Understanding European Research Foundations

Findings from the FOREMAP project

EUROPEAN FOUNDATION CENTRE

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2.2 Portugal: exploratory overview of research foundations

Raquel Campos Franco and Inês Seixas Duarte

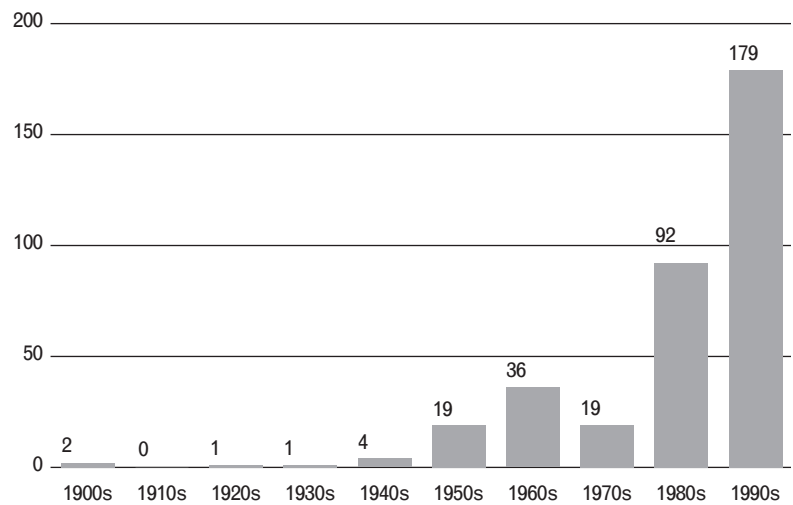
2.2.1 Contextual background

Historical background

The Portuguese foundation subsector is relatively recent in comparison with other third sector subsectors, especially considering the fact that Portugal has a strong tradition of support through institutions linked to the church, whose origins date back at least to the founding of the country in the 12th century. Also, the Santas Casas da Misericórdia (Holy Houses of Mercy) – a special type of organization that formerly had links with the church and the monarchy and is now in the hands of civil society – have a history that dates back more than 500 years. The first Civil Code to make reference to the new legal form of 'foundation' was published in 1867 (Franco 2005b).

The number of new foundations created was very small until the middle of the 20th century, when the number rose significantly. This new dynamic, however, slowed down during the 1970s, which was a turbulent time in Portuguese history. In the 1980s there was an upsurge in the creation of new foundations, and this continued during the 1990s, with 179 new foundations created in that decade.

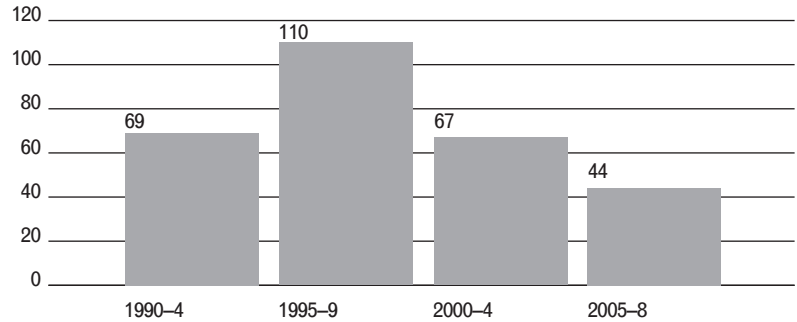
Figure 9 Number of new foundations in Portugal by decade



Source: PCM database and CPF 1996

Looking at the data from 1980 onwards in greater detail, it is possible to pinpoint the period from 1995 to 1999 as the four-year period with the highest number of new foundations created.

Figure 10 Number of new foundations in Portugal, 1980–2008



Source: PCM database and CPF 1996

Foundation landscape

Information about the foundation sector in Portugal is still very scarce, but what is known is that it is relatively small in number compared with other subsectors of the third sector. It is nevertheless an important part, especially when we consider the high level of total assets and annual budgets of the bigger foundations, among which the Fundação Calouste Gulbenkian plays a distinctive role. Foundations are part of the Portuguese non-profit sector. The expenditure of the non-profit sector represented 4.2 per cent of Portugal's GDP in 2002 (Franco 2005a).

There is very little systematized knowledge about the foundation sector in Portugal, since there is no entity with a complete and updated list of Portuguese foundations. A survey on the foundation sector conducted in 2000 remains to date a one-off initiative; it had as reference a list of 800 foundations (from the list held by the Ministry of Internal Affairs, the body responsible until 2007 for recognizing new foundations) and resulted in 150 responses (Barros and Santos 2000). Although it contained questions about foundations' support for R&D, the results presented are not enough to draw conclusions. Moreover, the survey presents itself as a pilot study and discourages any attempt at generalization. Therefore its results are not included here.

Legal and fiscal framework

Public utility is a fundamental legal concept in the non-profit sector. Private collective bodies of public utility refer to private-law associations and foundations that pursue non-profit aims of general interest and which cooperate with the central or local administration (public entities), in such a way as to earn the designation 'public utility' (art. 1 Law Decree n. 460/77, 7 November). Entities with this statute can apply for certain tax benefits.

A first distinction that must be made when considering foundations is between private and public foundations (Macedo 2001). The latter are part of the public apparatus, and are therefore not included in the non-profit sector and lie outside the scope of the FOREMAP project.

Public foundations are created on the initiative of, and act in accordance with, their supervising administrative power, through a legislative process and with public resources, for the attainment of public interests. Private foundations are collective bodies instituted by a private juridical act of designation of a certain endowment (goods or rights) considered sufficient to guarantee the accomplishment of the purposes inscribed in the statutes, with a limited or perpetual timeframe.

Private foundations are usually created through a public deed (although it is also possible through a legislative act, eg Fundação Calouste Gulbenkian), and they too must pursue public interests. Indeed, according to the Portuguese Civil Code, foundations in Portugal must be of 'social interest' (art. 157) or of public interest, which means that the legal framework does not admit the existence of foundations of private utility, exclusively dedicated to the interests of a person or family.

Although the Civil Code underlines the fact that foundations must be created with an endowment which is considered sufficient to ensure that the purposes inscribed in the statutes can be accomplished, in practice the reality is that some foundations are highly subsidized by public funds.

Among the private type of foundations various subtypes can be found: independent foundations, corporate foundations, community foundations, fundraising foundations, 'Private foundations of Social Welfare', and foundations linked to the church. (A cautionary note must be sounded in relation to foundations created under private law by public entities alone or in partnership; these are often referred as 'public hand' foundations.)

