



THE DIGITAL SPRINTERS

Boosting exports through
digital technologies in Argentina

October 2022

A Digital Sprinters focus report – Commissioned by Google

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The financial figures in this report are estimated in US dollars. Conversions, where applicable, are based on the average exchange rate for the period from December 2020 to December 2021.

1. *Digital Sprinters* is a framework for harnessing the digital transformation of emerging markets (EMs) into sustainable, inclusive growth that could ultimately have tremendous ramifications on the global economic balance of power. The concept of “Digital Sprinters” recognizes that—with the right strategies— EMs have tremendous potential to leapfrog more established markets. It’s not a question of ‘if’ but rather where, when, and which markets.



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THE DIGITAL SPRINTERS

The US\$13.1 billion export opportunity from digital technologies for Argentina

DIGITAL TECHNOLOGIES BOOST EXPORTS THROUGH THREE CHANNELS



Creating new exportable digital solutions

e.g., Argentinean app developers earn

US\$78 MILLION ANNUALLY

from app users outside the country



Reducing costs of access to overseas markets

e.g., Global digital advertising platforms increase export revenues of Argentina-based firms by

US\$581 MILLION ANNUALLY



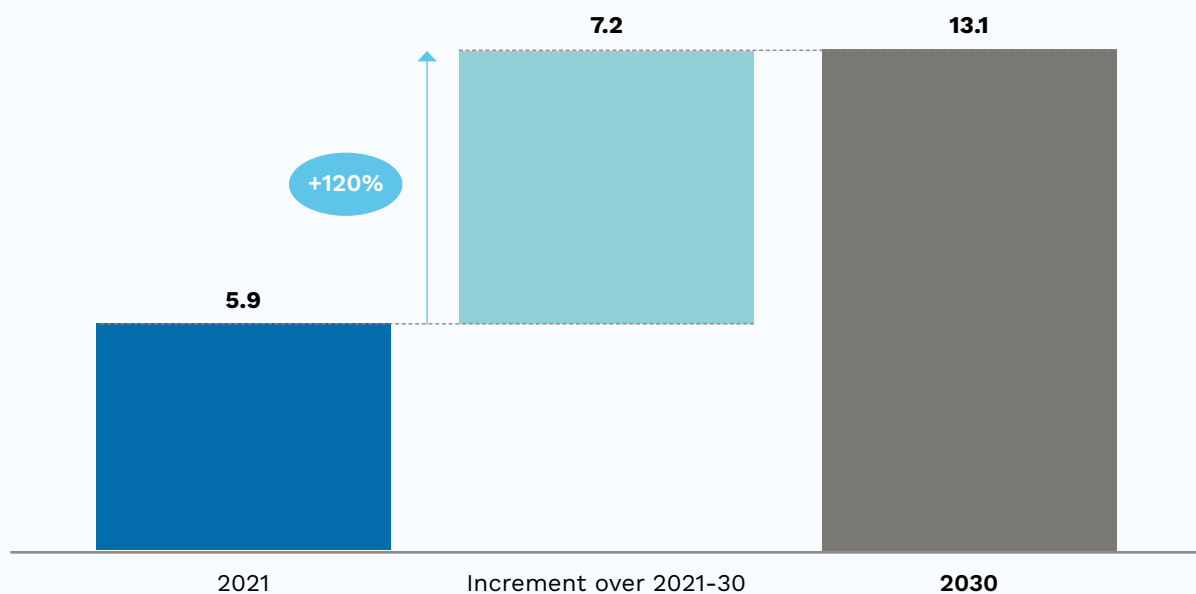
Supporting efficiency in exporting processes

e.g., Vitalcan, Argentina's largest pet food business, uses an IoT and blockchain solution for its overseas shipments, speeding up insurance claims by

50 PERCENT

"SIZE OF THE PRIZE" FROM DIGITAL TECHNOLOGIES FROM EXPORTS, US\$ BILLIONS

Argentina is already experiencing a **US\$5.9 BILLION** boost to its annual export value from digital technologies, but this value could more than double to reach **US\$13.1 BILLION** in 2030¹



1. This is a conservative estimate as it does not include all the efficiency benefits that digital technologies can bring to export-related industries (e.g., through better tracking of goods in transit through Internet of Things technology). In addition, the 2030 estimate was projected based on the 2021 performance of the best-in-class within the six focus countries only and will likely be much higher if we used global best-in-class countries as a reference point.



A CONDUCTIVE POLICY ENVIRONMENT IS NEEDED TO CAPTURE THIS US\$13.1 BILLION POTENTIAL BENEFIT FOR ARGENTINA



Accelerate digitalization

Align medium-term Science, Technology and Innovation (STI) policy mix to enable and steer digital innovation



Update regulatory frameworks

Improve public-private sector dialogue to develop frameworks that support digital business



Identify digital champions

Indicate clear leaders in the public sector with clear sense of direction and leadership continuity

This includes:



Support digitalization of businesses

Facilitate e-logistics networks through digitalization of businesses, especially MSMEs



Introduce cybersecurity industry standards

Build foundation in collaboration with industry on top of current regulations and laws



Foster regional and international cooperation

Increase the number of digital trade agreements and implement paperless trade

UNLOCKING THE DIGITAL EXPORT OPPORTUNITY IN ARGENTINA

The Argentinean economy has started to gradually recover since Q2 2021, after an accelerated vaccination campaign that allowed the economy to safely reopen after months of strict lockdown.² However, to boost economic recovery, it will be essential for Argentina to tap into new sources of growth, particularly in the exports market for digital technologies. For example, Argentina is well-positioned to develop its comparative advantage in exporting online videos, especially on a regional level. With the third largest number of Spanish speakers in the world (at 41 million), it is no surprise that Argentinean video content creators are able to appeal to its overseas viewers, especially the 60 percent of Latin Americans who also speak the same language.³ Domestically, Argentina also has an Internet penetration of 83 percent, with 96 percent of the population watching video content. Yet, digital technologies in general do not receive as much attention, given that national statistics

have failed to keep pace with the rapid evolution of the digital economy.

This report aims to address this gap,⁴ and finds that Argentina is already experiencing a **US\$5.9 billion boost⁵** (9.2 percent of total exports) to its annual export value from applying digital technologies (with Google facilitating up to 8 percent of that value). In addition, this value could more than double to **US\$13.1 billion⁶** by 2030. To fully capture this digital export prize, Argentina should focus on the following six recommendations:

1. Accelerate digitalization;
2. Update regulatory frameworks;
3. Identify digital champions;
4. Support the implementation of digital tools;
5. Introduce cybersecurity industry standards; and
6. Foster regional and international cooperation.

2. Bloomberg (2022), "Argentina Economy Misses Fourth-Quarter Estimates, But Has Record Year." Available at: <https://www.bloomberg.com/news/articles/2022-03-23/argentina-economy-misses-quarterly-estimates-but-has-record-year#xj4y7vzkg>

3. Babbel (2020), "How Many People Speak Spanish, And Where Is It Spoken?" Available at: <https://www.babbel.com/en/magazine/how-many-people-speak-spanish-and-where-is-it-spoken>

4. In our methodology to size the 2030 market, the country with the lowest digital export share of GDP for a particular component will see its share grow by the most over 2021-2030 in order to "catch up" to the best-in-class country for that component. This analysis is also based on current and forecasted economic conditions in the six focus countries in 2021, and could be changed if these economic conditions are changed. See Appendix in the overall regional report 'The Digital Sprinters: Boosting exports through digital technologies' for more details on the methodology.

5. This is a conservative estimate as it does not include all the efficiency benefits that digital technologies can bring to export-related industries (e.g., through better tracking of goods in transit through Internet of Things technology).

6. This estimate was projected based on the 2021 performance of the best-in-class within the six focus countries only, and will likely be much higher if we used global best-in-class countries as a reference point.



“ WITH THE THIRD LARGEST NUMBER OF SPANISH SPEAKERS IN THE WORLD (AT 41 MILLION), IT IS NO SURPRISE THAT ARGENTINEAN VIDEO CONTENT CREATORS ARE ABLE TO APPEAL TO ITS OVERSEAS VIEWERS, ESPECIALLY THE 60 PERCENT OF LATIN AMERICANS WHO ALSO SPEAK THE SAME LANGUAGE. DOMESTICALLY, ARGENTINA ALSO HAS AN INTERNET PENETRATION OF 83 PERCENT, WITH 96 PERCENT OF THE POPULATION WATCHING VIDEO CONTENT.

