


National Clean Production Council

Consejo Nacional de Producción Limpia (CPL)

Workshop of the Technology Executive Committee
Bonn, Germany 13-14 October 2014



*Strengthening national systems of innovation in
developing countries - Covering the entire technology
cycle for climate technology*

Chile, the role of the national designated entity in fostering national innovation

Juan Ladrón de Guevara – Executive Director CPL

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Agenda

1. National Clean Production Council
2. CTCN Request, Status and Lessons Learnt
3. Chile's National System of Innovation
4. Fostering national system of innovation for climate technology



1. National Clean Production Council



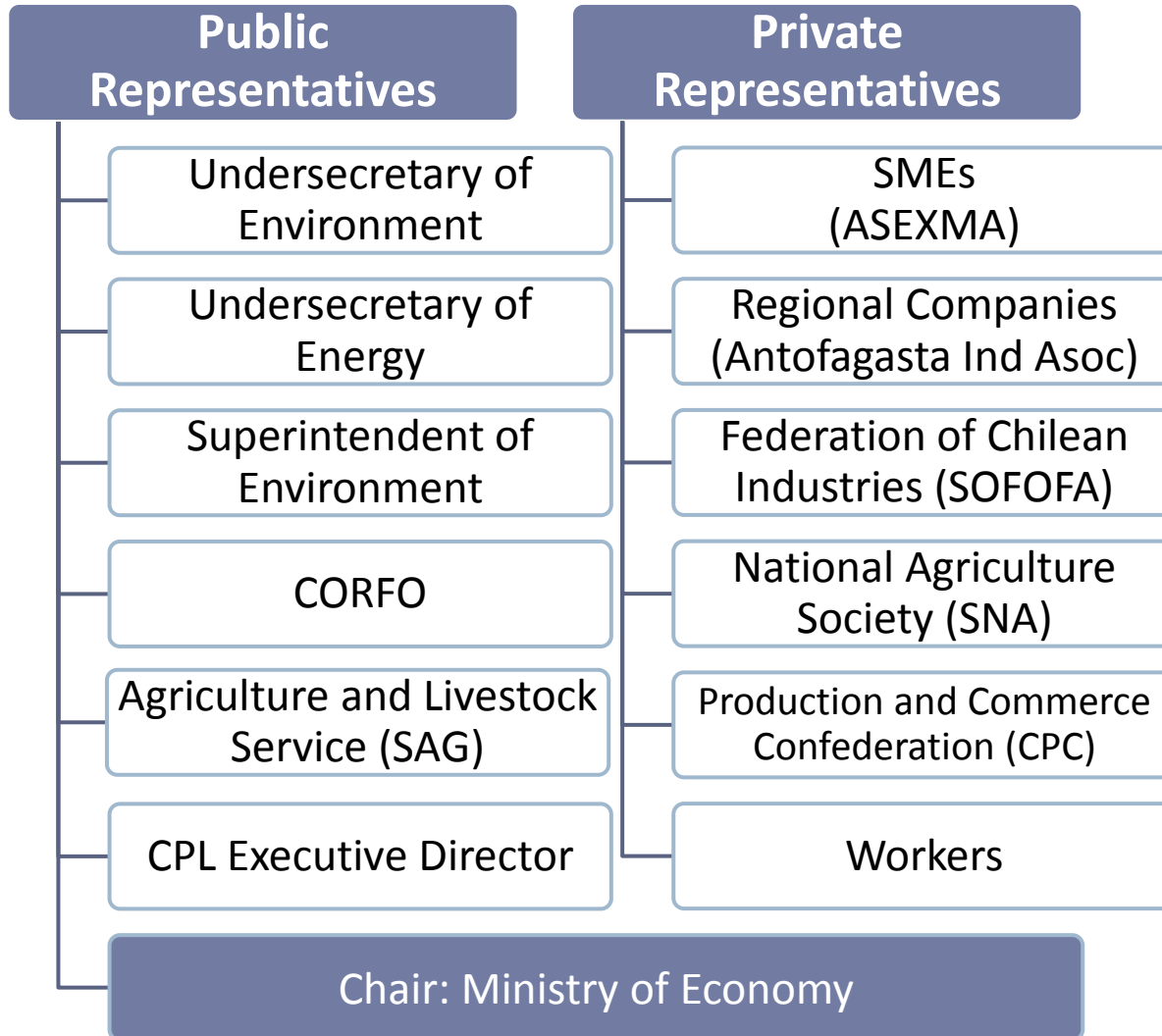
National Clean Production Council

Public-private committee dependent on the Ministry of Economy and the Chilean Economic Development Agency(CORFO), which articulates public-private voluntary agreements in clean production and sustainability with a priority focus in small and medium enterprises.

