general goal of "transforming Scotland's economy", we recommend that any new challenge prizes are focused on a series of concrete missions aimed at catalysing innovation towards the five 'opportunity areas' identified by the GIS. The prizes would offer grant funding to projects that demonstrate the greatest potential to deliver transformative impact towards addressing a particular problem. As will be discussed further below, funding should come with conditions attached to ensure that the Scottish Government is able to share in the upside of any future success.

Importantly, these missions should not be achievable by a single development path or by a single technology. Challenge prizes should clear on the expected outcome, but not specify how to achieve success. Instead, they should aim to stimulate a range of bottom-up solutions to achieve the objective. As such, challenge prizes are not about the government 'picking winners', but about 'picking the willing' – those organisations across the economy that are willing to engage with societally relevant missions.

Strengthen conditionalities to support Fair Work and domestic supply chains

As noted above, the Scottish Government already makes use of conditionalities through the 'Fair Work First' framework which aims to shape better outcomes in the labour market. At present however, the only mandatory Fair Work criteria attached to public grants are paying the real Living Wage and providing appropriate channels for effective workers' voice – while the other criteria are encouraged. In order to ensure that all recipients of public funds are Fair Work employers, we recommend that the remaining Fair Work First criteria are made mandatory for all public grants (above a reasonable financial threshold).

In addition, going forward there is also scope to review and expand the range of conditionalities attached to grants to support a mission-oriented industrial strategy, and better align the share of risks and regards between the public and private sectors. **We therefore recommend that the Scottish Government considers introducing new conditionalities for grants to better align the share of risks and rewards** – particularly in instances where public funding is aiming to catalyse investment and innovation towards industrial strategy goals. For example, grant funding provided through challenge prizes could come with conditions attached to ensure that the Scottish Government is able to share in the upside of any future success. This could include, for example, provisions granting the Scottish Government equity stakes in future spin outs, or agreements which enable the Scottish Government to retain ownership of a proportion of the intellectual property their support helped to create.

Finally, **we recommend that the Scottish Government takes additional steps to ensure that subsidies are supporting domestic supply chains and job creation**. As discussed earlier, many governments have introduced new green subsidies that aim to nurture new green industries and strengthen domestic supply chains to support competitiveness and resilience as the world transitions towards net zero. Moreover, the Scottish Government's recent Green Industrial Strategy put a strong emphasis on strengthening domestic supply chains, and helping domestic firms to seize opportunities associated with Scotland's net zero transition. However, as illustrated by the ScotZEB grant scheme discussed above, there have been instances in Scotland where public grant funding has supported industry and jobs overseas, sometimes at the expense of domestic suppliers who were well placed to deliver the work. In order to address this, we recommend two reforms.

Firstly, we recommend that the Scottish Government takes steps to ensure that the application of Fair Work First conditions to subsidies does not inadvertently place domestic firms at a competitive disadvantage relative to foreign suppliers. As discussed above, Fair Work criteria are typically only applied to grants where the economic activity will be delivered by workers based in the UK. As foreign firms often already have lower labour costs and employment rights than UK-based businesses, there is a risk that this asymmetric application of Fair Work criteria may inadvertently incentivise the contracting of foreign suppliers over domestic businesses. Importantly, addressing this should not involve watering down Fair Work criteria, but putting a stronger emphasis on criteria relating to public value and the common good when assessing subsidy applications.[152] [153] In the case of the ScotZEB2 grant scheme discussed above, the weightings applied in the process were heavily skewed towards financial considerations, while 'wider community and decarbonisation benefits' was only given a weighting of 10%. Going forward, we recommend that less weighting is put on financial considerations and more weighting is put on public value criteria, as discussed in the section on procurement.

Second, we recommend that the Scottish Government considers complimenting the Fair Work initiative with new conditionalities focused on maximising the participation of Scottish businesses in projects in receipt of public funding. While attaching explicit local content requirements to grants and procurement contracts is likely to be illegal under UK and WTO legal obligations, other countries have introduced policies that aim to indirectly maximise use of local supply chains in projects receiving public funding. One such example is the Australian Industry Participation (AIP) framework, which aims to ensure that domestic firms are given a "full, fair and reasonable opportunity" to participate in government funded projects (see case study below).

Case study: Australian Industry Participation (AIP)

The Australian Government's 'Australian Industry Participation' (AIP) framework aims to ensure that Australian businesses are provided full opportunities to provide goods and services for major projects. Among the measures associated with the AIP framework is a requirement for those seeking public funding for projects to submit an 'AIP Plan' as part of their application. AIP plans do not mandate using Australian industry for projects, but instead require those seeking public funding to describe the actions they will take to give "full, fair and reasonable opportunity to Australian industry to participate" in project, defined as follows:[154]

Full: Affords Australian firms the same opportunities as international competitors in all project phases

Fair: Ensures that Australian industry is given the same opportunity as international competitors to compete on an equal and transparent basis

Reasonable: Ensures tenders are free from non-market burdens that might disadvantage Australian suppliers.

In most cases, firms seeking funding of more than AU$20 million must set out an AIP plan as part of their application. This includes firms seeking Australian government procurement contracts, grants, loans and investments through the Clean Energy Finance Corporation, as well as payments to state and territory governments for large infrastructure projects. AIP plans submitted by companies are expected to include a wide range of information, including:[155]

How the applicant will develop an understanding of Australian industry capability before approaching the market for goods and services

Expected opportunities for Australian businesses to supply important goods and services

What strategies will be used to communicate openly and widely opportunities for Australian suppliers to supply goods and services

What assessment criteria will be used to assess suppliers on an equal basis

How Australian suppliers will be helped to develop their capabilities and integrate into global supply chains

As such, although the AIP framework does not mandate the use of domestic suppliers, it provides an indirect means of helping Australian businesses provide goods and services for projects that receive public support.

We recommend that the Scottish Government considers introducing a similar 'Buy Scotland' framework as part of its new Green Industrial Strategy. Working alongside Scotland's Fair Work initiative, this would require firms seeking public funding – including procurement contracts, grants and loans (over a certain threshold) – to demonstrate how they will give Scottish firms a fair opportunity to supply goods and services for the project receiving funding. As with the AIP policy, this could involve requiring applicants to produce a plan setting out how they will consider Scotland's domestic industrial capability before procuring goods and services; how they plan to communicate opportunities for Scottish suppliers to supply goods and services; and how they will help Scottish suppliers to develop their capabilities and integrate into global supply chains. These plans would then be considered as part of the assessment process, alongside financial metrics, Fair Work considerations, and other public value oriented criteria.

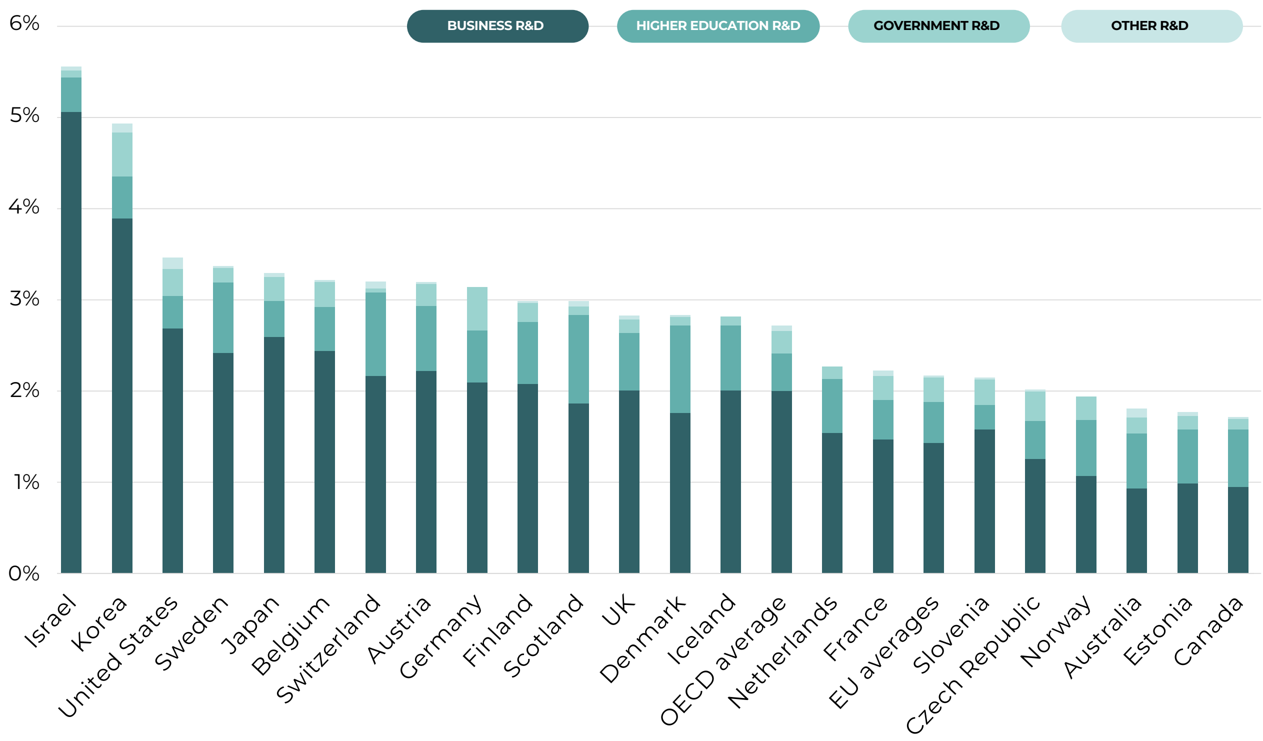
3.3 R&D and innovation funding

Scotland's innovation support landscape remains complex and fragmented, and business and government R&D spending is comparatively low. Going forward, the Scottish Government should undertake a comprehensive review of Scotland's innovation funding landscape to align it with industrial strategy missions; replace duplication; and encourage more collaboration. The Scottish Government should also commit to double business spending on R&D by 2030, matched with additional funding for R&D grants to be delivered through the enterprise agencies.

In recent years, many countries across Europe, North America and Asia have pledged to dramatically increase R&D spending to drive technological innovation and accelerate the transition to net zero.[156] Key to whether Scotland can succeed in maximising the economic benefits of net zero will be increasing government and business R&D, while capitalising on Scotland's universities' research expertise to drive innovation.

As we discussed in our previous paper, total R&D spending in Scotland is slightly above the average in the UK and the OECD average, but significantly below leading countries such as Sweden, Germany, Finland, the US, Japan, South Korea and Israel.[157] This total spending is made up mainly of business expenditure (BERD), government expenditure (GERD), and higher education expenditure (HERD) – and Scotland performs very differently in each. Scotland's higher education R&D spending is the highest in the OECD, illustrating the comparative strength of Scotland's world-leading higher education sector.[158] However, Scotland's business R&D is slightly below the OECD average, while government R&D is less than half the OECD average.[159]

Figure 4: Scotland performs well on higher education R&D, but poorly on business and government R&D
Expenditure on R&D as a % of GDP, selected OECD countries



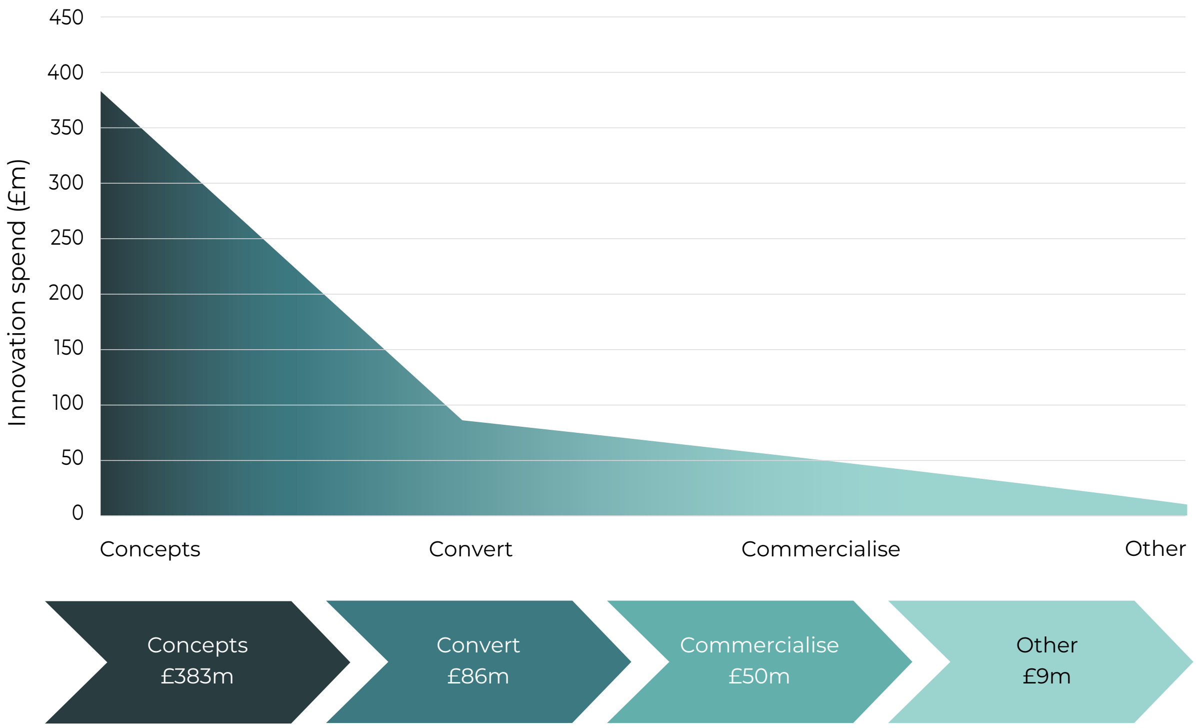
Source: Scottish Government,[160] OECD[161]

A recent report by the OECD examining the composition of industrial strategies in nine countries found that the UK is unusually reliant on tax reliefs – spending over 2% of GDP on tax reliefs in 2021 compared to an average of 1% across the other eight countries examined, the majority of which relates to R&D tax credits.[162] In contrast, financial instruments such as public venture capital, loans and guarantees (excluding export finance and Covid-19 interventions) represented just 0.1% of the UK's GDP – compared to an average of 0.7%, and over 1.5% in countries like France and Italy. While tax incentives may work to increase investment in some cases, in contexts where technological opportunities are lacking in the first place, those incentives may well be used to increase profits, without additional investment in R&D.[163] Evidence shows that direct investments that help to create new technological and industrial landscapes tend to be more effective at generating additionality than indirect tax incentives (i.e. at providing additionality).[164]

The Scottish Government's Green Industrial Strategy has recognised the importance of raising R&D, and included 'investing in strong research and development foundations' as one of the six horizontal enablers. The strategy proposed a number of measures to support this, including aiming to commercialise more of Scotland's university research and investing more in foundational and applied research. As the Scottish Government has recognised however, the current innovation support landscape in Scotland is complex, including a network of seven sector-focused innovation centres, grants and wider non-financial support for innovation, accumulating to around 90 innovation initiatives across the Scottish Government, in addition to the enterprise and agencies and Skills Development Scotland. This rises to around 500 initiatives when including innovation funds run by other organisations, such as the UK Government, EU, local Government and the third sector.