”

1. THE VALUE OF DIGITAL PRODUCTS AND SERVICES FOR ARGENTINA'S EXPORTS IN 2021

Digital technologies boost exports through three channels:

1 Creating new exportable digital solutions.

Digital technologies have given rise to a range of new digital solutions that can be exported abroad. These include mobile applications, online video services, and digital services such as data processing rendered to overseas customers. For instance, Argentinean mobile app developers are currently estimated to be earning US\$78 million annually from app users outside the country.⁷ In addition, the video games industry is growing at an accelerated pace in Argentina, valued at an estimated US\$86 million in 2021. 74 percent of video games being developed are also for mobile use, suggesting great potential for the mobile app exports market in the country.⁸ As of 2020, technology services have contributed to approximately 10 percent of all Argentinean exports.⁹ Among the six Latin American economies analyzed in the overall regional report, Argentina's channels on online video platforms, such as YouTube, have the highest number of overseas views relative to the country's Internet user base.¹⁰ Possibly attributable to a large base of similarly Spanish-speaking countries, this is reflective of Argentinean content creators' strong appeal to overseas viewers, especially in the context of relatively similar domestic video consumption habits across the six Latin American economies.¹¹ In addition, Argentina is a significant exporter of direct digital services, estimated to make up more than 95 percent of all digital services exports.¹²



7. AlphaBeta-Access Partnership analysis. See Appendix in the overall regional report 'The Digital Sprinters: Boosting exports through digital technologies' for more details on the methodology.

8. Universidad Nacional de Rafaela (2021), "Observatorio Industria Argentina Videojuegos", Available at: <https://www.unra.edu.ar/index.php/secretarias/investigacion/observatorio-videojuegos>

9. Bloomberg Quint (2020), "Argentina Expands Tech Companies' Incentives Amid Recovery Push." Available at: www.bloomberquint.com/business/argentina-expands-tech-companies-incentives-amid-recovery-push

10. The six Latin American economies analyzed are Argentina, Brazil, Chile, Colombia, Mexico, and Uruguay.

11. Social Blade (n.a.), "Top 250 YouTube channels by country". Available at: <https://socialblade.com>. Proportion of overseas views was obtained by stratified sampling conducted on top YouTube channels in the SEMRush database across representative content segments to estimate the share of organic traffic that come from overseas users, available at: <https://semrush.com>. Data on internet user count was obtained from DataReportal Digital 2022 country reports, available at: <https://datareportal.com>

12. AlphaBeta-Access Partnership analysis. See Appendix in the overall regional report 'The Digital Sprinters: Boosting exports through digital technologies' for more details on how we size digital services exports under Channel 1.

2 Reducing costs of access to overseas markets.

These include increases in the exports of goods through cross-border digital platforms (e.g., cross-border e-commerce) and digital advertising. Argentina is home to many of Latin America's unicorns (tech businesses valued at over US\$1 billion), including e-commerce giant Mercado Libre Inc., the third largest e-commerce market in Latin America. Argentina's e-commerce more than doubled during 2020, with a growth rate of 125 percent, with purchases through mobile devices projected to reach US\$13 billion by 2024.¹³ Argentina's e-commerce exports are dominated by the health and beauty sector, which is estimated to contribute more than 60 percent of total e-commerce exports. Given that Argentina is home to much of the flora and fauna often used as ingredients for beauty products, there is a lot of potential to establish Argentina as a regional hub for the production of beauty products.¹⁴ In addition, Argentina's digital advertising spending (search and banner) is expected to rise by 9.7 percent annually on average, ranking third across the six Latin American markets.¹⁵ As such, Argentina-based firms are estimated to reap US\$581 million annually in additional export revenues from digital advertising targeted at overseas customers, demonstrating how digital advertising platforms can enhance access to a larger export audience.¹⁶ In particular, micro, small and medium enterprises (MSMEs) in Argentina see sizable benefits as they are able to access overseas audiences at an affordable price, giving them the same amount of visibility as their larger competitors.

3 Supporting efficiency in exporting processes.

There are various examples of how technologies can do this, such as paperless trade, digital solutions for trade information and operations, machine-to-machine (M2M) tracking of exported goods, and the application of Internet-of-Things (IoT) technologies in ports. With a ten-year plan by the government in place which aims to increase the volume of agricultural exports by approximately 35 percent, the sector is expected to remain integral to the continued growth of the country's economy.¹⁷ Food producers have been increasingly utilizing IoT systems, integrating satellite remote-sensing technologies and nanosensors for both agricultural and livestock monitoring.¹⁸ Moreover, among smart city and industry projects, agribusiness projects also feature very prominently in Argentina's first IoT survey.¹⁹ Across the food supply chain, IoT-based transportation management software is critical to enhancing export output and efficiency for Argentina, especially at the storage and delivery stages. For instance, Vitalcan, Argentina's largest pet food business with US\$50 million annual revenue, adopted a combined IoT and blockchain solution to provide tamper-proof and trusted data in monitoring their animal nutrition exports. This includes capabilities such as document management, compliance with customs, and product protection (monitoring of temperature, humidity, and shock).²⁰ Ensuring the correct and expedient completion of regulatory, trade and customs documents has saved the company up to one percent of operating expenses. In addition, the processing of insurance claims in the event of damages has been expedited by 50 percent. Such benefits are especially significant for MSMEs, which may not have as much financial capabilities as their larger counterparts to invest in complex logistical networks. In such cases, the use of digital technologies can help to streamline and simplify exporting processes.

13. Statista (2022), "E-commerce in Argentina – statistics & facts". Available at: www.statista.com/topics/6710/e-commerce-in-argentina/

14. Mordor Intelligence (2021), "Argentina Beauty and Personal Care Products Market - Growth, Trends, COVID-19 Impact, and Forecasts (2022-2027)". Available at: <https://www.mordorintelligence.com/industry-reports/argentina-cosmetics-products-market-industry>

15. AlphaBeta-Access Partnership analysis using the Statista database, available at: <https://statista.com>. Search and banner advertising spending between 2021 and 2026 are obtained for each country, and the CAGRs are then computed. The six Latin American economies analyzed are Argentina, Brazil, Chile, Colombia, Mexico, and Uruguay.

16. AlphaBeta-Access Partnership analysis. See Appendix in the overall regional report "The Digital Sprinters: Boosting exports through digital technologies" for more details on the methodology.

17. International Trade Administration (2022), "Western Hemisphere - Country Commercial Guide". Available at: <https://www.trade.gov/country-commercial-guides/argentina-agricultural-sectors>

18. BNamericas (2019), "IoT putting down roots in Argentine agriculture sector". Available at: www.bnamericas.com/en/features/iot-putting-down-roots-in-argentine-agriculture-sector

19. BNamericas (2021), "Spotlight: The internet of things in Argentina". Available at: www.bnamericas.com/en/news/spotlight-the-internet-of-things-in-argentina

20. Morpheus.Network (2017). Vitalcan Case Study from Morpheus.Network and Hanhaa. Available at: <https://morpheus.network/assets/Morpheus.Network-Hanhaa-Vitalcan-Case-Study.pdf>



Argentina is already experiencing a **US\$5.9 billion** boost to its annual export value from applying digital technologies (Exhibit 1), making digital exports Argentina's 3rd largest export sector, behind agriculture and food, and manufacturing.²¹ 57 percent of this boost comes from the creation of new exportable digital solutions (channel 1), representing 5.3 percent of total exports, while the remaining relates to reduced costs of access to overseas markets (channel 2), representing 4 percent of total exports. This is a conservative estimate as it does not include the increased efficiency in exporting processes (channel 3) resulting from the adoption of digital technologies. Cross-border e-commerce exports form the largest component, constituting US\$2.8 billion, equivalent to 0.6 percent of Argentina's gross domestic product (GDP). Furthermore, Argentina has a strong track record in exporting online video, with Argentine content creators capturing US\$62 million annually from overseas viewership on platforms such as YouTube, Twitch and TikTok.²²

“ CROSS-BORDER E-COMMERCE EXPORTS FORM THE LARGEST COMPONENT, CONSTITUTING US\$2.8 BILLION, EQUIVALENT TO 0.6 PERCENT OF ARGENTINA'S GROSS DOMESTIC PRODUCT (GDP). ”

21. Channel 1 (Creating new exportable digital solutions) and Channel 2 (Reducing costs of access to overseas markets) are sized. As there are numerous ways in which technology applications drive efficiencies in the exporting process (e.g., overseas shipping, streamlining trade paperwork), rather than sizing this value (which can turn out to be less than comprehensive), Channel 3 (Supporting the efficiency of exporting processes) is assessed through case studies. See Appendix in the overall regional report 'The Digital Sprinters: Boosting exports through digital technologies' for more details. For comparison, merchandise and services exports were segmented into 8 key sectors: healthcare, financial services, agriculture and food, education and training, consumer and retail, resources and mining, manufacturing, and infrastructure. This analysis assumed that we are able to define digital trade as a sector. OEC (2020), Yearly Exports. Historical Data. Available at: <https://oec.world/en/profile/country/arg?depthSelector1=HS2Depth>. WTO (2021), Trade Profiles: Argentina. Available at: https://www.wto.org/english/res_e/statistics_e/daily_update_e/trade_profiles/AR_e.pdf

22. AlphaBeta-Access Partnership analysis was conducted on six focus economies (Argentina, Brazil, Chile, Colombia, Mexico, Uruguay). View count totals for YouTube and DailyMotion were obtained from the SocialBlade database, available at: <https://socialblade.com>. Where granular data was not available for certain video platforms (e.g., Twitch and TikTok), we proxied the number of views by comparing the total number of hours spent monthly on that platform in that country compared to YouTube. Sayari Media (2022), "Countries ranked by YouTube CPM/RPM for content creators". Available at: <https://sayarimedia.com/2022/04/countries-ranked-by-youtube-cpm-rpm-for-content-creators.html>. Reasonable ranges for CPM and creator share of revenue for other major platforms (DailyMotion, Twitch, TikTok etc) are well-known, and will not be listed here.

