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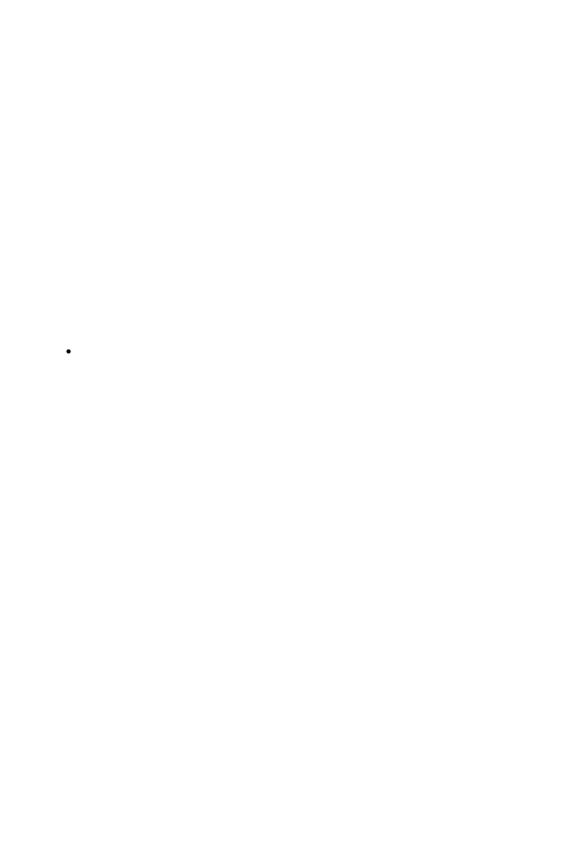
### Preface by Professor Mariana Mazzucato, UCL Institute for Innovation and Public Purpose

Countries in Latin America and the Caribbean (LAC) are very different from each other, but it is fair to say that the region is together undergoing deep political and economic change. The Covid pandemic has exposed underlying weaknesses in welfare states, health systems, and public sector capacities more broadly. The in ationary cost-of-living crisis has compounded the problem, further endangering the most vulnerable communities and members of society. All the while, a climate crisis looms on the horizon, increasing the scale and intensity of water, biodiversity-, and soil-related

crises. However, it is the structural challenges within LAC that present the biggest roadblocks ahead: the region's dependence on natural resources, its low productivity, its weak institutional and governance capacity, and its tight scal space, to name just four.

Transforming these structural challenges into structural opportunities for inclusive growth, sustainable development, and shared prosperity is what this report is about. It is a question of talking both about the rate of economic growth and about its direction. To put countries in LAC on a new directed growth path that tackles the most pressing challenges of our time, the region needs a new approach to investment, innovation and industrial strategy. This is not about returning to the tried and tested industrial policies of the past —policies set on strengthening import substitution or achieving price competitiveness— though there is no doubt value in retaining some important elements. This is about fundamentally rethinking the role of the state, not as a market xer, but as a capable, competent, and con dent market shaper. This is about designing the

Missions are not easy and to succeed, countries in LAC can develop an all-of-government approach to industrial strategy —one that focuses not on subsidizing speci c sectors, but on identifying the most pressing challenges and mobilizing collaboration between a whole host of different sectors around those challenges. This also means moving away from targeting and investing in speci c technologies and towards determining social and environmental outcomes for which new ground-breaking technologies can be developed. Indeed, a mission-oriented approach requires us to turn industrial policy on its head: identify the outcomes and mobilize around those outcomes in a purpose-driven way across all sectors. This has huge implications on the capabilities required within government, an area that leaders in the region have neglected for too long. Equally important is the redesign of policies and institutions to become more outcomes oriented. It also has considerable implications on the relationship between government and business and moving towards a more symbiotic relationship between the two, where both risks and rewards of nance and innovation are shared, will be critical. Finally, with







By adopting mission-oriented industrial strategies, LAC countries have an immense opportunity to advance inclusive and sustainable economic growth. This is not a small shift. It requires governments to embrace their role in actively shaping markets, and to move away from outdated notions that see a stark divide between the state and business, and between economic, social, and environmental policies. It means moving away from "picking" particular sectors (e.g. natural resources), technologies (e.g. arti cial intelligence), or types of rms (e.g. SMEs), towards an approach that "picks the willing" and chooses challenges that demand cross-sector collaboration. This can of course be a key driver of the diversi cation processes which create a more balanced path of growth (Hausmann and Rodrik, 2003).

Economic growth and innovation have not only a rate but also a direction. Using industrial strategies to redirect an economy towards a more inclusive, resilient/diversi ed and sustainable growth path means setting clear goals and orienting innovation, partnerships, policy tools and institutions around these goals. Tackling climate change in the region can, for instance, be turned into an investment and innovation opportunity —around new materials, new digital services, new forms of mobility, and a new role for natural resources. The same holds for health challenges and the digital divide —imagine the investment and innovation opportunities implicit in ensuring that all students across LAC have equal access to broadband and digital technology. A mission-oriented approach focuses on problems —from sustainable mobility or healthy nutrition to carbon emissions reduction— that need solving by all sectors (Mazzucato, 2021).

Implementing mission-oriented industrial strategies will require setting clear goals that catalyze bottom-up, cross-sectoral innovation; leveraging all the different levers governments have —from regulation to procurement to grants and loans; entering smart public-private partnerships; and launching or redesigning institutions oriented around these goals.

