Uruguay South Initiative

Rethinking Green Industrial Policy from a Global South Perspective

Summary

The launch of the Uruguay South Initiative (Iniciativa Uruguay Sur), held in Montevideo on 8–9 October 2025, brought together leading researchers, policymakers, and representatives of international organisations from Africa, Asia, Latin America – plus selected invitees from North America and Europe – to collectively rethink green industrial policy and the international financial architecture from a southern perspective. Convened by Uruguay's Ministry of Industry, Energy and Mining (MIEM), the Transnational Institute (TNI), the United Nations Industrial Development Organisation (UNIDO), and the UN system in Uruguay, the initiative positioned Uruguay as a platform for dialogue and agenda-setting around emerging framework for sovereign green industrialisation.

As an active contribution to ongoing global debates on climate and development, participants argued that Global South economies require endogenous industrial policies, a reformed financial architecture, regional productive coordination, and deliberate cultivation of technological capacities. The intellectual contributions, analytical frameworks, and institutional commitments emerging from the forum demonstrate its significance as the inaugural moment of a sustained, long-term process extending through follow-up activities planned for 2026 in Southern Africa and the Southern Cone.

Introduction

The acceleration of climate change, mounting technological disruption, deepening geopolitical tensions, and the weakening of multilateral institutions have created unprecedented pressures for nations throughout the Southern Hemisphere. Latin American, African and Asian countries are expected to simultaneously decarbonise, manage technological transitions, generate quality employment, and break historical patterns of resource dependence. Yet the policy frameworks, financing mechanisms, and technological systems through which these transitions have historically been designed — have produced deeply uneven results.

In this context, Uruguay, having transformed its power sector to virtually 100 per cent renewables between 2008 and 2017 through a multi-party consensus, offered a credible platform for convening a Global South dialogue on green industrial policy. The country's achievement came not through market mechanisms alone but through deliberate state direction: renewable energy mandates, substantial public utility investments in wind and solar infrastructure, and regulatory frameworks systematically favouring cleantech development.

This transformation was underpinned by broader institutional and macroeconomic fundamentals, including sustained macroeconomic stability, trade openness, and a strong commitment to the rule of law. While Uruguay continues to confront structural development challenges common to middle-income economies, these foundations have enabled consistent policy implementation and long-term planning. This nationally rooted experience , rather than the implementation of an imported formula, gave Uruguay the authority to launch a global initiative.

The *Iniciativa Uruguay Sur* represents the government's commitment, under Minister Fernanda Cardona's leadership, to position the country not as a prescriber of universal solutions but as a facilitator of genuine peer learning among Global South economies. The gathering's dual framing served two complementary purposes: to provide a space for discussion and reflection oriented towards the construction of industrial policy, in dialogue with Uruguay's 2050 industrial plan and as a foundational step towards permanent South-South coordination. It reflected the ambition to continue building and fostering horizontal and sustained cooperation. Participants understood the October 2025 gathering as the initial moment of a broader initiative, with new spaces for discussion planned for 2026, beginning in March 2026 in Johannesburg and later returning to Montevideo.

Conceptual Foundations and Participants

The kick-off meeting of the *Iniciativa Uruguay Sur* comprised two distinct but complementary components: a public seminar convening leading researchers, policymakers, and civil society representatives; and a closed workshop bringing together senior government officials, academics and expert practitioners for intensive deliberation. All participants, except for those representing the convening organisations, were invited on an individual basis, selected for their substantive expertise and analytical capacity rather than their institutional affiliation.

The public seminar programme comprised multiple substantive panel discussions examining green industrial policy frameworks, the restructuring of the global financial architecture, and regional–multilateral coordination within challenging geopolitical contexts. A final panel addressed Uruguay-specific policy questions in dialogue with international expertise. Current and former high-level government officials from Argentina, Brazil, Chile, Uruguay, South Africa, and Thailand, with substantial experience in industrial policy design and implementation, engaged directly in the closed workshop deliberations, grounding the discussion in real-world implementation challenges and institutional constraints.

The list of speakers for the public seminar exhibited notable heterogeneity: heterodox economists critiquing mainstream development paradigms; practitioners from development banks and state enterprises wrestling with implementation challenges; government officials navigating complex political-economy constraints; and researchers documenting the lived experiences of extractivism, financialisation, and technological disruption whilst proposing desirable, viable and achievable alternatives.

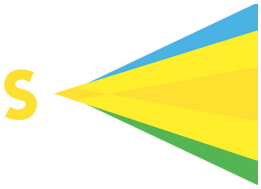
Keynote addresses by Ha-Joon Chang (SOAS) and Amir Lebdioui (Oxford TIDE Centre for Technological Industrialisation) grounded discussions explicitly in historical-structural analysis rather than technocratic optimism. The intellectual tenor emphasised genuine uncertainty and ongoing debates and acknowledged tension between competing policy visions.

The global financial architecture and *green colonialism*

A recurring and contested concern throughout the discussions centred on how contemporary green finance mechanisms can be designed so as not to replicate, but rather help overcome historical dependencies. UNIDO economist Manuel Albaladejo identified four critical megatrends reconfiguring global development: (a) the green transitions, particularly in the energy and productive sector, (b) artificial intelligence and digitalisation, (c) supply chain reconfiguration and reshoring, and (d) demographic shifts, looking at patterns such as ageing in the North alongside youth migration in the South. These megatrends fundamentally alter the instruments available for industrial policy, moving beyond sectoral selection towards policy mechanisms determined by the transition imperatives themselves.