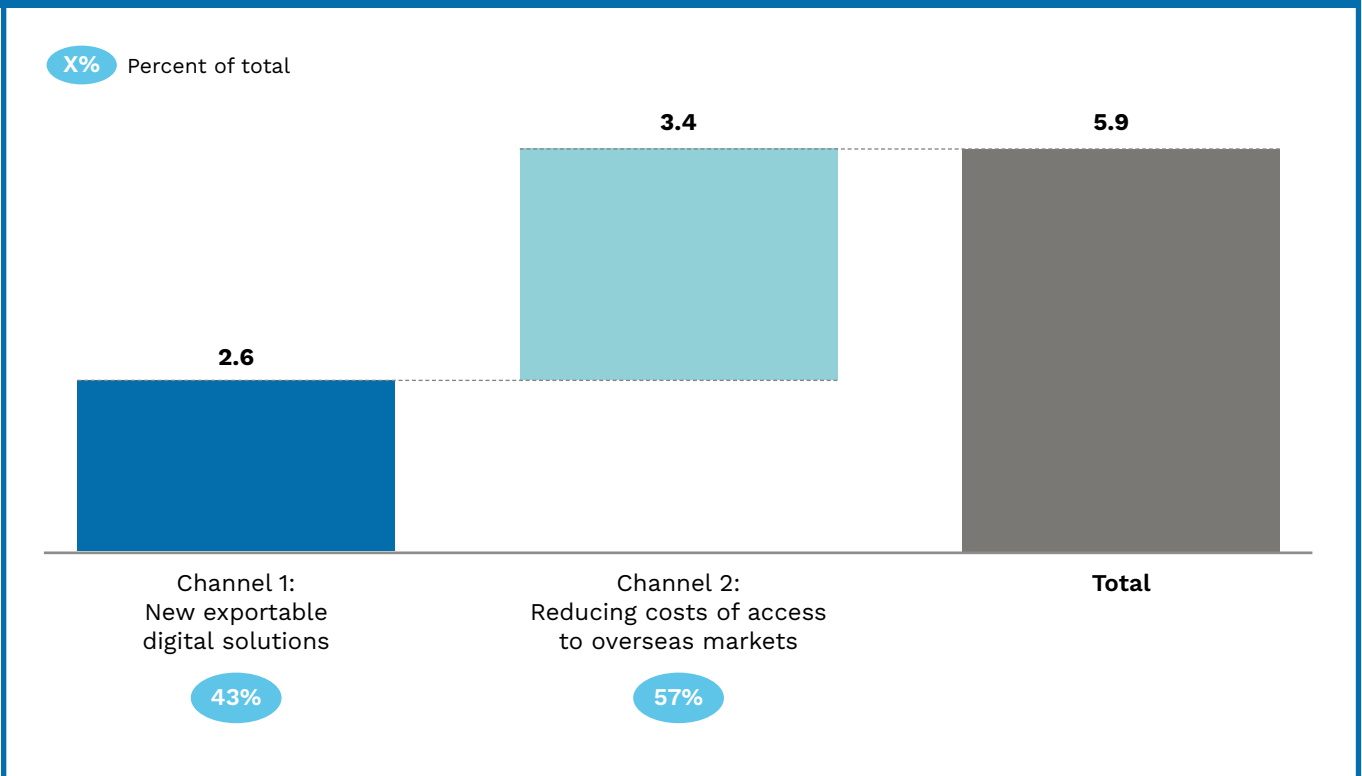


Exhibit 1:

ARGENTINA IS ALREADY EXPERIENCING A US\$5.9 BILLION BOOST TO ITS ANNUAL EXPORT VALUE FROM DIGITAL TECHNOLOGIES TODAY



**BOOST TO THE ANNUAL VALUE OF ARGENTINA'S EXPORTS FROM DIGITAL TECHNOLOGIES, 2021
US\$ BILLIONS**



NOTE: Figures may not sum due to rounding. Figures are conservative estimates as they do not include all the efficiency benefits that digital technologies can bring to export-related industries under channel 3 (e.g., through better tracking of goods in transit through Internet of Things technology).

SOURCE: AlphaBeta-Access Partnership analysis

2. THE VALUE OF GOOGLE'S PRODUCTS FOR ARGENTINA'S EXPORTS IN 2021

Google has been instrumental in advancing Argentina's digital export journey through products such as Google Play, YouTube, Google Ads, and Google Cloud. For instance, Google Play, an application distribution platform with over 111.3 billion application downloads in 2021, allows application developers in Argentina to reach overseas users with minimal cost. Consumer spending on Google Play, which constitutes 54 percent of total application revenue for developers (with the remaining being revenue from advertisers placing in-app advertisements), has been growing quickly, climbing 23.5 percent to reach US\$47.9 billion in 2021.²³ The growing user base and potential revenue on the Google platform thus represents a significant long-term opportunity for Argentinean application and game developers, who get to keep 70 to 85 percent of their total earnings made through Google Play.²⁴

It is estimated that Google's products contributed to **US\$461 million** (or about 8 percent) of Argentina's digital export opportunity in 2021. Box 1 lists examples of how Argentinean MSMEs have benefited from exports facilitated by Google's products.

In addition, Google also helps businesses in Argentina build their e-commerce presence and make better decisions regarding exports. Google's Market Finder, a free platform provided by Google, identifies the markets with the highest export potential for each business based on their product or service and various factors such as search traffic volumes, advertising costs, and purchasing power of consumers.²⁵ After the initial market shortlist, the platform guides businesses to plan their overseas expansion operations and market their products and services in new countries.



23. AdColony (2021), "Mobile App Monetization Survey". Available at: <https://drive.google.com/file/d/1-DXOzWix5ZMC6bbSxKePjArWFKr1xoul/view>. Sensor Tower (2021), "Global Consumer Spending in Mobile Apps Reached \$133 Billion in 2021, Up Nearly 20% from 2020". Available at: <https://sensortower.com/blog/app-revenue-and-downloads-2021>

24. The service fees to developers are 15 percent for the first US\$1 million of earnings annually, and 30 percent for earnings in excess of US\$1 million each year.

25. Google (n.d.), "Market Finder". Available at: <https://marketfinder.thinkwithgoogle.com/intl/en/>

BOX 1.

GOOGLE'S TOOLS HELP BUSINESSES IN ARGENTINA REACH OVERSEAS CUSTOMERS AND OPTIMIZE BUSINESS PROCESSES

SUNNY DREAMS: DEVELOPING HYPER-CASUAL GAMES FOR KIDS THROUGH GOOGLE PLAY²⁶

Launched in 2017, Sunny Dreams is a breakout mobile game developer focusing on casual educational games for children. Their top hits include *Pintar e Aprender Animais*, *Learn Music & Songs Xylophone*, and *Monster Maker*, all of which have been launched across more than 100 countries on Google Play. Sunny Dreams' applications are free, with the company opting to monetize through in-app advertisements and purchases instead. With a current application portfolio of 17 Android applications, Sunny Dreams' applications have gained significant traction in recent years, appearing in the top 100 in more than ten countries, with an estimated 20 million cumulative downloads across its applications.

TUALBAÑIL.COM: EXPANDING REMODELING SERVICES BEYOND ARGENTINA WITH GOOGLE ADS²⁷

In 2013, Cristian Bianco created TuAlbañil.com, a website that offers homes and businesses remodeling, painting, and carpentry services, among others. To attract new clients, Cristian learned to use Google Ads, which helped accelerate client outreach. As a result, cost inquiries increased by 90 percent, and today, TuAlbañil.com has 22 franchises in Argentina with an average of 80 customers per month.

Cristian remarks that "Google Ads helps us expand our business model across borders, gaining a better

understanding of how to attract clients, the cost of acquiring each client, and what resources we need to meet project demand." Targeting international expansion, Cristian has begun directing his campaigns to Mexico and Uruguay to appear in searches related to remodeling services. Cristian seeks to continue expanding the business through Google Ads, particularly in new markets like Brazil, Chile, Colombia and Peru.

PROPERATI: LEVERAGING ON GOOGLE CLOUD TO AFFORDABLY MANAGE LARGE VOLUMES OF STORED DATA²⁸

Founded in 2012, Properati is a start-up platform that connects property buyers or renters with real estate properties for sale or lease online. After a 2018 merger with the OLX group, a global marketplace active in over 40 countries, Properati now operates across all of Latin America. Fast processing and storage of large volumes of data are crucial for Properati when entering a new market in order to stand out from local competitors. Properati leveraged data analytics tools like BigQuery and Data Studio within the Google Cloud Platform to streamline the availability of its services and improve response times across different markets, allowing the company to speed up its development beyond the local market in a cost-effective manner. The company now has 600,000 announced listings in Argentina, Colombia, and Ecuador, generating one million visits and 200,000 links between buyers and sellers every month.