This shift also demands a new type of public sector: more creative, and with a focus on internal capacity and capabilities so bold policies can be implemented. Implementation is not a linear process, it requires experimentation and learning, both of which require investment (Cimoli, Dosi and Stiglitz, 2009; Kattel and Mazzucato, 2018 and Mazzucato and Collington, 2022) This is why public sector labs, like Laboratorio de Gobierno in Chile are essential. A key capability is policy evaluation that is dynamic and outcomes-oriented. Another key capability is

Mission-oriented industrial strategies are essential for LAC to pivot towards sustainable and inclusive economic development. They can stimulate business and public investment in innovation —a key driver of productivity. They can shape innovation and economic activity that is aligned with —rather than



| Structural problems and bottlenecks in Latin America and the Caribbean |
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| The COVID-19 crisis exposed and reinforced deep structural problems in |
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vulnerability to crises, as well as inevitable constraints on the region's inclusive and sustainable development (ECLAC, 2022c). Seven broad structural and interconnected issues deserve attention: commodity-led development, low productivity, balance of payments constraints, territorial and productive heterogeneity, social vulnerabilities, weak institutional capacities, and limited scal space.

### Commodity-led development:

Development processes in LAC have been highly dependent on natural resources, commodities and commodity prices. Despite the diversi cation that has taken place in the region after the state-led industrialization of the 1950s and 1960s and the integration to global value chains after the market reforms that started in the 1990s, commodity predominance was never fully replaced and comparative advantages in natural resources sectors prevailed.

Commodity exports continue to contribute a significant share of

the region's export basket and thus development processes and public nances rely heavily on the foreign exchange generated by these sectors (ECLAC 2018a). In 2020, natural resources and natural resources manufacturing accounted for more than 70% and 50% of South America's and Central America's exports, respectively (ECLAC, 2021b). In the same year, 82% of the region's total exports to China were primary goods. The strong cyclical nature of commodity prices and the high reliance on commodity exports increase the macroeconomic vulnerability of the region, especially d0.057 ra.8 (h)67/s he dm3-8.5 (h)2, .6 (h)-2. (a)2

in innovation has remained at mediocre levels. Latin America's research and development (R&D) expenditure as a proportion of GDP has been consistently below 0.7% in the last two decades. Only Brazil has surpassed 1% in some years¹ (ECLAC, 2022a). In addition, the contribution of private sector R&D is low in relative terms. More than half of the R&D expenditure of the region is invested by government, with the private sector only contributing around one third of total spending (ECLAC, 2022a). What is more, most of the region's R&D is concentrated in basic research, with experimental and applied research —which are the most relevant

countries (Pinto, 1970; Cassiolato and Lastres, 2005; Cassiolato and Gonzalo, 2015). Beyond that, most of the dynamic sectors and rms are concentrated in urban centres such as Sao Paulo, Buenos Aires, Mexico City, Lima, or Santiago de Chile. For example, GDP per capita of the richest department in Colombia is almost 12 times greater than that of the poorest; the gap reaches almost nine when Chilean regions are compared and eight in the case of Argentine provinces (ECLAC, 2018a).

The differences in productivity levels between sectors are also signi cant. However, it is at the rm level that this is most evident, as LAC economies are characterized by many micro and small and medium enterprises (MSMEs) with low levels of productivity. More than 99% of companies in the formal economy are MSMEs and have an ef ciency and pro tability gap with larger companies (Dini and Stumpo, 2020). This undermines the region's capacity to create quality jobs and economic activities and to boost productivity growth.

### Social vulnerability

The productivity gaps and growth bottlenecks u2-1.2 (d g)e5/3(n)2.3 (e)-3.1 (T g

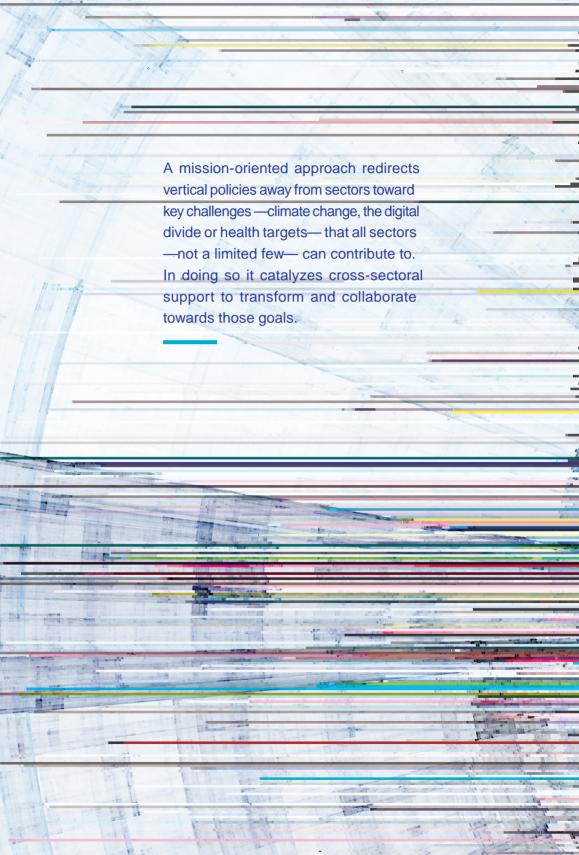
### Weak institutional capacity

The region is held back by weak institutional and public sector capacity, especially at the subnational levels (Mazzucato and Penna, 2016a; Mazzucato and Penna, 2020). Public-sector capacity is typically de ned as the set of