Political economists Pedro Rossi (UNICAMP and Global Fund for the New Economy) and Verónica Robert (Universidad Nacional de San Martín, Argentina) argued that climate finance initiatives – particularly the Just Energy Transition Partnerships promoted by Global North governments and multilateral institutions – too often impose conditionalities subordinating Global South development priorities to externally defined sustainability metrics. The current international financial architecture structurally advantages investors from the North: approximately 10 per cent of capital flows are allocated to productive activities, with the remainder concentrated in financialisation and speculation. Sustainable Development Goal financing gaps reach 6–7 trillion dollars annually, yet current mechanisms prove entirely inadequate to bridge this chasm.

Rossi articulated the concept of *green colonialism* explicitly: wherein superficially progressive climate financing perpetuates financial vulnerability, technological dependence, and productive subordination under the guise of environmental justification.



The mechanism operates as follows: Global North governments and multilateral institutions define 'green investment' according to their carbon accounting frameworks and technology preferences; Latin American, African or Asian governments require access to these financing mechanisms; yet financing arrives as debt, not grants, imposing future repayment obligations. Moreover, project design typically favours northern technology suppliers and foreign investors, concentrating profits externally. Climate finance often overlooks social and economic dimensions, focusing narrowly on emissions reductions without corresponding development benefits for recipient nations. This reality reflects relational underdevelopment dynamics wherein wealth-generating processes remain structurally concentrated in the North, whilst adjustment costs devolve upon the South.

Daniel Chavez, the Uruguayan researcher coordinating the Transnational Institute's Green Industrial Policy Lab, highlighted the sovereignty dimension underlying financial architecture reform. Whilst acknowledging that vast resources flow internationally under climate finance labels, he emphasised that much of it represents repackaged development assistance or concessional lending rather than genuine new financing. More fundamentally, Chavez contended that modifying the financial architecture transcends technical adjustment: *"It has to do with sovereignty. If the South does not redefine how it finances itself, it will remain subordinated to the rules of the North."* This formulation reorients the financial question from a matter of accessing additional capital towards one that focuses on the structures that determine investment allocation, the priorities that frame resource deployment, and whether southern countries possess autonomous capacity to finance transitions that address populations' requirements rather than external investors' profit expectations.

Judith Clifton, coordinator of *Green Paths* (a major Horizon Europe research project focusing on just transition pathways with investigators from eleven countries), documented a crucial finding from their critical analysis of European climate financing mechanisms: whilst climate finance flows nominally respond to climate vulnerability and need, empirical analysis revealed systematic concentration in better-organised urban centres rather than reaching more vulnerable rural and peripheral regions, demonstrating that financing architecture design fundamentally shapes distributive outcomes and requires deliberate transparency and geographic targeting to prevent replication of existing spatial inequalities.

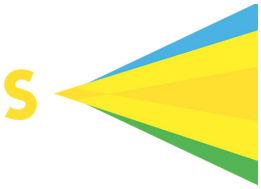
Participants expressed concerns regarding the current financial architecture as inadequate, fragmented, and biased against the Global South. Africa and other regions receive disproportionately low levels of climate finance. Exchange rate instability and liquidity constraints discourage long-term investment. Multiple development banks often operate in silos, duplicating efforts rather than coordinating.

Several proposals emerged from the discussions: reform and realignment of institutions such as BNDES and CAF to coordinate strategies; incentivising cooperation through mechanisms that reward collaboration and risk pooling; and fostering regional financial integration to create a more coherent and multipolar system, learning from models such as ASEAN.

Participants also detailed how much publicised climate finance figures obscure implementation realities. Substantial proportions represent repackaging of previously committed aid. Concessional financing terms prove considerably less generous than public rhetoric suggests. Financial asset values now exceed 400 per cent of global GDP, up from only 30 per cent in the 1950s, indicating massive capital accumulation outside productive investment. The crucial issue transcends technical financing mechanisms: it concerns financial sovereignty. Unless Global South states can access financing determined through their own decision-making processes, addressing their own priorities, on terms reflecting their own credit assessments, green transitions remain subordinated to Global North interests. In this context, BRICS institutions and regional development banks offer interesting opportunities to rethink development-oriented financing beyond traditional mechanisms.

Minister Cardona amplified these concerns, warning against reproducing historical patterns of dependency whilst adopting green industrial rhetoric. She stressed the importance of the Global South being able to assess projects according to their own development priorities, rather than accepting unfavourable financial terms simply because projects are ostensibly climate related. Instead, restructuring the global financial architecture is essential for productive transformation that supports development. This restructuring requires regulatory intervention to ensure development-oriented capital allocation and to break the dependence on correspondent banking, which constrains the economies of the South.

Along the same vein, Thomas Marois (McMaster University, Canada), specialising in public banking and green transitions, highlighted untapped potential in public banking systems. Over 900 public banks globally collectively control approximately 55 trillion dollars in assets. National central banks command resources approaching 90 trillion dollars. Combined, these represent immense public financing capacity systematically underutilised relative to private climate finance. Mobilising this capacity requires both technical institutional reform and explicit political reassertion of banking sovereignty. Development banks have been progressively weakened by ideological pressure and institutional subordination to the Global North's financial interests; rebalancing requires a deliberate political choice. The Seville Commitment, which signifies unprecedented multilateral support for national public bank autonomy and effectiveness, points to an emerging consensus on the need to strengthen state financial institutions.



Nevertheless, public bank coordination across South-South lines remains dramatically underdeveloped, as existing institutions maintain contact primarily to access foreign financing rather than to coordinate development strategies. Institutional economist Verena Hitner, former Executive Secretary of Brazil's National Council for Industrial Development, also explained that development bank financing patterns frequently exhibit priority asymmetries, with post-shipment export financing disproportionately supporting external commerce rather than regional integration.

