



ASIA-PACIFIC ECONOMIC PROFILES

Economy and Digital Commerce
in Asia Pacific:
Public Policies,
Governance Models, and
Challenges for Chile



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1

INTRODUCTION



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1.1

Relevance of Digital Commerce: A Global Perspective

Digital commerce has established itself as one of the most transformative forces in international trade in the 21st century. Its relevance lies not only in the growing volume of goods and services traded digitally, but also in its ability to redefine the structure of global trade, reduce transaction costs, expand market access, and facilitate the integration of small and medium-sized enterprises (SMEs) into global value chains.

According to WTO estimates¹, global exports of digitally delivered services reached US\$4.64 trillion in 2024, after growing at an average annual rate of 8.3% since 2005, representing around 14.5% of global trade in goods and services. These figures reflect not only technological dynamism, but also a structural change in the way value is produced, exchanged, and consumed in the global economy.

This process has been driven by the expansion of information and communication technologies (ICT), the development of global digital platforms, and the growing demand for knowledge-based services such as software development, digital finance, online consulting, design, distance learning, and creative content. Innovations associated with cloud computing, artificial intelligence, big data, and 5G connectivity have accelerated the digitization of the economy, making digital commerce the fastest-growing segment of international trade in services.

fastest growing segment of international trade in services.

This dynamism, however, also poses structural challenges. Market concentration in large global platforms, regulatory asymmetries in data and competition, and persistent gaps in digital infrastructure and capabilities limit the equitable participation of developing economies. In this sense, digital trade has become not only an engine of growth, but also a space where the rules of economic governance, international competition, and global inclusion are being redefined.

In the current context of geo-economic tensions and the reconfiguration of the multilateral trading system, digital trade is taking on an even more strategic role. Technological fragmentation, restrictions on data flows, and disputes over digital sovereignty are shaping new poles of economic and regulatory power. In this scenario, the development of common rules and international cooperation on digital issues will be crucial to preserving open, predictable, and inclusive trade.

Understanding these transformations is essential for designing strategies that strengthen the integration of economies such as Chile's into emerging digital trade flows, thereby taking advantage of the opportunities offered by the transition to a global economy based on data, services, and knowledge.

¹ Global Trade Outlook and Statistics – April 2025

1.2

Importance of the study for Chile

For open, export-oriented economies such as Chile, digital trade represents a strategic opportunity to diversify the export matrix and strengthen competitiveness based on innovation, services, and human capital. The digitization of trade reduces barriers to accessing distant markets, expands the integration of SMEs into global value chains, and promotes a more resilient and sustainable growth model.

Over the last decade, Chile has shown an active commitment to the international digital trade agenda. The signing of the Digital Economy Partnership Agreement (DEPA)² and participation in the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP)³ position it among the pioneering countries in incorporating disciplines related to cross-border data flows, digital consumer protection, and e-commerce facilitation. These initiatives reflect a modern vision of trade policy, aimed at integrating digital transformation into a broader strategy of productive development and sustainability.

Statistically speaking, Chile does not yet have an official consolidated measurement of digitally supplied service exports. However, categories such as telecommunications, IT, and other business services account for a growing proportion of this type of transaction. According to the National Customs Service, in 2024 exports of services reached a record US\$2.869 billion, 18% more than in 2023, driven by the strong momentum of the Information and Communication Technologies (ICT) sector, whose shipments totaled US\$977 million, with annual growth of 17% and a share of nearly 34% of total service exports. The Central Bank of Chile estimated that, in 2024, total service exports amounted to US\$

11.957 billion, confirming the structural expansion of this item. Internationally, joint estimates by the World Trade Organization (WTO) and the Organization for Economic Cooperation and Development (OECD) indicate that more than 50% of global service exports are delivered digitally, a trend that Chile is progressively joining⁴.

Understanding the evolution of these dynamics, particularly in the Asia-Pacific region (a global leader in digitization and e-commerce), is crucial for designing public policies that promote the international integration of the Chilean economy and consolidate its participation in emerging global digital trade flows.



² Digital Economy Partnership Agreement (DEPA), signed between Chile, New Zealand, and Singapore in 2020

³Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), in force for Chile since February 2023

⁴ WTO (2025), *Global Trade Outlook and Statistics – April 2025*. OECD (2024), *Measuring Digital Trade: A Joint OECD-WTO-IMF Handbook*.

1.3

Objectives of the report

The purpose of this report is to:

- Analyze the main trends in digital commerce in Asia-Pacific, with an emphasis on economies such as Australia, China, the Republic of Korea, and Singapore, to identify patterns and dynamics that may be illustrative for the Chilean experience.
- Identify successful public policies in the area of digital transformation and e-commerce, highlighting initiatives in regulation, incentives, and support for innovation that could serve as a reference for the national context.
- Examine the regional institutional and regulatory framework that supports the expansion of digital commerce.
- Provide inputs that enrich the debate on future strategies, contributing information and analysis that can support reflection on Chile's participation in regional and global digital trade.



1.4

Conceptual and theoretical framework

From e-commerce to the digital economy

Over the past two decades, organizations such as the Organization for Economic Cooperation and Development (OECD), the World Trade Organization (WTO), the International Monetary Fund (IMF), and the United Nations Conference on Trade and Development (UNCTAD) have broadened their focus from e-commerce to the broader concept of digital trade, recognizing that digitization transforms both how goods and services are requested and how they are supplied.

The WTO Work Program on Electronic Commerce (1998) defined this area as "the production, distribution, marketing, sale, or delivery of goods and services by electronic means." However, the current concept of digital trade is broader and includes not only online sales, but also the provision of digital services, international data transmission, the use of artificial intelligence, and other interactions enabled by digital technologies.

Today, digital commerce encompasses transactions mediated by platforms, cloud solutions, algorithms, and data networks, reflecting an economic ecosystem deeply integrated with technology.

What is meant by digital trade

The Manual on the Measurement of Digital Trade (the Manual), developed jointly by the IMF, OECD, WTO, and UN, proposes a common definition: "Any international transaction in which the ordering or supply of the good or service is conducted digitally"⁵. This approach unifies the various previous concepts—e-commerce,

⁵ Manual on Measuring Digital Trade (International Monetary Fund, United Nations, Organization for Economic Cooperation and Development, and World Trade Organization). See https://www.wto.org/spanish/res_s/publications_s/digital_trade_2023_s.htm

digital services, online platforms – under a coherent and comparable framework between countries that is compatible with international standards.

The Manual defines digital commerce as any international exchange whose order or supply is made by digital means and is based precisely on these two pillars: ordering by digital means and supply by digital means. The first occurs when the purchase or sale is agreed through computer networks, such as websites or applications. The second occurs when the product, especially a service, is delivered directly over the Internet. In this way, digital commerce can encompass both goods ordered online—even if they are physically delivered—and completely digital services.

Why is accurate measurement important?

Having reliable metrics on digital trade is essential to understanding its impact on the global economy and designing evidence-based public policies. Accurate measurement allows trade, tax, and competition instruments to be adapted to an increasingly digitalized reality, supports international negotiations, and evaluates the effects of regulations on data flows and services.

Having comparable information is also key to promoting more inclusive development, facilitating the participation of small and medium-sized enterprises in global markets. Ultimately, measuring digital trade is essential for managing the structural transformations of the 21st-century economy.

How is digital trade measured?

The Manual proposes a statistical framework that does not create a new category of trade, but rather identifies transactions carried out by digital means within existing international trade. To this end, it combines various sources, such as surveys, customs and tax records, data from platforms, and

electronic transactions, in order to capture the digital dimension in a consistent manner.

The measurement is organized around four axes:

- **The nature of the transaction (how):** if the order is placed online, it is a *digital order*; if the product or service is delivered online, it is supplied digitally.
- **The product (the what):** this covers goods and services, although only services can be delivered digitally; it is therefore recommended to classify them according to their mode of delivery, physical or digital.
- **The agents (who):** any actor can participate—companies, governments, or individuals—with a notable role played by digital intermediation platforms, whose commissions are recorded as intermediation services.
- **Non-monetary flows:** the economic value of exchanges of free data or services is recognized, where the user "pays" with their information or attention.



1.5

Methodological approach and selection of cases

This report takes a comparative qualitative approach aimed at identifying good practices and models of digital governance in Asia-Pacific economies. The methodology is based on documentary analysis, review of public policies, regulatory frameworks, and institutional strategies related to the development of digital trade, complemented by information from international organizations such as the WTO, OECD, UNCTAD, and APEC-ABAC.

The selection of case studies—China, Republic of Korea, Singapore, and Australia—is based on criteria of regional leadership, institutional diversity, and strategic relevance to Chilean trade policy. These economies represent different trajectories and approaches to the digitization of trade: China, as a model of state-driven digital development geared toward technological sovereignty; the Republic of Korea, as an example of public-private coordination and promotion of the digitization of SMEs; Singapore, for its advanced institutional architecture and leadership in pioneering digital agreements; and Australia, for its open regulatory approach based on standards and international cooperation.

Taken together, these cases are representative of the immense strategic value that the Asia-Pacific region holds for Chile as a space for projection and, in this case, for learning and comparing development experiences. Furthermore, they allow us to observe the heterogeneity of the Asia-Pacific digital ecosystem and draw useful lessons for the design of public policies in Chile. Their comparative analysis offers a comprehensive view of how different models of digital governance converge toward the same goal: building more competitive, inclusive, and resilient economies in the digital age.



2

OVERVIEW OF DIGITAL TRADE IN ASIA-PACIFIC



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2.1

Regional trends and leadership in trade digitization commercial digitization

Over the last two decades, the Asia-Pacific region has established itself as a key player in global digital trade. This positioning is the result of an accelerated process of digital transformation, accompanied by heavy investment in technological infrastructure and the intensive integration of information and communication technologies (ICT) in productive and service sectors. Along with this, countries in the region have promoted active strategies for productive digitization, policies aimed at the digital transformation of SMEs, and the creation of enabling infrastructure, such as 5G networks, integrated logistics systems, and technology hubs geared toward cross-border trade⁶.

Economies such as China, the Republic of Korea, Singapore, and Japan have led this process through public policies aimed at digitization, technological innovation, and connectivity. More recently, India and Vietnam have positioned themselves as emerging hubs, consolidating a dynamic role in digital trade in services.

In this context, the services most exported through digital means correspond to the information, financial, business, telecommunications, intellectual property, and audiovisual services sectors. Asia-Pacific stands out in particular in these segments.

with above-average growth rates

and a high share of knowledge-intensive sectors, positioning the region as an emerging leader in global digital trade.

⁶OECD (2023). *Digital Trade in Asia-Pacific: Data and Policy Trends*.

Between 2010 and 2023, exports of digitally deliverable services in Asia showed sustained growth above the global average. In Southeast Asia, trade in telecommunications and IT-related services nearly doubled between 2010 and 2016, while in Singapore the total value of these services grew at an average annual rate of 14% between 2005 and 2015, far outpacing other advanced economies such as Japan and the United States. This expansion reflects the close relationship between digital infrastructure, technological capabilities, and export competitiveness, which various organizations such as the World Bank and UNCTAD identify as determining factors in the growth of digital trade in the region.

In 2022, Asia-Pacific economies accounted for nearly a quarter of global trade in digitally deliverable services, with an average annual growth rate of 8.6% between 2015 and 2022, exceeding the global average of 6.8%. According to the Asia-Pacific Trade and Investment Report 2023/24 (ESCAP-UNCTAD), six economies accounted for 85% of regional exports of digital services: India, China, Singapore, Japan, the Republic of Korea, and Australia.

⁷World Bank (2019), *The Digital Economy in Southeast Asia: Strengthening the Foundations for Future Growth*, Washington, D.C. Available at: <https://openknowledge.worldbank.org>. World Trade Organization (WTO) (2025), *Global Trade Outlook and Statistics – April 2025*, Geneva. United Nations Conference on Trade and Development (UNCTAD) (2024), *Digital Economy Report 2024: Creating Value and Closing Digital Divides*, Geneva.

Korea and Hong Kong (China), reflecting the high concentration of technological capabilities and digital platforms in East and Southeast Asia⁸.

This highly dynamic environment has made Asia-Pacific not only a *hub* for digital services exports, but also a key player in shaping new rules and standards in digital trade, data governance, artificial intelligence, and inclusive digital economy.



⁸United Nations ESCAP and UNCTAD (2024), *Asia-Pacific Trade and Investment Report 2023/24: Trends in Digital Trade and Investment in Asia and the Pacific*, Bangkok-Geneva. Available at: <https://unescap.org/resources/asia-pacific-trade-and-investment-report-2023-24>

2.2

Common public policies in successful Asian economies

Asia-Pacific's leadership in digital commerce is not the result of a spontaneous process of technological adaptation, but rather a coordinated set of strategic public policies. The most dynamic economies in the region have understood that digitalization redefines countries' international integration and transforms the very structure of global trade. Within this framework, they have deployed strategies that combine long-term vision, solid institutional architecture, and coordinated execution between public and private actors, with the aim of consolidating digital ecosystems capable of generating value, productivity, and trade integration.

The measures adopted have included adaptive regulatory frameworks, expansion of connectivity, development of digital talent, and active promotion of national digital economies. China, for example, defined the digital economy as one of the strategic pillars of its 14th Five-Year Plan and implemented an ambitious infrastructure plan under the "Digital China" initiative.

Although there are differences in economic development, state capacity, and technological maturity, a comparative analysis of these experiences reveals a set of common pillars that explain the region's upward trajectory in digital commerce. These pillars constitute a framework for effective policies and, at the same time, offer replicable lessons for other developing regions.

a) National digitization strategies with a cross-cutting vision

Leading economies have adopted national digital transformation strategies as central pillars of their development policy. Far from being isolated initiatives, these strategies are linked to industrial, educational, technological, fiscal, and innovation policies, generating a systemic vision of digital economic development.

The Republic of Korea, for example, channeled more than US\$49 billion in public and private investment

through its "*Digital New Deal*," aimed at strengthening capabilities in artificial intelligence, *big data*, cloud computing, and 5G infrastructure. Singapore, for its part, consolidated its "*Smart Nation*" strategy as state policy, with an emphasis on digital identity, data protection, digital governance, and interoperability standards that facilitate secure cross-border digital trade⁹.

The success of these strategies is also supported by specialized public institutions. In the Republic of Korea, Korea Trade Network (KTNET) centralizes customs and digital export procedures, while platforms such as UTradeHub enable agile and secure B2B operations. Singapore, for its part, promotes the Digital Economy Partnership Governance Framework, designed to ensure interoperability between digital agreements and facilitate international cooperation in the digital economy.

b) Boosting the digital ecosystem, innovation, and technological entrepreneurship

Strengthening the digital ecosystem has been a strategic priority aimed at stimulating innovation and technological entrepreneurship. Governments have implemented a combination of public policies that include tax incentives, access to financing, promotion of open innovation, and the development of networks of incubators and technology hubs. Coordination between trade promotion agencies and economic and technology ministries has been key to aligning industrial and trade policies.

A notable example is the Republic of Korea's Smart MSME Support Project, implemented by the Korea SMEs and Startups Agency (KOSME) and the Korea Trade Network (KTNET). This program aims to digitize the business processes of micro, small, and medium-sized enterprises, facilitating their access to e-commerce platforms and automating logistics for exports.

⁹OECD (2023). *Digital Trade in Asia-Pacific: Data and Policy Trends*.

The adoption of international agreements such as the Digital Economy Partnership Agreement (DEPA) and the Korea–Singapore Digital Partnership Agreement (KS-DPA) has helped to reduce regulatory barriers and improve digital interoperability at the regional level¹⁰. These policies have driven the expansion of exporting technology SMEs and the emergence of new knowledge-intensive sectors: fintech, edtech, creative services, and B2B platforms¹¹.

c) Human capital development and digital skills

Investment in digital human capital has become one of the most strategic priorities. Leading economies have implemented ambitious education policies to integrate information technologies at all levels of training, from basic education to specialization in data science, cybersecurity, and programming. Initiatives such as "Digital Skilling for All" in India and digital retraining programs in the Republic of Korea and Vietnam have sought to close digital gaps and increase employability in technology sectors^{12,13}. In addition, cooperation mechanisms with the private sector have been developed to adapt job profiles to the new demands of the global digital market.

d) Facilitation of e-commerce and regulatory reforms

The removal of operational and regulatory barriers has been another key component. Asian economies have pushed forward reforms that include the implementation of electronic single windows, the adoption of digital signatures, the digitization of customs procedures, and the harmonization of customs procedures.

¹⁰ ADB & APEC (2024). *Advancing Digital Services Trade in Asia and the Pacific*.

¹¹ UNCTAD (2024). *Digital Economy Report: Creating Value and Closing Digital Divides*.

¹² UNESCO, 2024; Asia Foundation & Future Skills Alliance, 2023

¹³ World Bank (2024). *The Digital Economy in Southeast Asia*

regulations on technical standards and digital consumer protection. This set of measures has helped to reduce logistics costs, speed up delivery times, increase user confidence, and facilitate the participation of SMEs in global markets. Likewise, the signing of regional agreements on cross-border data flows has been key to consolidating an enabling environment for digital commerce.

e) Sustained investment in enabling digital infrastructure

Digital infrastructure is the material foundation of digital commerce. In this regard, Asian economies have maintained a sustained commitment to developing fiber optic networks, 5G infrastructure, data centers, public clouds, submarine cables, and interoperable digital identity systems. This investment has not only improved the technical capacity to export digital services reliably and securely, but has also made it possible to consolidate advanced cybersecurity standards and regulatory frameworks for data governance¹⁴. For example, China has invested heavily in smart logistics networks, artificial intelligence, and state-driven digital commerce platforms, as reflected in its digital strategies at the State Council and Ministry of Commerce levels.

Together, these five pillars reflect a strategic, multidimensional, and coordinated approach to the development of digital trade. The Asian experience shows that digital leadership is not built solely on the dynamism of the private sector, but also on proactive government action to create enabling conditions, reduce structural gaps, and define international standards. Thanks to integrated policies, these economies have transitioned from traditional manufacturing structures to development models based on innovation, data, and high value-added digital services.

¹⁴OECD (2023). *Digital Trade in Asia-Pacific: Data and Policy Trends*.

2.3

Regional institutional and regulatory framework

The consolidation of a regional institutional and regulatory framework in Asia-Pacific is one of the keys to scaling up digital trade, promoting innovation, and ensuring that the benefits of digital transformation are distributed more equitably. The balance between digital openness, rights protection, and regulatory capacity building will be decisive in consolidating the region as a global benchmark in digital trade governance in the 21st century.

Asia-Pacific economies are aware of this challenge. In parallel with their national strategies, they have made significant progress in building a regional institutional and regulatory framework aimed at facilitating and expanding digital trade. This process has taken place both through economic integration agreements and flexible digital cooperation mechanisms, which have helped to create enabling conditions for the exchange of digital goods and services, the secure flow of data, and the interoperability of digital systems between countries.

One of the most significant developments has been the growing incorporation of specific provisions on digital trade in bilateral, plurilateral, and regional trade agreements. This trend reflects a structural shift in trade governance in the region, recognizing that traditional rules on trade in goods and services must be updated to respond to the dynamics of the digital economy.

At the bilateral level, the Singapore-Australia Digital Economy Agreement (SADEA)¹⁵ strengthens mutual trust in the digital environment through provisions on secure cross-border data flows, mutual recognition of electronic certifications, standardization of regulatory frameworks, and collaboration on cybersecurity and *fintech*¹⁶. For its part, the Singapore-Republic of Korea Digital Economy Partnership Agreement (KSDPA), in force since 2023, establishes standards for areas such as e-payments, *paperless trade*, artificial intelligence, cryptography, online consumer protection, digital identity, and support for SMEs. These aspects demonstrate a broad approach to the digital economy, which is not limited to technological infrastructure, but also incorporates ethical, inclusive, and sustainable dimensions.

This trend has also extended to plurilateral agreements such as the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), the Regional Comprehensive Economic Partnership (RCEP), and the Digital Economy Partnership Agreement (DEPA), which have promoted the digitization of trade at the regional level.

The CPTPP includes a chapter on e-commerce that establishes binding commitments on the non-imposition of tariffs on electronic transmissions, the protection of personal data, the facilitation of trade without localization requirements, and the protection of intellectual property rights.

¹⁵Department of Foreign Affairs and Trade (DFAT) of Australia (2020), Australia–Singapore Digital Economy Agreement: Summary of Key Outcomes, Canberra. Available at: <https://www.dfat.gov.au/trade/services-and-digital-trade/australia-singapore-digital-economy-agreement-summary-key-outcomes>. Ministry of Trade and Industry (MTI) of Singapore (2020), Singapore–Australia Digital Economy Agreement (SADEA), Singapore. Available at: <https://www.mti.gov.sg/Trade/Digital-Economy-Agreements/The-Singapore-Australia-Digital-Economy-Agreement>. Australia–Singapore Digital Economy Agreement (2020), Full Text of the Agreement, Canberra–Singapore. Available at: <https://www.dfat.gov.au/sites/default/files/australia-singapore-digital-economy-agreement.pdf>

¹⁶World Bank (2024). The Digital Economy in Southeast Asia.

forced data collection and the use of electronic signatures and digital authentication. For its part, the RCEP, made up of the ASEAN bloc together with Australia, China, the Republic of Korea, Japan, and New Zealand, represents about 30% of global GDP, population, and trade. This agreement seeks to promote e-commerce by creating an environment of trust and security, with a special emphasis on supporting MSMEs.