Corporate foundations are a relatively recent phenomenon in Portugal and therefore only a small number exist. Four corporate foundations are included among the respondents to the FOREMAP survey: Fundação EDP and three other foundations linked to the pharmaceutical industry, Bial, Grunenthal

and GSKCS. These foundations emphasize their independence from their 'parent' companies, but the link in terms of funding and board members is a reality.

The concept of community foundation is almost unknown in Portugal, although there is at least one very successful example (Foundation for the Community Development of Alverca – CEBI). Another rare type is the fundraising foundation, an example of which is Fundação Assistência Médica Internacional (Fundação – AMI).

The 'Private foundations of Social Welfare' combine elements from foundations and elements from private institutions of social welfare. They are created according to the will of an individual, and their activities are confined to the social welfare field; they are regulated by the Law Decree n. 119/83 of 25 February. Once registered, these institutions automatically acquire the statute of collective body of public utility (art. 8 Law Decree n. 119/83). These foundations were not included in the FOREMAP project as they are devoted to social welfare services, not to R&D.

The foundations instituted by the church, through canonical law, are usually linked with a parish and the local priest, who assumes its presidency, but they have a distinct juridical form. The most common are the 'Centros Sociais e Paroquiais'. These, too, have a social welfare purpose and are not a target group for the FOREMAP project.

For several years the possibility of revising the legal framework of foundations was discussed and proposals were submitted to the competent government bodies (Machete and Antunes 2004). Nevertheless, the revision was never accomplished.

Science and science funding in Portugal

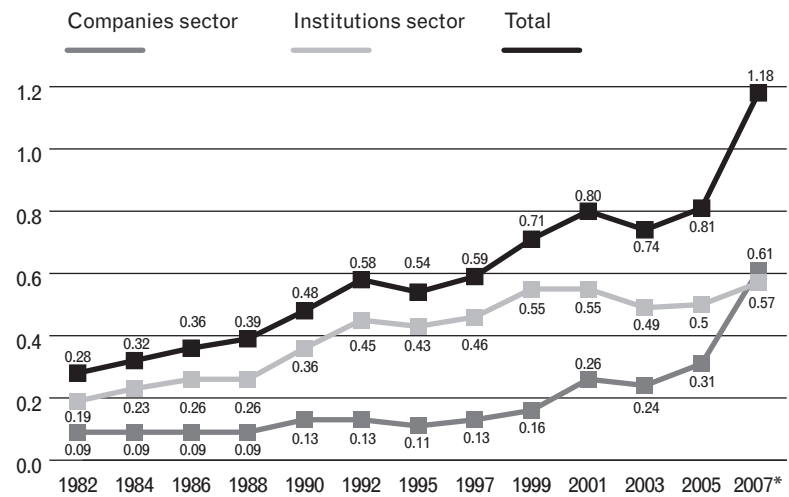
Between 2005 and 2007 national R&D expenditure in Portugal grew from 0.81 per cent of GDP to 1.18 per cent, representing a growth rate of 46 per cent. The companies sector contribution exhibited an even higher growth rate (97 per cent).

In 2007 R&D expenditure amounted to €1,921 million, compared to €1,201 million in 2005, representing a real growth of almost 51 per cent (current prices). This clearly shows that R&D intensity has increased significantly, but it is still relatively low compared to the EU average of 1.83 per cent of GDP.[12] At a national level, however, Portugal's R&D investment is comparable. For instance, R&D accounts for 1.22 per cent of GDP in Spain (9 per cent growth 2005–7), while in Ireland it represents 1.31 per cent of GDP (5 per cent growth 2005–7).

[12] Eurostat R&D statistics for 2007.

On the 2007 EU R&D scoreboard, Portugal was positioned 15th among the EU27, having climbed three places since 2005. The annual levels of R&D expenditure by sector of execution show a significant growth in contributions from the business sector (see figure 12).

Figure 11 Portuguese R&D expenditure as a percentage of GDP



* provisional data

Source: GPEARI 2008

Figure 12 Portuguese R&D expenditure (current prices) by sector of execution

	1999		*2001*		*2003*		*2005*		*2007**	
	€ 000	*%*	*€ 000*	*%*	*€ 000*	*%*	*€ 000*	*%*	*€ 000*	*%*
Companies	184,797	23	330,311	32	338,038	33	462,015	38	988,219	51
State	227,672	28	215,519	21	172,045	17	175,552	15	175,592	9
Higher education	314,364	39	380,649	37	391,797	38	425,187	35	573,696	30
Non-profit	87,914	11	111,954	11	117,700	12	138,357	12	183,041	10
Total	814,747	100	1,038,432	100	1,019,581	100	1,201,112	100	1,920,548	100

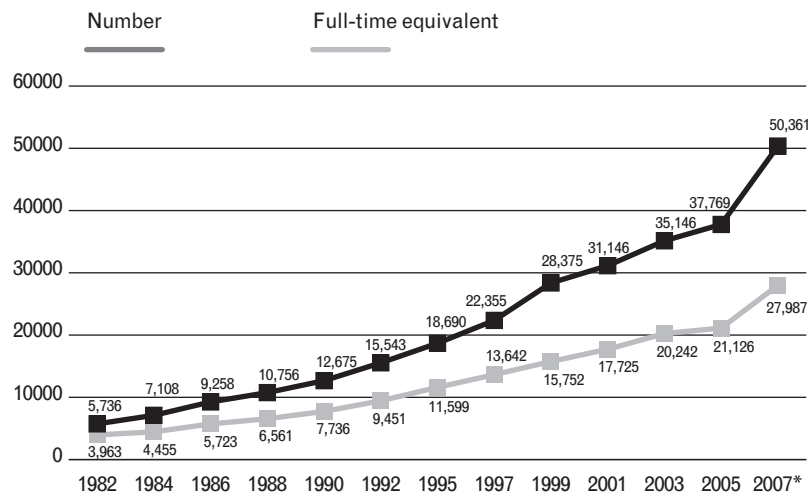
* provisional data

Source: GPEARI 2008

Portugal lagged behind other European countries in business R&D until the period from 2005 to 2007, when the country registered a growth of 97 per cent in percentage of GDP; it now represents 51 per cent of the national R&D expenditure (from 38 per cent in 2005). According to one of the interviewees for the FOREMAP project, this figure reflects the fact that more companies were surveyed, rather than a real growth in the private for-profit sector expenditure in R&D.

Portugal has seen a substantial increase in the number of researchers in the last three decades. In 1982 researchers in full-time employment represented 0.09 per cent of the active workforce, while the latest figures from 2007 show that researchers now account for 0.5 per cent. In 2007 there were an estimated 50,361 R&D personnel working in Portugal, 27,987 of whom were full-time employees.[13] The figure includes not only researchers and scientists, but also people providing direct services, such as R&D managers, administrators and clerical staff.

