Argentina’s Renewal:
Capitalising on reform in South America’s second-largest economy
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Argentina offers significant potential for Australian businesses. With its population of 43 million, significant agricultural capacity, mineral resources, and a burgeoning tech sector, Australia has world-class capabilities in a range of sectors highly relevant to Argentina’s economic renewal, including mining, agribusiness, water resource management, infrastructure, and education.

This report provides a timely analysis of the emerging opportunities for Australian exporters and investors. There is strong potential for Australian business to deepen and diversify our balance of trade with Argentina, and to capitalise on numerous complementary opportunities across a range of sectors. These opportunities are already being realised, with Australian companies making two new investments into Argentina totaling US$200 million in 2016, and further announcements in 2017 of investments worth an additional US$860 million.

Australia’s globally recognised expertise and capabilities in agricultural machinery and equipment, in water and irrigation management, in infrastructure development and funding models, and mining and energy mean we are well placed to be a trusted trading partner for Argentina in the future.

Demonstrating the renewed interest between Australia and Argentina, a number of high-level visits and delegations have occurred in recent time. In August 2016, Governor-General Sir Peter Cosgrove visited Buenos Aires. In March 2017, the Argentine government sent their highest-level delegation to Australia in 20 years, led by Vice President Gabriela Michetti. Further affirming our relationship, in June 2017, Foreign Minister Julie Bishop made the first visit to Argentina by an Australian Foreign Minister in over 15 years. These visits reinforce our shared commitment to economic liberalisation and assert Australia’s support for Argentina as host of the December 2017 WTO Ministerial Conference and the G20 in 2018.

These visits have also served to reinforce our existing relationship and highlight mutual opportunities in both countries, as well as explore ways in which Australia’s experience can help Argentina through its economic liberalisation program. There is an opportunity to build confidence within Argentina of Australia’s leading-edge capabilities, as well as differentiate us from our international competitors.

To ensure Australian companies are well-positioned to take advantage of Argentina’s re-emergence as a major destination for trade and investment, the Australian Trade and Investment Commission (Austrade) is working to meet the growing demand for assistance by businesses in both countries. The Turnbull Government is actively helping Australian businesses navigate the Argentine commercial landscape and explore specific commercial opportunities. I encourage Australian companies with an interest in Argentina to take advantage of Austrade’s presence.

The opportunities in Argentina are exciting for Australian business and this report, developed by the Export Council of Australia and Austrade, provides a comprehensive introduction to a market that has considerable untapped potential.
Argentina represents an incredible opportunity for Australian companies across both traditional and emerging sectors. This opportunity is largely untapped, a situation which can and should change as Argentina’s reform and renewal process makes the country an easier and simpler place to do business.

One of the largest and most developed markets in Latin America, Argentina offers potentially lucrative opportunities for Australian companies with the investment, technology and expertise to offer in a number of areas.

Argentina has large agriculture and resources industries, like Australia, and is a world-leading producer of several commodities and rich in a number of minerals. The country is also an emerging giant in increasingly important areas, such as lithium production.

To fully capitalise on its natural endowments, Argentina is in need of not only foreign investment, but also the technology and expertise that will allow it to boost the productivity and efficiency of its agriculture and resource sectors. Australian companies are well-placed to meet this demand, considering our world-leading capabilities in areas ranging from agricultural machinery and equipment, to water and irrigation management practices.

In infrastructure, Argentina’s cities and transport network are coming under increasing stress as the country grows and develops. This creates opportunities for Australian companies with expertise and capabilities in urban development and transport infrastructure, who may find ample potential to capitalise on Argentina’s modernisation.

This modernisation also creates demand for the education and training necessary to upskill the country’s workforce. Our strengths in these areas are already on display in Argentina, as Australia’s qualifications system for vocational education and training has served as a model for education institutions in the country. There is plenty more potential for Australian service providers in areas like vocational education and training.

In emerging sectors like the digital economy, Argentina’s growing ecosystems allow it to leverage growing strengths and capabilities from Australia’s innovative start-ups and research institutions.

Of course, opportunity in Argentina is not limited to these areas, and the country can also be a Latin America base for Australian companies to diversify into new areas. For example, automotive after part manufacturers have relevant technology and capabilities that can easily translate to the METS sector, and vice versa.

The ECA encourages any Australian company with goods, services, investment or expertise to offer in any of these areas – or in a myriad of other areas not covered in this report – to consider the potential Argentina can offer your company.

For those looking to take the next step in their international business journey, we offer plenty of services that can help you tap into opportunities in markets such as Argentina. These range from in-person and online courses covering the A-to-Z’s of international business, to more tailored workshops and in-house training solutions. Please feel free to reach out to us for more information.

We would like to thank the Australian Trade and Investment Commission for sponsoring and supporting this project, and recognise the crucial role they play in assisting Australian companies in this very promising market. I would also like to acknowledge and thank Niels Strazdins, Head of Research at the ECA, and his team for creating this practical and timely report. We hope it provides valuable insight into the reform and renewal taking place in Argentina, and that you take away some useful points on opportunities for your business.
[ Executive Summary ]
Argentina is one of the largest and most developed markets in Latin America, and a land of significant untapped opportunity for Australian goods, services and best-practice expertise.

Business-friendly reforms being undertaken by the current government are opening the door to new opportunities for Australian companies in sectors as diverse as agriculture, energy and digital services. In the context of our relatively small economic relationship, Argentina offers excellent growth and diversification prospects for Australian companies.

As our economies are similarly geared toward the export of minerals and fresh produce, Australia and Argentina have traditionally viewed each other as competitors. However, our businesses are increasingly recognising complementarities, as well as seeking opportunities for synergies that can facilitate connections to third markets.

Argentina’s effort to modernise its large agriculture, mining and energy sectors creates significant opportunity for Australia’s world-leading expertise in these industries. The country’s investment, technology and knowledge needs in infrastructure, education and the digital economy are also areas where Australia’s capabilities – whether emerging or long-established – can find strong prospects.

Potential-rich and resource-strong, Argentina can be a gateway to new opportunities – as well as new markets – for Australian companies of all sizes. The country’s current reform program is removing old barriers and roadblocks to trade, as well as resolving uncertainties and issues that had previously inhibited market access to foreign investors.

This report is intended to highlight some of the opportunities available to Australian companies as a result of these reforms and Argentina’s renewal.

After a brief introduction to the country in Section 1, specific market sector overviews and opportunities for Australian companies are highlighted in Section 2. Some of the remaining challenges to doing business in Argentina are discussed in Section 3. More general reference information on doing business in Argentina is then featured in Section 4, before some concluding remarks are made in Section 5.
Introduction to Argentina
Argentina’s Geography

Argentina is the second largest country in South America after Brazil, and the eighth largest in the world. Measuring roughly 2.8 million square kilometres, it is a federation of 23 provinces and one autonomous city, its self-governed capital Buenos Aires.

Topographically, Argentina is largely a lowland country. The Andes mountain range forms its western border with Chile. It is favourably located between the south Atlantic and south Pacific Oceans, and borders Bolivia, Brazil, Paraguay and Uruguay to the north.

Geographically, Argentina can be divided into five main regions: the commodities-rich northwest region; the green and humid northeast region; the fertile lowlands of the Pampas in the east; the mountainous and wine-producing Cuyo region in the west; and the semi-arid scrubland of Patagonia in the south, as illustrated in Figure 1.1.

The country is highly urbanised, with 93% of Argentines living in metropolitan areas. The Greater Buenos Aires region is home to nearly one-third of the country’s population, with the remainder largely dispersed across Argentina’s northern and central regions. After Buenos Aires (15.1 million population), the country’s next largest cities are Córdoba (1.5 million), Rosario (1.3 million) and Mendoza (1 million). The vast Patagonia region in the south is sparsely populated, with just two million residents in an area covering more than one million square kilometres.

### Argentina’s Provinces and Industry Sectors

Argentina has valuable natural resources throughout its territory. The most important sectors by region are as follows:

- **Cuyo**
  - Agricultural products: grapes (wine production), olives
  - Mining: gold, silver, copper

- **Pampas**
  - Agricultural products: soy, wheat, maize, sunflower, peanut
  - Cattle raising

- **Patagonia**
  - Fish
  - Fruits
  - Petroleum / shale oil / shale gas

- **Northwest**
  - Agricultural products: soy, maize, sugarcane
  - Mining: gold, silver, lithium, potassium
  - Gas

- **Northeast**
  - Agricultural products: tea, yerba mate, rice, soy, corn, citrus products and derivatives
  - Forestry

*Figure 1.1: Argentina’s provinces and prominent industry sectors (Source: Argentina Investment and Trade Promotion Agency)*
Argentina’s Politics

Argentina is a presidential democratic republic. The President of Argentina is both the country’s Head of State and Head of Government. Both the President and Vice President are elected by popular vote for four-year terms, with the possibility of re-election for one additional term.

Argentina’s bicameral Congress – officially the Congress of the Argentine Nation – is the government’s legislative arm. It consists of a 72-seat Senate and a 257-seat Chamber of Deputies. Three Senators are elected per province for six-year terms. Half of the Chamber of Deputies is elected every two years for four-year terms on a proportional representation basis.

Mauricio Macri is Argentina’s current President and was elected on a business-friendly reformist platform in 2015.

Argentina’s Economy

Much like Australia, Argentina is blessed with a wealth of natural resources. The production and export of these riches (particularly agricultural products) contribute to Argentina’s standing as the third largest economy in Latin America and the 21st largest in the world.6

Argentina’s largest export destinations include Brazil (16% of exports in 2016), China (8%) and the United States (8%).7 Its largest exports are agricultural products, motor vehicles and parts, chemicals and related products, crude oil, and base metals.8

It has particular strengths in several industries such as agriculture, mining and minerals, and energy. It also has a relatively diversified manufacturing sector and a good reservoir of human capital to draw upon.

Argentina is one of the world’s largest agricultural producers and a leading exporter of beef, citrus fruit, soybeans, honey, sunflower seeds, maize and sorghum, among other commodities.9

It is also a mineral-rich country, and an important regional producer of aluminium, copper, zinc, lead, gold and silver. It is an emerging giant in lithium, a vital component in electronic manufacturing. The country is now the world’s third-largest lithium producer and accounts for almost one-fifth of global production.10

In energy, Argentina is the third-largest power market in Latin America,11 boasting significant and relatively untapped potential in renewables and unconventional oil and gas. Reforms and new investment could triple the country’s oil and gas production over the next decade.12

Manufacturing of agricultural and industrial products is the largest sector of the country’s economy and accounts for over 70% of its exports (see Figure 1.2).
ARGENTINA'S RENEWAL

Figure 1.3: Argentina’s headline economic indicators; (e) = estimated data (Source: International Monetary Fund)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017(e)</th>
<th>2018(e)</th>
<th>2019(e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP, current prices (USD, billions)</td>
<td>579.7</td>
<td>611.5</td>
<td>563.6</td>
<td>631.6</td>
<td>545.1</td>
<td>628.9</td>
<td>651.3</td>
<td>709.5</td>
</tr>
<tr>
<td>GDP per capita (USD)</td>
<td>13,889.8</td>
<td>14,488.8</td>
<td>13,208.8</td>
<td>14,643.9</td>
<td>12,502.8</td>
<td>14,267.3</td>
<td>14,611.5</td>
<td>15,737.16</td>
</tr>
<tr>
<td>Real GDP growth (% change year-on-year)</td>
<td>-1.0</td>
<td>2.4</td>
<td>-2.5</td>
<td>2.6</td>
<td>-2.3</td>
<td>2.2</td>
<td>2.8</td>
<td>2.9</td>
</tr>
<tr>
<td>Current account balance (% GDP)</td>
<td>-0.2</td>
<td>-2.0</td>
<td>-1.4</td>
<td>-2.7</td>
<td>-2.6</td>
<td>-2.9</td>
<td>-3.6</td>
<td>-3.9</td>
</tr>
<tr>
<td>Inflation (% change year-on-year)</td>
<td>10.0</td>
<td>10.6</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>25.6</td>
<td>19.0</td>
<td>15.0</td>
</tr>
<tr>
<td>Unemployment (% labour force)</td>
<td>7.2</td>
<td>7.1</td>
<td>7.3</td>
<td>n/a</td>
<td>n/a</td>
<td>8.5</td>
<td>7.4</td>
<td>8.3</td>
</tr>
</tbody>
</table>

Figure 1.4: Argentina’s exports, 2015 (Source: Argentina National Institute of Statistics and Censuses)

Argentina’s Exports (2015)

<table>
<thead>
<tr>
<th>Category</th>
<th>Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural manufactures</td>
<td>41%</td>
</tr>
<tr>
<td>Industrial manufactures</td>
<td>32%</td>
</tr>
<tr>
<td>Primary products</td>
<td>23%</td>
</tr>
<tr>
<td>Energy and fuels</td>
<td>4%</td>
</tr>
</tbody>
</table>

A strong reservoir of human capital rounds out the country’s economic base. A sizeable middle class with strong purchasing power creates a growing market for consumer goods and services, as well as discretionary purchases.

Figure 1.3 details some of Argentina’s headline indicators over the past few years.

Despite these strengths and natural advantages, access to the foreign capital and technology necessary to fully tap into Argentina’s energy and resource sectors has been inhibited due to economic and political uncertainty over the past decade.

However, since assuming power in 2015, President Macri’s administration has introduced a number of reforms aimed at restoring confidence in the Argentine economy. It has reduced barriers to foreign businesses in Argentina, as well as to Argentine companies doing business abroad.

Moves so far to boost local competitiveness and ensure a business-friendly climate have included a reduction in export taxes, the removal of capital controls and a lowering of import restrictions. Argentina’s access to international money markets has also been restored by settling a long-running dispute with holdout sovereign creditors, detailed further in Section 3 of this report.
These measures have already borne fruit with Argentina’s economy returning to growth in the fourth quarter of 2016, despite an overall contraction for the year.

