Sustaining reform momentum will help Georgia harness innovation to move up the value chain and reach its sustainable development objectives, new UNECE findings show

Georgia went through a difficult first decade of transition after independence in 1991, facing one of the deepest economic slumps in recent history. 2003, however, marked a turning point, **triggering reforms that turned Georgia into one of the most open, well-governed transition economies in the UNECE region**. The regulatory climate for doing business ranks among the best globally, and Georgia has become a vibrant trade hub, attracted significant investment, and clocked up strong, albeit volatile, growth over the past decade.

Sustaining this momentum, however, will be challenging. Georgia relies on a narrow range of resource and commodity exports, credit growth, and remittances from abroad – all subject to fluctuation that leave the economy vulnerable. Diversifying and upgrading economic activities will be central for long-term sustainable development. Central to this effort is to enable and encourage innovation – that is, experimenting with and absorbing ideas systematically to find out what works and scale it up. While there are several positive signs that this is taking place, such as innovative start-ups, the challenge for innovation policy and Georgia overall is to make this dynamic systematic throughout the economy, governance, and society.

Georgia is partnering with UNECE to respond to this imperative through, inter alia, two new flagship publications with concrete recommendations. The new Sub-regional *Innovation Policy Outlook (IPO)* of the United Nations Economic Commission for Europe (UNECE) reviews and compares innovation performance and governance across Eastern Europe and the South Caucasus (EESC). Complementing quantitative composite indices, the *IPO* compares innovation ecosystems in six countries with similar economic, structural, legacy and institutional features, challenges, and opportunities.

The *Innovation for Sustainable Development Review of Georgia* (*I4SD Review)* takes a deeper, country-specific look at the actors and dynamics of the innovation system, mechanisms for innovation governance, and the range and effectiveness of support mechanisms in place or underway. This includes both a broad overview and an in-depth examination of specific areas: industry-science linkages, innovation-enhancing procurement, and private sector dynamics.

Several building blocks of a national innovation system are already in place in Georgia. The country shows a **strong political and societal commitment to innovation** – the term features prominently on the political agenda and several important steps, such as setting up the Georgia Innovation and Technology Agency (GITA), show the way. **Impressive reform over the past decades has radically improved the business environment and opened up the economy**. This sparked strong investment in a range of new opportunities, which, together with rising consumer spending, drove strong, albeit volatile, trade and economic growth over the past decades and saw the rise of a growing start-up scene. Strengthening this momentum will allow Georgia to take **full advantage of a range of economic opportunities,** underpinned by its easy access to markets, strategic location, diaspora, and moderate wages.

Strengthening this system further to enable and promote a dynamic where actors consistently and continuously try out new ideas and diffuse them across society **will be essential for sustainable development.** Market seeking investment in sectors, such as banking, construction, and retail, underpinned much of the growth of the past decades – opportunities that are approaching diminishing returns as fiscal space decreases. Slowing and at times negative productivity growth show this clearly. To counteract this, Georgia must take steps to **intensify innovation well beyond the realm of technology start-ups**. This involves improving cross-sectoral and cross-border linkages and knowledge flow, improving educational quality and labour market skills, and investing into public research that can have catalytic effects. **Public procurement is a potentially potent but underused lever to catalyse experimentation**, while improving managerial, technical, and organizational capacities through market support institutions in the private sector will be essential to absorb and put into practice new ideas.

Creating the policies, institutions, and processes for such an innovation system requires innovation in governance as well. Closer coordination and regular monitoring and evaluation of science, innovation and private sector development policies and instruments are important to ensure these measures play a catalytic role, making sure more experimentation takes place than otherwise. **Policies, institutions, support mechanisms, and processes have to be flexible, able to respond to emerging opportunities**, remove constraints, and provide support that is truly catalytic, that is makes sure that more experimentation with ideas that could have strong potential social return, such as employment and demonstration effects, than would be the case otherwise.

Some of the key **policy challenges and recommendations** for Georgia identified by the IPO and I4SD Review are summarized at Annex 1.

Annex 2 provides an executive summary of the *I4SD Review* of Georgia. Annex 3 provides an overview of the *IPO* approach to innovation benchmarking, and its application to Georgia.