The DEPA—signed by Chile, New Zealand, and Singapore, with the Republic of Korea joining in 2024—has become a pioneering model for 21st-century digital governance. It covers emerging issues such as trustworthy artificial intelligence, interoperable digital identity, open government data, collaborative economies, and mechanisms for cooperation in digital innovation.

Along the same lines, recognizing the importance of regional agreements, ASEAN countries are negotiating the ASEAN Digital Economy Framework Agreement (DEFA), an agreement that seeks regional integration exclusively in this area.

In addition to binding treaties, the region has promoted a soft regulatory cooperation architecture, fostering digital integration efforts through frameworks such as the Digital Cooperation Forum or the Cross-Border Privacy Rules (CBPR) within APEC, which seeks to facilitate data flow between economies. This is done while protecting consumer privacy and promoting the harmonization of technical standards, the development of ethical frameworks for emerging technologies, data portability, and the strengthening of regulatory capacities in developing economies.

These platforms enable progress in regulatory convergence without requiring full regulatory homogenization, thus respecting the diversity of national approaches.

This process, however, still faces significant challenges. Considerable fragmentation persists.

regulatory differences between countries, with disparate regulatory frameworks in terms of data privacy, server location, cybersecurity, digital taxation, and technical standards. These differences can generate high compliance costs for companies, limit the scalability of digital business models, and erode consumer confidence. Likewise, the use of data localization requirements as a tool of sovereign control creates tensions between national security objectives and trade openness.

In this context, it is crucial to move toward greater regional coherence in digital trade rules, strengthening mechanisms for technical dialogue, regulatory assistance, and mutual recognition among regulatory authorities. The experience gained in agreements such as DEPA and SADEA can serve as a basis for the evolution of a more inclusive and flexible regional digital governance that is adapted to the speed of technological change.

In conclusion, the Asia-Pacific region is positioned as a global leader in innovation and digital competitiveness. It is a dynamic region where technological trends, strategic public policies, and defined institutional frameworks have driven a profound transformation in commerce, positioning it as a benchmark in the evolution toward an integrated and resilient digital economy.



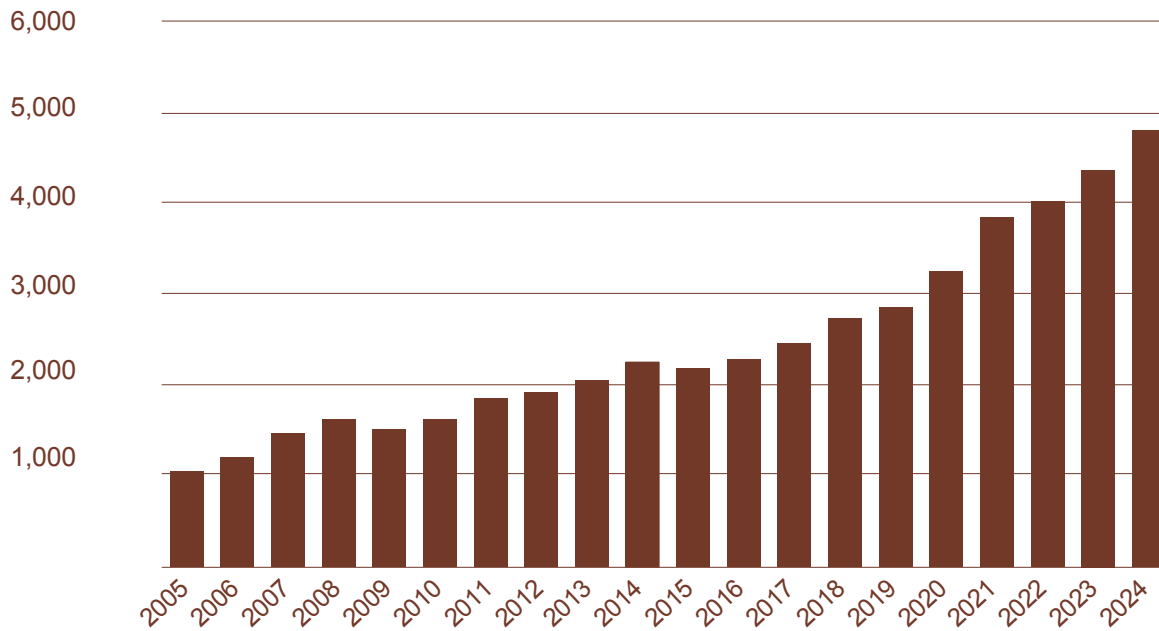
2.4

Exports of Digitally Delivered Services Digitally

Based on WTO figures for digitally delivered services¹⁷, i.e., services provided through computer networks (internet, applications, emails, voice or video calls, etc.), exports of this type of service have increased steadily since 2005 at an average annual rate of 8.4%.



Graph 1:
Growth of Global Exports of Digitally Delivered Services, 2005-2024 (US\$ million)



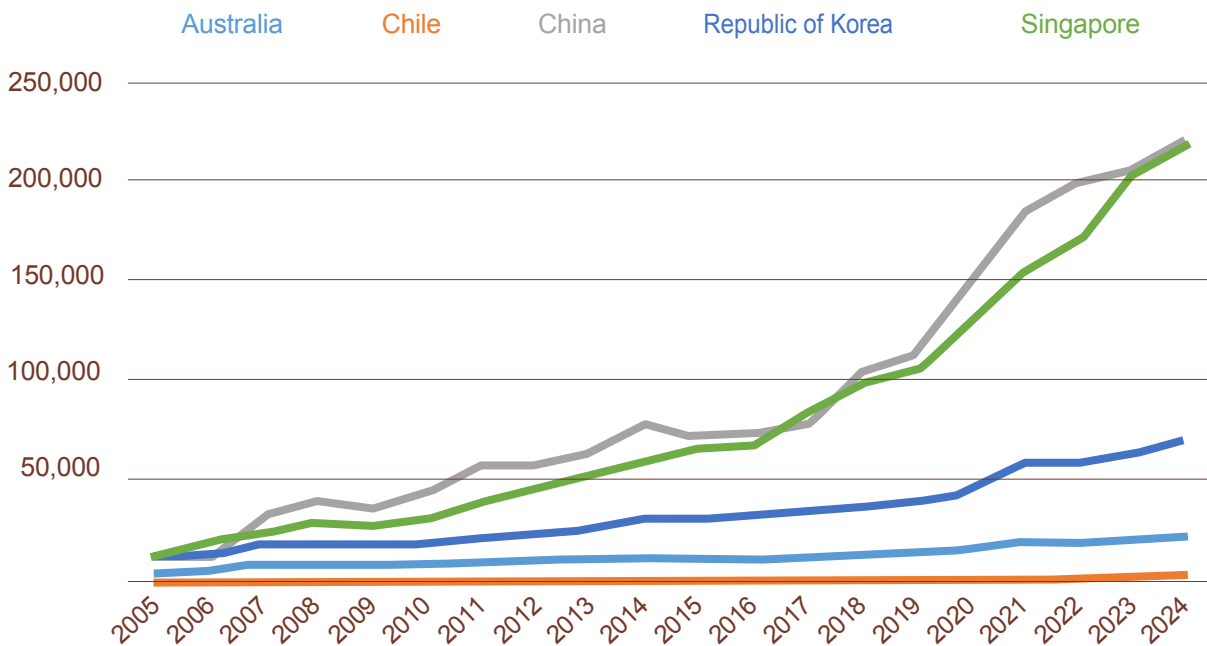
Source: Research Department, SUBREI, with figures from the WTO.

¹⁷ Does not include exports resulting from the digital "acquisition" of goods or services, but only those services "delivered" digitally.

In Asia, the growth rate of these exports has been higher than the global average, with an average annual rate of 11% for the period 2005-2024. The continent's share of the total has also increased, from 14.7% in 2005 to 22.9% of global exports of digitally delivered services.

Among the economies analyzed in this study, China and Singapore are the largest exporters of this type of service, both with amounts exceeding US\$220 billion (in 2024) and average annual growth rates above 15%. The Republic of Korea also stands out, with growth above the global average of 10.2%, while exports of digitally delivered services from Chile and Australia expanded at rates of 7.9% and 7.3%, respectively.

Figure 2:
Evolution of Exports of Digitally Delivered Services from Australia, Chile, China, the Republic of Korea, and Singapore, 2005-2024 (US\$ million)



Source: Research Department, SUBREI, with figures from the WTO.

3

CASE STUDIES STUDY



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3.1

SINGAPORE

Singapore has established itself as a global leader in the digital economy through a comprehensive strategy that combines public policy, international agreements, and technological innovation.

Under the leadership of the Ministry of Trade and Industry (MTI) and the Ministry of Digital and Information Development (MDDI), the country has promoted initiatives such as the Digital Economy Agreements (DEA), the Networked Trade Platform (NTP), and the Smart Nation program, with the aim of facilitating cross-border trade, ensuring data security, and promoting digital transformation.

This section examines the country's institutional architecture, digital economy agreements, and enabling infrastructure, highlighting how Singapore integrates technology, regulation, and public-private cooperation.



3.1.1

Governance and institutional architecture

Ministry of Trade and Industry (MTI)

The MTI leads Singapore's trade policy, with a vision of sustaining an economy driven by innovative companies. Its priorities include: market access for goods, services, and investments; attracting foreign investment; strengthening the productive environment; and promoting a sustainable and resilient economy, supported by macroeconomic analysis and foresight to formulate adaptive policies.

MTI organizational structure

MTI is organized around four main clusters that group its different areas of expertise:

- **Trade and International Economic Relations (TIER):** This unit is responsible for formulating policies and leading negotiations on trade and investment agreements, including Digital Economy Agreements (DEAs). It also represents Singapore in multilateral economic organizations and manages strategic economic relationships with other countries.
- **Economy and Strategy:** Develops macroeconomic analyses and formulates long-term strategic policies to maintain the country's competitiveness.
- **Industry and Business Transformation:** Promotes the digital and productive transformation of the business ecosystem, supporting both large companies and SMEs.

3.1.2

Digital Economy Agreements

- **Climate, Energy, and Resources:** Coordinates energy and sustainability policies, with a focus on ensuring an orderly transition to a low-carbon economy.

The MTI leads a group of specialized public agencies that make up the so-called "MTI Family," each with specific mandates. These agencies include:

- **Agency for Science, Technology and Research (A*STAR):** Responsible for scientific and technological development.
- **Economic Development Board (EDB):** Promotes foreign investment and industrial development.
- **Enterprise Singapore (ESG):** Supports local companies in innovation and international expansion.
- **Jurong Town Corporation (JTC):** Develops industrial and urban infrastructure.
- **Singapore Tourism Board (STB):** Promotes tourism as an economic driver.
- **Competition and Consumer Commission of Singapore (CCCS):** Regulates competition and protects consumer rights.
- **Energy Market Authority (EMA):** Oversees the energy market.
- **Hotels Licensing Board (HLB) and Sentosa Development Corporation (SDC):** Regulate the hotel sector and develop Sentosa Island, respectively.

The Trade and International Economic Relations (TIER) cluster is responsible for Singapore's trade policy, including digital trade policy. This cluster's main areas of focus are free trade agreements, foreign investment agreements, green economy agreements, and multilateral and regional forums, in addition to the topic of interest in this study: digital economy agreements (DEAs)¹⁸.

¹⁸<https://www.mti.gov.sg/Trade/Digital-Economy-Agreements>

DEAs¹⁹ are international agreements signed by Singapore and other countries that seek to establish common rules and standards for digital trade; promote the interoperability of digital systems between countries; facilitate the cross-border flow of data, while protecting personal data and consumer rights; and stimulate cooperation in emerging areas such as digital identities, AI, fintech, and data innovation.

Singapore has signed four binding DEAs and plans to sign future agreements with other like-minded economies.

Main objectives

DEAs help reduce operational and bureaucratic costs by harmonizing digital regulations and facilitating access to foreign markets through common frameworks. They also aim to improve efficiency, connectivity, and competitiveness²⁰.

Singaporean companies can also participate in digital initiatives and areas aligned with these agreements. The main objectives and areas included in the various agreements and initiatives in which Singapore participates are as follows:

¹⁹<https://www.mti.gov.sg/Trade/Digital-Economy-Agreements>

²⁰<https://www.mti.gov.sg/Trade/Digital-Economy-Agreements>

Table 1:
Topics included in Singapore's Digital Economy Agreements

Area	Measure	Objective
Trade facilitation	Digital identity	Develop secure, mutually recognized digital identities.
	Paperless trade	Accept electronic documents to reduce processing times and costs.
	Electronic invoicing	Reduce time and costs through common payment standards.
	Fintech	Promote cooperation between Fintech companies and technological solutions.
	Trade facilitation (documents)	Digitize documents for efficient processing.
	Electronic certification of agricultural products	Use electronic certificates to reduce costs.
	Electronic payment	Promote secure, cross-border electronic payments.
	Logistics	Improve supply chain speed in e-commerce.
	Domestic regulatory framework	Establish regulations that provide certainty to the digital ecosystem.
	Digital government	Develop useful digital services for citizens and businesses.
	Open government information	Drive innovation through access to public data.
	Technical standards and regulations	Promote global standards, including new technologies.
	Electronic data exchange	Facilitate the exchange of electronic business documents.
Data security	Data flow	Enable seamless data transfer to support digital activities.
	Protection of personal information	Establish mechanisms to protect cross-border personal data.
	Open government data	Expand access to generate opportunities for businesses.
	Cross-border data flow	Enable businesses to operate digitally in other countries.
	Data innovation	Facilitate product/service development through digital innovation.
	Prohibition of data localization	Allow freedom of data location and storage.

Area	Measure	Objective
	Source code protection	Eliminate source code delivery requirements for market entry.
	Cybersecurity cooperation	Promote resilience, IoT security, and digital capacity building.
	Cryptography	Prohibit the requirement to hand over private keys.
	Semiconductor supply chain resilience	Enable information sharing to prevent disruptions.
Trust and inclusion	Artificial intelligence (AI)	Promote ethical, people-centered AI governance.
	Cooperation between SMEs	Encourage digital exchange between SMEs.
	Online consumer protection	Strengthen regulations against digital fraud.
	Digital inclusion	Remove barriers to the digital economy.
	Cooperation in data exchange	Improve public efficiency through data exchange.
	Dialogue on the digital economy	Public-private platform to promote digital opportunities.
	Emerging technologies (AI)	Align standards for AI interoperability.
	Digital transformation of SMEs	Support the use of digital tools for commerce.
	Digital connectivity	Strengthen cross-border connectivity between countries.
	Digital education and skills	Improve digital capabilities through training programs.
	Submarine cables	Ensure efficient installation and maintenance for connectivity.
	Online platforms	Cooperate on platform regulation for a safe online environment.
Cooperation on AI	Promote responsible use of AI through practical collaboration.	

Source: Research Department, SUBREI, with information from the Singapore Ministry of Trade and Industry.

Multilateral and regional agreements

a) Digital Economy Partnership Agreement (DEPA)

The DEPA²¹(Digital Economy Partnership Agreement) is a pioneer of its kind, establishing new approaches and collaborations in digital trade. It promotes interoperability between countries and addresses emerging issues in digital technology. It was signed in June 2020 by Singapore, New Zealand, and Chile, joined by the Republic of Korea in May 2024; seven other countries—China, Canada, Costa Rica, Peru, the United Arab Emirates, El Salvador, and Ukraine—have applied to join the agreement. The key features that DEPA seeks to develop are: 1) facilitating end-to-end digital trade, 2) enabling reliable data flow, and 3) building trust in digital systems to facilitate opportunities for participation in the digital economy.

b) ASEAN Digital Integration

To harness the potential of digitalization for the benefit of businesses and consumers, ASEAN has developed a series of strategic frameworks and initiatives that guide its digital integration process.

- **ASEAN Digital Integration Framework and its Action Plan (DIFAP)**, which acts as a general roadmap for digital integration in the region. It sets priorities in areas such as trade facilitation, data flows, electronic payments, entrepreneurship, and talent development. It is a comprehensive and flexible framework that combines standards-based initiatives with thematic collaborations and pilot projects, reflecting the diversity of ASEAN's digital ecosystem.
- **The Bandar Seri Begawan Roadmap (2021)** reinforces the digital transformation agenda to accelerate economic recovery after the pandemic and deepen integration.

- **The ASEAN Agreement on Electronic Commerce (2018)**, the most important agreement on digital trade, was signed during Singapore's chairmanship and lays the foundation for cooperation in e-commerce and the digital economy. It entered into force in 2021.
- **The ASEAN Digital Economy Framework Agreement (DEFA)** is the most recent advance in digital integration and seeks to strengthen digital standards in key areas such as digital trade facilitation, payments, standards, data, and emerging challenges such as artificial intelligence. Negotiations were launched in September 2023 and are expected to be concluded in 2025.

ASEAN has additionally adopted commitments on digital rules in e-commerce chapters within broader agreements, such as the Regional Comprehensive Economic Partnership (RCEP) and the ASEAN-Australia-New Zealand Free Trade Agreement (AANZFTA).

c) Joint Statement Initiative (JSI)

The Joint Statement Initiative (JSI) on Electronic Commerce (E-Commerce) is a plurilateral initiative of the World Trade Organization (WTO) co-organized by Australia, Japan, and Singapore. This initiative covers three areas: digital trade facilitation; open digital environment; and business and consumer confidence. In July 2024, the co-organizers of the initiative announced that a stabilized text had been achieved after five years of negotiations.

²¹ <https://www.mti.gov.sg/Trade/Digital-Economy-Agreements/The-Digital-Economy-Partnership-Agreement>

Bilateral agreements

a) Singapore–Australia Digital Economy Agreement (SADEA)

The Singapore–Australia Digital Economy Agreement (SADEA) is the second DEA signed by Singapore. SADEA strengthens existing digital trade agreements between Singapore and Australia under the Singapore–Australia Free Trade Agreement. It also includes eight Memoranda of Understanding (MOUs) aimed at identifying collaborative projects, specifically in the areas of AI, data innovation, digital identities, personal information protection, electronic invoicing, trade facilitation, electronic certification of agricultural products, and consumer protection.

b) Korea–Singapore Digital Partnership Agreement (KSDPA)

The Korea–Singapore Digital Partnership Agreement (KSDPA), in force since January 2023, is Singapore's fourth DEA and its first with an Asian country. It establishes standards for data flows, interoperability, and collaboration in AI. The agreement deepens bilateral cooperation in the digital economy between the two countries, establishing digital trade rules to promote interoperability between their digital systems, thereby facilitating cross-border data flows and creating a more secure and reliable digital environment for businesses and consumers.

²² <https://www.mti.gov.sg/Trade/Digital-Economy-Agreements/The-Singapore-Australia-Digital-Economy-Agreement>

²³ <https://www.mti.gov.sg/Trade/Digital-Economy-Agreements/KSDPA>

c) UK–Singapore Digital Economy Agreement (UKSDEA)

The UK–Singapore Digital Economy Agreement (UKSDEA) is the third DEA signed by Singapore, effective from June 14, 2022. It establishes binding rules on data protection, AI, *fintech*, digital identities, and legal *tech*. The Agreement includes binding disciplines on the pillar of the digital economy, such as data management, as well as elements of cooperation in a wide range of emerging and innovative areas, such as artificial intelligence, financial technology and regulatory technology, digital identities, and legal technology.

d) European Union–Singapore Digital Partnership (EUSDP)

The European Union–Singapore Digital Partnership (EUSDP) was recently signed on May 7, 2025, as a result of the Cooperation Framework signed in February 2023. It defines rules on data flows, electronic payments, invoicing, digital signatures, paperless trade, spam, cybersecurity, access to SMEs, and consumer protection. The European Union (EU)–Singapore Digital Partnership provides a general framework for all digital cooperation between the EU and Singapore. Both parties seek to strengthen their collaboration in a wide range of areas, such as trade facilitation, reliable data flows, data innovation, digital trust, digital standards, digital skills for workers, and the digital transformation of businesses and public services. The Digital Partnership will also generate opportunities for collaboration in new and emerging areas such as 5G/6G, artificial intelligence, and digital identities.

²⁴ <https://www.mti.gov.sg/Trade/Digital-Economy-Agreements/UKSDEA>

²⁵ <https://www.mti.gov.sg/Trade/Digital-Economy-Agreements/EUSDP>

3.1.3

Ministry of Digital Development and Information (MDDI)

The role of the MDDI

Alongside the role of the Ministry of Trade and Industry in the digitization of trade, another ministry with a critical role in Singapore's digital economy is the Ministry of Digital Development and Information (MDDI), recently created in 2023, which is leading Singapore's digital transformation.

The MDDI is responsible for overseeing the development of the information technology, media, and cybersecurity sectors, promoting the digitization of public services, and administering national libraries and public archives. It also coordinates the government's communication and information policies, ensuring a comprehensive strategy for public communications and citizen participation²⁶.

The MDDI promotes the development of Singapore's digital economy through the Digital Enterprise Blueprint, co-created with multiple *stakeholders*, from SMEs to trade associations. The ministry supports business digitization by focusing on four key areas: adoption of AI solutions, scaling through integrated digital solutions, strengthening cybersecurity, and continuous training of workers. It also promotes training programs such as the TechSkills Accelerator (TeSA) to equip Singaporeans with technological skills in AI, 5G, and cybersecurity, with the aim of facilitating quality technology jobs throughout the country.