South African development scholar Mark Swilling (Stellenbosch University and Development Bank of Southern Africa) emphasised that structural transformation demands moving beyond conventional financing mechanisms entirely. "*The accumulation of capital in the hands of the few imposes structural limits,"* he argued; what is required instead is understanding *"the financial system as an interconnected ecosystem"* capable of mobilising the vast resources currently concentrated in private hands towards productive transformation serving popular well-being rather than speculative accumulation.

Policy space, state capacity, and industrial policy ownership

Over the two days, participants reached a clear consensus that countries in the Global South face deep structural constraints that hinder their ability to pursue autonomous and sustainable development. These include financial and productive subordination, in which many countries remain locked into dependent positions within global value chains; lock-in effects, in which existing infrastructure and trade patterns limit policy space; political volatility, as short cycles undermine long-term planning; and loss of state capacity following three decades of neoliberal restructuring. A recurring theme throughout the discussions centred on the need to reclaim and rethink the role of the state, not only as a regulator but as a strategic actor capable of directing capital, coordinating sectors, and fostering innovation.

Industrial policy implementation requires what Latin American researchers and government officials' term *espacio de maniobra*, meaning policy space: the margin for action available to states implementing deliberate strategies. Argentine sociologist Daniel Schteingart (Fundar) argued that policy space is constrained by both external restrictions (mainly multilateral treaty conditionalities and international legal regimes) and internal limitations (productive capacity, political legitimacy, and institutional capacity). Critically, policy space remains profoundly unequal across the Global South, yet the South itself is heterogeneous, with countries like Uruguay positioned differently from much bigger states such as Argentina, Brazil or Mexico in terms of available manoeuvrability.

Referring to similar policy challenges in other regions of the world, economist Daniel Díaz Fuentes (University of Cantabria) emphasised that European multi-year budgeting frameworks, which allocate resources across pluriannual periods rather than annual cycles, represent essential institutional preconditions for embedding industrial transformation across electoral transitions, enabling productive policy continuity that short-term governmental cycles cannot sustain.

In summary, meaningful policy space analysis requires attention to six dimensions. (1) Macrofiscal determinants constrain options; (2) Commercial and legal determinants matter considerably; (3) Financial determinants significantly constrain policy options: sovereign risk premiums and credit constraints substantially reduce policy options for nations struggling with capital access; (4) Institutional determinants prove crucial: stable, qualified state bureaucracies enable policy consistency and institutional learning, yet Southern states frequently experience bureaucratic turnover, hindering the accumulation of institutional knowledge; (5) Sociopolitical dimensions influence feasibility: public belief in the necessity of the green transition, manufacturing's role in development, and state capacity for transformation vary dramatically across societies; (6) Productive determinants shape possibilities: the existing productive structure conditions the starting point for transformation, even though structural change ultimately requires reallocating resources toward emerging and strategic sectors.

The utility of this multidimensional analysis lies in identifying country-specific strengths and weaknesses rather than prescribing universal policies. Recommendations must be tailored to each nation's specific constraint configuration. Critically, expanding policy space proves necessary but insufficient. Nations must also be able to make effective use of the policy space available to them, avoiding missed opportunities when manoeuvrability exists. There is a crucial distinction between having space for policy implementation and the capacity to translate it into sustained and coherent policy action

Chilean economist José Miguel Ahumada (University of Chile) identified a critical paradox: whilst the institutional breakdown of WTO enforcement mechanisms nominally expands policy space for green industrial policy, this formal opening masks a simultaneous tightening of constraints through multiple channels: unilateral US tariff diplomacy directed specifically at Global South mineral and manufactured exports, EU critical minerals agreements imposing sectoral prohibitions on industrial policy, and investor-state dispute mechanisms that continue blocking productive transformation, collectively operating to restrict policy autonomy in the South even as governments in the South aggressively deploy industrial protection.

Regional cooperation and production network alternatives

Production network dynamics merit sustained analytical attention. Thai economist Bank Ngamarunchot (STIPI) explained how production network dynamics merit sustained analytical attention. The *flying geese* model, in which Japanese investment strength enabled production relocation from Korea to Thailand, Malaysia, and Vietnam, demonstrates how the hierarchical international division of labour distributes technological capacity across regions. This historical pattern created opportunities for technological upgrading through deliberate political-economic negotiations among states, the private sector, and multinational enterprises. The outcomes of Korea's acquisition of advanced electronics capacity or Thailand's integration into automotive supply chains depended on active state-level negotiations with international partners rather than spontaneous market allocation. This model reflected both economic logic and deliberate political coordination, in which states negotiated with multinational corporations over technology transfer and skill development.

These dynamics were facilitated by the fragmentable nature of manufacturing sectors such as electronics and automotive production, where tasks can be geographically dispersed and specialised across countries. Industrial fragmentation enabled complementary upgrading and regional cooperation. By contrast, resource-based sectors are structurally less fragmentable and tend to generate competition rather than integration. This structural difference may partly explain Latin America and the Caribbean's weaker intra-regional trade compared to East Asia, where fragmented production underpinned dense regional value chains.

Yet contemporary geopolitical and technological disruptions destabilise traditional flying geese configurations. Green energy transitions, automotive electrification, and the emergence of a hydrogen economy require fundamentally different technological systems and production capacities. Crucially, such networks were never 'natural' outcomes of market competition. Rather, they reflected deliberate political-economic settlements negotiating production placement, technology transfer, and profit distribution. Replicating such outcomes requires acknowledging this political-economic foundation rather than assuming market inevitability.