26. AppBrain (2022), "Sunny Kid Games". Available at: www.appbrain.com/dev/Sunny+Kid+Games/

27. Google (2018), Reporte de Impacto Económico. Argentina 2018. Available at: https://storage.googleapis.com/gweb-econ-impact-report.appspot.com/reports/2018/es_ar/ei-report-2018.pdf

28. Google (n.d.), "Properati: helping you find your ideal home". Available at: <https://cloud.google.com/customers/properati>

3. THE DIGITAL EXPORT POTENTIAL OF US\$13.1 BILLION BY 2030

Argentina could still work towards a significant “size of the prize” for exports in the next few years. By 2030, the boost to its annual export value from digital technologies could more than double to reach **US\$13.1 billion** by 2030 (Exhibit 2).²⁹ While nascent, mobile apps have the strongest potential to flourish and are projected to grow by a compound annual growth rate (CAGR) of 19.2 percent from 2021 to 2030 to reach US\$378 million. Though only

0.1 percent of global revenues go to Argentinean firms today, high mobile phone penetration rates and a growing digital banking environment through unicorns such as FinTech player Ualá are expected to facilitate both application consumption and smooth monetization. This represents a significant opportunity for the mobile application economy in Argentina.³⁰

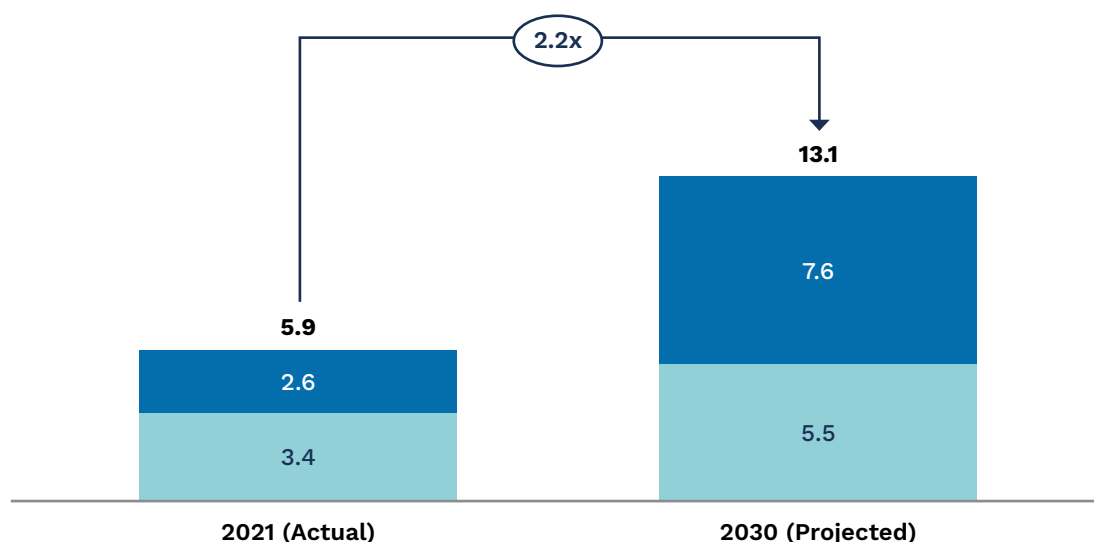
Exhibit 2:

BY 2030, THE TECH-ENABLED BOOST TO ARGENTINA'S ANNUAL EXPORT VALUE COULD MORE THAN DOUBLE FROM 2021 TO REACH US\$13.1 BILLION



BOOST TO THE ANNUAL VALUE OF ARGENTINA'S EXPORTS FROM DIGITAL TECHNOLOGIES, 2021 & 2030 US\$ BILLIONS

- Channel 1: New exportable digital solutions
- Channel 2: Reducing costs of access to overseas markets



NOTE: Figures may not sum due to rounding. Figures are conservative estimates as they do not include all the efficiency benefits that digital technologies can bring to export-related industries in channel 3 (e.g., through better tracking of goods in transit through Internet of Things technology). In addition, the 2030 estimate was projected based on the 2021 performance of the best-in-class within the six focus countries only and will likely be much higher if we used global best-in-class countries as a reference point.

SOURCE: AlphaBeta-Access Partnership analysis

29. This is a conservative estimate as it does not include all the efficiency benefits that digital technologies can bring to export-related industries (e.g., through better tracking of goods in transit through Internet of Things technology). In addition, the 2030 estimate was projected based on the 2021 performance of the best-in-class within the six focus countries only and will likely be much higher if we used global best-in-class countries as a reference point.

30. Auxadi (2022), “Investigating LATAM’s Fintech Boom: Argentina”. Available at: <https://www.auxadi.com/news/latam-fintech-argentina/>. Bloomberg (2021), “Digital Banking: Argentina Lags Behind Brazil and Mexico”. Available at: <https://www.bloomberglia.com/2021/12/17/digital-banking-argentina-lags-behind-brazil-and-mexico/>

4. POLICY RECOMMENDATIONS AND MEASURES TO ACHIEVE GOALS

A review of impactful, innovative, and practical digital policies, using the Digital Sprinters Framework with an export focus, identified 11 policy levers linked to five strategic imperatives crucial for capturing the technology-enabled export opportunity identified earlier in this report (Exhibit 3).³¹ Each policy lever has also been classified as a general or critical enabler of digital exports. In this context, general enablers refer to those that contribute to the broader digitalization of the country, whereas critical enablers are specific and crucial to the achievement of digital exports.

Five of these policy levers were identified as being most relevant to Argentina, and translate into the six core recommendations outlined below (Exhibit 4). We used a two-step process to identify the policy gaps and determine the most applicable recommendations for Argentina. First, we identified which policies and initiatives linked to the 11 policy levers have already been enacted or are currently in place. The policies identified were then ranked following a scoring protocol (a set of questions that serve as parameters to ensure a consistent scoring methodology across all six country reports). This allowed us to rank the policies on a scale of one (low level of

progress) to three (high level of progress) and identify areas where further policy action is required. We then drafted our recommendations after considering the data and literature available to support the proposed arguments, the cost-effectiveness of each measure, and their priority and level of urgency (e.g., whether they act as structural bottlenecks to other policy gaps).

These recommendations are designed to support Argentina in alleviating the bottlenecks currently hindering its export growth from moving forward in capturing the potential digital export opportunity, and are regarded as the most actionable in the short and medium term compared to other possibilities that would require more time or depend on extraordinary political conditions.

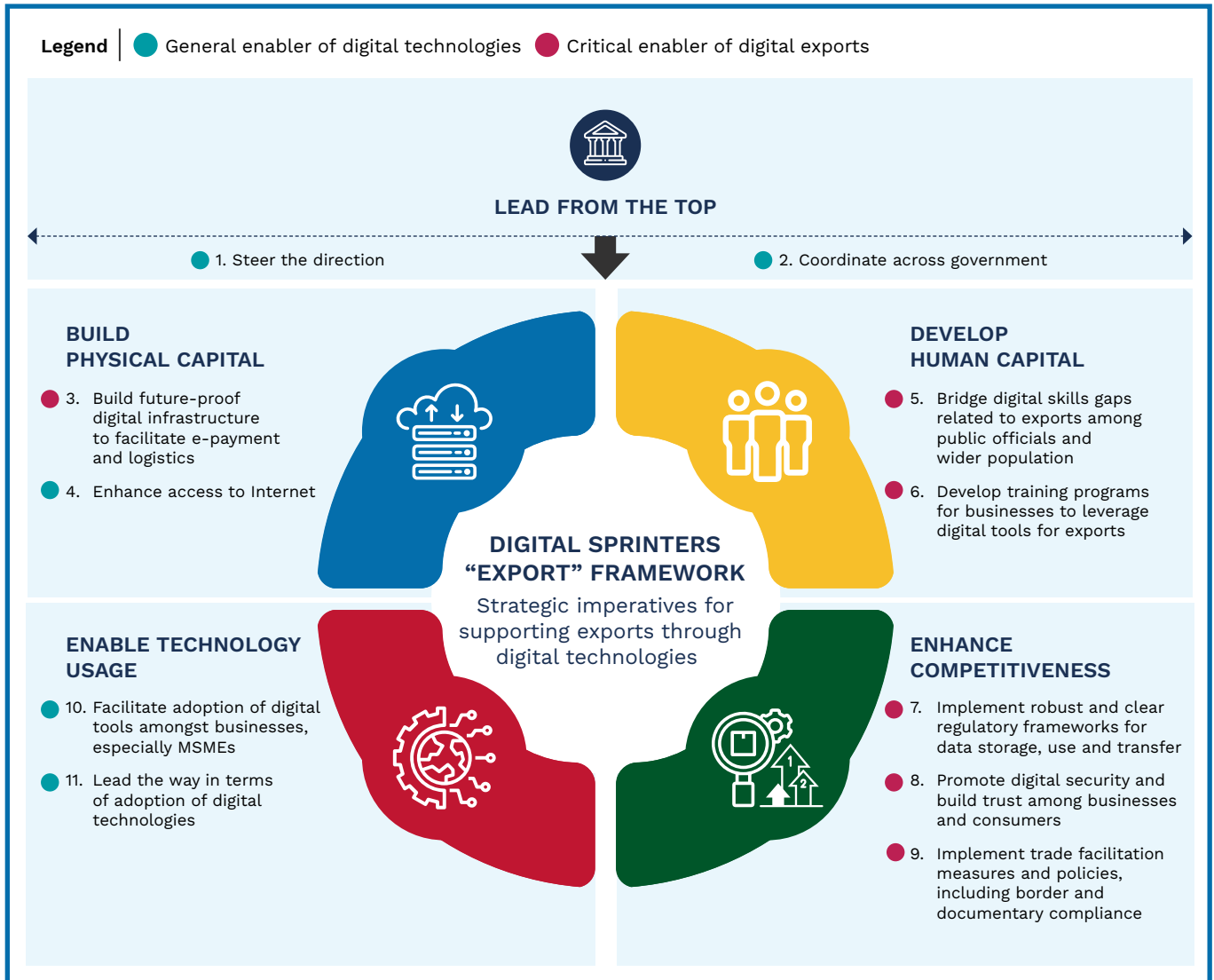
Should policymakers find ways to integrate the implementation of the six policy recommendations highlighted above, Argentina could achieve the US\$13.1 billion “size of the prize” for digital exports by 2030. If leveraged adequately, and implemented through a constant and long-term plan, they would go a long way in helping Argentina capture its digital export opportunity.