Public sector support for business innovation is provided by the three enterprise agencies and Scotland's skills agency, Skills Development Scotland, while funding to universities and colleges is provided by the Scottish Funding Council (SFC). As discussed in the previous section, commercial and equity investment is provided through the Scottish Enterprise Growth Investments and the Scottish National Investment Bank. As shown in Figure 5 below, Scotland's public innovation support landscape is heavily skewed towards the earlier ‘concept’ stage of the innovation chain. Of an estimated funding of around £480m in 2018-19, nearly £400m of this is allocated to early stage innovation – and £284m of this (71%) is research funding for higher education institutions by the Scottish Funding Council (SFC), which serves broad objectives.[165] In contrast, less than £50m (10%) is allocated to the commercialisation phase. Evidence suggests that while Scotland’s university sector excels in terms of the quality and impact of its research, it underperforms with regards to the commercialisation of research.[166] The Scottish Government’s Green Industrial Strategy aims to address this by launching a new commercialisation programme that will provide targeted, multi-year funding and support to increase the number of scalable spin-outs in Scotland related to the green economy and provide support to retain the most successful spin-outs in Scotland.

Figure 5: Public funding for innovation is heavily skewed towards the concept stage
Innovation Spend in Scotland by Scottish Government and Agencies, 2018-19 (£m)



Source: Scottish Government[167]

However, successful market shaping policy often involves investing across the entire innovation chain – including R&D, commercialisation, market-creation and deployment – in turn interacting with private actors. It also involves using levers such as procurement to provide a demand-side pull for new products and services.[168] As the Scottish Government’s innovation strategy acknowledged, there is currently limited evidence regarding the impact of innovation funding provided by the Scottish Government and its agencies.[169] As such, Scotland’s new industrial strategy presents an opportunity to review the existing landscape, and align funding more strategically around a mission-oriented approach across the public sector.

Taken together, the ecosystem described in the paper thus far – comprising public procurement, innovation funding, the enterprise agencies and the Scottish National Investment Bank – has considerable spending and purchasing power. Given the challenging fiscal outlook, it is critical that these resources are being coordinated most effectively to catalyse innovation in support of Scotland’s industrial strategy. At present however, there is a lack of coordination and strategic alignment, with many initiatives existing in isolation.

We therefore recommend that the Scottish Government undertakes a comprehensive review of Scotland's innovation funding landscape to evaluate impact to date and make reforms to support Scotland's industrial strategy goals. The review should aim to align the funding landscape with industrial strategy missions; streamline and simplify the funding landscape; and replace duplication and ineffective funding streams. Importantly, it should also seek to clarify the role of different actors (i.e. the SFC, enterprise agencies, skills agencies, procurement, the SNIB) in providing funding across different stages of the innovation chain. Importantly, it should also seek to formalise ways to encourage coordination and collaboration between actors to support innovative projects throughout product life cycles.

By aligning Scotland's public innovation ecosystem around a mission-oriented industrial strategy, Scotland can begin to create a coordinated ecosystem of different agencies investing across the entire innovation chain – including research, early stage development, commercialisation, and deployment – to steer innovation towards missions. These in turn can collaborate with Scotland's private investment landscape of angel investors, private equity venture capital to scale up successful businesses. In doing this, the Scottish Government can begin to create the kind of decentralised, 'networked entrepreneurial state' that has been responsible for driving innovation in other countries .[170 171] An illustrative example of what a more coordinated, mission-oriented innovation funding landscape could look like is provided in Figure 6 below. Crucial to this is the need to reinvigorate capacity building, competencies and expertise within the state such that its different institutions can effectively fulfil their roles, which we discuss further in section 5.

Figure 6: Innovation chain funding to support Scotland's industrial strategy

	Research	Concept / development	Early stage development	Product development	Production / marketing
Private funding	• Corporate R&D	• Corporate R&D	• Angel investors	• Venture capital	• Corporate equity • Commercial debt
Public funding	• SFC (universities)	• SFC • Enterprise agencies	• Enterprise agencies • Procurement	• Procurement • Scottish National Investment Bank	• Scottish National Investment Bank

Source: Based on Mazzucato (2013) [172]

The Scottish Government previously pledged to double business spending on R&D by 2025, which it is currently on track to achieve. As discussed above however, while Scotland's higher education R&D spending is the highest in the OECD, business R&D and government R&D spending remain below the OECD average. **We therefore recommend that the Scottish Government also commits to double business spending on R&D once again by 2030**. This pledge should be matched with additional funding for R&D grants to be delivered through the enterprise agencies, which in turn should be aligned with priority areas in Scotland's industrial strategy.

3.4 Development and offshore leasing

To fully seize the opportunities of the net zero transition, Scotland must ensure that its bountiful natural resources are managed effectively. To achieve this, the Scottish Government should create a new Scottish Land Agency with the power to purchase, develop and sell land strategically in the public interest – working in partnership with key stakeholders to ensure that land is brought forward to deliver housing, infrastructure, new towns and regeneration projects.

The Scottish Government should also explore the costs, risks and benefits of taking equity stakes in future offshore wind developments, and strengthen conditionalities attached to future offshore leases to maximise investment and job creation in domestic supply chains.

As we discussed in our last paper, one of Scotland's key strengths is its abundance of natural resources. Today this includes 39% of installed renewable wind capacity in the UK – as well as substantial forest, peatland and coastal resources.[173] How these resources are used and managed will be critical in shaping Scotland's economic future.

The Scottish Government's GIS identifies robust, timely and proportionate planning and consenting systems across land and sea are a key enabler of Scotland's net zero transition. In this section we review two other areas – onshore development and offshore wind leasing – and set our recommendations for reforms.

3.4.1 Onshore planning and development

How land is owned, managed and used plays a fundamental role shaping Scotland's economic, social, environmental and cultural landscapes. Land's unique properties – scarcity, permanence, irreproducibility, immobility – mean that the land market does not function particularly well, and is replete with market failures.[174] The supply of land cannot easily be increased or expanded to meet greater demand, and market price signals cannot always be relied on to efficiently guide decisions over what land should be used for. Even the world's most market-oriented states implicitly recognise this, and impose non-market regulatory controls on land use.[175]

Today the regulation of land use in Scotland is determined by the planning system, which provides the framework for deciding how land is used, how communities take shape and how new developments look and work. The planning system is a critical enabler for addressing many of Scotland's most pressing challenges, including tackling the housing crisis, providing critical infrastructure, and delivering the required level of investment in renewable energy. As such, it is critical that planning authorities are equipped with the capacity and resources to play the kind of proactive, market shaping role needed.

In recent years however, planning capacity has been significantly hollowed out by austerity. As the Royal Town Planning Institute has highlighted, years of under-resourcing and market-oriented reforms have relegated planning to a largely reactive, regulatory function driven by a 'box-ticking' culture.[176] The Scottish Government has recognised this, and in September 2024 established a new 'Planning Hub' to support planning authorities to improve their resourcing, skills and capacity to deliver planning determinations promptly.[177] The Scottish Government's GIS also set out a number of measures to the planning system, including improving the quality, consistency and pace of the planning and investing in training and upskilling across the public sector.

While ongoing investment in – and reform – of Scotland's planning system is needed, Scotland's industrial strategy should also consider reforming the development process itself. Meeting Scotland's net zero target will likely require significant amounts of new development to support new low carbon, housing, green infrastructure, renewable energy, new industrial sites, greenspace, nature restoration etc. One of the biggest barriers to development in Scotland is securing strategic sites of land that are suitable for development, and gaining planning permission.

At present, strategic land promotion in Scotland (the process of identifying and preparing sites for development) is carried out largely by the private sector. As private developers aim to generate value for shareholders, they prioritise private value while often ignoring public value. This means they tend to bring forward land for development in high value, more profitable and less risky locations and market segments, and avoid lower value areas of rural areas and town centres. This market-led approach to strategic land promotion can also undermine high-quality placemaking, as elements of development that bring public rather than private value – such as affordable housing, recreational green space, biodiversity and high-quality urban realm – tend to be under-provided. With regards to housing, private developers are also incentivised to release new homes onto the market slowly in order to avoid putting downwards pressure on house prices.[178] As the Scottish Land Commission has noted:[179]

"To achieve better outcomes, we need to move away from a purely commercial model of housing land delivery focused on private value and toward a model that prioritises social value."

Lessons from around the world, as well as from Scotland's own history, indicate that development and place-making can be more effectively coordinated where the state plays a more proactive role in the land market.[180] Research for the Scottish Land Commission has found that in European countries where the public sector plays a leading role in assembling land for development, better outcomes are delivered – including in relation to green and public space, housing amenities, and public transport.

In 1960 France established the SAFER model, which created a number of public companies with powers to pre-emptively acquire land coming to market in order to fulfil a number of public interest missions. While this initially related to ensuring the availability of sufficient agricultural land, in subsequent years the system was built up to deliver other public interest outcomes – from supporting public infrastructure and creating a public land bank, to protecting water quality by preventing irresponsible land managers from acquiring sensitive holdings.[181]

In South Korea, around half of all residential land development and almost all industrial land development is carried out by the Korean Land Corporation (KLC).[182] Since being formed in 1975, the KLC has played a key role in transforming the economy of South Korea by efficiently managing land and promoting economic development. The KLC's functions include developing and selling land for residential use, acquiring idle and vacant land for resale, and developing new towns. This has helped ensure that land and housing have remained affordable in South Korea.

We can also draw lessons from closer to home. Key to the success of large-scale public house building programmes in Scotland during the postwar era was the ability of public authorities to purchase land at low cost, bring sufficient land forward for development, and utilise land value capture for public benefit. This system was perhaps most successfully used to develop the New Towns programme.[183]

In Scotland, similar benefits could be achieved today by **establishing a new Scottish Land Agency with the power to purchase, develop and sell land and ensure that this key resource is being managed strategically in the public interest**. A new Scottish Land Agency would not replace private developers, but would act as a 'prime mover' in the land market, working in partnership with local authorities, small and medium sized developers, landowners and citizens to ensure that enough land is brought forward to deliver housing, strategic infrastructure, renewable energy and regeneration projects. Unlike private developers, a public land agency would acquire and assemble land with public value in mind – prioritising things like low carbon infrastructure, affordable housing, better place-making, and greenspace.

Once land has been assembled, the Scottish Land Agency would contract out construction to construction firms housebuilders, who would compete with each other on the basis of quality and design of house building. This means that the success or failure of developers would be determined by construction quality rather than by their ability to navigate the speculative land market. As such, the model would involve socialising the provision and management of land for development, but not development itself. Creating a public land agency would also provide a hub of skills and expertise that local authorities and other public bodies could draw on to enable them to play a more active role in land promotion and shaping markets. While some local authorities in Scotland have played a significant role in land assembly and public interest led development, other local authorities lack the expertise and resources.[184]

The creation of a new Scottish Land Agency would have an up-front cost, as the agency would need to be capitalised with sufficient funding. Importantly however, the up-front costs of capitalisation would likely be more than offset in the long run by savings in public expenditure and returns on the investments made. As such, rather than being viewed as a cost to public budgets, capitalising a new Scottish Land Agency should be viewed as a strategic public investment that will generate significant returns over the coming decades. Implemented effectively, this could create a powerful new model of public-interest led development that could help to accelerate objectives relating to Scotland's industrial strategy.

3.4.2 Offshore wind leasing

In 2022 the Scottish Government awarded the first 20 seabed option agreements in its 'ScotWind' leasing initiative for establishing new offshore wind farms. It is estimated that the contracts awarded to date have the potential to deliver installed capacity of 27.6GW, representing the world's largest commercial round for floating offshore wind. Projections suggest that the burgeoning floating offshore wind sector could generate 17,000 jobs and contribute £33.6 billion in domestic GVA.[185]

ScotWind is administered by Crown Estate Scotland (CES), an arms-length agency of the Scottish Government. The ScotWind bidding process, in its initial announcement, garnered attention with 74 applications submitted by multinationals, consortia, and global investment funds. By August 2021, in two distinct rounds, 20 of these applications had been selected for option agreements. These agreements permit companies to undertake tests, surveys, and site explorations without making any permanent installations on the seabed. Agreements were awarded based on a set of published criteria, related to project conception, financial blueprint, delivery timeframe, and the technical proficiency.[186] Crown Estate Scotland will offer a full seabed lease (enabling projects to be built and operated) once developers have secured the necessary consents, licences, and finance. Subsequent leasing rounds are expected to take place over the coming years, and final investment decisions will be reached towards the middle of this decade, with build-out scheduled to last until the mid 2030s.

Conditionalities embedded in ScotWind

Crown Estate Scotland required all applicants to include Supply Chain Development Statements (SCDS) which outlined their ‘committed’ and ‘ambition’ supply chain expenditure allocated to four different geographies: Scotland, rest of the UK, the EU, and elsewhere. The committed expenditure for Scotland amounts to £28bn – amounting to 38% of the total supply chain expenditure.[187]

For the manufacturing phase however, which accounts for 72% of total supply chain expenditure, only around a quarter (28%, or £14.5bn) is expected to be invested in Scotland, with 54% being invested outside the UK. However, in order to incentivise successful companies to meet their commitments, CES introduced ‘contractual remedies’ linked to SCDS performance. Failure to meet the predetermined commitment results in developers paying monetary remedies to CES, pegged as a small percentage of the contractual value – with a clause enabling projects to be halted if less than 25% of the committed expenditure in the finalised SCDS is disbursed. Original SCDS plans were submitted in 2021, but five companies subsequently updated them in 2023.[188] In four of these cases, the share of the total project investment into Scotland was reduced, with most increasing the share that will be invested into the EU instead.[189]

As such, while CES should be commended for utilising the conditionalities, there is an opportunity to explore whether conditionalities could be strengthened in future rounds to maximise investment in domestic supply chains while promoting social and environmental objectives.

While the ScotWind leasing initiative marks a considerable achievement, there is an opportunity to reflect on how a new approach to industrial strategy may inform future leasing rounds. One area for consideration relates to the sharing of risks and rewards. The primary way that CES sought to generate public revenue from the leasing process was by levying option fees on successful agreements. To date £750m option fees have been raised from developers, which will be passed to the Scottish Government for public spending.[190] Projects are also expected to pay Crown Estate Scotland £4m per GW per year once operating, which will also be paid to the Scottish Government.[191] However, the revenue generated from options fees is likely to be dwarfed by the economic value generated by Scotland’s offshore wind sector. Some have argued that price ceilings set during the leasing curtailed potential public sector revenues compared to similar projects in other countries. The think tank Common Weal has noted that similar offshore wind auctions in the USA and England have raised considerably more public revenue on a comparative basis.[192]

There is therefore an opportunity to explore how risks and rewards could be shared more fairly in future rounds, learning from Scotland’s experience with the oil and gas sector, and how other countries managed their resources differently. Despite extracting similar amounts of fossil fuels in recent decades, it has been estimated that Norway has generated more than three times the amount of public revenue from oil and gas than the UK, due to higher taxation and government equity stakes.[193] Today the Norwegian sovereign wealth fund, which was established in 1990 to invest the surplus revenues of the Norwegian petroleum sector, is the largest in the world with around $1.4 trillion of assets.[194]

With Scotland’s offshore wind resources set to generate significant revenues over the coming decades (although likely not on the same scale as oil and gas), Scotland’s industrial strategy presents an opportunity to reflect on how future leasing rounds can be reformed to share risks and rewards between developers, the state and local communities. One option to achieve this would be for future leasing rounds to stipulate that the Scottish Government will take a minority equity stake in all future developments. By co-owning offshore wind developments, this would mean the Scottish Government would share both the costs and rewards associated with them. While this would require up-front public investment, it could potentially generate a significant amount of public revenue over the coming decades – as Norway did with its oil wealth. A number of other European countries are already exploring such an approach.