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ANNEX 1 – Policy challenges and recommendations identified by the IPO and I4SD Review of Georgia

Challenges	Objective of intervention	Recommendations
Innovation policy falls short of achieving maximum impact because of unclear priorities and insufficient synergies between different policy interventions	Improve innovation policy governance and coordination	• Government strategy articulating how STI will support sustainable development priorities • A governance structure coordinating and monitoring policies across line ministries • Stable and sufficient public funding to effectively implement policies • Coordinated policies covering the entire innovation cycle • Support for entrepreneurs and investors to undertake high-risk technology-frontier innovation • Support business sector capacity to develop, adopt and adapt productivity-enhancing innovations
R&D does not translate into innovation because of a lack of market orientation and skills mismatches in the labour market	Strengthen industry-science linkages and improve educational quality, including entrepreneurship and STEM (science, technology, engineering & mathematics)	• Mainstream industry-science linkages as a strategic policy priority for science, education and private sector development • Ensure educational curricula include innovative entrepreneurship and skills needed by innovative companies • Enable, catalyze and support commercialization of research results through start-ups, spinoffs and licensing • Support contract research and mutually beneficial, joint applied-research projects between existing companies and scientific institutions
There is too little business investment in R&D and innovation because of a lack of demand for innovative products and services	Use public procurement to generate more demand for innovations	• Align public procurement practices procedures with strategic national innovation and sustainable development priorities • Use traditional procurement to encourage wide deployment and diffusion of existing best-in-class solutions and support sustainable development priorities • Pilot and gradually expand innovation-enhancing procurement to foster innovation and increase competition through pilot projects, capacity building and targeted awareness raising • Introduce pre-commercial procurement to facilitate SME participation in innovation-enhancing procurement and stimulate R&D
Many enterprises struggle to improve productivity and competitiveness and to sustain business growth. Low levels of business sophistication.	Leverage market support institutions to strengthen the capacity of enterprises to adopt and adapt productivity-enhancing innovations	• Remove specific obstacles faced by potentially innovative companies across all sectors • Establish sector-oriented strategies to promote intra-industry collaboration and bolster flexible specialization • Collect data on technology diffusion and different kinds of innovation at the enterprise level • Provide incentives for the private sector to invest in R&D and innovation

ANNEX 2 – Innovation for Sustainable Development Review of Georgia: Executive Summary

After impressive reforms, Georgia has emerged stronger

After the 2003 Rose Revolution, Georgia embarked on a path of impressive and comprehensive reforms. It radically improved governance, reduced corruption, and cut regulation – becoming, in less than a decade, one of the most open economies in the region. This sparked strong investment in a range of new opportunities, which, together with rising consumer spending, drove strong, albeit volatile, economic growth over the past decades.

Keeping up this momentum requires diversification and upgrading

Market seeking investment in sectors, such as banking and construction, and consumer spending are reaching diminishing returns, unable to underpin growth and sustainable development in the long term. Low and at times negative productivity growth point to more systemic problems in the private sector that require attention. Diversifying and upgrading export-oriented economic activities, and taking advantage of the manifold opportunities created by trade and investment, will be central over the next decade. There are a number of high-potential economic activities in Georgia, and scope to target public support to promote innovative development in these areas while respecting fiscal constraints.

Innovation is central role in this process – and in sustainable development overall

Experimenting with new ideas, or innovation, is the mechanism by which Georgia can explore what works and what does not in these efforts. With its strong political commitment to innovation, competitive wages, strategic location and attractive business environment, Georgia has a solid starting position. Several success stories not only in the private sector but also in governance, including leading e-Government reforms, point in the right direction. The challenge, rather, is enabling and promoting such innovation systematically and across economy and society.

Several structural factors constrain innovation in Georgia

Several structural factors hold back such dynamics from emerging on their own. Central among these is the ability of the private sector to absorb ideas, technologies, or business models that have worked elsewhere. Indicators such as prevalence of linkages (or absence thereof), limited use of international standards and certifications, and assesments of technical and organisational skills among SMEs, point to systemic deficiencies in such absorptive capacities. At the same time, despite relatively solid levels of education attainment, educational quality has fallen over recent decades – and difficulties in finding the right skills has risen to the top of leading constraints in business surveys.

Although inheriting a tradition of and commitment to science, this important base is waning. Gross domestic expenditure on research and development (GERD) is persistently low, while public research is fragmented across many areas. Investment in hard infrastructure, especially information and communication technology, especially in peripheral areas, will be critical to enable and ensure positive spill-over effects from Georgia's strategic location and growing role as a transit hub.