As of early 2017, new investment announcements since President Macri’s election totalled USD 33 billion, mostly originating from the United States, Canada, Spain, Germany and Brazil.\textsuperscript{12} Total investment in the country – including local companies and joint ventures between foreign and Argentine companies – totalled USD 58.6 billion.\textsuperscript{14}

Figure 1.4 details some of the notable investments made in Argentina since December 2015.

There are several remaining challenges to be tackled as Argentina continues its reforms, such as addressing some of the highest tax, labour and logistics costs in Latin America.

The country ranks just 116th in the world for ease of doing business according to the World Bank.\textsuperscript{15} Starting a business (ranked 157th), dealing with construction permits (173rd) and paying taxes (178th) are particular areas in need of attention.\textsuperscript{16}

More broadly, a still-high and variable inflation rate continues to plague consumers and prospective investors. In addition, low commodity prices, combined with the poor economic performance of its largest trading partner, Brazil, have contributed to a weakening in the value of Argentina’s primary exports.

Nevertheless, with trade and capital restrictions largely eased and promising reforms underway, the future shines bright for the South American continent’s second-largest economy.

### Notable Recent Foreign Investment

Investments of USD 1 billion or more in Argentina since December 2015 include:

- **BANCO SANTANDER SA** USD 1.2 bn
  Investment in modernisation of branches, opening new branches, improving technology and building new corporate office building

- **COCA-COLA CO** USD 1.4 bn
  Investment in bottling and distribution operations

- **DOW CHEMICAL CO** USD 2 bn
  Investment in oil and gas projects together with Argentina’s YPF SA, including USD 400-500 million in shale exploration

- **PAN AMERICAN ENERGY LLC** USD 1.4 bn
  Investment in exploring and producing conventional and unconventional energy reserves

- **SIEMENS AG** USD 5.6 bn
  Investment and financing for infrastructure, mobility and energy management

- **VALE SA** USD 1.5 bn
  Investment in restarting Rio Colorado potash mine, closed since 2012
Argentina’s Society

Argentina’s 43 million-strong population is relatively young, multicultural, literate and industrious. Its workforce is skilled and highly-qualified.

Argentina’s society is based on a significant European heritage, the product of a historic open-door policy to immigration. The country is home to a large community of Argentines with Spanish and Italian descent, as well as a smaller community of Arab Argentines primarily of Levantine descent.

Around 40% of Argentines are under the age of 25 and the median age of the population is 31.5 years. This youth cohort is the largest in Argentina’s history and could help jumpstart its economy through higher saving and investment.

Argentines value education, which is free and compulsory from primary through to undergraduate level. The country has one of the highest literacy rates in Latin America at 98.1%, and Argentine students spend an average of 17 years in formal education. At around 80%, Argentina’s gross enrolment ratio is also one of the highest in the region, and in line with those in New Zealand, for example.

Its youthful population points to a bright future for Argentina in the digital age, especially once challenges such as a lack of locally-relevant content and high equipment and device costs are overcome. The country’s internet penetration rate is nearly 70%, with Argentines being avid users of online communication and networking platforms.

Australia-Argentina Trade Relations

Argentina is Australia’s 43rd largest merchandise trading partner, with trade in primary products being the largest component of the relationship.

More than 50 Australian companies currently operate in Argentina across a broad range of sectors, including mining, agribusiness, entertainment, port management, freight equipment and insurance services. Australia’s direct investment in Argentina stood at AUD 218 million in 2016.

Australia imports around four times more from Argentina than it exports to the country. It is currently Australia’s 39th largest merchandise import source and our 51st largest merchandise export market.

Our bilateral trade in services trails our trade in goods by some margin.
Argentina is Australia’s 59th largest services export market and our 54th largest services import source. Our bilateral services trade is dominated by personal travel (excluding education) which accounts for 55% of our Australian services exports to Argentina and 87% of our service imports from there.

Tourism and education are a growing element of Australia-Argentina services trade. Australia hosted 11,400 short-term visitors from Argentina in 2015 (an 8% year-on-year increase), and there were 651 Argentine enrolments at Australian universities in 2016 (a relatively small number, but one that represented a 46% year-on-year increase) – 22% in higher education, 37% in vocational education and 34% in English language courses.

For Argentina, Australia is its 26th largest export market and 31st largest import source.

At the multilateral level, Argentina and Australia – through the Closer Economic Relations (CER) framework with New Zealand – are both party to the recently-resumed CER-Mercosur Dialogue. This is a mechanism to strengthen collaboration on global trade policy issues and promote inter-regional trade and investment.

The Mercosur bloc comprises the Southern Cone nations of Argentina, Brazil, Paraguay and Uruguay. This region is home to 260 million people and boasts a collective GDP of USD 2.4 trillion.

Australia and Argentina are also members of the Cairns Group of global agricultural producers, as well as the World Wine Trade Group, which is aimed at improving conditions for the international trade of wine.

An Australia-Argentina Investment Protection Agreement has been in place since 1997, and a Double Taxation Agreement entered into force in 2000. Additional Memorandums of Understanding have been signed in the following areas: minerals trade and investment (1998), science and technology (2003), air services (2005), rail infrastructure development (renewed in 2015), agriculture (2015), and education and training (updated in 2017).
[ Opportunities in Argentina ]
2.1 Energy and Resources

Overview

Argentina is a potential energy and resources giant. With emerging strengths in areas like lithium, as well as significant untapped potential in renewable and unconventional energy, it is well-placed to provide the energy and resources necessary to drive the economies of tomorrow.

Recent and ongoing reforms are increasing the sector’s attractiveness to foreign investors who can provide the finance, technology and expertise necessary for Argentina to fully develop its energy and resource potential. This is especially the case with renewable and unconventional energy, where Argentina has vast potential but largely lacks the technology and expertise necessary to develop it.

New investment could triple the country’s oil and gas production over the next decade. For example, investment in the vast Vaca Muerta shale fields has the potential to help Argentina achieve energy independence.34

In energy, Argentina is currently Latin America’s third-largest power market. Its current energy mix is almost evenly split between natural gas (around 50%) and hydropower (around 40%).35 Around 75% of current production capacity is in private hands, making it one of the most deregulated energy markets in the world.36

Once a net power exporter, Argentina is now a net power importer, with supply from neighbouring countries required to bridge the country’s power deficit.37 This is because of consumption increases, under-investment and declines in the development of new power projects.

In mining, Argentina is a relatively young player, gradually building on a solid foundation of investment-friendly reforms that modernised the sector in the 1990s.38 Further reform has been undertaken by the current government to increase mining’s attractiveness to foreign investment. This has included abolishing mining export taxes, removing restrictions on moving mining profits overseas, and ongoing efforts to harmonise mining regulations across the country.39

Described as a “paradise” for geologists, the country is blessed with world-class deposits of a number of minerals. The majority of these deposits are untapped – only an estimated 15% of Argentina’s mining fields have been exploited.40
Opportunity Highlight: Mining and Minerals

Australia and Argentina are both mineral-rich nations with similar geological and environmental landscapes. There is potential for Australian investment, technology and expertise to assist Argentina in modernising its mining industry by tapping untouched reserves and ensuring the benefits of Argentina’s resource wealth translate into economic advancement.

Argentina’s mineral wealth includes significant deposits of gold, silver, copper and lithium – see Figures 2.1 and 2.2.

Argentina’s Key Mineral Deposits

<p>| | | | |</p>
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</thead>
<tbody>
<tr>
<td>Au</td>
<td>Cu</td>
<td>Ag</td>
<td>Li</td>
</tr>
<tr>
<td>GOLD</td>
<td>COPPER</td>
<td>SILVER</td>
<td>LITHIUM</td>
</tr>
</tbody>
</table>

Argentina is the world’s tenth largest silver producer at 34.7 million ounces in 2015. By comparison, Australia produced 50.3 million ounces in 2015, and world-leading Mexico produced 189.5 million ounces. The country has discoverable reserves of 1.5 billion ounces, leaving plenty of room for growth.

Argentina is the world’s third-largest lithium producer at 5,700 tonnes in 2016, behind Australia (14,300) and Chile (12,000). The country also has the world’s third largest discovered reserves of lithium at 2 million tonnes – after Chile (7.5 million) and China (3.2 million). Argentina and Chile together account for around 65% of the world’s lithium reserves.

Argentina currently produces around 55 tonnes of gold per year, which leaves it shy of the world’s top ten producers. By comparison, Australia produced 270 tonnes and Canada 170 tonnes in 2016. There is scope for Argentina to catch up. Argentina gold production could at least double through a combination of the reactivation of existing projects and the exploration of fields estimated to hold around 80 million gold ounces.

Copper is one of Argentina’s most unexplored resources. Currently producing just 200,000 tonnes, the country lags the world’s largest producers by some margin – Australia produced 970,000 tonnes in 2016 and world-leading Chile produced 5.5 million tonnes. Argentina has the potential to nearly reach Australia’s total and produce 900,000 tonnes, which would rank it 7th in the world for copper production.

Figure 2.1: Argentina’s key mineral deposits

Figure 2.2: Mineral deposits and reserves in Argentina (Source: Argentina Ministry of Foreign Affairs and Worship)
More than 150 companies are investing in mineral exploration and production in Argentina, including a mix of small and medium-size enterprises, as well as several majors.51

Australia’s presence in the sector currently includes Austral Gold, Orocobre, Genesis Minerals and Troy Resources, among others (see Figure 2.3 for a non-exhaustive list).

<table>
<thead>
<tr>
<th>Company</th>
<th>Project</th>
<th>Province</th>
<th>Mineral</th>
<th>Project stage</th>
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</thead>
<tbody>
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<td>Salar de Olaroz</td>
<td>Jujuy</td>
<td>Lithium</td>
<td>Production</td>
</tr>
<tr>
<td>Borax Argentina</td>
<td>Jujuy and Salta</td>
<td>Jujuy</td>
<td>Borax</td>
<td>Production</td>
</tr>
<tr>
<td>Cauchari</td>
<td>Jujuy</td>
<td>Jujuy</td>
<td>Lithium, potash and borate</td>
<td>Exploration</td>
</tr>
<tr>
<td>Orocobre Ltd.</td>
<td>Salar de Salinas Grandes</td>
<td>N/A</td>
<td>Lithium, potash and borate</td>
<td>Exploration</td>
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<tr>
<td>Guayatoyoc</td>
<td>Puna Region</td>
<td>High grade potassium</td>
<td>Exploration</td>
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<td>Genesis Minerals Ltd.</td>
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<td>San Juan</td>
<td>Gold and base metals</td>
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</tr>
<tr>
<td>Casposo (70% share sold to Troy Resources)</td>
<td>San Juan</td>
<td>Gold and silver</td>
<td>Production</td>
<td></td>
</tr>
<tr>
<td>Argosy Minerals Ltd.</td>
<td>Rincon Lithium</td>
<td>Salta</td>
<td>Lithium</td>
<td>Exploration</td>
</tr>
<tr>
<td>Mina Teresa &amp; Pocitos</td>
<td>Jujuy and Salta</td>
<td>Jujuy and Salta</td>
<td>Lithium</td>
<td>Exploration</td>
</tr>
<tr>
<td>Galaxy Resources Ltd.</td>
<td>Sal de Vida</td>
<td>Catamarca</td>
<td>Lithium and potash</td>
<td>Exploration</td>
</tr>
</tbody>
</table>

Current activity in Argentina’s mining and minerals sector is just scratching the surface. Of the 750,000 km² of the country that can reasonably be assumed to contain viable mineral deposits, just 25% of this land has been awarded in concessions. According to Argentina’s Mining Secretary Daniel Meilan, 90% of projects on that land are still in their early stages.52 Less than 4% of the land currently hosts operating mines.53

Further exploration and development of the country’s mineral reserves will create extensive opportunity for Australian mining firms, and in particular mining equipment, technology and service (METS) providers. Australian strengths and expertise in sustainable mining, mining systems and technology, and lithium production have a large opportunity to leverage their capabilities in Argentina.

**Sustainable mining**

Australia is a best-practice provider of sustainable mining solutions, from local community engagement to minimising mining’s social and environmental footprint. We are well-placed to tap into the growing awareness of (and demand for) sustainable mining practices in Argentina.

Concern over environmental degradation and a perceived lack of economic benefit to local communities has historically bred opposition to mining operations in Argentina. These concerns have led to restrictions on mining activities being imposed in seven provinces.
However, several provinces are taking steps to ensure that social and environmental issues are addressed, and that local communities and businesses are engaged in mining projects. For example, mining trusts are being created to invest in community infrastructure such as schools and water treatment facilities. These trusts are funded by companies operating in the mining sector.54

Sustainable mining practices are a crucial business risk in the sector. It is becoming industry best-practice for miners to operate in tandem with local communities and engage in mutual value-creation exercises.55 This reinforces mining companies’ social license to operate, and is an area where Australia's strengths can be leveraged in Argentina.

Australian companies are world-leaders in developing sustainable mining solutions and methodologies that are now used around the world.56

The following strengths, capabilities and expertise of Australian companies can be leveraged to tap demand for sustainable mining practices to modernise Argentina’s mining sector:

- biodiversity and land use planning;
- corporate social responsibility;
- environmental auditing and monitoring;
- hazardous substance management;
- mine closure and rehabilitation;
- public policy development, community consultation and working with indigenous communities;
- risk assessment and management;
- water and waste management.57

Mining systems and technology

Australia has a strong reputation as a world-leading supplier of mining equipment, technology and services, an area which is vital to Argentina in the midst of modernising its mining equipment, infrastructure and processes.

Australia is also a world leader in innovative research and development in these areas. “We are a global innovation hotspot in the METS sector, and a world leader in developing the latest technologies for mining optimisation,” says Austrade Senior Trade Commissioner for Andean Latin America Shannon Powell.

Australian technologies and expertise can assist Argentina’s mining operations in various ways: from automation technologies that increase efficiencies to modelling and analysis software that identifies performance improvements and best practices.