As for the development of digital infrastructure, it is the invisible foundation upon which Singapore's digital economy and society are built. For the MDDI, it ranges from physical components—such as submarine cables, mobile networks, satellites, fiber optics, and data centers—to digital elements such as common platforms (e.g., Singpass, TradeTrust), connected devices, *middleware*, and software infrastructure. This approach

²⁶<https://www.mddi.gov.sg/who-we-are/our-purpose/#a6dc51c9fae050361ac77303f254d606>

It is called the digital infrastructure *stack*, and its planning is geared toward keeping Singapore at the forefront of connectivity and digital resilience.

The MDDI structures its strategy as follows:

- **Make forward-looking investments:** Prepare today to adopt new technologies such as artificial intelligence, quantum computing, distributed cloud, and advanced network capabilities.
- **Comprehensive view of digital infrastructure:**
 - › **Physical:** submarine cables, networks, satellites, data centers
 - › **Physical-digital:** connected devices, middleware
 - › **Intangible:** shared digital services and platforms
- **Leveraging Singapore's unique characteristics:** Its urban scale and density enable faster and more efficient innovation, positioning the country as a global benchmark in urban connectivity.

To achieve this strategy, in June 2023, the government launched the **Digital Connectivity Blueprint**, which establishes five strategic priorities:

- Double submarine cable landings in 10 years.
- Deploy 10 Gbps national connectivity within five years for homes and businesses.
- Ensure a resilient and secure infrastructure that supports essential services.
- Promote green data centers with energy efficiency and sustainability.
- Expand the use of the Singapore Digital Utility Stack, which offers common reusable digital functionalities on a national scale.

This drive is accompanied by a regulatory review: a **Digital Infrastructure Act** is being prepared, which will establish mandatory security and resilience requirements for critical digital infrastructure providers, both public and private. This seeks to ensure the stability of essential services in highly digitized contexts.

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Smart Nation and Networked Trade Platform (NTP)

One of the flagship initiatives currently led by the MDDI is Smart Nation. This plan was launched in 2014 with the mission of transforming Singapore into a nation where technology significantly improves the lives of its inhabitants. Its goal is to build a digital and people-centered society, where digital services are seamless and reliable, creating new opportunities for all. Under the revamped version, Smart Nation 2.0, launched in 2024, the mission has been refined to focus on three strategic priorities: fostering digital trust through secure and resilient infrastructure; enabling growth by supporting businesses, workers, and future generations to adapt and leverage technology; and strengthening the community by ensuring digital inclusion and equitable participation in the digital transformation.

The core values underpinning the Smart Nation vision are trust, growth, and community. Trust is reflected in the commitment to a secure, reliable, and resilient digital infrastructure that protects personal data and the integrity of digital services. Growth represents a commitment to a dynamic digital economy, where businesses and individuals leverage technological innovation to progress and remain relevant. Finally, community highlights the principle of inclusion, ensuring that all citizens, regardless of age or level of digital literacy, can benefit equally from the country's technological development. These values guide both the design of public policies and the implementation of digital solutions in Singapore.

Smart Nation has a wide range of initiatives and programs in 14 sectors such as education, artificial intelligence, business solutions, environment and sustainability, health and well-being, and commerce and finance, among others. The latter sector specifically includes the Networked Commerce Platform plan.

The latter sector includes the Networked Trade Platform (NTP) plan.

This platform, part of the Smart Nation initiatives but dependent on Customs Singapore, was designed to digitize and connect international trade processes. It is a comprehensive national platform for trade and logistics. Its main objective is to facilitate a more interconnected, efficient, and paperless trade ecosystem.

The NTP complements the old TradeNet system, Singapore's national single window for the electronic submission of customs declarations and other trade-related permits. It has become an essential component in the digital transformation of Singapore's trade. The NTP focuses on three key areas:

Digital connectivity between governments (G2G): seeks to facilitate trade by improving the exchange of electronic documents between governments. This avoids delays, reduces the need for physical courier services, and allows companies to save time and money. It also guarantees the authenticity of documents and protects customs revenues.

Optimization of business-government (B2G) processes: aims to reduce time, effort, and costs for businesses and customs through the direct transmission of guarantees from financial institutions. This eliminates manual verification, prevents fraud, and avoids loss or alteration of physical documents.

Consortium *blockchain* data services: seeks to improve traceability in maritime trade using a *blockchain* shared with China Customs. The pilot began with the ports of Shanghai and Qinzhou and is expanding to others such as Xiamen and Qingdao, with the goal of covering 75% of bilateral trade. The approach is scalable and based on real impact.

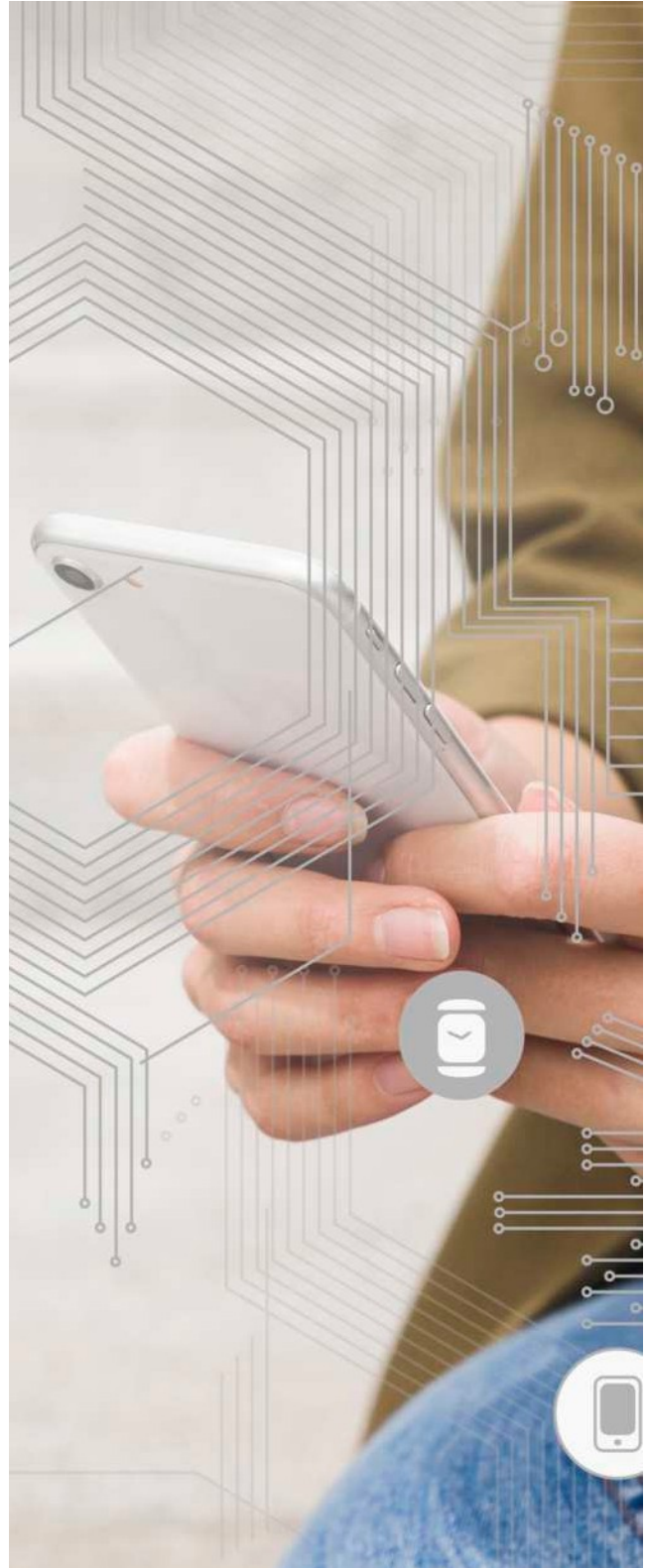
Conclusion

Singapore has consolidated a sophisticated digital commerce ecosystem, underpinned by a coordinated institutional architecture and a long-term strategy that integrates trade policy, technological infrastructure, and public-private cooperation.

Under the leadership of the Ministry of Trade and Industry (MTI)—responsible for Digital Economy Agreements (DEAs) that facilitate cross-border flows and set global standards—and the Ministry of Digital, Information, and Communications Technology (MDICT)—responsible for digital infrastructure and programs such as the Digital Enterprise Blueprint— Singapore has managed to articulate a coherent and dynamic model that boosts the competitiveness of its companies and the resilience of its economy.

Added to this is the role of Customs Singapore, which, through the Networked Trade Platform (NTP) – an initiative integrated into the Smart Nation plan – has transformed customs processes through the use of blockchain, digital documents, and interoperable single windows, connecting governments, banks, and businesses in a more agile and secure way.

This framework, backed by solid investment in connectivity and cybersecurity, positions Singapore as a global benchmark in digital commerce, combining technological innovation, administrative efficiency, and collaborative governance between the public and private sectors.



Some Lessons for Chile

Several lessons relevant to Chile can be drawn from this experience. First, Singapore's trajectory demonstrates the value of clear institutional coordination, based on the separation of roles between the entities responsible for trade policy and those responsible for digital infrastructure, but linked through joint governance mechanisms that ensure consistency and effective implementation.

Secondly, it highlights the importance of maintaining a proactive digital agreement framework aimed at strengthening system interoperability and ensuring reliable cross-border data flows. Singapore's DEAs are a replicable model for advancing Chile's integration into the global digital economy, promoting regulatory convergence and cooperation in emerging areas such as artificial intelligence, financial technology, and data protection.

Likewise, the Networked Trade Platform (NTP) demonstrates the impact of having a national single window infrastructure capable of integrating customs, banks, logistics operators, and regulatory authorities under international standards. These types of platforms not only reduce transaction times and costs but also strengthen transparency, traceability, and trust in international trade.

Another central element of the Singaporean model is the consideration of digital capabilities and cybersecurity as cross-cutting pillars, supported by continuous training programs—such as the TechSkills Accelerator (TeSA)—and regulatory frameworks that establish resilience requirements for critical digital infrastructure providers, ensuring operational stability in highly digitized environments.

Finally, Singapore highlights the need for an inclusive approach focused on SMEs, with instruments designed to promote technology adoption, access to electronic payment solutions, digital certifications, and participation in B2B e-commerce platforms. This comprehensive approach, which combines efficiency, trust, and openness, is a benchmark model for open economies such as Chile, which seek to accelerate their digital transformation and strengthen their competitive position in international trade.

3.2

REPUBLIC OF KOREA

The Republic of Korea has positioned itself as an international benchmark in the digitization of foreign trade, particularly due to its ability to incorporate small and medium-sized enterprises (SMEs) into digital trade flows. This achievement is based on a highly coordinated public-private ecosystem, supported by active policies, regulatory reforms, and cutting-edge technological infrastructure.

This section examines the main institutional and regulatory strategies promoted by the South Korean government—including the Electronic Commerce Facilitation Act and the BuyKOREA and uTradeHub platforms—along with the role of entities such as KOTRA, KOSME, and KTNET in strengthening a model that integrates digital infrastructure, specialized financing, and human capacity development. Finally, relevant lessons for Chile are identified, aimed at accelerating its own digital transformation in the field of foreign trade.

3.1.3

SME digitization policies

The Republic of Korea is globally recognized for its advanced digital infrastructure and high capacity for technological innovation. However, for years, Korean small and medium-sized enterprises (SMEs) faced significant challenges in integrating digital technologies into their operations. The main obstacles were a lack of qualified personnel, a generational gap in digital skills, and difficulties in accessing credit. Approximately 44% of SMEs in the Republic of Korea reported significant problems in accessing financing, a key factor in the adoption of new technologies²⁷.

Another challenge for SMEs was the limited use of Information and Communication Technologies (ICT), particularly in companies that employed older workers, who often lacked the skills necessary to take advantage of digital tools and ensure data protection in digital environments. Although the Republic of Korea has overcome challenges in terms of digital security policies for firms in general, the gap between SMEs and large companies remains wide, as SMEs continue to lag behind in adopting these policies, limiting their competitiveness in the global market. In addition, SMEs faced difficulties in accessing credit compared to large companies²⁸.

Faced with these structural challenges that limited the digitization of small and medium-sized enterprises, the South Korean government rolled out a coordinated set of legal, institutional, and programmatic reforms aimed at reducing gaps and facilitating the integration of SMEs into the digital economy.

At the regulatory level, the Electronic Commerce Facilitation Act (2005, amended in 2015) was a key milestone, establishing the legal basis for the validation of electronic documents and digital transactions. In parallel, the Foreign Trade Act

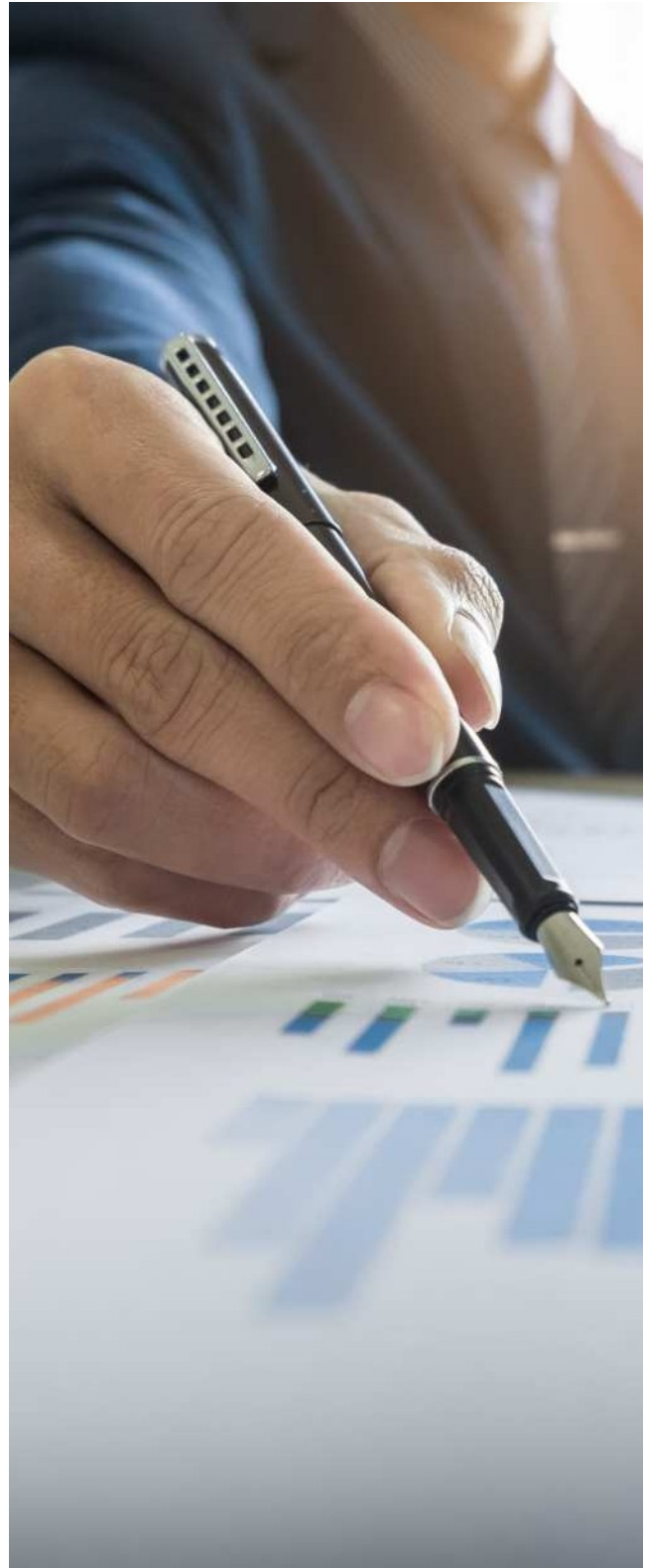
²⁷<https://www.cepal.org/es/node/61306>

²⁸<https://www.cepal.org/es/node/61306>

The Foreign Trade Act and Customs Act were updated to incorporate electronic procedures, while the Personal Data Protection Act (2011) was adapted to ensure security and privacy standards in digital environments²⁹.

At the institutional level, the Presidential Committee for the Fourth Industrial Revolution, created during Moon Jae-in's administration (2017–2022), played a coordinating role, coordinating public policies and private initiatives related to digital transformation. This committee helped accelerate the adoption of emerging technologies in productive sectors and public services, including the promotion of digital capabilities in SMEs³⁰.

In 2020, the Republic of Korea launched the New South Korean Pact, an ambitious national strategy aimed at structural, economic, and social transformation. Its "2+1" approach combined three central pillars³¹.



²⁹<https://www.cepal.org/es/node/61306>

³⁰<https://www.cepal.org/es/node/61306>

³¹<https://www.msit.go.kr/eng/bbs/view.do?sCode=eng&ml-d=4&mPid=2&bbsSeqNo=42&nttSeqNo=443#:~:text=Korea%20aims%20to%20lead%20digital%20transition%20with,to%20create%20903,000%20new%20jobs%20by%202025.&text=The%20Digital%20New%20Deal%20is%20composed%20of%2012%20goals%20in%20four%20sectors.>

Table 2:Indicators on Innovation, Digitalization, and SMEs in the Republic of Korea³²

Indicator	Value / Description	Year / Period	Source
SMEs with difficulties accessing finance	44% of SMEs report significant problems accessing credit, limiting technology adoption.	2023 (estimate)	OECD (2023), OECD Reviews of Innovation Policy: Korea 2023 Korea Digital Economy OECD
SME participation in business R&D	6% of total R&D expenditure corresponds to external R&D (payments to other firms or subsidiaries), reflecting a high concentration in large conglomerates.	2019	OECD (2023), <i>ibid.</i> Korea Digital Economy OECD
Total investment in R&D (GERD)	4.9% of GDP, second in the OECD after Israel.	2021	OECD (2023), <i>ibid.</i> Korea Digital Economy OECD
Business expenditure on R&D (BERD)	3.9% of GDP; private sector spending is the main component of national R&D.	2021	OECD (2023), <i>ibid.</i> Korea Digital Economy OECD
Samsung's share of R&D expenditure	19.9% of total business R&D expenditure in Korea.	2020	OECD (2023), <i>ibid.</i> Korea Digital Economy OECD
Business creation (business birth rate)	15.1% (compared to 11.4% in France and 6.9% in Germany).	2017	OECD (2023), <i>ibid.</i> Korea Digital Economy OECD
Public funding for start-ups	USD 1.2 billion in direct and indirect support (R&D, mentoring, networking, etc.).	2020	OECD (2023), <i>ibid.</i> Korea Digital economy OECD
Total investment in start-ups	USD 31 billion; still insufficient to consolidate the entrepreneurial ecosystem.	2021	OECD (2023), <i>ibid.</i> Korea Digital Economy OECD
Start-up exits (IPOs and M&As)	114 IPOs and 43 M&As; only 23% of venture capital is recovered via IPOs and 2% via M&As.	2019	OECD (2023), <i>ibid.</i> Korea Digital Economy OECD
Internationalization of start-ups	2.2% of new companies operate abroad.	2019	OECD (2023), <i>ibid.</i> Korea Digital Economy OECD
Digital Strategy 2022	Goals: (i) place Korea among the top three global leaders in AI by 2027; (ii) increase unicorn companies from 23 to 100; (iii) create an integrated government digital platform within three years.	2022–2027	Korea Digital Strategy / OECD (2023)

Source: Research Department, SUBREI, with information from the OECD.

³²https://www.oecd.org/content/dam/oecd/en/publications/reports/2023/07/oecd-reviews-of-innovation-policy-korea-2023_6517d469/bdcf9685-en.pdf

3.2.2

Promotion of digital trade

The Ministry of Trade, Industry and Energy of the Republic of Korea (MOTIE) has refocused its strategies. The Ministry of Trade, Industry and Energy of the Republic of Korea (MOTIE) has refocused its trade strategies to adapt them to the demands of the digital economy, with a particular emphasis on e-commerce and the internationalization of SMEs. In November 2020, MOTIE launched the Digital Transformation of Trade Policy, which aims to double both the total value of foreign trade—which reached US\$

\$1 trillion in 2019 - as the number of SMEs involved in cross-border trade, which stood at around 95,000. This policy is complemented by the 2021 trade and innovation strategy, which projected annual exports of US\$700 billion by 2025³³ through focused investments in strategic sectors such as bioshealth (US \$3.7 billion) and trade finance (US \$15.1 billion).³⁴

To achieve these objectives, MOTIE has promoted a series of initiatives aimed at digitizing commercial operations, including:

- The promotion of technological solutions in last-mile logistics;
- Developing a unified public data platform to facilitate and optimize domestic e-commerce;
- Promoting strategic public-private partnerships with global players such as Amazon, as well as with local companies, to strengthen the integration of micro, small, and medium-sized enterprises into cross-border digital commerce.

In addition, MOTIE coordinates efforts with other ministries—such as the Ministry of Science and ICT and the Ministry of Social Services—to address cross-cutting challenges, such as the security of

data and technological training for human capital. This inter-institutional cooperation is one of the pillars of the South Korean model for promoting digital commerce, characterized by its collaborative and multisectoral governance.

This model integrates the capabilities of specialized agencies, such as the Korea Trade Insurance Corporation (under MOTIE) and the Industrial Bank of Korea, with open data policies, tailored financing schemes, and public-private collaboration mechanisms. Together, these actions have helped consolidate a cohesive ecosystem that reduces structural barriers and promotes the participation of SMEs in global digital trade flows.