Figure 13 Number of researchers in Portugal



* provisional data

Source: GPEARI 2008

Scientific articles increased from 99 to 276 per million population from 1995 to 2005. Similarly, the number of triadic patent families per million population

[13] Eurostat R&D statistics for 2007.

expanded at 11 per cent a year (in compound terms) between 1995 and 2005.[14] In 2007 Portugal registered seven patent applications per million population, much lower than the European average of 106.

R&D institutions

A network of R&D units belonging to universities and state-managed autonomous research institutions makes up the core of Portugal's science and technology research output. These are divided into research centres, associated laboratories and state laboratories.

The research centres or units are autonomous nuclei made up of researchers who associate voluntarily in order to pursue purposes of common interest. The majority of these institutions are hosted by universities. The funding of these units is provided by the Programa de Financiamento Plurianual of the Foundation for Science and Technology (Fundação para a Ciência e Tecnologia, or FCT), a public institute under the authority of the Ministry of Science, Technology and Higher Education. In 2007 422 units were supported by the FCT.

Associated laboratories are research institutions, public or private non-profit, that have the capacity to cooperate, in a stable, competent and effective way, in order to pursue specific areas of the national scientific and technological policy. Between 2000 and 2006, 25 state-approved laboratories were established. Although they are dedicated to diverse areas, there is a higher concentration in health sciences, biotechnology and biochemical engineering. State laboratories are public collective entities, created with the purpose of pursuing the scientific and technological policies prescribed by the government.

There are also several private institutions which are providing significant support to R&D, among which the Gulbenkian Science Institute (Instituto Gulbenkian de Ciência, or IGC) stands out.

In order to stimulate innovation in the business sector, a number of programmes financed by European Structural Funds were undertaken (PEDIP 1988–93, PEDIPII 1994–9, POE and PRIME 2000–5) under which the technological infrastructures were developed. Three types of institution were created to support innovatory dynamics in Portuguese industry: Technological Centres (Centros Tecnológicos), Technology Transfer Centres (Centros de Transferência de Tecnologia), and New Technologies Institutes (Institutos de Novas Tecnologias) (Ribeiro et al 2007).

[14] OECD science, technology and industry outlook 2008: www.estatisticas.gpeari.mctes.pt/archive/doc/41559348portugal.pdf.

Statistics on R&D and non-profit institutions

The public institution producing official statistics about R&D in Portugal (Gabinete de Planeamento, Estratégia, Avaliação e Relações Internacionais, or GPEARI) conducts regular surveys on the sector, including the contribution of a set of organizations referred to as 'Private non-profit organizations (PNP)'. However, these surveys are not relevant for the purposes of FOREMAP. As an illustration, of the 127 institutions listed in the PNP 2005 database, only three foundations are included (Gulbenkian, Bissaya Barreto and Ela). It is also worth noting that the Portuguese PNP sector in GPEARI data shows an extraordinarily high level of expenditure in comparison to other countries, but a cautionary note about its meaning was sounded in one of the interviews conducted for the FOREMAP project. Indeed, included in the PNP database are institutions that are the result of public–private partnerships or were created by public entities. They do not, therefore, fit the concept of private non-profit organizations, as for instance expressed in the structural-operational definition proposed in Salamon and Anheier 1992, especially since they lack the characteristic of being private and self-governed institutions.

Law Decree n. 125/99, 20 April, establishes the legal framework for institutions devoted to scientific research and technological development.

2.2.2 FOREMAP survey: main findings in Portugal

In Portugal the reality of foundations and R&D is very diverse. There is a limited group of big foundations that tend to assume a mixed posture of supporting and operating activities in the field of R&D; and alongside this, there is a group of small foundations that perform a very limited role in R&D, albeit a significant role, certainly, for the people supported, through grants and support to small projects.

The group of big foundations is itself very diverse, especially as a consequence of the presence in it of a foundation – Fundação Calouste Gulbenkian – which is far bigger than all the rest. The total assets of this foundation are more than seven times bigger than the next one in the ranking, which is Fundação Champalimaud.

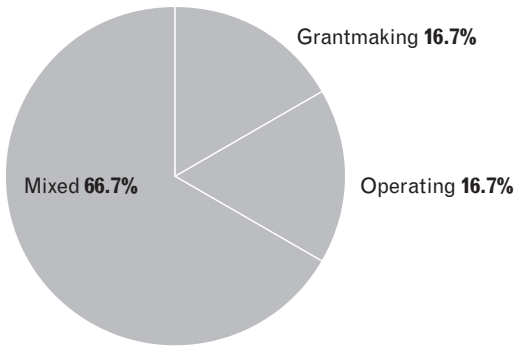
It is also interesting to note that there are foundations whose purpose is clearly to give support to R&D, such as Fundação Luso-Americana (FLAD), Bial, GlaxoSmithKline (GSKCS), Grünenthal and the small foundation Pulido Valente. Of these, Bial has a smaller expenditures structure, given the nature of its means of support – prizes and grants – and relies on a voluntary structure of experts in the fields of science and medicine for the selection of grantees.

Funding R&D

In Portugal, FOREMAP looked at 12 foundations with total assets amounting to just over €4 billion and expenditure of €171 million, of which €25.2 million went to supporting research.

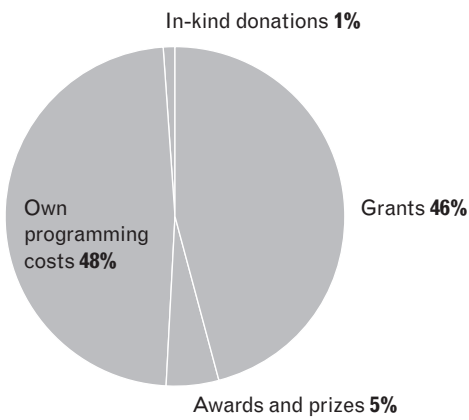
Looking at the forms these foundations take, 66 per cent (8 out 12) combine grantmaking with their own operations. The share of grantmaking and own programming is illustrated by the survey results on funding mechanisms, which show that 46 per cent of total research expenditure goes in grants, while 48 per cent is made up of programming costs.