In 2023 Ireland's Commission for Regulation on Utilities recommended that the Irish government take a "significant equity stake" in Ireland's pipeline of offshore wind projects in recognition of Ireland's significant offshore wind potential.[195] Moreover, in April 2024 Denmark launched its biggest offshore wind tender to date, inviting companies to compete for the right to erect turbines on six sites with a combined capacity of up to 10 gigawatts (GW). The tenders stipulated that successful companies would co-own the developments with the Danish government, which would take a 20% equity stake in each project.[196] The decision mimics the Danish government's decision in 2012 to take a 20% equity stake in new oil and gas projects.[197] Importantly however, the tender stipulated that projects would not receive any state subsidies, and would have to make yearly concession payments to the Danish state across a 30-year period.

However, in December 2024 it was announced that the auction round ended without any bids, representing a significant setback for the Danish government, who cited changing market conditions as the primary cause. [198] Responding to the news Denmark's Minister for Climate, Energy, and Utilities stated that: "The circumstances for offshore wind in Europe have changed significantly in a relatively short time, including large price and interest rate increases".[199] Energy analysts have also suggested that the unusual auction design made the tenders relatively unappealing for investors, particularly in an environment of rising interest rates and costs.[200] The Danish government's decision not to include any public subsidy made Denmark a significant outlier, with many other European countries – including the UK – employing a Contracts for Difference (CfDs) model that de-risks investment for developers. Denmark also opted for a unique uncapped negative bidding model, which "creates an unhealthy race to the bottom and unnecessarily increases the upfront costs" for offshore wind developers, making the tender comparatively unappealing.[201] In addition, unlike other countries Denmark does not pay for the grid connection to the offshore wind farms, leaving developers to take on these extra costs.

While further investigation is required, evidence indicates that the decision to take public equity stakes was not a primary factor in the auction's failure. Instead, a poor auction design and lack of subsidy meant that the tender looked unappealing compared to neighbouring countries – particularly when interest rates and costs soared. In light of the UK's CfD model operating in Scotland, it seems unlikely that the Scottish Government would face the same issues if it took equity stakes in future projects, although more research is required to explore this in detail. We therefore recommend that the Scottish Government and Crown Estate Scotland **explore the costs, risks and benefits of taking equity stakes in future offshore leasing rounds** alongside other mechanisms to share risks and rewards.

There is also scope to examine how conditionalities could be strengthened in Scotland's offshore wind leasing process. As noted above, conditionalities were attached to the Supply Chain Development Statements (SCDS), but could be strengthened in future rounds to maximise investment in domestic supply chains while promoting social and environmental objectives. As discussed in section 3.2, local content requirements would likely not be permitted under UK subsidy control laws and WTO rules. However, one option would be to apply the 'Buy Scotland' strategy discussed in section 3.2. This would involve requiring those seeking a lease to develop offshore wind to produce a plan setting out how they will consider Scotland's domestic industrial capability before procuring goods and services; how they plan to communicate opportunities for Scottish suppliers to supply goods and services; and how they will help Scottish suppliers to develop their capabilities and integrate into global supply chains. These plans would then be considered as part of the assessment process, alongside financial metrics, Fair Work considerations, and other public value oriented criteria. Another option for strengthening conditionalities relates to environmental criteria. In Denmark's recent leasing round, the tender stated that developers must use recyclable turbine blades, ensuring that up to 70% by weight is recyclable.[202]

We therefore recommend that the Scottish Government and Crown Estate Scotland **explore options for strengthening conditionalities in future leading rounds to maximise investment and job creation in domestic supply chains**.

3.5 Taxation

Tax incentives can play a powerful role as part of an industrial strategy, but Scotland's system of business rates reliefs is arbitrary and ineffective. Going forward the Scottish Government should undertake a review of all reliefs on business rates to identify whether reliefs could be reformed to better support Scotland's industrial strategy. This should involve examining opportunities to replace the existing suite of reliefs with a new system that provides reliefs and/or penalties that are conditional on meeting certain business practices.Recent examples from the US and Europe have shown that while tax is important for raising revenue, tax incentives can play a powerful role mobilising investment as part of an industrial strategy. While corporation tax, capital allowances, capital gains tax and R&D tax credits are all reserved to Westminster, the Scottish Parliament's competence over business rates potentially offers opportunities to use tax incentives to support Scotland's industrial strategy.

Business rates are the primary recurring tax on non-residential property in Scotland, and are levied on the basis of the rateable value of commercial properties. Today there are a number of reliefs on business rates that have accumulated over many years. In 2023-24, business rates reliefs are expected to cost local authorities £693 million, with Scottish Fiscal Commission forecasts estimating that this will rise over the remainder of the Parliament. In total, reliefs on non-domestic rates account for just over a fifth of the gross amount payable through non-domestic rates to local authorities.[203] As such, these reliefs represent a significant loss of public revenue.

By far the biggest tax relief is the Small Business Bonus Scheme (SBBS), which offers tax relief to businesses in Scotland under a certain size. Under this scheme, businesses are given 100% relief from their non-domestic rates if the cumulative rateable value of all properties in their business is at most £15,000. If their cumulative rateable value is between £15,001 and £35,000, the business receives 25% relief on any property with a rateable value of £18,000 or less. A recent study by the Fraser of Allander found that although businesses perceive there to be benefits from the SBBS, there is no empirical evidence that the SBBS actually supports enhanced business outcomes.[204] Significantly, there are no conditionalities attached to these reliefs regarding businesses' environmental or social practice. As such, relief is provided not on the basis of companies' activity or outcomes, but simply on the value of their commercial property. It is therefore unclear that these reliefs are either efficient, represent value for money, or serve a clear public purpose.

As such, we recommend that the Scottish Government **undertakes a review of all reliefs on business rates to identify whether reliefs could be reformed to better support Scotland's industrial strategy and wider economic objectives**. As with the review of subsidies discussed in section 3.2, this review should aim to assess whether each relief is effectively delivering its intended outcomes, and delivering good value for money. If the assessment determines that any relief is failing to deliver the intended outcomes, or there is insufficient evidence of impact, the scheme should be terminated in order to release funds for other priorities.

We also recommend that the Scottish Government **examines opportunities to replace the existing suite of reliefs with a new system that provides tax reliefs and/or penalties that are conditional on meeting certain business practices**, which in turn could be aligned with industrial strategy objectives. This could include whether employers meet fair work criteria set by the Scottish Government, or whether properties meet certain energy efficiency standards. Bespoke reliefs could also be introduced to encourage investment in areas that are necessary to support Scotland's industrial strategy (e.g. relating to specific types of R&D investment). While detailed proposals for a new system of tax reliefs is beyond the scope of this report (and should be informed by the findings of the Scottish Government's review), the general principle should be that reliefs and/or penalties should be linked to business practice rather than simply the value of a business's property.

3.6 Skills and training

The Scottish Government and Skills Development Scotland should undertake detailed analysis to identify potential occupational transition pathways for jobs at high risk of redundancy from decarbonisation, informed by extensive engagement with trade unions and industry groups. This should be accompanied by active labour market policies and increased funding to support the reskilling and retraining of workers in carbon intensive industries.

The transition to net zero will involve a major restructuring of labour markets, shifting employment from carbon intensive sectors to low carbon industries. Industrial strategies have a crucial role to play in stewarding this labour market transition by creating new markets and nurturing new technological and industrial landscapes.

With carbon intensive industries continuing to be a major contributor to employment in Scotland, this labour market challenge is particularly stark. While the Scottish and UK Governments have not yet set clear targets to reduce oil and gas output, a managed phase-out will be required to meet decarbonisation goals and accommodate shrinking demand. Research from academics at Robert Gordon University recently estimated that the direct and indirect UK oil and gas workforce is forecast to fall from 115,000 to between 57,000 and 71,000 by the early 2030s, with many of these located in Scotland.[205]

A major challenge for an industrial strategy therefore relates to the fate of these workers, as well as the economy of the North East of Scotland which is heavily reliant on the industry.[206]

In phasing out fossil fuel related sectors, it is crucial that the livelihoods of workers and impacted communities are protected. Scotland continues to bear the scars of Scotland's rapid deindustrialisation in the 1980s, which devastated communities across Scotland – most notably in former coal mining and steel areas. Unless the net zero labour market transition is carefully managed, there is a risk that this process could result in significant economic dislocation, skills mismatches, unemployment and regional decline. The recent closure of Grangemouth oil refinery highlights the challenges the net zero transition poses to Scotland's labour market (see case study). As such, it is critical that Scotland not only decarbonises its economy, but delivers a *just* transition to net zero.

The Scottish Government has recognised this, and has defined a just transition as both the outcome of a "fairer, greener future for all" and the process of getting there through partnerships with those impacted by the transition to net zero, which should be "co-designed and co-delivered by communities, businesses, unions and workers, and all society."[207] The goal is to "end Scotland's contribution to climate change in a way that is fair and leaves no one behind".[208]

Case study: Grangemouth

In September 2024 it was announced that Grangemouth, Scotland's only oil refinery is to close by the summer of 2025, with the loss of 400 jobs.[209] The company's owner, Petroineos, said the closure of Grangemouth was due to it being unable to compete with sites in Asia, Africa and the Middle East. Instead, it plans to repurpose the site into a terminal able to import petrol, diesel, aviation fuel and kerosene into Scotland. However, this would require a workforce of fewer than 100 employees compared to the current 475. The closure, which has been described as Scotland's "significant industrial loss for Scotland in a decade" therefore illustrates the significant challenges Scotland faces in delivering a just transition.[210]

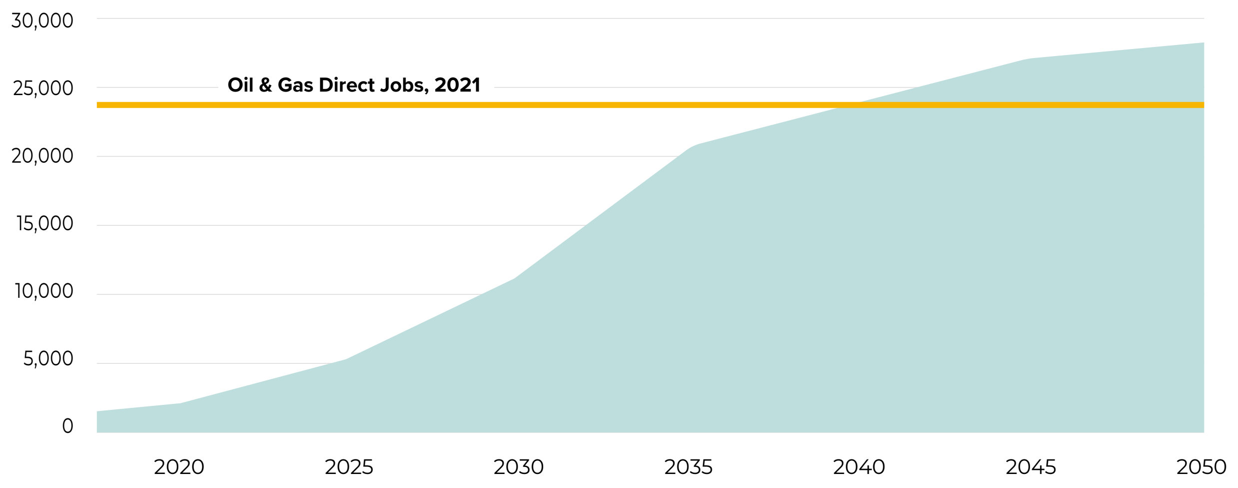
Grangemouth refinery forms part of the wider Grangemouth industrial cluster, which consists of the refinery alongside a number of other industrial sites focused on fuel production, port operations and logistics as well as chemicals and pharmaceuticals manufacturing. In 2023 Grangemouth cluster operators were estimated to be responsible for £895m of Scotland's GVA, and have approximately 3,250 direct employees – with a further 1,860 employed in the supply chain and 1,480.[211] The cluster is also estimated to be responsible for 7% of Scotland's total territorial emissions. Alongside the closure of the refinery, two other operators in the cluster – Fujifilm and Versalis – have announced closures over the past 18 months, resulting in a further 166 job losses. In light of the cluster's significant contribution to Scotland's economy and employment, it is critical that plans are put in place to support a sustainable future for the site, ensuring that the wealth of skills and talent there can be deployed to support Scotland's net zero transition.

In response to the closure of the refinery, the Scottish and UK Governments have pledged over £300m to support investment in skills and training for impacted workers, and create new opportunities for growth in the region.[212] The UK and Scottish governments also jointly funded Project Willow, in association with Petroineos, which aimed to assess the Grangemouth's long-term potential in and identify ways to create a sustainable future for the site. In March 2025 Project Willow published its report, which identified nine key investment areas within the categories of wastes, bio-feedstock, and support for off-shore wind.[213] The Scottish Government has also worked in partnership with the Grangemouth Future Industry Board to develop the Grangemouth Industrial Just Transition Plan.[214]

While transitioning the Grangemouth site poses a significant challenge, it also presents an opportunity to demonstrate what delivering a just transition looks like in practice – and the site's future will be a key litmus test for the Scottish Government's approach.

Key to whether a just transition in the labour market is achieved will be the extent to which Scotland can create new secure, well-paid jobs in emerging green industries. Managed effectively, it is clear that the transition to net zero has the potential to create more new jobs than will be lost. Research published by Scottish Enterprise indicates that direct employment in 18 low carbon technologies has the potential to grow from 8,500 FTEs in 2020 to 38,500 in 2050 under a 'strong ambition scenario'. Peak employment is estimated to reach 100,000 jobs in 2035, largely due to the construction and installation of ScotWind offshore wind projects, as discussed in section 3.4. As this peak employment is driven by shorter-term jobs in construction, these jobs will likely rapidly decline as projects move to an operational phase after the mid-2030s. However, the study also predicts a steady increase in employment in operations and maintenance until 2050, as shown in figure 7 below. Importantly, the analysis suggests that low carbon employment could exceed the existing level of employment in oil and gas by the late 2030s.[215] Crucially however, this will require between £122bn and 198bn of investment over the period 2020-2050, with annual investment also peaking in the mid-2030s. Whether or not a just transition is achieved in practice will depend not only on whether the right goals are set – but how industrial policy tools are structured, and the conditions attached to them, and the principles underpinning the partnerships between firms, workers, and the state.[216] [217]

Figure 7: Low carbon employment can exceed oil and gas employment with sufficient investment



Source: Scottish Enterprise[218]

Importantly however, this will require considerable investment in training and reskilling. Jobs in new low carbon activities will require skill sets that are distinct from existing carbon-intensive jobs, therefore in many cases workers will not be able to seamlessly transition between them. In addition, as many existing sectors and jobs aim to decarbonise, this may require workers to develop new sustainability-oriented knowledge and skills practices.