Argentina’s mining operations are predominantly located in the country’s rugged western region, abutting the Andes mountain range. This suits Australian mining and METS companies that are experienced in operating in remote and harsh conditions.

Australian METS companies have particular strengths in the following solutions which can be leveraged in Argentina:

- advanced software that autonomously interprets data to allow for smarter and more flexible decision support and control architecture;
- automated drilling control systems that increase efficiency and operator safety;
• automated underground mining systems that increase the accuracy of cutting sequences;
• autonomous training, loading and transportation systems that can be controlled remotely;
• autonomous/near-autonomous load haul dump and truck haulage systems that optimise fuel consumption, improve tyre life, and increase vehicle efficiency and safety.58

Lithium production

Lithium is a valuable and increasingly important resource. Argentina is a large and fast-growing producer of this mineral – witnessing a year-on-year production increase of nearly 60% in 2016. It is a crucial component in modern technologies, such as rechargeable batteries for consumer electronics and electric vehicles, which are becoming increasing popular in Latin America.59

Argentina is home to the world’s third-largest lithium reserves and accounts for 15% of global production (see Figure 2.4). According to Mining Secretary Meilan, this could increase to 50% of global production by 2020, should the more than 30 proposals currently underway come to fruition.60

Global lithium production is expected to more than double to 500,000 tonnes by 2025, but demand may outstrip supply by 2030. This means that supply security is an increasing concern for the world’s technology companies.61

With export taxes and restrictions on the repatriation of profits now lifted, Argentina’s lithium reserves provide a big opportunity for foreign investment into the country’s minerals sector.

<table>
<thead>
<tr>
<th>Lithium Production by Country (2016)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AUSTRALIA</strong></td>
</tr>
<tr>
<td>14,300</td>
</tr>
<tr>
<td>MINE PRODUCTION, TONNES</td>
</tr>
<tr>
<td><strong>CHILE</strong></td>
</tr>
<tr>
<td>12,000</td>
</tr>
<tr>
<td>MINE PRODUCTION, TONNES</td>
</tr>
<tr>
<td><strong>ARGENTINA</strong></td>
</tr>
<tr>
<td>5,700</td>
</tr>
<tr>
<td>MINE PRODUCTION, TONNES</td>
</tr>
<tr>
<td><strong>CHINA</strong></td>
</tr>
<tr>
<td>2,000</td>
</tr>
<tr>
<td>MINE PRODUCTION, TONNES</td>
</tr>
<tr>
<td><strong>ZIMBABWE</strong></td>
</tr>
<tr>
<td>900</td>
</tr>
<tr>
<td>MINE PRODUCTION, TONNES</td>
</tr>
<tr>
<td><strong>PORTUGAL</strong></td>
</tr>
<tr>
<td>200</td>
</tr>
<tr>
<td>MINE PRODUCTION, TONNES</td>
</tr>
<tr>
<td><strong>BRAZIL</strong></td>
</tr>
<tr>
<td>200</td>
</tr>
<tr>
<td>MINE PRODUCTION, TONNES</td>
</tr>
</tbody>
</table>

Figure 2.4: Lithium production by country (Source: United States Geological Survey)
To entice further foreign investment, Argentina plans to standardise rules across its provinces. These are expected to be in place by mid-2017, when miners will be charged royalties of up to 3%.62

Australian investment is strong across South America’s “lithium triangle” – high-altitude brine lakes at the intersection of Argentina, Bolivia and Chile.63 Lithium production in Argentina is a particularly notable opportunity. It has already attracted substantial interest and investment from Australian mining and METS companies, such as Galaxy Resources and Orocobre Limited. Orocobre’s Salar de Olaroz brine-based lithium mine was the first such mine constructed in over 20 years.64

Despite production ramping up, there is still a significant amount of untapped potential in Argentine lithium production. The country sits on the world’s third-largest discovered reserves of 2 million tonnes.65 Australia, as the world’s leading producer of lithium (see Figure 2.1) can offer the investment, expertise and technology required as Argentina further develops its strengths in the sector.

**Opportunity Highlight: Renewable Energy**

Argentina is both one of the windiest and sunniest countries in the world, making it fertile ground for renewable energy generation. This will also help reduce the country’s heavy dependence on fossil fuels.

Recognising this potential, the Argentine government aims to attract USD 20 billion in renewables investment over the next decade. The goal is to increase renewables from 1% to 20% of Argentina’s energy mix.66

More broadly, Argentina is aiming to become a Latin American hub for renewable energy. Analysts consider it to be one of the most interesting countries in the world for investment in that sector.67

To stimulate investment, Argentina launched a renewable energy program called “RenovAR” in 2015. This set a renewable energy target of 20% by 2025, to be reached by holding annual auctions adding at least 1GW of renewable energy capacity each year.

The first auction in 2016 was around six times oversubscribed and saw 1GW of renewable energy added to the grid: 600MW from wind, 300MW from solar, 65MW from biomass, 20MW from small dams and 15MW from biogas.68

As part of the enabling legislation a renewable energy trust fund – Fondo para el Desarrollo de Energías Renovables (FODER) – has been established to support the RenovAR program. FODER is financed by the national treasury as well as consumers, individual investors and pension funds.69 The fund is able to provide guarantees for certain payments under the Power Purchase Agreements (PPAs) entered into between successful bidders on renewables projects and the national utility company (CAMMESA).70

FODER is also being supported by the World Bank through a 20-year USD 480 million guarantee, with the Bank noting that FODER’s facilitation of private investment in Argentina’s renewables sector will ensure clean and sustainable development in the country.71

As of early 2017, 27 of 59 projects awarded between Rounds 1 and 1.5 of the RenovAR program have requested the World Bank guarantee: 10 solar projects, 12 wind, four small hydro and one biogas project.72

Round 2 of the RenovAR program is expected to be launched in mid-to-late 2017.
RenovAR’s supporting legislation also introduces several fiscal incentives for investment in Argentina’s renewables sector, including:

- accelerated fiscal depreciation of applicable assets;
- VAT reimbursement for VAT paid on pre-commercial operation date purchases;
- exemption from dividend tax, subject to reinvestment in infrastructure;
- exemption from import duties for all projects starting construction prior to December 31, 2017;
- exemption from minimum presumed income tax;
- income tax loss carry forwards increased from 5 years to 10 years;
- tax credit on locally supplied capital expenditure (transferable to third parties); and
- tax deductions for all financial expenses.\(^73\)

In short, Argentina’s renewables potential, the technology and investment required to realise it, and the incentives on offer combine to create a significant opportunity for Australian companies with capabilities in the sector.

Australian universities and scientific institutions are also world leaders in renewables research and development. As a result, Australian renewable energy innovations may find commercial applications in Argentina’s growing renewables sector - especially in solar and wind energy.

**Solar Power**

Australia is well-placed to assist with (and capitalise on) the development and expansion of the solar power industry in Argentina, much of which is focused in the southern Patagonia region (see Figure 2.5). There are opportunities for Australia’s world-leading research, companies and service providers in this space.

### Solar Power Projects Awarded, RenovAr Rounds 1 and 1.5 (MW)

<table>
<thead>
<tr>
<th>Region</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patagonia</td>
<td>50%</td>
</tr>
<tr>
<td>(Provinces: Chubut and Santa Cruz)</td>
<td></td>
</tr>
<tr>
<td>Argentine Northwest</td>
<td>31%</td>
</tr>
<tr>
<td>(Provinces: Catamarca, Jujuy, La Rioja and Salta)</td>
<td></td>
</tr>
<tr>
<td>Cuyo</td>
<td>17%</td>
</tr>
<tr>
<td>(Provinces: Mendoza and San Juan)</td>
<td></td>
</tr>
<tr>
<td>Center Region</td>
<td>2%</td>
</tr>
<tr>
<td>(Provinces: Córdoba and San Luis)</td>
<td></td>
</tr>
</tbody>
</table>

*Figure 2.5: Location of new solar capacity awarded under RenovAR rounds 1 and 1.5 (Source: Argentina Ministry of Energy and Mining)*
Leading research in the solar sector is being conducted at Australian institutions such as the University of New South Wales’ School of Photovoltaic and Renewable Energy Engineering. They have held the record for the most efficient solar cell for over two decades.74

The innovative technologies and expertise spawned by Australian research and development efforts can be leveraged to capitalise on Argentina’s renewables push. Leading areas of solar expertise that could find a welcome home in Argentina include:

- hybrid technology that allows solar energy to seamlessly integrate into existing power networks;
- introducing next-generation technologies such as flexible solar cells and the delivery of direct solar thermal energy to industry;
- monitoring and control systems for solar technology, such as those that measure cloud cover or forecasting systems for power fluctuations.75

Wind Power

Argentina is a windy country with ideal conditions for wind power generation. Average gusts of 6 metres/second span around 70% of the country, accelerating to 9 m/s in the southern Patagonia region76 where nearly 60% of new capacity awarded under rounds 1 and 1.5 of the RenovAR program will be located (see Figure 2.6).77

<table>
<thead>
<tr>
<th>Wind Power Projects Awarded, RenovAr Rounds 1 and 1.5 (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Patagonia</strong> (Provinces: Chubut and Santa Cruz) 57%</td>
</tr>
<tr>
<td><strong>Buenos Aires</strong>                                         21%</td>
</tr>
<tr>
<td><strong>Comahue</strong> (Provinces: La Pampa, Neuquén and Rio Negro) 10%</td>
</tr>
<tr>
<td><strong>Cuyo</strong> (Provinces: Mendoza and San Juan) 2%</td>
</tr>
<tr>
<td><strong>Center Region</strong> (Provinces: Córdoba and San Luis) 2%</td>
</tr>
<tr>
<td><strong>Argentina Northwest</strong> (Provinces: Catamarca, Jujuy, La Rioja and Salta) 8%</td>
</tr>
</tbody>
</table>

Figure 2.6: Location of wind power projects awarded under RenovAR rounds 1 and 1.5 (Source: Argentina Ministry of Energy and Mining)
There is a significant amount of untapped wind power potential in Argentina. While the country’s Pampas plains are already estimated to be home to the world’s largest concentration of windmills, the potential south of the 42nd parallel alone is estimated to be ten times the country’s entire annual crude oil production.78

There is an opportunity for Australian renewables companies to assist Argentina in developing its potential by offering expertise in our areas of strength, such as:

- atmospheric modelling and wind energy assessment technology to prospect and develop quality wind farm sites;
- community engagement initiatives;
- grid connection design and processes to facilitate efficient project completion and commissioning;
- modelling and network design expertise to ensure grid stability and reliability;
- wind monitoring systems, including portable systems such as the innovative Sonic Detection and Ranging System (SODAR) which is able to model wind speeds at high accuracy in three dimensions.79
2.2 Agriculture

Agriculture is a crucial component of Argentina’s economy, accounting for around 60% of the country’s exports.\textsuperscript{80} Argentina is one of the world’s top food suppliers. It is the world’s leading exporter of soybean meal and the third-largest exporter of corn, for example.\textsuperscript{81} Argentina’s vast territory and temperate climate lends itself to the production of row crops. The most important is soybeans, which account for around half of Argentina’s agricultural exports.\textsuperscript{82} Grain (mostly wheat and corn) follows at around 18% of agricultural exports, and then meat and dairy which each account for around 5% of the country’s agricultural exports.\textsuperscript{83} Poor economic policies in the past have dampened growth in Argentina’s agriculture exports and eroded the profitability of sectors such as wheat, meat and dairy.\textsuperscript{84} However, as in other sectors, Argentina’s government has now taken steps to reform past practices that hindered the productivity, efficiency and growth of Argentine agriculture. One of the key reforms has been an elimination of export taxes that had previously been in place to limit export volumes. The effects of this are detailed in Figure 2.7.

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Export taxes pre-2016</th>
<th>Taxes in 2016</th>
<th>Expectation 2016-2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn*</td>
<td>20%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Soybeans</td>
<td>35%</td>
<td>30%</td>
<td>-5% per year to 2022</td>
</tr>
<tr>
<td>Wheat*</td>
<td>23%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Soymeal</td>
<td>32%</td>
<td>27%</td>
<td>N/A</td>
</tr>
<tr>
<td>Refined soy oil</td>
<td>32%</td>
<td>27%</td>
<td>N/A</td>
</tr>
<tr>
<td>Beef*</td>
<td>15%**</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

\textsuperscript{*} For some commodities, quotas and export license restrictions were also employed to limit export volumes.

\textsuperscript{**} Only applied to principal cuts consumed in the domestic market.

As a result of these reforms, Argentina’s agricultural sector is expected to benefit from increased production volumes and new investment. For example, grain and soybean production is projected to increase from 100 million to 180 million tonnes by 2025. New investment over the same period is estimated to be more than USD 8 billion in land development and irrigation, and over USD 2.5 billion in forestry and pulp.\textsuperscript{85} Benefits are also expected to extend to the country’s meat production sector, which is relatively undeveloped\textsuperscript{86} despite already being outward-oriented and having a strong international reputation.\textsuperscript{87} Over USD 5 billion in protein production investment – including beef, pork and poultry – is expected, as well as over USD 500 million in food industrialisation investment.\textsuperscript{88}
Argentina currently produces enough food to feed 400 million people and is hoping to increase this figure to 600 million over the next few years. It aims to become “the supermarket of the world”, catering to growing international demand with a diverse range of agricultural products.\textsuperscript{89}

The modernisation and growth of Argentina’s agricultural sector will require significant investment in upgrading machinery and technology. In addition, the rising costs of seeds, agrochemicals and fertilisers means that modern and innovative agricultural technology that offers efficiency gains, cost savings or improved yield quality may find strong potential in Argentina.

This creates a significant opportunity for Australian agribusiness expertise, agricultural technology and equipment.