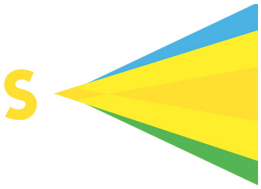
For Latin America, regional integration architectures face critical challenges. Mercosur entered a dynamic phase of commercial integration during the 1990s, yet this model prioritised trade liberalisation without achieving deeper value-chain integration. Productive chains that could integrate regionally remain fragmented. Argentine economist Matías Kulfas (UNSAM) and Uruguayan economist Carlos Bianchi (UDELAR) detailed the historical weakening of regional integration architectures, particularly Mercosur. Intra-regional trade has declined substantially, reflecting the limits of prevailing integration approaches in fostering complementary regional dynamics.

The long-discussed and still unsigned EU-Mercosur agreement highlights the challenge of updating trade framework to reflect contemporary priorities associated with green industrial transformation and productive integration. Alternative integration approaches emphasise concrete productive chains rather than megadeals: electromobility, hydrogen value chains, renewable infrastructure, and mineral beneficiation represent genuine opportunities.

The case of regional electromobility integration illustrates the possibilities: Latin America's megalopolises demand an urgent transformation of their transport systems. Without regional coordination, countries pursue isolated electric vehicle development, lacking scale economies and supply chain integration. Similarly, hydrogen value chains encompassing massive wind park installations (15,000+ wind turbines) across the region demand integrated planning, which is impossible at the national scale.

Persistent obstacles impede productive integration.: previous commodities boom increased export volumes whilst worsening capital goods trade balances, perpetuating technological dependence. Infrastructure integration proves minimal: multimodal logistics remain underdeveloped; regulatory coordination lags; financing mechanisms concentrate in national treasuries rather than regional institutions. Development bank financing patterns reveal asymmetries in priority: post-shipment export financing disproportionately supports external commerce rather than regional integration. Infrastructure priorities emphasise single-modal projects; multimodal coordination proves rare. Regional economic disintegration represents a critical challenge: Brazil experienced declines in commercial flows with all its neighbours; Argentina experienced a 45 per cent decline in intra-regional trade.

Could South-South flying geese configurations emerge, in which Asian companies invest in Latin America through partnerships with local capital, thereby creating specialisation without mutual competition? Such coordination requires negotiated settlements on the placement of production networks, thereby avoiding geographical concentration and mutual competition. It demands network development, in which states facilitate coordination among academia, civil society, unions, and productive sectors rather than relying solely on bureaucratic mechanisms. Baptiste Albertone, an Oxford-based researcher, argued that flexible institutional approaches prove superior to rigid integration frameworks. The ASEAN model, *"emphasising coordination over integration, demonstrates effectiveness."* Coordination functions as an intermediate step enabling subsequent integration, inverting traditional sequencing. Bottom-up agenda generation surpasses top-down imposition: governments identify specific collaboration opportunities rather than negotiating comprehensive agreements. Voluntary coalition formation around specific themes maintains flexibility; countries commit selectively to areas of genuine interest rather than comprehensive frameworks.



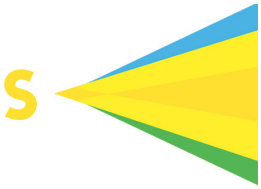
Institutional chains build trust progressively: initial modest collaboration projects create positive experiences, encouraging subsequent expansion. The Airbus case illustrates how government-led industrial policy and cross-border coordination can underpin successful regional cooperation. Two factors enabled success: governments' recognition that collaboration offered mutual benefits and the capacity to negotiate beyond competitive zero-sum framing. The cost of anarchy – the costs of non-cooperation – becomes strategically important when demonstrating that cooperation benefits relative to competitive alternatives. The conceptualisation of development and integration poles offers a useful framework: coordination councils could identify regional industrial opportunities without imposing arrangements from above. Councils need not impose arrangements; instead, information collection and debate facilitation can generate bottom-up commitment emerging from genuine stakeholder interests.

Contested development frameworks

Intellectual tensions persist regarding what *green industrialisation* should entail. Some argue that competitiveness remains the appropriate development metric, positioning the success of the Global South through participation in international markets. Others fundamentally challenge this framing, arguing that competitiveness logic conflates development with competition, treating Global South poverty as resulting from policy failures rather than as integral to Global North-centred capitalism. Moreover, framing development around "sovereign insertion into critical mineral chains" presents an apparent contradiction: how can nations ensure sovereign control over resources within value chains fundamentally structured by the Global North's interests?

Without deliberate industrial policy, energy transitions lead to primary-sector specialisation, with regions becoming resource-extraction zones lacking industrialisation capacity. Energy transition opportunities instead encompass mineral extraction, equipment manufacturing, renewable infrastructure development, and supporting services. These represent genuine possibilities for productive diversification. Power shoring – industrial activity relocation based on energy and other costs – creates opportunities for regions with abundant renewable energy: green steel production, fertiliser manufacturing, aluminium smelting, and advanced materials processing. Mining industrialisation proceeds in both directions: upstream through beneficiation and downstream through value-added processing. Both directions of productive integration remain strategically important.

Definitions of *structural change* vary between the Global North and the Global South. Wealthy regions navigate transitions from high-productivity services toward green specialisations. Developing economies face different imperatives: strengthening manufacturing bases whilst simultaneously greening productive processes. This dichotomy represents fundamentally distinct challenges. Green structural change requires first defining what constitutes green.



Green investment taxonomies proliferate, often reflecting northern preferences and excluding the productive possibilities of the Global South. Europe's green taxonomy standards, for instance, exclude numerous processes essential to industrialisation in Africa, Asia and Latin America (an example here could clarify this concept). Responsibilities differentiation principles suggest that each country should inventory emissions, establish climate commitments, and strategically select sectoral transformation priorities. Yet practice diverges dramatically from principle: many Global South countries adopt northern green taxonomies, seeking investment attraction rather than defining green in terms of national development requirements and endogenous technological possibilities.