While a detailed labour market transition plan is beyond the scope of this report, it is critical that a granular plan is developed and coordinated with Scotland's industrial strategy. Skills policy in Scotland is overseen by the Scottish Government and Scotland's skills agency, Skills Development Scotland (SDS). In recent years SDS has undertaken to assess the labour market implications of delivering a just transition across Scotland, including the Climate Emergency Skills Action Plan (CESAP) Pathfinder which aimed to map existing skills provision in Scotland, and understand current levels of skills investment in relation to the transition to net zero.[219] Going forward, there is a need for more granular analysis to identify key skills gaps and mismatches resulting from Scotland's decarbonisation pathway. This should be done at the occupation level, mapping the occupational characteristics required in existing carbon-intensive occupations against those needed in new green occupations that must be scaled up to implement Scotland's industrial strategy. This in turn should aim to identify key transferable skills and critical skills mismatches, as well as potential transition pathways between occupations. We therefore recommend that the Scottish Government and Skills Development Scotland **undertake detailed analysis to identify occupational transition pathways for jobs at high risk of redundancy from the net zero transition**. This analysis should be informed by extensive engagement with trade unions and industry groups. The findings of this analysis should then be used to identify policy interventions – for example in relation training, education and reskilling – that could help to shift employment from carbon intensive occupations to low carbon occupations. This will likely require new funding instruments to support training and reskilling.

In 2017-18 the Scottish Government introduced the Flexible Workforce Development Fund (FWDF) to support businesses in Scotland to up-skill and re-skill their employees. The fund provides workers in organisations of all sizes with access to training courses through local colleges, the Open University in Scotland and Skills Development Scotland, each of which has a crucial role to play supporting Scotland's industrial strategy. For the past two years however, the Scottish Government has not provided any funding for the FWDF through its budget.[220] While funding for reskilling is available through the Just Transition Fund, this is only available to communities in the North East and Moray. **We therefore recommend that the Scottish Government increases funding for the FWDF or similar scheme, targeting the upskilling and reskilling workers in areas critical to Scotland's industrial strategy.**

As we discussed in our previous paper, raising productivity in 'foundational economy sectors' is also a critical enabler for Scotland's industrial strategy. These sectors – such as care, retail, and hospitality – employ large numbers of people and play a crucial role providing everyday but essential goods and services. As a result, they provide the basic social infrastructure that Scotland's economy needs to thrive. However, these sectors tend to be low paid with low productivity, reflecting a lack of investment in skills, innovation and technologies, which contributes to the UK's productivity gap with other countries. With large numbers of people employed in these sectors, ensuring that the FWDF also supports investment and skills in these sectors would have a disproportionate impact on Scotland's economy.

4. TRANSFORMING PUBLIC FINANCING

Among the most important contributors to the success of missions are the role of public institutions, and their capacity to transform landscapes rather than just fix problems in existing ones. Implementing Scotland's new industrial strategy will require public sector institutions to be more active in their role as co-shapers of markets. Today Scotland has a robust ecosystem of public institutions which will have a crucial role to play in supporting Scotland's new industrial strategy, both in terms of the distinct roles they play individually, and the way that they interact with each other. In this section we assess the two largest actors in Scotland's economic development landscape – the Scottish National Investment Bank and Scottish Enterprise – and identify lessons for how they can be reformed to support Scotland's industrial strategy.

4.1 Scottish National Investment Bank

The SNIB should revise its investment strategy to prioritise maximising additionality in support of its missions, rather than operating primarily on a commercial basis. This should include removing the Bank's prohibition on providing concessionary finance and developing a new suite of mission-oriented financial instruments designed to catalyse investment and innovation in areas underserved by private capital. The SNIB should also aim to bolster its internal capabilities in areas beyond finance, and explore establishing a skills sharing partnership with other successful European public investment banks. The SNIB's governance should be reviewed to ensure representation from government, civil society and trade unions, and the existing advisory board should be replaced with three 'Mission Boards'. Finally, the Scottish Government should prioritise engagement with HM Treasury to secure meaningful borrowing powers for the SNIB.

In September 2017 the First Minister of Scotland, Nicola Sturgeon, announced plans to establish a mission-oriented **Scottish National Investment Bank** to support the Scottish Government's vision for delivering smart and inclusive growth. The announcement was informed in part by advice from IIPP Director Professor Mariana Mazzucato. Following the announcement, Professor Mazzucato was appointed to a small advisory group that was convened to lead the work developing an evidence-based implementation plan. This was published in February 2018 and drew on IIPP's research to outline a roadmap for creating a new mission-oriented Scottish National Investment Bank.[221] The bank began operations in November 2020 and has been designed to provide long-term, public, patient finance to support three missions:

- Address the climate crisis, through growing a fair and sustainable economy
- Transform communities, making them places where everyone thrives
- Scale up innovation and technology, for a more competitive and productive economy

Public investment banks (PIBs) have long played a key role financing and directing investment in many countries around the world.[222] Their fundamental role is to promote public policy objectives by influencing the volume and direction of investment in the economy. While the traditional functions of PIBs have been in infrastructure investment and counter-cyclical lending, in recent times they have taken on more active roles as key agents of industrial and innovation policy. In countries such as Germany and China, NIBs have taken centre stage in confronting the key social and environmental challenges of the 21st century, such as climate change.[223] [224] A key reason why PIBs can be powerful agents of economic transformation is that they traditionally execute their roles in coordination with governmental policies. Most do this by focusing lending on areas that have been prioritised through industrial policy, targeting investments in areas the private sector neglects in order to drive structural transformation.

As our previous research has shown, PIBs with mandates focused on cross-sectoral missions tend to be more effective than those which are focused on more neutral economic objectives such promoting 'growth', 'competitiveness' or serving particular sectors.[225] [226] By focusing finance on missions that need cross sectoral collaborations, the role of the institution is less open to 'capture' by specific business interests, and less susceptible to the related 'picking winners' problem. Structured and governed effectively, mission-oriented public investment banks can play a catalytic role providing the patient finance that private investors are unwilling or unable to provide – crowding in investment and catalysing economic activity that would otherwise not have occurred. However, successfully achieving this requires more than just a mission-oriented mandate. It also requires a distinct approach to investment strategy, governance, internal capacities, risk and reward, and coordination with a wider industrial strategy.[227]

In light of Scotland's low level of business investment, the SNIB has a crucial role to play in mobilising and directing investment as part of Scotland's industrial strategy. Empirical studies show that long-term, patient finance from state-backed institutions can play a significant increase in business investment.[228] In this section we review the SNIB's activities to date, and set out recommendations for strengthening its design and governance to support Scotland's new industrial strategy.

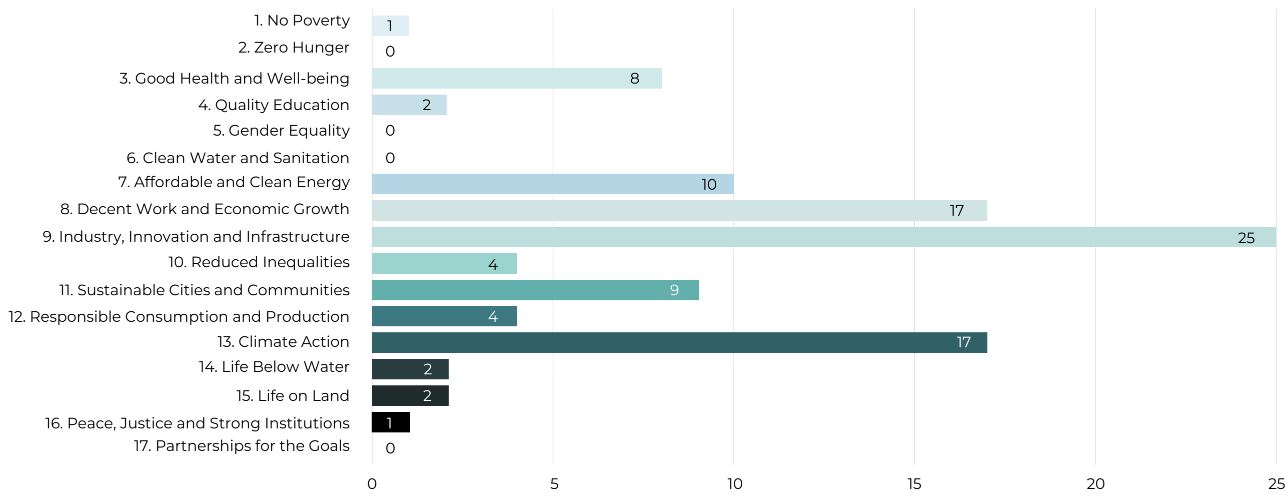
4.2.1 The SNIB's activities to date

The SNIB aims to act as a patient investor, providing long-dated investment to businesses and projects connected with Scotland. The bank makes both debt and equity investments, and typically invests between £1 million and £50 million in support of its three missions. The SNIB predominantly provides finance to support the growth and scale up of businesses, however it also supports the development of new markets and technologies as well as project finance / infrastructure and community initiatives. The bank is also permitted to invest in private investment funds that are aligned to the Bank missions and portfolio requirements.

As of December 2024 the Bank had invested a total of £697 million in 39 companies – including £349 million towards its net zero mission, £185 million towards its place mission, and £163 million towards its innovation mission.[229] The Bank states that a further £1.3 billion of private investment has been crowded-in as a result of its investments. The SNIB's investments are guided by the Bank's investment strategy and responsible and ethical policy, as well as its three missions.[230] The Bank's Ethical Investment Policy sets out that it will only invest in companies that either have existing Fair Work practices in place or are willing to commit to adopt these in a proportionate and relevant way. Fair Work practices are defined as paying the real Living Wage to direct employees, and justifying any use of zero hours labour to the Bank's satisfaction. At present the remaining five Fair Work First criteria are not part of the SNIB's conditionalities framework. Each investee must also have (or plan to develop) a Carbon Management Plan or Net Zero Strategy, as well as policies and practices to support Equality, Diversity and Inclusion. The Bank enforces this by adding covenants to investment agreements that provides the option for to terminate an investment in the event that a company diverges from agreed business plans and ESG requirements.

The SNIB measures the impact of its investments against their objectives at an individual, portfolio, and mission level, according to a wide range of KPIs.[231] The progress of investments are also assessed against the Scottish Government's National Performance Framework (NPF) and the United Nations' Sustainable Development Goals (SDGs), as shown in Figure 8 below.

Figure 8: Number of SNIB investments that support each UN SDG



Source: Scottish National Investment Bank[232]

4.2.2 Reforming the SNIB to support Scotland's industrial strategy

In its relatively short existence, the SNIB has successfully established itself as a key actor in Scotland's investment ecosystem. However, with the Scottish Government now implementing a new industrial strategy, it is an appropriate time to reflect on the Bank's activities to date and consider whether it could be reformed to play a more catalytic role.

A key measure of success for PIBs is whether they are generating *additionality* (i.e. catalysing activity that would not otherwise have occurred). If PIBs fund investments that would have been financed anyway by the private sector, no new value is added – and scarce public funds are wasted. Particularly in countries like Scotland that have a large and mature private financial sector, it is critical that PIBs aim to play a fundamentally different role in the economy compared to that of private finance – utilising their unique ownership and governance to invest where the private sector will not. As the economist John Maynard Keynes put it: "The important thing for government is not to do things which individuals are doing already, and to do them a little better or a little worse; *but to do those things which at present are not done at all.*"[233]

While additionality is a multifaceted issue, in general it can be delivered in two main ways. Firstly, PIBs can deliver *financial additionality* by providing financing on terms and conditions not available in the market. Today much of the UK's financial sector is dominated by shareholder-owned banks and funds seeking to maximise returns. Short-termism and risk-aversion often means that the private sector will often not invest in higher-risk areas until future returns become more certain. Because innovation is highly uncertain, has long lead times, and is collective and cumulative, innovation requires patient, strategic, committed finance.[234] As discussed in section 3, despite having comparatively large financial sectors, Scotland and the UK have among the lowest levels of business investment in the OECD. Banks and investment funds across the UK have shifted from mainly lending to businesses for productive investment, to primarily lending to purchase pre-existing assets – particularly real estate and financial assets.[235] [236] Moreover, transformative projects with large social and environmental returns, but comparatively lower economic returns, may not be viable with finance seeking commercial returns. As such, PIBs can deliver additionality by providing the patient, higher risk, or lower cost finance that the private sector is often unwilling or unable to provide, catalysing investments that otherwise would not happen.

In recent years however, growing numbers of PIBs have also been delivering additionality through *non-financial* means. This often involves gathering extensive market intelligence, building unique in-house capabilities and expertise; knowledge transfer; capacity building and standard setting.[237] By acting as a hub of unique expertise and capabilities, PIBs can help to catalyse and fund investable projects that otherwise would not happen. While the SNIB has made a significant positive impact to date, there have been some instances where the additionality delivered by investments has been unclear (see the case study below). We consider that a number of the SNIB's design and governance features may be inhibiting the bank's ability to deliver additionality in support of its three missions. We discuss each of these in turn below.

Case study: The Gresham House Forest Growth & Sustainability fund

In 2021 the SNIB invested £50m in the Gresham House Forest Growth & Sustainability fund (GHFS) – a new private investment fund which aims to buy land to plant trees and generate value from timber production and the generation of carbon credits. The fund is managed by Gresham House, the UK's largest commercial forestry manager that manages c.160,000 hectares of forestry internationally. The £50m investment, which was the SNIB's largest investment to date, aimed to contribute to the Bank's net zero mission by sequestering CO_2 from the atmosphere and improving flood defences and air quality.

The SNIB's £50m investment contributed to the first of a three-stage fundraising round to secure investment from institutional investors, endowments and other investors. However, this funding round ended up being substantially oversubscribed, raising £27m more than the fund had targeted.[238] In total, the fund's £300m capital-raising target was reached a full year ahead of the manager's three-year goal.[239] This strong demand from private investors indicates that the fund may have raised sufficient capital without the SNIB's investment, and the investments it delivered would have happened anyway.

The deal also sparked criticism from local communities across Scotland, who argued that it would further push up rural land prices, further exacerbate Scotland's highly concentrated pattern of land ownership, and price out local communities – in turn undermining the Scottish Government's land reform and community wealth building objectives.[240] Moreover, as only 60% of the fund's investments were to be allocated to Scotland, it creates the possibility that some of the SNIB's funds would be used to invest in projects outside Scotland.

