

Business Opportunities in Chile

4 Motors for Europe

Summary:

Thematic Agendas Opportunities

Other Opportunities by Sector

Projects by Sector

Institutional Framework

Thematic Agendas Opportunities

- **Agenda for Productivity, Innovation and Growth**

1. *Strategic Investment Fund (FIE)*¹:

This fund was created on 2014 and has a budget of 484 million Euros. The FIE aims to allocate resources for programs, projects or actions that:

- a. Facilitate productive investments
- b. Promote productive development in priority sectors where the country has comparative advantages.
- c. Promote opportunities arising from the action plans agreed in instances of public-private coordination.
- d. Fund programs aimed at generating technological capabilities, entrepreneurship and innovation.

2. *Strategic programs for productive development*:

Regional, mesa-regional and national strategic sector are defined and boosted. These sectors (21 in total)² have the best development opportunities in Chile.

3. *Sustainable Tourism Development Plan*³

In Chile the development of the tourism sector has an strategic importance, being an industry worth more than 6.5 billion Euros⁴ and domestic tourism representing almost 70% of this revenue generation.

4. *Diversification Program Fisheries and Aquaculture*

Consumers around the world want to consume seafood from sustainable fisheries. A program for productivity and diversification of artisanal and semi-industrial fishing, with a focus on sustainability in the use of resources will be implemented. This

¹ www.fie.cl

² <http://www.agendaproductividad.cl/ejes/inversiones-estrategicas/encadenamiento-y-desarrollo-productivo-programas-estrategicos>

³ <http://www.agendaproductividad.cl/wp-content/uploads/2014/10/Plan-de-Desarrollo-Tur%C3%ADstico-Sustentable.pdf>

⁴ National Tourism Service, www.sernatur.cl

industry is vital to Chile's development, providing more than 7 billion Euros to the economy during 2013⁵.

5. Plan for traceability, health and agricultural quality

New strategic programs have been initiated for the development of the agri-food sector, at a national and regional level, in association with the private sector. Nowadays one national and four regional plan have been developed⁶. The agricultural sector is one of the main engines that drives the local economy providing 2.6% to the GDP (6.7 Billion Euros)⁷

6. World Class providers for the Mining industry⁸

Mining is the most important economic sector in Chile, providing more than 32 billion Euros to the GDP. The goal of this program is to create 250 new companies for this sector (world class providers) adding an extra 9.3 billion Euros by the year 2035. This goal is expected to be accomplished together with the development of new technologies and services.

7. Program for Competitiveness and Innovation in the logistics Sector

New strategic programs have been initiated to identify gaps in the logistics sectors, in macro areas of the country, and the definition and implementation roadmaps.⁹

8. Investment in Telecommunications development

The Telecommunications Development Fund has been significantly increased by 75% in 2015 (21 million Euros). Moreover, the Budget Law started to allow Fiber Optic finance projects, starting their funding between the years 2016-2018.

9. Protection of free Competition

A new law project that aims to strengthen the tools to combat collusion; provide effective penalties for anti-competitive behavior; establish a preventive and compulsory control of mergers and implement institutional and procedural

⁵ FAO Fishery Statistics, Aquaculture production, <http://www.fao.org/home/en/>

⁶ <http://www.agendaproductividad.cl/ejes/inversiones-estrategicas/plan-para-la-trazabilidad-sanidad-y-calidad-agropecuaria-corfo>

⁷ ODEPA, www.odepa.cl

⁸ http://www.agendaproductividad.cl/wp-content/uploads/2014/10/Proveedores_de_la_Mineria_Desafios_para_potenciar_la_Innovacion_de_Alto_Impacto.pdf

⁹ <http://www.agendaproductividad.cl/wp-content/uploads/2014/10/Programa-Estrat%C3%A9gico-Mesoregional.-Log%C3%ADstica-Centro-Sur1.pdf>

improvements for both the National Economic Prosecutor and the Court of Free Competition.

