

# BIOECONOMY OPPORTUNITIES IN CHILE

“CHILEAN BIOTECHNOLOGY: TRENDS AND  
OPPORTUNITIES”



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# Chilean Economy Today

## Main Chilean Exports

|                         |                   |
|-------------------------|-------------------|
| Copper mining           | (~20 billion USD) |
| Hortifruticulture       | (~5 billion USD)  |
| Forestry / Cellulose    | (~5 billion USD)  |
| Aquaculture and fishing | (~3 billion USD)  |
| Cattle / Poultry        | (~3 billion USD)  |
| Agroindustry & wines    | (~3 billion USD)  |
| Other                   | (~18 billion USD) |

## Economy based in natural resources

↓  
2010  
US\$ 65 Billion  
in exports

↓  
2025  
US\$ 200 Billion  
in exports

Existing industries

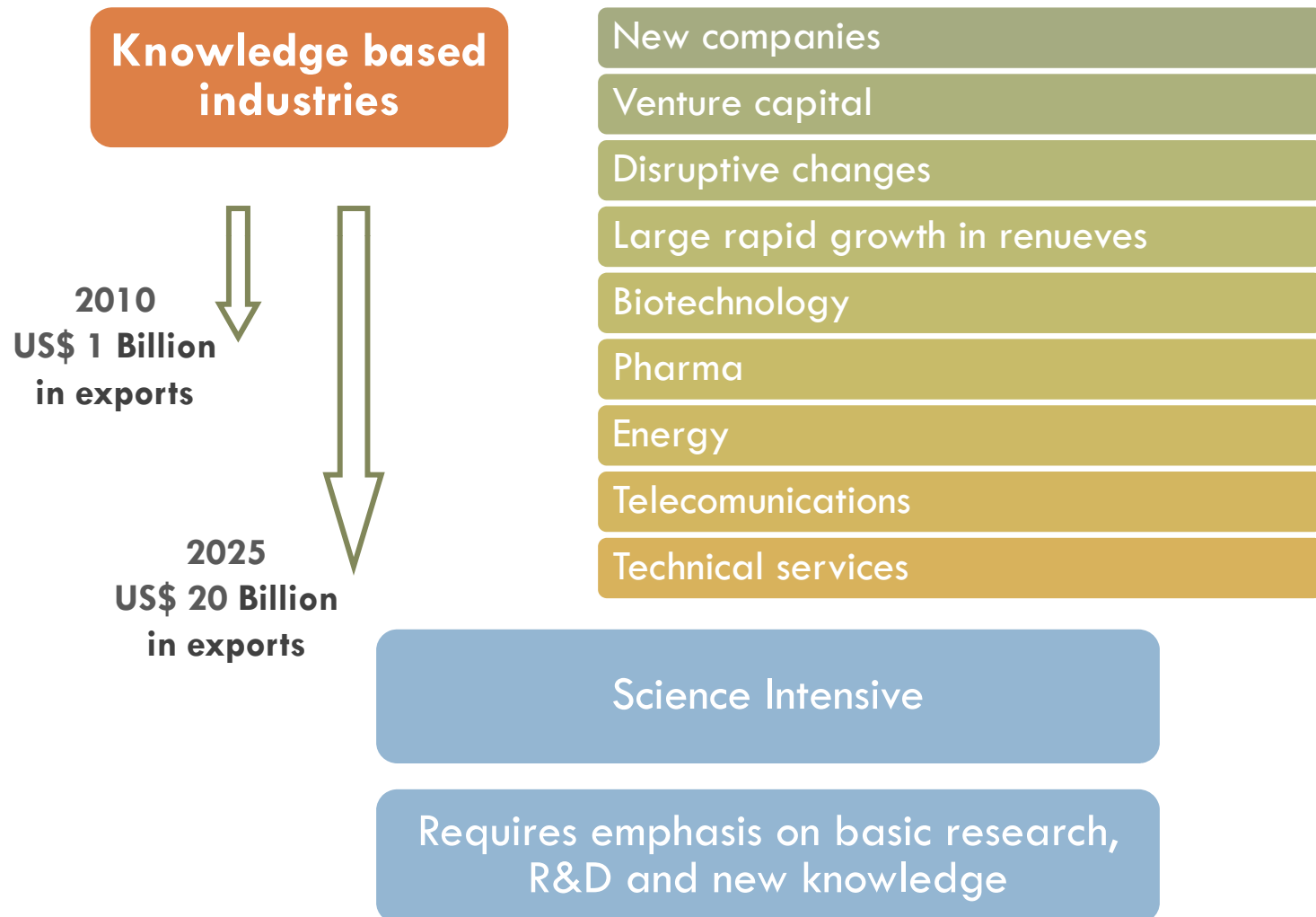
Capital available

Continuous  
(transformative)

Incremental growth in  
revenues

Requires emphasis  
on applied (mission  
driven) R&D and  
existing knowledge

# The Economy of the Future



# Asembio

## Chilean Association of Biotechnology Companies

Founded 2004

31 member organizations

FELAEB: Latinoamerican Federation of Biotechnology Industry Associations

BIO: Biotechnology Industry Organization

MOITI: Massachusetts Office on International Trade and Investment

Mass BIO: Massachusetts Biotechnology Council

# Asembio



# Asembio

## Industrial Biotechnology

- Biomining
- Genomics

## Animal Health

- Diagnostic and Vaccines for acuaculture
- Immunostimulants
- Antiviral compounds

