Spain Country Report

EUFORI Study

European Foundations for Research and Innovation

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Abstract

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R+I foundations –those promoting research and/or innovation among their priority goals- have played a key role during recent years in the process originating from the significant decision of Spain to improve excellence and internationalization in the generation and dissemination of scientific knowledge. Results so far include a remarkable increase of the international relevance of scientific research originating from Spain, and the increasing participation of its researchers in consecutive EU Framework Programs. In this context, this research characterizes Spanish R+I foundations and measures their main economic parameters for the first time, in the context of the EUFORI Study (http://euforistudy.eu/) promoted by the European Commission for all EU member countries plus Norway and Switzerland. In order to achieve that goal, a database of 458 R+I foundations was generated from multiple sources; and 229 of them answered a structured on-line questionnaire. Results show Spanish R+I foundations are a relatively young, dynamic and diverse foundation sector, which scope is not only local or regional but also national. Despite being supported to a noteworthy extent by public policies, the sector also builds upon the decisive and growing involvement of medium and large enterprises. Spanish R+I foundations participating in this study hold over EUR 4 690 million in assets, add up to over EUR 980 million in income, and devoted over EUR 773 million to R+I expenditures (2012). Beyond characterizing the key features of the governance and management of R+I foundations in Spain, this report further identifies their main strengths and opportunities, and includes conclusions and recommendations relevant for the competitive improvement of these organizations in the context of the current Science, Technology and Innovation Spanish Strategy (2013-2020) and overall Europe 2020 strategy.

Las fundaciones que establecen la “investigación” y/o la “innovación” entre sus objetivos prioritarios de actuación (Fundaciones de I+I) han jugado un papel clave en la apuesta de España durante los últimos años por la excelencia y la internacionalización en la generación y difusión de conocimiento científico. De esta apuesta se ha derivado un incremento significativo de la relevancia internacional de las diversas investigaciones científicas españolas, así como una creciente participación de nuestros grupos de investigación en los sucesivos Programas Marco de la Unión Europea. En este contexto, el presente informe caracteriza, por primera vez, a las Fundaciones de I+I españolas y determina sus principales parámetros económicos, en el marco del EUFORI Study (http://euforistudy.eu/) promovido por la Comisión de la Unión Europea entre los 27 países de la Unión, Noruega y Suiza. Para tal fin se generó específicamente, a partir de una multiplicidad de fuentes de información, una base de datos de 458 Fundaciones de I+I a las que se aplicó un cuestionario on-line estructurado que fue cumplimentado, en mayor o menor medida, por 229 de estas fundaciones. Los resultados del estudio caracterizan a este sector de fundaciones como relativamente joven, dinámico y diverso, con ámbito de actuación no sólo local o regional sino también nacional, impulsado en gran medida desde el sector público pero en el que la iniciativa privada, y en particular las medianas y grandes empresas, tiene a su vez un papel muy destacado. Las fundaciones analizadas en este estudio, con más de 4 690 millones de euros en activos, 980 millones de euros en ingresos y 773 de gastos (2012), implementan sus esfuerzos de investigación e innovación en las diversas áreas científicas clave de nuestro país. Creemos que el informe, además de detallar esta caracterización en cuanto a su gobierno y gestión, identifica las principales fortalezas y oportunidades de las Fundaciones de I+I, estableciendo conclusiones y recomendaciones relevantes para consolidar competitivamente a estas entidades en la actual Estrategia Española de Ciencia y Tecnología e Innovación (2013-2020) y en el marco de la estrategia Europa 2020.
## Contents

1  Contextual Background  
1.1  Historical background  
1.2  The legal and fiscal framework  
1.3  The foundation landscape  
1.4  Research/innovation funding in Spain  
2  Data Collection  
2.1  The identification of foundations supporting R&I  
2.2  The survey  
2.3  The interviews  
3  Results  
3.1  Types of foundations  
3.2  The origins of funds  
3.3  Expenditure  
3.5  The geographical dimensions of activities  
3.6  Foundations operations and practices  
3.7  Roles and motivations  
4  Innovative Examples  
4.1  Successful public-private partnerships involving foundations and venture  
philanthropy schemes  
4.2  Foundations focusing on the support of an innovation culture  
4.3  Projects engaging the public’s interest in research and promoting its social valuation  
4.4  Foundations working on the interface between R&I and entrepreneurship  
4.5  Introduction to the market of socially innovative products, methodologies, services  
and/or technologies  
5  Conclusions  
5.1  Main conclusions  
5.2  Strengths and weakness of the R&I foundation sector in Spain  
5.3  Recommendations  
6  References
1 Contextual Background