Industrial transformation requires both public and private investment. Thus, blanket austerity measures can hurt any form of industrial strategy. While achieving ef ciency is important, public investment is of course key to making sure that long-run growth occurs as a result of investment in R&D, education, health and more. However, as shown in Table 1 current public investment in R&D is negligible, with Brazil's 1.2% from 2019 representing

Although most Latin American countries increased their scal expenditure during the pandemic, scal rules still restrict them (ECLAC, 2022f). Given the nature of global nance, often International Monterary Fund and World Bank loans in the region have been conditional on LAC reducing their public investment and implementing "structural reforms" that have introduced austerity. Such external limits have often been counterproductive. Indeed, periods of state retrenchment, sometimes due to the conditionalities imposed by global nancial institutions, have only caused debt/GDP to rise in various LAC countries. This is because a fall in public investment, and lagging private investment, only cause productivity to fall further, causing the denominator of debt/GDP to be stagnant. Thus, even with a modest de cit, the ratio can rise very high.

These seven structural constraints reinforce each other, hampering development opportunities and long-term growth. The weakness and heterogeneity of the productive structure deepens informality and social inequalities and increase the vulnerability of the external sector. At the same time a weak institutional set-up is not able to direct investments to more dynamic and innovative sectors and to provide quality services to the population, increasing social vulnerability and distrust. The interaction between these structural characteristics and globalization has resulted in several crises, increasing macroeconomic vulnerability and reduced policy and scal space. In the face of these structural issues -commodity-led development, low productivity, balance of payment constraints, territorial and productive heterogeneity, social vulnerability, weak institutional capacity and tight scal space—designing new industrial policies and development strategies for LAC will be dif cult and complex, but urgent. As the dust from the COVID-19 pandemic settles, there are clear opportunities that governments can use to rethink the role of the state in shaping a path to foster productive structural transformation and capabilities development in LAC. The mission-oriented approach to industrial policy proposed in the next chapter is an important step for governments to promote transformation and steer it in the direction that leads to sustainable development.



# A renewed call for industrial policy at the centre of development strategy

Key to growth is investment by both public and private actors. To move forward, the solutions cannot be about small states or large states but smart states that can catalyze investment and innovation across the economy. Nothing less than an entirely new lens on industrial strategy is needed, one that positions the public and private sectors as partners in tackling complex challenges and meeting common objectives. For investment-led growth is most effectively catalyzed when there is a clear direction and purpose. If the public sector can set that direction, around sustainability targets, for example, it can crowd in private sector investment, and together work on projects that increase total investment, innovation and ultimately productivity. The more such transformation can happen across supply chains of many sectors, and not a chosen few, the better.

To do this a fundamental change is needed, from traditional industrial policies that focus on sectors to be supported, to better and more complete identi cation of problems whose solutions require multiple sectors and actors to nance and develop processes of innovation and transformation. For example, natural resources could not simply be extracted from the ground but be infused with added value that moves an economy towards a direction of sustainable, inclusive and innovation-led

Economic Commission for Latin America and the Caribbean (ECLAC)

| It is not about the government picking winners, but about picking the willing |
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Figure 1 | Sustainable Development Goals

### • Bold, inspirational, with wide social relevance

Missions should engage the public. They should make clear that through ambitious, bold action at the level of the Latin American and the Caribbean region or at the country level, solutions will be developed that will have an

### Cross-disciplinary, cross-sectoral and cross-actor innovation

Missions should be framed in such a way as to spark activity across and among multiple scienti c disciplines across different industrial sectors (e.g., transport, agriculture, health, services) and different types of actors (public, private, third sector, civil society organizations). Missions need to be chosen to address clear challenges that stimulate the private sector to invest where it would not have otherwise invested (additionality in business). Missions connect all relevant actors through new forms of partnership for co-design and co-creation by focusing on targets that require multiple sectors and actors to solve. The Mexican region of Nuevo León and its transition to advanced manufacturing (see chapter IV.B) shows that governments can use outcome-oriented policy to mobilize cross-sectoral, bottom-up innovation from different actors.

### Multiple bottom-up solutions

Missions should not be achievable by a single development path or by a single technology. They must be open to being addressed by different types of solutions. A mission-based approach is clear on the Transformational change in Latin America and the Caribbean...

An example for a climate-related mission is below. It would require investment in areas like transport, nutrition, digital services and a host of other sectors to truly mobilize innovation and investment in a cross-sectoral and bottom-up way.

Figure 3 | Mission map: 100 Carbon-Neutral Cities by 2030

Climate change

100 carbon-neutral cities in Latin America

pollution, and poverty (Mateo-Sagasta, J et al, 2017). To develop a new, more outcomes-oriented approach to water policy, we must redefine water a global common good. Indeed, the common good is an objective and a purpose in and of itself, which has serious implications on the governance of and collaboration around resources (Mazzucato et al, 2022). For example, as discussed in the case of water governance of the Panama Canal in chapter IV, moving towards a common good framing paves the way for a mission-oriented approach. This would require evaluating water in more dynamic ways and developing more outcomes-oriented ways of governing lakes, locks, dikes, and channels so that there is enough water to sustain the economy activity on which Panama depends. There is more research to be conducted in this area, but the global common good framing is a critical step forward to protect ecosystems and economic systems that depend on responsible water governance (Global Commission on the Economics of Water, 2022).

