

MACHI

Vision 2020

Chilean Technology Platform

www.latin-american-technology-platforms.eu

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1. Introduction

Internet is already an essential part of our society, each day more present in our daily lives, it has changed our lives but has the potential to transform it even more. We have foreseen a new internet where Immersive, 3D applications will be protagonist. In this new scenario, the differences between real world and the virtual world accessed by internet will not be clear. We shall have access to products and information that are not close to where we live and, perhaps more important, we shall be able to experiment a different way of life. Internet demands are also continuously increasing, and research is becoming essential to achieve necessary improvements to satisfy these demands in terms of ubiquity, reliability, mobility, efficiency or security.

Nonetheless, the Future Internet is not a prediction but a goal to be attained in response to the current limits of the Internet to meet complexity and sufficient quality standards. And the stakeholders of this research effort are responsible for enabling technologies, standards and methodologies. From the technical point of view, this future Internet should be global, ubiquitous, accessible, trustable, sustainable, omni-media, scalable, adaptable, and personalised, and SatComs will play an important role in achieving these objectives.

It is time to think about a Future Internet. This document aims at contributing to give a coherent vision of the Chilean ICT actors about Internet in the upcoming future by the provision of new ideas, convergence between the technical and non-technical perspectives, providing recommendations on policies and roadmaps that could foster the active participation of the local industry, academia and a broad scope of organisations in the development of the infrastructures and services for the future networked society.

The main objective of the Chilean Technology Platform is to foster and promote a consistent approach to R&D activities in Chile in collaboration with the European Technology Platforms and having the Seventh Framework Programme as the reference basis for R&D in the Future Internet field.

The Chilean Technology Platform gathers most of the relevant stakeholders in Chile in the field of Future Internet and from a R&D perspective and as a consequence this document represents a key milestone in the promotion of R&D activities in cooperation between Chile and the EU.

The Chilean Vision-2020 in Future Internet provides an analysis of the technological panorama of the country and beyond, and as consequence of this analysis a set of recommendations have been produced in order to guide the research priorities for the medium and long term.

Julian Seseña,

Rose Vision CTO

FIRST Project coordinator

One of the most fascinating figures in Mapuche culture is the Machi.

*She is often described as a good witch, but in truth her role is that
of a spiritual healer within the Mapuche community.*

2. Our Vision for CHILE-2020 in the Future Internet field

One of the main roadmap activities for Information and Communication Technologies (ICT) and Future Internet in the country is that the Chilean Government has launched the *Digital Development Strategy*, intended to ensure the impact of a more intensive and sophisticated use of ICT, as a driver for economic growth, development of knowledge and social inclusion. The goal is clear: developing a digital country to introduce more development¹ and equality². In order to turn this challenge into an achievement, one of the objectives set out in the Strategy is to “increase competitiveness and productivity of the national ICT sector”.

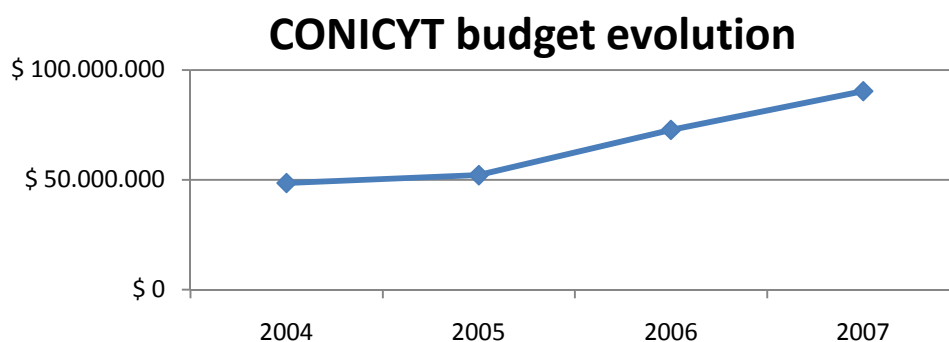
One fundamental path to fulfill this goal is increasing the “availability of funds for R&D of ICT in Universities and Research Centres”. Related to this: “The link between University and Business is an area to be greatly strengthened. Although there are successful Business-University collaborative experiences, their occurrence is very scarce compared to desired standards. In contrast, leading countries in ICT industry development have strongly developed collaboration, coordination and joint university-business initiatives.”³

¹ In the last step, it is a *Social Development*, which will be brought by the development of more products, applications and services thanks to R&D fostered by the work of the Chilean Technology Platform.

² In this case, equality is taken in terms of opportunities for the private and academic sectors. Private includes Large Enterprises and Small & Medium Companies.