³³ In 2021, Korean exports reached US\$644 billion; in 2024, US\$684 billion; and as of June 2025, US\$335 billion, according to figures from Global Trade Atlas. ³⁴ <https://www.cepal.org/es/node/61306>

3.2.3

Institutional structure of digital commerce Institutional of support for

The South Korean institutional ecosystem supporting digital commerce is characterized by strong coordination between public entities, specialized agencies, and business associations, which have played a decisive role in the internationalization of SMEs through digital tools. The main institutions that make up this support architecture are highlighted below.

KOTRA – Korea Trade-Investment Promotion Agency

The Korea Trade-Investment Promotion Agency (KOTRA), under the Ministry of Trade, Industry, and Energy (MOTIE)³⁵, is the South Korean government's main arm for promoting exports and investments. Established in 1962, its mission has been to facilitate the international integration of companies in the Republic of Korea and position the country as a competitive destination for foreign investment.

With 131 offices in 85 countries, KOTRA is one of the world's largest trade promotion networks. Through its centers, the agency provides technical assistance, market intelligence, business *matchmaking* services, and support at trade fairs and digital platforms, contributing significantly to the expansion of digital commerce and the integration of SMEs into global value chains.

KOSME – Korean Agency for SMEs and Startups

The Korea SMEs and Startups Agency (KOSME)³⁶ is a state-funded non-profit organization responsible for implementing government policies and programs aimed at strengthening micro, small, and medium-sized enterprises. Its work ranges from financing programs and subsidies to specialized training and business consulting.

³⁵<https://www.kotra.or.kr/english/subList/41000045001>

³⁶<https://www.kosmes.or.kr/sbc/SH/EHP/SHEHP006M0.do>

KOSME provides direct support to SMEs in the areas of digitization, innovation, international expansion, and adoption of emerging technologies. Its programs are designed to foster business resilience, improve productivity, and facilitate active participation in cross-border e-commerce, thereby helping to bridge technological and scale gaps.

KITA – Korea International Trade Association

The Korea International Trade Association (KITA)³⁷, founded in 1946, is the country's largest business organization, with more than 77,000 member companies. Its mandate is to represent the interests of the export sector and promote the development of foreign trade.

KITA performs a wide range of functions: it offers technical and professional training, develops internationalization strategies, promotes trade agreements between private actors, and manages digital platforms to facilitate e-commerce. In addition, it maintains a network of 13 regional offices and 15 international representations, consolidating its position as a key player in the public-private coordination of digital commerce and in the global promotion of South Korean SMEs.

KTNET – Korea Trade Network

The Korea Trade Network (KTNET), created in 1989 with government support, is the national platform for the digitization of foreign trade³⁸. Recognized as the leading provider of paperless trade infrastructure, KTNET processes more than 370 million digital documents annually, connecting more than 97,000 companies and institutions with key players such as customs, banks, and regulatory authorities.

³⁷ https://www.kita.org/info/about/aboutKita.do;JSESSIONID_ORG=FE1022C49B4CDF6227362CFECF2B0D42.Hyper

³⁸ https://www.ktnet.com/mobile/viewStaticHtmlPage.do?viewName=mobile_kre/mcomp_prof_en&tab_id=HA1&menu_id=HB1C8

The platform has digitized 614 types of commercial documents, generating estimated savings of US\$5.57 billion per year. Its certified electronic document system (#Mail) ensures high standards of security, efficiency, and traceability.

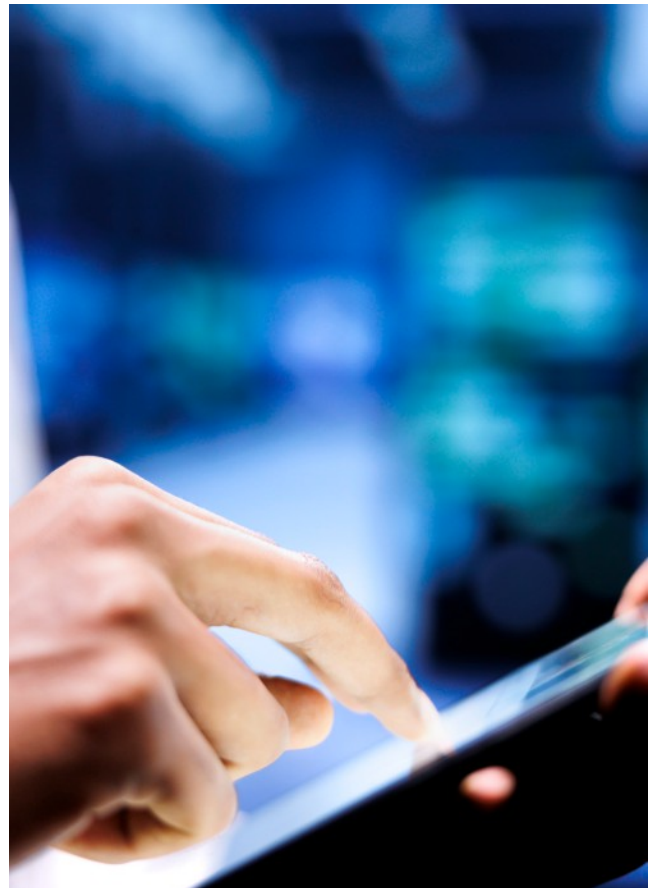
KTNET has evolved into a state-of-the-art digital infrastructure, integrating technologies such as artificial intelligence and *blockchain*. For South Korean SMEs, this transformation translates into lower costs, greater operational agility, and better access to international markets, positioning the Republic of Korea as a global leader in commercial digitization.

History of KTNET and its Pioneering Evolution:

- **1989:** The Ministry of Trade and Industry of the Republic of Korea (MOTIE) launches the "Basic Plan for the Automation of Foreign Trade Processes," laying the foundations for KTNET.
- **1991:** KTNET is officially established and the "Act on Promotion of Office Automation for Commerce" is enacted, marking the beginning of a new digital era.
- **1992:** KTNET signs an agreement with the Korea Customs Service to implement the first customs system based on Electronic Data Interchange (EDI).
- **1994-1997:** Key services such as digital import/export licenses, digital export clearance, and electronic certificates of origin are launched, gradually eliminating paper
- **2001:** KTNET promotes the global paperless commerce network and establishes the Pan-Asian Electronic Commerce Alliance
- **2003:** Appointed as Korea's first Electronic Customs Service Provider and launched cTradeWorld.com, a portal for cross-border e-commerce
- **2008-2009:** International expansion, with the modernization of customs in Mongolia and the launch of Libya's Single Window for Paperless Trade.

- **2010-2017:** Revolutionary innovations such as the world's first electronic negotiation, the mobile app with WiFi positioning, and the expansion of electronic contracting systems in countries such as Rwanda and Jordan
- **2020-2021:** Introduction of advanced technologies such as robotics for tax stamps and the use of blockchain in Paraguay for customs management

KTNET has not only transformed domestic trade in the Republic of Korea, but has also established a globally replicable model. With its innovative solutions, it has removed trade barriers, facilitated the interconnection of economies, and shown that the future of trade is paperless, borderless, and real-time.



3.2.4

Programs: Digital platforms for the internationalization of SMEs

The Republic of Korea has developed a sophisticated set of specialized digital platforms to promote foreign trade, with a focus on facilitating the internationalization of SMEs. These tools, promoted by entities such as KOTRA, KOSME, KITA, and KTNET, offer concrete solutions for accessing global markets through electronic channels, reducing transaction costs, increasing product visibility, and simplifying logistics and customs processes.

Buy Korea (KOTRA)

It is the main digital foreign trade portal operated by KOTRA. Its purpose is to facilitate commercial *matchmaking* between South Korean exporters and international buyers through the digital display of products and the management of purchase requests³⁹.

BuyKOREA coordinates its services with its global network of commercial offices, thereby ensuring trust and traceability in transactions. It also promotes registered products through digital marketing campaigns and active promotion at trade fairs and on virtual platforms. This integration of commercial intelligence, validation, and promotion has been fundamental to the internationalization of Korean SMEs.

K-Studio (KOTRA)

K-Studio is a digital marketing platform specializing in audiovisual promotion and real-time e-commerce, focused on small businesses. It offers live broadcasts with social media *influencers*, virtual trade shows, investment presentations to attract venture capitalists and foreign companies, as well as content production using technologies such as augmented reality (AR) and virtual reality (VR)⁴⁰.

In addition to facilitating the global positioning of products, K-Studio supports SMEs in professionalizing their digital strategy, strengthening their ability to attract buyers, investors, and strategic partners in virtual environments.

GobizKOREA (KOSME)

GobizKOREA is the B2B e-marketplace operated by KOSME⁴¹, designed to connect international buyers with South Korean suppliers, especially SMEs. It offers comprehensive solutions for cross-border e-commerce, including product search, online payment options (PayPal, T/T), logistics services (EMS, DHL), and multilingual support.

Its goal is to establish itself as the most reliable platform for exporting SMEs, raising their global visibility and facilitating access to markets through a secure, efficient, and accessible trading environment.

TradeKorea (KITA)

Developed by the Korea International Trade Association (KITA), TradeKorea is a leading B2B platform used by more than 2.2 million global buyers and 123,000 South Korean suppliers and manufacturers.

The platform has more than 800,000 registered products and allows for complete search, negotiation, and acquisition processes. Its scalability, international reach, and ease of use position it as a central tool in the digital internationalization strategy of SMEs⁴².

³⁹<https://buykorea.org/comm/footer/aboutus.do>

⁴⁰https://ombudsman.kotra.or.kr/ik-en/bbs/i-5073/detail.do?ntt_sn=490215

⁴¹<http://gobizkorea.com/mobile/board/about.do>

⁴² <https://www.tradekorea.com/abouttradekorea/abouttradekorea.do>

Conclusion

uTradeHub (KITA, KTNET)

uTradeHub is a one-stop digital shop for the comprehensive management of paperless foreign trade. It was launched in 2003 as a joint project between the Ministry of Knowledge Economy, KITA, and KTNET, and is currently operated by the latter under the legal mandate of MOTIE.

This platform allows companies to manage all international trade processes online: marketing, market research, logistics, customs clearance, financing, payments, and negotiation. uTradeHub connects domestic and foreign banks, customs, logistics services, and regulatory authorities in a single integrated network. Its approach has significantly simplified trade procedures, reducing the need for face-to-face interaction with banks and government entities, which has positioned Korea as a benchmark in digital foreign trade infrastructure.

The Republic of Korea's success in promoting digital trade for SMEs lies in its comprehensive approach: coordinated governance between ministries, specialized agencies with clear mandates (such as KOTRA and KTNET), and interoperable technology platforms that simplify customs, logistics, and payment processes. The combination of innovative public policies (e.g., the New South Korean Pact), investment in R&D, and public-private partnerships has enabled SMEs to overcome gaps in scale and digital skills. For countries such as Chile, the South Korean model offers relevant lessons: the need for a single window for digital trade, the coordination of institutions focused on SMEs, and an inclusive approach that prioritizes non-traditional sectors and regions. The Republic of Korea demonstrates that, with a well-designed strategy, even the smallest companies can compete in global digital trade.



⁴³https://www.utradehub.or.kr/porgw/introduce_en.do?_top=introduce&_left=introduce_0100

Some Lessons for Chile

South Korea's experience in promoting digital trade offers valuable lessons for open economies such as Chile's, which seek to deepen their integration into global markets through an inclusive digital transformation strategy. Among the main lessons learned is the importance of multisectoral institutional coordination. The Korean model demonstrates the effectiveness of coordinating different ministries (Trade, Science and Technology, Social Services) and specialized agencies around a common digital trade strategy, with measurable objectives, an allocated budget, and differentiated instruments for priority sectors. In Chile, moving toward integrated digital governance would make it possible to overcome institutional fragmentation and generate synergies between the portfolios of International Economic Relations, Economy, Finance, Science, and Corfo.

On the other hand, entities such as KOTRA, KOSME, KITA, and KTNET perform specific but complementary functions in promoting digital trade. In other words, they are specialized agencies with a clear digital mandate: each acts as a hub for coordinating capabilities, connecting SMEs with markets, financing, digital platforms, and training. Chile could move forward in strengthening entities such as ProChile, Sercotec, Corfo, and InvestChile, providing them with specific mandates and technical capabilities in commercial digitization, SME internationalization, and attracting digital investment.

In addition, KTNET demonstrates that a unified national platform for digital document management can generate enormous efficiencies and accelerate the integration of SMEs into global trade. Chile could study the feasibility of developing a national hub for commercial interoperability, interoperable with customs, banks, health and certification entities, integrating international standards (e-Cert, e-Origin, etc.).

Structured collaboration with global players such as Amazon, as well as with local business associations, has been key to expanding SME participation in cross-border e-commerce. In Chile, strengthening public-private dialogue on digital commerce, including large platforms, fintech, logistics operators, and exporters' associations, can accelerate the scale and ambition of the policies implemented.

Finally, the South Korean model has not only driven the digitization of trade at the macro level, but has also placed special attention on reducing structural gaps: in business size, geography, generation, and gender. For Chile, this implies designing policies with a focus on territorial digital inclusion, with an emphasis on regions, women exporters, and non-traditional sectors.

3.3

PEOPLE'S REPUBLIC OF CHINA (hereinafter China)

China has built one of the most dynamic and multifaceted digital ecosystems in the world, supported by the integration of digital platforms, highly efficient logistics infrastructure, and an advanced electronic payment system. This development is not only a reflection of a mature technological environment, but also the result of a deliberate state strategy that has combined digital innovation, economic planning, and geopolitical vision.

From the perspective of international political economy, the Chinese case represents a living laboratory for understanding how a centralized political-economic model can incubate a global-scale digital ecosystem, while redefining the terms of digital governance and international regulatory competition. In this context, China not only participates in global platform capitalism, but also adapts and internalizes it under a state-guided logic of national development.

Beyond its success in e-commerce, the Chinese experience raises key questions about the role of digital platforms in economic development, technological sovereignty, and the shaping of international standards. Analyzing this process involves examining the interaction between the state and the market, the tensions between growth and control, and the mechanisms through which China seeks to project digital power abroad.

3.3.1

The role of Chinese digital platforms in the fulfillment of state objectives

The rise of digital platforms in China has been both an expression of its integration into the global economy and the result of a state strategy aimed at the country's structural transformation. Unlike liberal models, in which platforms emerge mainly from the market, in China they have been promoted, regulated, and sometimes contained by the state, depending on economic and long-term objectives. This has favored China's integration into global capitalism and the logic of "platform capitalism." Similarly, it has been characterized by an alignment, not without difficulties, between internal and external state objectives, as well as by the pursuit of commercial profits by private companies⁴⁴.

The emergence of companies such as Alibaba, Tencent, Baidu, and ByteDance was facilitated by telecommunications reforms during the 1990s and the rapid expansion of digital infrastructure such as mobile internet and 4G networks. Many of these platforms received global financing in their early stages, but operated under a model of accelerated expansion with strong alignment—albeit not without friction—with state priorities.

Following the 2008 financial crisis, the Chinese government deepened its commitment to digitalization as an engine of economic restructuring. Instead of continuing with a labor-intensive export model, the government promoted the development of digital platforms as vehicles to boost domestic consumption, technologically scale up the economy, and strengthen sectors with higher added value.

⁴⁴Section based on the articles From Platform Capitalism to Digital China: The Path, Governance, and Geopolitics <https://journals.sagepub.com/doi/10.1177/20563051251323030> and The Digital Silk Road and China's Influence on Standard Setting <https://www.cigionline.org/static/documents/no.264.pdf> <https://www.cigionline.org/publications/the-digital-silk-road-and-chinas-influence-on-standard-setting/>

Since 2020, this process has been accompanied by a wave of regulation aimed at correcting negative externalities associated with the uncontrolled growth of platforms. Through legal frameworks such as the Personal Information Protection Act and the Data Security Act, the government has sought to rebalance the relationship between digital capital and state control, addressing risks such as market concentration, job insecurity, and the vulnerability of personal data.

In 2023, the launch of the "Digital China" plan reaffirmed this orientation, proposing a more profound and structural digital transformation, focused on the connection between digital platforms and the real economy. This strategy posits that the value of platforms lies not only in their market capitalization or market penetration, but also in their ability to integrate productively into strategic sectors, generate innovation, and contribute to national development goals.

a) Digital platforms in China: infrastructure, governance, and geopolitical aspects

The emergence of the digital platform ecosystem in China should be understood as part of a process of economic and technological transformation led by the state. Unlike the Western liberal model, where digital innovation has been driven primarily by the market, the Chinese case reveals an institutional framework in which infrastructure development, data regulation, and platform expansion are deeply intertwined with the strategic objectives of the state apparatus.

During the reforms of the 1990s, the Chinese government actively promoted the modernization of telecommunications and the expansion of mobile internet, creating the conditions for the rise of digital giants such as Alibaba, Tencent, and Baidu. These companies, many of them leveraged by international private capital, grew under a model

those focused on scale, user acquisition, and functional expansion, replicating certain logics of global platform capitalism. However, they did so in an institutional environment where the state maintains substantive control over key factors of production: land, labor, finance, infrastructure, and, increasingly, data.

Following the global financial crisis of 2008, Beijing redefined its development model, prioritizing the transition from a labor-intensive export-oriented economy to one based on domestic consumption and technological leadership. Digital platforms became strategic instruments for achieving these objectives, coordinating data flows, payments, logistics, and services around which much of the urban economy has been reconfigured.

The Digital China strategy, formally launched in 2023, reinforces this approach by promoting the deployment of advanced technologies such as artificial intelligence, 5G, semiconductors, and cloud computing, with a strong emphasis on industrial productivity and the connection between digital platforms and real economic sectors. In this model, the value of platforms is measured not only by their market capitalization, but also by their ability to create functional market architectures that serve national development.

Unlike advanced capitalist countries, where digital services and infrastructure have been privatized and deregulated for the sake of efficiency and profitability, in China the state has maintained a central role in the planning, investment, and control of the digital sector. From the first "Golden Projects" to the rollout of 5G networks, China's trajectory has been characterized by a "techno-nationalist" vision, in which digital infrastructure is conceived as a strategic sovereign asset.

This has given rise to a hybrid digital governance regime, in which private initiative, state control, and tensions between centralization

and local autonomy. "Platformization" in China, therefore, is not just a technological phenomenon, but the result of a trajectory of institutional reforms and structural modernization led by the state.

Although China leads in terms of e-commerce and digital payments—with more than 1 billion internet users—its platform system is not exempt from challenges common to other countries: market concentration, job insecurity, privacy crises, and misinformation. In response, between 2020 and 2023, the government launched an unprecedented regulatory campaign, establishing new frameworks such as the Personal Information Protection Law and the Data Security Law, whose objective has been to contain systemic risks and reaffirm public control over digital capital.

However, platform governance in China is not limited to regulation. Private platforms also act as agents of governance, shaping urban life, financial flows, labor relations, and cultural production through algorithms, interfaces, and technological architectures. This process has revealed structural contradictions: tensions between local governments and the center, rural-urban migration, informal labor, the absence of independent unions, and weak social protection. The result is digital governance that combines state ambition, market innovation, and institutional fragmentation.

On the geopolitical level, Chinese digital platforms are deeply intertwined with the global projection of the country's economic and technological power. Initiatives such as the Digital Silk Road have sought to expand digital infrastructure, technological standards, and platform models to countries in the so-called Global South, positioning China as an alternative provider to platforms dominated by the United States and Europe.

At the domestic level, platforms are instruments of urban and territorial planning: they allow experimentation with smart cities, optimization of public services, redirection of investments, and redistribution of economic opportunities. Their impact goes beyond the digital realm, reshaping the urban-rural landscape, territorial connectivity, and economic hierarchies.

The international expansion of these platforms, however, has generated growing geostrategic tensions. The United States and other Western powers have imposed restrictions on companies such as Huawei, Didi, and TikTok, citing risks to national security, data control, and espionage. These frictions reflect a deeper competition for governance of global digital infrastructure, where economic interests, technological sovereignty, and cultural disputes intersect.

b) The establishment of global digital standards and the role of platforms

The establishment of international technical standards has become a strategic dimension of global competition in the digital economy. For China, standardization not only facilitates trade and technological interoperability, but also constitutes a geopolitical instrument and a lever to consolidate its influence in global digital governance.

The regulatory dimension of the Belt and Road Initiative was formalized in 2015 through the *Action Plan on Belt and Road Standard Connectivity (2015–2017)*, which identified ten priority areas for aligning technical standards, facilitating investment, and promoting the export of Chinese technologies. This agenda gained momentum with the creation, in 2017, of the Digital Silk Road (DSR), which fully incorporated the digital economy into the BRI cooperation framework. Since then, the DSR has functioned as a privileged channel for the projection of digital capabilities, technology transfer, and the internationalization of standards led by China.

Unlike traditional sectors such as energy, construction, or railways—historically dominated by state-owned companies—in the digital sphere, the promotion of standards has been led by highly technological private companies such as Huawei, Alibaba, Tencent, SenseTime, Cambricon, Megvii, and Yitu. These companies have taken an active role in the design and dissemination of standards in emerging technologies such as 5G, artificial intelligence, big data, facial recognition, the Internet of Things (IoT), and data centers.

Through initiatives such as China Standards 2035, the government has articulated a strategic vision to move toward its own regulatory ecosystem, in which standardization accompanies the deployment of Chinese technologies in international markets. Within the framework of the DSR, these companies not only export products and services, but also promote—explicitly or implicitly—the adoption of Chinese standards through investments in digital infrastructure, bilateral agreements, and the provision of turnkey solutions.