Local content requirements and technology transfer obligations are essential policy instruments that are frequently underutilised. Brazil's hydrogen law mandates domestic research and industrial development requirements. Such mechanisms ensure green transitions support endogenous capacity development rather than perpetuating technological dependence. Complementary instruments linking development bank financing to local employment, domestic supply chain development, and research institution capacity-building are critical to ensuring that green transitions advance productive objectives simultaneously.

Uruguay's Presidential Secretary Alejandro Sánchez emphasised that technological disruption demands deliberate governance ensuring that technological acceleration converges with sustainability priorities; without such alignment, nations risk acquiring technological capacity and competitive advantage whilst simultaneously degrading environmental conditions and deepening social inequality, rendering technological prowess strategically incoherent.

An alternative approach, articulated forcefully by Algerian scholar Hamza Hamouchene (TNI), proposes *delinking*: constructing national economies oriented towards internal development needs rather than international capital requirements. Drawing on the seminal work advanced decades ago by the Egyptian economist Samir Amin, this perspective rejects the assumption that North-South catching-up remains possible within globalised capitalism, instead proposing deliberate, systematic reorientation towards endogenous development: agricultural prioritisation, manufacturing development, technological mastery, and resistance to land appropriation for export-oriented production. Delinking does not propose autarky but rather the assertion that southern nations possess rights to orient development towards their populations' needs rather than international capital accumulation. This move requires reconceptualising development as fundamentally relational: underdevelopment represents not a stage but a condition integral to capitalised development, which concentrates wealth-generating processes in the North.

Such approaches situate contemporary debates over *green* industrial policy within broader historical patterns. Debates over industrialisation accompanied decolonisation movements in the 1950s–1970s, yet current discourse often obscures these genealogies. Warnings emerge regarding green transitions reproducing extractive patterns under sustainability justifications, creating *sacrifice zones* where Global South nations extract minerals for northern green energy under environmental guises, perpetuating subordination. Concerns extend to new technologies: the international monetary system's structures, described through concepts such as monetary hierarchy, in which balance-of-payments deficits force capital rationing on the South, whilst reserve accumulation benefits the North. Reconceptualising relationships requires moving away from competitive hierarchies toward frameworks that prioritise development sovereignty and emancipatory alternatives that challenge subordination. Commodity exporter coordination offers one avenue: mineral-producing nations collectively exercising market power could renegotiate export terms, fundamentally altering financialisation dynamics.

Ethiopian researcher Yacob Mulugetta highlighted the paradox confronting Africa's energy and mineral endowments. Africa possesses 40 per cent of global renewable energy potential alongside approximately 15 per cent of the world's mineral supply, with discoveries continually emerging across the continent. Nevertheless, despite these abundant resources, the fundamental constraint remains not availability but financing mechanisms compatible with African government priorities. Mulugetta (University College London and IPCC) emphasised that claims regarding public development finance's capacity to unlock private investment obscure a deeper reality: declining development assistance and tightening northern financing constraints mean that Africa's energy transition must be financed from within. Critically, these imperative demands reorienting South-South collaboration around three pillars: innovative financing through institutions such as BRICS development banks; policy learning through comparative analysis of successful transitions (such as Uruguay's); and deliberate capacity-building enabling African nations to capture value-addition within their own extractive and renewable sectors, rather than perpetuating mineral export dependence.

Brazilian development finance specialist Fernando Teixeira (REBRIP) emphasised that whilst policy industrial discussions increasingly highlight development bank coordination, the potential synergies between development banks, state enterprises, and sovereign wealth funds – which combine thirteen trillion dollars in globally administered assets – remain largely underdeveloped, despite historical examples demonstrating their coordinated capacity to mobilise productive transformation.

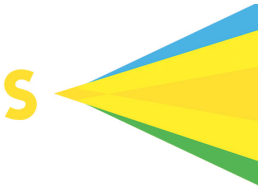
Justice, care, and the industrial transition

Industrial policy discourse frequently marginalises dimensions crucial to a just transition: justice, care, and inclusive well-being. Particularly following COVID-19, researchers emphasise revelations regarding whose lives matter and whose do not – revelations particularly acute in the African context. These realisations reorient discussions around foundational questions: What does *living well together* mean? How do we reconceive industrial policy beyond technology and competition towards solidarities and care infrastructure? South African researcher Donna Andrews (University of Cape Town) emphasised that well-being transcends material provisioning: communities value the capacity to maintain cultural practices and sustain relationships alongside productive activity.

Current industrial policy analyses typically emphasise policy space and manoeuvrability, yet this framing perpetually positions issues as zero-sum: something either in favour or against. Alternative approaches propose reimagining industrial policy to integrate economics, politics, and finance whilst centring the human person – not merely as labour or consumer, but as a contributor to social well-being, including shared meals and cultural practices.

Women's systematic exclusion from participation in the manufacturing sector demands explicit attention. This exclusion concerns not merely employment but the integration of care work – typically women's responsibility – into industrial transitions. *Just transitions* require not only climate and health integration but explicit attention to how women participate in and benefit from industrial development. Gender integration requires addressing labour-market participation gaps, alongside recognition that care work is an essential economic activity deserving integration into industrial policy frameworks rather than marginalisation as a welfare issue.