Australia and Argentina are natural partners in the agricultural sector because of our mutual strengths and natural endowments. The similarities in the Australian and Argentine agricultural sectors lend themselves to collaboration, but, according to Australia’s Farm Machinery Industry Association, a more comprehensive Australian market presence is required in Argentina to fully tap this potential.\textsuperscript{90}

**Opportunity Highlight: Agricultural Machinery and Equipment**

Argentine farmers now enjoy additional disposable income thanks to reforms such as the removal of export taxes, part of which has been invested back into agricultural machinery. This has led to a 27% year-on-year increase in machinery sold in Argentina in 2016.\textsuperscript{91}

This consumption for agricultural machinery is expected to grow at a compound annual growth rate (CAGR) of at least 24% over the 2015-2020 period.\textsuperscript{92}

However, there is plenty of scope for even more growth in the sector. For example, Argentina boasts one harvester per 700 hectares, compared to one harvester for every 150 hectares in Europe.\textsuperscript{93}

Argentina is home to a long-established farm machinery and components manufacturing industry, a result of the dominant role agriculture has traditionally played in the Argentine economy.\textsuperscript{94} Domestic manufacturing accounts for around 60% of the sector, which is partly a legacy of import substitution policies that led to an increase in the domestic production of seeders, sprayers and tools.\textsuperscript{95}

Figure 2.8 details total local production of agricultural machinery, irrigation equipment, parts and components over the past few years, with total market size being the total of local production and imports, minus exports.
Advanced agricultural technology and equipment is needed in Argentina, such as autopilots, geographical information technology, and software for remote sensing or soil analysis.96

Australian capabilities are well-matched to these needs, with best-practice solutions in agricultural research, consulting, technology and equipment on offer. Australian farmers have benefited from scientific and technical advances that have ensured Australian agriculture remains at the forefront of efficiency and productivity.
General Australian industry strengths that can be leveraged in Argentina as it modernises its agricultural sector include:

- **consulting services**: farm management consulting, such as livestock production and crop rotation plans; soil management consulting, such as the evaluation of nutrition problems and laboratory analysis; precision agriculture consulting, such as crop science and boosting competitiveness; animal health and nutrition consulting, such as feed commodity selection and animal breeding;

- **IT services**: software tools and packages for paddock management, farm mapping, yield management and other GPS-based data, as well as for financial management;

- **specialised machinery**: manufacturing, supplying and servicing disc ploughs and harrows, rippers, graders, renovators, air drill solutions, seeding lines, air seeders and cultivators, soil mixers, semi-automatic and automatic field transplanters, selective tea harvesters, sprayers and washing/sorting/packing systems;

- **fertilisers**: solid and liquid fertilisers, soil conditioners, seed dressings, fertiliser coatings, crystalline solubles, custom blend formulations, and organic blends.97

Australian capabilities and technologies in more specialised areas like beef and dairy can also leverage strong demand as Argentina modernises these sectors.

Stand-out Australian capabilities in beef technology, services and expertise include:

- **animal health, welfare and biosecurity practices**: animal welfare research and practices; expertise in implementing industry programs and collaboration between livestock industries and government; welfare practices related to livestock export (such as Australia’s Export Supply Chain Assurance System);

- **consulting services**: consultancy services spanning all aspects of the beef production supply chain;

- **education, training and skills research**: education and training on all aspects of the beef industry; tertiary and vocational education in animal science, veterinary science technology, meat processing and related areas; on and off-farm research and development relevant to red meat industries;

- **equipment, technology and design**: devices and equipment for intensive and extensive cattle production systems, including for cattle handling, feedlots, farm management, veterinary treatment, animal transport, and meat processing;

- **feed, fodder and nutrition strategies and techniques**: pasture finishing, intensive lot-feeding, supplementary feeding, and drought feeding strategies;

- **genetics, breeding and associated reproductive services, knowledge and technologies**: breeding objectives and estimated breeding values, assessment and selection of breeding stock; semen collection and processing; artificial insemination; multiple ovulation embryo transfer; embryo freezing; the design and management of breeding programs; genetic material and equipment supply; reproductive consulting services and training;

- **pasture and grazing management, water, waste and soil management, and agronomy services**: expertise in managing a broad range of land types for optimal farm profitability and sustainability; pasture and forage crop seeds; fertilisers; pasture; soil; grazing management advisory services.

- **quality assurance, safety and traceability systems**: best-practice systems that cover every aspect of the supply chain from paddock to plate.98
Stand-out Australian capabilities in dairy technology, services and expertise that can leverage demand in Argentina include:

- **animal nutrition and fodder**: dairy-specific fodder, feed, nutritional supplements, services and supplies, and animal nutrition management expertise;
- **dairy equipment**: design and engineering services for dairy production; technology and equipment relating to dairy farming, feedlotting, milking and processing;
- **education, training, skills and research**: specialised education and training in dairy production; research and development related to dairy farming and diary agribusiness;
- **engineering services**: design and engineering services and supplies for dairy farm building, construction and maintenance;
- **farm management**: services and advice on a wide range of farm management solutions, spanning management services, animal health and productivity;
- **genetics, reproductive services and associated capabilities**: genetics, genomics, breeding technologies, and artificial insemination and associated services;
- **software and ICT**: financial software, pasture management, genetic evaluation, fertility and reproductive management, and breed registry applications;
- **soil and pasture management**: a range of soil and pasture products and services for dairy farms, including pasture seeds, fertilisers and soil management advice;
- **supply chain management and food safety**: best-practice dairy supply chain systems and expertise;
- **waste, water, energy and resource management**: technology, equipment and services related to waste and resource management in dairy production.

Further opportunities available to Australian manufacturers and suppliers of agricultural machinery, equipment, parts and components are listed in Figure 2.9.

### Agricultural Machinery Opportunity Snapshot

**SEED PUMPS**
Local manufacturers of seeders source the pumps for pneumatic seeders abroad.

**GLOBAL POSITIONING SYSTEMS (GPS)**
GPS systems collect data about soil condition and crop yields, which will help farmers to improve conditions and yield quantities. Roughly 15% of end users operate GPS systems which are used primarily with imported tractors.

**CHUTES**
Within Argentina there is widespread use of plastic bags (silo packs) that store grain underground for up to six months. There is now demand for more modern chutes to discharge harvested grains.

**SPRAYER NOZZLES**
High prices for seeds, agrochemicals and fertilisers has created demand for importer accessories that improve seed quantity measurements for a given area of land, as well as improved measurement devices for amounts of insecticides and fertiliser needed.

**AGRICULTURAL MACHINERY PARTS**
Increased usage of harvesters and tractors and ageing machinery creates demand for a full range of machinery parts and components, typically from foreign suppliers. There is particular demand for self-propelled sprayers, storage hoppers and heads for combines.

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Figure 2.9: Agricultural machinery opportunity snapshot (Source: United States Department of Commerce; United States Commercial Services; United States International Trade Administration)
Opportunity Highlight: Water and irrigation management

In order to tap its agriculture potential, Argentina is challenged with expanding and modernising its water irrigation system, which currently serves just one-third of its potential agricultural land. Agriculture is the most water-intensive sector of the Argentine economy (see Figure 2.10).

Around 70% of irrigated agricultural land in Argentina is concentrated in just four provinces, and the efficiency of existing water irrigation systems is very low.

To address these shortcomings, Argentina plans a USD 7 billion investment to double the irrigated agriculture area in the country. This will create 4.3 million irrigated hectares by 2030, as well as increasing the productivity of the 2.2 million hectares currently without irrigation by 50%.

Australia is well-positioned to capitalise on this irrigation expansion program, offering the capabilities, knowledge and experience necessary to modernise Argentina’s irrigation technology and processes. Australia is internationally-renowned for its innovative water management technology, which has helped Australian farmers to consistently deliver high-quality and competitive produce around the world.

Argentina’s irrigation expansion program creates opportunity not only for Australian technology providers, but also for Australian specialists and consultants. In particular, it allows for Australian irrigation and water management system specialists to consult for (or be involved) in public-private partnerships to fundamentally shape Argentina’s agricultural landscape for the future.

Figure 2.11 illustrates the areas of the country where the government plans to implement new water irrigation systems.

Argentina’s Water Usage (2011)

<table>
<thead>
<tr>
<th>Sector</th>
<th>Usage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural</td>
<td>74%</td>
</tr>
<tr>
<td>Municipal</td>
<td>15%</td>
</tr>
<tr>
<td>Industrial</td>
<td>11%</td>
</tr>
</tbody>
</table>

Figure 2.10: Argentina’s water usage by sector, 2011 (Source: United Nations Food and Agriculture Organization)
Planned New Irrigation Areas

1. El Bolson
2. Riego de la Cuenca Canera Santafesina
3. Riego Suplementario Avellaneda
4. Riego Citriccola Montecaseros
5. Riego Mandisovi Chico
6. Acueducto del Norte Enterriano La Paz-Estacas
7. Sistema de Riego La Japonesa (Rio Colorado)
8. Accueducto Angas Sociales y Productivas Rio Paraguay
9. Riego margen norte del curso inferior del Rio Negro
10. Sistema de riego Negro Muerto
11. Sistema de riego Guardia Mitre
12. Sistema de riego Valle Colonia Josefa
13. Mergen norte Valle Medio
14. Riego en Meseta intermedia
15. El Maiten
16. Salto Anderson bajo de los Baguales
17. Proyecto Productivo Casa de Piedra
18. Sistema Mari Menusco - Bajo de los Barriales y El salitral
19. Challaco-Neuquen
20. Rio Colorado - Neuquen-Rincon Colorado
21. Valle interior Rio Limay- Neuquen
22. Amplicacion Sistema de Riego Valle Sarmiento (LOS MONOS)
23. Valle 16 de Octubre
24. Valle Del Lepa Guajiliana
25. Cushmanen
26. Valle medio
27. Valle Arroyo Chico
28. Proyecto La Manzana - Dragones
29. Aprovechamiento Arroyo El Ray
30. Proyecto El Tigre
31. Presa AGU_22
32. Presa AGU_39
33. Sistema Azud Tuhama
34. Captacion y Conduccion en Rio Grande de Valle Hermoso
35. Galeria Filtrante en rio El Potrerillo
36. Santa Ana
37. Santa Eloisa
38. Zona Nuclo
39. Cuchilla Norte
40. Desarrollo Agricola y Gestion del Area bajo Riego del Canal del Notre-25 de Mayo
41. Colonisa Huaco
42. Reuso Bajo Grande
43. Soto
44. Rio de Oro
45. Quines
46. Manantiales
47. Dique derivador El Conventillo
48. Reuso
49. Arroyito Senillosa
50. Fortin Nogueira
51. Los Antiguos
52. Lago Posadas
53. Analists de posibles areas

Figure 2.11: Planned new water irrigation system locations (Source: Argentina Ministry of the Interior, Public Works and Housing)
2.3 Infrastructure

Infrastructure is a key component of Argentina’s modernisation efforts and the current government has ambitious development plans for the country, according to Minister for Interior Affairs, Public Works and Housing Rogelio Frigerio. Figure 2.12 outlines the country’s infrastructure development objectives and expected investment by area.

<table>
<thead>
<tr>
<th>Argentina Infrastructure Development Objectives and Expected Investment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Overarching infrastructure objectives:</strong></td>
</tr>
<tr>
<td>• Enhancing productive corridors</td>
</tr>
<tr>
<td>• Developing the domestic aviation market</td>
</tr>
<tr>
<td>• Diversifying the country’s logistics matrix</td>
</tr>
<tr>
<td>• Improving the quality of public transport</td>
</tr>
<tr>
<td><strong>Category</strong></td>
</tr>
<tr>
<td><strong>Expected Investment</strong></td>
</tr>
<tr>
<td>Roads and highways</td>
</tr>
<tr>
<td>Water and sewage</td>
</tr>
<tr>
<td>Railway freight lines</td>
</tr>
<tr>
<td>Real estate and housing</td>
</tr>
<tr>
<td>Cellular networks</td>
</tr>
<tr>
<td>Airports and ports</td>
</tr>
</tbody>
</table>

Figure 2.12: Argentina’s infrastructure development objectives and expected investment (Source: EY)

Specific programs to address regional and other needs are also being formulated. For example, the Belgrano Plan involves a USD 10 billion investment over ten years in building infrastructure and encouraging industry development in ten underdeveloped northern provinces.

An ambitious series of transport tunnels under the Andes mountain range is also planned in order to improve export volumes between Argentina, Brazil, Chile, Paraguay and Uruguay. These tunnels would also facilitate Argentine exports through Chile’s Pacific ports.

An estimated annual investment of 6% of GDP is expected to support the country’s infrastructure ambitions, nearly double the 3% or less invested in recent years.