COVID-19 creates uncertainty and additional fiscal strain

A strong reliance on remittances and credit to finance consumption, rising public expenditure liabilities, and export revenue based on a small range of commodities lead to vulnerability to external shocks – structural issues demonstrated and exacerbated by the COVID-19 pandemic. UNECE research[1] shows that, although Georgia's efforts to contain the spread were among the most successful in the UNECE region, the economic fallout is considerable and will increase pressure on public finances as social spending rises rapidly. Innovation will be central to help Georgia build back better after the crisis.

Fashioning innovation policies and institutions to better promote innovation requires a concerted, comprehensive approach

The importance of innovation to sustain growth in Georgia, building on its reform momentum and substantial potential, implies reforming innovation policies and institutions to address these challenges, while using scarce fiscal resources prudently.

Closer, continuous and structured coordination of science, innovation, and private sector development policies and instruments are important to ensure coherence and efficiency. Policy areas central to innovation, such as public research, business regulation, SME development, and start-up development interact and overlap strongly.

A national innovation strategy should articulate the intended roles of different policy areas in enabling and promoting innovation as a central element in overall sustainable development planning. Policies should cover the entire innovation cycle, and support entrepreneurs and investors in undertaking high risk technology-frontier innovation. There is a more general need to strengthen business sector capacity to develop, adopt and adapt productivity-enhancing innovation. This requires broadening the scope of innovation policy from a narrow focus on high-tech start-ups towards enabling and supporting experimentation in the economy overall.

To put this strategy into practice, Georgia needs a streamlined innovation governance structure. Central to this effort is a ministerial level body. The currently inactive Research and Innovation Council (RIC) could be transformed into a mechanism that meets regularly, supported by an adequately resourced secretariat. The RIC would have a clear mandate to coordinate implementation, monitor impact and developments, engaging in regular innovation foresight exercises, and adjusting and developing new strategies and action plans across Government.

Enabling and promoting linkages, especially between the private sector and applied research, carries significant potential

A particularly salient deficit in the innovation ecosystem in Georgia is the low level of strong, systematic international and national linkages and cooperation – both within the private sector and between business and science. Despite public investment into applied research and clear private sector needs, there are few systematic efforts to engage science to solve problems and grasp

[1] "The impact of COVID-19 on Trade and Structural Transformation in Georgia" https://www.unece.org/index.php?id=55225

opportunities in the private sector; or to continuously explore the potential for commercialisation of scientific outputs.

Clearing hurdles to innovation while getting the incentives right should be central to policy reforms aiming to exploit this potential systematically. A range of restrictions constrain vibrant linkages, such as rules constraining entrepreneurial activities for academic and research staff and the use of scientific findings in commercial ventures. Removing these barriers is an important first step. Similarly, there is substantial potential in tweaking existing support mechanisms for research and private sector development to reward more clearly innovative partnerships with clear potential demonstration effects. Public research funding mechanisms should be restructured, away from funding salaries and fixed costs to funding innovative projects with strong elements of actual or potential linkages.

An initial step in this direction is the match-making scheme that GITA developed under the GENIE project, which is important to sustain and gradually improve beyond the scope of the World Bank financing that set it up. Important further steps could involve funding instruments jointly operated by GITA and the Shota Rustaveli National Science Foundation (SRNSF), which oversees most public research funding in Georgia, that target industry-science linkages. These could include innovation and technology upgrading project grants covering the full innovation cycle, from applied research through developing new products and services to commercialization and scale-up. Similarly, the Georgian National Academy of Sciences (GNAS) and GITA could set up a match-making space for industry-science collaboration – a prototype for the future market for knowledge and technologies that could be supported by grants targeting business-science cooperation.

Public procurement could become the single most powerful driver of innovation

Making up over 10 per cent of GDP, public procurement has significant, radically underused potential to promote experimentation with new ideas in Georgia. Employing the principles of innovation-enhancing procurement (IEP) as part and parcel of a comprehensive procurement reform package provides a clear avenue for using this potential – creating little or no additional cost in the short-term, and savings and positive spill-overs in the medium and long-term.

