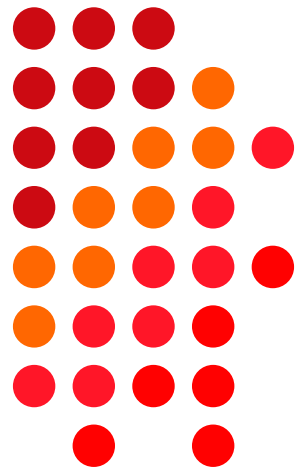
Fundación Marcelino Botín

Biotechnology in Spain:

The Case of the Marcelino Botín Foundation



Experiences

The Marcelino Botín Foundation (FMB) supports long-term experiences in:

- Education
- Science
- Social development

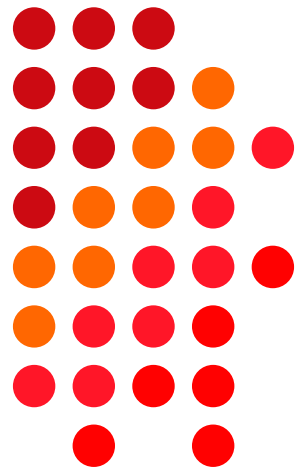
The FMB works within a clearly defined environment and has developed pilot projects, which are continuously evaluated, with an strategic framework. Our aim is to offer transferable models to provide effective solutions to the key social needs that have been identified.

Fundación Marcelino Botín

Desarrollo de Experiencias

Science

Technology Transfer Overview and the Biotechnology Sector



Technology Transfer in Spain

Spain ranks 4th for publications in biotechnology in EU and 40% of the scientific publications by Spanish biotech research groups are referenced by US companies and researchers applying for patents[1].

No. of Scientific Publications and No. of Patent Applications per million population (1999)

	Scientific Publications	Patent Applications
Italy	297,0	63,1
Spain	310,0	18,0
EU	462	125
USA	586	100,7
Japan	378	137,8

Source: 2003 OECD Survey

However, the good level of the Spanish scientific body does not translate into social improvements and economic growth[2].

1. Ernst&Young “Beyond Borders: Ernst & Young's Global Biotechnology Report 2006”
2. European Commision Communication “Innovation in the Knowledge Economy” COM(2006) 567 Final

Technology Transfer in Spain

The exploitation of the technology developed by researchers is not common practice, mainly because of the weak institutional structures supporting TT at universities and research institutes[1]

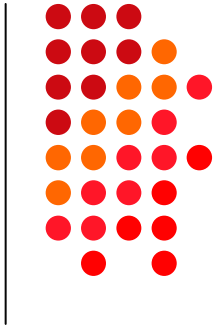
2003 OECD Survey on
Patents and Licencing at Public Research Organisations

	PATENTS			LICENSES			Spin-offs
	Total Stock	Num. Issued	Num. Of Applications	Num. Issued	Net Income EUR(000)	Gross Income EUR(000)	Num. Created
Spain	**781**	**64**	**133**	**22**	**136**	**961**	**11**
Italy	-	64	190	36	84	-	36
Netherlands	991	167	212	368	93	11400	37
Switzerland	1184	112	175	475	77	5650	68

Data for 2000 (Spain and Italy) and for 1999 (Netherlands and Switzerland)

1. Association of European Science & Technology Transfer Professionals “The 2006 ASTP Survey” 2006

Spanish Biotechnology Sector



- In 2004, there were 60 biotechnology companies, almost three times more than in 2000[1]. These firms accounted for €97 million in total revenues, and invested €228 million in R&D[1] .
- Public R&D subsidies reached €257 million in 2004, while company R&D investments reached €286 million[1].
- Therapeutics and diagnostics in the health sector account for more than 50% of the sector[2].
- Knowledge acquisition and collaboration with other research centers and universities is the main strategic priority for these companies and was the objective of 42% of the strategic alliances[2].
- The companies expressed that the main obstacle to reaching alliances was the lack of resources to identify the adequate partner[2].