Figure 14 Grantmaking, operating and mixed foundations (2007)



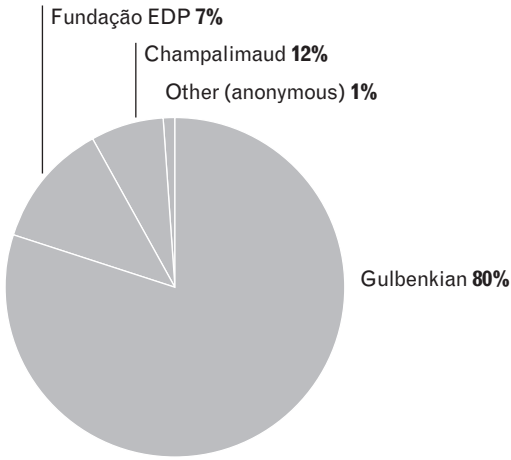
Disclaimer: the figures cover only the surveyed foundations. n = 12

Figure 15 Breakdown of expenditure by funding mechanism (2007)



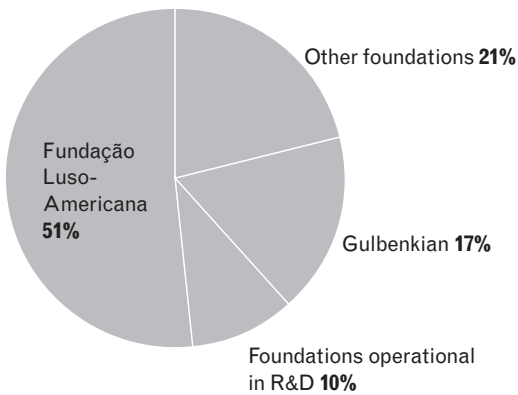
Disclaimer: the figures cover only the surveyed foundations. n = 12

Figure 16 Own programming costs of Portuguese foundations (2007)



Disclaimer: the figures cover only the surveyed foundations. n = 4

Figure 17 Breakdown of grants by foundation (2007)



Disclaimer: the figures cover only the surveyed foundations. n = 11

In terms of sources of income, most of the foundations (66 per cent, or 8 out 12) rely on endowment to fund their work, while 50 per cent (6 out of 12) make use of donations from other organizations, including other foundations.

The foundations surveyed in the course of FOREMAP are the largest-known research foundations in Portugal. In addition to these large

foundations, there are a number of small foundations that perform a very significant (if somewhat limited) role in R&D, and these were also documented.

Just five foundations account for 96 per cent of total research expenditure, with one foundation (Fundação Calouste Gulbenkian) accounting for nearly half of all funding allocations and another (Fundação Luso-Americana) a quarter. Fundação Calouste Gulbenkian devotes about 50 per cent of its research expenditure to the Gulbenkian Science Institute (IGC), an R&D centre which the foundation founded and finances and which is integrated in its structure.[15]

Figure 18 Assets and expenditure of Portuguese foundations (2007)

		Total assets (€ 000)	*Total expenditure (€ 000)*	*Expenditure on R&D (€ 000)*	*Exp on R&D/ Total exp*	*Exp on R&D/ Total assets*
Fundação Gulbenkian	independent	3,043,957	116,015	11,772	10.1%	0.4%
Fundação Luso-Americana	public hand	134,093	8,892	5,961	67.0%	4.4%
Fundação Champalimaud	independent	469,199	–	3,450	–	0.7%
Fundação EDP (2008)	independent	27,435	10,874	1,635	15.0%	6.0%
Fundação GSKCS	independent	202	208	153	73.5%	75.7%
Fundação Grünenthal	independent	53	46	41	89.1%	77.4%
Fundação Pulido Valente	independent	231	12	7.5	63.6%	3.2%
Fundação Ela	independent	260	252	5	2.0%	1.9%

Source: FOREMAP, Portugal

[15] Some data is omitted in response to requests for anonymity.

Figure 19 Assets and expenditure: comparative analysis (2007)

	Total assets (€ 000)	*Total expenditure (€ 000)*	*Expenditure on R&D (€ 000)*	*Exp on R&D/ Total exp*	*Exp on R&D/ Total assets*
Top 5 R&D total	3,679,816	137,232	24,255	17.7%	0.66%
Total 12	4,139,331	171,037	25,266	14.8%	0.61%
Top 5 total/total 12	88.9%	80.2%	96.0%		
Fundação Gulbenkian	3,043,957	116,015	11,772	10.1%	0.39%
Gulbenkian/ top 5	83%	85%	49%		
Fundação Luso-Americana	134,093	8,892	5,961	67%	4%
Luso-Americana/ top 5	4%	6%	25%		
Fundação Champalimaud	469,199	–	3,450	–	1%
Champalimaud/ Top 5	13%	–	14%		

Compared to the previous accounting year (2006), 58 per cent (7 out of 12) of the foundations had increased their research expenditure. The increase is explained by two respondents as a result of decisions to support or develop new projects. In one case, a fund was created to support three new research projects, while in another a new project was undertaken by the foundation. The increase is explained in another situation by the fact that some key prizes and scholarships are awarded every two years, and 2007, the year used as reference for the survey, was a year in which awards were made. Finally, another foundation explained that the increase was due to external co-funding of projects, where funds had been channelled to the foundation in order that it could manage the projects' implementation.

Looking at the geographical distribution, respondents reported that 79 per cent of research expenditure is allocated to activities at a national level. No foundations reported activities at a European level, while they reported spending 14 per cent of annual research expenditure outside Portugal. The remainder was spent at regional level.

Among the foundations surveyed, almost half operate outside Portugal, each one for different reasons. Fundação Aga Khan, one of the foundations

operating internationally, exists in Portugal as a separate juridical entity, but it has close links with the Aga Khan Foundation based in Geneva, which is a development agency of the Aga Khan Development Network, a network operating all over the world. Its usual forms of intervention are intrinsically international, and as they are based on an action-research methodology, knowledge is tested and spread all over the agencies in a process of continuous learning.[16]

Two of the foundations were established specifically as organizations that bridged two countries or two worlds: Fundação Luso-Americana as the result of an agreement between the Portuguese and US governments, and Fundação Oriente as a foundation with close links with the Portuguese past in East Asia, specifically with Macau, a former Portuguese colony.

The international character of Fundação Champalimaud is inherent in its mission to foster international work in the research area. Indeed, the foundation was established with the goal of making significant scientific progress, particularly in the fields of cancer research and neuroscience. On the foundation's website, it is stated: 'As it is a private organization, the scope for the research initiatives and funding programmes of Fundação Champalimaud is unrestrained by national borders. If a particular country is in a better position – governmentally, clinically and/or institutionally – to accommodate a certain type of biomedical research, the foundation has the flexibility and freedom to respond quickly and to lend its support.'[17]

Fundação Bial, an independent foundation that has links with the pharmaceutical company of the same name, was created with the altruistic intention of contributing to the advancement of research in Portugal and internationally. In the words of its president : 'Fundação Bial Fundação aims to contribute to innovation and the dissemination of science in the area of health, not only in Portugal, but in Europe and worldwide, because health is for everyone, and science has no frontiers.' (Bial 2008)

None of the foundations active internationally reported barriers to working beyond national borders.