10. Agency for the promotion and attraction of foreign investment

A new law will modify the functions and structure of the Foreign Investment Committee (CIE)¹⁰, establishing that the CIE will assume the responsibility of promoting and attracting foreign direct investment in the country. Some key features of this new legislation are:

- a. FEM access and repatriation of capital and profits
- b. No arbitrary discrimination
- c. VAT exemption on imports of capital goods
- d. Exceptional arrangements for new foreign investment contracts, with tax stability, for a period of four years

• **Energy Agenda**

Chile imports 60% of its primary energy. The last ten years in Chile have been marked by the cutting of natural gas from Argentina, severe and long periods of drought, difficulty in granting environmental permits, insufficient input of new projects and companies in the area of energy generation, low investment in infrastructure in the same segment and also in electrical transmission.

1. Energy Cost

The Energy Agenda objectives in this subject are:

- a. Reduce the marginal costs of electricity during the present government by 30% in the Central Interconnected System (SIC). The average marginal cost in 2013 was 141.46 MWh, so the aim is to achieve less than € 99.03 MWh in 2017.
- b. Reduce by 25% the prices of electricity supply bids in the next decade

2. Non conventional renewable energy (NCRE)

Lift the barriers for Non Conventional Renewable Energy (NCRE) in the country, aiming that the 45% of electricity generation capacity to be installed in the country between the years 2014-2025 come from these sources:

¹⁰ <http://www.ciechile.gob.cl/>

- a. Geothermal Energy
- b. Solar Energy
- c. Wind Energy
- d. Wave power energy

3. Energy Efficiency

Promoting the efficient use of energy setting a goal of saving 20% by 2025. A bill of Energy Efficiency will be send to the congress to regulate this matter.

4. Fuel Prices

Stabilization of the fuel prices to effectively reduce price volatility to which households are exposed.

Other Opportunities by Sector

• **Non conventional renewable energy/Energy Efficiency**

- Currently in Chile there are more than 2,500 MW under construction, of which 686 MW approximately correspond to NCRE projects. The Chilean government favors the incorporation of these technologies with an objective established by law 20/25¹¹.
- Bill to improve the system for geothermal concessions.¹²
- In September 2014 the National Energy Commission (CNE¹³) has presented the indicative work plan for the SIC¹⁴ for the period between 2018 and 2030. This plan contemplates building 4,979 MW, of which 70% correspond to solar and wind projects.
- Smart Grid: In the next few years the Chilean government will implement a large net-metering regime, allowing residential consumers and small business to install renewable energy systems in their homes and businesses. The net-meters would facilitate the sale of excess electricity.
- The Energy Efficiency Action Plan 2012-2020 considers the establishment of new residential street lighting programs to accelerate the deployment of efficiency lighting technologies in the residential and public sectors.
- This services have development opportunities in Chile
 - Engineering services and consultancy in the field of renewable energies
 - Technical assistance services in design and selection of equipment and materials:
 - Environmental impact, topographic, geological and geotechnical studies
 - Development of turnkey projects
 - Development of energy consumption projects supported by Law 20.571¹⁵ (Net Billing).

• **Environmental Sector**

- The large number of untreated garbage recycling is a global concern. The Chilean government is no exception and with the help of the OECD is formalizing the creation of a comprehensive bill regarding the responsibility of the producer: the REP Bill, an initiative that will force manufacturers and importers to take several products to the end of their useful life (oil, tires,

¹¹ <http://www.minenergia.cl/ministerio/noticias/generales/gobierno-promulga-ley-20-25-y-anuncia.html>

¹² <http://www.minenergia.cl/ministerio/noticias/generales/ministerio-de-energia-publica-nuevo.html>

¹³ Comisión Nacional de Energía, www.cne.cl

¹⁴ Sistema interconectado Central, www.cdecsic.cl

¹⁵ <http://www.minenergia.cl/ley20571/documentos/Ley20.571.pdf>

computers, batteries, packaging, lamps, batteries and electronics). This, far from being a problem for businesses, means a great business opportunity; E-Waste (electronics recycling company) reveals that if 2011 had recycled all phones in use in Chile (10 million phones) should be obtained 9.2 million in gold, 1.3 million in silver and 491,000 Euros in copper.

