THE DIGITAL SPRINTERS: THE CASE OF ARGENTINA

> ARGENTINA COULD UNLOCK AN ADDITIONAL USD149 BILLION OF ECONOMIC IMPACT FOR 2030 THROUGH SUPPORTIVE POLICIES THAT ENABLE FULL UTILIZATION OF DIGITAL TECHNOLOGIES.

Globally, there has been a large increase in policy focus on the digital transformation of economy, society and government. This has led to significant uptakes in internet penetration (as evidenced by rising internet use). For example, from 2010 until 2017 Argentina has successfully brought an additional 29 percent of its population online.[1] Initiatives likely to have contributed to this include the Argentine government's "Argentina Conectada (Argentina Connected)" plan launched in 2010 which involved the installation of more telecommunication infrastructure and expanding wireless internet networks throughout the community.[2] Going forward however, more than providing access to the internet may likely be required to fully leverage digital technologies for economic development. Argentina could capture a potential annual (year-on-year) economic impact of up to ***USD149 billion in 2030*** *through supportive policies that enable full utilization of digital technologies.[3] Given the need to rebuild economies following the impact of COVID-19, the importance of capturing this potential digital dividend becomes ever more crucial. This research by economic strategy firm AlphaBeta (commissioned by Google) aims to understand how emerging economies can fully utilize digital technologies to achieve gains in economic development.*

The report focuses on 16 important emerging economies (which we dub the "Digital Sprinters"). These economies are Argentina, Brazil, Chile, Colombia, Egypt, Israel, Kenya, Mexico, Nigeria, Peru, Saudi Arabia, South Africa, Russia, Turkey, the United Arab Emirates and Ukraine. Together, these "Digital Sprinters" account for 13 percent of GDP, 16 percent of population and 19 percent of internet users globally.

Based on this research, a number of insights across the Digital Sprinters emerged that are of relevance to Argentina and are summarized in this document. More details can be found in the full report.[4]

1. Based on World Bank, World Development Indicators.

2. International Telecommunication Union (2011), "Argentina Connected". Available at: https://www.itu.int/net/itunews/issues/2011/07/24.aspx

3. These estimates refer to the value generated by 39 technology applications across 10 sectors in 2030, quantified based on a "Full adoption" scenario (i.e. 100 percent adoption). This implies that these ten sectors will become "Digital leaders" with significant leap-frogging. A "Full adoption" scenario is unlikely to be realistic but useful as a thought experiment and to frame the total opportunity.
Estimates do not represent GDP or market size (revenue), but rather a combination of economic impacts such as productivity gains, increased revenues and cost savings. The relevant technology applications by sector and their sources of value (e.g. reduced wastage in production, enhanced consumer offerings) were identified based on a detailed review of the academic literature. The exact sizing methodology is unique to each of the 39 technology applications, but estimates use a series of international and country-specific case studies for each technology application to quantify estimates. Across the 39 estimations economic indicators sourced from international organizations such as the World Bank, International Labor Organization, OECD and national statistics offices were used.
Detailed data sources and estimation methodologies for each of the 39 applications are listed in the Appendix to the main report, linked here https://alphabeta.com/our-research/the-digital-sprinters-capturing-a-us34-trillion-through-innovative-public-policy/

4. This research was prepared by AlphaBeta for Google. All information in this summary and the main report was derived from AlphaBeta analysis using both proprietary and publicly available research, data and information. Google does not endorse any estimates.

In Argentina, as in most of the Digital Sprinters, fast growth in internet penetration has not translated into a faster pace of economic growth.

Historically, economic growth in Argentina has not kept pace with internet adoption. For example, since 2013, Argentina's internet population has grown by 6.7 percent annually, but real GDP has declined by 0.4 percent annually.[5] Labor productivity has also declined by 1.0 percent annually during this same period.

If the transition from digital penetration to economic growth could be fully leveraged, digital technologies could transform economic development in Argentina.

The research identifies eight groups of digital technologies with significant potential to enhance economic development. In the hypothetical scenario where applications based on the eight digital technologies in ten sectors are fully adopted, the combined annual economic impact in Argentina could reach up to ***USD149 billion in 2030***, which is about 23 percent of the country's estimated GDP in 2030 (see Exhibit 1). About 44 percent of the ***potential benefits of digital technologies accrue to traditional sectors, namely resources, infrastructure, and agriculture.***

12 policy levers linked to four strategic imperatives are crucial to go beyond digital penetration and capture the digital benefits linked to economic development.