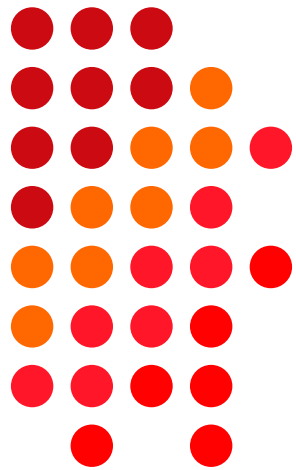
1. Ernst&Young “Beyond Borders: Ernst & Young's Global Biotechnology Report 2006”
2. Asociación Española de Biotecnología. “Informe ASEBIO 2005”

Fundación Marcelino Botín

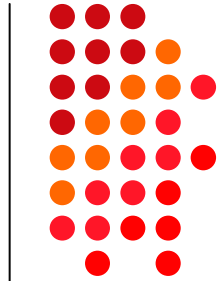
Desarrollo de Experiencias

Science
Office of Technology Transfer

Philosophy and Methodology



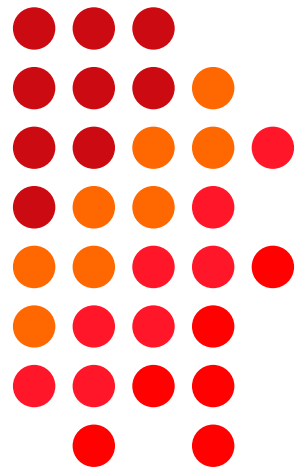
Program for Technology Transfer



The main objective is to help academic researchers to obtain I.P. for their research results and to support them in developing and licensing their inventions to the private sector, with the objective to transfer the benefits to society.

To do so, we have created our own technology transfer team, in order to facilitate the collaboration of university research groups and public research institutions with the private sector.

PHILOSOFY



The Value of Knowledge is in the

Innovation to achieve

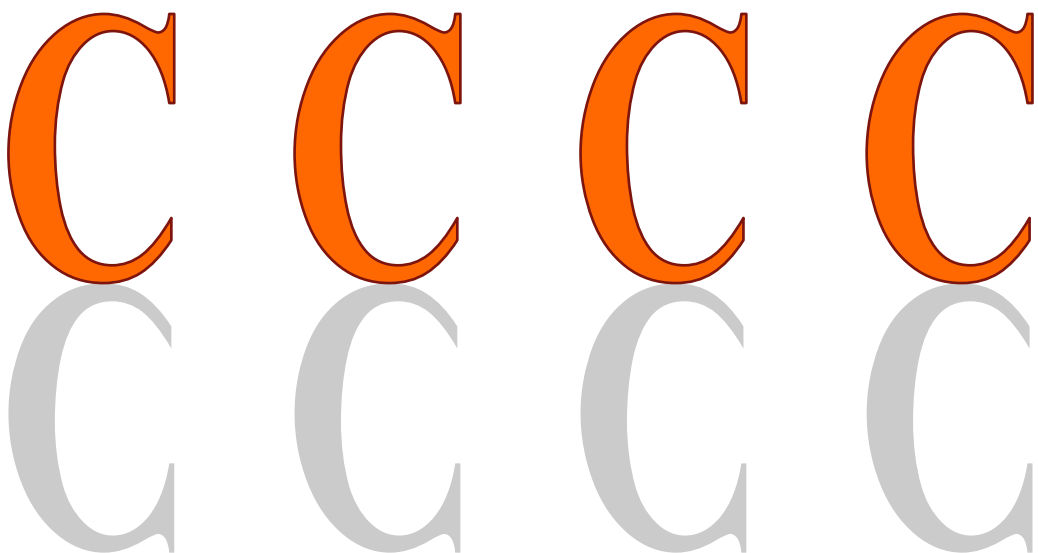
Development with an

Entrepreneurial outlook to achieve

Advances in technology for

Social improvements

The four Cs of our Methodology



C

Criteria and

C

Cohesion to generate

C

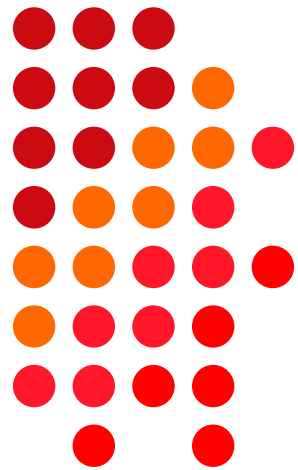
Confidence and achieve

C

Credibility for the program

Key Challenges

Identified during our experience managing Technology Transfer projects



C

C

C

C

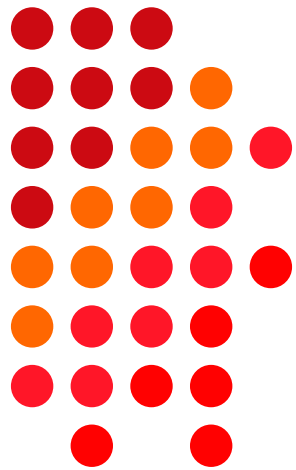
Communication and

Coordination with other **I**nstitutions

Cooperation and

Confidence on the part of the **R**esearcher

METHODOLOGY



Methodology

Basic Research → "New Ideas"