Accompanying this infrastructure push is a new public-private partnerships (PPP) bill, passed in late 2016. This is a crucial component to the country’s infrastructure plans, as public-private partnerships between the State and private sector institutions are necessary to bring these projects to fruition. Figure 2.13 details the main provisions of the country’s PPP regime.
These reforms and new investments will go some way to modernising the country’s national infrastructure, which has suffered from chronic underinvestment. Public investment in infrastructure has grown much less than other types of spending over the past 15 years, and private investment in infrastructure has been very limited.\textsuperscript{109} Argentina has dropped 62 positions since 2006 on the World Economic Forum’s annual ranking of infrastructure quality.\textsuperscript{110}

This infrastructure shortfall has had negative repercussions for productivity and economic growth, as well as on logistics costs. For example, exporting a 40-foot container by land costs USD 1,842 in Argentina, compared to USD 1,000 in neighbouring Brazil.\textsuperscript{111}

Argentina’s infrastructure needs also extend to urban development, where a poor approach to planning has led to congested cities with sizeable, informal urban settlements.\textsuperscript{112}

Given these modernisation needs, Australian companies with expertise in infrastructure and urban development may find strong demand for their capabilities in Argentina. Australia and Argentina also face shared infrastructure challenges, such as integrating public transport planning and controlling urban sprawl, making Australian best-practice expertise relevant to the Argentine context.

\begin{tabular}{|l|l|}
\hline
\textbf{Provision} & \textbf{Details} \\
\hline
Transparent, flexible and competitive procurement process & • Transparent, flexible and competitive procurement process required, launched either by tender or private initiative.  
• “ Competitive Dialogue” introduced, allowing for dialogue between government and possible contractors on how to reach designated goals for a project.  
\hline
Flexibility in financing and guarantee structures & • Use of any kind of financing tools and instruments of guarantee permitted.  
\hline
Limitation of certain government powers & • Power of public authorities to unilaterally modify a contract, or force the contractor to carry out its obligations even if a State fails to comply with its own obligations, as well as other limitations.  
• Government now has a right to unilaterally modify a contract only in regards to the scope of works, and if it will constitute no more than 20% of the total contract value.  
\hline
Contractor’s remuneration & • Prohibition of indexation excluded, with implications for long-term projects due to inflation.  
• Remuneration in foreign currency possible.  
\hline
Legal structure & • Possibility to accomplish projects through an already existing company, a special purpose vehicle, as well as through financial trusts or other types of vehicles.  
• Possibility for State to participate in such a corporation or trust.  
\hline
Adequate compensation in case of breach & • Rules governing early termination of the contract must be set out in the contract.  
• Compromise must be prior to the takeover of assets.  
• When the contract is terminated by the State for reasons of public interest, the State no longer enjoys the limitation of its liability, and is required to pay compensation to the contractor equal to the cost of the unamortised investment in the project.  
\hline
Dispute resolution & • Disputes may be resolved in technical panels or arbitral tribunals, depending on the dispute.  
• International arbitration as a means of dispute resolution is not excluded.  
\hline
Possibility of appointing independent technical auditors & • Independent technical auditors may be appointed by the parties to the contract to control and monitor project execution.  
• Contract may specify that if the administration does not agree with the auditor’s determination, this will not preclude the payment of the consideration, which will remain in the trust until the dispute is resolved.  
\hline
\end{tabular}
Opportunity Highlight: Transport Infrastructure

With an export-oriented economy, insufficient transport infrastructure places a limit on the country’s growth and productivity potential.

Argentina’s ranking on the World Bank’s Logistics Performance Index has dropped from 45th out of 150 countries in 2007 to 66th out of 160 in 2016. The country ranks just 109th out of 138 countries for the quality of its overall transport infrastructure on the World Economic Forum’s Global Competitiveness Index, illustrating the scale of modernisation it needs (see Figure 2.14).

<table>
<thead>
<tr>
<th>Pillar</th>
<th>Argentina Ranking</th>
<th>Brazil Ranking</th>
<th>Chile Ranking</th>
<th>Australia Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of overall infrastructure</td>
<td>109</td>
<td>116</td>
<td>44</td>
<td>33</td>
</tr>
<tr>
<td>Quality of roads</td>
<td>103</td>
<td>111</td>
<td>30</td>
<td>40</td>
</tr>
<tr>
<td>Quality of railroad infrastructure</td>
<td>87</td>
<td>93</td>
<td>80</td>
<td>36</td>
</tr>
<tr>
<td>Quality of port infrastructure</td>
<td>79</td>
<td>114</td>
<td>34</td>
<td>36</td>
</tr>
<tr>
<td>Quality of air transport infrastructure</td>
<td>87</td>
<td>95</td>
<td>47</td>
<td>37</td>
</tr>
<tr>
<td>Available airline seat kilometres</td>
<td>32</td>
<td>12</td>
<td>36</td>
<td>7</td>
</tr>
</tbody>
</table>

Figure 2.14: Transport infrastructure rankings, select countries, 2016-17, total 138 countries (Source: World Economic Forum)

Comparing Argentina’s rankings against two of its neighbours at different stages of development, we can see that while it lags behind Chile – the most developed country in the region – it outranks neighbouring Brazil in most pillars, with a significant difference in the quality of its ports (Argentina’s best-performing measure).

Australian companies have the strengths and capabilities necessary to help Argentina modernise its transport infrastructure in many of these areas.

Rail infrastructure is a stand-out opportunity, especially as business-friendly reforms lead to increased mining activity and investment.

At 47,000 km, Argentina boasts the South American continent’s largest railway network, albeit one that has suffered from decades of underinvestment. On the Belgrano network (which spans much of central and northern Argentina), freight traffic declined from 3.3 million tonnes in 1998 to just 500,000 tonnes in 2006, as infrastructure deteriorated.

More recently, investment from China has been attracted to upgrade this network, as well as others such as the Buenos Aires suburban rail network infrastructure and rolling stock.

In 2016, China’s Ministry of Transport announced plans to invest USD 16.6 billion between 2016 and 2023 in Argentina’s rail network, including USD 14.2 billion for the Buenos Aires suburban network, and USD 4.4 billion for freight lines.

These investments aim to triple urban rail capacity in Buenos Aires through the development of the Regional Express Rail (RER) network, which will include the construction of a north-south tunnel beneath the centre of the capital. Rolling stock will be renewed, with the entire network’s fleet expected to be new by 2023.

Safety is a key focus of the plan, with USD 816 million earmarked over eight years for re-signalling, including USD 250 million for the continued rollout of automatic train stop technology (currently installed on just 10% of the network) across seven lines by 2019.

In terms of freight, just 4% of inland freight volumes in Argentina are transported by rail. Rail freight transport speeds are well below those of road transport, averaging just 12-15 km/h.
New investment aims to double rail freight volumes from 18 million tonnes to 40 million tonnes per year, with a key upgrade to the Belgrano line to allow transport from Argentina’s northwest to ports at Rosario and Santa Fe.\textsuperscript{123}

To enable greater regional connectivity, funding options are being explored to upgrade around 800km of track on the Urquiza Line, connecting north-eastern Argentina with Buenos Aires port. In addition, international links to Encarnacion in Paraguay and to provinces bordering Brazil and Uruguay are also being explored.\textsuperscript{124}

The government aims for a “complete recovery” of the country’s freight network by 2035, when 20,000km of track will have been renewed.\textsuperscript{125} Elements of the country’s long-term plan are illustrated in Figure 2.15.

\begin{center}
\textbf{Argentina’s Long-Term Railway Plan}
\end{center}

\begin{tabular}{|c|c|c|c|c|}
\hline
\textbf{2016-2019} & \textbf{2020-2023} & \textbf{2024-2027} & \textbf{2028-2031} & \textbf{2032-2035} \\
\hline
USD 2.5 Bn & USD 3.2 Bn & USD 3.2 Bn & USD 3.2 Bn & USD 2.8 Bn \\
\hline
a. Belgrano Cargas* & b. San Martin Cargas* & San Martin Line extension & San Martin Line extension & Belgrano Line extension \\
& c. Urquiza Cargas* & Roca Line extension & Mitre Line extension & \\
& d. Bahia Blanca - Añelo* & & & \\
\hline
\end{tabular}

* Projects to be tendered

\begin{center}
\textsuperscript{*} Projects to be tendered
\end{center}

\begin{center}
\textsuperscript{Figure 2.15: Argentina’s long-term railway plan (Source: Argentina Investment and Trade Promotion Agency)}
\end{center}

Australia’s strong and world-leading capabilities in rail infrastructure can be leveraged to bring these ambitious plans to fruition.

Heavy haul, intermodal and freight rail are particular areas of Australian expertise. They have underpinned the efficiency, reliability and global competitiveness of our mining sector.\textsuperscript{126} Australia is home to the heaviest and longest heavy-haul trains in the world, and is a world-leader in innovative technologies for the sector (such as autonomous heavy haul trains and remote train control centres).\textsuperscript{127}

Australian logistics companies can deliver state-of-the-art solutions across all stages of rail freight projects, from research and development, to planning and design, operation and maintenance, and safety management.\textsuperscript{128}

Particular Australian expertise, knowledge and technology that may find strong demand in Argentina includes:

- **above-rail systems**: driver support fuel optimisation software; CBCT (Communications Based Train Control) for freight train application; lightweight heavy axle load ore cars (40 tonne axle load) design; driver relay methods, reducing train stop requirements; aerodynamic ore car design; ECP (Electronic Controller Brake) implementation; robotic and automated wheel, axle and wagon repair; network scheduling optimisation;

- **advanced technologies**: driver assistance IT systems to reduce fuel use and efficiently manage schedules; in-motion weighing technology that improves efficiencies and reduces stoppages; driverless trains; software packages to optimise pit-to-port logistics;
• **asset management**: 'design to completion' mentality; ‘management by measurement’ approach; condition monitoring; condition-based maintenance; failure analysis and mitigation strategy; cost implication analysis; work order-based maintenance and project controls; sophisticated fuel management and transfer systems;

• **education and training**: capacity building for government officials; training and education to management, operational, technical and trade-related requirements; education and vocational training relevant to the freight sector through a framework pioneered by the Australasian Railway Association;

• **environmental sustainability**: alignment optimisation for the minimisation of corridor footprint on environmentally sensitive areas; alignment optimisation for the minimisation of fuel in balance with other potential ‘pollutants’; waterway design to promote natural flow through greater use of culverts and ‘wet areas’; the use of all available materials by the addition of ‘enhancers’ where usually understrength; the positioning of pre-casting and manufacturing locations to reduce transport footprint; containment provisions for chemicals and other polluting materials; zero spillage, zero overfill fuel management and transfer systems; ‘off-set’ creation for instances of last resort; end-of-lifecycle planning; waste minimisation, energy and water-saving technologies and practices in rail network operations and maintenance;

• **minerals transport**: the design and delivery of mine-site loading, port unloading and materials handling facilities;

• **operations and maintenance**: operations simulation, network scheduling and capacity improvement; driver-related human factors analysis and implementation; information systems for customers; signalling systems design and manufacturing; railway workshop equipment; workshop automation enabling high productivity and improved safety; rail welding, repair and profiling equipment and training; extending rail life with rebuilding, repairing and recycling technologies; wagon weighing technologies; highly accurate, zero spillage fuel management and transfer systems with flow rates of up to 1000 litres per minute; wheel and wheel bearing condition monitoring systems; wayside sensor systems that can measure the operating condition of rail vehicles; innovative track monitoring and inspection systems and solutions using ultrasound, eddy currents, thermal imaging, video-optical, mechanical and electronic technologies;

• **pit-to-port and intermodal freight services**: expertise in long-haul freight and innovative solutions to operations in harsh conditions and remote locations;
• **planning, design and engineering expertise:** alignment design; environmental planning; construction and track yielding; tunnelling and bridges; rail management in welding, grinding and inspection; geotechnical analysis; simulation and modelling; remote asset protection and monitoring;

• **safety and security:** fire detection and response; remote monitoring and detection for tunnels, railyards, tracks and unattended or secure locations; video surveillance and analysis; train schedule monitoring; track maintenance and detection of damage or obstructions; railway crossing management and detection of objects on the line; the detection and recognition of over-speeding; the detection of objects protruding from trains.129

In addition to expertise and existing technologies, Australia is at the forefront of innovation in a number of rail infrastructure areas. Some of the current areas of research and development at Australian institutions include:

• **The Centre for Railway Engineering:** the Intelligent Train Monitor, an in-cabin device providing train drivers with information that can save up to 15% on energy consumption and improve rolling stock life; the Train Health Advisory System, a monitoring technology that can detect flat wheels, abnormal wagon behaviours, derailment and track irregularities;

• **The Commonwealth Scientific and Industrial Research Organisation:** innovative simulation and optimisation models for bulk materials like coal, minerals or agricultural commodities that can improve the efficiency of yard machines, observe constraints on the use of facilities, allow for maintenance and streamline rail schedules;

• **The Cooperative Research Centre for Rail Innovation:** the exploration of future power technologies; building best-practice models for safety culture management; the development of new steels for rail wheels; track stability management; the life cycle management of bridges;

• **The Institute of Railway Technology:** increasing axle load capacity; improving vehicle components to increase service life and decrease costs; increasing rail life through better understanding of wheel-rail interaction; optimising ore train dumper operations to reduce component damage and energy use;

• **Rail Innovation Australia:** the Train Health Advisory System (THAS), a low-cost on-board train monitoring system for multiple wagon use; the Rail Noise and Wear Assessment System (a software system for on-board noise monitoring that can identify areas of track in bad condition requiring attention); D-Track, a computer-based model that allows track engineers to model track design, track modification, and the effects of additional or worn rolling stock on tracks.130

**Opportunity Highlight: Modernisation and Urban Development**

Decades of underinvestment, a densely packed capital city and vast rural hinterland have combined to leave Argentina with a large infrastructure deficit and unmet urban development and modernisation needs.

Argentina’s urban development needs are most acute in its capital city, Buenos Aires. Its 15 million people dominates the country’s urban population. Argentina’s next largest cities of Córdoba and Rosario are only home to just over 1 million people each.131
Broadly speaking, Argentina’s urban challenges include:

- how to guide urban growth in a fast-growing city of around 15 million inhabitants, adding nearly 3 million people every 20 years;
- how to provide affordable housing for all income groups;
- how to provide and improve the quality of public services and infrastructure; and
- how to manage the roles of different levels of government in urban management (including balancing long-term urban governance roles and finding local financial resources).132

To tackle these challenges, Argentina has developed an ongoing National Strategic Plan (NSP) to determine planning guidelines for the entire country, as well as the position that each city holds in terms of national economic development.133

Many of these needs and urban development challenges that Argentina faces are similar to those faced by Australia: integrated transport planning, affordable housing, infrastructure provision, and controlling urban sprawl.134

Furthermore, Australia’s experience with PPPs positions us as a potential partner as Argentina reforms its own legislation, particularly in delivering public services and infrastructure, affordable housing and urban renewal projects.135

In terms of our bilateral relationship, the NSP is seen as a potential foundation upon which to learn from the Australian experience, as well as to encourage urban management practices (such as coordinated metropolitan planning and municipal government participation in urban development projects).136

Australia’s building and urban development capabilities, expertise in sustainable building practices, and expertise in green building can all be leveraged in an Argentina building for the future in an environmentally-responsible and resource-efficient way.