1.1 Historical background

Spain has a centuries-old tradition of voluntary, beneficent or philanthropic organisations, including foundations; many of them are directly or indirectly connected to the Catholic Church. However, the relatively late economic development and democratic stability of the country in a Western European context (a market economy under a constitutional monarchy since 1978, joining the European Common Market in 1986) has been compounded by a weak civil society throughout the 19th century and well into the 20th century. As a result, its contemporary foundation sector may be considered as a late-comer from an international comparative perspective (Rey and Puig, 2013).

No matter what political system or ideology ruling the country, the political environment has been predominantly hostile to foundations during the contemporary era. In the 1820s, the liberal revolution suppressed most foundations, which were considered to be remnants of the absolutist system and unproductive vehicles for the perpetuation of the privileges of the church and the nobility. In 1849 a new law was passed (‘Ley General de Beneficencia’) specifically authorising the existence of foundations as marginal beneficent private initiatives, but limiting their investment practices in such a way that they were not sustainable (Rey and Puig, 2010).

The late 19th and early 20th centuries saw the return of affluent emigrants from Latin America, who started and funded in their home regions’ foundations, which were mainly connected to educational and social aims (schools, hospitals, etc.). Such initiatives, however, should not be overstated. Not only was organised secular philanthropy still a minority phenomenon, but also the growth and even survival of foundations was very much hindered by a 1912 Royal Decree in force until 1994. This Decree ruled that, apart from the buildings directly necessary for developing their public interest goals, all foundations’ investments should consist of public debt bonds. This resulted in a massive erosion of endowment assets (Rey and Puig, 2010).

Although Spanish civil society grew even weaker under General Franco’s dictatorship (1939-1975), two parallel developments in the nonprofit sector should be noted during this period. Firstly, the creation of five nonprofits that rank among the biggest in the country today, standing out within a sector that is mostly composed of medium, small and micro organisations. The three ‘entidades singulares’ or special-charter NPOs have enjoyed ever since a special relationship with the government and have played leading roles in the process of institutionalisation of the third sector: Cruz Roja Española (CRE; the Spanish Red Cross), Organización Nacional de Ciegos de España (ONCE; the National Organisation for the Blind), and Cáritas

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[1] The Catholic Church historically had an strong influence on contemporary society and politics until the late 20th century; it still plays a relevant role in relation to the provision of social needs, and within the social and educational nonprofit sector, higher education included.
Española (CE; the confederation Catholic Church charities, for social assistance). [2] Also included in this group of leading NPOs are two ordinary-charter organizations: Manos Unidas (MU; the Catholic Church’s NGO for international cooperation) and Asociación Española Contra el Cáncer (AECC; the Spanish Cancer Campaign) (Rey, Alvarez and Valls, 2013). The AECC created its own scientific foundation in 1971, which currently occupies an outstanding place among Spanish R&I foundations.

The second development during the Franco period refers to the creation of a small group of important endowed family foundations (Juan March 1955, Marcelino Botín 1964, Pedro Barrié de la Maza 1966, and Ramón Areces 1976). These foundations stood out for two reasons. First, some of them were endowed ‘a fe y conciencia,’ meaning the founder conferred to the board members all the power in terms of managing their endowments and no reporting obligations were assumed, thus avoiding both the public authorities’ interference and investment restrictions in place since 1912 (Rey and Puig, 2010). This undoubtedly facilitated their early survival and growth. Second, they pioneered the inclusion of research among their broad public benefit goals, in the context of a still predominantly beneficent (education-social) philanthropic sector. They paved the way for traditional forms of foundation support for research in the country, i.e. fellowships, grants and prizes for researchers, and the creation and support of research institutes such as the Centro de Estudios Avanzados en Ciencias Sociales of the March Foundation (CEACS, the Centre for Advanced Study in the Social Sciences; currently a public-private partnership at the Carlos III University). Areces, Botín and Barrié can today be considered R&I foundations according to our EUFORI definition, and are starting to lead collective action in the field of R&D together with the scientific foundation of the AECC and other private foundations. Furthermore, Botín, and to a lesser extent also Barrié, have recently adopted venture philanthropy approaches to research funding, through the participation in the capital of spin-offs from the research groups they support and other program-related investments.