Ultimately, in Latin America and the Caribbean, the mission-oriented approach can help stimulate investment in a wide range of sectors, diversify specialization, mobilize productivity and skills development in manufacturing and services, support the modernization of commodity sectors, and redesign the governance



## Learning from challenge-driven cases in Latin America and the Caribbean

Of the many pressing contemporary challenges that Latin American and Caribbean countries face, health inequalities, the digital divide and climate change should rank high on governments' agendas. They represent an opportunity to put into action a new concerted vision around public policies and the role of the state in addressing grand societal challenges. This chapter evaluates a set of LAC cases that are tackling these challenges in purpose-driven and outcomes-oriented ways, and emphasizes where policy can bene t from more mission orientation and an all of government approach.

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Economic Commission for Latin America and the Caribbean (ECLAC)

Transformational change in Latin America and the Caribbean...

and private funds with each cluster proposing a long-term strategic plan and a strategic agenda, operated by committees specialized in human resources, investment and growth, and innovation.

## Uruguay: Plan Ceibal, an ambitious initiative for digital inclusion

The Plan Ceibal in Uruguay set itself in 2007 a clear mission: to distribute one laptop with Internet access to all elementary-level students and teachers throughout the country. The Laboratorio Tecnológico del Uruguay (LATU), one of the main technology labs in the country, led the initiative (Larrouqué, 2013). Founded in 1965, LATU helps to link the private and public sector to foster IT innovation, and international cooperation. In doing so, LATU has developed a much more exible organizational structure than most public organizations in Uruguay, including for example the use of public procurement with less bureaucratic procedures.

Plan Ceibal delivered promising results by the end of its third year: 380,000 laptops were distributed, reaching every student at primary public school. Wireless networks were designed and installed in schools and various points within their vicinities, such as libraries, clubs, public squares, and low-income neighbourhoods (Larrouqué, 2013). LATU led a team of engineers and volunteers tasked with resolving problems around connectivity, training and other issues encountered by users. The State-owned telecommunications enterprise, ANTEL was a key strategic partner for LATU in providing connectivity to more than 2,000 schools. From a software point of view, the laptops had distinctive features: Linux as an operative system and "Sugar" as a user interface were both specially tailored for children (Plan Ceibal, 2017). The plan has evolved from an initial phase focused

way into all British classrooms (Mazzucato, 2021). Interestingly, it required that procurement be designed to crowd in the innovations needed for the low-cost, high-quality computer. It was this outcome-oriented procurement that allowed what was at the time a nascent computer company, Acorn Computers, to nd a market and grow. It was eventually bought by ARM, the most innovative high-tech UK company before it was sold to SoftBank. The lessons in the BCC case are key: a public procurement strategy for a social goal can have immense spin-offs in terms of technology development and the scaling up of small companies —more so than policies that are ex-ante focused on the technology or the start-ups. Both cases demonstrate that a clear public mission can be used to galvanize multi-stakeholder and cross-sectoral action to address a societal challenge.

## D. Argentina: the COVID-19 pandemic as a productive and technological challenge

The crisis generated by the COVID-19 pandemic boosted the capacity to collaborate and innovate all over the world. In Argentina it was no different. Around half a dozen COVID-19 test kits were developed and approved during the /

In more general terms, the COVID-19 challenge provided a clear direction through which to align and focus the research, innovation and investment efforts of several public and private institutions at different levels. In doing so, it has also prompted the alignment between a wide range of policy instruments, including subsidies, public procurement, seed capital, credits, new training programmes, new public-private and contractual agreements. The Argentinian government's response to the pandemic was not perfect and its various shortcomings, like that of all countries, require scrutiny and learning. Nonetheless, the experience of TECME offers a useful case of how public-private partnerships can be built, and new instruments can be designed, implemented and scaled with clearly de ned objectives and challenges in an outcomes-oriented way (ECLAC, 2020a; Gonzalo, 2020).

## E. Colombia: designing a care system in Bogota

Governing challenge-driven policies at the city level and place-based policymaking contexts differs from doing so at the national level. The relative proximity to citizens and the sharp emphasis on public service delivery also means that community participation and representation during a mission-oriented innovation i otava'5.13(9150.5

Importantly for Bogota, adopting a mission-oriented innovation framework for its Care System could also be used to align agendas, policies, and resources between different levels of government that each play a role in shaping the system —the national, regional, and city levels of authority. For example, the city of Valencia in Spain has aligned its mission-oriented innovation programme, Missions Valencia 2030, with the metropolitan region's Urban Strategy Valencia 2030 programme, the European Commission's mission on cities and the UN's Sustainable Development Goals. This strategic alignment has enabled Valencia to link the municipal, metropolitan, European, and international spheres of policy and coordinate its missions accordingly (UCL IIPP, 2021). Bogota could seek to take a similar approach, engaging policymakers and leaders from national government agencies as well as inter-Latin American NGOs to scale up its ongoing actions and build further moment.

F.

The Sustainable Energy Strategy 2030 renews and increases the energy aspirations of Central America, advancing speci c and more contemporary goals. One of the targets adopted is that around 1.5 million households should be reached by energy connection by 2030. It is expected that between 2025 and 2030 the region will deeply increase its energy ef ciency both at the household and enterprise levels. Finally, regarding renewable energies, it is intended to increase their average share of the energy mix to 30% by 2030 (ECLAC, 2020b).