The principle of sovereignty extends to deliberate institutional arrangements protecting green industrial policies from corporate capture. A key innovation emerging from the discussions concerns the establishment of performance management delivery units within the state: mission-oriented, technically competent bodies insulated from short-term political cycles and focused on concrete results. These units should lead the execution of green industrial policy, ensuring continuity, accountability, and institutional learning. However, delivery capacity must be matched with better coordination and planning. Many governments suffer from institutional fragmentation, with ministries of economy, energy, environment, and industry often operating in isolation. Policymakers must avoid the 'big plan syndrome'—the tendency to design grand strategies without implementation capacity—and instead adopt pragmatic, iterative policy processes that encourage experimentation and adaptation.



Solidarity infrastructure models contrast fundamentally with the competition frameworks that dominate industrial policy discourse. Thinking in terms of mutual support and collective benefit represents a genuinely alternative approach to typical competitive hierarchies. African populations demonstrate enormous transformative potential: young African demographics (60–70 per cent of the population under 30) express high political consciousness and demand economic opportunity, contrasting starkly with the northern hemisphere's ageing. These demographics represent not merely a demographic dividend but also the potential for rapid industrialisation if coupled with appropriate policy frameworks and democratic participation.

Productive transformation of fiscal sustainability requires generating wealth-producing assets offsetting liabilities inherited by future generations. This challenge differs from simple growth acceleration. Intergenerational, interspatial, and social redistribution requirements prove distinct from aggregate expansion. European multiannual budgeting offers models for long-term strategy commitment that transcend electoral cycles and for consensus-based approaches involving support across political boundaries. The third productive transformation phase – succeeding industrialisation and the 1980s–1990s reform period – represents a fundamentally distinct challenge from historical transitions. Financial engineering innovation proves necessary: appropriate instruments combining grants, concessional financing, equity participation, and risk-sharing mechanisms enable sustained investment. Multiannual financial instruments aligned across sectors enable sustained investment capacity exceeding single-year budget constraints.

Industrial policy and sectoral complexity

Discussions in Montevideo revealed sharp, unresolved tensions over what green industrialisation entails in practice. Argentine economist Manuel Gonzalo (University of Quilmes) emphasised the centrality of state enterprises in driving energy transitions. Without active state direction encompassing technological capacity-building, rent distribution, and subnational integration, green transitions fragment into disconnected sectoral pilots failing to generate systemic transformation. State enterprises, properly governed and resourced, anchor long-term productive transformation in ways private capital cannot. Brazilian state enterprises in wind generation and aerospace demonstrate advanced industrial capabilities that are not yet fully mobilised within broader industrial transformation strategies, despite their strategic importance. Contemporary neoindustrialisation concepts emphasise sectors that require deliberate policy support rather than macroeconomic stabilisation alone, recognising that certain sectors cannot develop through market mechanisms alone.

Brazilian BNDES-based researcher Thiago de Holanda Lima Miguez detailed integrated policy approaches in which industrial policy, technological development policy, and infrastructure investment cohere.

Decarbonising steel, cement, chemicals, and other basic industries requires simultaneous innovation in production processes, large-scale capital investment in new equipment, workforce retraining, and often geographic productive relocation. No single policy instrument addresses these multifaceted requirements. Financial mechanisms must align with sectoral transition timescales; workforce retraining and income support systems are essential; productive reconversion and diversification strategies require systematic coordination; and deliberate prevention of outsourcing must preclude northern firms relocating polluting activities to Global South jurisdictions. Integrated sectoral strategies require aligning policy, industrial structure, and financing toward common decarbonisation objectives.

Sectoral realities resist simple formulas. South African researcher Alboricah Rathupetsane (University of Stellenbosch) analysed steelmaking, a sector that accounts for approximately two-thirds of industrial emissions in South Africa, whilst employing over 300,000 workers in an economy with structural unemployment exceeding 30 per cent. Rapid decarbonisation risks catastrophic job loss; delayed transition perpetuates climate liability. No neutral technological fix resolves this tension; it remains fundamentally political, requiring explicit choices about income distribution and social tolerance for disruption. Decarbonisation should be preceded by rigorous baseline assessment: before implementing electrification or alternative technologies, establishing clear emissions and production benchmarks enables credible planning and evaluation. Decarbonisation carries consequences that require explicit acknowledgement and mitigation: workers, families, and communities face disruption that deserves comprehensive support, including retraining, income security, and livelihood alternatives. While essential, decarbonisation operates within a broader framework of industrial transformation. Green structural change differs fundamentally from traditional industrialisation, in which wealthy regions navigate from high-productivity services toward green transitions, whilst developing economies must simultaneously strengthen manufacturing bases and green productive processes.

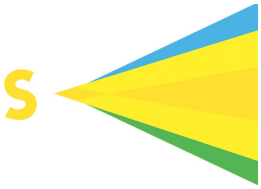
Meaningful decarbonisation of heavy industry demands simultaneous action across multiple dimensions: financial mechanisms calibrated to sectoral transition timescales; workforce retraining and income support systems; productive reconversion and diversification strategies; and deliberate measures to prevent outsourcing, in which northern firms relocate polluting activities to the South. Market mechanisms alone prove grotesquely inadequate to this scale of structural adjustment. The financing challenge remains critical: heterogeneous instruments combining grants, concessional financing, equity participation, and risk-sharing mechanisms are necessary rather than relying on single funding sources. Infrastructure investment, private-sector co-financing, development bank support, and state enterprise participation must coordinate to achieve common objectives.