- Identifying research projects
- Defining applied research lines.
- Supporting with resources the development of "new ideas"

From "New Ideas" → To Patents

- Analyzing the potential applications of the "new ideas"
- Evaluating if the "new ideas" could be patent
- Analyzing how viable it is the development of the invention into a product

Methodology

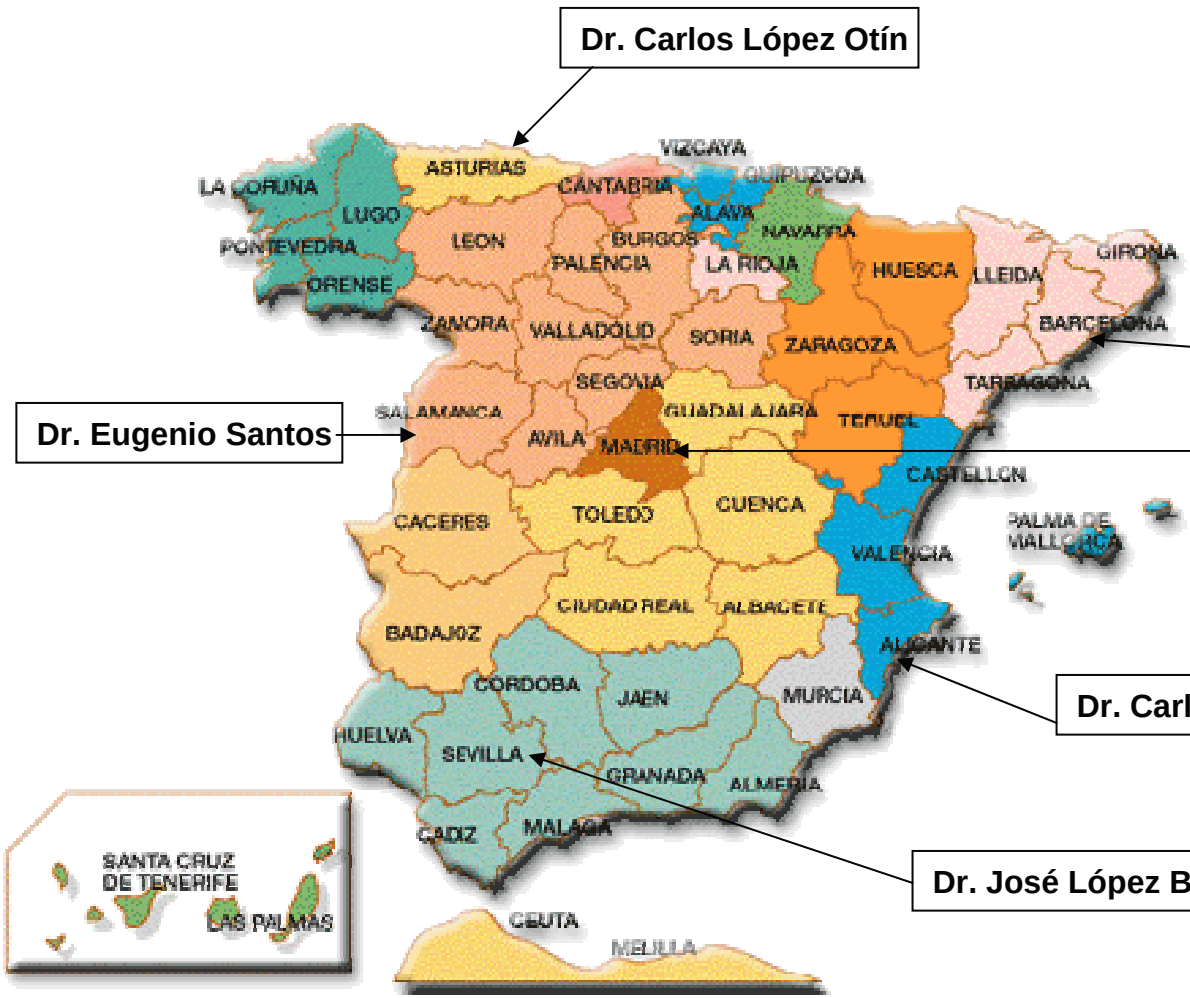
From Patents → To Licenses

- Doing a preliminary analysis of the market: existing investments, risks, potential returns
- Defining the product and businesses in the sector
- Negotiating license options and other agreements