65 workers, US\$5 million/year budget from public budget



CPL Board

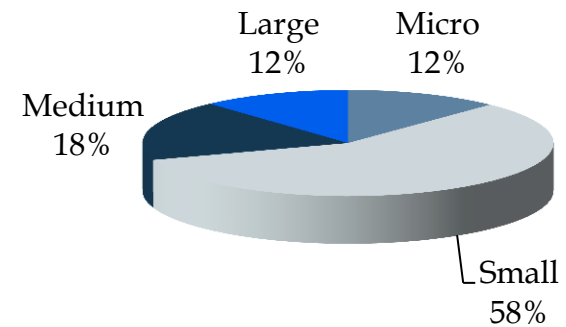


Our Main Tool - Clean Production Agreements (APL)

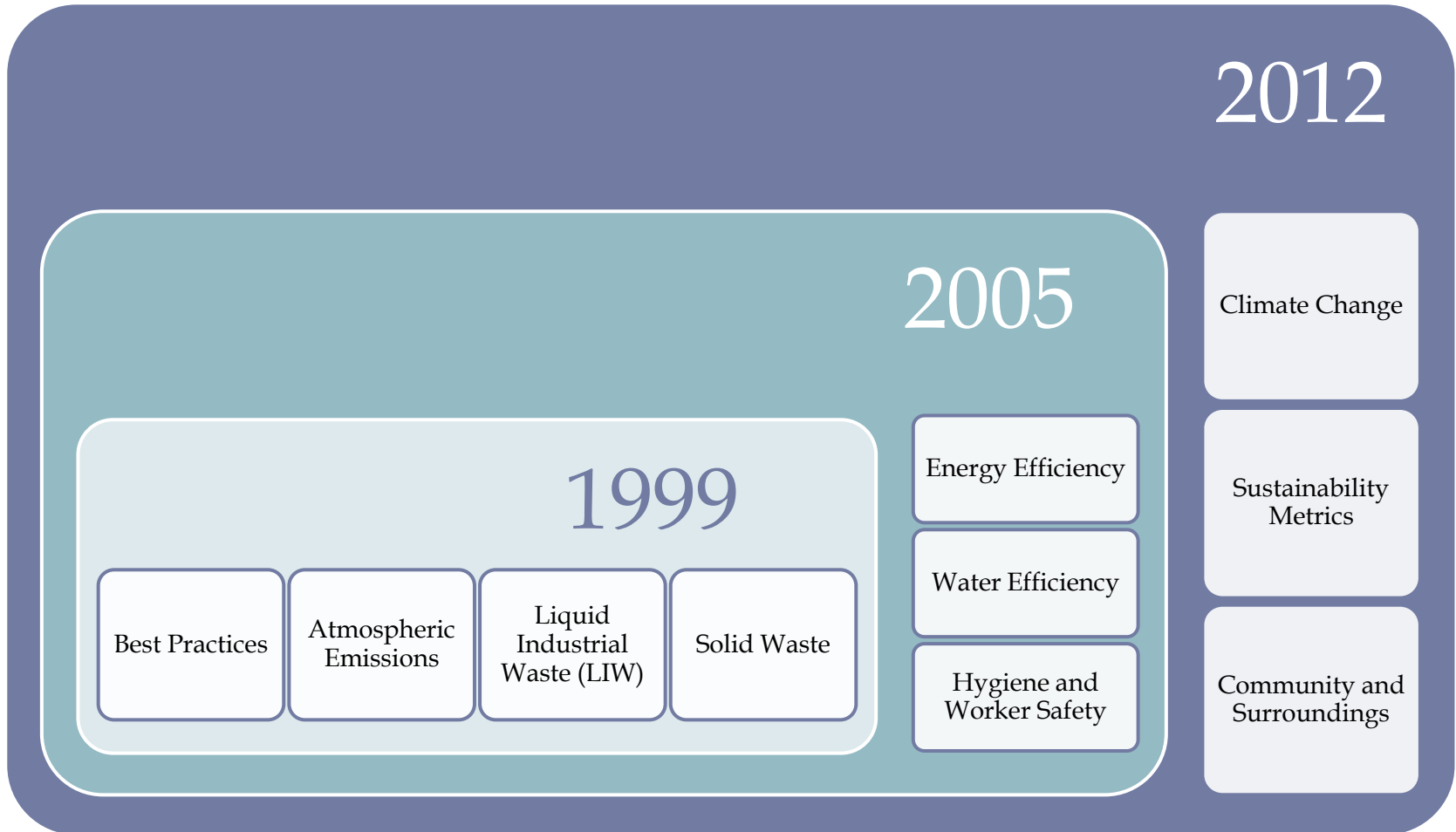


Figura 2: Desarrollo de un APL

Statistics - 37 Sectors and Subsectors to date (1999-2014)