This example highlights the challenges associated with investing indirectly through private investment funds as opposed to directly in businesses and projects. As the fund was ultimately oversubscribed, there is a question as to whether the SNIB's large investment in the GHFS generated really much new additionality. Given the large scale of the investment, it is crucial to reflect on this example and consider whether additional tests can be applied to assess additionality before committing funds.

The SNIB's requirement to invest on a commercial basis

As noted above, one way PIBs deliver additionality is by providing financing on terms and conditions not available elsewhere in the market. Unusually for a PIB however, the SNIB's investment strategy states that the bank must always invest on commercial terms.[241] In practice, this means that the SNIB's investment and loans must be at genuinely commercial rates, on the same terms and with the same risks and rewards that a commercial private investor or lender would lend at. Importantly, the strategy prohibits the SNIB from providing sub-commercial (i.e. concessionary) funding. The requirement to act like a commercial investor makes the SNIB unusual for a PIB. Similar institutions across Europe and the UK are typically able to provide concessionary finance alongside commercial finance. In contrast however, Scotland's public financing landscape currently offers little in the way of large-scale concessionary finance. This has also been exacerbated by the withdrawal of the European Investment Bank (EIB) from the UK in light of Brexit.

Concessionary finance makes use of the fact that governments typically have a lower cost of capital than the private sector. These lower borrowing costs can then be passed on to borrowers in the form of lower interest rates on loans. This in turn can make projects viable that otherwise would not be at commercial rates of interest (thus generating additionality) – particularly projects with large social and environmental returns that the private sector would not typically fund. Moreover, as governments do not need to maximise short-term returns, they can act as a longer-term, more patient investor, and absorb a higher degree of risk than offered by private finance. Importantly however, concessionary finance also offers PIBs the opportunity to play a powerful market shaping role. In return for providing lower cost / longer time financing, PIBs can attach conditionalities to shape business practice – for example in relation to employment and environmental activity, the nature of the investments made, or how rewards are shared. This ensures that PIBs do not simply subsidise incumbent companies to retain business as usual. Instead, concessionary finance should aim to support existing industries to transform themselves, while also nurturing new technological and industrial landscapes. This 'carrot and stick' approach to concessionary finance represents a key means through which PIBs successfully support structural change in many countries.

However, by requiring that the SNIB must invest on commercial terms, the bank's investment strategy may be undermining its ability to generate additionality, instead forcing it to act more like a private investment fund. This is particularly the case if – as we recommend – the SNIB attaches conditionalities to loans and investments. If borrowers can only access finance on the same terms as from private lenders, but must adhere to a range of conditionalities that are not required by private finance, there may in some cases be little incentive to approach the SNIB for finance. Moreover, the requirement to invest on commercial terms may prevent the Bank from investing in projects with lower financial returns but high social and environmental returns, including community-led initiatives. As such, we consider the prohibition of concessionary finance to be a significant barrier to the SNIB delivering increased additionality in support of its missions.

While the reason for the prohibition of concessionary finance remains unclear, one potential reason relates to fears that the SNIB may 'crowd out' private investment. However, such fears are only founded if the SNIB is targeting investments that are already being funded by the private sector which, as outlined above, should not be the bank's focus. Another reason could relate to perceived barriers posed by state aid and subsidy control rules. Although the UK has now left the EU, the Scottish National Investment Bank Act 2020 required European Union State Aid approval from the European Commission to be obtained before the Bank could be established. EU State aid rules prevent public entities from providing financial support that could distort competition and affect trade by favouring certain undertakings or the production of certain goods. Importantly however, EU State Aid rules do not prevent PIBs from providing concessionary finance. On the contrary, most PIBs across Europe – such as Germany's KfW and Italy's Cassa Depositi e Prestiti (CDP) – provide large amounts of concessionary finance and play major roles in their respective economies, as do PIBs across other parts of the world.[242] In the EU's terminology, PIBs are called 'promotional banks', largely because they provide promotional (i.e. concessionary) finance in areas that are underserved by private financial markets.[243]

Moreover, we note that the European Commission's State Aid designation for the SNIB did not prohibit concessionary lending. Although it was assumed the SNIB would primarily act under the Market Economy Operator Principle (lending at commercial rates), it acknowledged that concessionary lending is permitted in instances where the "potential impact upon delivery of the Bank's missions is deemed substantial."[244] The designation goes on to state that this could entail "a longer duration of the financing/investment, a higher risk profile than other investors or a discount on the financing rate." Following the UK's departure from the EU however, EU State Aid Rules are no longer legally applicable in Scotland. Instead, the relevant legislation governing state aid is the UK's Subsidy Control Act, under which the SNIB currently operates as a Commercial Market Operator. However, the new UK subsidy control regime should not pose a barrier to responsible concessionary lending, as long as it complies with the seven principles as set out in the Act.[245] We note that the UK Infrastructure Bank (which was recently rebranded as the National Wealth Fund) is permitted to invest on a concessionary basis, and we see no reason why the SNIB should not be able to do the same.[246]

Importantly, this does not mean that the SNIB should aim to make investments that are loss making. While the Bank should not aim to maximise returns, it should aim to generate positive returns over the long-term in line with its mandate to be a patient investor, in the same way as other European PIBs. Importantly, it also does not mean the Bank should never invest on commercial terms. Making successful commercial investments should continue to be part of the Bank's investment strategy, ensuring that appropriate mechanisms are used to capture the upside of successful investments. In structuring its portfolio the SNIB can learn from the strategies of venture capitalist firms, structuring investments across a risk-return spectrum so that higher-return investments help to cover lower return ones.[247]

As such, **we recommend that the SNIB revises its investment strategy to permit concessionary lending,** and develops a new suite of concessionary instruments tailored towards supporting Scotland's industrial strategy. These instruments should be designed to catalyse investment and innovation in areas that are critical to the Bank's missions, which are currently being underserved by private finance.

Skills and capabilities

An additional way that PIBs generate additionality is by developing distinct internal capabilities and skills to that of private financial institutions. A key difference between mission-oriented public investment banks and private financial institutions is the breadth of expertise and capacities and strong public service ethos of the staff. Investing to serve the public interest missions naturally requires a different set of skills and capabilities than investing to maximise shareholder returns. In many cases, this includes not only financial expertise but significant in-house engineering and scientific knowledge about the sectors the bank is active in and the nature of the investments being made.[248] This enables investment decisions to be based on a wider set of criteria than relying on market signals alone, and means that technical and environmental considerations can be appraised more effectively. In-house expertise can also enhance the ability of the PIBs to crowd-in private investment by acting as a hallmark of quality. When a PIB moves first to invest in a company or project, this can create the confidence the private sector needs to follow their lead if considerable financial and technical due diligence has been undertaken. As such, we recommend that the SNIB explores opportunities **to bolster its internal capabilities** in areas beyond finance and investment expertise, particularly in science and engineering fields that are relevant to the Bank's missions.

Given Scotland and the wider UK's relative inexperience in public banking compared to other countries, there may also be opportunities to learn from overseas. This could involve establishing partnerships with European public investment banks to share skills and staff secondments. Importantly, the temptation to rely on management consultancies and/or secondments from the private sector should be avoided, as this ultimately undermines the core goal of building a hub of investment expertise in the public sector, and is far more expensive in the long-run. We therefore recommend that the SNIB **seeks to establish a skills sharing partnership** with European public investment banks that have a strong track record of success.

Rethinking governance

Governance arrangements are particularly important for PIBs, as it is their distinct governance that enables them to play a fundamentally different role in the economy compared to that of private financial institutions. On the one hand, it is their distinct governance that enables them to play a fundamentally different role in the economy compared to that of private financial institutions. This is because PIB governance arrangements typically do not create pressure to deliver short-term returns, meaning that they can provide financing over a longer time horizon and prioritise wider social and environmental objectives.[249] However, many of the problems that have commonly been associated with PIBs, such as weak performance, financial problems, unfair competition with the private sector, corruption and capture by interest groups, can be attributed to poor governance.

A key challenge relates to achieving the right balance between democratic accountability, alignment with public policy goals, and independent decision making. While it is crucial that the SNIB is able to make long-term investment decisions, free of day-to-day political interference, the presence of democratically elected representatives on the Board can help to maintain alignment with industrial strategy objectives and maintain a path of democratic accountability. In addition, many of the most successful public investment banks such as Germany's KfW and Finland's Finnvera also include a diverse range of stakeholders from across civil society – such as trade bodies, trade unions and regional representatives – on the Board as well as representatives from the financial sector.[250] This form of stakeholder governance ensures that a wide range of relevant perspectives are represented, and helps to avoid the emergence of 'groupthink' and capture that can occur when the Board is dominated by one particular interest group (from either the public, private or third sector).

The Scottish Government's Implementation Plan for the SNIB recommended that the Scottish Government establish an advisory group comprising stakeholders and wider civic society to provide advice on the Bank's objectives, conduct and performance. This requirement was subsequently included in the Scottish National Investment Bank Act (2020). Until recently however, this group had not been created – but in October 2024 a new ministerial advisory group was established comprising six members from industry, enterprise, finance and trade unions, which provides advice to government ministers.[251] In order to strengthen the SNIB's governance, we recommend that:

- The composition of the SNIB's Board is reviewed to include at least one government minister, and representation from Scotland's trade unions and broader civil society.
- The ministerial advisory group is replaced with three 'Mission Boards' corresponding to each of the SNIB's missions, with each consisting of mission-specific experts and representatives from industry, private finance, academia, relevant public sector bodies, trade unions, civil society etc. Each Mission Board should be provided with the resources and powers necessary to scrutinise the alignment of the

SNIB's investments with its missions; review progress towards achieving the missions; and periodically advise ministers on whether each mission is still fit for purpose.

Constrained financial powers

A final constraint on the SNIB's ability to deliver additionality in relation to its missions relates to financial constraints. Upon the SNIB's establishment, the Scottish Government pledged to capitalise the bank with £2 billion over 10 years. To date however, the Bank has been unable to borrow from financial markets to leverage its balance sheet, which has limited the scale on which the bank can invest. This constraint derives from the devolved fiscal framework between the UK and Scottish Governments, which limits Scottish Government borrowing up to a maximum of £450 million per annum and £3 billion in total.

One of the key ways in which PIBs deliver additionality is by leveraging relatively small amounts of public capital by issuing bonds. Depending on each PIB's permitted leverage ratio, they are able to catalyse anywhere from three to 30 times more investment than they would be able to with public capital alone. The SNIB's restrictions on borrowing mean that it remains relatively small relative to the size of Scotland's economy and compared with other successful PIBs. In practice, the SNIB does not operate as a bank, but more akin to a fund, meaning that its operations are limited by the fixed amount of resources it receives from the Scottish Government plus any return made on investments. Over the long-term, these arbitrary restrictions could also significantly hamper the Bank's ability to successfully deliver its missions. As with other European PIBs, we consider that the SNIB should be empowered to raise the funding it needs to meet its mission, provided that its balance sheet is managed prudently within an agreed envelope of leverage and risk.

We acknowledge that granting the SNIB new borrowing powers is not within the Scottish Government's control, and would require agreement from HM Treasury. However, **we recommend that the Scottish Government increases efforts to secure new borrowing powers for the SNIB** – signalling the importance of new borrowing powers legally binding net zero targets. This arrangement should mimic those that exist with other UK development banks such as the UKIB, which is permitted to borrow from UK government credit facilities and private markets.

The measurement of additionality

As noted above, the SNIB has a comprehensive framework for assessing the impact of its investments. This includes a wide range of KPIs that are monitored at the investment individual, portfolio, and mission level.[252] The progress of investments are also assessed against the Scottish Government's National Performance Framework (NPF) and the United Nations' Sustainable Development Goals (SDGs). We consider this represents best practice in terms of assessing performance against the portfolio and overall missions. For assessing the performance of individual investments however (both ex-post and ex-ante), **we recommend that the SNIB undertakes work to establish new methods for appraising the additionality of investments**, drawing on international best practice.

4.2 Scottish Enterprise

In recent years Scottish Enterprise has embraced a new mission-oriented approach, which if implemented effectively can play a key role supporting Scotland's industrial strategy. To support this, we recommend that Scottish Enterprise reorients its financial support away from generic horizontal goals towards the organisation's three missions, and moves away from playing a 'gap filling' co-investor role towards scaling up its proactive strategic investments. We also recommend it takes steps to bolster internal capacity and draw on wider external expertise, and plays a more proactive coordinating role in the implementation of Scotland's industrial strategy. We also recommend that Scottish Enterprise undertakes a major exercise to explore the causes and consequences of Scotland's low business investment, and sets targets for raising business investment in key mission areas.

Scottish Enterprise is Scotland's national economic development agency that was created 1991 as the successor to the Scottish Development Agency. It aims to promote economic development by offering a wide range of services to businesses, including in relation to business development, innovation, export capabilities, inward investment, net zero, fair work, start-ups and business growth. Scottish Enterprise also provides financial support in the form of grants and financial investments (debt and equity), as discussed in section 3. Scottish Enterprise also houses Cooperative Development Scotland, which aims to support the growth of employee ownership and co-operative business models across Scotland. It is also complimented by two regional enterprise agencies – Highlands and Islands Enterprise and South of Scotland Enterprise, however these are outside the scope of this report.

Until 2023, Scottish Enterprise's activities focused on promoting three horizontal, cross-cutting goals: innovation, investment and internationalisation.[253] While this delivered some notable successes, such as improving R&D performance and funding for innovative companies, the organisation came to recognise the need for a new, more focused approach to respond to new challenges and opportunities in an increasingly volatile world.[254] In 2024, Scottish Enterprise published a new strategy which embraced a mission-oriented approach, re-orienting the organisation's focus around a set of vertical challenges – noting that this "reflects best practice globally, where organisations are looking for innovative, new ways to address global challenges and be flexible in response."[255] After undertaking an assessment of global megatrends and Scotland's challenges and opportunities, Scottish Enterprise set three new missions to guide its activities:

- Creating an internationally competitive energy transition industry in Scotland
- Scaling the impact of Scotland's innovation strengths into high-growth industries of the future
- Driving capital investment to deliver a step-change in Scotland's productivity

For each mission, a series of ambitious, long-term and time-bound targets have been established, as well as annual milestones to monitor progress against delivery. Scottish Enterprise has also sought to operationalise these missions internally by restructuring teams internally and reporting budgets in line with mission areas.[256] As Scotland's national development agency, Scottish Enterprise's new mission-oriented approach has the potential to play a critical role supporting the Scottish Government's new industrial strategy. While it has taken the important first step in establishing a mission-oriented approach, success will depend on whether or not the organisation develops the capabilities to implement it effectively. In the remainder of this section, we assess different areas of Scottish Enterprise's activities, and set out a series of recommendations for reform.