³ Digital Development Strategy 2007-2012
[http://www.estrategiadigital.gob.cl/files/Digital%20Strategy_CHILE.pdf]

The main public organism in charge of funding is the National Commission for Scientific and Technological Research (CONICYT). This entity has the duty of administrating the funds destined to boost R&D activities in Chile. In the last years, CONICYT increased the amount of funds destined to R&D promotion. For example, the total budget of CONICYT increased by 80% between 2004 and 2007 (Source:CONICYT):

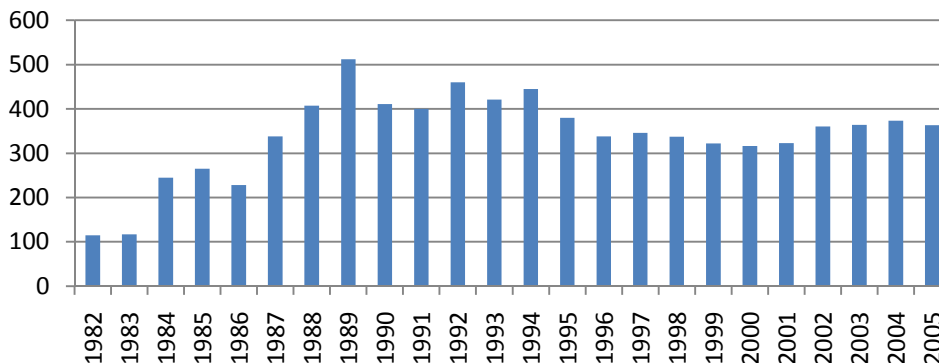


CONICYT has different programmes in order to give financial aid to research organisations and companies. Some of the main programmes are:

- F*- FONDECYT (the most important and general funding programme of CONICYT)
- F*- Astronomy (Focused on astronomy)
- F*- FONDEF(related to Biotechnology and applied ICT)
- F*- FONIS (Focused on Health and sanitary policies)
- F*- FONDAP(Focused on business opportunities)
- F*- Regional Programme
- F*- Associative Research Programme

Regarding the most important funding programme, FONDECYT, it is important to highlight how the implementation of this programme in 1982 improved the level of R&D activities. For example, the evolution of the total number of projects supported by the programme shows a great increase and a solid stability (Source:CONICYT):

Number of projects that received financial aid from FONDECYT



Sharing the same objectives of CONICYT, the main goal of the Vision of the Chilean Technology Platform is to **increase the international cooperation in R&D ICT projects between Chile and the European Union**. The rationale is that Chile needs to turn its outstanding ICT R&D potential into successful product development in order to be competitive worldwide. A key factor for success is bringing together a wide spectrum of ICT players in Chile: Research Centres, Universities, Industries and Associations, in order to produce a common Vision and a Research Strategy. Therefore, the Vision of the Platform is closely linked to the Digital Strategy of Chile. The Technology Platform methodology will include topics such as:

- F*- Contacting ICT European stakeholders (**networking**).
- F*- Participating in projects with the highest international standards.
- F*- Producing an ICT R&D Strategy Agenda. This will enable mapping Chilean capabilities and matching them with European projects/organisations.

The vision of the Chilean Technology Platform is also very close to the mission of the *Chilean Strategic Map of Digital Era* of “*Proyecto País*” designed by the Commission of Informatics & Computing of the Chilean Engineers Association⁴. This mission is to contribute with Chilean Economic and Social development by significantly increasing the competitiveness and economic activity of enterprises/organisations, improving quality of life and social capital through the use of ICT.

⁴ Proyecto País> Segunda Etapa 2005 – 2020
http://www.ingenieros.cl/index.php?option=com_docman&Itemid=289

In order to fulfill this commitment, the Commission establishes some action lines, of which it can be underscored the need for developing a national industry based on the participation of an important sector of Chilean ICT-based businesses. This envisages the following aspects:

- F-* Encouraging the development of Technologic Centres, Consortia and Research Centres in strategic areas. This will enable permanently meeting the Supply and the Demand, allowing the detection of needs, product innovation and coordination of the various players related to specific Industries and ICT supply.
- F-* Creating programmes of R&D Associability, ICT Supply and Demand.

The Technology Platform methodology proposed by the FIRST project brings forward a tool for promoting the ICT Supply and Demand Meeting. It intends to help and support the Digital Strategy goals, as well as to build a model for fostering competitiveness by gathering ICT R&D stakeholders in the same scenario.

The application areas for ICT R&D that are developed in Chile are: mining, e-government, fish farming, wine production, forestry, astronomy, tourism and agricultural productions. In all cases the vision is clear: improving the productivity and management capabilities by the incorporation of ICT. In the last years, the focus was placed on E-Government on one side, and, on the other side, the policies were focused on turning Chile into an exporter of services.

Finally, it is important to point out that the high participation of **SMEs** and **Large Companies** will contribute to the success of this Platform activity. Historically, Latin American R&D International Cooperation has been dealt with by the **Academic Sector**. The challenge of the FIRST project is to involve the Chilean Industry in order to meet Market expectations. Hopefully, all Chilean good ideas will end up in Market Applications.