Evolution of the APL Standard/Contents



Lines of Action (2014-2018)

1. Expansion of voluntary agreements (scope and strength) and development of new mechanisms to foster technology absorption for firms, to increase of productivity, competitiveness and sustainability.
 2. Integration of territorial and community relationships into voluntary agreements goals, focused in early stages of investment projects.
 3. Promotion of a clean production and sustainable development culture, generating enabling conditions for companies and society.
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Comprehensive Strategy (2014 - 2018)



Enabling Conditions

2. CTCN Request, Status and Lessons Learnt



CPL and its role as NDE of the CTCN

March 2013 → CPL National Designated Entity (NDE)
Incorporation of CPL to Chilean UNFCCC delegation

First Request to the CTCN - February 2014 - Design of
Biodiversity Monitoring Network in the context of
Climate Change (Requesting entity → Ministry of
Environment)

First Application for Climate Technology Network
Service Provider- February 2014 - Ecology and
Biodiversity Institute (www.ieb-chile.cl)



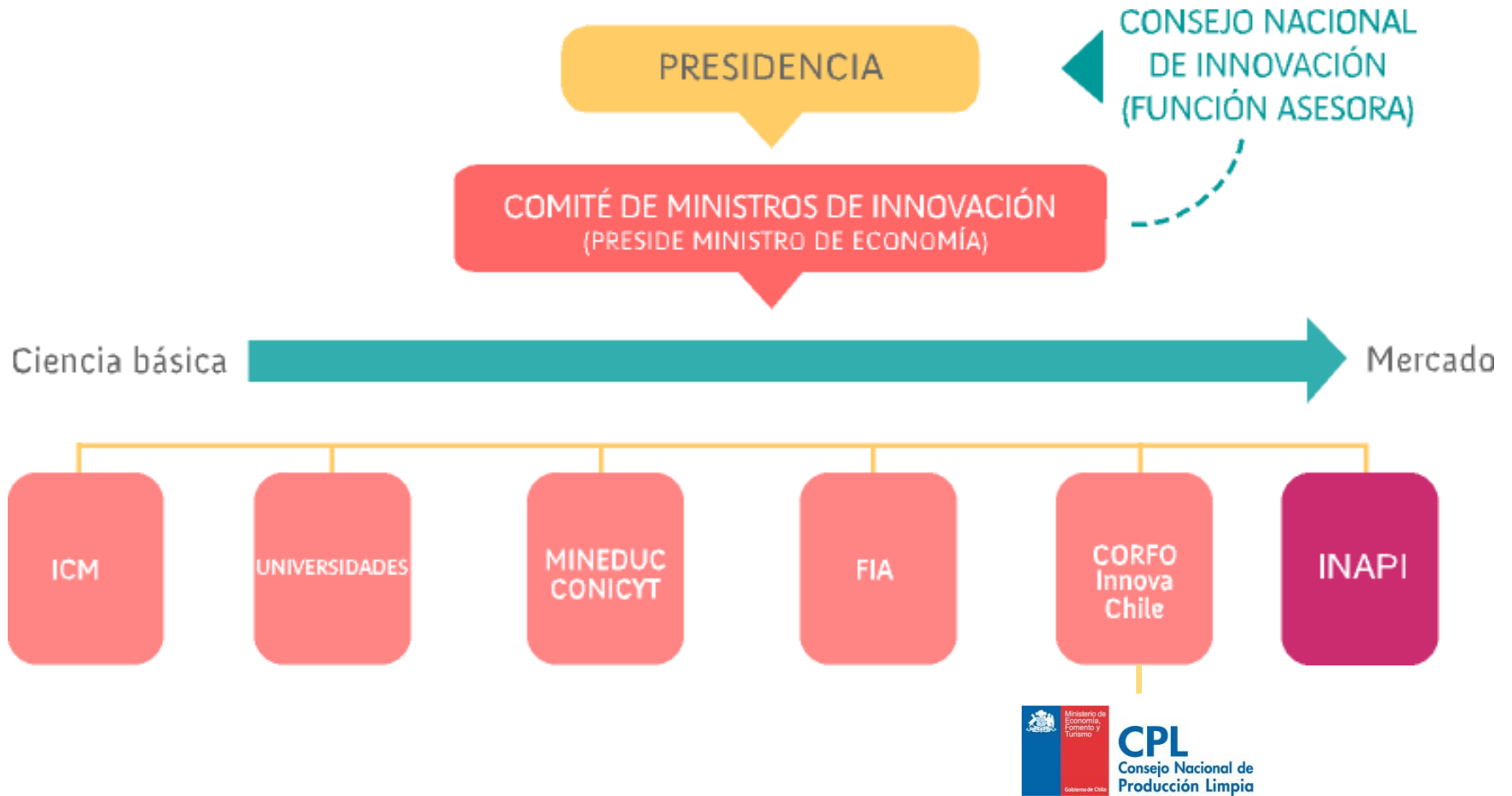
3. National System of Innovation in Chile