4.2.1 Funding and support

As discussed in section 3.2, Scottish Enterprise is the primary vehicle for disbursing grants to support economic development in Scotland, alongside Highlands and Islands Enterprise and South of Scotland Enterprise. This includes tailored grants to promote development in 'Assisted Areas of Scotland', as well as sectoral grants aimed at supporting Scotland's hydrogen and manufacturing industries. Scottish Enterprise also plays a crucial role in Scotland's innovation ecosystem by providing grants to support business R&D. It currently operates two R&D grant schemes: 'SMART: SCOTLAND' grants, which aims to support high-risk, highly ambitious projects; and generic R&D grants to support firms investing in innovative products or processes.[257] In 2023/24 Scottish Enterprise dispersed around £21m on R&D grants, and increased R&D funding in recent years has helped Scotland stay on track to double business spending on R&D by 2025.

Scottish Enterprise also provides debt instruments, including debt financing to SMEs of up to £2m through the Scottish Loan Scheme, which aims to finance growth-focused Scottish companies. It also provides equity finance, and plays a major role underpinning Scotland's risk capital market. While it is a common perception that it is private venture capital that funds innovative start-ups, international evidence shows that many high-growth innovative companies receive their early stage high-risk finance from public sources.[258] This is also the case in Scotland, where Scottish Enterprise remains the most frequent investor in the risk capital market, with private equity and venture capital the next most active.[259] It does this by owning and operating two co-investment funds that invest in high-growth companies alongside private investors.

Firstly, the Scottish Venture Fund invests in "high growth potential, early-stage companies from start-up/spin-out, seeking funding to develop innovative products/services/business models and/or create or develop new markets". Second, the Scottish Co-investment Fund aims to "address a finance gap" in companies from start-up, early-stage and growing businesses. These funds provide equity finance on a co-investment basis, investing up to £2m alongside private investors on equal terms (although this can increase to £5m for follow-on deals). At present however, these funds are not aligned to any directional industrial strategy goals, beyond helping to scale up innovative firms. Moreover, in most cases investment propositions are devised by private investors and brought to Scottish Enterprise for co-funding. In these cases, Scottish Enterprise is playing a 'gap filling' role rather than a strategic market shaping one.

Importantly however, Scottish Enterprise recently also established a strategic investment team which can make larger direct investments (without private co-investors) in priority sectors. This represents a significant development, as it involves Scottish Enterprise proactively directing investments (rather than following private investors) in line with industrial strategy goals. With Scottish Enterprise now embracing a mission-oriented approach, we consider that this kind of proactive, directed investment will become more important over time. In order to play a more impactful role supporting Scotland's new industrial strategy we recommend that Scottish Enterprise:

- **Undertakes a comprehensive study exploring the causes and consequences of Scotland's low level of business investment**: In light of Scotland's chronically low business investment, Scottish Enterprise should aim to undertake a major exercise engaging with businesses, academics and other key stakeholders to establish the key barriers to business investment, and set out recommendations to the Scottish Government for addressing this as part of Scotland's industrial strategy. This should include setting new targets for mobilising investment in key mission areas.
- **Aligns financial support with the organisation's missions**: As noted above, much of the financial support provided by Scottish Enterprise supports generic horizontal goals, such as SME finance or supporting 'innovative companies', often following the lead of private investors. In light of the Scottish Enterprise's new mission-oriented mandate, it is critical that the support provided is aligned to support the organisation's missions. While there is still a necessity for Scottish Enterprise to provide general horizontal support in some areas (e.g. R&D), we consider that more of the organisation's investments should be directed strategically in line with industrial strategy goals, which are periodically reviewed. This should aim to create and shape new markets in new and emerging areas, particularly before firms are able to attract large scale commercial finance.
- **Scales up its strategic investment portfolio**: We recommend that Scottish Enterprise gradually moves away from predominantly playing a 'gap filling' co-investor role towards scaling up its proactive strategic investments. While co-investments are still merited where they are mission-aligned, redirecting more of the organisation's capital towards the strategic investment team to undertake major, high-risk, direct investments can increase the organisation's additionality and impact.

Internal capabilities

Among the most important contributors to the success of a mission-oriented approach are the capabilities within public bodies, and their capacity to think and act big.[260] Fundamentally, mission-oriented approaches require the ambition to transform landscapes rather than just fix problems in existing ones. Missions represent an end to 'business as usual' for public-private interactions, and will require Scottish Enterprise to be much more active in their role as co-shapers of markets. Key to this is the development of dynamic public sector capabilities, such as the ability to experiment, explore and learn. Not everything will work, nor should it be expected to.

When assessing the types of state capabilities that are needed, there are lessons to be learned from organisations that have tackled ambitious mission-oriented projects, and have implemented structures which are flexible, adaptable and able to foster bottom-up solutions. This is often successfully achieved by implementation structures that enjoy a high degree of political support and which have operational autonomy to focus on long-term societal goals. The ability to experiment by trial and error is also key. The success of agencies such as DARPA in the US, but also key innovation agencies in Finland, Denmark, Sweden, Israel and Singapore, has been driven by continuous, radical experimentation and by the existence of sufficient managerial capacities.[261] Some agencies, such as the Danish Design Center (DDC) and Sweden's Vinnova, have developed mission 'playbooks' which outline successful approaches and toolkits.[262] [263] Creating the conditions for this experimentation to take place in Scottish Enterprise will be vital to the success of its new mission-oriented approach.

Implementing mission-oriented policy will also require specific types of leadership, which encourages risk-taking and adaptive explorative capacity, and can attract top talent to lead such strategies. Missions require leaders to think outside the box, both in helping to frame inspirational missions and in using government levers to crowd in and galvanise new activity. In some instances, this might mean hiring visionary people with a business or scientific background, or creating external advisory groups comprising cross-disciplinary experts to break existing silos and encourage new ways of thinking. Staff may also need new skills and training to successfully manage this transition, and Scottish Enterprise should allocate significant resources to support staff upskilling and training. This can be enhanced by promoting staff exchanges with other successful mission-oriented agencies to learn from best practice.

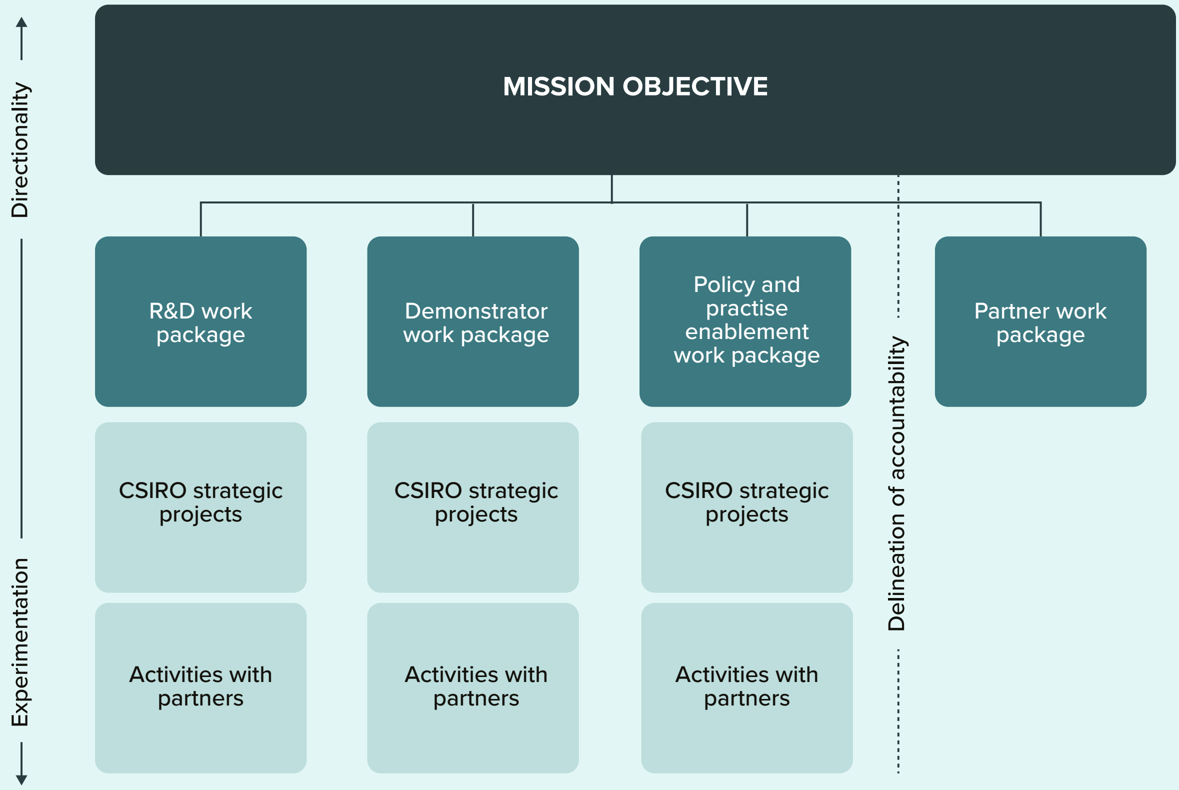
As missions represent a fundamentally different way of working, a key question relates to how teams are restructured internally to successfully implement them. If teams remain siloed in old ways of working, missions will quickly fall by the wayside in favour of 'business as usual'. One example of a public agency that has developed an innovative 'portfolio' approach to implementing and governing missions internally is Australia's national science and innovation agency, CSIRO.

Case study: Australia's CSIRO missions framework

In 2019 Australia's national science and innovation agency, CSIRO, embraced a new mission-oriented approach to its work. Following experimentation with different frameworks, CSIRO eventually arrived at an innovative model for implementing and governing missions internally.

CSIRO's missions are structured as 'portfolios within portfolios', rather than separate and otherwise uncoordinated programs.[264] The mission objective is served by a portfolio of mutually reinforcing work packages or focus areas, which in turn are made up of a portfolio of discrete activities – both existing and new. This 'nesting' allows for a stable overarching mission objective that provides necessary directionality to the efforts of mission actors, while allowing for experimentation in terms of the composition and nature of the work packages and the activities that sit under them. In turn, high risk and experimental activities and work packages can be balanced against more predictable and stable ones without jeopardising the entire endeavour. This portfolio approach also allows for sequencing of work packages so some pathway dependencies are accounted for (for example, foundational R&D or feasibility studies that create the necessary preconditions or knowledge for future interventions).

Figure 9: Australia's CSIRO missions framework



Each of CSIRO's missions has a 'mission team', the structure of which often mirrors the design structure of the mission itself.[265] This team is led by a Mission Lead, who must convene interdisciplinary research teams to deliver the missions activities. Importantly, each mission team engages early on with external partners to contribute to the development and legitimacy of solutions. These partners often include policy practitioners, universities and research institutions, businesses, third sector participants and end users in communities.

Each mission is supported by personnel from CSIRO's enabling functions, including those with expertise in communication, business development and external engagement. CSIRO's Missions Program Office supports each mission from inception to offboarding with strategy, design, implementation, and evaluation – acting as an interface between the mission teams and CSIRO leadership. The Office is not 'mission control' but has three distinct functions: empowering mission teams with consistent approaches to their program design; management of missions within the portfolio of the CSIRO Missions Program; and supporting individual missions to articulate their strategic intent, pursue implementation and facilitate culture change. Finally, the Missions Program Office is itself guided by a Cross-Mission Steering Committee. This committee has oversight of the Missions Program and is responsible for decisions regarding the number and scale of missions that can be supported within the portfolio. The Cross-Mission Steering Committee also plays a portfolio management role where, it makes assessments on which missions need more or less support and considers trade-offs with other organisational priorities.

We therefore recommend that Scottish Enterprise:

- **Reviews internal team structures to ensure alignment with the organisation's three missions**, and ensures each team is equipped with relevant business, technical and financial expertise – investing in training and upskilling where needed.
- **Establishes three external 'Mission Boards'** corresponding to each of the organisation's missions, with each consisting of mission-specific experts and representatives from industry, academia, relevant public sector bodies, trade unions, civil society etc. Each Board should be tasked with advising Scottish Enterprise on how it can use its resources and powers necessary to promote its missions; reviewing progress towards achieving the missions; and periodically advising on whether each mission is still fit for purpose.
- **Explores opportunities to promote staff exchanges** with other successful mission-oriented agencies from countries operating in a similar context as Scotland, such as Sweden or Denmark.

4.3 A new state-holding company

In recent decades the Scottish Government has occasionally acted as the 'lender of last resort' – stepping in to support firms facing financial difficulties. However, implementing a successful industrial strategy will require the government to play an important 'investor of first resort' role – acting boldly to create new technological and industrial landscapes. Going forward, the Scottish Government should establish a new state-holding company to consolidate existing state-owned assets and reinvest surpluses to acquire new assets. This should be accompanied by a review of Scotland's industrial capabilities to assess whether full or partial state-ownership of sectors could help meet industrial strategy goals. Finally, we recommend that the Scottish Government sets out more transparent and consistent criteria for intervening to rescue struggling firms.

In recent years the Scottish Government itself has made a number of strategic financial interventions in private companies for industrial policy purposes. These have generally been large-scale investments to support firms experiencing financial difficulty. These have included around £350m of loans, guarantees and equity investments in companies including Prestwick Airport, Ferguson Marine, Burntisland Fabrications (BiFab) and Lochaber Aluminium Smelter.[266] These financial interventions have typically played a 'lender of last resort' role, supporting strategic firms facing considerable challenges. While some of these interventions may have been merited, the Scottish Government has received criticism for the way these investments have been managed. In some cases, the Scottish Government has also played a de-risking role by providing financial guarantees, as in the case of the Lochaber aluminium smelter (see case study). As the example shows, guarantees can socialise risks while privatising rewards – and often create little incentive for the company to transform.

Case study: Guarantees provided to the Lochaber aluminium smelter

In December 2016, the Scottish Government issued a 25-year financial guarantee contract to Liberty Steel, a subsidiary of GFG Alliance, to revitalise Lochaber aluminium smelter, near Fort William. Liberty Steel was in the process of acquiring the smelter, and the agreement involved guaranteeing the power purchase obligations of the smelter if the business did not fulfil its obligations to pay for contracted power. The company estimated that this investment would create 2,000 new jobs in the Lochaber region. Although the value of the guarantee was not made public, in 2021 the Financial Times revealed it was £586m following a successful freedom of information request.[267] In exchange for providing the guarantee, the Scottish Government receives an annual fixed fee. Although the fee had been valued in the government's accounts at £21.4m, it was later written down to zero as a result of an assessment of expected credit losses.

In March 2021, Greensill Capital (UK) Limited, the major provider of working capital to the holding company GFG Alliance, went into administration, creating significant uncertainty regarding the financial stability of GFG Alliance group. Following this, the Scottish Government's financial provision required to cover the guarantee skyrocketed from £37 million in 2019/20 to £161 million in 2020/21, however this has since reduced to £130 million.[268] [269] While Lochaber Aluminium Smelter continues to be a profitable operation, it has been reported that fewer than 50 extra people have been hired, compared to the estimated 2,000. Moreover, it remains unclear whether the two key conditions attached to the guarantee – that the company would connect a new hydro plant to the grid and build a new aluminium factory or billet plant – have been fulfilled.[270] The example highlights the risks associated with socialising risks without strong conditions or mechanisms to share rewards. The guarantee was predicated on a promise of job creation but without any conditionalities associated with social or environmental objectives, and has so far resulted in far fewer jobs created than promised.