After the restoration of democracy in 1976, a new framework of relationships between the State and NPOs, foundations included, emerged as a result of the late but rapid development of a democratic system, admission into what was then known as the European Common Market, sustained economic growth until 2007, and a welfare state deployed through expenditure decentralisation to regional governments; as Spain is divided into 17 autonomous communities, each with its own legislative and executive branches. The new framework was characterised by progressive secularisation, a new favourable legal and tax environment open to all NPOs, and the emergence of civil society in terms of a growing number of both nonprofits and individual and corporate donors; all along with an extended collaboration between NPOs and the State and entering new areas of activity such as international cooperation. In the foundation field, apart from traditional founders such as wealthy individuals and Catholic Church related institutions, new founders such as firms, other nonprofits and social economy entities (e.g. associations, savings banks, mutuals or cooperatives), and also public entities, actively started to create foundations (Rey, Álvarez and Valls, 2013).

The relationship of mutual dependency has been labelled as corporatist, as the government grants those nonprofits special status, including privileged access not only to direct public subsidies and contracts, but also to fundraising tools such as charitable lotteries, in exchange for the delivery of services to, and for their support of public policies from the populations whose interests they represent.
1.2 The legal and fiscal framework

From a legal perspective, until 1994 Spanish foundations consisted of a marginal, scattered and diverse set of charitable institutions under different and even contradictory regulatory regimes, with the only common denominator being restrictions in their financial and administrative operations. The transition to democracy from 1976 onwards brought expectations of a clearer and more favourable framework for foundations. The Constitution of 1978 explicitly granted and protected the right to found for public benefit purposes (a legal outlier from an international perspective).

Democracy, however, also brought about major fiscal reform which included a strict tax treatment for foundations. Before this reform, which built the basis for the current fiscal system, foundations were completely tax exempt, donations to them were fully deductible, no amount was withheld from the recipients of their grants and fellowships, and VAT did not yet exist. After the reform donors saw the deductions on their donations substantially reduced or even eliminated; grants and fellowships became subject to retention on the beneficiaries’ side; and foundations started paying taxes as if they were businesses, exemption becoming a ‘special’ fiscal concession (Rey and Puig, 2010; Rey and Alvarez, 2011a and 2011b).

It was not until 1994 that the first Law regulating foundations and the fiscal framework for private giving to nonprofits was passed (Ley 30/1994, de 24 de noviembre, de Fundaciones e Incentivos Fiscales a la Participación Privada en Actividades de Interés General), and the situation started to be reversed. Foundations were conceptualised as ‘nonprofit organisations which, by the will of their founders, have affected their assets durably for the achievement of general interest purposes.’ The Law contained an open list of general interest purposes, broadly including educational, social, research, cultural or environmental ones. A unified civil and tax regime was provided, both private and public entities with legal status were allowed to become founders, and partial tax exemptions for nonprofits and tax deductions for their donors were granted (Rey and Puig 2013).

The 1994 legal and fiscal milestone was followed by the passage of abundant foundation regulations at a regional level, the State-wide 2002 Foundation and Fiscal Laws currently in force (Ley 50/2002, de 26 de diciembre, de Fundaciones), and other general laws and standards that have also influenced foundations’ behaviour and structure, such as the successive adaptations of the General Accounting Plan for nonprofit entities (1998 and 2011). As a result of this process, Spanish foundations further obtained recognition from the State and became institutionalised, at the price of becoming intensely, fragmentarily and tightly regulated from a European comparative perspective.

On one hand, Spain seems to be the only European country with a strict ‘pay out’ or distribution rule under Civil Law. Foundations must spend at least 70% of their net annual income over a four-year period in grantmaking and direct charitable activities, regardless of their choice for tax regime. On the other hand, the registration of new foundations and the supervision of existing ones lies in the hands of around 50 administrative units depending on the State or regional governments. These ‘protectorates’ and ‘registries’ are entrusted with a variety of functions (providing basic regulatory information, reviewing annual reports and accounts, dissolving inactive foundations, etc.) and may appear in court to apply for enforcement measures (the liability and dismissal of board members; the annulment of decisions against the law
or bylaws, etc.). Although the data deposited in these units are public, they are scarcely accessible, as no databases or digital documents are available (Rey and Alvarez, 2011a and 2011b).