- ▶ Innovation as key aspect of the economic policy of the Government since 2004
 - “...we will apply active policies that stimulate innovation, adoption of new technologies, production chains..”
- ▶ Presidential Commission Report (2006)
 - For the promotion of private sector innovation and public institutions, it is key to cover science and advanced human capital (CONICYT) as well as companies (CORFO).
- ▶ 2005, Creation of the Innovation for Competitiveness Fund (FIC) from mining royalty (“change natural-exhaustible capital for human capital”)
 - Indexed to structural income of the specific mining tax (royalty).

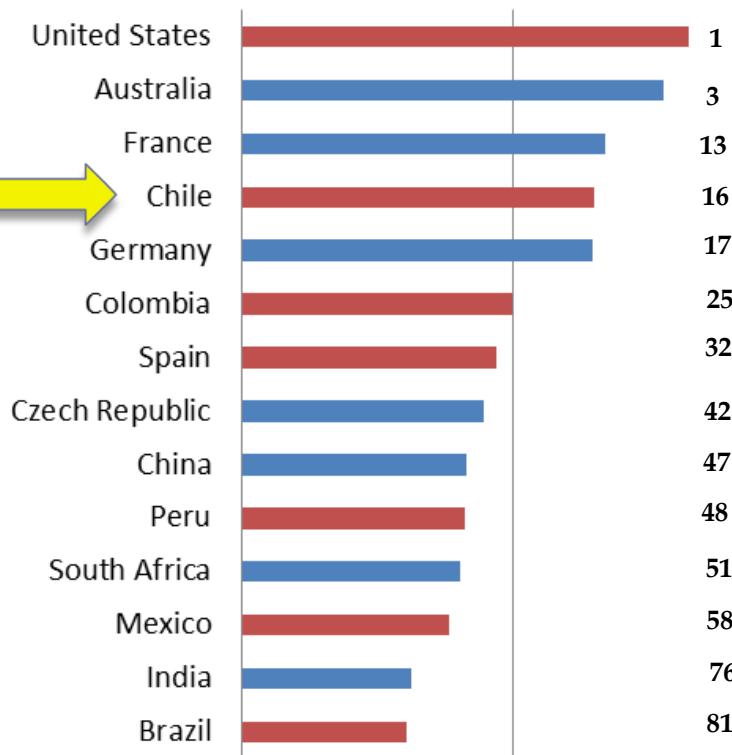


SNI Public Institutionalality



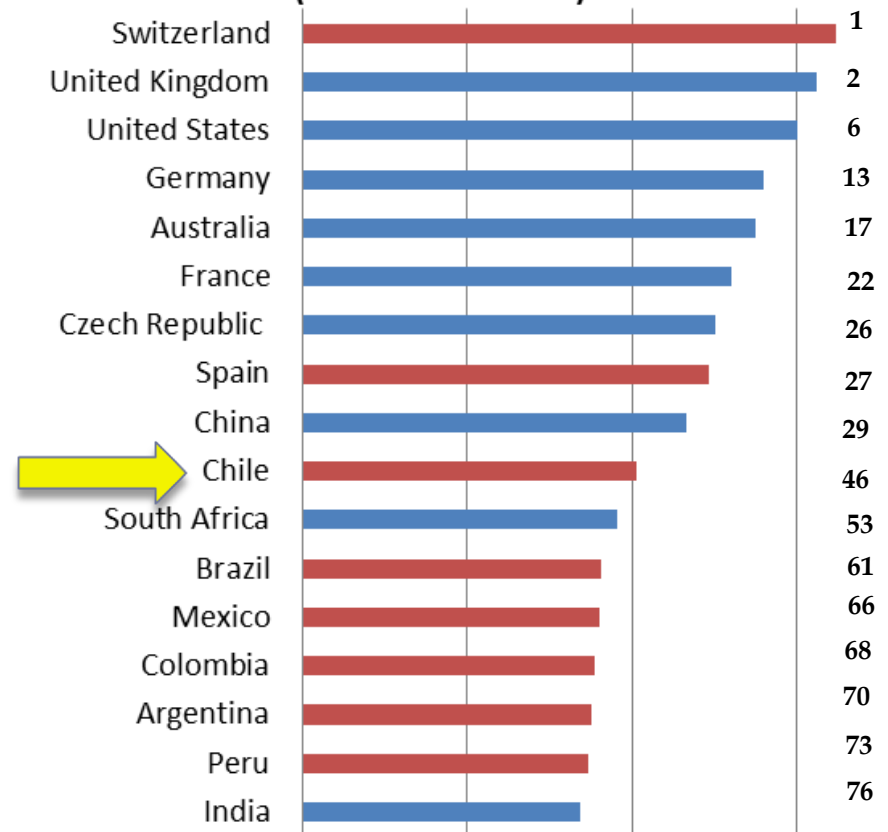
Among the best economies with an entrepreneurial ecosystem, and among the leaders of Latin America in innovation.

Global Entrepreneurship & Development Index 2014



Source: Global Entrepreneurship and Development Institute

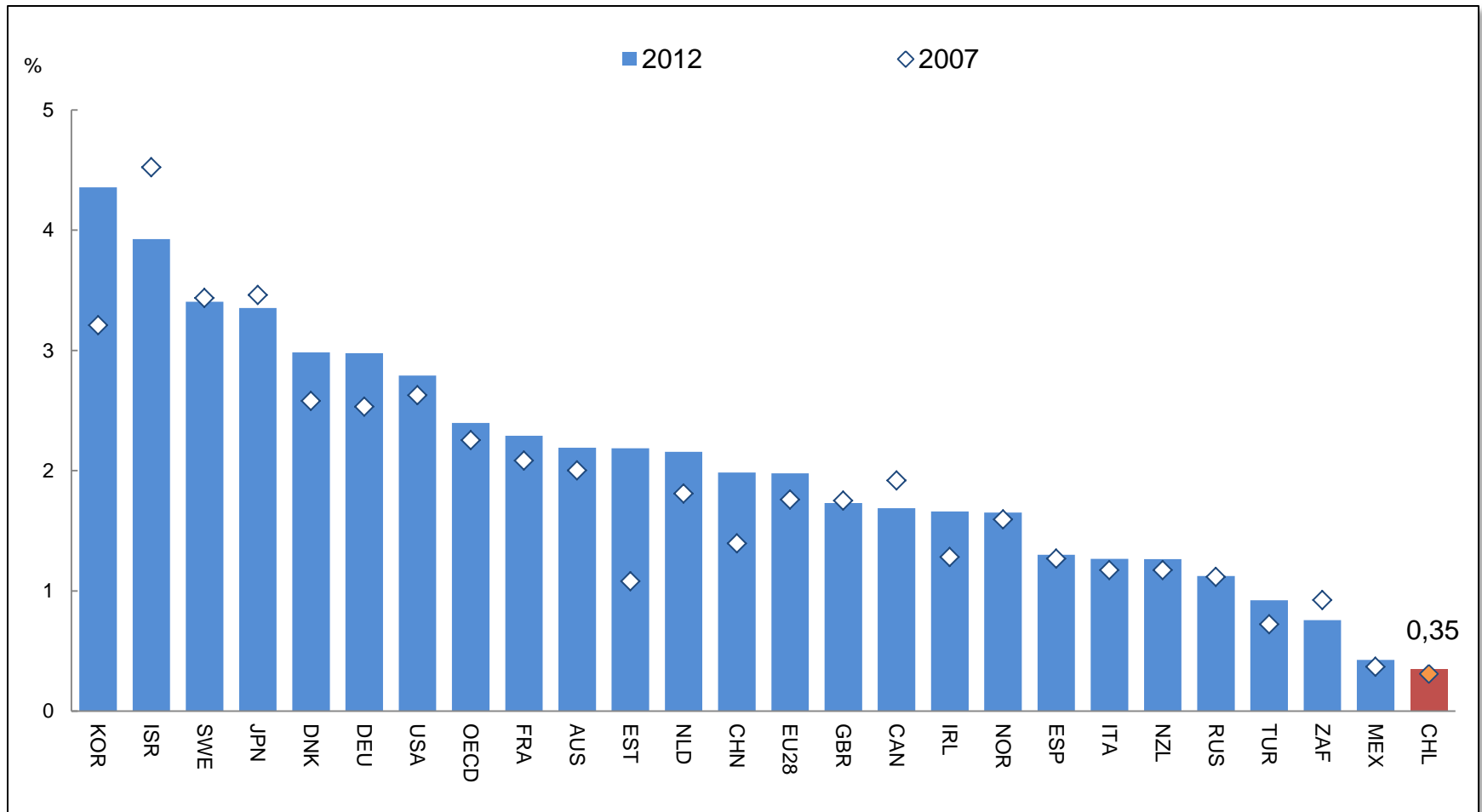
Global Innovation Index 2014 (Selected countries)



