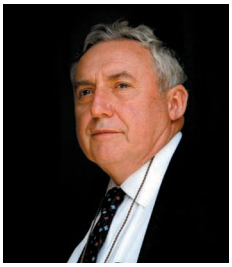
UNIVERSIDAD DE CHILE: SCIENCE OF THE SOUTH

A conversation with **ENNIO VIVALDI**, rector of Universidad de Chile



Universidad de Chile, one of the oldest and highest ranked in Latin America, was at the core of the creation of Chile's Republic nearly two centuries ago. Rector Ennio Vivaldi discusses how Universidad de Chile is fostering collaboration with South American universities to showcase the knowledge generated there.

How is Universidad de Chile different?
The role that the university has played in Chilean history is key, providing an intellectual network as well as contributing greatly to the development of critical thinking. Two Nobel Prize winners and 20 presidents have come out of our classrooms. Founded 175 years ago, in the new Republic of Chile, the institution of higher education was responsible for helping to form the identity of the nation. Subsequently, Universidad de Chile organised the national education system and in 1952 was a major contributor to the public healthcare system. In 1972 the university led huge efforts to help eradicate child malnutrition, as it was considered that Chile could not become a developed country if its citizens did not have adequate nutrition to develop cognitively. This was Chile's first truly multidisciplinary project and a pioneering one at that time. Our scientific milestones range from amazing astronomical data gathering and astronomy observatories centres to world-class breakthroughs in membrane biophysics and Humberto Maturana's autopoiesis theory. More recently, we have promoted the construction of a productive infrastructure and helped develop earthquake-resistant engineering. The university has a different function than it would in other countries, as evidenced by its ownership of institutions like the Chilean National Ballet, the Chilean National Symphony Orchestra and the Museum of Contemporary Art.

How is Universidad de Chile contributing to the country's future?
Our core mission is an orientation towards public service which addresses the country's problems and contributes to solutions that become important cornerstones of national development. Chile is undergoing a pivotal period and wants to reposition itself as an emerging country in the society of knowledge. The decline of natural resources export forces us to focus on science-based innovation. We are the main Chilean research institution and produce a third of its scientific output. Today our responsibility remains: to conduct research projects that will help Chilean society. We have changed our approach to innovation and are implementing specific policies to foster it. Between 2014 and 2016 alone we submitted 96 patent applications, resulting in 25 new technologies in areas such as engineering, biomedicine, mining and education.

What are Universidad de Chile's main objectives?
We have a strong focus on internationalization and multidisciplinary research to tackle global challenges and approach them from a local perspective. Nowadays multiple perspectives are necessary to deal with complex future scenarios. For us this has translated into the creation of interdisciplinary networks in areas such as ageing, disaster management, intelligent cities design, renewable energies and social cohesion, amongst others. We have created the Center for Mathematical Modeling, which uses mathematics to solve problems coming from other sciences, industry, and public policies.

How do you interpret internationalization?
We have been showcasing our research to create a better connection with other Latin American research bodies. Many European universities have a growing interest in connecting with South American science. Chile is a small country, but, given its level of development and its proven research capacity, we could act as a platform to strengthen the links between Latin America and more scientifically developed countries. At present, we have three-way projects that involve connections with other large Latin-American universities such as Sao Paulo, Buenos Aires and UNAM in México as well as European and North American research institutions. Universidad de Chile has also increased binational forums, with countries such as Sweden, France, and Japan, to promote new lines of innovative research in areas ranging from astronomy to social sciences.

What is the Caren project about?
Caren has been conceived as a modern science city, rather than a technological or industrial park. It will host impressive museums such as The Darwin in Chile Museum and the Natural Disasters Museum which will reflect the nature of Chile as a place prone to earthquakes, tsunamis and other natural phenomena. The multidisciplinary approach will proliferate in Caren, and the city will also host several university networks. In Caren, academics will physically come together with public research institutions as well as private companies which, in South America, are generally reluctant to invest in R&D.

UNIVERSIDAD DE CHILE

In scientific production in Chile in Scopus (SCImago Ranking).

#1

Nobel Prizes winners and 20 presidents of the republic.

2

Articles published in ISI–WOS, indexed journals in 2016. 45% of them in Q1.

2500

+1500

Research projects with national and international financing conducted annually.

22

Centers of excellence, 18 as the principal institution and 4 as an associated institution.

54

Technologies transferred to society through intellectual property rights between 2014 and 2017 .

THE UNIVERSITY OF CHILE, FOUNDED IN 1842, IS THE OLDEST UNIVERSITY IN THE COUNTRY AND ONE OF THE MOST PRESTIGIOUS IN LATIN AMERICA. WITH A TOP-QUALITY ACADEMIC BODY AND A HIGH PRODUCTIVITY IN THE FIELDS OF SCIENCE AND ARTISTIC RESEARCH. THE INSTITUTION HAS BEEN CONTINUOUSLY LINKED TO REFLECTION AND ACTION ABOUT NATIONAL AND GLOBAL MAJOR CHALLENGES, GIVEN ITS NATIONAL AND PUBLIC NATURE. INTERDISCIPLINARY RESEARCH, INNOVATION AND INTERNATIONALIZATION ARE THREE MAIN AXES OF THE UNIVERSITY DEVELOPMENT PLAN, WHICH WILL MATERIALIZED IN THE ACADEMIC PROJECT *PARQUE LAGUNA CARÉN*.

UNIVERSIDAD DE CHILE

www.uchile.cl