The technological leadership and growing market share achieved by these firms has not automatically translated into global regulatory influence. Although China has made significant progress in certain standardization forums, especially in 5G and IoT—where companies such as Huawei and ZTE have gained ground in organizations such as the 3rd Generation Partnership Project (3GPP) and the International Telecommunication Union (ITU)—control of the most influential institutional spaces continues to be dominated by actors from the United States and Europe. These maintain dominant positions in key areas such as artificial intelligence, biometrics, cloud computing, fiber optics, digital surveillance, and cybersecurity.

China's regulatory progress faces both internal and external challenges. Internally, tensions persist between the state's strategic objectives—such as consolidating technological sovereignty and defending national interests—and the logic of

commercial interests of private companies operating under criteria of global expansion and profitability. Externally, the growth of Chinese technological influence has generated geopolitical resistance, particularly in the context of deteriorating relations with the United States and growing suspicions in Europe and Asia-Pacific. Companies such as Huawei have been subject to restrictions, exclusion from tenders, and regulatory bans by the *Five Eyes* group of economies and the European Union, motivated by concerns about national security, data governance, and technological dependence.

However, it is important to avoid geopolitical overinterpretation of the standardization process. In many cases, the adoption of standards responds to technical, commercial, and interoperability criteria rather than ideological considerations or diplomatic alignments. Factors such as technological efficiency, scalability, component availability, and agreements between global industrial conglomerates play a more decisive role than geopolitical tensions alone.

The coexistence, for example, of different standards for mobile IoT—such as NB-IoT in China and BRI countries, and LTE-M in North America and Western Europe—reflects decisions based on technical characteristics, compatibility with existing networks, and the operator ecosystem, rather than simple geostrategic rivalry. Similarly, the definition of channel coding standards for 5G, agreed upon in 2016, was the result of technical and commercial negotiations between players such as Huawei, Samsung, Qualcomm, and Ericsson.

In short, China's digital standardization policy combines geopolitical ambition, commercial pragmatism, and public-private cooperation. Although it still faces structural limitations in its ability to influence global standards governance, China has consolidated a distinctive approach that integrates its technology strategy, industrial policy, and economic diplomacy.

c) The Chinese digital contract: platforms, the state, and the dispute over the economy of the future

In advanced capitalist economies, the provision of infrastructure was historically the responsibility of the state, conceived as a public good associated with national development. However, in recent decades, these functions have been increasingly privatized and reorganized under "platformized" models, where market logic, data accumulation, and algorithmic intermediation define new forms of economic and social organization.

China shares certain features of this global process, but adapts it based on its own trajectory. In China's case, digital platforms take on an infrastructural and strategic dimension that connects them directly to the state's objectives. Through mechanisms of interoperability, data capture, and logistics networks, these platforms are restructuring entire economic sectors and reconfiguring urban life, consumption, work, and innovation. But unlike the Western model, this phenomenon does not imply a complete surrender to the market, but rather the articulation of a new digital contract between the state, capital, and society.

This contract is mediated by a particular form of governance, in which the state maintains control over strategic sectors, regulates the growth of platforms, and guides their development toward collective goals defined by national plans such as "Digital China" and "China Standards 2035." In this model, platforms are not mere private actors, but functional vehicles for the country's structural transformation project. Their value lies not only in their profitability or technological innovation, but also in their ability to integrate with the real economy, sustain domestic growth, and project international influence.

In this context, technological standardization has emerged as one of the pillars of China's digital foreign policy. Through the Belt and Road Initiative

Digital (DSR), the country has promoted the deployment of its own technologies, technical standards, and platforms abroad, combining economic diplomacy with a growing presence in global standardization forums. However, despite technological and commercial advances, China still faces structural limits in its ability to shape the rules of the digital game on a global scale.

China's regulatory influence continues to be conditioned by three main factors:

1. **The institutional dominance of Western actors** in technological governance spaces,
2. **Internal tensions** between the commercial interests of large platforms and the political objectives of the Party-State, and
3. **External mistrust** of the Chinese model of digital governance, particularly with regard to data protection, surveillance, and corporate autonomy.

In this context, promoting Chinese standards through the DSR serves as a pragmatic complement—not a substitute—for formal participation in multilateral organizations. China's strategy, while ambitious, has not yet succeeded in translating its technological leadership into normative hegemony, especially in fields such as artificial intelligence, biometrics, cloud computing, and digital surveillance, where interests and coalitions anchored in Europe, the United States, and Japan prevail.

What is at stake is not only the dissemination of standards, but also the definition of the principles that will govern the digital economy of the 21st century: Who controls the data? What logic governs the organization of digital infrastructure? What values are prioritized in algorithmic architecture? In this debate, the Chinese case presents an alternative model—not necessarily replicable—that challenges the dominant conceptions of the global digital order.

3.3.2

China's strategy in response to the rise of digital commerce

Thus, the Chinese digital contract reveals a platform political economy anchored in state rationality, with implications that go beyond technology and extend to geopolitics, institutions, and civilization. Its evolution will be key to understanding not only the future of digital commerce, but also the new configurations of power in the post-industrial era.



Since 2015, China has made the digital economy a strategic focus to counteract economic slowdown and address structural challenges. Initiatives such as Internet Plus and China Digital have promoted the accelerated adoption of emerging technologies such as 5G, the Internet of Things (IoT), *big data*, artificial intelligence (AI), and *blockchain*. This transformation has been led by technology conglomerates such as Alibaba, Tencent, and Huawei and has enabled the digital economy to grow from 27% of GDP in 2015 to 42.8% in 2023. In turn, the digitization of traditional sectors has broadened the scope and impact of this process.

At the same time, China's international strategy has been articulated around the Belt and Road Initiative (BRI), which since 2017 has incorporated its digital component (Digital Silk Road, DSR). This includes infrastructure expansion projects in telecommunications, smart cities, data centers, and cross-border connectivity, increasing the scope and impact of this process.

The development of Chinese digital commerce has been initially organic, driven by the rapid adoption of e-commerce platforms over the past decade, such as Alibaba, JD.com, Temu, and Shein, along with substantial advances in digital payment infrastructure and logistics. However, since the late 2010s, the government has strengthened the policy framework by promoting bilateral agreements, e-commerce pilot zones, and explicit development targets. In 2021, Silk Road E-commerce was incorporated into the 14th Five-Year Plan as a priority policy, establishing tax incentives and facilitation measures to consolidate efficient cross-border logistics chains⁴⁵. As of July 2024, China has signed memoranda of understanding on e-commerce with 33 countries, including Chile.

⁴⁵<https://www.ispionline.it/en/publication/chinas-changing-approach-to-digital-trade-205856>

⁴⁶<https://www.ispionline.it/en/publication/chinas-changing-approach-to-digital-trade-205856>

Major Chinese e-commerce platforms such as Alibaba, JD.com, Pinduoduo/Temu, and Shein, along with millions of sellers on global marketplaces such as Amazon Europe and Mercado Libre, have achieved international expansion thanks to competitive products, globalized supply chains, and an expanding infrastructure, including overseas warehouses. This momentum has boosted China's cross-border e-commerce to 2.63 trillion yuan (approximately US\$363 billion) in 2024, doubling 2019 levels. An estimated 30% of these transactions correspond to Silk Road e-commerce. Companies such as AliExpress, Shein, and Temu accounted for 40% of global cross-border orders in 2023, backed by more than 120,000 Chinese companies and 2,500 overseas warehouses.

However, in terms of digitally deliverable trade (CDS), China still lags behind the major developed economies, ranking sixth in exports (US\$207 billion) and seventh in imports (US\$649 billion) in 2023, far behind the global leader. In response, the government has intensified its commitment to technological innovation, *big data, cloud computing, and blockchain*, while developing a coherent regulatory framework for digital commerce, prioritized since the 20th CPC Congress in 2022.

In November 2024, China completed its digital trade development framework, with the goal of CDS accounting for 45% of the country's total trade in services by 2029 and 50% by 2035. The framework classifies CDS into four main areas:

Category	Examples
Digital products	Games, movies, cultural content
Digital services	Finance, education, health
Digital technologies	Telecommunications, IoT, cloud, AI, blockchain
Cross-border data flows	International data transfers

The first three categories lead the Chinese CDS, while data flows face limitations due to strict regulations on cybersecurity and data localization.

The Asian giant has actively promoted its strategy to shape global digital trade rules, applying in 2021 to join the DEPA and CPTPP, agreements that set high standards for data flows, intellectual property, and market access. Domestically, its accession would drive key reforms, such as the liberalization of cross-border data flows, while geopolitically, it would consolidate its influence in global digital governance. By 2024, China focused its efforts on technological standards such as digital taxation and electronic payments, recognizing digital trade as a key driver of international trade.

China is pushing its digital trade agenda on multiple fronts. While participating in broad forums such as the WTO and G20, it prioritizes high-level agreements such as the CPTPP and DEPA for their greater regulatory impact. At the same time, it is strengthening regional cooperation with ASEAN, Central Asia, and BRICS (key BRI allies), although these efforts face barriers such as infrastructure.

⁴⁷ <https://www.ispionline.it/en/publication/chinas-changing-approach-to-digital-trade-205856>

digital inequality, excessive data localization, and lack of common standards.

Its evolution reflects a strategic transition: from initial success in cross-border e-commerce (led by platforms such as Alibaba) to a comprehensive focus on the CDS, recognizing its key role in the global digital economy. However, while its accession to the CPTPP/DEPA faces geopolitical resistance, collaboration with developing countries remains limited by technical challenges and mistrust in digital security. China thus maintains a dual approach: competing on global standards while consolidating its regional influence, albeit with mixed results.

More recently, during the second half of 2024, the Chinese government reinforced its commitment to the development of digital trade as a key pillar of its economic policy and openness to the outside world^{48,49,50,51}. According to new guidelines from the Communist Party Central Committee and the State Council, the country aims for digitally deliverable services trade to account for more than 45% of total services trade by 2029 and exceed 50% by 2035. By then, it hopes to have a mature, secure, and efficient digital governance system in place.

In this context, the Ministry of Commerce reported that exports and imports of digital services reached 2.72 trillion yuan (\$387.5 billion) in 2023, while cross-border e-commerce exceeded 2.37 trillion yuan, with annual increases of 8.5% and 15.3%, respectively. In the first three quarters of 2024, these figures continued

growing. The government identified four areas of action: strengthening the regulatory framework, supporting innovative companies, facilitating cross-border data flows, and expanding international cooperation in forums such as the WTO, DEPA, and CPTPP.

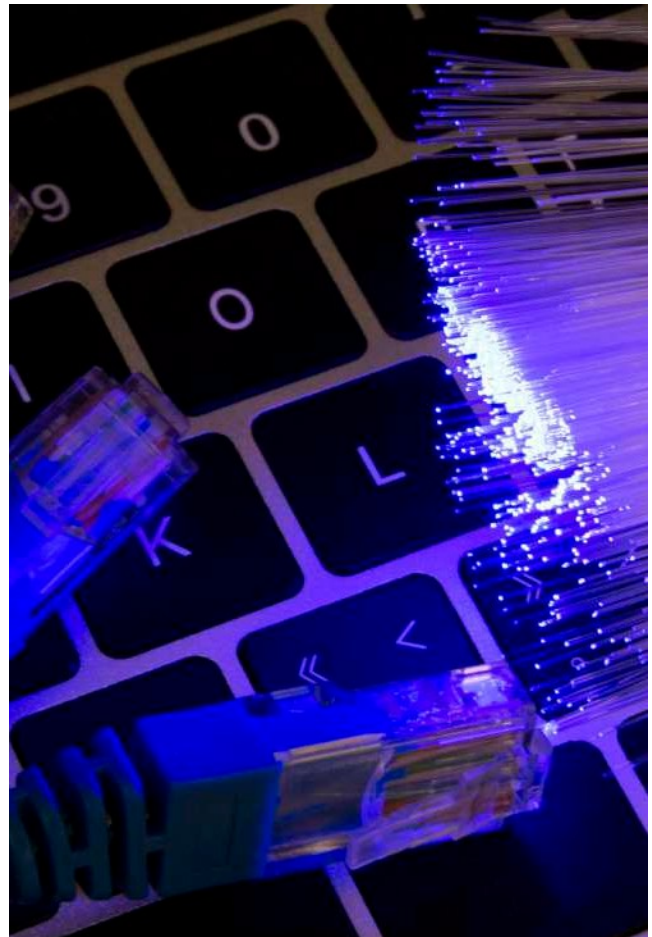
China is also promoting the gradual opening up of sectors such as telecommunications, the internet, and culture, as well as improving digital platforms for payments, data, and services. It also seeks to stimulate foreign investment and advance international standards. Globally, China is consolidating its position as one of the three major players in digital trade, alongside the EU and the US, in a context of accelerated digital transformation of world trade. It hopes to be a relevant player in the development of digital trade standards.

⁴⁸ https://english.www.gov.cn/policies/latestreleases/202411/29/content_WS6748f504c6d0868f4e8ed7fb.html

⁴⁹ https://english.www.gov.cn/news/202409/27/content_WS66f61866c6d0868f4e8eb512.html

⁵⁰ <https://www.globaltimes.cn/page/202411/1323992.shtml>

⁵¹ https://english.mofcom.gov.cn/News/PressConference/art/2024/art_154e2df66a0e424c84307c680986fc47.html



3.3.3

Digital trade measurement criteria in China

China has consolidated a central role in global digital trade, both in terms of volume and sophistication of its cross-border flows. In this context, it is crucial to understand how it defines and measures this type of trade, as the availability of reliable data directly affects effective policy-making, international cooperation, and digital governance. The Chinese experience offers key lessons on how to address the methodological and technical challenges associated with measuring digital trade, especially in economies with growing digital flows and complex institutional structures.

a) Measuring cross-border e-commerce

The rise of cross-border e-commerce (CBE) has encouraged China to develop a robust statistical framework tailored to its specific characteristics. While the General Administration of Customs is responsible for official merchandise trade statistics, CBE poses unique challenges: many B2C or C2C transactions do not pass through traditional customs channels, requiring complementary sources and methods.

Since 2014, China has introduced specific customs codes for CEC: code 9610 (direct cross-border purchases), and subsequently codes 1210 and 1239 (for transactions from free trade zones), as well as codes 9710 and 9810 for B2B transactions and exports from overseas warehouses (2020). These codes allow transactions to be declared online with documentary and technological traceability, facilitating customs control

and statistical compilation⁵³.

However, the customs system does not capture all digital trade. To increase coverage and accuracy, China designed a strategy for inter-agency collaboration between Customs, the Ministry of Commerce, and the National Bureau of Statistics. Since 2021, this alliance has published "Cross-border e-commerce statistics from the perspective of enterprises," integrating administrative records, surveys, and other sources.

Sources, methodology, and coverage

The system is based on:

- **Electronic customs records**, with mandatory CET codes for logistics companies, platforms, and payment gateways.
- **Sectoral surveys** of platforms (own and third-party), logistics service companies, and suppliers, aligned with the United Nations ECIM 2010 framework.
- **Extraction of financial data** from foreign platforms (such as Amazon or eBay), with adjustments to estimate FOB values.

The system incorporates advanced statistical principles: integration of diverse sources, cross-validation, technological innovation in data collection, and autonomy from traditional records. It is complemented by qualitative interviews and specific postal surveys, such as the one conducted in 2019. In addition, the measurement framework complies with the WCO Standards for Electronic Commerce (2018), co-developed by China, which focus on B2C/C2C transactions but are applicable to B2B.

⁵² Handbook on Measuring Digital Trade (International Monetary Fund, United Nations, Organization for Economic Cooperation and Development, and World Trade Organization). See https://www.wto.org/spanish/res_s/publications_s/digital_trade_2023_s.htm

⁵³ Manual on the Measurement of Digital Trade (International Monetary Fund, United Nations, Organization for Economic Cooperation and Development, and World Trade Organization). See https://www.wto.org/spanish/res_s/publications_s/digital_trade_2023_s.htm

Estimation and verification

- **Imports:** CET (VI1) records are added with adjustments for coverage based on surveys.
- **Exports:** data from national platforms (Alibaba, Temu, Shein) are combined with financial data from foreign platforms. Commissions and logistics costs are deducted to estimate FOB value.

The validation system includes periodic interviews, comparison with macroeconomic data, and review for inconsistencies. This approach makes it possible to distinguish the CET within total trade in consumer goods, the dominant sector in this modality.

Recent results

In 2022, China's cross-border e-commerce reached US\$309 billion, with year-on-year growth of 3.8%. Exports (US\$230 billion) far exceeded imports (US\$79 billion), with the main destinations being the United States, the United Kingdom, Malaysia, France, and Germany. Imports came mainly from the US, Japan, and the Republic of Korea. The composition was highly concentrated in consumer goods: 93% in exports (clothing, footwear, electronics) and 98% in imports (cosmetics, sanitary items).

Statistical dissemination

CET statistics are published annually with preliminary quarterly estimates, although the latter are not disaggregated due to source limitations. The breakdown includes: trading partner, type of end use, logistics mode, and type of participating entity. To ensure quality, they are adjusted using additional sources and validation methods.

⁵⁴ – Manual on the Measurement of Digital Trade (International Monetary Fund, United Nations, Organization for Economic Cooperation and Development, and World Trade Organization). See https://www.wto.org/spanish/res_s/publications_s/digital_trade_2023_s.htm

b) Measuring trade supplied by digital means (digitizable services)

In addition to the CET, China has developed an advanced system for measuring trade in digitally delivered services, aligned with WTO Mode 1. The strategy has focused on the outsourcing of services, initially through the "One Thousand, One Hundred, Ten" program (2006) to promote ICT exports in three categories: information technology, business processes, and knowledge processes.

Since 2009, the Online Monitoring System for Outsourcing Services has established itself as the main source of information. Companies must register their external service contracts on a monthly basis. The information is validated by local authorities and reviewed by the Ministry of Commerce, which centralizes and publishes the results.

Categories and methodology

The categories covered are:

- **IT:** software development, maintenance, and 100% digital services.
- **Business business processes:** logistics, customer service, accounting.
- **Knowledge processes:** R&D, design, advanced analysis.

More than 67,000 companies are registered in the system, with surveys conducted on nearly 10,000 companies annually, generating data disaggregated by subcategory, market, and type of service.

Conclusion

Recent results

In 2022, exports of digital services from China totaled US\$136.8 billion, led by IT services (40%). Average annual growth was 12%⁵⁵, with knowledge services standing out, growing 31% year-on-year in 2021. This category represents about 80% of the total value, reflecting strong expansion in high value-added activities. In terms of the balance of payments, this type of service represents between 65% and 80% of exports in the telecommunications and IT category.

The Chinese case shows the power of a state-led digital strategy to scale platforms, electronic payments, and logistics infrastructure with systemic impact on e-commerce and digitizable services. Digitization is conceived as an industrial and economic security policy, with platforms operating as "soft infrastructure" in the service of development and international projection objectives (DSR, standards, data centers, 5G). This model has enabled gains in scale, data density, and a close coupling between the real economy and digital services.

However, the trajectory also reveals structural tensions: market concentration and risks to competition, job insecurity in last-mile and platform segments, friction over data protection and location, high regulatory compliance costs for small firms, and a geopolitical environment that introduces regulatory and market access risk. Added to this is the fragmentation of standards (e.g., IoT), which can translate into interoperability costs and technological dependence. In short, the model is effective in "pushing" the frontier of digital adoption, but it is not neutral in its distributional effects or governance.

⁵⁵ Manual on Measuring Digital Trade (International Monetary Fund, United Nations, Organization for Economic Cooperation and Development, and World Trade Organization). See https://www.wto.org/spanish/res_s/publications_s/digital_trade_2023_s.htm

Some Lessons for Chile

China's experience provides useful guidance for Chile. In terms of governance, it is essential to coordinate the state with its agencies and the private sector, while safeguarding checks and balances: regulatory independence, impact assessment, and pro-competition rules that prevent excessive concentration and dependence on large platforms. In data management, it is advisable to promote cross-border flows with protection and cybersecurity safeguards, avoiding localization requirements that make services more expensive, except in critical infrastructure areas.

On the operational front, a "2.0" one-stop shop—interoperable with international standards and with clear data governance—can reduce costs and time, improve traceability, and facilitate payments, financing, and electronic certifications. To drive innovation, testing environments are valuable if they incorporate criteria for responsible scaling, exit evaluation, and termination clauses, so that pilots do not become permanent exceptions. This effort must be accompanied by training in digital skills (data, AI, cybersecurity) and minimum labor standards in the platform economy, promoting decent work.

At the international level, it is advisable to actively participate in the development and convergence of standards (multilateral forums and related agreements), avoiding dependence on closed standards and strengthening national technical capacities to influence these discussions. To better measure the digital phenomenon, it is useful to integrate sources (customs, taxation, payments, platforms, and logistics) to capture transactions that traditional records do not observe and thus design evidence-based policies.

In short, China's experience is valuable for its capacity for execution and for the warnings it leaves behind: digital policy can accelerate growth and export sophistication, but if competition, rights, and security are not balanced, there is a risk of technological blockages and social tensions.

For Chile, the reasonable path combines interoperable infrastructure, reliable data, pro-competition rules, decent work, and robust measurement, all anchored in open agreements and standards that reduce friction and maintain room for maneuver in an increasingly fragmented international environment.

3.4 AUSTRALIA

Australia has positioned itself as one of the leading countries in promoting open, secure, and inclusive digital trade⁵⁶. Its policy combines a firm commitment to rules-based multilateralism with a pragmatic vision that articulates trade liberalization with digital development objectives, data protection, SME inclusion, and sustainability.