While this strategy has yet to achieve its planned objective Tw 9. (L)-564 (n)-0o(t)1.7 (64 1.7 differentfors related to regional in64 stitutional coordinatn, infrastructural 64 13.964 83.9

Economic Commission for Latin America and the Caribbean (ECLAC)

window for developing countries to encourage and demand fair redistributive policies, and a new social contract between the public sector and multinational companies around sustainable access to natural resources, while protecting and bene tting the local population. However, for natural resources to lead the development of the Latin American region, countries will need to encompass

A mission-oriented approach to the governance, management and investment around the Panama Canal can help achieve the goal of resilience and sustainability. Five components are necessary to implement this mission approach: (1) to value water both through evidence-based data and eco-systemic accounting including the economics of water; (2) to assess the situation of water sources and resources; (3) to evaluate gaps in clean water supply and service delivery, including sanitation and its impacts on people, women, and communities; (4) quantify the water component of food, health and as an input in value chains of key productive sectors and correlate food security, health for all, and key actions to ensure a transition towards sustainable industrial development; (5) investigate the best technologies and water governance models at the local, national, and regional levels to enable new forms of partnerships between governments, communities, civil society, and industries including the evaluation of nancial needs.

Using a mission-oriented approach, water can be the catalyst, not only for Panama but for different countries of LAC, of a new development model and new paths of sustainable growth based on more equitable premises, as

Under a mission-oriented approach, tourism can be transformed from a sector that contributes economic value to the economy to a bright north star that sets a clear direction for the region's economic growth. Transforming tourism on its own is not enough, however. Other sectors such as services, transport, infrastructure, digital, education, agriculture and manufacturing are key to achieving a mission

A mission-oriented approach would require the support of strong financial institutions like the Caribbean Development Bank to provide the long-term finance to implement this framework. Cross-country and cross-sectoral support would also be essential to ensure the success of this approach. Caribbean countries have a promising opportunity to take advantage of current trends and make tourism a lever for development.

The cases in this chapter highlight the opportunities for using new outcome-oriented policies and coordination mechanisms to tackle the LAC region's green-, digital-, and health-related challenges. Despite not having been designed as missions, there are four main takeaways from which LAC governments can learn:

- (i) De ning a shared direction for investment and innovation can help align public and private sector activity, as well as different sets of institutions, sectors and policies, around common objectives and mobilize bottom-up solutions.
- (ii) There are a range of outcome-oriented tools, such as procurement, that can be leveraged to direct growth and innovation. If used correctly, these outcome-oriented tools can spur cross-sectoral innovation, crowd in private sector investment and generate multiplier effects.
- (iii) Deliberately designed mechanisms for collaboration between the public and private sectors are vital to build buy-in and alignment around common objectives.
- (iv) Capable public or public-private institutions that have a clear mandte and responsibility, like LAU, can ensure that implementation and delivery of policy is of a strong standrd. A legl and political mandte m44.9 (u)1.5 (s)1.2 (t b)





# Governing missions: public sector capabilities, tools, and institutional design

Missions do not happen in a vacuum, and the conditions can be created for them to succeed. First, they can only be implemented if there are the right capabilities on the ground to transform the existing design of policies into one that is more focused on outcomes. In part, this requires experimentation and sandboxing to have safe spaces to make mistakes and learn, like the Laboratorio de Gobierno in Chile or MindLab in Denmark.

Second, governments need the right tools, instruments and policies, such as outcomes-oriented budgeting, procurement and evaluation. For example, ever since the Korean War when the United States Government introduced the Defense Production Procurement Act, it has linked investment in technology for military spending to dynamic procurement m3.8 ((r)12.3 (o)--3.2 (u)1h-2 (c)-4.3 (

energy transition mission, requiring the sector to reduce its carbon and material content by investing in reduce, reuse, and recycle technologies <sup>5</sup>. This chapter explores each of these pillars —public sector capabilities, tools, and institutional design— and draws lessons for designing and implementing missions in LAC.

## A. Public sector capabilities

The dynamic capabilities of the public sector are key ingredients for governing and shaping a mission-oriented economy. Particularly in the face of considerable digital disruption, governments in Latin America and the Caribbean require more investment in and capacity around digital infrastructure, understood as the solutions and systems that enable the effective delivery of essential society-wide functions and services in the public and private sectors. This will require secure new data sources, digital tools, data standards and regulations that protect the public interest and personal information (Kattel and Mergel, 2019). There have been a few examples of effective responses to the pandemic in the LAC region, demonstrating that a visible public sector can have the critical mass to lead0.5 (t)B(e)0.(s)4

Transformational change in Latin America and the Caribbean...

- Developing internal dynamic capabilities . Existing capabilities and knowledge ows matter. Developing internal capabilities and facilitating knowledge- ows within public institutions is a crucial pre-requisite for achieving public sector objectives, beyond a static ef ciency logic. This means not only developing a broad spectrum of internal competencies but also being able to attract the best available talents with prestigious jobs. Importantly, it is precisely those public organizations with a strong sense of purpose and mission mystique, a set of institution-strengthening characteristics and institutional charisma, that attract the most ambitious and competent talent (Kattel and Mergel, 2019). Civil services in the LAC region historically have tended to be unstructured, unstable and connected to political cycles. For LAC governments to create internal dynamic capabilities, they could invest in creating a civil service reform that allows a space to develop long-term competencies. Either via meritocracy or other models, LAC governments should not overlook the power of having a professional civil service that can respond rapidly to any crisis or window of opportunity, as the COVID-19 pandemic has shown us.
- Leadership and risk-taking attitude . The public administration must have the autonomyves..9 (e)ynoirectonitiato3.1 (i)-3.1 (v)12.1 (no9.5 (,)0.5 (t)2.6 (h)2

programme in the United States offers an excellent example of how to do this well (Mazzucato, 2020). SBIR was established in 1982 with a clear mandate to stimulate technological innovation and to use small and medium-sized rms (SMEs) to meet the R&D needs of public agencies. It requires that all federal agencies with R&D expenditures above US\$ 100 million spend

| Box 3   Financing innovation and technological capabilities through natural resources funds |
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#### Box 4 | Strategic use of procurement in Latin America and the Caribbean