As we discussed in our previous paper, the Scottish Government should aim to create new technological and industrial landscapes by acting as 'investor of first resort', not simply stepping in as 'lender of last resort'. In embracing a mission-oriented industrial strategy the Scottish Government and its agencies should aim to act as a lead investor and risk taker in the economy – making directed and strategic investments across the innovation chain. We consider that, in general, the enterprise agencies and SNIB remain best placed to provide debt finance and minority-stake equity finance to support industrial strategy-aligned investments. In some cases however, there may be a role for the Scottish Government to take larger-scale equity stakes or full-ownership of firms that have potential to play a critical role in delivering Scotland's industrial strategy goals.

The Scottish Government already owns a wide range of state-owned enterprises (SOEs). This includes Scottish Water (water and sewerage), Caledonian MacBrayne (ferries), Prestwick Airport, Ferguson Marine (shipbuilding), Scottish Rail Holdings (rail).[271] Across the world fully or partially state-owned enterprises (SOEs) play a crucial role in many advanced economies, and have played a crucial role accelerating the green energy transition.[272] Rather than investing reactively in firms facing financial distress, this would involve proactively identifying firms with significant potential to contribute to industrial strategy missions.

We therefore **recommend that the Scottish Government and enterprise agencies assess Scotland's existing industrial capabilities relating to the five 'opportunity areas'**. This exercise should aim to assess whether full or partial state-ownership could help rapidly grow and scale up Scotland's industrial capabilities to help meet industrial strategy objectives. For example, this might relate to certain segments of the offshore wind value chain that currently rely overwhelmingly on imported materials, that Scotland could develop capabilities in relatively quickly with substantial state-backing.

We also recommend that the Scottish Government sets out more transparent and consistent criteria for intervening to rescue struggling firms, which should only be pursued if they are deemed critical for industrial strategy goals. Crucially, any interventions should be predicated on having a clear plan for transforming the company – industrial strategy should not aim to prop up struggling incumbent firms.

Another key issue relates to how state-owned commercial assets are governed. During 2022/23, the Scottish Government established the Strategic Commercial Assets Division (SCAD).[273] This division aims to manage the Scottish Government's shareholder interest in strategic commercial assets, and provide and support a coordinated response to companies in distress.[274] While the SCAD is intended to provide a hub of knowledge and expertise, its creation presents an opportunity to rethink the governance of state-owned assets. For example, this could involve turning the SCAD into a strategic state holding company to strategically manage the Scottish Government's existing commercial assets, while also acquiring new assets of strategic importance to Scotland's industrial strategy.

Historically, state holding companies have played a crucial role in many countries – including in Italy, the UK, China and other East Asian countries.[275] [276] One of the world's most successful state holding companies is Singapore's state holding company, Temasek Holdings, which has assets of $382 billion, covering sectors including electricity, telecommunications, shipbuilding, aviation and technology. The firm was created in 1974 to consolidate all the government's existing commercial assets, and today many of Temasek's holdings are world-leading companies within their sector.[277] While Scotland will not be able to achieve this anytime soon, Singapore and Scotland have similar populations, and it offers an example of how a state investing on a long-term, patient, strategic basis can transform an economy.

The benefits of state holding companies have been acknowledged by the OECD, which recommends that: "The exercise of ownership rights should be centralised in a single ownership entity, or, if this is not possible, carried out by a co-ordinating body."[278] As such, **we recommend that the Scottish Government considers**

establishing a new state-holding company to consolidate existing state-owned assets. Instead of acting as a passive shareholder, a state holding company could act as a more active shareholder, maximising synergies to promote structural transformation. This could involve coordinating investment programmes and utilising purchasing power to create and shape new markets. Financial surpluses generated by public assets could be reinvested to acquire additional assets that align with industrial strategy missions, creating a growing revolving fund of public wealth.

Finally, **we recommend that the Scottish Government undertakes a review of the public financing landscape to ensure it is aligned with Scotland's industrial strategy**. This should aim to ensure that mandates of each financing institution – including the SNIB, Scottish Enterprise, HIE and SoSE – are complimentary, remove any duplication of financing instruments, and identify and then address any key gaps in the public financing landscape.

5. RETHINKING GOVERNANCE AND PUBLIC SECTOR CAPABILITIES

As mission-oriented industrial strategy cuts across many sectors and departments within the Scottish Government, it is critical that it is governed under a whole-of-government approach. Enabling public bodies to become more active in their role as co-shapers of markets will also require strengthening dynamic capabilities and internal capacity, including a greater ability to experiment, explore and learn. This section identities reforms to implement a more joined up approach to delivery in government and strengthen public sector capacity and capabilities.

5.1 A whole-of-government approach to industrial strategy

The Scottish Government should establish a new Industrial Strategy Council to assume responsibility for driving industrial strategy across the Scottish Government. Chaired by the First Minister, the Council should comprise of relevant Cabinet Secretaries, the Scottish National Investment Bank, Scotland's three enterprise agencies and Skills Development Scotland – with representation from Scotland's trade unions and industry.

The proposals set out in the Scottish Government's new GIS cut across many departments within the Scottish Government, and many different agencies. As such, implementing the strategy will require an all-of-government approach to enable cross ministerial and cross-sectoral alignment, and ensure a joined-up approach to delivery. Moreover, as the GIS sits alongside a number of other strategies, there remains a risk of creating a cluttered landscape and siloed policymaking, with different elements of policy pulling in different directions. While the Scottish Government is often good at setting ambitious goals, it often falls short when it comes to effective cooperation and alignment around the implementation of these goals.

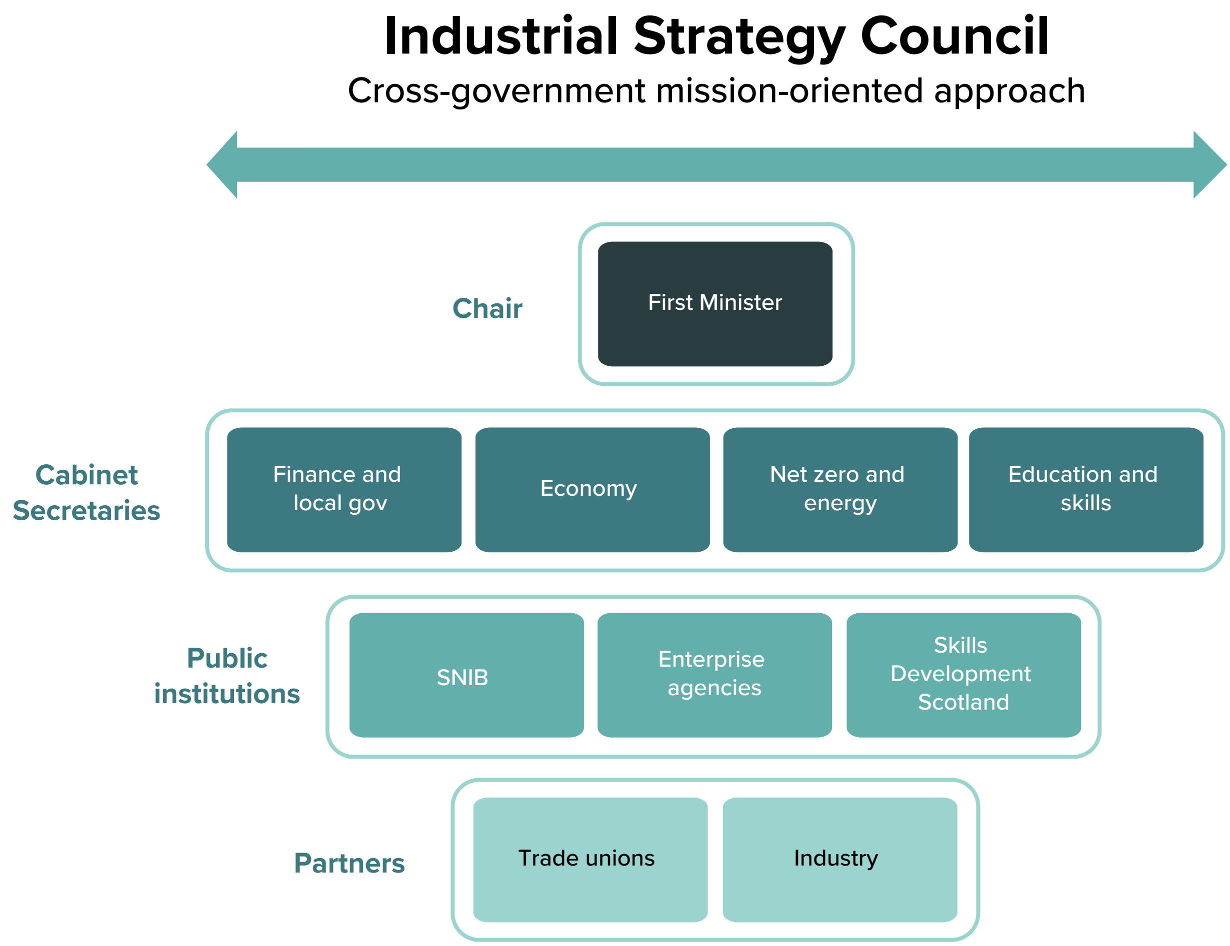
A mission-oriented approach can help address this by coordinating policies, tools and institutions across government to ensure that the whole is greater than the sum of its parts. However, this requires a centralised approach to governance with clear mechanisms for inter-agency communication and coordination, in which each ministry and government actor aligns its priorities with overarching, shared missions that sit above ministries, and measures its success according to shared indicators.[279] Scotland's industrial strategy should not be isolated within one particular government department, but should instead be seen as the engine for a wider growth strategy that all ministries are responsible for implementing.

One option to help achieve this is to **establish a new Industrial Strategy Council to assume responsibility for driving industrial strategy across the Scottish Government**. The new Council would bring together relevant cabinet ministers and leaders of key public institutions to coordinate decision-making around the implementation of Scotland's industrial strategy. This would include the Cabinet Secretaries for Economy, Net Zero and Energy, and Education and Skills – alongside the CEOs of the Scottish National Investment Bank, Scotland's three enterprise agencies and Skills Development Scotland. We also recommend the Council includes a senior representative from the trade union movement, such as the General Secretary of the STUC, and senior leader representing Scottish business and industry, who would participate on an advisory basis. The Council would be chaired by Scotland's first minister.

The group could meet quarterly to monitor progress against industrial strategy goals, discuss key challenges, identify opportunities for greater alignment and coordination, and set out priorities for the months ahead. By aligning the efforts of various departments and public institutions around a common mission, the new Council could help to establish more cross ministerial and cross-sectoral alignment, and ensure a more joined-up approach to delivery – while providing improved accountability and transparency.

The Council could also establish advisory councils that would monitor the implementation of different aspects of the industrial strategy in more detail (e.g. in relation to each of the five 'opportunity areas'), which would periodically report back to the main Council. These working groups would include a wider range of technical, academic and industry experts

Figure 10: A new Industrial Strategy Council



Note: Trade union and business representatives would join in an advisory capacity

5.2 Strengthening public sector capacity and capabilities

In recent years the Scottish Government has increasingly relied on private consultancy firms to shape key policies, while public sector capacity has been eroded. Going forward the Scottish Government should prioritise investing in internal capacities over outsourcing. This could be supported by creating a new Public Innovation Lab to support its industrial strategy, providing an opportunity to test out and "sandbox" new instruments and policies that, if successful, could be rolled out more widely as part of the industrial strategy.

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.

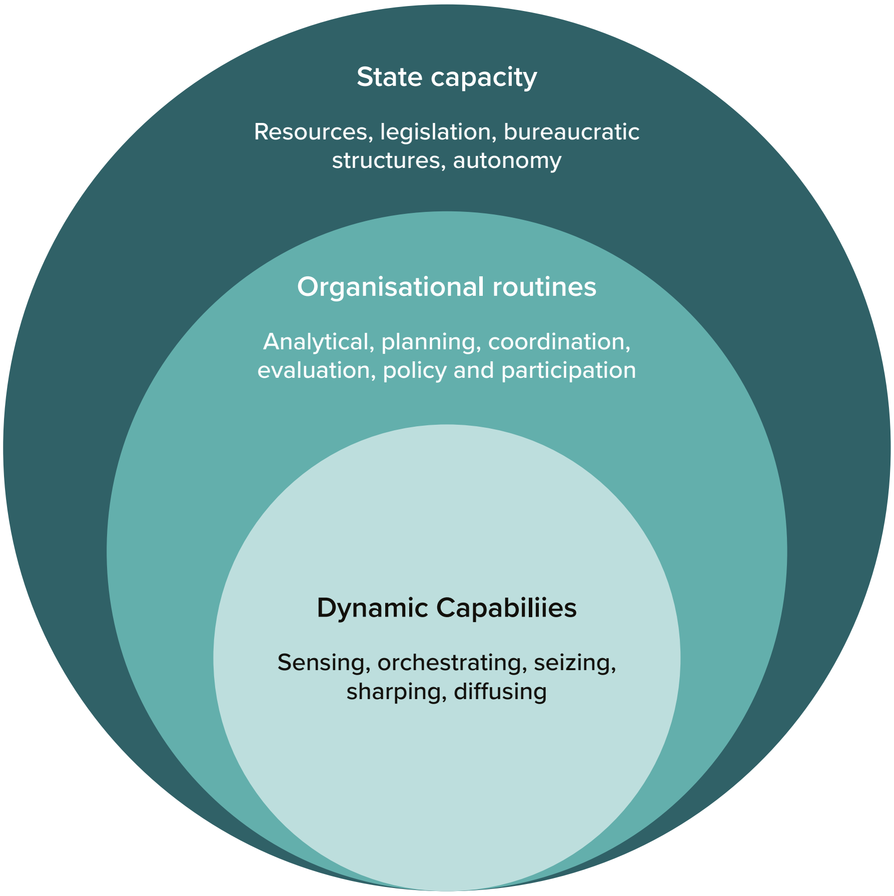
This idea goes against the grain of policies that have downsized and dismantled key structures of government around the world. This trend has its roots in the influence of public choice theory and 'New Public Management' (NPM) policies, which were widely implemented in advanced economies in the 1980s and 1990s. NPM argues that to address the risks of 'government failure', governments should adopt strategies from the private sector to maximise value in the public sector.[280] In practice, this has often led to a self-fulfilling prophecy of 'weak' states and 'captured' states that are unable or unwilling to think and act big – instead looking to the private sector to solve big problems.