From Licenses → To Products in the Market

- Supporting the investing in product **development**
  - Using our own investment funds or promoting external funds
- Negotiating and monitoring the development and commercialization license agreements

Researchers in 2007



Dr. Carlos López Otín

Dr. Joan Guinovart
Dra. Laura M Lechuga

Dr. Eugenio Santos

Dr. Juan Bueren
Dr. Jesús Ávila
Dr. Mariano Esteban
Dra. Maria Teresa Miras-Portugal

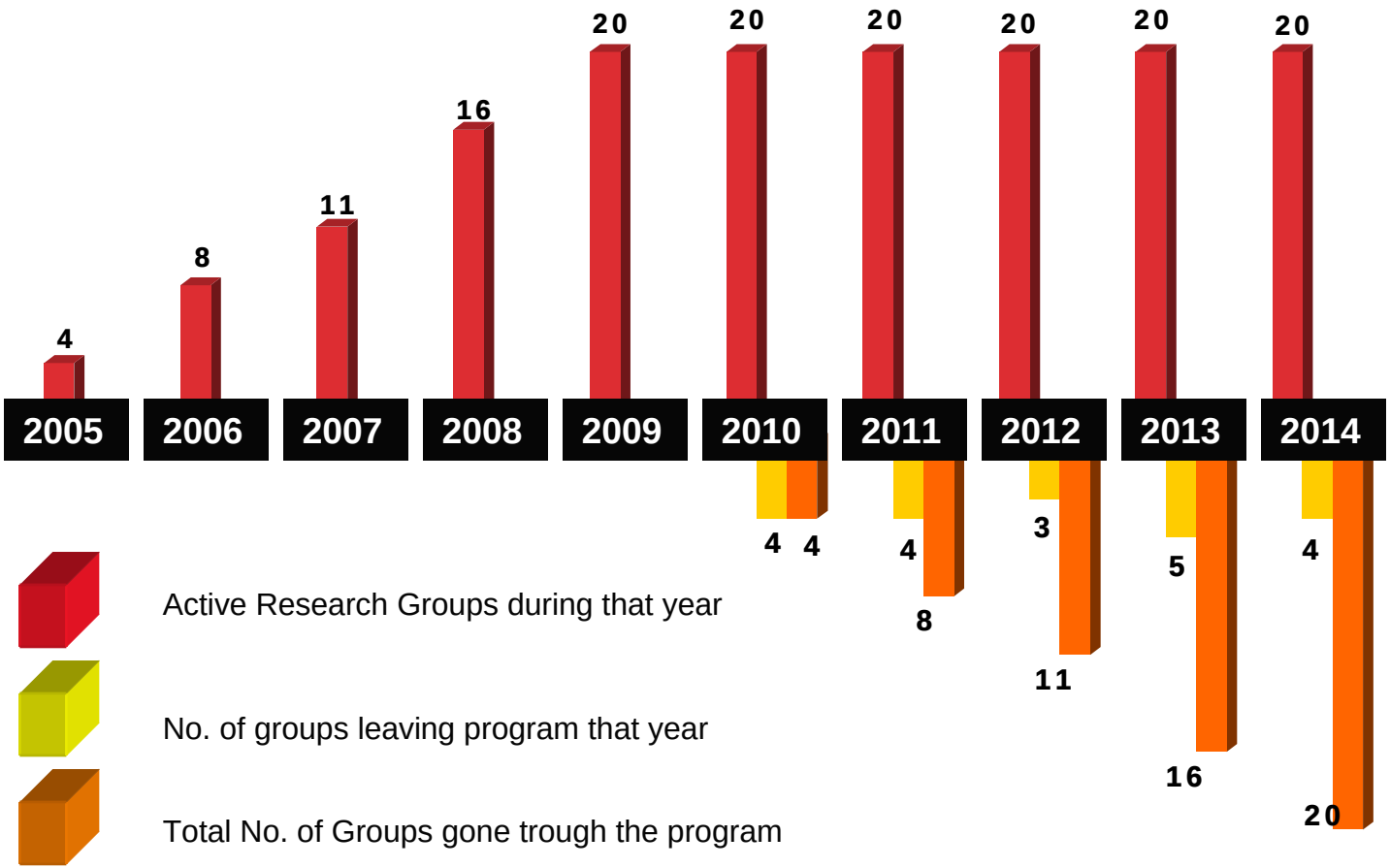
Dr. Carlos Belmonte

Dr. José López Barneo

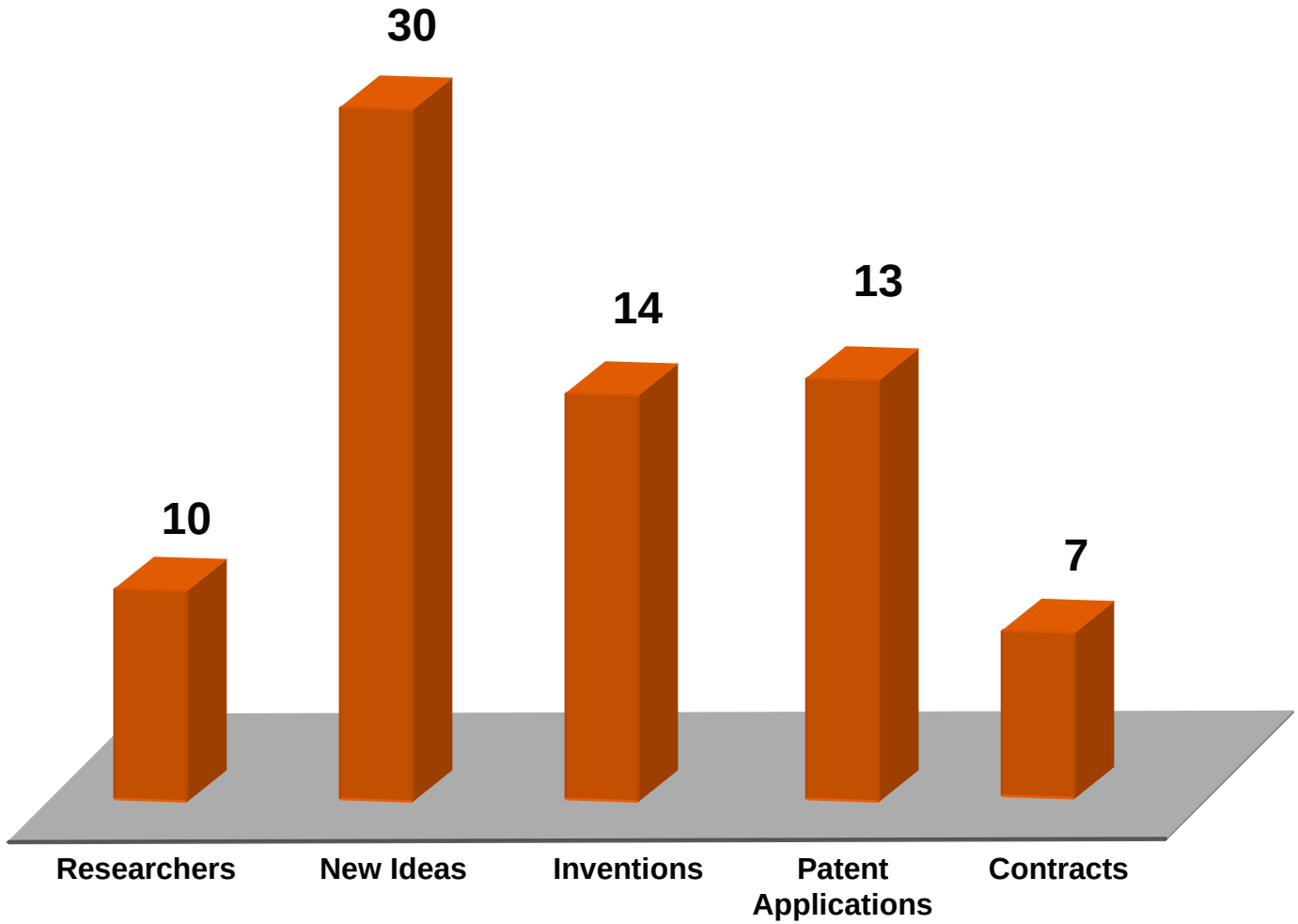
Estructure

- **Management Unit**
- **Advisory Committee**

Researchers 2005-2014



Achievements of the TT Program as of today



Objectives for 2007