## Human Health

- Diagnostics for infectious diseases
- Cancer dignostic and therapy
- Cancer vaccines
- Pharmaceuticals from microalgae

## Agrobiotech

- Inoculants
- Abiotic genes
- Micropropagation

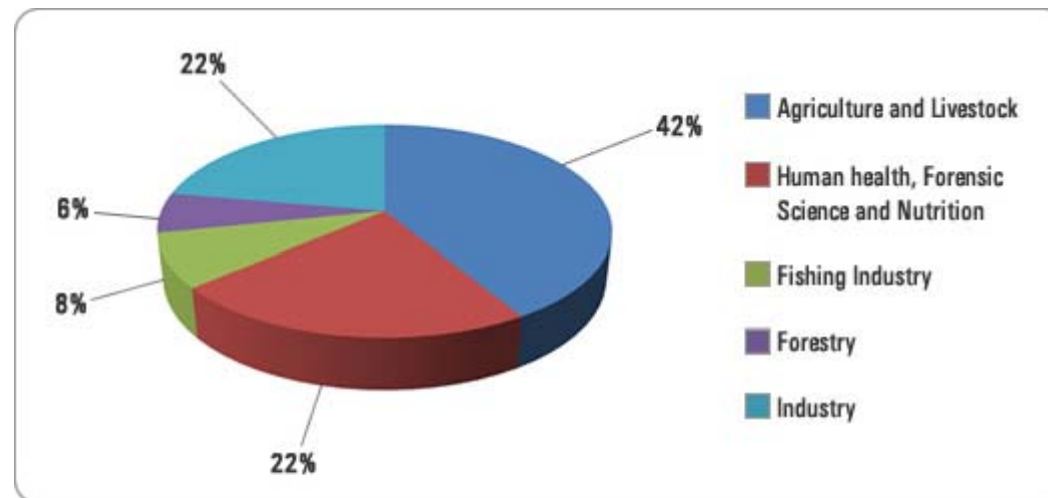
## CRO

## Intelectual property

## Venture capitals

# Industrial Sectors Involved in Biotechnology

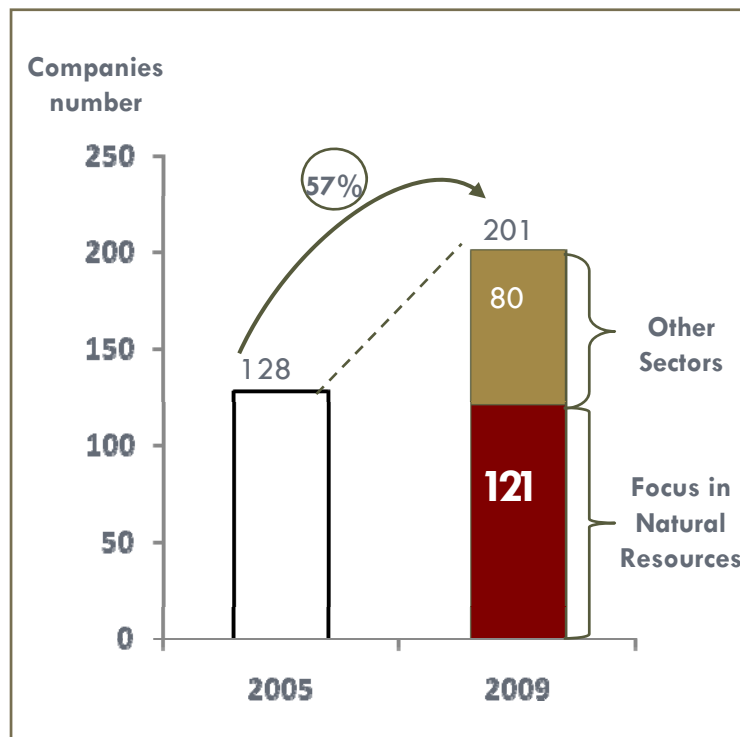
| Biotech organizations in Chile |                         |
|--------------------------------|-------------------------|
| Category                       | Number of Organizations |
| Manufacturing Companies        | 93                      |
| Specialized Service Companies  | 22                      |
| University Research Centres    | 61                      |
| Technology Transfer Centres    | 10                      |
| Incubators                     | 15                      |
| <b>Total</b>                   | <b>201</b>              |



Source: Chilean Economic Development Agency (CORFO).

# Local Biotechnology is Growing

The number of Biotech Companies has grown 57% in the last 4 years



Last 4 years Investment

Domestic Investment US \$ 93.000.000

Foreign Investment US \$ 170.000.000

# Biotechnology as a Tool for Economic and Social Development

Promote and sustain industrial biotech development

Interphase with government agencies dealing with strategies – policies and regulations of the biotechnology sector

Foster local and international collaborations and networking

Help to build public awareness

Advanced education and training

# Special Programs

## Program in Biotechnology Entrepreneurship



## Building Chilean Biotech Branding



Promotion and attraction of investment in Chilean biotechnology

Development of local biotech companies

Internationalization of local biotech companies

# Program in Biotechnology Entrepreneurship

Building business skills

Workshops

Seminars

Boot camps

Generation of a tool kit

- **Documentation required**
- **Regulatory frames**
- **Non disclosure agreements**
- **Strategic planning**
- **Project management**

# Building Chilean Biotech Branding

Generate awareness in local productive sectors of Chilean biotech industry

Place in the international community Chilean biotech industry as an emerging potential partner

Promote Chile as a location for foreign investment in biotech

Set Asembio as a valid international biotech industry interlocutor partner