Like the rest of the UK, in recent years the Scottish Government has increasingly relied on private consultancy firms to shape key policies. Between 2016-17 and 2019-20, the Scottish Government spent more than £25 million on private consultancy firms, with annual spending increasing tenfold over the period.[281] Scotland is far from alone: 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.[282] The Big Four — Deloitte, EY, KPMG, and PwC — reported global revenue increases of between 8% and 18% in their 2023 annual results.[283]

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.[284] 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:[285]

- **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.
- **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.
- **Dynamic capabilities** are specific abilities that enable organisations to adapt their resources, processes and skills in response to an evolving strategic environment.[286]

Figure 11: The three dimensions of public sector capabilities



Source: (Kattel et al., 2024). [287]

Strengthening public sector capabilities in Scotland cannot happen overnight, particularly in a challenging fiscal context. 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 and created 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.[288] Its purpose is to accelerate the transformation of public services by using collaborative design methodologies, promote the development and implementation of evidence-based solutions to improve public services and foster adoption of innovative practices in institutions, with a multidisciplinary and people-centered approach. As a public institution, it has been crucial for investing in the training of the civil service and for creating clear places for experimentation.

These spaces create permission for making mistakes and learning from them, which is essential to help move towards a new, more flexible way of making public policy. They can enable a more agile approach to prototyping and scaling policy solutions that may be needed for mission success. Public innovation labs can support mission-oriented industrial strategy in several ways:[289]

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

- **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.
- **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.
- **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.

We therefore recommend that the Scottish Government explores creating a new Innovation Lab to support its industrial strategy. The Lab should be used as an opportunity to test out and “sandbox” new instruments and policies that, if successful, could be rolled out more widely as part of the industrial strategy. Crucially however, dynamic capabilities should be embedded across government, rather than only isolating them in a specific public lab-type institution.

6. MONITORING AND EVALUATION

Once a mission-oriented industrial strategy is implemented, it is critical to be able to determine if it is succeeding or failing, or if a change in direction is required. This requires a framework for monitoring and evaluating progress. This applies both to appraising individual policy interventions, and monitoring progress towards delivering a successful industrial strategy overall. We discuss each of these in turn below.

6.1 New policy appraisal methods

As traditional cost benefit analysis (CBA) can often prevent ambitious policies being implemented, the Scottish Government should develop a new suite of policy appraisal methods aimed at catalysing transformational change to complement CBA. These approaches could include multi-criteria analysis (MCA), and should aim to capture dynamic effects over time.

A market shaping, mission-oriented approach to policy is focussed on creating transformational change to achieve the stated missions – a system-wide dynamic efficiency (including innovation, spillover effects and systemic change). Evaluating these policies must therefore be a *dynamic* process that requires ongoing and reflexive assessment of whether the system is moving in the right direction via achievement of intermediate milestones and user engagement

Influenced by the market-failure framework however, methods of policy appraisal and evaluation across the UK are often based on a static form of cost benefit analysis (and net present value calculations) that weighs the pros and cons of a policy by using existing market prices.[290] This often follows guidance set out in HM Treasury's 'Green Book', which uses cost-benefit analysis to assess the impact of different policy options on social welfare. In practice, these tools often prevent bold and ambitious public policies being developed. Many of the most transformative policies from throughout history – from putting a man on the moon to creating the NHS – would likely have failed traditional cost-benefit appraisals. The table below summarises market-fixing approaches to policy evaluation, characterised by static efficiency; and market-shaping approaches to policy evaluation, characterised by dynamic efficiency.

Table 5: Market-fixing vs market-shaping policy frameworks[291]

	Market fixing	Market-shaping / mission-oriented
Justification for the role of government	Market or coordination failures: • Public goods • Negative externalities • mperfect 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 cost-benefit analysis (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;
Evaluation	Focus on whether specific policy solves market failure and whether government failure is 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

Given the emphasis on transformational change, mission-oriented policies should not be merely assessed using static, allocative efficiency measures, but in terms of creation of public value, dynamic efficiency and their 'additionality' – the extent to which they have been successful at catalysing activity that otherwise would not have happened. This approach helps capture the potential for policy to create spillover effects across many sectors of the economy, and to alter the level of investment and broader trajectory of economic growth.

This does not mean abandoning conventional cost-benefit analysis altogether – these approaches can still play a useful role appraising incremental policies. Instead, it means developing a new complimentary suite of assessment methods to appraise policies aimed at catalysing transformational change to achieve missions. These approaches should aim to capture dynamic effects over time, identify the points of greatest leverage, acknowledge fundamental uncertainties and focus on collective impact across projects (rather than assessing each project individually).

In 2020 HM Treasury published an updated version of The Green Book, which included a new annex setting out how transformational impacts should be appraised robustly within the Green Book framework (see case study). As such, in appraising policy interventions to support Scotland's new industrial strategy, we recommend the Scottish Government considers this framework as an alternative to standard CBA where appropriate.

Another alternative to traditional CBA is to use multi-criteria analysis (MCA) to produce a decision matrix of indicators that can serve as a dashboard, allowing policymakers to exercise judgment in shaping policies and directing investments based on high amounts of heterogeneous information.[292] MCA techniques can be used to identify a single most preferred option, to rank options, to shortlist a limited number of options for subsequent detailed appraisal, or simply to distinguish acceptable from unacceptable possibilities using multi-dimensional selection criteria. Employing MCA can help to establish preferences between options by reference to an explicit set of identified objectives.[293] An advantage of MCA is that it provides a framework for assessing information that cannot be compressed into a monetary valuation. Indicators should be selected on the basis of clearly defined missions and public value considerations, which in turn can deliver two key objectives. On one hand, it can facilitate decision-making ex-ante, meaning it allows policymakers to distinguish between alternative investments or policies. On the other hand, it can serve to produce evidence ex-post of the success or failure of a specific investment or policy, facilitating learning and accountability

Case study: Appraising transformational change in the UK's Green Book

The Green Book, issued by HM Treasury, sets out official guidance on how to appraise policies, programmes and projects. It also provides guidance on the design and use of monitoring and evaluation before, during and after implementation. It sets out how policymakers should undertake cost benefit analysis (CBA) in order to assess the impact of different policy options on social welfare. However, it has long been recognised that CBA is not appropriate in all situations. The Green Book acknowledges that social CBA and social CEA are 'marginal analysis' techniques that are generally most appropriate where the broader environment (e.g. the price of goods and services in the economy) can be assumed to be unchanged by the intervention. These techniques work less well where there are potential non-marginal effects or changes in underlying relationships'.[294]

This limitation is of crucial importance. Market-shaping policies, such as missions, aim to accelerate innovation, creating new technologies and radically changing the prices, availability and existence of goods and services. Their central purpose is to transform underlying relationships, a wide range of prices and the broader environment.[295] In 2020 HM Treasury published an updated version of The Green Book, which included a new annex setting out how transformational impacts should be appraised robustly within the Green Book framework[296]. The revised Green Book defines transformational change as:

A fundamental structural change in the nature of the subject undergoing transformation. The scale of the change alone is not a defining characteristic; and

Being in practical terms virtually irreversible, in other words the removal of the intervention will not cause the system to revert to its original state.

6.2 Monitoring Scotland's industrial strategy

The Scottish Government should develop a tailored dashboard of economic and non-economic indicators to monitor the impact of Scotland's industrial strategy, building on the revised National Performance Framework. These should include new metrics relating to the five 'opportunity areas' identified in the Scottish Government's GIS.

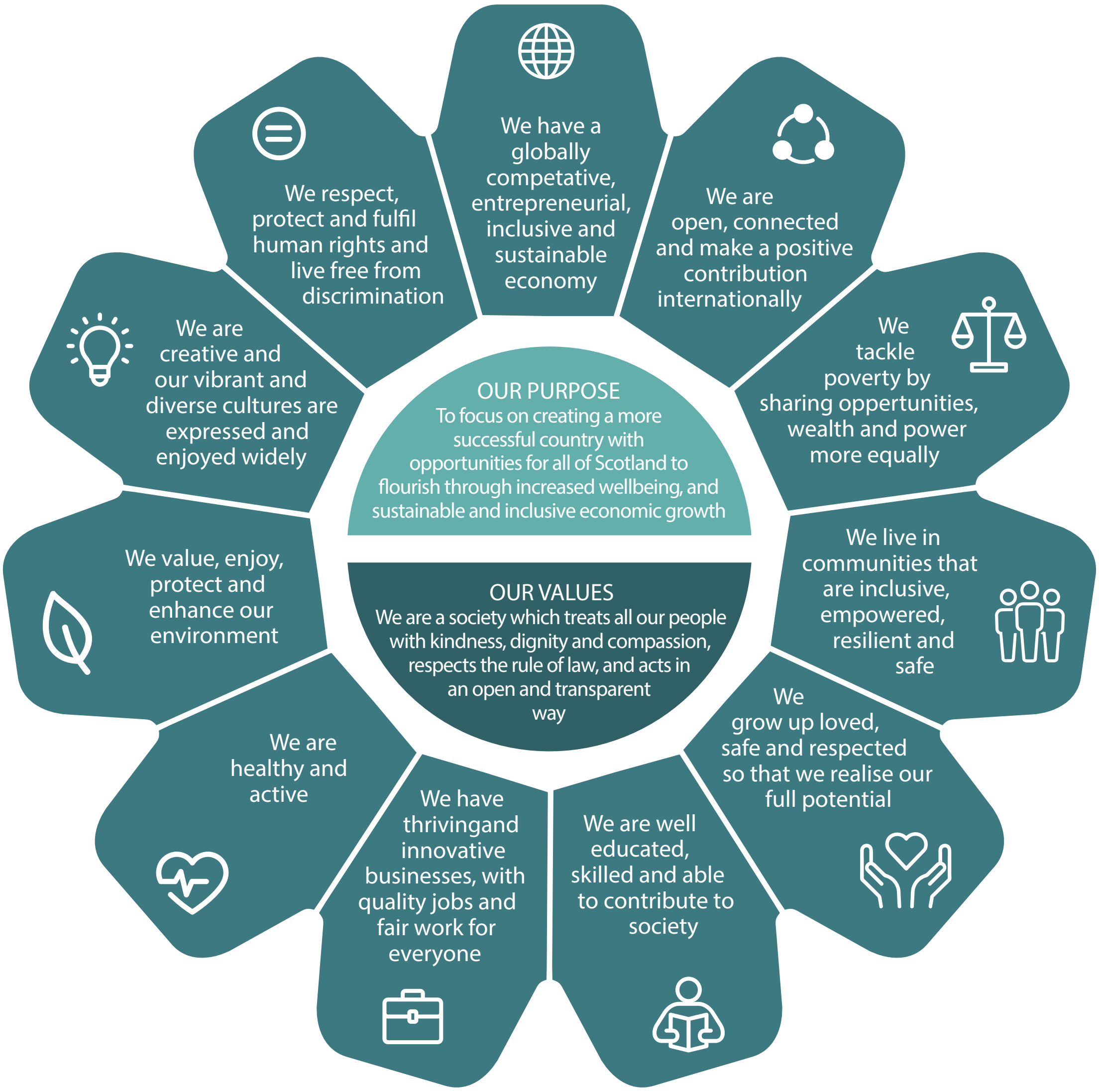
Once a mission-oriented industrial strategy is implemented, how do you know if it is succeeding or failing? This requires a framework for monitoring progress of the strategy overall. At present however, we note that the GIS does not include any proposals relating to monitoring or evaluation. In the absence of metrics tailored to the strategy, it will be difficult to assess whether it is having the desired impact. As such, a key priority should be to establish a framework that is tailored to the GIS's objectives.

While historically industrial strategies have typically targeted economic metrics like productivity and employment, for a mission-oriented approach it is important to develop a dashboard of economic and non-economic indicators and objectives to monitor the success of a mission. These measures should go beyond traditional indicators such as jobs and growth to include a variety of measures that capture progress towards the economic, social and environmental dimensions of a mission.

The Scottish Government has already developed a dashboard of indicators for Scotland's economy in the National Performance Framework (NPF). The Scottish Government describes the NPF Scotland's as wellbeing framework that sets out "a vision of societal wellbeing through the National Outcomes, and charting progress towards this through a range of social, environmental, and economic indicators."[297] The NPF consists of 11 'national outcomes' that reflect the values and aspirations of the people of Scotland, and are aligned with the UN Sustainable Development Goals.

By law the Scottish Government is required to consult on the National Outcomes, which set out the aims of

Figure 12: Scotland's National Performance Framework



the National Performance Framework, every 5 years. In 2024 the Scottish Government consulted on a series of changes to the NPF, adding new outcomes relating to care, climate Action, housing – and also amending existing outcomes and definitions.[298]

Rather than devise a completely new monitoring framework for Scotland's industrial strategy, **we recommend that the Scottish Government creates a tailored dashboard of economic and non-economic indicators from the NPF to monitor for the industrial strategy.** For an industrial strategy oriented around a just transition mission, metrics should include economic indicators (growth, productivity, earnings, innovation etc), environmental metrics (carbon footprint, renewable energy) and social indicators (e.g. inequalities of income and wealth). Additional new metrics could also be added relating to the five 'opportunity areas' identified in the Scottish Government's GIS (e.g. employment and investment in these areas).

Once the dashboard has been created, it is critical to set long-term targets, and then monitor progress against delivery on an ongoing basis – establishing the contribution of the industrial strategy measures to each metric. In addition, establishing intermediate milestones is critical, as they provide the means to keep track of progress towards the mission objective and allow for informed and flexible adaptive decisions to intervene. Real-time open data, publicly available, on progress on the milestones will also keep a sense of urgency, achievement and motivation among involved actors. While missions are long term and should have a stable goal, these intermediate signposts should be used to decide whether changes in direction are required and, in some cases, whether the mission itself needs redefining.

CONCLUSION

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

The Scottish Government has taken an important first step towards this by publishing its first green industrial strategy. In this report, we have argued that to achieve its ambitious vision, it must go further to embrace a whole-of-government approach to rethinking the role of the state – and move beyond outdated economic orthodoxies. The multiple intertwined challenges Scotland faces cannot be addressed by making minor tweaks to the status quo, or by simply providing support to a few selected sectors. Instead, it requires system-wide transformation. This need has been compounded by new global headwinds, and the emergence of a more volatile and unpredictable geopolitical landscape. At this critical juncture small economies like Scotland face a stark choice: either act boldly to shape markets, or be shaped by global market forces.

This report has recommended wholesale changes to the way that policies are delivered, the way that resources are allocated, and the way that government and public institutions operate. Indeed, Scotland's industrial strategy will only succeed if the full arsenal of industrial policy tools, public institutions and capabilities are harnessed to the fullest possible extent. Sitting back and hoping that inward investment will deliver the necessary transformation is unlikely to succeed. This in turn will require new governance models to enable cross ministerial and cross-sectoral alignment, and ensure a joined-up approach to delivery. Crucially, it will also require strengthening capabilities within public bodies, ensuring that the state has the necessary capabilities and confidence to lead by example. Most importantly, successful implementation 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 the Scottish Government in realising this change – not only striving towards a bold vision, but paying attention to the vital details of implementation. The prize of success for Scotland is considerable. If structured and governed effectively, it can mobilise investment to tackle Scotland's social and environmental challenges – while also achieving higher productivity, investment and prosperity. Achieving this will not be easy, and mistakes may be made along the way. But given the scale of the challenges Scotland faces, now is not the time to be reheating old orthodoxies.

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