A review of impactful, innovative and practical digital policies identified a number of important levers for capturing the digital-led economic development opportunity (see Exhibit 2).

While it is unlikely that all 12 policy levers will be applicable to the Argentine context, a number of innovative policy levers could be considered.

POLICY LEVER 1:

INTRODUCE DIGITAL BOOTCAMPS

Short-term, focused education courses, which are run by employers can be crucial to fill in necessary skill gaps. For example, the "Generation Program" focuses on four sectors with teaching facilities in 119 cities in six continents. The program is offered to 18- to 29-year-olds.[6] Among the program's features are direct contact with potential employers, matching trainee attributes with employer needs, courses that cover technical, behavioral, and mental skills, continuous monitoring and support during and after the program, and a strong alumni network. Since its inception, 31,600 people have gone through the training with 80 percent finding jobs within three months of finishing the program and 65 percent of those stayed with their jobs for at least one year.[7] Employers also rate program graduates as higher performing than their peers.[8] Where attempts at such bootcamp based interventions can fall short is when national (or international) programs fail to focus on the local job market context and opportunities. Further, if the effort is led by one dominant local employer, the skills taught can end up being too firm-specific and non-transferrable which is problematic if the employer cannot commit to hiring the entire cohort of workers, who would then be forced to look for employment elsewhere.

POLICY LEVER 2:

LEVERAGE DIGITAL SERVICES FOR ACCESS TO ECONOMIC NECESSITIES

Providing a tangible service (such as access to energy) that requires customers to sign up for and start using a digital platform (for example e-money, i.e. mobile money and prepaid cards) can demonstrably drive digital inclusion. Nigeria's pay-as-you-go solar scheme provides one such example. In many emerging economies, electrical grids are unstable, forcing households to rely on small-scale generators for primary or back-up power. In Nigeria, households and businesses spend almost USD14 billion a year on inefficient electricity generation.[9] Pay-as-you-go (PAYG) solar could address this issue; however, traditional methods of payment are not suitable for these rural customers since most of them are financially excluded. Using innovative mobile payment solutions to reach a wider customer base than previously accessible through traditional sales and distribution models can circumvent this problem.[10] In Nigeria, such models could save the government USD5-9 billion annually.[11] Challenges can arise if the underlying platform or ICT infrastructure is not stable and prone to outages. Since citizens depend on the platform for access to basic goods such as energy or water, disruptions can have drastic consequences.