The country has incorporated e-commerce chapters into 15 of its 18 preferential trade agreements⁵⁷, addressing common standards such as facilitating cross-border data flows, not requiring server localization, mutual recognition of digital signatures, consumer protection, and regulatory cooperation. This regulatory architecture has allowed it to project a consistent vision of digital trade with partners such as ASEAN, Japan, the United States, the United Kingdom, Chile, and other members of the CPTPP and RCEP.

This network of agreements not only facilitates digital trade, but also strengthens Australia's international position as a formulator of advanced standards in the digital economy.

This regulatory influence is also reflected in Australia's active role in defining global standards in multilateral forums.

This strategic vision translates into a coherent set of national policies, led by key agencies such as Austrade and the Department of Foreign Trade, articulated in frameworks such as the Digital Trade Strategy, the Digital Economy Strategy, and the Cybersecurity Strategy, which form the institutional basis of Australia's digital leadership.

Australia's digital ambition is underpinned by a coherent strategic architecture, supported by

⁵⁶ <https://www.dfat.gov.au/trade/services-and-digital-trade/e-commerce-and-digital-trade>

⁵⁷ <https://www.dfat.gov.au/trade/services-and-digital-trade/e-commerce-and-digital-trade>

3.4.1

National strategies and institutional frameworks for digital trade

well-coordinated public policies, investment in enabling infrastructure, and a solid institutional framework. Three key instruments—the *Digital Trade Strategy*, the *Digital Economy Strategy*, and the *Cybersecurity Strategy*—articulate the framework that guides public action in digital trade.

- **Digital Trade Strategy (2022)**⁵⁸ establishes the specific framework for maximizing the economic benefits of digital trade. Its three main pillars are:
 1. Boosting economic growth through digital trade
 2. Develop international standards that promote an environment of trust and eliminate unjustified barriers
 3. Foster an open, competitive, and resilient trading environment through regulatory cooperation
- **The Digital Economy Strategy (2021)** sets the goal of positioning Australia among the world's top ten digital economies and societies by 2030. It states that "all businesses must be digital" and sets priorities such as:
 1. Full digitization of public and private transactions.
 2. Universal access to secure and efficient online government services.
 3. Strategic investment in 5G, artificial intelligence, cloud services, data, and cybersecurity
- **Cybersecurity Strategy 2023–2030**, meanwhile, ensures that digital trade openness is underpinned by trust, technological resilience, and effective protection of personal data, critical infrastructure, and national systems against external threats.

⁵⁸ <https://www.dfat.gov.au/trade/services-and-digital-trade/e-commerce-and-digital-trade/digital-trade-strategy>

3.4.2

Digital Trade Strategy

These strategies are implemented through an institutional ecosystem that combines public leadership and partnerships with the private sector. Key institutions include:

- **Austrade**, the trade and investment agency, leads initiatives aimed at digital SME exporters, including the **Free Trade Advantage** platform, which provides practical tools for taking advantage of trade agreements, and the **Simplified Trade System Taskforce**, which modernizes customs processes through interoperable digital solutions.
- **Landing Pads**, promoted by Austrade, offer *soft landing* platforms for Australian digital startups in strategic technology *hubs* (San Francisco, Singapore, London, among others), facilitating their internationalization and connection to global innovation networks.
- The **THRIVE 2030** strategy, focused on tourism as an exportable service, integrates digital tools to connect MSMEs with international consumers, strengthening their commercial integration through digital platforms and e-commerce solutions.

Together, this institutional and regulatory framework positions Australia not only as an effective implementer of digital public policies, but also as a global benchmark in the formulation of standards for open, secure, and inclusive digital commerce

As mentioned above, Australia seeks to position itself as one of the world's top 10 digital economies and societies by 2030. Digital trade is understood as trade enabled by digital technologies, including the digital delivery of goods and services, as well as transactions facilitated by digital platforms. The Digital Trade Strategy establishes a framework to maximize economic growth by creating an environment conducive to digital trade, promoting international rules that facilitate this type of trade and counteract digital protectionism

The objectives of this Strategy can be grouped into three areas:

1. **Boosting economic growth:** Leveraging digital trade as a key driver of economic recovery and continued prosperity for Australia and its region.
2. **Develop digital trade rules:** Actively participate in the formulation of international standards that facilitate digital trade and protect against unjustified barriers.
3. **Promote an open and competitive trading environment:** Encourage the liberalization of digital trade and regulatory cooperation with international partners.

The Australian Digital Trade Strategy falls under the umbrella of the Digital Economy Strategy⁶⁶ that the country announced in May 2021 "to ensure Australia has the right policies, infrastructure, and capabilities to drive digital transformation"⁶⁷. Among

⁵⁹ <https://www.dfat.gov.au/sites/default/files/digital-trade-strategy.pdf>

⁶⁰ <https://www.austrade.gov.au/en/how-we-can-help-you/programs-and-services/simplified-trade-system>

⁶¹ <https://www.austrade.gov.au/en/how-we-can-help-you/programs-and-services/landing-pads>

⁶² <https://www.dfat.gov.au/sites/default/files/digital-trade-strategy.pdf>

⁶³ <https://www.austrade.gov.au/en/how-we-can-help-you/programs-and-services/thrive-2030-strategy>

⁶⁴ <https://www.dfat.gov.au/sites/default/files/digital-trade-strategy.pdf>

⁶⁵ <https://www.dfat.gov.au/trade/services-and-digital-trade/e-commerce-and-digital-trade/digital-trade-strategy>

⁶⁶ <https://www.pmc.gov.au/news/digital-economy-strategy-2022-update-released>

⁶⁷ <https://www.dfat.gov.au/trade/services-and-digital-trade/e-commerce-and-digital-trade/digital-trade-strategy>

3.4.3

Digital trade in sustainable agriculture

Among other priorities, the Digital Economy Strategy states that all businesses should be digital businesses, transactions should be electronic, integrated, and secure, and government services should be easily and securely accessible online.

To ensure that digital trade rules also meet legitimate public policy objectives, such as privacy and consumer and data protection, the Strategy is also guided by the Australian Cybersecurity Strategy 2023-2030⁶⁸.

Australia's digital trade commitments cover four main areas⁶⁹:

- **Trade facilitation:** acceptance of digital documents, electronic invoicing, electronic signatures, and exemption from duties on electronic transmissions
- **Trust:** protection of personal data, consumer rights, and spam control
- **Cross-border data flows:** promotion of free movement and opposition to forced localization, while safeguarding national security
- **Cooperation:** on issues such as cybersecurity, emerging technologies, and technical assistance for capacity building

Australia also exercises leadership in multilateral forums such as the WTO, UN, OECD, APEC, and G20, where it promotes ambitious standards for digital trade liberalization and the fight against digital protectionism.

Ultimately, this Strategy aims to enable digital trade to significantly reduce trade barriers, improve efficiency, and facilitate market access, thereby creating new business opportunities.

⁶⁸<https://www.homeaffairs.gov.au/cyber-security-subsite/files/2023-cyber-security-strategy.pdf>

⁶⁹<https://www.dfat.gov.au/trade/services-and-digital-trade/e-commerce-and-digital-trade/digital-trade-strategy>

Australia also integrates digital trade into its vision for sustainable agricultural development. According to the Australian government: "Digital technologies will be the foundation of the next great wave of agricultural productivity"⁷⁰.

Through and through of public and strategic programs, Australia aims to:

- Increase the productivity of the
- Reduce emissions and environmental footprint
- Strengthen resilience to climate change

The overall framework for this vision is contained in Delivering Ag2030, a roadmap for the agricultural sector to generate A\$100 billion (approximately US\$66 billion) in value by 2030, while strengthening rural and regional communities⁷¹.

This approach is supported by the National Agricultural Innovation Policy Statement, which aligns research and development with the practical needs of the sector, promoting technology adoption and inter-institutional collaboration.

Australia has also identified strategic sectors within agriculture and *agrifood* technology, including the development of alternative proteins. According to estimates by CSIRO (Australia's national science agency), this segment represents an opportunity worth A\$13 billion (approximately US\$8.6 billion) for Australian agriculture⁷².

⁷⁰<https://www.agriculture.gov.au/sites/default/files/documents/delivering-ag2030-april-2022.pdf>

⁷¹<https://www.agriculture.gov.au/sites/default/files/documents/delivering-ag2030.pdf>

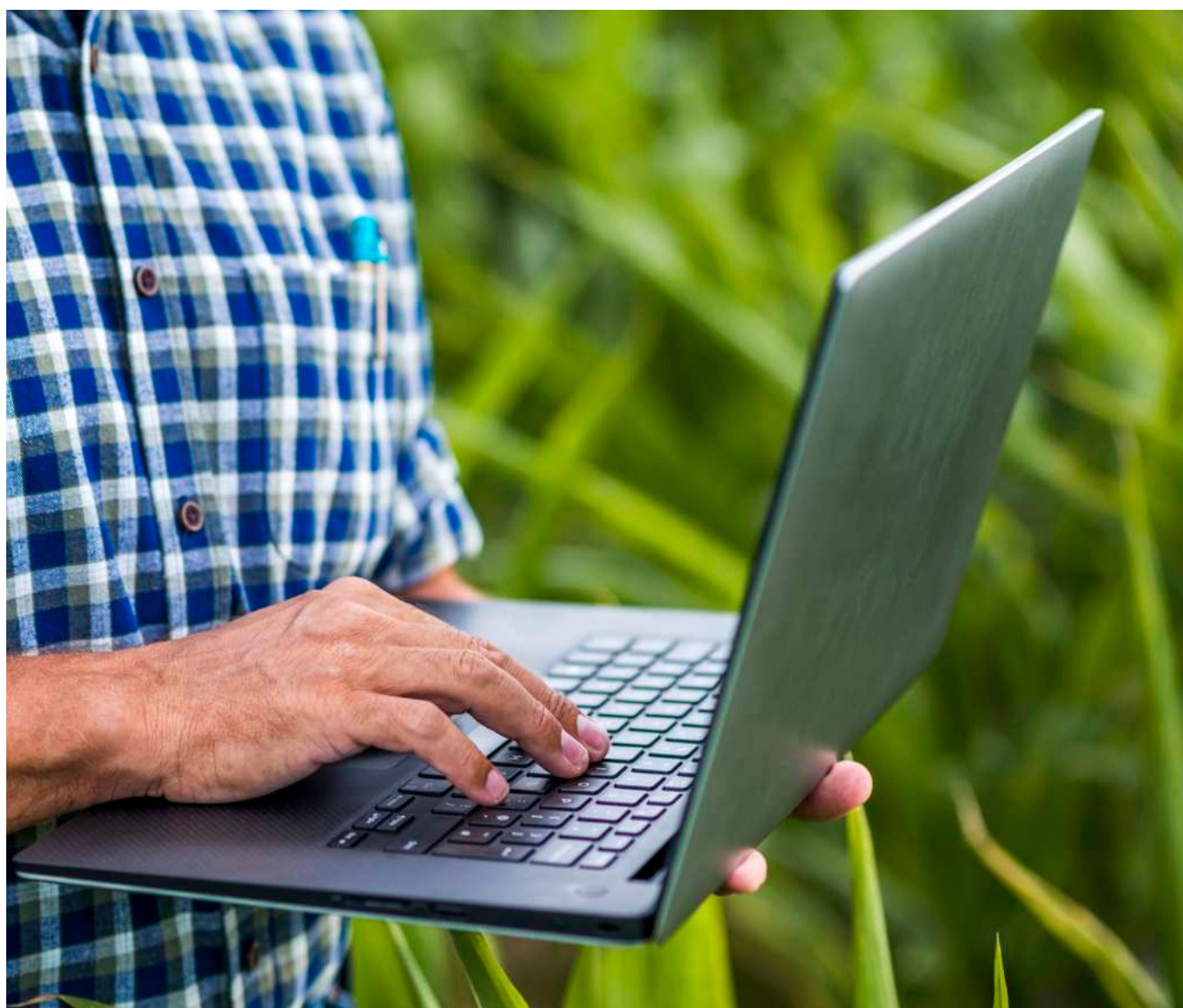
⁷²<https://www.agriculture.gov.au/sites/default/files/documents/dawe-innovation-policy-statement.pdf>

⁷³<https://international.austrade.gov.au/en/do-business-with-australia/sectors/technology/agrifood-tech#accordion-5450c9b38e-item-86914df3f5>

Conclusion

Examples of this vision include attracting investment in states such as Victoria and South Australia, where *hubs* for agricultural innovation are being developed.

The Australian model combines trade openness, modern regulation, and public policies geared toward inclusion and digital resilience. Experience shows the importance of aligning digital trade strategy with economic policy and innovation policy, under strong inter-institutional coordination and with private sector participation.



⁷⁴<https://www.invest.vic.gov.au/opportunities/agtech>

⁷⁵<https://pir.sa.gov.au/research/agtech>

Some Lessons for Chile

For Chile, this trajectory offers valuable lessons: strengthening a national digital strategy with a commercial focus that links trade, innovation, and cybersecurity; consolidating a single interoperable window for exporters; promoting digital training and the internationalization of SMEs; and moving toward more active participation in the formulation of international digital standards and norms.

The Australian experience also shows that trust and cybersecurity are necessary conditions for digital openness, and that technological transformation must be accompanied by policies that ensure inclusion, transparency, and sustainability. The strength of the Australian approach lies in this balance between openness, trust, and institutional coordination, as well as in a possible roadmap for Chile's integration into the global digital economy.

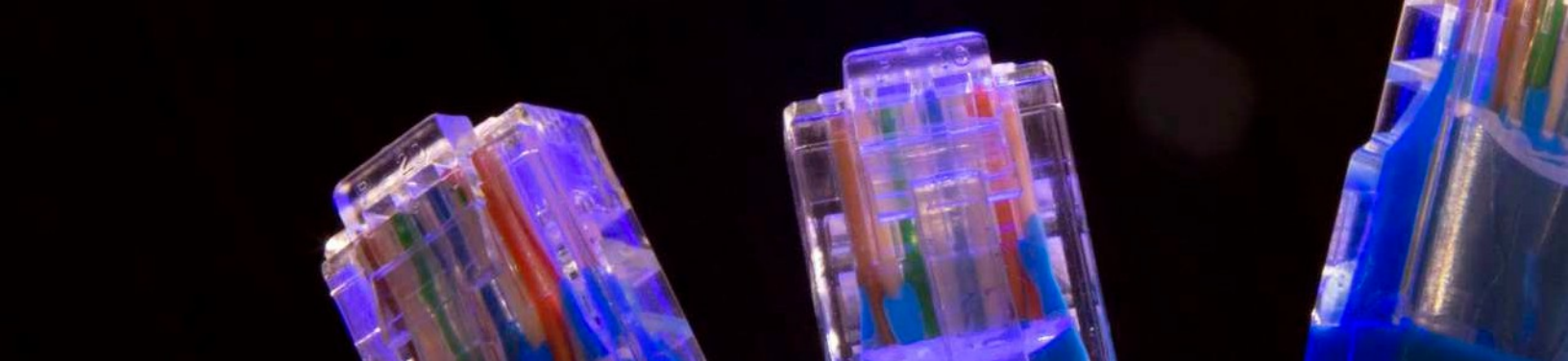
4

CHILEAN STRATEGY IN DIGITAL COMMERCE



CHILEAN FOUNDATION

PACIFIC



4.1

Strategic Vision

Chile's digital trade strategy aims to integrate technology into trade policy as a tool for competitiveness, inclusion, and sustainable development. Its approach combines three complementary pillars: productive inclusion, regulatory interoperability, and international positioning within the global digital economy.

Domestically, Chile has implemented policies aimed at accelerating digital transformation in businesses, with a special emphasis on micro, small, and medium-sized enterprises (MSMEs) and women-led ventures. Training programs, technical support, and integration into electronic platforms seek to reduce technological access gaps and facilitate participation in digital value chains. At the same time, the country has updated its regulatory framework to bring it into line with international standards, strengthening personal data protection, digital security, and consumer rights in electronic environments.

Externally, Chile has pursued a proactive regulatory integration strategy, incorporating advanced digital disciplines into its trade agreements. Its participation in instruments such as the Digital Economy Partnership Agreement (DEPA) and the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) reflects a policy aimed at promoting common rules that facilitate cross-border data flows, non-discrimination of digital products, and cooperation in technological innovation. This approach has consolidated Chile's role as a relevant actor in international debates

on digital governance, artificial intelligence, and technological standardization.

Digital infrastructure is a strategic component of this vision. Initiatives such as the Humboldt Cable and the expansion of fiber optic networks to border corridors strengthen physical connectivity, diversify international data routes, and reduce latency in communications with Asia-Pacific. These investments complement trade policy by expanding the country's capacity to offer cross-border digital services and attract technological investment.

At the regional level, Chile promotes regulatory convergence and digital cooperation in Latin America, contributing to the formation of a more integrated and resilient regional digital market. This cooperation seeks to align standards and best practices, facilitating regulatory interoperability and joint participation in global digital chains.

Overall, Chile's digital trade strategy is conceived as an instrument for productive modernization and international projection, aimed at generating digital capabilities, attracting investment in infrastructure, and expanding the export base through digital channels.

4.2

Chile's Digital Trade

Chile is positioned as a regional leader in digital trade, thanks to its robust connectivity infrastructure, the high level of digitization of its population, and sustained advances in digital inclusion⁷⁶. In the Latin American context, it tops the rankings for e-commerce development⁷⁷ and exhibits indicators comparable to the averages of OECD economies.

If we focus on *e-commerce*, an essential component of digital commerce, in 2024 sales reached US\$11.5 billion, representing 3.7% of GDP and 15% of total retail sales. This 8% growth compared to 2023 reflects sustained expansion, with projections estimating a volume of more than US\$20 billion by 2029.

According to figures from the Central Bank of Chile, online sales as a percentage of total sales would have been 12.3% in 2024. This penetration rate is expected to peak in 2021 (15%) following the increase seen in 2020 (13.6%) compared to the previous year (6.2%). These results would place Chile among the leaders in e-commerce in Latin America.

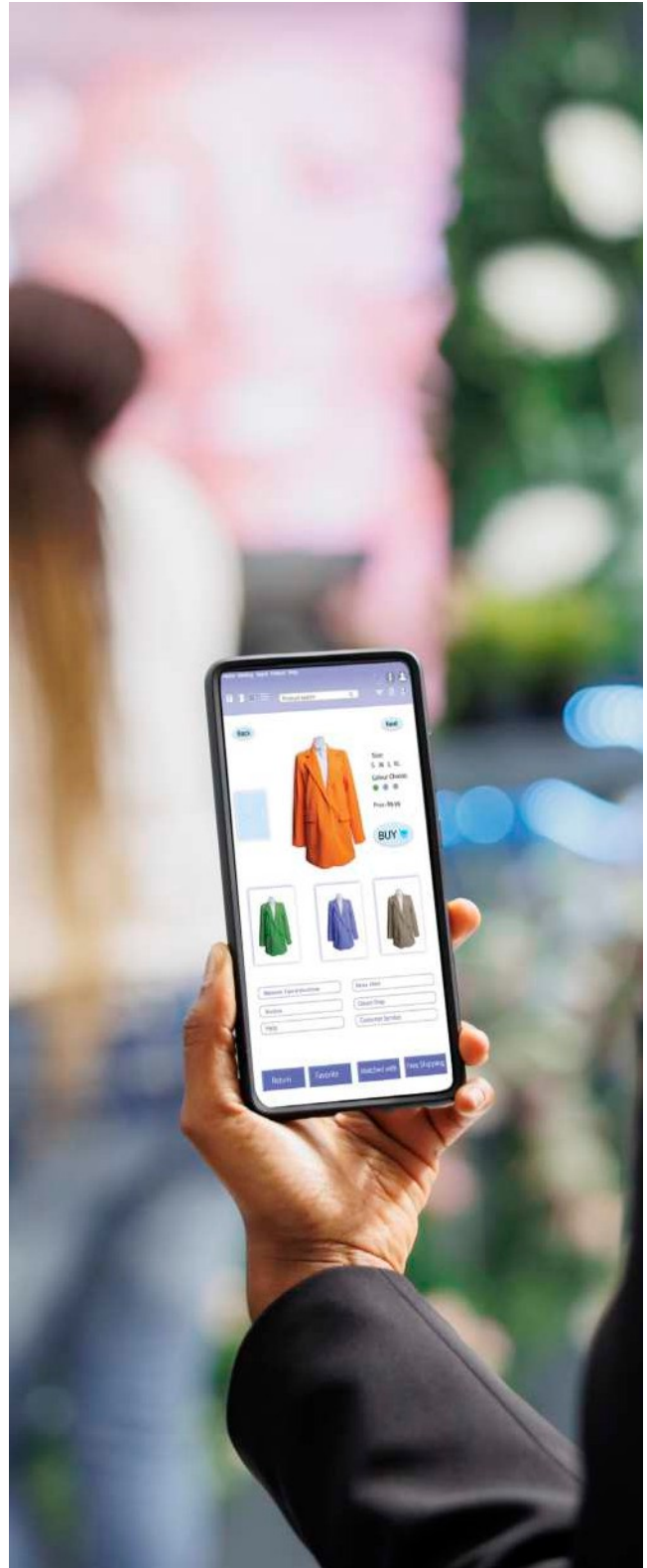
One of the key factors in Chile's digital ecosystem is the high level of technology adoption among consumers: around 87% of the population say they use the Internet, a figure that exceeds the Latin American average and is close to the levels seen in

⁷⁶ <https://www.icex.es/content/dam/icex/centros/chile/documentos/2024/informe-e-pais-comercio-electronico-resumen-chile-2024.pdf>

⁷⁷ <https://www.infraestructurapublica.cl/wp-content/uploads/2021/07/transformaciondigitalpdfinteractivo.pdf>

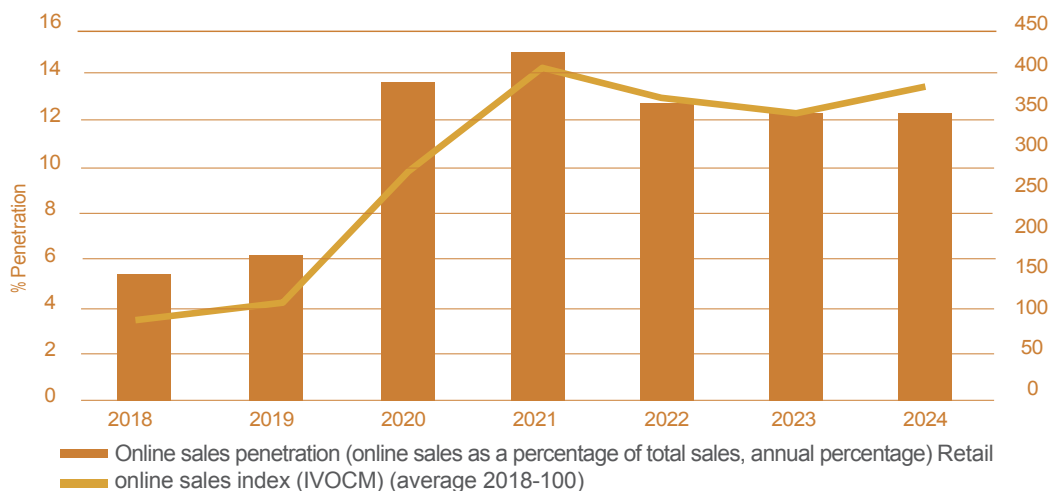
⁷⁸ <https://www.ecommerceccs.cl/wp-content/uploads/2024/10/glever-SUMMIT24.pdf>

⁷⁹ <https://www.ccs.cl/2024/10/15/ccs-proyecta-que-las-ventas-en-comercio-electronico-superen-los-us-11-500-millones-al-cierre-de-este-ano/>



Graph 3:

Online sales penetration and online retail sales index (IVOCM) (average 2018=100), 2018-2024 (%)



Source: Research Department, SUBREI, with figures from the Central Bank of Chile.