Areas where Australian companies have leading capabilities include:

- building management systems;
- energy-efficient heating, ventilation and air-conditioning;
- energy-efficient hot-water systems including solar and heat-pump systems;
- innovative environmentally sustainable development engineering;
- insulation (including thermal mass regulation products);
- master planning and precinct planning;
- project management and technical services;
- the provision of recycled, low toxicity and modular building products for construction;
- sustainable building design;
- water capture, saving and storage systems.
2.4 Education and Training

Argentina is one of the most educated and qualified societies in Latin America. The country has one of the highest literacy rates in Latin America at 98.1% and a school life expectancy of 17 years – on par with Germany, South Korea and the United States.\(^{137}\)

An overview of Argentina’s education system is outlined in Figure 2.16.

The country has the second-highest gross tertiary enrolment ratio in South America (80% in 2013), and sits well-above the average for the Latin America and Caribbean region (45%), as well as the OECD average (70%) – see Figure 2.17.\(^ {138}\)

Over 1.6 million students attend the 114 public and private universities throughout Argentina, as broken down in Figure 2.18.\(^ {139}\)
### Argentina’s Higher Education Distribution

#### PH.D.
- **18,248** [+35%] **1,518** [+62%]

#### POSTGRADUATES
- **93,223** [+16%] **9,189** [+44%]

#### HIGHER EDUCATION
- **1,650,150** [+3%] **98,129** [+3%]

---

*Figure 2.18: Argentina’s higher education distribution (Source: Argentina Ministry of Foreign Affairs and Worship)*

---

*Figure 2.17: Gross tertiary enrolment ratios, select countries and OECD average (Source: The World Bank)*
Most tertiary students in Argentina study social science and humanities, while subjects such as engineering and agriculture trail by some margin (see Figure 2.19). The latter are areas where a modernising Argentina demands expertise. This is where vocational education and training (VET) programs can help fill knowledge and capability gaps, as well as provide an alternative educational pathway to students.

Figure 2.19: Percentage of students enrolled in tertiary education by type of program, select countries and averages, 2014, LAC = Latin America and the Caribbean (Source: Organization for Economic Cooperation and Development)
Opportunity Highlight: Vocational Education and Training Services

The Argentine government recognises the need to upgrade the country’s VET skills by introducing training and qualification frameworks similar to those in place in Australia (i.e. with strong links to industry and aimed at furthering the development of its workforce).

This is a stand-out area of opportunity for Australia, and one that is already being capitalised on.

Launched in 2015, Argentina’s Eva Peron University in San Luis became the first institution in the country based on Australia’s world-renowned vocational education and training system and the Australian Qualifications Framework. It offers qualifications for trades and pathways to diploma and associate degrees.

A team of Victorian education experts worked with the San Luis Government in creating the University, establishing its VET framework. The team also developed its curriculum, qualifications, infrastructure facility requirements, governance, teacher training and student selection processes.

It began offering skills training programs to meet local demand in electrical and mechanical engineering, welding and plumbing. An outline of the qualifications framework is illustrated in Figure 2.20.

---

### Sample Qualifications Framework

<table>
<thead>
<tr>
<th>LEVEL 5</th>
<th>BACHELOR DEGREE IN ENGINEERING MAINTENANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mechanical - Advanced Technician</td>
</tr>
<tr>
<td></td>
<td>Welding - Advanced Technician</td>
</tr>
<tr>
<td></td>
<td>Plumbing &amp; Gasfitting - Advanced Technician</td>
</tr>
<tr>
<td></td>
<td>Electrical - Advanced Technician</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LEVEL 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanical - Technician</td>
</tr>
<tr>
<td>Welding - Technician</td>
</tr>
<tr>
<td>Plumbing &amp; Gasfitting - Technician</td>
</tr>
<tr>
<td>Electrical - Technician</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LEVEL 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanical - Technician</td>
</tr>
<tr>
<td>Welding - Technician</td>
</tr>
<tr>
<td>Plumbing &amp; Gasfitting - Technician</td>
</tr>
<tr>
<td>Electrical - Technician</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LEVEL 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanical - Tradesperson</td>
</tr>
<tr>
<td>Welding - Tradesperson</td>
</tr>
<tr>
<td>Plumbing &amp; Gasfitting - Tradesperson</td>
</tr>
<tr>
<td>Electrical - Tradesperson</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LEVEL 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanical - Assistant</td>
</tr>
<tr>
<td>Welding - Assistant</td>
</tr>
<tr>
<td>Plumbing &amp; Gasfitting - Assistant</td>
</tr>
<tr>
<td>Electrical - Assistant</td>
</tr>
</tbody>
</table>

Figure 2.20: Eva Peron University sample qualifications framework (Source: Carrick Value Consulting)
This development followed the largest-ever Victorian education trade mission to Latin America, which built partnerships between Victorian educational institutions and their international counterparts.144

A rough outline of the process required to bring this project to fruition is provided in Figure 2.21, and may lay the foundation for future opportunities for Australian VET providers in Argentina.

Developing a Technical Training System in Argentina

**2.5 Digital Economy**

Innovation, technology and the digitisation of processes and services are transforming the way we do business around the world. Argentina is no stranger to these transformations. The digital economy will play a big part in modernising and growing the Argentine economy, especially when it comes to boosting productivity, efficiencies and competitiveness.

Argentina is not starting from a low base: its internet use is frequent and close to that of developed countries, while the use of e-banking and e-commerce is widespread.145 Argentina’s mobile subscriptions per 100 people exceed Australia’s - ranking it 13th in the world - while its fixed broadband subscribers and internet users per 100 people are approaching Australia’s levels (see Figure 2.22).

**Mobile and Internet Users (2015)**

<table>
<thead>
<tr>
<th>Country</th>
<th>Mobile</th>
<th>Internet</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ARGENTINA</strong></td>
<td>16.08</td>
<td>69.40</td>
<td>143.91</td>
</tr>
<tr>
<td><strong>AUSTRALIA</strong></td>
<td>27.85</td>
<td>84.56</td>
<td>132.80</td>
</tr>
<tr>
<td><strong>CHILE</strong></td>
<td>15.17</td>
<td>64.29</td>
<td>129.47</td>
</tr>
<tr>
<td><strong>BRAZIL</strong></td>
<td>12.24</td>
<td>59.08</td>
<td>126.59</td>
</tr>
<tr>
<td><strong>LATIN AMERICA &amp; CARIBBEAN</strong></td>
<td>10.53</td>
<td>54.46</td>
<td>110.37</td>
</tr>
</tbody>
</table>

Figure 2.21: Outline of establishing Eva Peron University (Source: Carrick Vale Consulting)

Figure 2.22: Mobile and fixed internet usage per 100 people, select countries, 2015 (Source: The World Bank)
Argentina is a promising market for companies in the digital economy sector and is attracting interest from countries around the world. Buenos Aires is home to four of Latin America’s six “unicorns” – tech start-ups valued at over USD 1 billion.146

Australian companies are already tapping into this opportunity.

For example, as it increasingly shifts into the digital space, Australia’s own Flight Centre acquired a 24.1% stake in Bibam, an Argentina travel tech company and the country’s second largest travel agency group.147 The acquisition was in part a recognition of digital growth opportunities in Argentina’s travel sector, according to Flight Centre Travel Group Americas president Dean Smith, who noted the strength of Bibam’s propriety technology and the level of talent in the organisation.148

These strengths in technology and skills are present throughout Argentina’s digital ecosystem and can be leveraged by Australian companies keen on expansion into Latin America.

Emerging technologies in fields such as robotics, the internet of things (IoT), cloud technology, big data, and cybersecurity are particular points of strength for the future – as are more sector-specific technologies such as agricultural technology (agtech), financial technology (fintech) and medical technology (medtech).

Though rich in opportunity, Argentina still has plenty of room to improve and further develop its digital infrastructure and ecosystem.

The country ranks 35th out of 50 countries in terms of overall digital connectivity on Euromonitor’s annual Digital Connectivity Index.149

As with other Latin American economies, Argentina needs to acquire the skill sets necessary to thrive in the jobs of tomorrow in the digital economy. This includes both technical and non-technical skills, such as English language proficiency, advanced problem-solving, teamwork, creativity and innovation capabilities.

Partnerships are being forged between government and industry to bridge these skill gaps. For example, 47 technical schools in Argentina are partnering with Cisco’s Networking Academies to teach digital skills to students, with 5,000 students enrolled in 2017.150 The Education Ministry plans to expand the curriculum of these Networking Academies to 2,000 technical schools across the country, with the aim of preparing 100,000 students with the skills necessary for the digital economy.151

For Australian companies, there is particular opportunity to leverage strengths and capabilities in the financial technology, agricultural technology, medical technology and cybersecurity fields. These areas build on Australia’s traditional strengths in sectors like agriculture and medical devices that are evolving to the needs of the modern digital economy.
Opportunity Highlight: Financial Technology (fintech)

Financial services are one of the key areas being impacted as Argentina embraces the digital economy. Plans are in place to transform the country into a cashless society over the longer term, with government support through regulatory reform and targeted incentives for the fintech sector.\textsuperscript{152}

Argentina is fertile ground for this sector with its high mobile phone penetration rate and more than 15 million unbanked adults.\textsuperscript{153} Its fintech ecosystem is currently comprised of innovative companies and start-ups across a wide range of sectors, from personal financial management to identity and fraud protection. The biggest sub-sectors so far are payments and remittances and enterprise financial management, which together account for almost 50% of the fintech space in Argentina (see Figure 2.23).

### Fintech Companies in Argentina

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
<th>Companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payments &amp; Remittances</td>
<td>25%</td>
<td></td>
</tr>
<tr>
<td>Payments: Crypto</td>
<td>8%</td>
<td>ripio, coinmeleon, bittrex, bitex.is, PaySur, totalcoin, mercadopago, nubepago, pagos, mobx, VerTran, coinbase, biopaym, geopagos, vinli, flexibilidad+ideas</td>
</tr>
<tr>
<td>Trading &amp; Markets</td>
<td>3%</td>
<td>BolsApp, b-trader^</td>
</tr>
<tr>
<td>Lending</td>
<td>8%</td>
<td>moen, bitex.is, bitex.is, coinmeleon, credibility, bitex.is, bitex.is</td>
</tr>
<tr>
<td>Lending: P2P</td>
<td>5%</td>
<td>arumia, bondarea, bitex.is</td>
</tr>
<tr>
<td>Enterprise Financial Management</td>
<td>18%</td>
<td>caipay, kibic, intiza, increase, nomemas, bitex.is, numog, coinmeleon, centagram, defactores</td>
</tr>
<tr>
<td>Crowdfunding</td>
<td>7%</td>
<td>bitex.is, caleco.com, wuabi, icore</td>
</tr>
<tr>
<td>Wealth Management</td>
<td>7%</td>
<td>bitex.is, caleco.com, wuabi, icore</td>
</tr>
<tr>
<td>Scoring Identity &amp; Fraud</td>
<td>5%</td>
<td>bitex.is, caleco.com, wuabi, icore</td>
</tr>
<tr>
<td>Insurance</td>
<td>7%</td>
<td>bitex.is, caleco.com, wuabi, icore</td>
</tr>
<tr>
<td>Personal Financial Management</td>
<td>7%</td>
<td>bitex.is, caleco.com, wuabi, icore</td>
</tr>
</tbody>
</table>

Figure 2.23: Fintech companies in Argentina, by sub-sector, 2016 (Source: Finnovista)
A new “Technology District” is planned for Buenos Aires, offering tax incentives and preferential rate financing for technology companies.154

As Argentina develops its fintech sector, lessons and expertise can be gleaned from Australia’s own experience. Likewise, Australian fintech companies can leverage growth in the Argentine fintech sector to seek expansion and partnership opportunities.

Sydney, Australia’s financial hub, is ranked as the 17th largest start-up ecosystem in the world, according to Startup Genome.155 Its growth has been encouraged in part by government incentives, such as a AUD 75 million federal tax incentive to boost angel funding, as well as multi-million dollar funding for incubators and accelerators.156

Emerging strengths in the Australian fintech space include areas like digital currencies, payments, smart contracts, identity management and agricultural supply chain solutions, among others.

Australia is also an emerging leader in blockchain technology, a critical foundation piece of tomorrow’s digital economy. With Argentina’s plans to move toward a cashless society, the security and transparency offered by distributed ledger technology will play a large part in the viability of this transformation.

Australia’s Commonwealth Bank conducted the first interbank trade transaction combining blockchain technology, smart contract and the internet of things (IoT) in late 2016.157 Meanwhile, the Australian Securities Exchange (ASX) is working with New York start-up Digital Asset Holdings to replace its clearing and settlement system with one based on blockchain technology – an initiative being closely monitored around the world as the first major adoption of the technology for a critical market function.158

“All four major Australian banks have blockchain innovation programs that have already delivered successful proofs of concept,” notes Australian Digital Currency and Commerce Association CEO Nicholas Giurietto.159 “Commercial deployment of a blockchain-based solution by one or more players in the finance sector is likely within the next 12 months.”

These technologies and capabilities were showcased in early 2017 in the United States, where a 26-member Australian delegation attended the Consensus 2017 blockchain event in New York City. The delegation was facilitated by Austrade and backed by Data 61, the largest data innovation group in Australia, as well as the New South Wales and Victoria state governments.

“Australia is well positioned to provide global leadership and has become a pioneer in proof-of-concept and adoption of blockchain technologies,” says Austrade Senior Trade and Investment Commissioner for North America, Nicola Watkinson160 “Australian financial institutions, in particular, stand in a globally competitive position.”161

Australia has also assumed a leading position in the setting of blockchain standards, with Standards Australia charged with managing the secretariat of an international technical committee for developing blockchain standards by the International Organization for Standardization.162

As distributed ledger technology such as blockchain is increasingly adopted to increase the efficiency and transparency of processes beyond finance – such as international trade procedures – Australia’s technological and regulatory leadership in the space can be tapped to help modernise Argentina’s economy.