A mission-oriented industrial strategy can complement supply-side innovation policies —for example, an increase in R&D funding— with demand-side policies, such as public procurement (Kattel and Lember, 2010). Using public procurement to incentivize innovation and alignment with strategic industrial aims can provide meaningful results with minimal added cost (MOIIS, 2019). Public procurement is an instrument that could help missions to create new markets. It is estimated that in Latin America public procurement constitutes 20%-30% of government expenditures. In recent years, the potential for using procurement as a tool for industrial and innovation policies has received renewed attention (Kattel and Lember, 2010; Edquist et al., 2015; Moñux and Uyarra, 2016; OECD, 2017). Innovation around the use of procurement can be a signi cant demand-side stimulus, allowing companies to scale up through market creation.

An international comparison of government/public procurement, 2018 (Percentage of GDP)



| very small set of total purchases made by the public sector, having been used only 75 times in the period 2010–2019 in areas such as agriculture, aerospace and defence, |  |
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Missions are not static, they are dynamic. As countries take aim to tackle grand challenges, current ways of policy evaluation are not sufficient and need to be complemented by alternative approaches. These alternative approaches should think of value as co-created by all economic and social actors and markets as the result of investment by public and private actors (Mazzucato, 2018d).

New methods of assessment that incorporate this notion of public value as collectively created by a range of stakeholders should be developed and used. First, rather than focusing on single instruments and representative actors, these methods could analyze and evaluate a policy mix, as the effects of different

direction setting and bottom-up exploratory approaches. Instead of prescriptive project speci cations, participants could be given the exibility to propose a variety of solutions to achieve the mission objectives and intermediate goals.

A mission-oriented approach to evaluation under the analytical framework presented above will be able to capture the dynamic aspects of market-shaping policies (spillovers, multipliers, systems change), as well as an ongoing and re exive assessment of whether the system is moving towards the mission

long-term nance. As this subchapter will show, new forms of nance have often involved new forms of nancial instruments and regulation (Kattel, Kregel and Tonveronachi, 2017).

The structure of the nancial system is key to the successful implementation of mission-oriented policy. This is because nance and funding are not neutral. The type of nance available can affect both where investments are made and the type of activity that is funded (O'Sullivan, 2006; Mazzucato, 2013a). The forms of nancial institutions and markets that exist have a material impact on activity in the real economy. This makes it necessary to rethink the nancial ecosystem to foster a greater emphasis on the provision of long-term, patient nance and investment in the real economy (Mazzucato and Macfarlane, 2017; 2019). This also offers an opportunity to establish a closer alignment between the nance ministry and strategic industrial aspirations.

Missions, by their nature, are designed to spur innovation towards addressing societal challenges. By providing a direction for economic growth, missions can also help to crowd in commercial investment by guiding business expectations about where future growth opportunities may lie (Mazzucato, 2013b; 2018b). It is precisely because innovation is highly uncertain, has long lead times and is a collective endeavour that it requires patient, long-term nance. The private sector will often not invest in higher-risk areas until future returns are better understood. In countries that have achieved innovation-led growth, the State has often supplied the patient nance that the private sector was unwilling to provide. Here, the State did not intend to x market failures but to invest in new technologies and create new markets by acting as an investor of rst resort rather than just as a lender of last resort. This is particularly relevant for developing countries where the pools of private capital are smaller and nancial markets are less mature.

A mission-oriented public investment bank should (1) have a clear mandate to be challenge- and mission-driven rather than having a sectoral focus, (2) be placed at the centre of the investment process, (3) have different sources of nance and portfolios of investments that enable the bank's appetite for risk, (4) have a range of nancing instruments, covering both debt and equity, suited to different areas of the risk landscape, (5) have a governance model that allows the right balance between political representation and independent decision-making, (6) be able to strike the right balance between risks, rewards, and conditionalities, ensuring that investments are structured across a risk-return spectrum so that lower risk investments help to cover higher risk ones and allowing the bank to reap some of the nancial rewards where success occurs to offset the inevitable failures, and (7) have close alignment between State investment banks and government institutions, including the central bank and other regulatory bodies (Mazzucato and MacFarlane, 2019).

#### Box 5 | Crowding in business investment through Brazil's public bank BNDES

In many developing economies there are already public banks such as the Development Bank of South Africa, or the Brazilian Development Bank (BNDES). Indeed, in Brazil, BNDES has had a virtuous role in articulating public and private sector around the support, nancing and scaling of start-ups (Gonzalo et al, 2022a). With a systemic and evolutionary public policy approach, BNDES, the biggest Latin American Development Bank, and the Financiadora de Estudos e Projetos (FINEP), the main Brazilian public organization oriented to the support of innovation, have contributed, in partnership with the private funds, to the creation and consolidation of the Brazilian entrepreneurial ecosystem in several ways. With the Venture Forum, they have created and stimulated the spaces of interaction between entrepreneurs and investors.