31. The Digital Sprinters Framework focuses on key areas such as physical capital, human capital, technology innovation and competitiveness. Google (2020), The Digital Sprinters: Driving Growth in Emerging Markets. Available at: https://blog.google/documents/94/The_Digital_Sprinters_FINAL.pdf/

Exhibit 3:

11 POLICY LEVERS CAN HELP UNLOCK THE BENEFITS OF THE TECHNOLOGY-ENABLED EXPORT OPPORTUNITY AND ADDRESS POTENTIAL CONCERNS



SOURCE: Google; AlphaBeta-Access Partnership analysis

Exhibit 4:

SIX RECOMMENDATIONS CAN HELP ARGENTINA ADDRESS CURRENT GAPS HINDERING EXPORT-LED GROWTH



Policy Lever	Recommendation	From...	...To	Best Practice
Steer the direction	Accelerate the digitalization of the economy through medium-term strategies	Lack of unified innovation policy (e.g., budget cuts and market failures in tax incentives)	Better alignment of innovation policy to address market failures	Singapore's Research, Innovation and Enterprise (RIE) 2025 Plan
	Update and strengthen regulatory frameworks to create a conducive environment for digital business models	Outdated regulations for digital markets, with no updating of e-commerce framework	A more comprehensive regulatory approach for digital markets and e-commerce	Malaysia's Digital Free Trade Zone
Coordinate across government	Identify digital champions in the public sector to drive the adoption of digital technologies	Inconsistent digital leadership and low continuity in innovation-driving government agencies	Stronger digital emphasis in national strategy, through stronger coordination within government	Uruguay's launch of its 2025 Digital Agenda
Build future-proof digital infrastructure	Facilitate e-logistics networks by supporting digitalization of businesses, especially among MSMEs, regarding supply chain optimization	Limited government support for MSMEs in improving supply chain and logistics management	Greater support through training for MSMEs and continued investments in digital infrastructure	Callaghan Innovation's digital adoption subsidies in New Zealand
Promote digital security and build trust	Introduce national cybersecurity standards to foster a digital ecosystem based on trust	Current regulations are ineffective in preventing cyberattacks	Strengthened cyber landscape through development of industry standards	UK's Cyber Assessment Framework (CAF)
Implement trade facilitation measures and policies	Increase the number and expand the scope of regional and international cooperation agreements on digital trade and economy	Limited trade facilitation agreements beyond Mercosur	More international and regional trade partnerships	Digital Economy Partnership Agreement (DEPA)

Exhibit 5:

THE POLICY RECOMMENDATIONS CAN HELP ARGENTINA CAPTURE THE FAST-GROWING DIGITAL COMPONENTS



RELEVANCE OF POLICY RECOMMENDATIONS FOR EACH DIGITAL COMPONENT					
POLICY RECOMMENDATIONS	MOBILE APPS	ONLINE VIDEO	E-COMMERCE	DIGITAL SERVICES	DIGITAL ADS
	<p>Relevance¹ Strong Moderate</p> <p>Strategic Imperative Lead from the top Build physical capital Enhance competitiveness</p>				
<p> Accelerate the digitalization of the economy through medium-term strategies</p>					
<p> Update and strengthen regulatory frameworks to create a conducive environment for digital business models</p>					
<p> Identify digital champions in the public sector to drive the adoption of digital technologies</p>					
<p> Facilitate e-logistics networks by supporting digitalization of businesses, especially among MSMEs, regarding supply chain optimization</p>					
<p> Introduce national cybersecurity standards to foster a digital ecosystem based on trust</p>					
<p> Increase the number and expand the scope of regional and international cooperation agreements on digital trade and economy</p>					

1. "Strong": Policy lever is extremely relevant to help capture the digital component as it pertains directly to the component or strongly enables its growth; "Moderate": Lever is relevant for the country as it indirectly enables its growth. In the absence of "Strong" or "Moderate", the policy lever does not directly affect the digital component nor provide a critical enabling environment.

SOURCE: Literature review; Expert interviews; AlphaBeta-Access Partnership analysis

Recommendation 1: Accelerate the digitalization of the economy through medium-term strategies that attract investment and steer innovation

In line with *Policy Lever 1: Steer the direction (General enabler)*, Argentina should consider aligning its innovation policy more closely with sustainable growth objectives and develop a medium-term strategy focused on generating a shared vision and a stable institutional environment given that institutional stability and policy predictability are critical to enabling innovation policies. In this regard, it is recommended that the country shifts from general directives to short- and medium-term plans with specific key performance indicators (KPIs) focused on granting the public sector better tools to assess progress. By providing clarity on metrics and results, Argentina can better focus its efforts in the near future. Policies should be formulated to address specific market failures at different stages of the innovation cycle, including through building firm-level innovative capacity and improving access to financial support. In turn, this will improve Argentina's integration with global markets and boost digital trade.

Indeed, a key trend for Argentina since the mid-2000s has been the government's focus of its Science, Technology & Innovation (STI) policy mix on innovation, with private firms playing a central role. This strategy anchors policies to enhance export competitiveness as a key driver of growth and recognizes the importance of improving managerial practices as an important building block for an effective STI system. Nevertheless, according to the World Bank's report on "Argentina Public Expenditure and Financial Accountability (PEFA) Performance Assessment", the fiscal consolidation of 2017–18 disproportionately affected some of these key objectives and risked reversing some of the gains through budget cuts for export promotion and STI.³²

In more recent years, another major issue has been the fact that tax incentives have become the primary STI policy instrument for supporting private sector innovation in Argentina; however, market failures, inflation and lack of

stability continue to weaken innovation investments and performance. Incumbents already investing in research and development (R&D) benefit automatically from tax incentives, while new entrants and early-stage innovators do not. Additionally, tax incentives generally do not directly support firms' absorptive capacity, which is a key constraint to innovation in Argentina.³³

Argentina should thus implement short-term KPIs within its Digital Agenda, including tax incentive reforms (such as staggered tax rates) and economic programs that would allow the government to maximize the role of STI and R&D in the country. Targeted tax incentives, together with promotional programs such as scholarships in tech policy and digital exports, could accelerate private and public investment. This would, in particular, benefit MSMEs, which may often be disincentivized from adopting digital technologies due to financial constraints. For example, the recent amendments implemented to the Knowledge Economy Act to include STI activities, are a positive step in this direction. According to this law, STI activities that fall within the framework may be eligible to obtain different tax advantages such as a bonus to pay national taxes corresponding to 70 percent of the employer contributions on their personnel, or a discount of up to 60 percent of income tax. However, concrete results of such initiatives are still unpublished.

Furthermore, short-term KPIs that are easily measured and assessed internally by stakeholders could increase trust in the sector and reiterate the country's commitment in the field. For instance, Singapore's Research, Innovation and Enterprise (RIE) 2025 Plan sets out specific KPIs in trade and innovation and aims to develop high-technology activities to move the country up the economic value chain. For example, setting up a federated learning AI ecosystem could drive economy-wide AI models and build knowledge-sharing.³⁴

32. World Bank (2019), Public Expenditure and Financial Accountability Performance Report. Available at: <https://openknowledge.worldbank.org/bitstream/handle/10986/33771/Argentina-Public-Expenditure-and-Financial-Accountability-PEFA-Performance-Assessment-Report.pdf?sequence=1>

33. World Bank (2021), Spurring Innovation-Led Growth in Argentina Performance, Policy Response, and the Future. Available at: <https://openknowledge.worldbank.org/bitstream/handle/10986/35592/9781464816895.pdf>

34. NRF (2021), Research, Innovation and Enterprise 2025 Plan. Available at: https://www.nrf.gov.sg/docs/default-source/default-document-library/rie_booklet_fa2021_pages.pdf



Recommendation 2: Update and strengthen regulatory frameworks to create a conducive environment for digital business models to emerge and thrive

In line with *Policy Lever 1: Steer the direction (General enabler)*, Argentina's regulators should develop a comprehensive approach toward digital markets and the different regulatory challenges to innovation. To that end, the Secretary of Public Innovation, together with the E-Commerce Chamber of Argentina or other relevant chambers such as the Argentina Chamber of Internet (CABASE)³⁵, could partner and work towards improving the public-private sector dialogue between regulators, financial institutions, and e-commerce platforms. This can take the shape of developing policy frameworks that enable and strengthen the online presence of a wide range of businesses, especially those involved in cross-border e-commerce and digital trade operations, in both goods and services.