Mineral extraction dynamics presented another critical sectoral challenge. As global green energy deployment demands escalating quantities of rare earths, lithium, cobalt, and other critical minerals, Global South nations rich in these resources face intensifying pressure to expand extraction. Yet this pressure, framed as a matter of climate necessity, risks reproducing patterns of primary commodity dependence that have historically subordinated development. Foreign direct investment patterns compound the problem: Latin America receives disproportionate foreign investment (12 per cent of global flows concentrated in a region that accounts for only 6 per cent of global GDP), yet, without policy direction, investment tends to flow toward existing advantages in mineral and petroleum exploitation. Investment stock in some countries reaches 87 per cent of GDP, creating a structural subordination to multinational enterprise interests that are fundamentally divergent from national productive objectives. How can green transitions support sovereign beneficiation through value-added processing within origin countries, whilst avoiding technological barriers that condemn Global South states to subordinate roles? How can policy frameworks ensure alignment between private incentives and population well-being? The forum acknowledged these challenges whilst recognising their fundamental political-economic character, requiring explicit governance frameworks.

Knowledge, innovation, and endogenous technological capacities

Uruguayan researcher Andrea Peluffo (UDELAR) examined the spillover effects of regional integration on firm innovation and productivity, drawing on econometric analysis of Mercosur performance. Technological knowledge transmission within regional blocs exhibits positive externalities, with firms absorbing knowledge more readily from regional partners than distant actors, partly because geographic proximity and shared institutional contexts facilitate learning. Trade with Mercosur partners produces larger productivity improvements than trade with geographically distant regions. Domestic research and development, however, proved even more crucial: the effects of internal knowledge creation on firm productivity substantially exceeded the effects of technology imported through foreign investment or trade. This finding proves decisive: innovation policies emphasising sectoral innovation and mission-oriented research obscure fundamental difficulties. Incumbent firm transitions to green production prove extraordinarily difficult; established companies pursue cautious, partial green adoption, maintaining product lines rather than undertaking systemic transformation. Global innovation adoption patterns primarily involve reactive strategies, in which incumbent firms adopt green practices incrementally rather than fundamentally reimagining production systems.

These observations direct attention away from a narrow focus on foreign direct investment towards the deliberate cultivation of domestic research systems, the development of skilled labour, and institutional frameworks linking knowledge production to productive demand. Policy emphasis shifts from passive attraction of foreign firms towards active construction of indigenous technological capacity.



Intermediate input imports enhance productivity when firms possess sufficient human capital for effective technology utilisation; qualified personnel prove essential. Innovation, particularly process and organisational innovations, facilitates international market access: firms innovating achieve greater export penetration. Export trajectories follow learning patterns in which firms initially enter neighbouring regional markets, develop export capabilities, and subsequently expand internationally.

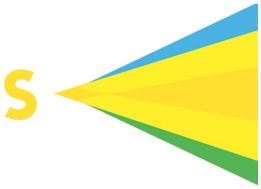
Green industrial policy can play a role in shaping technological demand, particularly where long-term transformation requires coordinated action. Companies lacking concrete green technology demand frequently pursue cautious innovation strategies. Uruguay's renewable energy transition proceeded largely without the development of significant domestic manufacturing or technological innovation; successful technology deployment does not automatically generate local innovation capacity. However, innovation-manufacturing linkages prove critical: innovation occurs fundamentally through production experience. Countries that surrender manufacturing also surrender their innovation capacity. Integration is necessary: a small economy's transformation cannot succeed in isolation. Regional cooperation that enables specialisation and scale is a prerequisite rather than an optional addition.

Innovation policy insufficiency for green transitions reflects a systemic challenge. Green innovation demands simultaneous supply chain transformation, alterations to production processes, technology development, workforce training, and financing restructuring—coordinated changes across integrated systems. Existing capabilities should inform policy learning: successes might be enhanced rather than replaced. Policy mechanisms that enable positive spillovers from innovation activities into productive sectors are essential. Human capital and training remain critically underdeveloped policy domains despite technological transformation requiring a corresponding evolution of the labour force. Continuous training requirements surpass traditional educational capacity; shared responsibility among government, enterprises, and educational institutions becomes necessary.

Uruguay's industrial policy architecture

The forum addressed Uruguay's specific institutional requirements for implementing a sovereign green industrial policy. Minister Cardona detailed how the government has established an Industry Council (*Consejo de Industria*) to coordinate among business representatives, trade unions, academic researchers, and government agencies, as well as sectoral nuclei (*Núcleos Productivo*s) organised around specific industries, including meat processing, dairy, metalworking, biotechnology, and nanotechnology.

These coordinating structures function as spaces where productive sectors articulate technical requirements and bottlenecks, researchers present emerging technological possibilities, and the government identifies policy gaps.

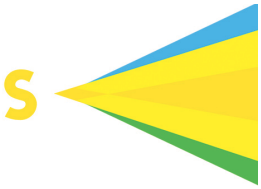


The approach reflects the conviction that effective industrial policy must be constructed through sustained dialogue with productive actors.

UN Resident Coordinator Pablo Ruiz Hiebra positioned Uruguay's approach within a broader Global South development challenge, arguing that the country's credibility in international forums stems not from prescriptive universalism but from demonstrated capacity to construct multi-party political settlements that transcend electoral cycles. *"The authority to build long-term policies is very positive, because development almost always transcends a cycle of government,"* he noted. Uruguay's renewable energy transition exemplified this principle precisely because it secured political consensus, enabling consistent implementation across multiple administrations. This institutional durability distinguishes Uruguay from countries that experience policy reversals following electoral transitions, enabling Uruguay to serve as a reference point for other Global South nations seeking to embed development commitments within stable institutional frameworks rather than subjecting them to short-term political volatility.