- **Internet of Things (IoE)**

- The IoE could add € 757 billion to the economy in Latin America, with manufacturing (€ 211 billion) and the public sector (€ 152 billion) being the leaders. In the case of Chile, the fourth phase of the Internet could reach € 47.7 billion over the next eight years, which amount is divided by € 41.1 billion in the private sector and € 6.9 billion in the public sector.¹⁶

- **Smart City**

- The Transport & Telecommunications Ministry is developing a series of initiatives under the “Smart City Project”¹⁷:
 - Smart City Gran Concepción¹⁸
 - Carpooling pilot
 - Monitoring and Control of cargo transportation
 - NFC payments in public transportation

¹⁶ Source: CISCO Chile

¹⁷ <http://www.ciudadesinteligentes.gob.cl/>

¹⁸ <http://innovatingcities.org/innovatingcities/chile/>

Projects by Sector

- **Current Environmental projects in Chile.**

- CODELCO¹⁹ successfully completed the public bidding for the supply of fuel, transport, storage and internal distribution services for the 2015 – 2020 period.
- The Lower House approved the bill establishes a framework for waste management and extended producer responsibility. The text will now be analyzed by the Senate in a second constitutional discussion.
- For the first time, a plan was approved by the government to address the impacts of the global warming phenomenon. Its more than 100 measures will be presented at the climate summit (COP20) taking place in Lima.
- In international competitive bidding, Minera Gaby, belonging to CODELCO Chile has awarded a contract 7 year contract to Aguasin for the design, construction, installation, commissioning and operation of the water treatment plant that supplies 100% of the requirement for that mining site, located in the II Region of Chile.
- ACCIONA built their first desalination plant for a mining company (Copiapo, Chile). The project budget amounts to 133 million Euros. Has a capacity of 54,000 m³ / day (17 million liters per day).
- SEA²⁰ approves proposed biomass plant in Yungay. The idea is to remove stubble burning, prevent pollution and generate income for small producers.
- Chile wins international fund for the development of biogas generation in the dairy industry. The cow manure is the key to bio-digestion and a biogas ingredient that can be used in turn to generate electricity and heat or cool environments.
- Senate gave the green light to the project that creates the service Biodiversity and Protected Areas
- 6.25 million Euros to improve the environment in Puerto Williams. The project "Wastewater treatment and sewer system improvements" will solve a historical necessity of the town.

¹⁹ www.codelco.com

²⁰ www.sea.gob.cl

- **Current energetic projects in Chile**

- Gas Natural acquires the 95% of the CGE Group and becomes the main Chilean electricity and gas distributor.
- The Hospital's Energy Efficiency Program has been launched with USD10.000 million expected.
- Chilean Deputy Chamber has prolonged the 'tax franchise' to promote the use of thermic solar systems.
- Veta Energía is a new founds administrator focused in energetic investments and project finance.
- Many of the mining companies in Northern Chile have recently built their own power systems. There are some European companies working on providing technology and solutions on that.
- Nowadays approximately 35% of Chile's energy is produced from hydro projects and the investment in small hydropower projects stills growing.
- Over USD 4'5 billion was invested in Chile's clean energy industry over the last five years. The most potential is identified on the solar and geothermal.

- **Current smart city projects**

- The Chilean government will implement a large net-metering regime in the coming years, allowing residential consumers and small business to install renewable energy systems in their homes and businesses.
- Santiago signed a collaboration agreement with Cisco Chile to turn Santiago into a 'Smart City'. The agreement aims to explore initiatives to advance the development and application of tools that provide solutions to the generation of a technologically advanced and integrated city.
- Chileactra leads Smarcity Santiago, the first Smart city prototype in Chile.
- Smart City Gran Concepción aims to implement innovative methodologies and technologies for the urban services.
- IBM has opened a new data center in Chile, designed for infrastructure services and solutions, including big data analytics and cloud computing (banking, telecommunications and retail).
- E-Chile is a new program launched by Fundación País Digital and Universidad del Desarrollo to promote the digital culture.