OECD⁸⁰. This penetration is complemented by high levels of banking penetration, increasingly sophisticated logistics, and widespread use of smart mobile devices⁸¹, all of which are enablers of digital commerce.

According to the Santiago Chamber of Commerce (CCS)⁸², in April 2025, 64% of consumers had made online purchases during the previous month. Women lead this participation, with 56%, while men represent 44%. In terms of sectors, clothing (52%), footwear (36%), food (26%), and technology (25%) stand out as the categories with the highest purchase frequency. The age profile shows a strong concentration between 26 and 55 years old, a segment that represents

more than 60% of digital shoppers. Likewise, there has been significant growth in socioeconomic groups C3 and D⁸³, reflecting an expansion of the digital consumer base. In terms of shopping channels, consumers prefer large *retail* stores (66%), supermarkets (41%), *marketplaces* (38%), specialty stores (36%), and international platforms (32%).

On the business side, the digitization of production processes in Chile is above the Latin American average, although still below the OECD standard⁸⁴. Ninety-one percent of SMEs have an Internet connection⁸⁵ and the use of e-commerce has shown sustained growth: from 33% of companies using it

⁸⁰<https://repositorio.cepal.org/server/api/core/bitstreams/88c35833-80d0-409f-b156-46ec3491a941/content>

⁸¹<https://repositorio.cepal.org/server/api/core/bitstreams/88c35833-80d0-409f-b156-46ec3491a941/content>

⁸²https://www.ecommerceccs.cl/wp-content/uploads/2025/05/glever-ECD2025_compressed.pdf

⁸³<https://www.ecommerceccs.cl/wp-content/uploads/2024/04/glever-ECD24-.pdf>

⁸⁴<https://repositorio.cepal.org/server/api/core/bitstreams/88c35833-80d0-409f-b156-46ec3491a941/content>

⁸⁵ <https://repositorio.cepal.org/server/api/core/bitstreams/88c35833-80d0-409f-b156-46ec3491a941/content>

4.3

Incorporation of digital trade into trade agreements

In 2019, it rose to 55% in 2023. This adoption is higher in large companies (64%), but also significant in SMEs (50%) and micro-enterprises⁸⁶.

At the sectoral level, e-commerce use reaches 79% in commercial enterprises, 52% in services, and 47% in industry. Sectors such as tourism (62%) and the creative economy (54%) show increasing digitization. Among commercial enterprises, large retailers lead with 89%, compared to 70% for small businesses. In services, public and business services reach 54%, while in industry, manufacturing stands out (50%) compared to the agri-food sector (29%)⁸⁷.

The use of artificial intelligence also shows significant progress. In 2023, 29% of companies in Chile used AI tools, almost tripling the 11% recorded in 2019. Although still below the global average (35%), this figure is equal to the regional average. The use of AI was higher in large companies (34%), but also showed growing penetration among SMEs (29%) and micro-enterprises (24%)⁸⁸.

At the cross-border level, international e-commerce accounted for 11% of total B2C trade in 2022. Imports via international parcel delivery grew from 500 tons in 2010 to more than 3,000 tons in 2023. Among the international platforms most used by Chilean consumers in 2025 are AliExpress (33%), Shein (26%), Amazon (17%), and Temu (15%), which shows consumers' openness to global offerings.

⁸⁶<https://www.ecommerceccs.cl/wp-content/uploads/2024/04/glever-ECD24-.pdf>

⁸⁷<https://www.ecommerceccs.cl/wp-content/uploads/2024/04/glever-ECD24-.pdf>

⁸⁸<https://www.ecommerceccs.cl/wp-content/uploads/2024/04/glever-ECD24-.pdf>

⁸⁹ <https://www.icex.es/content/dam/icex/centros/chile/documentos/2024/informe-e-pais-comercio-electronico-resumen-chile-2024.pdf>

⁹⁰https://www.ecommerceccs.cl/wp-content/uploads/2025/05/glever-ECD2025_compressed.pdf

Given the growing expansion of digital trade and the need to ensure its cross-border flow in a fair, secure, and competitive environment, Chile has promoted the inclusion of consistent and coordinated rules in its trade agreements. This line of action seeks to ensure the free cross-border flow of data, establish clear and predictable rules for businesses, and protect the rights of consumers and users in digital environments, all within a framework that promotes innovation, regulatory interoperability, and inclusive development⁹¹.

Chile has taken a leading role in integrating digital trade into its trade instruments, promoting the creation of standards and best practices that reflect the needs and interests of developing economies. The Digital Economy Partnership Agreement (DEPA) is an example of this innovative and cooperative regulatory approach.

Essentially, Chile's strategy has been to include disciplines on free flow of data and non-forced localization of IT facilities in most of its trade agreements, which, since 2004, have included a chapter on electronic commerce:

- **Free Flow of Data:** Its objective is to avoid barriers to the international transit of non-personal data, so that Chilean exporters can sell and provide services online without blockages in the destination country. This is key for SMEs that use social media to sell.
- **No forced localization of IT facilities:** Prevents a country from forcing digital products or services to be stored on local servers, avoiding extra costs for exporters (especially SMEs).
- **No discrimination against digital products:** Ensures that digital products (software, video games, etc.) receive the same treatment as foreign goods and services.

⁹¹<https://www.subrei.gob.cl/landings/depa>

(National Treatment and MFN), avoiding barriers due to cultural quotas or different classifications. It seeks to protect Chilean SMEs from restrictions that consider these products as culturally regulatable services.



Table 3:
List of Agreements with Disciplines

Agreement	Moratorium on the application of tariffs to electronic transmissions	Free flow of data	Prohibition on forced localization of servers	Non-discriminatory treatment of digital products	Protection of personal information
1998 – World Trade Organization	X				
2004 – United States	X			X	
2009 – Australia	X				X
2009 - Colombia	X			X	
2016 – Pacific Alliance	X	X	X	X	X
2018 - Uruguay	X	X	X		X
2019 - Argentina		X	X		X
2021 - DEPA	X	X	X	X	X
2022 - Brazil	X	X	X		X
2022 - Ecuador	X	X	X	X	X
2023 - CPTPP	X	X	X	X	X
2024 - Paraguay	X	X	X	X	X

Source: Department of Investment, Services, and Digital Economy, SUBREI.

4.3.1

Trade Agreements in Force

Table 4:
List of current digital economy agreements and e-commerce chapters

Agreement	Chapter	Year Effective
United States Free Trade Agreement	Chapter 15 Electronic Commerce	2004
Australia Free Trade Agreement	Chapter 16 Electronic Commerce	2004
Colombia Free Trade Agreement	Chapter 12 Electronic Commerce	2009
Pacific Alliance Trade Protocol	Chapter 13 Electronic Commerce	2016
Uruguay Free Trade Agreement	Chapter 8 Electronic Commerce	2018
Argentina Free Trade Agreement	Chapter 11 Electronic Commerce	2019
China FTA Amendment Protocol*	Chapter 4 Electronic Commerce	2019
Digital Economy Partnership Agreement (DEPA)	Chapter 10 Electronic Commerce	2021
Brazil Free Trade Agreement	Chapter 10 Electronic Commerce	2022
Ecuador Trade Integration Agreement	Chapter 14 Electronic Commerce	2022
CPTPP	Chapter 14 Electronic Commerce	2023
Paraguay Trade Agreement	Chapter 7 Electronic Commerce	2024
Pacific Alliance-Singapore Free Trade Agreement (PASFTA)	Chapter 13 Electronic Commerce	2025
Brazil Trade Agreement	Chapter 8 Electronic Commerce	2025

Source: Department of Investment, Services, and Digital Economy, SUBREI.

(*) Chapter does not contain the basic disciplines of a traditional e-commerce chapter, focus on cooperation.

a) Digital Economy Partnership Agreement (DEPA)⁹²

The DEPA, initially signed in June 2020 by Chile, New Zealand, and Singapore, represents the first international agreement focused exclusively on the digital economy. In May 2024, the Republic of Korea became the first country to join the agreement, consolidating its projection toward the Asia-Pacific region.

The main objective of the DEPA is to facilitate the development of open, inclusive, and sustainable digital ecosystems, especially for small and developing economies. The agreement establishes a set of principles and disciplines aimed at facilitating the export of digital products and services, promoting technical and regulatory interoperability, and strengthening trust in digital environments. Its pillars include:

- Free cross-border flow of data.
- Non-discriminatory treatment of digital products.
- Prohibition of forced localization requirements for digital infrastructure.

The DEPA also addresses global challenges such as Internet fragmentation, privacy protection, and the modernization of border procedures. Its regulatory approach seeks to preserve the sovereignty of States to pursue legitimate public policy objectives without hindering innovation or data transfers necessary for digital trade.

With the entry into force of its Implementation Protocol in March 2024, four key disciplines became binding⁹³:

1. Cross-border transfer of electronic information.
2. Prohibition of forced localization of computer facilities.
3. Non-discriminatory treatment of digital products.
4. Treatment of ICT products that use cryptography.

Countries such as China, Canada, Peru, and Costa Rica have formally expressed their interest in joining the DEPA, reinforcing its potential as an emerging digital governance platform and replicable model for future agreements.

b) Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP)

The CPTPP is a plurilateral economic integration agreement in the Asia-Pacific region that includes modern provisions on digital trade^{94,95}.

Chapter 14 of the CPTPP on Electronic Commerce establishes⁹⁶:

- Prohibition of tariffs on electronic transmissions.
- Non-discriminatory treatment of foreign digital products.
- Prohibition on requiring server localization.
- Protection of personal data and consumer rights.

This opens up significant export potential for Chilean cultural and digital products (music, software, e-books, etc.), ensuring that they will not be discriminated against or taxed based on their origin.

⁹²https://www.subrei.gob.cl/docs/default-source/covid-19/brochure-depa.pdf?sfvrsn=9a28e7f6_2

⁹³<https://www.subrei.gob.cl/acuerdos-comerciales/acuerdos-comerciales-vigentes/depa>

⁹⁴<https://www.subrei.gob.cl/acuerdos-comerciales/acuerdos-comerciales-vigentes/cptpp/>

⁹⁵https://www.subrei.gob.cl/docs/default-source/acuerdos/cptpp/res%C3%BAmenes-cap%C3%ADtulos/resumen-capitulo-14-comercio-electronico-final-format.pdf?sfvrsn=b3f586b9_1

⁹⁶https://www.subrei.gob.cl/docs/default-source/national-contact-point/tppquestions2019.pdf?sfvrsn=31eed16e_1

c) Pacific Alliance

Since its inception, the Pacific Alliance has promoted deep trade integration between Chile, Colombia, Mexico, and Peru. In terms of the digital economy, the e-commerce chapter of the Trade Protocol of this regional integration mechanism was strengthened by the 2020 amending protocols, incorporating advances in areas such as:

- Regulatory improvement.
- Consumer protection.
- Digital services and telecommunications.

The Agreement aims to consolidate an integrated regional digital economy, facilitating trade and reducing technical barriers⁹⁷.

In addition, the Pacific Alliance Agreement with Singapore, the second largest economy in the Association of Southeast Asian Nations (ASEAN), consists of 25 chapters, including Chapter 13 on Electronic Commerce, which guarantees non-discriminatory access to telecommunications services and serves as a regulatory framework for digital trade and personal data protection⁹⁸.

In 2020, during the Presidential Summit in Santiago, the presidents of the Pacific Alliance agreed to promote the creation of a Regional Digital Market as part of a strategy to promote digital transformation in the region. The pillars of this strategy are:

1. Improving access to digital services and products through a more robust digital infrastructure in the Pacific Alliance.
2. The creation of an environment conducive to promoting the exchange of goods, products, and services through digital means in the Pacific Alliance.
3. The promotion of the digital economy in the Pacific Alliance to generate new sources of growth and productivity.



⁹⁷<https://www.subrei.gob.cl/acuerdos-comerciales/acuerdos-comerciales-vigentes/alianza-del-pacifico>

⁹⁸<https://www.subrei.gob.cl/sala-de-prensa/noticias/detalle-noticias/2025/05/02/en-chile--entra-en-vigor-tratado-free-trade-between-the-pacific-alliance-and-singapore>

4.3.2

Trade agreements signed

Table 5:

List of digital trade chapters signed

Agreement		Year of signing
Advanced Framework Agreement European Union	Chapter 26 Digital Trade	2023
Comprehensive Economic Partnership Agreement United Arab Emirates	Chapter 9 Digital Trade	2024
Modernization EFTA Agreement	Chapter on Digital Trade	2024

Source: Department of Investment, Services, and Digital Economy, SUBREI.

a) Advanced Framework Agreement between Chile and the European Union

The modernization of the Association Agreement with the European Union will enable us to address contemporary challenges in international trade. It therefore includes a chapter dedicated to digital trade that incorporates traditional disciplines of digital trade, such as⁹⁹ :

- Recognition of electronic signatures.
- Prohibition of tariffs on electronic transmissions.
- Legal validity of electronic contracts.
- Consumer protection and restrictions on spam.
- Prohibition on requiring access to source code in order to operate.

b) Chile-United Arab Emirates Agreement

Signed on July 29, 2024, it is Chile's first trade agreement between Chile and a Middle Eastern country

East ¹⁰⁰¹⁰¹. The EPA with the United Arab Emirates incorporates key provisions on digital trade, such as:

- Elimination of barriers to e-commerce.
- Data protection.
- Cooperation in digital areas.
- Inclusion of women and SMEs in the digital economy.

c) Modernization of the Chile-EFTA (European Free Trade Association) Agreement

The modernization of the Agreement, in force since 2004, includes new areas adapted to global economic realities and more inclusive trade, such as sustainable development, SMEs, gender, and a chapter dedicated to digital trade, which establishes rules to facilitate and protect co-

⁹⁹ <https://www.subrei.gob.cl/acuerdos-comerciales/modernization-eu-chile>

¹⁰⁰<https://www.subrei.gob.cl/sala-de-prensa/noticias/detalle-noticias/2025/05/06/autoridades-de-canciller%C3%ADa-destacan-aprobaci%C3%B3n-de-acuerdo-de-asociaci%C3%B3n-econ%C3%B3mica-integral-con-emiratos-%C3%A1rabes-unidos-en-comisi%C3%B3n-de-rr.ee.-of-the-chamber-of-deputies>

¹⁰¹<https://www.subrei.gob.cl/sala-de-prensa/noticias/detalle-noticias/2025/05/06/autoridades-de-canciller%C3%ADa-highlight-approval-of-comprehensive-economic-association-agreement-with-united-arab-emirates-united-in-foreign-affairs-committee-of-the-chamber-of-deputies>

4.4

Strengthening regional digital infrastructure regional

e-commerce¹⁰². In addition to the free flow of data, the chapter establishes the non-mandatory localization of servers and non-discrimination of digital products, including:

- Protection of personal data.
- Cooperation to combat fraudulent practices and strengthen cybersecurity.
- Promotion of the use of electronic documents and digital signatures for trade.
- Promotion of international standards and cooperation on interoperability.
- Cooperation and exchange of information and best practices on digital trade, including its relationship with SMEs, artificial intelligence, and emerging technologies.



The development of a modern, resilient, and cross-border digital infrastructure is an essential component for consolidating Chile's integration into the global digital economy. In this regard, the country has adopted an active strategy to position itself as a regional digital *hub*, within the framework of a public-private policy that coordinates investments in international connectivity, territorial deployment of fiber optic networks, and attracting global technology players.

One example of infrastructure strengthening is the state-owned company Desarrollo País S.A., which has been vital in promoting long-term digital infrastructure projects (Humboldt cable, Antarctic connection project, and Pehuenche border crossing) conceived not only as drivers of national connectivity, but also as platforms for This strategy has sought to mobilize public-private investments with a public good logic, as they generate significant positive externalities, including¹⁰⁵:

- Improvements in productivity and efficiency in data-intensive sectors.
- Increased resilience of digital supply chains.
- Expansion of opportunities for cross-border digital services.
- Attraction of foreign direct investment (FDI) associated with cloud services, data centers, and emerging technologies.

a) Humboldt Cable

One of the most ambitious pillars is the Humboldt Cable, an approximately 14,800-kilometer submarine fiber optic project that will directly connect Valparaíso with Sydney, establishing

¹⁰³<https://desarrollopais.cl/sobre-desarrollo-pais/>

¹⁰⁴https://desarrollopais.cl/lineas_proyectos/infraestructura-digital/

¹⁰⁵https://desarrollopais.cl/lineas_proyectos/infraestructura-digital/

¹⁰²<https://www.efta.int/sites/default/files/uploads/2025-01/EFTA-Chile%2C%20FTA%2C%20consolidated%20version.pdf>

the first digital link between South America, Oceania, and Asia. With an estimated investment of USD 400 million, the cable will be operated by a special purpose vehicle (SPV) made up of Desarrollo País and private partners.

From a trade policy perspective, this infrastructure:

- Reduces dependence on traditional routes via the US, diversifying digital flows
- Decreases latency and increases transmission capacity, enabling the development of advanced digital services such as 5G, artificial intelligence, and *blockchain*.
- Strengthens Chile's geopolitical position as a gateway to the Asia-Pacific region, aligning digital infrastructure with strategic regional integration objectives.¹⁰⁶¹⁰⁷¹⁰⁸¹⁰⁹

b) Pehuenche Border Crossing Project

At the terrestrial level, this digital infrastructure expansion project seeks to connect the Humboldt Cable landing point in the Valparaíso Region with the Pehuenche border crossing in the Maule Region. This route will allow for the deployment of more than 500 kilometers of fiber optics and facilitate international connection through a strategic corridor. The initiative seeks to strengthen national coverage, promote the decentralization of digital services, and consolidate the backup infrastructure for data traffic. The development of the project includes an open call for companies in the telecommunications sector to participate as co-investors, with the

¹⁰⁶<https://forbes.cl/tecnologia/2024-01-11/primer-cable-submarino-america-del-sur-asia-pacifico-chile-humboldt-google>

¹⁰⁷<https://www.infraestructurapublica.cl/agencia-chilena-promovera-cable-submarino-humboldt/>

¹⁰⁸<https://www.submarinenetworks.com/en/systems/trans-pacific/humboldt-cable>

¹⁰⁹<https://desarrollopais.cl/proyectos/humboldt/>

in order to ensure a collaborative, transparent, and efficient model of execution¹¹⁰.

c) Antarctic Connection Project

The Antarctic Connection project, which involves laying a submarine cable approximately 1,000 kilometers long between southern Chile and Antarctica, not only seeks to improve scientific connectivity—currently limited to satellite links—but also to position the Magallanes Region as a data services platform for polar research. This project strengthens Chile's digital sovereignty in a strategic territory and can enable real-time scientific services with global reach¹¹¹.

d) National Data Center Plan

This Plan establishes guidelines and measures to promote investment in data centers located in Chile, with the aim of consolidating the country as a technological *hub* within Latin America¹¹². Data centers are physical facilities designed to house and operate servers, and this plan estimates that their size in Chile will triple in five years, accelerating an investment of US\$2.5 billion. On the other hand, the plan establishes the importance of ensuring that the development of these data centers is sustainable for the population and the environment. In recent years, global technology companies such as Amazon Web Services¹¹⁴ and Microsoft¹¹⁵ have shown increased interest, announcing the installation of projects

¹¹⁰<https://desarrollopais.cl/proyectos/proyecto-paso-fronterizo-pehuenche-expansion-de-redes-de-fibra-optica/>

¹¹¹<https://desarrollopais.cl/proyectos/proyecto-conexion-antartica/>

¹¹²https://minciencia.gob.cl/uploads/filer_public/95/6b/956b8c9f-d937-4b4d-8f6c-a871495a52ff/plan_nacional_de_data_centers_pdata.pdf

¹¹³<https://www.gob.cl/noticias/que-es-plan-nacional-data-centers/>

¹¹⁴ <https://www.df.cl/empresas/telecom-tecnologia/amazon-web-services-anuncia-inversion-de-us-4-000-millones-en-santiago>

¹¹⁵<https://americaeconomica.com/noticia/chile/microsoft-inicia-las-operaciones-de-sus-3-data-centers-en-chile.html>

4.5

Training and digitization for MSMEs and lagging sectors

linked to cloud services in Chile. The arrival of these players reinforces Chile's projection as a key node for the regional digital ecosystem and strengthens its competitiveness in the knowledge economy.