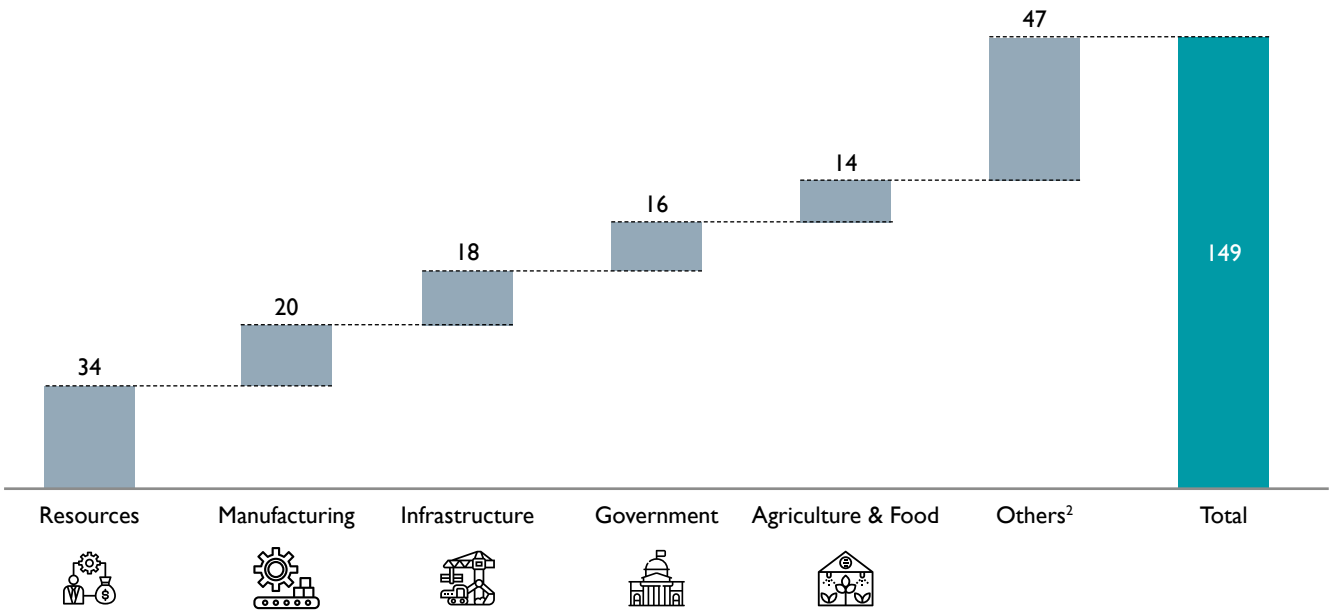
TO BE CONTINUED ON PAGE 4

5. Based on World Bank, World Development Indicators.
6. Generation Program (2019). Available at: https://www.generation.org/
7. Generation Program (2019). Available at: https://www.generation.org/
8. Asia Philanthropy Circle (2017), Catalysing productive livelihood: A guide to education interventions with an accelerated path to scale and impact. Available at: http://www.edumap-indonesia.asiaphilanthropycircle.org/wp-content/uploads/2017/11/APC-Giving-Guide-Book-Final-Report-17112017.pdf
9. GSMA (2016), Mobile for Development Utilities: Assessing the Opportunity for Pay-as-you-go Solar in Nigeria. Available at: https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2016/02/GSMA_Etisalat_PAYG_Final-20160211.pdf
10. USAID (2018), The Digital Financial Services Landscape in Nigeria: Enabling Market Conditions for Pay-As-You-Go Solar. Available at: https://www.usaid.gov/sites/default/files/documents/1860/Enabling_Market_Conditions_for_Pay-As-You-Go_Solar_Executive_Summary.pdf
11. Mastercard Foundation & IFC (2018) Digital Access: The Future of Financial Inclusion in Africa. Available at: https://www.ifc.org/wps/wcm/connect/96a4f610-62b1-4830-8516-f11642cfeafd/201805_Digital-Access_The-Future-of-Financial-Inclusion-in-Africa_v1.pdf?MOD=AJPERES&CVID=mdz-QF0

EXHIBIT 1: THE VALUE OF DIGITAL TECHNOLOGIES

POTENTIAL ANNUAL ECONOMIC IMPACT IN THE FULL ADOPTION SCENARIO

USD BILLION, 2030 (HIGH-END ESTIMATES)[1]



1. These estimates do not represent GDP or market size (revenue), but rather economic impact, including GDP increments, productivity gains, cost savings, time savings, increased revenues, increased wages and increased tax collection.
2. Others include Consumer, Retail & Hospitality; Education & Training; Financial Services; Health, and Mobility.
SOURCE: AlphaBeta analysis

EXHIBIT 2: POLICIES TO CAPTURE THE VALUE OF DIGITAL TECHNOLOGIES

LEAD FROM THE TOP

1 Steer the direction	2 Coordinate across government	3 Support global digital integration
Drive change through the public sector	**Equip the private sector with the digital essentials**	**Put citizens at the center of the digital economy**
4 Create tipping points through government procurement	7 Craft regulations for the digital, not analog era	11 Support those who could be left behind by the digital transformation
5 Go 100% digital on government services	8 Build future-proof digital infrastructure with interoperability and upgrading in mind	12 Equip people with the right skills to access digital opportunities
6 Crowd source policy innovation	9 Equip MSMEs with the digital tools to support their growth	
	10 Use co-creation, the sharing economy and new digital incentives to stimulate innovation	

While it is unlikely that all 12 policy levers will be applicable to the Argentine context, a number of innovative policy levers could be considered.

POLICY LEVER 3:

DEVELOP DIGITAL TRANSFORMATION (INNOVATION) CENTERS AND MODEL (LEARNING) FACTORIES

These refer to physical places where entrepreneurs, business owners, researchers and innovators can come to try their hands at new technologies and digital applications. Often such places also provide training and skills development. Turkey, for example, has rolled out digital transformation centers where MSMEs can receive experimental training and consultancy services in real production environments.[12] Successfully implementing such initiatives requires strong industry engagement to ensure they see the benefits of the collaboration, adopt a rigorous approach in identifying the key technologies and sectors to focus on (not neglecting traditional sectors such as textile manufacturing), and must ensure that there are clear frameworks governing the use of the intellectual property generated.