While online marketplaces have existed for many years now, the COVID-19 pandemic accelerated digital platform development, adoption, and expansion. The fast-moving pace of online habits and practices, along with the increasing complexity of legal issues raised by digital products and services, calls for updated regulatory

frameworks that can grant certainty to businesses and governments alike.

In Argentina, most of the regulations around digital markets are outdated, since they were approved more than two decades ago. For example, the regulation on electronic commerce was approved in 1999, and has not been renewed or modified since.³⁶ In addition, Argentina's regulator only started discussing the modernization of personal data protection frameworks in August 2022, highlighting how action in strengthening data protection regulations has been substantially delayed. Further, while Argentina has introduced an overarching digital transformation plan through the "Digital Agenda 2030" (in 2018) and the "Digital Country Plan" (in 2016), neither of them focuses on updating the e-commerce framework.³⁷ Nevertheless, both plans included objectives intended to promote digital transformation in the public and private sector to boost the country's economy, increase employment and promote training and enhancement of digital tools.

35. Other relevant chambers are "Cámara Argentina de Pequeños Proveedores de Internet" - CAPPI, "Camara Argentina de Cableoperadores e Internet Pymes" - CACPY, "Camara Argentina de Telefonía IP y Comunicaciones Convergentes" - CATIP

36. Ministry of Economy and Public Services (1999), Resolution 412 / 1999. Available at: <https://www.argentina.gob.ar/normativa/nacional/resoluci%C3%B3n-412-1999-56911>

37. Government of Argentina (2018), "El Gobierno presentó la nueva Agenda Digital 2030". Available at: <https://www.argentina.gob.ar/noticias/el-gobierno-presenta-la-nueva-agenda-digital-2030>. Government of Argentina (n.d.), "Hacia un País Digital". Available at: <https://www.argentina.gob.ar/jefatura/innovacion-publica/gobierno-abierto-y-pais-digital/paisdigital/haciaunpaisdigital/>



Recommendation 3: Identify digital champions in the public sector to drive the adoption of digital technologies for export-oriented activities

In line with *Policy Lever 2: Coordinate across government (General enabler)*, Argentina should identify ambassadors that help secure policy goodwill actions and buy-in from the public and private sector as part of its digital policy development process.

While recent policies demonstrate Argentina's commitment toward digitalization, a lack of direction and constant reshuffling hampers the government's ability to produce long-term impact, thus conveying uncertainty to external players. The lack of direction can be seen in the different entities involved in digital transformation, which range from the Secretary of Public Innovation (as the primary stakeholder) to other stakeholders such as the Ministry of Economy, Productive Development, Education, the National Communications Entity (ENACOM), and the Chief of Cabinet of Ministers. Constant changes in the government are replicated in the structure of the different bodies. For example, in August 2022 the President designated a new person to lead the Ministry of Economy,

which also absorbed the Ministry of Productive Development together with the Agriculture, Livestock and Fisheries.³⁸ Furthermore, the Secretariat in charge of public innovation in Argentina has undergone several changes over the course of 2022, including updating its name as well as amending to its powers. This Secretary now includes the Undersecretary of Services and Digital Country; the Undersecretariat for Administrative Innovation; and the Undersecretary of Information Technologies (IT Undersecretariat), which would absorb the National Office of Information Technologies (ONTI) and the Cybersecurity Directorate.³⁹

In terms of changes, the current administration has performed various changes at a Cabinet-level, some of which entail restructuring Information and Communications Technology (ICT)-related capacities. As such, stronger coordination and permanency could help streamline and consolidate efforts that drive the adoption of digital technologies.

38. France 24 (2022), "Argentina nombra a un segundo ministro de economía en menos de un mes".

Available at: <https://www.france24.com/es/programas/econom%C3%ADa/20220729-argentina-nombra-a-un-segundo-ministro-de-econom%C3%ADa-en-menos-de-un-mes>

39. DPL (2022), "Confirman a Jorge Neme como responsable de las políticas telco en Argentina | DPL News".

Available at: <https://dplnews.com/confirman-a-jorge-neme-como-responsable-de-las-politicas-telco-en-argentina/>

Recommendation 4: Facilitate e-logistics networks by supporting digitalization of businesses, especially among MSMEs, regarding supply chain optimization

In line with *Policy Lever 3: Build future-proof digital infrastructure (Critical enabler)*, Argentina should drive and support the development of future-proof digital infrastructure to cater to the needs of rapidly digitizing businesses and organizations. This is particularly true for MSMEs. As the backbone of the economy, MSMEs should be trained and empowered to fully seize and harness the opportunities presented by the proliferation of digital platforms and tools. The support could be targeted as financial support and/or technology extension programs such as diagnosis, self-assessment tools, e-business solutions and learning material specifically for building digital supply chains.

MSMEs around the world, including Argentina, have struggled to adapt their business model to the new digital reality. This is partly due to resource and time constraints which are felt more strongly by MSMEs, resulting in them being slow to react to technological changes.⁴⁰ In addition, improving the management and efficiency of the supply chain through digitalization is an aspect that has not been highlighted clearly in Argentina's national policies, and there is limited evidence that supports future intentions by the government to leverage technologies to improve supply chain management. For instance, although the government has offered a series of loans or economic reliefs to MSMEs, most of these are not targeted at supply chain initiatives or improvements in this particular area. Furthermore, Argentina ranks 15 out of 18 countries in the "International Logistics" subcomponent of the Brazil Competitiveness Report conducted by the Brazilian National Confederation of Industry, highlighting that there is scope for the Argentinean government to undertake further initiatives related to digitalization and resilience of supply chains.⁴¹

This could be done through knowledge-sharing initiatives which educate MSMEs on supply chain management and how they can improve efficiency through the uptake of digital technologies. As a start, lowering barriers to the adoption of supply chain-related digital tools could incentivize more firms to leverage these technologies.



This would help smaller Argentinean companies improve supply chain resilience amid the pandemic-induced economic crisis.⁴² For instance, New Zealand's Callaghan Innovation (a government agency) is working with NZTech (a group of technology industry associations) to create and nurture a pipeline of Kiwi companies to be global-ready. End-to-end support is provided for companies to scale globally in the form of "Getting Started Grants", "Founder" incubators, tax incentives for R&D efforts, subsidies for digital adoption ("capability vouchers"), and knowledge sharing platforms.⁴³

40. OECD (2021), The Digital Transformation of SMEs. Available at: <https://www.oecd.org/publications/the-digital-transformation-of-smes-bdb9256a-en.htm>

41. Brazil National Confederation of Industry (2020), Brazil Competitiveness Report 2019-2020. Available at: https://static.portaldaindustria.com.br/media/figer_public/8e/5a/8e5a50d5-0529-417a-bfe0-c76194bed833/brazilcompetitivenessreport_2019-2020.pdf

42. National University of Villa María (2021), Impacto económico de la crisis COVID-19 sobre la Pyme en Argentina. Available at: http://si.unvm.edu.ar/wp-content/uploads/2021/10/informe_PYME_siunvm.pdf

43. Ministry of Business, Innovation and Employment (2020), Digital technologies Industry Transformation Plan. Progress update for industry. Available at: www.mbie.govt.nz/dmsdocument/11638-digital-technologies-industry-transformation-plan

Recommendation 5: Introduce national cybersecurity standards to foster a digital ecosystem based on trust

In line with *Policy Lever 8: Promote digital security and build trust among businesses and consumers (Critical enabler)*, Argentina should continue building solid cybersecurity foundations for a safe digital space in both the public and private sectors. In the private sector, this could be done by enlisting government stakeholders to assist in developing and implementing industry standards for the country. Currently, although Argentina has a diverse set of regulations aimed at tackling cybersecurity, such as the laws on Computer Crime, Protection of Personal Data,⁴⁴ and Digital Signature, among others,⁴⁵ the measures have yet to achieve the expected results. Cybersecurity challenges such as identity thefts, online fraud and unauthorized use of personal data remain, and cyberattacks in the country doubled in 2021 compared to the previous year.⁴⁶

There are various areas which the government could look into. For instance, government services providing support to online users and victims of cybercrime can be further strengthened (or standardized across different levels of government) and leveraged to reduce the rate of

cyberattacks in the country, by introducing statistics on common problems and suggesting simple ways to tackle them (such as through a government hotline for users to report problems, changing passwords, or blocking certain contacts).⁴⁷

In addition, cybersecurity standards should also be applied to businesses in order to further boost their resilience against cyberattacks.⁴⁸ For instance, reducing risks and improving the cybersecurity policies of e-commerce or digital payments firms would increase trust and confidence among users who are still reluctant to perform their purchases online. For example, in 2022, one of the biggest e-commerce platforms in the country suffered a leak of over 300,000 users' data.⁴⁹ Incidents like these have a direct impact on consumers' confidence; hence, enhancing protection measures could increase interaction levels among e-commerce platforms and promote exports.⁵⁰

These standards could include a risk map where organizations evaluate their current cybersecurity framework, rank priority risks, and then define specific solutions to tackle them. The guidelines should also seek to cover the importance of developing a more robust cybersecurity culture that helps users and companies better protect and overcome cyberattacks. According to a study carried out in Argentina, companies who are better prepared are those who have already suffered a cyberattack.⁵¹

The above could be complemented by public-private partnerships, where stakeholders in both sectors share best practices and key learnings which could help the other party to improve their own internal policies and measures. Other stakeholders including academics, Chief Security Officers (CSOs), and private sector representatives could also be part of the discussion, and these standards could be replicated to ensure sufficient coverage for other platforms, such as video and mobile games.