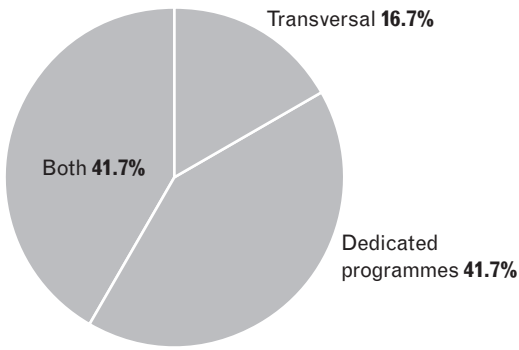
[16] Action research can be defined as the reflective process of progressive problem-solving led by individuals working with others in teams or as part of a 'community of practice' to improve the way they address issues and solve problems. Action research can also be undertaken by larger organizations or institutions, assisted or guided by professional researchers, with the aim of improving their strategies, practices and knowledge of the environments within which they practise.

[17] See www.fchampalimaud.org/who-we-are/about-us.

Research areas

Forty-two per cent (5 out of 12) of the foundations choose to have a mixture of dedicated programmes and transversal research activities, with 75 per cent (9 out 12) of respondents supporting both basic and applied research.

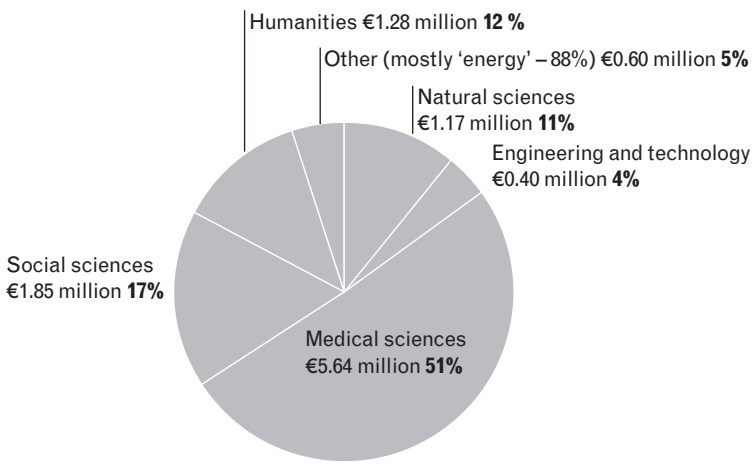
Figure 20 Transversal research versus dedicated programmes (2007)



Disclaimer: the figures cover only the surveyed foundations. n = 12

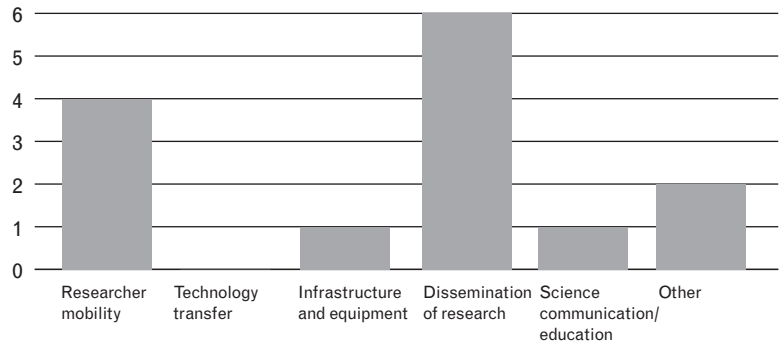
Medical sciences are by far the most generously funded R&D field according to respondents, accounting for 51 per cent of overall research expenditure.

Figure 21 Breakdown of Portuguese research expenditure by research area (2007)



Disclaimer: the figures cover only the surveyed foundations. n = 12

Figure 22 Funding and operation of transversal programmes (2007)



Disclaimer: the figures cover only the surveyed foundations. n = 9

Of those surveyed foundations that support transversal activities, the most common area to support is dissemination of research, followed by researcher mobility and career development.

Motivation and roles

Motivation R&D is inscribed, explicitly or implicitly, in the mission statements of all the surveyed foundations. The reasons for this choice are diverse, but a common motive seems to be altruism, manifested in the will of the founder (interpreted and reinterpreted by the boards over time) to contribute to the advancement of Portuguese society and the world through a chosen type of activity. The majority of the foundations surveyed perceive their role as that of innovators and R&D as a very direct way of fulfilling that role. Incorporating R&D into their respective fields of activity was mentioned by one surveyed foundation representative as a necessary component that all new foundations should integrate into their mandate.

The foundation recently established by the entrepreneur Soares dos Santos (and announced by the family on 16 February 2009) focuses on the field of the social sciences, with a mission to produce studies about Portugal that will serve as a basis for the advancement of the country. It was conceived as a foundation completely devoted to R&D (especially in the social sciences), with a predicted annual budget of €5 million.

Fundação Calouste Gulbenkian provides the most significant support (in financial terms) to R&D in Portugal (nearly €12 million from a total expenditure of more than €116 million) and devotes about 50 per cent of its research expenditure to the Gulbenkian Science Institute (IGC), an R&D centre. In the 2007 annual report, the IGC director wrote: 'To promote science and to serve the Portuguese research community, using the independence and the flexibility of a

private organization that can take the risks of innovation, are the first principles of the Foundation's Science Sector.' (IGC 2007)

Fundação Bial explained that its choice of investing in support of R&D in the medical sciences was based on the activity of the company from which it derives the majority of its funding. The specific area within the medical sciences was the result of a personal interest on the part of its president, together with a desire to avoid an area in which the company was directly involved, in order to guarantee the foundation's total independence. The foundation acknowledged, however, that its activities, including its highly regarded grants and prizes, help to promote the company's brand image internationally.

A personal motive (visual impairment) was the reason that Fundação Champalimaud included in its mission international support for eye research.

In the case of Fundação Aga Khan, which conducts action research, the kind of R&D it chooses to support is intrinsic to its way of working.[18] This is illustrated by the K-Cidade Program, currently being undertaken in Portugal. The foundation's long experience of international action in the field of rural community development has been the basis for reflection and action in the case of K-Cidade, the first urban community development programme conducted by the foundation. Before starting the fieldwork, an extensive research study was undertaken in order to provide Fundação Aga Khan with information about possible intervention areas in the country, as well as about community development programmes undertaken in other European countries. Once the thematic areas of the main intervention and the programme structure are established, the *modus operandi* is dominated by a constant learning posture that allows corrections to the previously planned course of action.