Uruguay's policy architecture recognises that industrial policy cannot remain isolated from energy policy. Planning industrial production requires simultaneous knowledge of available energy resources, reliability of supply, and associated costs. Similarly, industrial policy and telecommunications policy must align modern productive sectors increasingly depend on robust connectivity and data infrastructure. The integration requirement extends to education and skills development, as industrial sectors require workers possessing both technical competencies and general educational foundations.

The forum identified several case studies demonstrating how countries have pursued green industrial transformation despite structural constraints. Uruguay achieved a near-complete transition to renewable energy through coherent policy frameworks, though without generating significant associated industrial development. Brazil's BNDES Climate Fund and subnational development banks illustrate how domestic financial instruments can be leveraged for green investment, particularly when backed by Treasury guarantees to manage volatility. Argentina demonstrated state-led capability building in advanced sectors such as nuclear energy and satellite technology, supported by institutional continuity and public investment. These examples reveal both the possibilities and gaps in current green industrial practice: technology deployment succeeds; deeper productive transformation remains incomplete.



Synthesis: A framework for sovereign green industrialisation

The initiative's first international meeting produced an emerging framework characterising necessary steps towards sovereign green industrialisation:

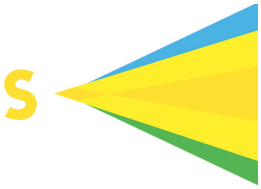
First, Global South nations must systematically expand their policy space, meaning the margin for implementing deliberate industrial strategies. This aim implies closer attention to macrofiscal constraints, international legal regimes, financial vulnerabilities, institutional capacity, sociopolitical legitimacy, and productive foundations. Expanding policy space involves both external action (renegotiating international agreements, strengthening public banking) and internal transformation (building state capacity, cultivating public support for green transitions). Critically, expanding policy space is necessary but insufficient; nations must deploy available manoeuvrability effectively, avoiding squandering opportunities when space exists.

Second, Global South states and societies must develop sovereign industrial policy frameworks grounded in their own productive capabilities and structural conditions, and sustained by robust domestic and regional knowledge systems, rather than borrowing wholesale from northern experiences or importing them through multilateral prescriptions. This requires rigorous analysis of productive structures, employment dynamics, and technological capacities, alongside deliberate investment in higher education, applied research institutions, worker training systems, and firm-level technological upgrading.

Third, regional integration must function as a substrate for industrial policy. Production networks require deliberate political-economic negotiation rather than spontaneous market allocation. Productive integration alongside deliberate technology sharing can amplify the Global South's bargaining power and reduce technological vulnerability. South-South configurations offer alternatives to Global North hierarchies, enabling complementary specialisation without mutual competition.

Fourth, green transitions must simultaneously address climate imperatives, employment generation, and development. Decarbonisation is non-negotiable, but transitions that destroy livelihoods without providing alternatives reproduce, within environmental justification, the developmental failures the Global South seeks to overcome. Justice dimensions require explicit attention to whose burdens increase during transitions, whose capacities are built, and who participates in decision-making. Women's systematic exclusion from manufacturing necessitates deliberate inclusion, integrating recognition of care work alongside production targets.

Fifth, industrial policy must integrate care and solidarity as fundamental rather than peripheral dimensions. Industrial transitions reorganise how people live together, yet dominant frameworks ignore this. Reimagining industrial policy requires asking: what does living well together mean? How do we construct solidarities rather than competitive hierarchies? What infrastructure supports care alongside production?



Conclusion

At its core, the initiative articulated a vision in which the Global South moves from passive acceptance of externally designed transitions to active construction of sovereign development pathways. Operationalising this vision demands financial autonomy, industrial policy ownership rooted in local conditions, purposeful regional integration, endogenous knowledge capacity development, and political commitment to combining climate action with employment generation, justice, and care.

The Uruguay Sur Initiative crystallised the conviction that the Global South possesses both analytical capacity and a singular historical moment to construct endogenous industrial policy. Amir Lebdioui emphasised that success requires institutional adaptation across design, implementation, and continuous adjustment, not formulaic replication. Ha-Joon Chang situated this urgency within the current international contexts, which offers unprecedented policy space, yet warning that without robust industrial policy, nations face continued *"premature deindustrialisation"* and political collapse when educated populations confront a systematic *"lack of quality jobs."* Both scholars converged on a fundamental insight: adaptive, context-specific industrial policy becomes not merely an economic necessity but a political prerequisite for democratic legitimacy. As Chang concluded: *"There is no better place and no better moment in history for countries of the Global South, especially in Latin America, to launch an ambitious program of industrial transformation through industrial policies. If not now, when?"*

The intellectual contributions, careful analysis of green finance risks, policy space constraints and opportunities, sectoral transition complexity, regional integration possibilities, institutional innovation requirements, and justice dimensions, provide a substantive foundation for emerging Global South industrial policy frameworks. The gathering's significance is that southern policymakers, researchers, and practitioners possess analytical sophistication and strategic clarity to engage authoritatively with development and climate questions on their own terms.

The planned progression towards the March 2026 Johannesburg Autumn School and later conference in Montevideo signals institutional commitment to sustained engagement. Whether the initiative consolidates into enduring institutional arrangements capable of shaping global climate and industrial policy remains an open question.

The moment demands sustained work to transform emerging consensus into policy reality. The pathway forward will test whether this initiative moves beyond the considerable intellectual achievements of its inaugural gathering towards sustained institutional change capable of reshaping Global South development trajectories.

Closing the Montevideo forum, Uruguay's industry minister, Fernanda Cardona, acknowledged the challenges of the global green transition and highlighted the risks of reproducing the same imbalances it seeks to correct. *"The South should not wait for recipes from others; it should propose. If we do not have strategies, we are condemned to resign ourselves to the plans of others."*