POLICY LEVER 4:

COOPERATE ON STANDARDS

Standards are crucial to not only ensure some minimum safeguards for safety and security, but also to ease the ability to transact. Adopting international legal security standards assists governments in the development of their own security frameworks and provides comfort and reassurance to organizations. It also decreases the barriers for domestic firms to export their operations abroad, as their security standards are likely to already comply with international markets. For example, Australia's Information Security Registered Assessors Program (IRAP) and South Korea's Cloud Security Assurance Program (CiSAP) have set up security frameworks for the public cloud that follow international best practice frameworks such as the ISO 27000 series.[13]

POLICY LEVER 5:

LEVERAGE CLOUD COMPUTING FOR EFFICIENCY GAINS ACROSS THE GOVERNMENT

Cloud technology, in particular cloud storage and cloud computing power, is an enabling technology that could be utilized for different applications. Cloud computing technologies across government could lead to significant efficiency gains and cost savings for governments' ICT budgets. Cloud computing has also been leveraged in the planning and running of cities, often referred to as Smart Cities.[14] For example, Rio de Janeiro has begun to implement smart solutions to improve urban planning and operations such as using data applications and technology to help improve transport flows and allow fleet vehicles to communicate with headquarters when it is time for maintenance checks.

POLICY LEVER 6:

BUILD FUTURE-PROOF DIGITAL INFRASTRUCTURE WITH INTEROPERABILITY AND UPGRADING IN MIND

In the fast-evolving technology landscape, challenges arise when digital infrastructure is created with a specific technology in mind that could potentially end up obsolete in the future. Similarly, if infrastructure is built with providers in mind, it could lead to interoperability issues that can drive fragmentation, transaction costs and give rise to competition issues. India has had great success with the development of its Unified Payments Interface (UPI) that facilitates inter-bank transactions. The payment gateway allows customers of different banks to transfer funds between each other in a seamless fashion. Third party payment providers such as Google Pay, PhonePe and Paytm could also leverage the gateway by helping customers with bank accounts transact with those without.

POLICY LEVER 7:

ENCOURAGE A SHARING ECONOMY FOR NON-SERVICES SECTORS

Sharing of fixed assets (e.g. equipment, warehouses) that reduces fixed costs by transforming them into ongoing variable costs is enabled by digital technologies such as the Internet of Things. However, much of the innovation to date has been in service sectors (e.g. car sharing, home sharing), with limited traction in traditional sectors such as manufacturing and agriculture. An example is Hello Tractor, which works with smallholder farmers in Africa by aggregating smallholder farmers' requests for tractor service on behalf of tractor owners, while providing enhanced security through remote asset tracking and virtual monitoring.[15] Some other successful examples of fixed asset-sharing include Toronto's Tool Libraries, which provide free access to power tools and 3-D printers for low-income households; or shared community facilities, such as Vancouver's Incubator Kitchen, which provides low-cost access to commercial kitchen space for community organizations.[16]

12. Gunes and Sahin (2018), "Turkey to establish digital transformation centers", Anadolu Agency. Available at: https://www.aa.com.tr/en/economy/turkey-to-establish-digital-transformation-centers/1258349
13. BCG (2019), Ascent to the cloud – How six key APAC economies can lift-off. Available at: http://image-src.bcg.com/Images/Ascent_to_the_Cloud_Report_21Oct_tcm9-231826.pdf
14. IDB (2018), Cloud Computing: Opportunities and Challenges for Sustainable Economic Development in Latin America and the Caribbean. Available at https://publications.iadb.org/en/cloud-computing-opportunities-and-challenges-sustainable-economic-development-latin-america-and
15. https://www.hellotractor.com/about-us/
16. One Earth (2015), Local Governments and the Sharing Economy. Available at: http://www.oneearthweb.org/uploads/2113/3/21333498/localgovsharingecon_report_full_oct2015.pdf

FOR MORE DETAILED INFORMATION ON THE RESEARCH,
PLEASE REFER TO THE FULL REPORT AT:
https://alphabeta.com/our-research/the-digital-sprinters-capturing-a-us34-trillion-through-innovative-public-policy/

Prepared by AlphaBeta

αlphaβeta
strategy x economics