Redistribution of economic resources and preservation of research traditions and cultures were highlighted, each by two foundations, as reasons for supporting R&D activities, through the giving of grants and by the decision to build a museum.

Roles The majority of the surveyed foundations mentioned their role as a complement to public support and as a source of innovation.

To a lesser extent, resource distribution (two cases) and preservation of research traditions and culture (two cases) are also mentioned. The kinds of suggestion given in the answers on incentives indicate that government still has a long way to go in recognizing the role of foundations in support for and operation of R&D activities. Also, the lack of partnerships with industry is an indication that industry still does not fully appreciate the role of foundations in the area.

[18] See note 23 above.

Figure 23 Foundations' view of their own role (2007)

Nature of role	*Number of foundations*
Complementary to public/other support	9
Replacing public/other support	0
Redistributing economic resources	2
Finding innovative ways of doing things	7
Promoting research policy change	1
Preserving research traditions and cultures	2
Other (please specify):	2
Promoting an annual award ('Prémio de Ciência') and a conference on a scientific subject	1
Promoting international partnerships	1

Disclaimer: the figures cover only the surveyed foundations. n = 12

Relations between foundations and other stakeholders

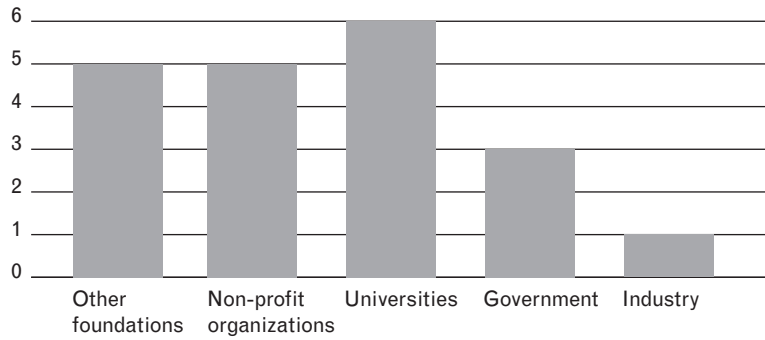
Three of the foundations surveyed stated that they did not form partnerships of any kind in the pursuit of their activities. Although the sample size was small, the experience of partnerships among those foundations that formed them was very diverse.

Figure 24 Types of partner and reasons for forming partnerships (2007)

	Partners mentioned				
	Other foundations	*Non-profit organizations*	*Universities*	*Government*	*Industry*
Fundação Aga Khan	x	x	x		
Fundação Bial	no partnerships				
Fundação Champalimaud		x			
Fundação EDP	x	x	x		
Fundação Ela	no partnerships				
Fundação Grünenthal	x		x		
Fundação GSKCS	no partnerships				
Fundação Gulbenkian	x	x	x	x	
Fundação Luso-Americana	x	x	x		x
Fundação Oriente			x		
Fundação Pulido Valente				x	

Disclaimer: the figures cover only the surveyed foundations. n = 11

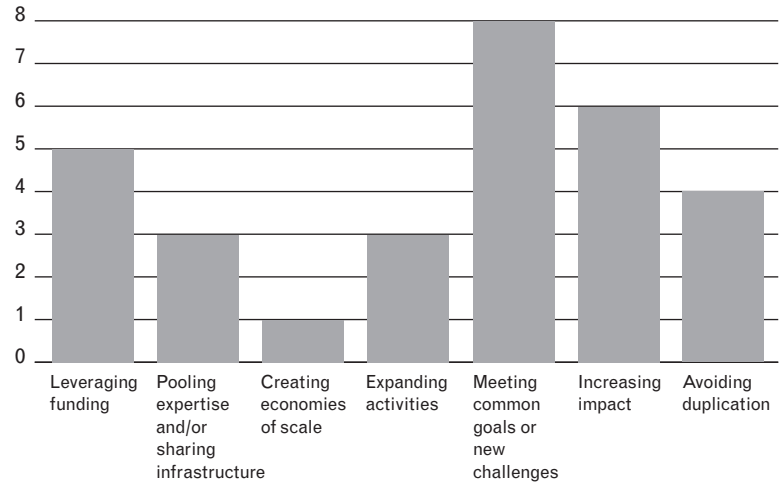
Figure 25 Types of partner mentioned by foundations (2007)



Disclaimer: the figures cover only the surveyed foundations. n = 9

	Reasons						
	Leveraging funding	*Pooling expertise and/ or sharing infrastructure*	*Creating economies of scale*	*Expanding activities*	*Meeting common goals or new challenges*	*Increasing impact*	*Avoiding duplication of effort*
					x	x	x
				x	x	x	
	x	x			x	x	x
	x				x		
	x	x	x		x	x	x
	x	x		x	x	x	x
				x	x		
	x					x	

Figure 26 Reasons given for forming partnerships (2007)



Disclaimer: the figures cover only the surveyed foundations. n = 9

Of the reasons given for forming partnerships, the most common were 'increasing impact' and 'meeting common goals', followed by a desire to 'leverage funding'. These three reasons reflect a desire to increase effectiveness and a shared interest in producing greater impact. This objective seems to be coupled with another – the need for efficiency, expressed in the concern to avoid duplication of effort.

It is noteworthy that government and industry are the partners least often mentioned by foundations. Nevertheless, Gulbenkian and Pulido Valente (a small foundation awarding an annual prize and grants) mention government as a partner. In the case of Gulbenkian, this partnership can be seen to take many forms.

In March 2006, in an inaugural speech given at a course on the management of non-profit organizations, the president of Fundação Calouste Gulbenkian, Emilio Rui Vilar, explained: 'In Fundação Calouste Gulbenkian, independently of our own activities, which are inherent in our structure and which we will naturally keep on developing, we have insisted on the need to look for partners and recipients of our support who present the best conditions in which to use the available resources effectively. Among partners and recipients, non-profit organizations are naturally preferred. The success of our choice therefore depends on the capacity of these organizations and the qualification of their workers to accomplish the purposes they intend to achieve. For this reason, in the context of its present action, Fundação Calouste Gulbenkian

selected capacity-building of non-profit organizations as one of the four axes of its transversal actions.' (Vilar 2006)

Champalimaud also chooses non-profit organizations (NPOs) as partners that may be stimulated by the foundation's activity: 'Through an active research programme Fundação Champalimaud intends to stimulate further clinical research, particularly in the non-profit sector.'

Innovative funding

The small number of foundations with a significant level of support for R&D makes it very difficult to highlight practices in the field. Nevertheless, there are many examples that can be cited.