Finally, at the regional level, Chile has played an active role in promoting an integrated digital agenda. An example of this was its role as host of the ninth Ministerial Conference on the Information Society in Latin America and the Caribbean, held in Santiago on November 7 and 8, 2024, in conjunction with ECLAC¹¹⁶. At this event, the eLAC2026 Digital Agenda was approved, the commitment to regional cooperation on digital issues was reaffirmed, and the role of the various public, private, and multilateral actors in the development and implementation of this agenda was recognized. The Santiago Declaration issued at the conference marked a milestone in the consolidation of a shared vision of digital transformation in Latin America.

Digital transformation not only redefines global business models, but also represents a strategic opportunity to reduce structural gaps and promote more equitable access to the benefits of digital commerce. Recognizing this potential, Chile has implemented a series of programs aimed at strengthening the digital capabilities of micro, small, and medium-sized enterprises (MSMEs) and historically disadvantaged sectors, particularly women, in order to actively integrate them into e-commerce and digital services ecosystems.

National Digital Empowerment Programs

a) Ministry of Economy, Development, and Tourism, CORFO, and SERCOTEC: Digitalize Your SME

A support ecosystem for business digital transformation led by the Ministry of Economy, Development, and Tourism, in collaboration with CORFO, SERCOTEC, and various public and private sector actors, the Digitize Your SME program is the main national policy supporting the digitization of smaller companies¹¹⁹.

Its design is based on scalability and customization, offering:

- Workshops, mentoring, and practical courses focused on the adoption of digital technologies.
- Access to specific tools for e-commerce, marketing, and digital business management.
- Coordination with a network of technological and regional partners that facilitate access to and implementation of digital solutions.

¹¹⁶<https://conferenciaelac.cepal.org/9/es>

¹¹⁷https://conferenciaelac.cepal.org/9/sites/elac9/files/2401157s_cmsi.9_declaracion_de_santiago.pdf

¹¹⁸https://obtienearchivo.bcn.cl/obtienearchivo?id=repositorio/10221/36788/1/Internacionalizacion_de_pymes_y_su_integracion_a_desarrollo_digital.pdf

¹¹⁹<https://www.digitalizatupyme.cl/digitaliza-tu-pyme>

This program addresses structural barriers such as lack of digital literacy, poor technological infrastructure, and unfamiliarity with online business tools, which are key elements for MSMEs to join national and international digital value chains¹²⁰.

The Chilean Ministry of Economy, as part of Digitaliza tu Pyme, also offers a digital check-up that measures the digital maturity of MSMEs and, based on that diagnosis, presents options for courses and training, most of which are open enrollment.

Digitaliza tu Pyme also coordinates other programs and plans hosted by other Chilean government agencies such as Sercotec and Corfo:

- **Ruta Digital (Sercotec):** Offers online courses on the different stages of digitization and is the only program that has subsidies available for digitization.
- **Online SME portal (Sercotec):** Sercotec learning platform that seeks to facilitate inclusive access to knowledge and technologies for micro, small, and medium-sized enterprises and advance their digital maturity¹²¹.
- **Red Digital Fortalece Pyme (Corfo):** Regional program that promotes the adoption and use of digital technologies in SME business processes, whether productive, commercial, or managerial¹²².
- **Despega Mipe (Sence):** Free training program aimed at micro and small businesses, which includes digitization courses such as web programming, social media management, mobile app development, among others, depending on availability¹²³.

¹²⁰<https://www.digitalizatupyme.cl/>

¹²¹<https://pymesenlinea.cl/>

¹²²<https://www.corfo.cl/sites/fortalecepyme/home>

¹²³<https://sence.gob.cl/personas/despega-mipe>

b) ProChile: E-Commerce Exporta

Through ProChile, the E-Commerce Exporta program has been implemented, which supports companies with initial e-commerce capabilities to make the leap towards digital internationalization, connecting SMEs with global digital commerce platforms. This initiative is directly aligned with trade policy objectives aimed at:

- Expanding the country's export base.
- Diversify target markets through digital channels.
- Improve the commercial sophistication of Chilean exports through digital B2C strategies.

The program offers specialized resources such as:

- Diagnostics of export digital maturity.
- Training in positioning in global *marketplaces*.
- Interactive of platforms of segmented by industry and region.

This approach makes it easier for smaller companies to reach end consumers abroad, reducing the logistical, commercial, and cultural barriers they usually face in traditional channels¹²⁴¹²⁵.

c) UN Women: TodasConectadas

As part of its commitment to an inclusive digital transition, Chile actively participates in the regional initiative TodasConectadas, led by UN Women and supported by technology partners such as Microsoft and Mastercard. This platform:

- Offers free, certified training in basic and advanced digital skills.
- Promotes women's employability in technological and digital sectors.

¹²⁴<https://www.prochile.gob.cl/herramientas/prochile-ecommerce>

¹²⁵<https://marketplaces.prochile.cl/>

4.6

Regulatory development for electronic commerce and data

- Supports the formalization and scaling up of women-led ventures, with a focus on e-commerce.

The platform's design is based on principles of equitable access, flexibility, and cultural relevance, adapting content to different levels of knowledge and national contexts, which has allowed for its expansion throughout Latin America and the Caribbean. For Chile, this alliance is a key pillar for reducing the gender gap in the digital economy and expanding the universe of women actively participating in emerging productive sectors^{126,127}.

The consolidation of a dynamic, open, and secure digital environment requires a regulatory framework that not only protects users' rights but also ensures interoperability and trust in digital transactions, facilitating e-commerce and cross-border data flows. In this regard, Chile has made progress in harmonizing its national legislation with international standards and has strengthened its participation in multilateral digital governance initiatives, consolidating its reputation as a reliable partner in the global digital economy.



¹²⁶<https://todasconectadas.org/>

¹²⁷<https://lac.unwomen.org/es/stories/noticia/2023/06/toda-conectadas-plataforma-regional-para-digitalizar-a-las-mujeres-emprendedoras-realiza-webinar-en-mexico>

Chile does not have a single law covering all the elements addressed in its agreements.

4.6.1

Reforms to the regulatory framework at the national

commercial, but it has several legal frameworks to regulate and promote the digital economy. In fact, in recent years, Chile has implemented key reforms to adapt its legislation to the challenges and opportunities of e-commerce and the digital economy:

- a) **E-Commerce Regulation, Decree 6 (March 2022):** This was established to strengthen the rights of *online* consumers. It stipulates that companies must clearly and in advance inform consumers of the total price (including shipping), *stock* availability, and provide a detailed summary of the product before purchase. Another key point is the right of withdrawal: consumers can cancel an online, telephone, or catalog purchase within the first 10 days after receiving the product or contracting the service.
- b) **Fintec Law, Law No. 21,521 (January 2023):** Establishes a comprehensive regulatory framework for financial technology companies and promotes innovation, competition, and security in digital financial services. It regulates activities such as crowdfunding platforms, cryptoasset custody, payment routing systems, and digital financial advisory and brokerage services, under the supervision of the Financial Market Commission (CMF). In terms of cross-border digital commerce, the law promotes the interoperability and transparency of financial services between countries, drives digital financial inclusion, and strengthens confidence in international data and capital flows, which are key conditions for Chile's integration into the global ecosystem of digital commerce and services¹²⁹¹³⁰.

- c) **Cybersecurity Framework Law, Law No. 21,663 (March 2024):** Establishes measures for companies to strengthen the protection of their critical systems and data¹³¹¹³². The regulation aims to strengthen the country's digital security and ensure that companies are prepared for possible cyberattacks, including: protection of critical infrastructure, incident response plans, and compliance with international standards.
- d) **Tax Compliance Law, Law No. 21,713 (October 2024):** The amendments to the Law published in October 2024 include the elimination of the VAT exemption for low-value international purchases. This measure brings all foreign retail purchases into the tax system, eliminating the VAT exemption for imports under US\$41. At the same time, it maintains the tariff exemption for exports under US\$500, balancing the goal of formalization with the need to facilitate low-volume cross-border trade. In addition, it imposes new reporting obligations on financial institutions, with a focus on detecting informal economic activities in digital channels. In particular, it requires reporting of accounts that receive more than 50 transfers per month or 100 in six months, strengthening the traceability of digital economic flows and tax compliance¹³³¹³⁴.

¹²⁸<https://www.sernac.cl/portal/604/w3-article-65050.html>

¹²⁹<https://www.bcn.cl/leychile/navegar?idNorma=1187323>

¹³⁰<https://www.cmfchile.cl/educa/621/w3-article-85048.html>

¹³¹<https://www.bcn.cl/leychile/navegar?i=1202434>

¹³²<https://www.emol.com/noticias/Economia/2024/12/31/1152844/ley-marco-de-ciberseguridad.html>

¹³³<https://www.emol.com/noticias/Economia/2024/10/15/1145642/ley-antievacion-pymes.html>

¹³⁴<https://www.gob.cl/noticias/transferencias-bancarias-law-tax-compliance-operation-combating-informality/>

4.6.2

International regulatory commitments international

e) **New Personal Data Protection Law, Law No. 21,719 (November 2024):**

Enacted in November 2024¹³⁵, this legislation replaces the previous law (No. 19,628) and becomes the personal data protection law, including robust rights for data subjects, obligations for controllers and processors, privacy impact assessments, and enforcement mechanisms through the creation of a Personal Data Protection Agency with sanctioning powers (fines of up to 20,000 UTM). It is currently in the implementation period, which will be completed on December 1, 2026, when the law will begin to be enforced with the Agency becoming operational. With this, Chile fulfills its commitment to join the OECD, in addition to allowing Chile to begin the process of alignment with the European Union or enter into mutual recognition mechanisms, such as the APEC CBPR, the Global CBPR, or others that may be of interest (for example, the one being developed by ASEAN).

These reforms not only raise internal regulatory standards, but also enable Chile to meet key requirements for participation in international data flows, facilitating integration into digital value chains and attracting technology-intensive investments.

Chile has adopted a regulatory convergence strategy that is reflected both in its trade agreements and in its participation in multilateral forums, contributing to the development of global rules for secure and efficient digital trade.

In addition of including chapters electronic or digital in agreements such as the CPTPP, DEPA, or the Chile–South Korea FTA, the commitments

¹³⁵<https://www.gob.cl/noticias/ley-proteccion-datos-personales-aprobacion-eleva-estandar-derechos/>

Chile's regulatory efforts are evident in its participation in technical and digitization promotion groups in various multilateral forums:

- **OECD:** Chile participates in various technical groups that develop guidelines on the digital economy and governance (e.g., *Digital Economy Policy Committee, Working Party on Data Governance and Privacy, Task Force on the Digital Economy*), contributing to the design of indicators, recommendations, and regulatory frameworks that influence global data governance.
- **WTO:** As part of the *Joint Statement Initiative on E-commerce*¹³⁶, Chile contributes to building a multilateral framework of binding disciplines on digital trade, including transparency, digital facilitation, technological neutrality, and cooperation on cybersecurity.
- **APEC:** In the context of the *Digital Economy Steering Group (DESG)*, Chile supports the implementation of the *APEC Internet and Digital Economy Roadmap*, promoting the harmonization of regulatory frameworks and interoperability in areas such as digital payments, authentication, privacy, digital identity, and e-commerce facilitation¹³⁷¹³⁸.
- **ECLAC:** Chile has been a key player in the adoption of the eLAC2024 Digital Agenda, which articulates regional policies on connectivity, digital skills, technological entrepreneurship, and public digital services, with a medium-term vision towards 2026.

on trade _____

¹³⁶https://www.wto.org/english/tratop_e/ecom_e/joint_statement_e.htm

¹³⁷https://mddb.apec.org/Documents/2017/SOM/CSOM/17_csom_006.pdf

¹³⁸<https://www.apec.org/groups/committee-on-trade-and-investment/digital-economy-steering-group>

4.7

International cooperation with Asia-Pacific Pacific

With these commitments, Chile strengthens its regulatory credibility, reduces compliance costs for exporting companies, and positions itself as a reliable partner in international digital governance¹³⁹¹⁴⁰.

Chile's strategy toward the digital economy has been strongly leveraged in its trade policy with Asia-Pacific, a region that leads global digital transformation. Through its participation in pioneering agreements and plurilateral forums, Chile has sought to actively integrate itself into the regional digital architecture, facilitating regulatory interoperability, data flows, and technological investment. Agreements such as DEPA, CPTPP, and APEC originated in the Asia-Pacific region and have been key to Chile's promotion of regulatory convergence and cooperation. In addition, cooperation in areas such as infrastructure, technology transfer, and financing of the digital economy are examples of strategic alliances for Chile.

a) Infrastructure

A good example of cooperation in infrastructure is the aforementioned Humboldt Cable, the result of a public-private partnership involving Chile, Australia, and Google¹⁴¹. This transpacific fiber optic cable will reduce cross-border data costs and could attract data centers and cloud services to Chile. The cable is a good example of the importance of cooperation in critical infrastructure, which, as in this case, can help position Chile as a digital hub.

b) Institutional and technological capacity

Memoranda of understanding (MoUs) and technical cooperation agreements that facilitate interoperability, recognition of standards (digital identity, electronic payments), and talent training fall within the scope of cooperation in technological and institutional capacity. A recent example is the

¹⁴¹<https://www.gob.cl/noticias/chile-logra-acuerdo-con-google-para-tener-el-primer-cable-submarino-transoceanico/>



Memorandum of Understanding on technical cooperation with China

During the bilateral meeting in October 2023, multiple MoUs and cooperation agreements were signed, including on the digital economy, technical cooperation, training, and the establishment of working groups to coordinate digital policies, interoperability, and technology transfer. A similar situation exists between Chile and Canada¹⁴⁵, the latter of which, due to its interest in joining DEPA, has agreed with Chile to continue its cooperation in areas such as digital trade facilitation.

c) Financing and promotion

Chile participates in projects financed by multilateral forums in the region, such as APEC, which focus on training, digital regulatory policies, digital inclusion, and customs modernization through digital tools. These are multilateral technical cooperation and activity financing projects (workshops, pilot programs, technical assistance)¹⁴⁶.

¹⁴² https://www.agcid.gob.cl/index.php?option=com_content&view=article&id=2381:chile-y-la-republica-popular-china-firmaron-memorandum-de-entendimiento-para-apoyar-la-agenda-2030&catid=123:noticias

¹⁴³ https://obtienearchivo.bcn.cl/obtienearchivo?id=repositorio/10221/36180/1/Scientific_cooperation_and_exchange_of_experiences_Chile_China.pdf

¹⁴⁴ <https://www.minrel.gob.cl/sala-de-prensa/chile-y-china-firman-13-acuerdos-de-cooperacion-que-buscan-modernizar-la>

¹⁴⁵ <https://www.minrel.gob.cl/sala-de-prensa/canciller-alberto-van-klaveren-se-reune-con-ministra-de-comercio>

¹⁴⁶ https://www.subrei.gob.cl/organismos-multilaterales/apec-forum-for-economic-cooperation-in-asia-pacific/projects?utm_source=chatgpt.com



Key lessons learned for Chile from the cases studied

Comparing the experiences studied, it can be seen that all these lessons point to Chile moving towards a comprehensive digital-commercial strategy, supported by interoperable infrastructure, reliable data, open regulatory frameworks, and active participation in the international formulation of standards. This balanced approach, one that combines openness, trust, inclusion, and institutional coordination, would represent a plausible roadmap for strengthening the country's competitiveness in an increasingly dynamic global digital environment.

On the one hand, the cases studied in this research show the importance of strengthening integration into the global digital economy through more coordinated governance, in which the agencies responsible for trade policy, digital infrastructure, and innovation act in a coordinated manner, with common strategies, clear mandates, and public-private cooperation mechanisms that ensure consistency and effectiveness. They also underscore the importance of regulatory frameworks and digital agreements that foster interoperability, enable reliable data flows, drive regulatory convergence, and promote emerging disciplines such as artificial intelligence, cybersecurity, fintech, and data protection.

Another key lesson from the experiences described in this document is the value of developing unified digital infrastructures (interoperable single windows, paperless document platforms, and national trade data hubs) that are capable of integrating customs, banks, logistics operators, health services, and certifiers under international standards, which would reduce costs, time, and information asymmetries. Similarly, it would improve traceability and transparency. For these infrastructures to function sustainably, the countries studied show the need to invest in cybersecurity, operational resilience, and continuous training in digital skills, with specific programs for workers, institutions, and SMEs.

Likewise, in the cases explored, leaders in the digital economy in the Asia-Pacific region, we see the strategic role of specialized agencies with clear digital mandates and structured alliances with global and local actors, which allow SMEs to connect with markets, financing, electronic certifications, and e-commerce platforms. Both Korea and Singapore show that coordination with large platforms, fintech, export associations, and technology companies can catalyze the internationalization of SMEs and expand their participation in cross-border digital trade.

Finally, this study highlights that the four experiences share an inclusive approach: digital transformation must reduce territorial, business size, gender, and skills gaps, ensuring that regions, non-traditional sectors, and smaller enterprises have access to technological tools, electronic payments, digital certifications, and specialized training. The Chinese case, for example, also highlights the importance of balancing innovation with competition, rights, and security, avoiding excessive dependence on platforms and closed standards, strengthening regulatory assessment, and promoting pro-competition rules and decent work in the platform economy.



5

GLOBAL TRENDS AND GEOECONOMIC CHALLENGES FOR THE DIGITAL ECONOMY



FUNDACIÓN
CHILENA DEL
PACÍFICO



The advancement of the digital economy is taking place in a changing international context, characterized by growing geopolitical tensions, structural changes in the economic system, and unprecedented technological competition. The convergence between the digital, energy, and productive spheres is redefining the foundations of international trade and countries' integration strategies, especially for open economies that are highly dependent on trade, such as Chile.

Over the past decade, strategic rivalry between the United States and China has driven a fragmentation of the global economic order. Tariff wars, industrial subsidies, and restrictions on technology exports have weakened the multilateral trading system and fostered a more uncertain and transactional environment. Competition for dominance in critical technologies—such as semiconductors, artificial intelligence, and advanced batteries—has become a new axis of power, where flows of knowledge, investment, and data are linked to geopolitical objectives. At the same time, the European Union seeks to project its regulatory leadership through standards in digital, climate, and data governance, consolidating a logic of "technology blocs" with differentiated regulatory frameworks.

This process has led to global digital fragmentation, with technological ecosystems, standards, and platforms tending to diverge according to the relevant geopolitical bloc. The lack of

effective multilateral governance in the digital sphere increases the risks of technological exclusion and deepens the asymmetries between advanced and developing economies. In this scenario, equitable access to innovation and the ability to participate in digital value chains become key determinants of economic development and national competitiveness.

For Chile, these trends present both challenges and opportunities. On the one hand, the growing regionalization of supply chains and the search for productive resilience open up opportunities to attract technological investment, consolidate capacities in strategic sectors—such as critical minerals and digital services—and strengthen integration with Asia-Pacific economies. On the other hand, structural dependence on global flows of data, capital, and technology requires an active trade policy capable of safeguarding digital sovereignty and projecting the country as a reliable player in the new technological order.

In this context, the digital economy has become a pillar of Chile's modern trade policy, aimed not only at facilitating the exchange of goods and services, but also at promoting the country's integration into a global ecosystem based on knowledge, innovation, and standards. Chile's participation in pioneering agreements such as the *Digital Economy Partnership Agreement* (DEPA) or the CPTPP offers an institutional platform to expand its presence in the regional digital space, harmonize regulations, and promote the interoperability of its systems.

Likewise, the convergence between digital trade, sustainability, and productive transformation opens up the possibility of linking trade policy with a more diversified and higher value-added productive development agenda.

The study on the digital economy in Asia-Pacific is precisely in line with this vision. Analyzing the experiences of leading economies in trade digitization—such as China, Korea, and Australia—allows us to identify public policies, regulatory frameworks, and cooperation instruments that can guide national strategy in this area. Beyond the diagnosis, this study seeks to contribute to the formulation of a proactive digital trade policy, aligned with the objectives of export diversification, increased productivity, and strengthening the country's technological autonomy.

In a global scenario characterized by technological competition, green transition, and the reconfiguration of value chains, the development of a robust digital strategy is not a complement but a structural condition for Chile's economic and productive development. Incorporating the digital dimension into trade policy is key to sustaining competitiveness, promoting the inclusion of SMEs in international markets, and positioning the country as a reliable and modern partner in 21st-century economic governance.





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