Through the INNOVAR Programme, FINEP nanced the operational cost and co-invested with private venture capital funds. With the INNOVAR Funds of Funds, the public sector has articulated with the Brazilian regional banks to promote the decentralization of the venture capital investment activity. Through the FINEP Startup Program, FINEP has directly injected capital to a cohort of strategic start-ups. Furthermore, through the use of conditionalities, the bank has in the past succeeded in crowding in business investment. In fact, the analysis of BNDES R&D support funds and other nancial instruments for the period between 2003 and 2011 has shown that the bank successfully generated crowding-in effects in the private sector, increasing private investment in innovation (Carreras, 2022).

Source: Own elaboration.

Thus, experience suggests that aligning such institutions with the government's wider industrial policy objectives can create a powerful synergy between policy, regulation

The intermediate position between the ultimate shareholder (the Government) and the single operating companies enables a potential dialectic synthesis between general national policies and the speci c needs of SOEs as business organisations. While investment decisions and industrial initiatives could be oriented with a systemic approach from the State holding agency, the managerial and nancial autonomy of the companies must be preserved.

Privatising State-owned enterprises would simply deprive the State —and other interacting private companies in the economy— of an important pool of technical competencies in strategic sectors. Privatisation often leads to countries losing a direct and potentially effective tool for driving and orienting industrial transformation in the context of economic development. Without a patient long-term owner, the future of these companies could be the eventual disappearance or their continued existence under highly destructive governance, which would favour the short-term interests of the new shareholders over its various stakeholders and the economy at large. Reforming these companies should be the pr cas

Argentina, INVAP has more than 45 years of experience involved in high tech projects around nuclear energy, space, industrial technologies and medical equipment. INVAP is the only Latin American enterprise recognized by NASA as competent to develop complete satellite systems, from development to operation. The Corporación Nacional del Cobre de Chile has a prime role in the Chilean mining sector, mainly based on copper (and with a prospective role in lithium) contributing to the copper supply chain governance and to the development of national suppliers and R&D projects. There are more cases of relevant SOEs in Latin America, both at the national and the state level.

However, there are different challenges related to the Latin American SOEs with respect to their performance, accountability and role in dealing with Latin America's productive, social and environmental asymmetries. The most common criticisms relate to the weak mechanisms of information and control, the lack of managerial staff, the dif culty in their regulation and low productivity (IDB, 2015; Guajardo Soto, 2013). These challenges and criticisms have generated a space to rethink the role of the Latin American SOEs. How to articulate SOEs to broader mission-oriented and challenge-led policies; how to increase the SOEs' R&D spillovers and linkages with the Latin American entrepreneurial and productive structure; how to improve the performance and impact of the State and regional level SOEs; how to create and consolidate new SOEs oriented to emerging and strategic sectors and technologies related to energy transition, biotech and ICT. These are some of the challenges faced by Latin America (Gonzalo et al, 2022b; Castañeda et al, 2020; Chavez and Torres, 2013).

Source: Own elaboration.

#### Public innovation labs.

Capabilities and solutions are not created out of thin air. They must be developed. Places that safeguard learning and experimentation are thus key opportunities to test out and "sandbox" new instruments and policies, such as mission-oriented procurement or pre-competitive regulation (Collington and Mazzucato, 2022). Cultivating the space to make mistakes and learn from them is essential to usher in a new, more exible way of making public policy. Public innovation labs that are set up to develop prototypes, help scale new solutions and build capacity and networks both within and outside of the public sector are key to a mission-oriented approach for ve reasons:

- (i) Learning through sandboxing : sandboxes are a virtual or physical space that civil servants can use to work with stakeholders and test solutions in a safe environment. One example is a "regulatory sandbox" through which selected rms can work with regulators to jointly explore, trial and test innovative products, services and business models without having to meet all the usual requirements for compliance.
- (ii) Allowing participation : in most cases, innovation labs are designed under the principle of "co-production", a key element for the de nition of a mission but also when thinking about the ways to achieve it. This "co-production" happens with citizens, businesses, but especially other parts of government. Indeed, they can help to foster an all-of-government approach to change.

- (iii) Mission-led approach: these spaces are dedicated to designing public services in a way that key challenges (missions) are addressed, and that public value is created along the way. Such missions could be in public education, public health, or public transport for example. By transforming public services to be levers for innovation, the public sector becomes a tool for innovation rather than a drag on it.
- (iv) Building capabilities: the usual methodologies that an innovation lab uses to create change are based on the principle of learning by doing. In that sense, innovation labs are critical for investing in dynamic capabilities. By having participatory processes with citizens and also by incorporating civil servants, innovation labs develop different types of capacities and capabilities that are key to de ning, implementing and measuring a mission-oriented approach.
- (v) Peer learning: the process of learning with and from each other is also something that is embedded in the nature of a public innovation lab. These spaces can therefore provide a platform for peer learning between

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type of organization and perhaps ECLAC playing a coordinating role, so that every year the "what works" conversation can happen across all countries, perhaps at ECLAC's Annual Sessions.

Mission-oriented policies, on their own, would not be enough to create the path for inclusive and sustainable development. Capabilities, tools, and institutions are essential to do so. Civil servants should have enough agency to adapt, make mistakes and learn. They should also be equipped with tools that allow a different approach to policymaking, one where the government is taking the lead and pointing in the right direction. And they should have the institutions that support and enable this new way of policymaking. Nonetheless, this new approach requires the participation of a broader set of actors when de ning and implementing policies, and a renewed de nition of value that is re ected in the way we assess and evaluate the success of missions. The following chapter addresses these points.