Argentina has proven to be receptive to innovations such as blockchain, as there are already more than 7,500 bricks and mortar Argentine businesses accepting bitcoin – a crypto-currency based on blockchain technology.165
Argentine agribusiness start-up SproutX has joined forces with Latin America-based early stage venture fund, NXTP Labs to launch AgtechPassport, an exchange program for agtech start-ups. “Argentina is one of the few countries in the world that has considerable capacity to increase domestic agricultural production, but to be successful we need to rely on technology to transform our industry in a sustainable way. This program provides access to new technologies and new global value chains,” said Argentina’s Secretary for Agriculture Ricardo Negri during the program’s launch.

“The AgtechPassport is the first program of its kind in Australia and is focused on helping Australian and Latin American agtech start-ups gain international exposure, cross-pollinate and commercialise their ideas”, says Austrade Senior Trade Commissioner for Andean Latin America Shannon Powell.

“The digital economy is moving at hyper speed. The linking of these agtech ecosystems provides access for Australian agtech companies to the enormous markets of Argentina and Latin America and creates a pathway for increased exports of both technological know-how and goods and services,” Ms Powell adds.

The AgtechPassport program will send an Australian team to Argentina, and a corresponding Latin American agtech team to Australia, for a one-week immersion in the host country’s start-up ecosystem. “We want to get Australia’s agtech ideas out of the office and into the farms and areas where they can be commercialised,” said SproutX General Manager, Sam Trethewey.

“By partnering with NXTP Labs through Austrade, we can give our start-ups global exposure and insights. Australia and Latin America have strong agricultural industries and wide production bases, so close collaboration between countries will accelerate that goal,” said Mr Trethewey.

Ms Powell said Argentina’s agricultural sector is quite sophisticated and is embracing advanced production technologies which are collecting invaluable data on a massive scale. “Many Argentinian farmers are ‘really early adopters’ of technology. This demonstrates why Latin America is a great starting point for Australian agtech ventures planning to go global,” noted Ms Powell.

SproutX and NXTP Labs will facilitate meetings between the start-up teams and potential partners in the host country, to expand their networks and gain invaluable insights into their commercial viability in international markets. The start-ups will also gain access to co-working spaces aligned with SproutX and NXTP Labs around Australia, Latin America, New Zealand, Israel and the United States.

Opportunity Highlight: Agricultural Technology (agtech)

Argentina is a leading agricultural producer, but it still offers plenty of untapped potential that agricultural technology (agtech) can help unlock. The country will need international partners in order to do so.

Australia is a natural partner for Argentina when it comes to agtech innovations, given the strong agricultural industries in both countries and Australia’s innovative capabilities.

Collaboration is already appearing with initiatives such as AgtechPassport, an exchange program for agtech start-ups backed by Australian agribusiness and innovation start-up SproutX and Latin America-based early stage venture fund NXTP Labs (see Figure 2.24).

Agtech solutions can offer the productivity gains and higher-value production capabilities that Argentina hopes to achieve as it modernises its agricultural industry.

Australian agtech strengths and capabilities, (including areas like biotechnology and gene technology) that can be leveraged in Argentina include:

- **animal health**: creating new and more powerful therapeutic products, diagnostic tools and preventative measures such as vaccines;
• **crop-based agricultural biotechnology**: production-enhancing traits that complement or replace traditional agricultural chemical inputs, such as strains with herbicide tolerance or increased resistance to pets, viruses and fungi;

• **gene technology**: animal health, improved grain yields and quality, environmental stress tolerance, pest control, herbicide tolerance, disease resistance, lipid and protein enhancements as well as bioactive compounds;

• **precision agriculture**: satellite farming feasibility planning and implementation; incorporating technologies such as satellite imagery, information technology and geospatial tools to improve profitability.¹⁶⁷

Australian agtech capabilities also extend to areas like unmanned aerial vehicles for surveillance and inspection, as well as field robotics. For example, the Australian Centre for Field Robotics at the University of Sydney conducts research into self-driving farmbots and autonomous drones that collect and analyse data, as well as performing autonomous tasks in the field to increase crop yield efficiency.¹⁶⁸

These new technologies (such as drones, sensors and big-data analytics) are already being leveraged by both large-scale and small-scale farming operations in Australia.¹⁶⁹

Increasing technological adoption through open sourcing, direct commercialisation and the sharing of technology across multiple farming operations is one of the biggest challenges for these types of agricultural technologies going forward, according to Centre director Professor Salah Sukkarieh.¹⁷⁰

Adapting the Australian experience for the Argentine context (including introducing these technologies to market, as well as commercialising new Australian research and innovations) represents a lucrative opportunity for Australian agtech in Argentina.

**Opportunity Highlight: Medical Technology (medtech)**

There are numerous healthcare challenges facing Argentina as it modernises its economy. These include service provision to rural or remote populations, addressing increasing incidences of chronic illnesses brought on by an ageing population, and increases to healthcare costs in general.

Medical technology (medtech) can play a role in assisting Argentina address these issues efficiently, productively and cost-effectively.
Australia is a world leader in medical devices and digital health services. These are strengths which can be leveraged in Argentina, which lacks strong local capabilities in these fields.

Imports traditionally account for around 70% of the total medical device market in Argentina, with the United States being the leading source (around one-quarter of imports in the sector) followed by China (16.6% in 2014) and Germany (13.4%). See Figure 2.25 for a market overview.

### Argentina’s Medical Technology Market Overview (USD millions)

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014</th>
<th>2015&lt;sup&gt;e&lt;/sup&gt;</th>
<th>2016&lt;sup&gt;e&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total market size</td>
<td>623.3</td>
<td>638.64</td>
<td>644.5</td>
<td>657.4</td>
</tr>
<tr>
<td>Total local production</td>
<td>278</td>
<td>251</td>
<td>248.5</td>
<td>253.5</td>
</tr>
<tr>
<td>Total exports</td>
<td>59.9</td>
<td>52.3</td>
<td>48</td>
<td>49</td>
</tr>
<tr>
<td>Total imports</td>
<td>405.2</td>
<td>439.94</td>
<td>444</td>
<td>452.9</td>
</tr>
</tbody>
</table>

The industry is expected to grow around 13% in local currency terms over the 2015-2020 period, thanks to a combination of expected GDP growth, a large population with a significant elderly component, rising incidences of chronic ailments, and a heavy reliance on imported medical devices, among other factors.

Australian medtech companies and service providers can leverage their strong track record of excellence in research and development to take advantage of this growth.

Niche areas of Australian capability include:

- **medical imaging and analysis of patient data**: research and software products for the early diagnosis of Alzheimer’s disease and several cancers; automatic image enhancement and organ-mapping technology; quantitative imaging tools for extracting high-quality data from images;
• medical training and simulation: surgical simulators for cost-effective surgical training, and high-performance rendering and 3D image analysis;

• mobile computing platforms for data analysis: home-based cardiac rehabilitation programs using mobile phones; wireless health monitoring systems for cardiac, respiratory and diabetes management;

• mobile service delivery: telehealth, telemedicine and assistive technologies;

• smart solutions for healthcare services: patient flow applications for demand and operational management; statistical surveillance methods for detecting disease outbreaks; ePrescriptions that can reduce the risk of medical error and other issues; clinical information sharing systems.173

Many or all of these capabilities can be positioned in Argentina, especially as the country shares some similar challenges, that lend itself to mobile health services delivery.

Australian capabilities also extend to the integration of healthcare-related services delivered by multiple government departments, including the creation of a national e-health strategy. This is a comprehensive framework that may serve as a model for Argentina in facilitating innovation and digital service delivery in the healthcare sector.

Adopting various technologies and innovations has led to productivity gains in many areas of Australian healthcare provision (see Figure 2.26). Argentina can strive for similar productivity gains as medtech advances are adopted and efficiencies are realised.

### Australian Healthcare Sector Productivity Improvements from Technology Investments

<table>
<thead>
<tr>
<th>Category</th>
<th>All sectors</th>
<th>Health sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>More Effective Customer Communications</td>
<td>42%</td>
<td>34%</td>
</tr>
<tr>
<td>ICT (i.e. Mobile and Broadband Networks)</td>
<td>38%</td>
<td>41%</td>
</tr>
<tr>
<td>Staff Training</td>
<td>38%</td>
<td>36%</td>
</tr>
<tr>
<td>Process Improvements</td>
<td>35%</td>
<td>34%</td>
</tr>
<tr>
<td>Improved Employee Engagement</td>
<td>32%</td>
<td>41%</td>
</tr>
<tr>
<td>Improved Employee Collaboration</td>
<td>31%</td>
<td>31%</td>
</tr>
<tr>
<td>Other Technology, Outside ICT</td>
<td>27%</td>
<td>29%</td>
</tr>
<tr>
<td>Social Media Communications</td>
<td>23%</td>
<td>9%</td>
</tr>
</tbody>
</table>

Figure 2.26: Australian healthcare sector productivity improvements through technology investment, all private and government organisations (n=1060) and health organisations (n=67) (Source: Telstra)
Opportunity Highlight: Cybersecurity

Online communications and platforms are now critical to the functioning of modern economies, making cybersecurity a frontline issue for businesses, governments and individuals.

In Argentina, the expansion of e-commerce and online government service delivery makes it crucial that networks and platforms are secured from potential attack and exploitation.

Argentina ranks 15th in the world and 5th in the Americas on ITU’s Global Cybersecurity Index, a leading international ranking of national readiness, commitment and preparedness to tackle cybersecurity issues (see Figure 2.27).  

In another cybersecurity ranking of the Americas by the Inter-American Development Bank and other institutions, Argentina is grouped with countries having achieved an “intermediate level of preparedness”, lagging behind advanced countries like the United States and Israel.

These rankings place Argentina in the middle of the pack, both globally and regionally, with room to learn and absorb international best-practice expertise and capabilities.

Australia can offer such expertise and capabilities. It has been at the forefront of developments in online safety and security, with robust legislation, advanced law enforcement capability, rigorous policy development and strong technical defences in place.

Particular Australian cybersecurity strengths that can be utilised in Argentina include:

- **consulting services**: consulting on technical issues such as network testing, security and preparation testing, as well as security architecture; consulting on protecting business assets such as reputation, IP, employees and customers;
- **education and training services**: the wide range of coursework and research degrees on offer by Australian institutions, ranging from technical courses to those focused on the environmental aspects of cybersecurity;
• **research and development**: world-class research capability through universities, government and the private sector; expertise in niche areas of cybersecurity, such as quantum technology, wireless technology and trustworthy systems;

• **software and product development**: niche value-added cybersecurity products and services from both innovative start-ups and multinational corporations; expertise in identity management, encryption, wireless technologies and trustworthy systems.¹⁷⁷

Australia’s best-practice expertise was on display at the 2017 RSA Conference in the United States, where over 30 Australian delegates showcased the country’s cybersecurity capabilities and researchers in front of industry giants such as Google, Dell and Cisco.¹⁷⁸

“A number of companies who have come to Australia to have a look at what we offer have said that what’s on display in Australia is totally world class, and certainly on-par with the US, and in some cases, has some real distinct areas of competitive advantage,” says Austrade Senior Trade Commissioner for North America, Nicola Watkinson.¹⁷⁹

Australia offers not just technology and research, but also models and best-practice frameworks that can be adopted in Argentina.

For example, Australia boasts mature national strategies for cyber defence, supported by both government and industry, which could provide learnings and frameworks for Argentina to build upon its own cyber defence strategies.
Challenges in Argentina
This section provides an overview of the challenges Australian companies potentially face when doing business in Argentina.

Despite recent business-friendly reforms, Argentina remains a challenging place to do business. This section takes a closer look at challenges in Argentina’s business environment, as well as its institutional development and transparency, providing some basic first steps toward addressing them.

### 3.1 Business Environment

Argentina’s economy is still recovering from sub-optimal economic performance during previous governments, whose policy choices set the foundation for the issues the current government aims to rectify. These include:

- weak economic activity, high inflation, a declining trade surplus and growing fiscal deficit;
- an overvalued exchange rate, exacerbated by foreign exchange controls;
- a significant drop in foreign reserves and limited access to external finance due to previous default.

Following its 2015 election victory, Argentina’s new administration moved quickly to address many of these issues to improve the country’s business environment, such as abolishing export controls and allowing the remittance of dividends abroad.

As an example of the new administration’s focus on institutional reform, President Macri declared a “statistical emergency” soon after assuming office, as unreliable statistics were a casualty of excessive state intervention in the economy during the previous government. Reforms to the national statistics agency are indicative of the new administration’s seriousness in tackling negative factors in Argentina’s business environment, along with its efforts to strengthen other state institutions such as the central bank.

These improvements have restored a measure of policy credibility to Argentina, and have already led to positive external benefits such as a lift in the country’s credit ratings.

However, many challenges remain.

Argentina ranks 116th in the ease of doing business index, according to the World Bank’s annual rankings, and 20th regionally in Latin America and the Caribbean. Figure 3.1 compares Argentina against its neighbouring countries and Australia on selected criteria.
Enforcing contracts (50th in the world) and protecting minority investors (51st) were its highest-ranking categories, while starting a business (157th), dealing with construction permits (173rd) and paying taxes (178th) were the areas in most need of improvement.