Source: GII 2014

...yet far from developed economies. Low expenditure in R&D . And mostly from public funds!

Gasto I+D como proporción del PIB, 2007 y 2012



Source: OECD, Main Science and Technology Indicators Database, 2013.

The Productivity, Innovation and Growth Agenda

Presented on May 2014 by President Bachelet

Lines of Action:

- Strategic Investments and Sector Specific Development Plans
- Infrastructure for New Development
- Finance and Support for SME Management
- Promotion of entrepreneurship and innovation
- Efficiency in regulations and offer from public services
- Better Markets
- New Institution

Agenda de
PRODUCTIVIDAD
INNOVACIÓN
y **CRECIMIENTO**

Gobierno de Chile



CPL and its role in supporting the Agenda



Innovation and Technology

APL with focus
on more
ambitious goals in
innovation and
technology
absorption

- ▶ Examples:
 - ▶ Eggs Production 2: Manure management through biodigestion
 - ▶ Out of Use Tires 2: New treatment technologies
 - ▶ Composting technology adapted to street markets organic residues
 - ▶ District heating from wood?



Clean Tech Soft Loans and Fast Track to Innovation Grants

From “best practices” to “clean tech investments”

- ▶ Rationale:
 - ▶ Now: APL provides subsidies to Industrial Associations to install tech capacity to provide assistance to firms associated (tech absorption).
 - ▶ Future: Offer access to grants and/or soft loans to Industrial Associations during the goals negotiations
- ▶ Bank give the \$, technical support by CPL, Ind Assoc and Public Org (signed the APL) and finance guarantee by CORFO (mother institution)

Technology Extension Centers as new intervention spaces

New model for tech absorption

- ▶ APL are “too long”, sometimes not so many companies associated, but highly effective.
- ▶ New absorption model, built in past experiences and international benchmark.
- ▶ **Technology Extension Centers**
- ▶ “Consultancy” services to foster competitiveness + sustainability at company level.
- ▶ Territorial approach (associated to provinces and priority sectors)
- ▶ Incremental, not disruptive innovations.
- ▶ MSME

4. Fostering national system of innovation for climate technology




CPL and Climate Change Technology

- Chile has an “official” NSI for 10 years, lot of analyses (incl OECD, WB reviews) and very active and relevant policies... but Climate Change Tech is not an explicit driver/issue in the agenda!
 - The main driver (as policy) is increase productivity of factors besides besides financial and human capital (TPF)
 - The main driver (as companies) is growth and competitiveness... and recently “social license”
 - **Successful instruments (among others):**
 - Attraction of International R&D Centers of Excellences Program: Fraunhofer (Biotech and Solar); CSIRO; Wageningen U; Queensland U; UC Davis; Pfizer...
 - Tax Incentive for R&D (up to 46% tax deduction)
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CPL and Climate Change Technology (CCT)

- However, many programs/institutions include CCT in this R&D agendas.
 - CPL already has the mechanism, credibility and the experience to promote CCT absorption at Companies level and with a very effective model.
 - We are doing CCT absorption in many APL, mainly related to energy, water and material use efficiency.
 - Challenge is to mainstreaming CCT into NSI (not the development of NSI itself!). Complex and long term duty.
 - Energy prices, water scarcity and societal demands are now and in the future also relevant in NSI agenda, but from a broader competitive and economic diversification perspective.
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