44. "A Public Consultation for a new bill on Data Protection will take place during September 2022, with the objective to prepare a project for a new Personal Data Protection Law that allows responding to the new challenges imposed by technological transformations and the development of the digital economy.

See: <https://www.argentina.gob.ar/aaip/datospersonales/proyecto-ley-datos-personales>

45. Government of Argentina (n.d.), "Normativa – Ciberseguridad". Available at: <https://www.argentina.gob.ar/jefatura/innovacion-publica/direccion-nacional-ciberseguridad/normativa>

46. Universidad (2022), "Se duplicaron en 2021 los ciberataques en Argentina". Available at: <https://www.unidiversidad.com.ar/en-2021-se-duplicaron-los-ciberataques-en-argentina>

47. Universidad (2022), "Se duplicaron en 2021 los ciberataques en Argentina". Available at: www.unidiversidad.com.ar/en-2021-se-duplicaron-los-ciberataques-en-argentina

48. CGI (2019), Understanding Cybersecurity Standards. Available at: <https://www.cgi.com/sites/default/files/2019-08/cgi-understanding-cybersecurity-standards-white-paper.pdf>

49. InfoBae (2022), "Filtración en Mercado Libre y Mercado Pago: acceden sin autorización a los datos de 300.000 usuarios".

Available at: www.infobae.com/economia/2022/03/07/filtracion-masiva-en-mercado-libre-acceden-sin-autorizacion-a-los-datos-de-300000-usuarios/

50. See for example the UK's cybersecurity approach to exports and the strategy that outlines government's support to UK exporters. Available at: Cyber security: the UK's approach to exports - GOV.UK (www.gov.uk)

51. Microsoft (n.d.), Ciberseguridad en las empresas de Argentina.

Available at: https://info.microsoft.com/LA-SCRTY-CNTNT-FY20-03Mar-16-CiberseguridadenlasempresasdeArgentina-SRGC3336_02ThankYou-StandardHero.html

BOX 2.

GOOGLE CONTRIBUTES TO RECOMMENDATION 5: INTRODUCE NATIONAL CYBERSECURITY STANDARDS THROUGH ITS INITIATIVES TO ADVANCE CYBERSECURITY

GOOGLE SETS UP SECURITY PROGRAM AND CROSS-INDUSTRY CYBERSECURITY ACTION TEAM⁵²

Cognizant of the need for a consistent approach to preparing for and defending against cybersecurity threats, Google announced the creation of a new security program and a group called the Google Cybersecurity Action team, and a tripartite partnership with CrowdStrike and Palo Alto Networks. Acknowledging that many MSMEs still use legacy hardware and require assistance in handling increasingly complex technology with the increasing prevalence of remote working, Google designed the Work Safer tool to safeguard teams' collaboration tools, combining Google's cloud-native, zero-trust solutions with cybersecurity platforms from CrowdStrike and Palo Alto Networks that provide endpoint protection and network protection respectively.

In addition, the Google Cybersecurity Action Team, represented by experts from across Google, will offer blueprints, customer and engineering solutions, and initiatives for deploying Google products like Work Safer to assist enterprises address their most pressing security concerns. These include providing firms with customized security methods, workshops, and instructional materials to assist in cybersecurity measures, as well as support for rapid response in the event of any emergency.

GOOGLE COMMITS US\$10 BILLION TO DRIVE CYBERSECURITY IN COLLABORATION WITH GOVERNMENT⁵³

Responding to the White House's call for industry collaboration on cybersecurity, Google has pledged that it would invest a total of US\$10 billion in the United States from 2021-2026 on cybersecurity, including expanding zero-trust initiatives, assisting in the security of the software supply chain, and improving open-source security.

As a pioneer in zero-trust computing, it is advocating the deployment of the approach to production environments, urging the U.S. government to extend zero-trust guidelines and reference architecture language in the Executive Order implementation process to include production environments. On securing the software supply chain, Google has committed US\$100 million to third-party foundations, such as OpenSSF, that oversee open-source security priorities and assist in the remediation of vulnerabilities. It also committed to investing in the expansion of the application of the Supply-chain Levels for Software Artifacts (SLSA or "salsa") framework, a proven framework to secure the software supply chain, to raise the industry security standard for the software ecosystem. Robust cybersecurity also requires skilled ICT professionals. Through the Google Career Certificate program, Google plans to train 100,000 Americans in fields such as IT Support and Data Analytics, as well as in-demand skills such as data protection and security.

52. ZDNet (2021), "Google unveils new security programs, 'Cybersecurity Action Team' and partnerships with CrowdStrike, Palo Alto". Available at: www.zdnet.com/article/google-unveils-new-security-programs-cybersecurity-action-team-and-partnerships-with-crowdstrike-palo-alto/

53. Google (2021), "Why we're committing \$10 billion to advance cybersecurity". Available at: <https://blog.google/technology/safety-security/why-were-committing-10-billion-to-advance-cybersecurity/>

Recommendation 6: Increase the number and expand the scope of regional and international cooperation agreements on digital trade and economy

In line with *Policy Lever 9: Implement trade facilitation measures and policies (Critical enabler)*, Argentina should increase the number of digital trade agreements and implement paperless trade. According to Mercosur, countries cannot sign individual trade agreements with non-members without the consensus of the other states. Consequently, while there are several agreements with other nations, Argentina does not have any other trade agreement that includes specific digital trade regulations and guidelines beyond the one signed among Mercosur members (Argentina, Brazil, Paraguay and Uruguay bloc, subsequently joined by Venezuela and Bolivia) in 2021. The only exception is the agreement signed with Chile in 2017 that fosters digital signature uptake and promotes e-commerce.⁵⁴ Other multilateral agreements signed by Argentina, with the Andean Community (CAN)⁵⁵ and the Latin American Integration Association (ALADI)⁵⁶, fail to include provisions on digital trade. With trade facilitation agreements allowing for further cooperation with countries beyond its traditional partners, Argentina could improve its export revenues and empower its large e-commerce companies.

According to the Inter-American Development Bank (IDB), most digital sales and purchases in Mercosur before the pandemic were domestically driven. This reflected the early stages of cross-border digital trade in the region.⁵⁷ Since then, cross-border digital trade has increased dramatically, especially in Argentina. This growth was largely due to the social distancing measures imposed by the Government and the impossibility of people to commercialize products in-store.⁵⁸ Consumers had to change their behavior and businesses had to adapt by

quickly pivoting online to maintain their core business functions. Furthermore, since the signing of Mercosur, leaders within the region have worked extensively to achieve alignment on key issues such as data privacy, taxation, and digital intellectual property.

This has created business environments enabling companies and online sellers to grow and scale their operations locally and regionally.⁵⁹ Additional regional agreements could similarly serve to facilitate cross-border digital trade for countries in the Latin American region. Furthermore, these agreements could boost digitally-enabled services (such as software products and cloud computing solutions) that relate directly with the support and growth of e-commerce. Regional or international agreements covering both subjects could help the digital industry scale up quickly and safely.

However, Mercosur has participated in a few negotiations outside the bloc, leading to a substantial gap between actual and potential e-commerce provisions. In contrast, the Pacific Alliance, involving Chile, Colombia, Mexico and Peru, has adopted the greatest number of e-commerce provisions and has commitments in all categories of the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP).⁶⁰ Similarly, Central American and Caribbean countries have benefited from regional agreements with the United States and the European Union.⁶¹ At the national level, apart from the Mercosur agreement, Argentina does not have any trade agreements detailing specific digital trade regulations and guidelines with other countries, especially among the G20.