In terms of business risks, unmanageable inflation, a failure of critical infrastructure and fiscal crises were the three risks of highest concern for doing business in Argentina in the 2017 Global Risks Report by the World Economic Forum (see Figure 3.2).186

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### Business Risks in Argentina

<table>
<thead>
<tr>
<th>Risk</th>
<th>Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unmanageable inflation</td>
<td>55.6</td>
</tr>
<tr>
<td>Failure of critical infrastructure</td>
<td>46.5</td>
</tr>
<tr>
<td>Fiscal crises</td>
<td>42.4</td>
</tr>
<tr>
<td>Failure of national governance</td>
<td>39.4</td>
</tr>
<tr>
<td>Energy price shock</td>
<td>37.4</td>
</tr>
<tr>
<td>Unemployment or underemployment</td>
<td>33.3</td>
</tr>
<tr>
<td>Profound social instability</td>
<td>32.3</td>
</tr>
<tr>
<td>Failure of financial mechanism or institution</td>
<td>29.3</td>
</tr>
<tr>
<td>State collapse or crisis</td>
<td>21.2</td>
</tr>
<tr>
<td>Illicit trade</td>
<td>18.2</td>
</tr>
<tr>
<td>Extreme weather events</td>
<td>9.1</td>
</tr>
<tr>
<td>Critical information infrastructure breakdown</td>
<td>8.1</td>
</tr>
<tr>
<td>Failure of climate-change mitigation and adaptation</td>
<td>8.1</td>
</tr>
<tr>
<td>Data fraud or theft</td>
<td>7.1</td>
</tr>
<tr>
<td>Misuse of technologies</td>
<td>6.1</td>
</tr>
<tr>
<td>Asset bubble</td>
<td>5.1</td>
</tr>
<tr>
<td>Terrorist attacks</td>
<td>4.0</td>
</tr>
<tr>
<td>Large-scale involuntary migration</td>
<td>4.0</td>
</tr>
<tr>
<td>Interstate conflict</td>
<td>4.0</td>
</tr>
<tr>
<td>Deflation</td>
<td>4.0</td>
</tr>
<tr>
<td>Water crisis</td>
<td>2.0</td>
</tr>
<tr>
<td>Spread of infectious diseases</td>
<td>2.0</td>
</tr>
<tr>
<td>Failure of urban planning</td>
<td>1.0</td>
</tr>
<tr>
<td>Biodiversity loss and ecosystem collapse</td>
<td>1.0</td>
</tr>
<tr>
<td>Cyberattacks</td>
<td>0.0</td>
</tr>
<tr>
<td>Weapons of mass destruction</td>
<td>0.0</td>
</tr>
<tr>
<td>Food crises</td>
<td>0.0</td>
</tr>
<tr>
<td>Man-man environmental catastrophes</td>
<td>0.0</td>
</tr>
<tr>
<td>Natural catastrophes</td>
<td>0.0</td>
</tr>
</tbody>
</table>

---

Figure 3.1: Ease of doing business in select countries, 190 total countries, 2017 (Source: World Bank)

Figure 3.2: Risks of highest concern for doing business in Argentina, 2017 Global Risks Report (Source: World Economic Forum)
Many of these risks are tied to perceptions and experiences under previous, more inward-looking, nationalistic governments and policy environments. These risks are therefore likely to decrease as time goes on, should the Argentine public continue to support pro-business governments.

Looking forward, the potential for opposition gains in legislative elections, opposition to reform from social and labour movements and any associated unrest, as well as potential disruptions and uncertainty around regional and global trade all pose risks to the future development of Argentina’s business environment.

3.2 Institutional Development and Transparency
Banking and Access to Credit

Argentina’s finance and banking sectors have had a turbulent modern history.

To end decades of economic stagnation and introduce greater foreign competition, Argentina pursued a series of economic reforms in the 1990s, including deregulation and privatisation. A currency board system that maintained parity between the ARS (Argentine Peso) and USD was established to end hyperinflation. However, this – coupled with a lack of fiscal discipline – reduced Argentina’s flexibility to respond to external shocks and eventually led the country to recession, an International Monetary Fund bailout in 2000, and then a USD 98 billion default in 2001.

This default effectively barred Argentina from accessing international credit markets, hampering investment in many areas of the economy. The country’s debt situation was eventually eased over the next decade, with successful debt re-negotiations concluded in 2005 and 2010 with a majority of the country’s private creditors, and finally an agreement concluded between the current government and holdout creditors in 2016.

This restored Argentina’s ability to tap international capital, and was funded by a USD 16.5 billion debt issue in early 2016, the largest debt issue by any developing country and a show of confidence from international investors in Argentina’s reform program and market potential.

The country’s banking system is still recovering from these events, but is getting healthier. The number of banks has halved from 1990s highs of about 120 to around 60 today, and most remaining financial institutions continue to expand operations to achieve greater financial margins.

The banking sector accounts for around 15% of Argentina’s GDP, much lower than the 40% Latin American average and the 160% average of developed countries.

With four times its current rate of economic growth needed to catch up to its neighbouring countries, the Argentine government has signalled it wants credit to grow in the country. Argentina’s top ten banks hold around 71% of all loans in the country and around 76% of deposits.

Management quality has increased at some public banks, leading to an increase in deposits and higher-quality client portfolios. This has translated into lower credit risk and lower perceptions of risk, which is expected to gradually lead to greater credit availability in Argentina over the medium term.
Legal Institutions and Transparency

Argentina ranks 95th in the world on the annual Corruption Perceptions Index, behind neighbouring Uruguay (21st), Chile (24th) and Brazil (79th).

This indicates that there is significant work to be done in tackling the issue of corruption in Argentina, but nevertheless there are positive signs moving forward. For example, Argentine courts have investigated several public officials on corruption charges, leading to prison sentences as well as fines, despite sometimes lengthy and cumbersome processes.

Argentina ranks 50th in the world for press freedom, well ahead of Brazil but behind Chile and region-leading Uruguay (ranking 25th in the world).

Argentina ranks middle-of-the-pack both regionally and globally on the Rule of Law Index, a nuanced annual review and ranking of legal factors in 113 countries around the world. Overall, Argentina ranks 14th out of 30 countries regionally, and 51st out of 113 countries globally, with highest scores in the “open government” and “fundamental rights” factors (see Figure 3.3).

Its lowest-ranking factors and areas most in need of improvement were related to corruption (15th out of 30 regionally), regulatory enforcement (19th out of 30) and order and security (22nd out of 30).

On transparency issues, which are important to building consumer and business confidence, the Argentine government has taken steps to address its below-average international standards. For example, legislation has been passed that recognises the right to public information, requiring government institutions to disclose information when requested, and to proactively publish it.

Argentina ranks middle-of-the-pack for budgetary transparency, participation and oversights, and sits on the cusp of the top third of countries on the International Budget Partnership’s latest annual survey.

Corruption is still a significant barrier to firms doing business in Argentina. As of early 2017, the OECD notes Argentina is still in “serious non-compliance” with the OECD Anti-Bribery Convention, 16 years after joining.

Nevertheless, the OECD notes “serious efforts” have been undertaken by the Argentine government since December 2015 to tackle the issue. The government’s transparency-boosting proposals include:

### Argentina’s Rule of Law Index Rankings

<table>
<thead>
<tr>
<th>Factor Trend</th>
<th>Factor Score</th>
<th>Regional Rank</th>
<th>Income Rank</th>
<th>Global Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constraints on government Powers</td>
<td>▲</td>
<td>0.59</td>
<td>40/30</td>
<td>10/37</td>
</tr>
<tr>
<td>Absence of Corruption</td>
<td>▲</td>
<td>0.51</td>
<td>15/30</td>
<td>16/37</td>
</tr>
<tr>
<td>Open Government</td>
<td>-</td>
<td>0.57</td>
<td>9/30</td>
<td>11/37</td>
</tr>
<tr>
<td>Fundamental Rights</td>
<td>-</td>
<td>0.69</td>
<td>9/30</td>
<td>5/37</td>
</tr>
<tr>
<td>Order and Security</td>
<td>-</td>
<td>0.62</td>
<td>22/30</td>
<td>30/37</td>
</tr>
<tr>
<td>Regulatory Enforcement</td>
<td>▲</td>
<td>0.47</td>
<td>19/30</td>
<td>23/37</td>
</tr>
<tr>
<td>Civil Justice</td>
<td>-</td>
<td>0.57</td>
<td>12/30</td>
<td>12/37</td>
</tr>
<tr>
<td>Criminal Justice</td>
<td>-</td>
<td>0.43</td>
<td>14/30</td>
<td>21/37</td>
</tr>
</tbody>
</table>

Overall Score - 0.55 | Regional Rank - 14/30 | Income Rank - 13/37 | Global Rank - 51/113

Figure 3.3: Argentina’s Rule of Law Index 2016 rankings (Source: World Justice Project)
• laws creating access to government information and public expenditures as part of an open government policy;
• a “Repentant Act” that would reduce the sentences of individuals involved in corruption who cooperate and provide information on others involved in crime;
• a law addressing the confiscation and recovery of property and process resulting from corruption; and
• consideration of a law that would punish transnational corruption and include liability for corporations in an effort to bring Argentina in line with its commitment as a signatory to the OECD Anti-Bribery Convention.206

Looking forward, institutional reforms are still necessary in areas such as central bank independence and scaling back government involvement in private industries, as well as creating improved overall governance frameworks.207

**Intellectual Property Protection**

Protection of intellectual property (IP) through patents and copyrights is a serious issue in Argentina.

The country was placed on the United States Trade Representative’s priority watchlist in 2016, due to concerns over the adequacy and effectiveness of the country’s IP protection and enforcement regime.208

Argentina ranks 14th out of 22 countries in the Americas for IP protection, and 82nd out of 128 countries overall on the International Property Rights Index (see Figure 3.4).209

<table>
<thead>
<tr>
<th>Argentina’s Intellectual Property Rights Rankings</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Category</strong></td>
<td><strong>Argentina Global Rank</strong></td>
</tr>
<tr>
<td>Overall</td>
<td>82 / 128</td>
</tr>
<tr>
<td>Protection of Intellectual Property Rights</td>
<td>115 / 128</td>
</tr>
<tr>
<td>Patent Protection</td>
<td>50 / 108</td>
</tr>
<tr>
<td>Copyright Protection</td>
<td>67 / 104</td>
</tr>
</tbody>
</table>

Figure 3.4: Argentina’s intellectual property rights rankings. International Property Rights Index (Source: Property Rights Alliance)

Argentina has yet to ratify the World Intellectual Property Organization’s Patent Cooperation Treaty, despite 152 other countries having done so - in 1980 in Australia’s case.210 Obtaining a patent can be a years-long process, the backlogs in some sectors reach tens of thousands of applications.211
In cases of infringement brought before the courts, prosecutions can stall or languish in excessive formalities, while eventual judgements are ineffective as deterrents.212 Argentina’s new government has expressed political willingness to address IP protection deficiencies and police action has been carried out targeting illegal trade in counterfeit goods.213 The government has also expressed an openness to private sector engagement over IP protection issues, though some areas remain politically sensitive.214

3.3 Basic Steps for Companies to Limit Risk in Argentina

To address the challenges of doing business in Argentina, the following actions can be taken as basic steps to limit risk:

• Keep abreast of the legal and enforcement landscape in Argentina and be aware of local enforcement trends.

• Recognise that politics matter for your business.

• Incorporate information on the challenges of doing business in the country (including political risk) into a periodic risk assessment process to ensure that compliance departments remain active participants in protecting your organisation.

• Shore up your internal due diligence procedures and ensure vigilant enforcement of third-party compliance and contractual expectations to limit your company’s exposure. This is particularly true for companies entering Argentina or forming new relationships with entities benefiting from public concessions.

• Communicate changes in local risk landscapes to boards and senior management, who can provide additional resources and support as conditions require.215
[ Doing Business in Argentina: Assistance and Advice ]
4 Doing Business in Argentina: Assistance and Advice

Australian businesses interested in the opportunities discussed in this report can find more detailed information on how to do business in Argentina, including assistance and advice, from a number of sources.

Austrade’s website provides high-level information on Argentina’s business culture and setting up in the market, as well as links to relevant local resources. It can be found at https://www.austrade.gov.au/Australian/Export/Export-markets/Countries/Argentina/Doing-business.

Austrade also maintains an office in Argentina that can provide in-market advice and assistance to Australian businesses interested in opportunities in the country. Austrade representatives can be reached at buenosaires@austrade.gov.au.

Argentine business law firm Mitrani Caballero Ojam & Ruiz Moreno publish a Doing Business in Argentina guide. It provides details and pertinent information on starting a business, operating a business and resolving business disputes in Argentina. It also details protection, incentives and restrictions relevant to foreign investment in the country. The guide and information on additional services can be found at http://www.mcolex.com/.

Argentina’s Investment and Trade Promotion Agency’s Doing Business in Argentina: An Investor’s Guide provides information on setting up a business in the country, the Argentine tax system, labour legislation, accounting and auditing standards. The guide and additional information on investment in Argentina can be found at http://www.investandtrade.org.ar/en/.

The Export Council of Australia (ECA) provides training and skills development services to Australian companies seeking to acquire or upgrade their capability to engage in international trade. Information on the ECA’s courses, workshops and tailored training services, as well as further ECA research and trade policy work, can be found at http://www.export.org.au.
[ Concluding Remarks ]
5 Concluding Remarks

Argentina’s reform program is removing impediments to foreign investment in the country, making it an easier and more secure place to invest and do business. It is also allowing Argentine companies to tap into foreign capital, technologies and expertise.

From energy to the digital economy, Argentina’s renewal represents a significant opportunity for Australian companies with expertise and technology to offer a modernising Argentina.

In energy and resources, Australian strengths in mining and minerals – especially in sustainable mining, mining systems and technology, and lithium production – as well as in renewable energy, particularly wind and solar, may find significant demand in Argentina.

In agriculture, Australia’s world-leading expertise and capabilities in agricultural machinery and equipment, as well as in water and irrigation management, can both assist with and benefit from Argentina’s efforts to increase the productivity of its own agricultural sector.

In infrastructure, Australian capabilities in areas like transport, urban development and general modernisation can potentially find strong prospects in helping to build the foundation of tomorrow’s Argentina.

In education and training, the VET sector stands out as an opportunity to match Australian expertise with Argentina’s demand to upskill its workforce.

When it comes to the digital economy, Australian strengths and innovations in areas like fintech, agtech, medtech and cybersecurity can be enticing to an Argentina that already has growing ecosystems to leverage best-practice advances in these areas.

While risks remain to doing business in Argentina, as touched on in this report, reforms are being put in place to allow the country to capitalise on its true potential. Australian companies with strengths and capabilities in the areas outlined in this report are well-placed to both contribute to and benefit from Argentina’s renewal.
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