Institutional Framework

1. *Environment/Waste Management*

- Ministry of Environment (MMA)²¹ established in January 2010, is the entity that replaced the previous National Environmental Commission (CONAMA).
- One of the strategic focuses of MMA is Waste Management, being the main line of action the Waste Act, the 3Rs, Recycling of Waste, Extended Producer Responsibility (EPR) and National Toxics Municipal Solid Waste System (SINADER).
- The SINADER²² has its origins in the Registration Pollutant Release and Transfer Regulation (2013), which provides a single procedure for the declaration of atmospheric emissions, liquid industrial waste and hazardous waste. The Regulation also states that those establishments that generate more than 12 tons of solid waste, not covered by other regulations, shall be processed annually (basically non-hazardous waste). Precisely for this SINADER was created
- Superintendence of Environment (SMA)²³: Related to the President by the MMA and is dedicated exclusively to supervise the following: Environmental Qualification Resolutions (RCA), Quality Standards and Emission, Prevention Plans and/or decontamination, Law N° 19.300 of Management Plans and other established by law in the future. Additionally it has the power to impose sanctions (fines) against a breach of these instruments
- Environmental Assessment Service (SEA)²⁴: Relates to the President of the Republic through the MMA. Its main function is to introduce technology and manage an environmental management tool called "System of Environmental Impact Assessment" (SEIA), whose management is based on the environmental assessment of adjusted projects established in the current laws, encouraging and facilitating citizen participation in the evaluation of projects.

²¹ www.portal.mma.gob.cl

²² vu.mma.gob.cl/index.php?c=home

²³ www.sma.gob.cl

²⁴ www.sea.gob.cl

- **Laws and Bills:**

- Desalination Bill: Since 2013 this bill is been in the legislative power. Lately thanks to the drought that is affecting Chile this project has become more important for the government
- Water Codes reform Bill: To facilitate the process of water rights usage.
- Reform to the 18.450. Law: A reform is being introduced in this law to promote the efficient use of water trough conduct construction, telemetry, infiltration and micro-reservoirs.

2. *Smart City/Internet of Things(IoT)*

- Metropolitan Region and its new agenda for Smart City: Agreement between Metropolitan Regional Government and "País Digital²⁵" Foundation.
- Undersecretary of Telecommunications²⁶: Part of the Ministry of Transport and Telecommunications, has a Department of Planning and Development (PyD)²⁷, that manages the objectives and tasks developed by the Program of Road and Urban Transport (SECTRA), Operational Traffic Control Unit (UOCT), Smart Cities Unit (ICU), Short Term Management Unit (UGCP), and Project Management Infrastructure Unit (UGPI), thus generating a transverse view of materials planning and coordination of investments that corresponds to the Undersecretary of Telecommunications.
- In addition, PyD follows up investment so to ensure compliance of strategic projects aimed at developing a better transport system.

3. *Non Conventional Renewable Energy*

- Ministry of Energy:²⁸ The overall objective of the Ministry of Energy is to develop and coordinate plans, policies and standards for the proper functioning and development of the sector, ensure compliance and advise the Government on all matters related to energy.

²⁵ www.paisdigital.org

²⁶ www.subtrans.gob.cl

²⁷ mtt.gob.cl/pyd.html

²⁸ www.minenergia.cl

- Energy Agenda: The government, after analyzing the current state of the energy matrix in Chile and its challenges, release an Energy Agenda. This waybill sums up the key points to be treated by the government (2014-2018). Some of the areas that are mentioned on this agenda are the development of local energy resources, reduction of energy prices, energy efficiency and the diversification of the energy market, among others.
- Organizations related to the Ministry of Energy
 - Chilean Energy Efficiency Agency (ACHEE)²⁹
 - National Energy Commission (CNE)³⁰
 - National Center for Innovation and Development of Sustainable Energy (CIED)³¹
- **Laws and Bills:**
 - Distributed Generation Law³²: The purpose of the law is to entitle the customers from the regulated Distribution Companies to generate their own electricity through unconventional efficient cogeneration or renewable resources, use it for self-consumption and sell their surplus energy to the distribution companies. Where the system of renewable energy generation has a lower installed power 100 kW nominal.

²⁹ www.acee.cl

³⁰ www.cne.cl

³¹ cifes.gob.cl

³² <http://www.minenergia.cl/ley20571/documentos/Ley20.571.pdf>