54. Argentina – Chile trade agreement. See: <https://www.subrei.gob.cl/acuerdos-comerciales/acuerdos-comerciales-vigentes/argentina>

55. CAN (2021), "Comunidad Andina". Available at: <https://www.comunidadandina.org/>

56. ALADI (2021), "Asociación Latinoamericana de Integración." Available at: <https://www.aladi.org/sitioaladi/>

57. Inter-American Development Bank (2018), Fueling Digital Trade in Mercosur: A Regulatory Roadmap. Available at: <https://publications.idb.org/publications/english/document/Fueling-Digital-Trade-in-Mercosur-A-Regulatory-Roadmap.pdf>

58. Argentine Chamber of Electronic Commerce (2021), Estudio Anual de Comercio Electrónico. Available at: <https://www.cace.org.ar/estadisticas>

59. MERCOSUR (2021), "Acuerdo para facilitar el comercio electrónico en el MERCOSUR". Available at: <https://www.mercosur.int/acuerdo-para-facilitar-el-comercio-electronico-en-el-mercursosur/>

60. The Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) is a free trade agreement (FTA) between Australia, Brunei Darussalam, Canada, Chile, Japan, Malaysia, Mexico, Peru, New Zealand, Singapore and Vietnam. Available at: <https://www.dfat.gov.au/trade/agreements/in-force/ctp/ctp-outcomes-documents>

61. ECLAC (2021), Post Pandemic COVID-19 Economic Recovery. Enabling Latin America and the Caribbean to better harness e-commerce and digital trade. Available at: https://www.cepal.org/sites/default/files/publication/files/46858/S2100269_en.pdf

BOX 3. BEST PRACTICES FOR RELEVANT POLICY LEVERS

RECOMMENDATION 2: UPDATE AND STRENGTHEN REGULATORY FRAMEWORKS TO CREATE A CONDUCTIVE ENVIRONMENT FOR DIGITAL BUSINESS MODELS [MALAYSIA]

In 2017, the Malaysian government implemented a “Digital Free Trade Zone” (DFTZ) in the country, a strategic multi-agency initiative aimed at promoting cross-border digital trade and facilitating MSMEs’ efforts to export via e-commerce.⁶² The DFTZ includes three components, the “eFulfillment Hub”, the “Satellite Services Hub”, and the “eServices Platform”. This initiative aimed to streamline regulatory processes in the country in order to make export processes smoother for businesses.

The “eFulfillment Hub” comprises warehouses, logistics, and customs facilitation facilities, and satellite services such as training and foreign investment services, while the “Satellite Services Hub” connects businesses with leading industry players who offer services like financing, last mile fulfillment, insurance which are important in cross-border trade.⁶³ The “eServices Platform” is a trade platform that connects customs services to other e-commerce services, and was developed to efficiently manage cargo clearance and other processes needed for cross-border trade.⁶⁴ All three components aim to leverage digital technologies to drive seamless cross-border trade and facilitate access of MSMEs to global markets.

From the end of 2017 to 2019, the DFTZ supported over 13,000 local MSMEs, allowing them to gain access to regional and global markets. This was more than a six-fold increase from the 2,000 MSMEs selling online in 2017, highlighting the importance of strong regulatory frameworks in facilitating export growth.⁶⁵

RECOMMENDATION 3: IDENTIFY DIGITAL CHAMPIONS IN THE PUBLIC SECTOR TO DRIVE THE ADOPTION OF DIGITAL TECHNOLOGIES FOR EXPORT-ORIENTED ACTIVITIES [URUGUAY]

In 2021, the government of Uruguay approved the 2025 Digital Agenda,⁶⁶ which constitutes the country’s roadmap for future digital development. The program is managed by Uruguay’s e-Government and Knowledge Management Agency, Agesic, and will create opportunities for software and hardware providers, as well as telecommunications and network services companies. The 2025 Digital Agenda is divided into 12 goals within five priority areas, and each of them includes a list of all relevant authorities involved in the objective, providing clarity and transparency regarding the leading authority and responsible area.⁶⁷

RECOMMENDATION 5: INTRODUCE NATIONAL STANDARDS FOR CYBERSECURITY [CANADA, MEXICO AND THE UNITED STATES; UNITED KINGDOM; SINGAPORE]

In 1999, Canada, Mexico, and the United States created the Electricity Information Sharing and Analysis Center (E-ISAC) operated by the North American Reliability Corporation (NERC) as a joint effort to reduce cyber and physical security risk to the electricity industry across North America.⁶⁸ Members of the E-ISAC’s Portal can voluntarily post and exchange information about cybersecurity threats with control over how they share it, while providing timely, relevant, and actionable situational awareness and analysis to asset owners, operators, and cross-sector government partners.

62. APEC Policy Support Unit (2017), Promoting E-commerce to Globalize MSMEs. Available at: www.apec.org/Publications/2017/11/Promoting-E-commerce-to-globalize-MSMEs

63. Malaysia Digital Economy Corporation (n.d.), “Digital Free Trade Zone (DFTZ)”. Available at: <https://mdec.my/digital-economy-initiatives/for-the-industry/entrepreneurs/dftz/# ~ text=The%20DFTZ%20is%20a%20strategic,global%20markets%20via%20e%2Dcommerce>

64. Malaysia Digital Economy Corporation (n.d.), “Digital Free Trade Zone (DFTZ)”. Available at: <https://mdec.my/digital-economy-initiatives/for-the-industry/entrepreneurs/dftz/# ~ text=The%20DFTZ%20is%20a%20strategic,global%20markets%20via%20e%2Dcommerce>

65. MDEC (n.a.), “Digital Free Trade Zone”. Available at: <https://mdec.my/digital-economy-initiatives/for-the-industry/entrepreneurs/dftz/# ~ text=The%20DFTZ%20is%20a%20strategic,global%20markets%20via%20e%2Dcommerce>

66. International Trade Administration (2021), “Uruguay – Country Commercial Guide”. Available at: <https://www.trade.gov/country-commercial-guides/uruguay-ict-computer-hardware-and-telecommunication-equipment# ~ text=In%20May%202021%2C%20Uruguay%20approved%20the%202025%20Digital,as%20telecom%20and%20network%20services%20companies%2C%20among%20others>

67. Uruguay Digital (2020), “Uruguay Digital Agenda 2025”. Available at: <https://www.gub.uy/uruguay-digital/en/comunicacion/publicaciones/uruguay-digital-agenda-2025>

68. North American Electric Reliability Corporation (n.a.), “Electric Information Sharing and Analysis Center”. Available at: <https://www.nerc.com/pa/CI/ESISAC/Pages/default.aspx# ~ text=The%20Electricity%20Information%20Sharing%20and%20Analysis%20Center%20%28E-ISAC%29, and%20is%20organizationally%20isolated%20from%20NERC%27s%20enforcement%20processes>

Another example is the Cyber Assessment Framework (CAF) developed by the UK National Cyber Security Centre (NCSC), which provides a systematic and comprehensive approach to assessing the extent to which cyber risks to essential functions are being managed by the organization responsible.⁶⁹ It is intended to be used either by the responsible organization itself (self-assessment) or by an independent external entity, possibly a regulator or a suitably qualified organization acting on behalf of a regulator. The CAF collection consists of a set of 14 cybersecurity and resilience principles, guidance on using and applying the principles, and a collection of structured sets of Indicators of Good Practice.

In 2018, Singapore also launched the Innovation Cybersecurity Ecosystem⁷⁰, considered the region's first digital security entrepreneur hub to strengthen the region's growing digital security ecosystem by attracting and developing technologies to mitigate the rapidly increasing digital security risk.

**RECOMMENDATION 6:
INCREASE THE NUMBER OF REGIONAL AND
INTERNATIONAL COOPERATION AGREEMENTS
[PHILIPPINES; SINGAPORE, NEW ZEALAND
AND CHILE]**

In the Philippines, the government is currently engaged in several multilateral trade agreements to boost digital trade. For example, the Philippines acceded to the United Nations Economic and Social Commission for Asia and the Pacific's (UNESCAP) "Framework Agreement on Facilitation of Cross-border Paperless Trade in Asia and the Pacific" in December 2019, making it the first Association of Southeast Asian Nations (ASEAN) member-country to do so.⁷¹

Complementing the World Trade Organization's (WTO) "Trade Facilitation Agreement" (TFA), the framework agreement is expected to cut trade costs by at



least ten percent for the Philippines by enabling the exchange and mutual recognition of trade-related data and documents in electronic form. This framework also provides the Philippines ready access to potential counterparts for negotiation on cross-border data exchange, setting the foundation to deepen future digital collaborations. Finally, the Philippines is also engaged in the "Joint Statement Initiative" negotiations on e-commerce among WTO members, which will seek to set the baseline for global digital trade.⁷² The outcome of these negotiations can have important implications for the future development of e-commerce, including addressing sensitive regulatory issues, ranging from privacy and personal data protection to cybersecurity, as well as industrialization objectives for the digital economy.

Another example of an agreement which serves to facilitate greater digital trade and help SMEs overcome the challenges of scale and distance is the "Digital Economy Partnership Agreement" (DEPA) signed between Singapore, New Zealand and Chile.⁷³ The DEPA includes provisions that streamline trading procedures through digitizing trading documentation, promoting open cross-border data flows with the necessary data safeguards. Through the DEPA, businesses operating in the three signatory countries can transfer information seamlessly across borders, with the assurance that the data is protected by the relevant security mechanisms and requisite regulations.⁷⁴

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