### New social contract

Missions require new relationships between all value-creating actors —in government, in business and in civil society. In many Latin American and Caribbean countries, citizens feel as though the social contract —the tacit agreement that citizens and businesses have with government for a set of political and economic rights— is broken. Rampant inequality, where the richest 1% of Latin Americans capture 25% of their countries' GDP, 8 is just one blatant example of this problem. So too is the precarity of work, especially among groups that were hit hardest by the pandemic, including women and domestic workers; and the recent fall in real minimum wages as a result of rising in ation (ECLAC/ILO, 2022). It is particularly in times of crisis that that the most vulnerable are let down by our current economic system, making times of "normality" all the more important in xing its de ciencies. Problematic contractual partnerships and unjust constitutional arrangements have contributed to much of the social vulnerability and weak institutional capacity discussed in chapter II of this report. Shifting the balance of power can begin with designing missions, policy tools, partnerships and institutions that re ect shared goals and produce shared value. It can also begin with engaging citizen organisations in new ways, ensuring broader political participation and economic co-creation.

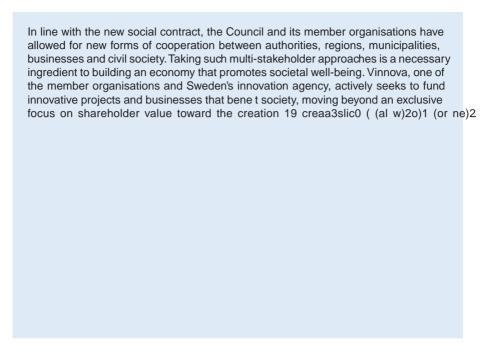
## A. Citizen engagement: participation and co-creation

Many Latin American and Caribbean countries suffer from low levels of public trust: over 90% of citizens in Paraguay and Colombia believe that the elite

<sup>&</sup>lt;sup>8</sup> According to information from the World Inequality Database [online] https://wid.world/.

 decision-making process that commits a portion of the budget typically at the local level of government to nance projects proposed by community organizations (Bloj, 2009; Correa and Hepp, 2021). Indeed, in the case of Porto Alegre, the strength of community associations is considered one of the factors that contributed to the municipality's readiness to implement participatory budgeting (Navarro, 2004). The starting point of any such initiative, however, is the government's political will to share decision-making. Participatory

developed a few themselves, with some of the best-known start-ups including Rappi, Nubank, iFood, Mercado Libre, Globant, and Core Securities Technologies



A mission-oriented approach to industrial strategy in LAC can transform the way that the public and private sectors work together, and ensure that more citizens and workers bene t from the value all stakeholders create. By putting shared, common goals at the centre of public-private partnerships and ensuring that both risks and rewards are shared —notably through contractual arrangements tied to intellectual property (IP), grants, loans and procurement— the outcomes of these partnerships become more concrete and felt. To achieve the economic transformation described in this report, LAC businesses, governments, trade unions, and other stakeholders must come together to shape markets that re ect a more equitable stakeholder form of capitalism. It is not about glorifying one actor over the other, but about nding new ways to co-invest and collaborate. Ultimately, it is through a new social



side greater investment or types of knowledge sharing. Such conditions should not micromanage what companies do but set the constraints of what must be done in exchange for government help, e.g. make supply chains greener, improve working conditions etc.

Fourth, this requires building or redesigning institutions —from public banks to State-owned enterprises— with clear remits to align their investments and activities with mission goals. Such redesign is both about the remit of an organization and its culture, for example, more risk-taking and experimentation.

Foundational to these shifts are an empowered public service, dynamic evaluation metrics and an engaged public. Ultimately, seizing the opportunity to direct public and private investment and innovation towards tackling pressing challenges has the potential to renew the social contract between governments, businesses and people, building trust and ensuring that the bene ts of economic growth are widely felt.

Finally, the transformative approach to economic development described in this report requires willingness to learn from what works and what does not in past experience. For this we hope that the new era is one of knowledge sharing between LAC governments, perhaps through networks supported by ECLAC that purposefully learn from each other.

Old approaches to economic development will not empower LAC to overcome current economic, health, inclusion, and climate crises. There is a clear need for governments to set bold goals and work collaboratively with willing partners in the private sector to foster economies that are truly sustainable and inclusive. The time is now.

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## Economic Commission for Latin America and the Caribbean (ECLAC)

ECLAC is one of the ve regional commissions of the United Nations. ECLAC was founded in 1948 for the purpose of contributing to the economic development of Latin America and the Caribbean, coordinating actions to

## German Agency for International Cooperation (GIZ)

The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH is a global service provider in the eld of international cooperation and capacities development for sustainable development. GIZ has over 50 years of experience in a wide variety of areas, including economic development and employment, energy and the environment, and peace and security. As a public-bene t federal enterprise, GIZ supports the German Government —specially the Federal Ministry for Economic Cooperation and Development (BMZ)— and many public and private sector clients in around 120 countries in achieving their objectives in international cooperation. With this aim, GIZ works together with its partners to develop effective solutions that offer people prospects for sustainable improvements in their living conditions.

In this context, the ECLAC/BMZ-giz Strategic Alliance aims to contribute to sustainable social, economic and environmental development in Latin America and the Caribbean and to support regional integration objectives.

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