Public–private partnerships

In 2007/8 Fundação Calouste Gulbenkian approached the Ministry of Health to find ways to foster and support the practice of high-quality medical research by physicians, as a long-term professional project. In addition to giving greater weight to such research outputs in the evaluation of CVs, the case was made for making medical internships more flexible in such a way that they could accommodate clinical practice and research activity. In 2008 a new programme was established by the foundation, in cooperation with Fundação Champalimaud, the Ministry of Health and the Foundation for Science and Technology, offering support for such research activities. The programme has since led to a change in the country's legislation and has had a significant impact on research in the health field.

Mainstreaming

Gripenet (www.gripenet.pt) is an online monitoring system, developed in 2005 by researchers at the Gulbenkian Science Institute (IGC), which collects data about flu epidemics. More than 12,000 people have already reported their symptoms, allowing a real-time analysis of flu incidence. Data has also been used in the development of mathematical models for a better understanding of flu epidemiology. A state agency named Agência para a Modernização Administrativa highlighted the project and included it in the Rede Comum para o Conhecimento (Knowledge Common Network).[19] This network supports and connects initiatives that seek to modernize and simplify public services.

[19] See www.rcc.gov.pt/pt-PT/Directorio/ContentDetail.aspx.

Innovative projects

Since the 1980s Fundação Aga Khan, together with Fundação Calouste Gulbenkian and others, has financed a university-based research association devoted to research into the issue of the education of young children. The Associação Criança aims to answer a set of interconnected questions: 'Is it possible, with the resources that we have in kindergartens in Portugal, to educate for excellence? Or is it necessary to invest much more? Or, instead, is it necessary to rebuild completely the education system for young children in Portugal?' The association created a model of intervention (although they reject the name 'model') that was evaluated at a national and international level, by OECD among others, and by the Aga Khan Foundation internationally. The model focuses on the education of child-minders in kindergartens. They were first challenged by the following question: 'If we strongly believe in the capacity of the human being and in his/her potential from the age of zero, what does this change in the way I work?' This model has already been applied in a kindergarten in northern Portugal and is now being replicated in Lisbon in the context of another project led by Fundação Aga Khan – the K-Cidade. The K-Cidade is an urban community support project unique of its kind in the country. It is being developed in a set of neighbourhoods in the Great Lisbon Area and focuses on four thematic areas: Families in the Community; Education and Children; Lifelong Learning; and Citizenship. Its innovative character lies in several strands; it seeks to:

- search for new ways of supporting communities;
- reinforce government attempts to meet the needs of an increasingly diverse population, not only in ethnic terms (as a result of immigration), but also in economic terms with rich and poor living side by side;
- strengthen civil society;
- mobilize a diverse network of partners, from private non-profits to public entities, universities and companies.

The K-Cidade is a pilot project which has been enlarging its areas of intervention either through K-Cidade teams or through other organizations. Studies are currently being undertaken in a set of European countries in order to assess the viability of replicating the initiatives in other cities.

Looking to the future

Asked about future spending, 58 per cent (7 out 12) of the surveyed foundations expected to retain current expenditure levels. Only two envisaged a decrease in

spending, which they attributed to multi-year outlays and to the financial crisis respectively.

Regarding future funding, it should be noted that there are no specific state incentives for foundations to fund or operate in the field of R&D. According to one survey respondent, the best way to encourage foundations to operate in fields such as R&D is for governments to take up and bring into the mainstream programmes initiated by foundations that have demonstrated their value to the country. Essential conditions for this are that foundations take the initiative and make good strategic decisions, and also that they develop a correct evaluation of the best initiatives under their statutory aims. Some respondents also suggested that a matching funds approach should be applied as a way for the state to support foundations' activity. However, it was emphasized that, although this approach might work well, it could also turn into an indiscriminate form of state support, which might mean placing public funds at unnecessary risk.

Other suggestions advanced by the surveyed foundations focused on public policies and on the policy-makers' role. According to one respondent, public R&D policies in Portugal do not clearly recognize the relevance of local initiatives and give them sufficient support. Project-financing through public funds (whether the project is a pilot or not) has a short-term focus and therefore produces discontinuity of action. A few policy measures have been implemented that have allowed territorial governance structures (*Redes Sociais* – Social Networks, *Conselhos Municipais* – Municipalities Councils), but these have not been taken up, nor are there resources available to support the infrastructure, projects, services and collective actions associated with such measures. The majority of the initiatives still depend on financing from national or European programmes.

Respondents suggested a number of ways in which policy-makers could encourage the participation of foundations in local R&D initiatives. These include promoting networking and coordination between public entities and local and regional agents, in order to foster the building of an integrated vision and programme structuring. In this way foundations would not be asked to participate in one-off projects that are unconnected and may compete with or complement other projects. Policy-makers should also recognize, support and value the role of foundations in R&D, the partnerships they seek to form (with different actors, public or private, for-profit and non-profit), and their contribution to civil-society capacity-building, especially of less privileged groups. As a consequence of their financial independence and flexibility, foundations can assume a catalysing role in partnerships, challenging all

actors to share resources, use them efficiently, integrate perspectives, and complement competences and actions. Policy-makers should promote common initiatives and provide facilities to enable dissemination of scientific research and science in general. They should also provide long-term subsidies in order to allow long-term instead of short-term research.

One of the surveyed foundations stressed that the best way to encourage foundations is to mainstream the programmes tested by foundations that prove useful for society. This would free foundations to fund or carry out new initiatives, in a virtuous cycle of risk-taking followed by consolidation with public funds. It was emphasized that this type of approach is applicable at any level (regional and national) and to all forms of support, including grants and prizes, project support and institutional facilities.

At national level, the surveyed foundations also highlighted the importance of promoting better coordination between public entities and local and regional agents and of encouraging public–private partnerships, in order to enable foundations to develop and evaluate pilot projects. This is particularly important because, in many cases, foundations focus their energies in less explored fields where the state, for various reasons, is not present. More support should also be given to implementation of action-research projects, sharing of good practices and dissemination of project results. Tax incentives, state matching funds and long-term support for projects would also encourage more foundations to work in the field of R&D. Policy-makers could also invite foundations to participate in the shaping of R&D policy by providing feedback on newly formulated policies.

At EU level, one respondent noted that the politics of interchange in the research field were too institutionalized (in the sense of being too concentrated in public powers) and frequently ignored third sector organizations (including foundations) that could perform a complementary role to the official entities and universities. To overcome this, it was suggested that European foundations, or associations of foundations, that play a key role could be better represented in national strategic decision-making bodies or 'research councils', such as the Fundação para a Ciência e a Tecnologia (Science and Technology Foundation – FCT) in Portugal. Other ways suggested to encourage the participation of foundations included provision of information about European programmes and dissemination of best practices. Further suggestions included state co-funding of projects supported by foundations and the creation of a support system to encourage better cooperation among foundations, as well as between foundations and other actors, in order to avoid duplication of effort and to allow synergies.