IEP is fundamentally different in approach. Standard public procurement practices in Georgia specify the technical details and standards in tender documents. IEP, on the other hand, calls for tender documents and evaluation criteria to clarify and quantify the intended impact and related objectives and performance indicators. This would allow bidders to come up with innovative solutions to meet and achieve them. Similarly, if successful, companies would have strong incentives to meet and outperform them during implementation, as revenue streams could be linked to the performance indicators in a transparent fashion. This shift towards functional procurement is particularly important to promote the innovation needed for the circular economy transition – and sustainable development overall.

Putting this into practice requires small-scale pilot demonstration projects that serve as experiments to be benchmarked against traditional procurement as “control groups” for delivering similar public services. Success stories can then be scaled up, with IEP applied to a growing number of areas of public procurement – while gradually building the skills, capacities, and institutions needed.

Market support institutions should play a central role in improving absorptive capacities in the private sector, enabling business to drive innovation across the economy

The low level of absorptive capacity in the private sector in Georgia, or the ability to scout, adapt and try out ideas, organizational models, and technologies that have worked in other contexts, is a central constraint to the systematic experimentation with new ideas in the economy. Business surveys shows very low levels of business research and development and innovation overall. Substantial deficiencies in organizational and managerial capacities limit the ability of the private sector in Georgia not only to innovate, but also to scale up what works. This compounds the effects that already, even in well-functioning markets, hold back innovation, such as the cost of self-discovery and co-ordination externalities.

Market support institutions have an important role to play in improving these capacities and promoting innovation. The most important are GITA, Enterprise Georgia, and business and industry associations. Central to a comprehensive innovation strategy will be a coordinated package of support services with strong, cumulative impact. The goal is simple: public support should be catalytic. In other words, it should enable innovation to happen that would probably not have taken place without it.

Current support services are insufficiently adapted to private sector needs in general – and towards this important catalytic role in particular. Several elements require concerted focus. Targeted mechanisms to enable and boost path-breaking, innovative entrepreneurship, responding to the at times highly specific needs and constraints of this small sub-group, are important to ensure that more experimentation takes place than otherwise would be the case. More broadly, market support institutions should promote, through subsidies and training activities, the adoption of product and quality standards, improving both export potential and organizational capacities. Export promotion will enable companies to take advantage of the manifold opportunities recently open to Georgia. Networking events and platforms coupled with targeted support should aim to enable and promote vibrant national and international linkages. Sector-focused interventions would enable companies to experiment with new ideas, technologies, products, services, and business models.

ANNEX 3 – IPO Approach to Innovation

Innovation inputs in Georgia are not only insufficient but often do not translate into outputs at an efficient rate, suggesting room for improvement in innovation policy support. The way innovation policy is governed, the composition of the innovation policy mix and the underlying policy processes – the three pillars of the IPO – goes some way in explaining this discrepancy between innovation inputs and outputs and is at the heart of the IPO analysis.

Figure 1 - Efficiently translating innovation inputs into innovation outputs requires strong innovation governance, targeted innovation policy tools and effective innovation policy processes.

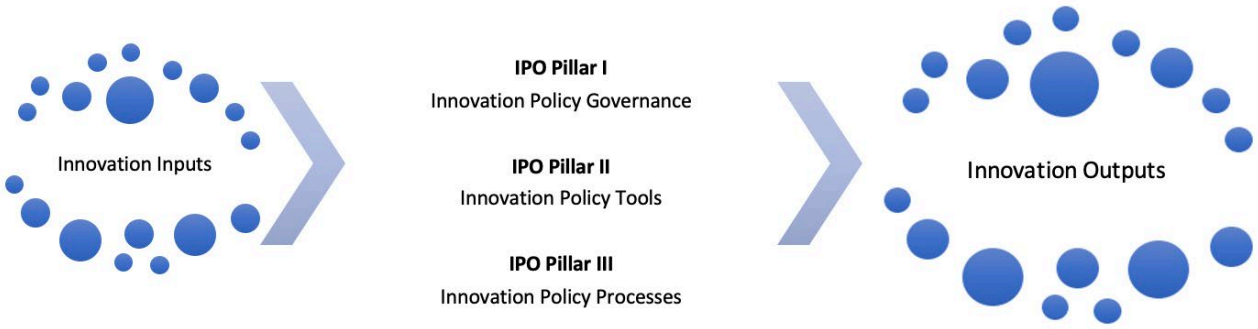

Figure 2 – The IPO analysis captures the essence of innovation policies in three pillars and 11 sub-pillars.