2.2.3 Applying the methodology

A total of 12 foundations were surveyed for the purposes of FOREMAP, reporting assets of €4.1 billion in 2007 and allocating over €25 million to research. In order to collect this data, the research team's first task was to compile a list of (at least) 20 foundations active in the field of research. The first option considered was to select those foundations from a list of the top 100 foundations ranked according to total expenditure. This was not possible, however, as in Portugal there is not a complete and updated database on the foundation sector, and the effort of building it would be impracticable for various reasons detailed in this text. Therefore, a snowball technique was adopted as the only remaining option.

Analysing existing databases

In a tentative attempt to build a complete list of foundations active in Portugal, the research team identified and collected the most reliable foundations databases available in the country. Three databases were used as a starting point for the work: one from the Portuguese Foundation Centre (CPF), one from the National Statistics Office (INE), and one from the Presidência do Conselho de Ministros (PCM), the government office with responsibility since 2007 for recognition of new foundations.[20] The three were made available to the research team on an understanding that an updating process needed to be undertaken.

A number of weeks were set as the timeframe for this revision process. The databases were merged; a group of foundations found to be government-run was set aside, as they did not constitute the target of the FOREMAP project; a small group of foundations was identified as non-existent and taken out of the database; and an effort was made to find missing data. The major source of information in this endeavour was the internet, as alternative public means of undertaking such an updating process were unavailable. In the end, a list containing the names of 614 foundations was compiled. This list was taken by the research team to be a close approximation of the foundation world, as time constraints and the specific purposes of the project would not allow a more detailed and complete process of verification.

The information in this final database was still incomplete, mostly as a result of variations in the information available in the original databases. While the INE database was no more than a list of names, the CPF one contained the president's name and the foundation's contacts, and the PCM one included data on the legal recognition process and purposes (albeit in varying degrees

[20] Recently made publicly available at www.sg.pcm.gov.pt/fundacoes.htm; it contains formal data on their constitution and on the recognition process.

of detail). The task of filling the blank cells in the final database proved to be impossible in a reasonable time-frame, because public information on many foundations was either non-existent or very limited and insufficient, while some foundations in the database were unexpectedly found to be impossible to track.

There was not, in any of the original databases, financial information of any kind, eg on total expenditure, which might have provided the first step in the selection of the sample. The search for this information was successful only in a very limited number of cases where foundations make their annual reports available. Nor was there information on the purposes of all foundations, which might have provided an alternative criterion for selecting the sample of foundations active in the field of research. Given this set of constraints, the database was set aside as a reference for sampling.

A note should be added on a further possible source: the GPEARI database. GPEARI is a study centre of the Science and Higher Education Ministry which produces official statistics on the fields of R&D and innovation. In its database of non-profit institutions, which includes only operating institutions in the field of R&D, only three private foundations are listed.

The research team therefore decided to follow a snowball sampling technique, which was also suggested in the project guidelines.

Choosing a snowball sampling technique: conditions and pitfalls

The snowball sampling technique is very useful for so-called 'rare populations' or for 'hidden populations' (populations difficult to find). The FOREMAP project target population – foundations supporting and/or operating in the field of R&D in Portugal – proved to fit both descriptions.

A necessary condition for the success of this technique is that the members of a population know each other. The objective is to create a frame of members, and the approach consists of the identification of a few members of the population, who are then asked to identify others from the same population. When a frame has been built, a probability selection can be taken from it. The critical issue at this point is the completeness of the frame. A more common application of the snowball technique, and the one used in this project, avoids the construction of the frame, and involves continuing the snowball process until a number of population members considered sufficient for the survey has been found. In this case the survey interviews are conducted with the identified members, and the re-contacts needed for the frame-construction approach are avoided. Those elements who have more contact with other members of the population have a higher probability of being included in the survey than those who do not have so many contacts.

This technique is more appropriate for exploratory studies and qualitative investigations (like the present one) than for statistical surveys.

Implementing the snowball technique

The request made to each participant in the snowball methodology was to identity five to ten foundations in Portugal known to support R&D activities. The entry point for the snowball implementation was the Portuguese Foundation Centre (CPF). This organization supplied a list of 12 foundations which were then contacted and presented with the same identification request. The method for contact was mixed, first by email, and then by telephone in those cases where answers had not been received within a certain period of time. The process continued, and each new foundation that was referred was then asked to name others, and so forth. In this way it was possible to produce a set of 37 named foundations, based on input from nine foundations and the CPF. Of these 37, two were found to no longer exist, one was non-existent, and eight were considered to be government-run foundations. In the end, a list of 26 'eligible' foundations was compiled.

The list of 26 foundations was revised in order to detect any significant absentees, and three others were added, bringing the total to 29 foundations which would be asked to answer the survey.

Response rate

The survey was sent to 28 foundations,[21] and of these seven contacted the research team to explain their reasons for not responding. Five foundations stated that their purpose was not related to R&D or that their recent activities did not involve support for R&D; one explained that it was going through a restructuring phase and was currently unable to answer the survey; and one said that it was not willing to supply financial data and so would not return the survey.

In the implementation of the snowball technique one of the major pitfalls was the low level of knowledge foundations revealed about others that were developing or supporting R&D activities. In many cases, the immediate answer given to the research team was of ignorance of other named foundations, with the exception of the most generally familiar ones, such as Gulbenkian and Champalimaud. The low level of knowledge among foundations may be attributed to a low level of relationships among them, but also to the very small number of foundations in Portugal that devote significant amounts of money to the support and/or operation of R&D activities. Indeed, in Portugal there seems to be a very clear dividing line when it comes to foundations' support in

[21] One refused to answer before seeing the survey.

the field of R&D: on one side, there are those foundations that make very high contributions; on the other, there are those that give small contributions in the form of grants and scholarships. In the middle, there is perhaps a small group of medium-sized foundations that perform an interesting role in very specific fields, usually support for medical research.

Duration

Overall, it took four months for the data collection and data analysis of the survey to be conducted.

2.2.4 Bibliography

Interviews

Conversations held with the majority of the respondents were an important source of information. Also, two extensive interviews were undertaken with Prof João Caraça, from Fundação Calouste Gulbenkian, and Dr Luís Portela, president of Fundação Bial. Important input was also received from Prof António Coutinho, director of the Gulbenkian Science Institute.

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