Despite these shortcomings, foundations have become not only the typical formula for institutionalising philanthropy, but also one of the two alternatives used to incorporate organisations which are nonprofit from a fiscal perspective. It should be noted that foundations present three important advantages relative to associations. First, there is the brand effect derived from being called ‘foundation,’ as not all associations pursue public benefit goals. Second, the absence of members facilitates board control in foundations. Last but not least, all registered foundations are automatically granted civil charitable or nonprofit status. They are consistently eligible for tax exemption and may receive tax-deductible contributions, if they voluntarily opt into the ‘special fiscal regime’ and comply with certain administrative requisites and reporting controls. As for associations, their civil charitable or nonprofit status is not automatic, but requires a ‘declaration of public utility’ after some years of operations for the public good, which is also a prerequisite to opting for tax benefits. As a result, in 2005 there existed 279 343 registered associations in Spain, but only 9 500 had obtained the ‘declaration of public utility’ granting them nonprofit status (Garcia Delgado, 2009). Consequently, in terms of number of organisations, foundations are estimated to account for approximately half of the nonprofit or third sector of the country nowadays.

The current Foundation and Fiscal Laws, in force since 2002, have shifted the main role of the supervisory entities from *ex ante* control to counselling and *ex post* control. They have substantially improved the tax exemptions for foundations, but only slightly in terms of tax deductions for donors. The possibility that foundations actively participate in economic activities and own majority shareholdings in companies (dividends are tax-exempt under the same conditions applicable to other types of foundation income), has been not only recognised but also expanded (‘fundaciones-empresa’). The flexibility of reporting procedures for foundations has been improved. Among the issues left unresolved, foundations remain the final consumers of the VAT for their exempt activities, and retentions on grants and fellowships still apply (Rey and Puig, 2010 and 2013).

However, some substantial changes to this framework might be expected in the near future. A new patronage law (Ley de Mecenazgo) has been lengthily demanded by stakeholders, but so far only moderate improvements for tax deductions by corporate and individual donors to foundations and other NPOs have been contemplated within ongoing fiscal reform. It should be noted that current deduction percentages in Spain (25 % for natural persons and 35 % for businesses) rank far below those established by comparable countries such as France or the UK. On the other hand, the government recently passed a first draft for a new Foundation Law (Anteproyecto de Ley de Fundaciones), without the participation of the national association that represents the foundation sector’s interests. The draft establishes a unique state-wide foundation registry, the requirement for previous administrative authorisation in order to incorporate a new foundation, and resolutions to foster good governance and transparency in foundations.
### 1.3 The foundation landscape

The Spanish foundation sector, although emerging in this context almost seven decades after the dawn of the contemporary foundation sector in the United States, has grown at a fast rate ever since. According to Wings' Philanthropy Data Network, Spain currently ranks third among the top EU member countries in terms of the number of registered foundations (after Germany and Hungary), with more than 12900 public benefit foundations – not including some 1 100 Catholic Church foundations organised under Canon Law. Exponential growth has been paired with the appearance of successful collective action. The Spanish Association of Foundations (AEF), representing the sector’s interests since 2003 and originating from a merger of pre-existing associations of foundations dating back to 1978, has become the second largest national association of foundations in Europe with nearly 1 000 members, after the German Bundesverband Deutscher Stiftungen.

The Spanish foundation sector has consequently become a relevant social and economic player, as foundations have provided an organisational umbrella for an increasing portion of initiatives from the emerging civil society and non-profit sector in the country during the last three decades. According to the available estimates, in 2005 the Spanish foundation sector represented 0.677 % of the total equivalent paid employment, and 0.061 % of the Gross Value Added of the country (García Delgado, 2009). Its growing importance is grounded on the highly significant number of member organisations; the wide diversity of social demands being addressed by them; the number and diversity of beneficiaries being served; the volume of direct and indirect employment and unpaid human resources (board members and volunteers) involved; and the volume of economic resources devoted to the public good. All these variables are described for the foundation sector in general (therefore including and contextualizing R&I foundations) in the following paragraphs according to Rey and Álvarez (2011a and 2011b), relative to the 2009 data.

For the purpose of the EUFORI Study, foundations are defined according to the Institute of Strategic Analysis of Foundations or the INAEF project (Rey and Alvarez, 2011a and 2011b) as: ‘...entities with their own legal personality; that do not distribute profits and aim at public benefit purposes; constituted and inscribed as such before the corresponding foundation registry; of a private nature; and basically subject to civil law fundamentals under State rule.’ This framework applies to all the foundations in the country, regardless of the regional foundation regulations existing in 15 autonomous communities. However, although all foundations are charitable and nonprofit entities of a private nature from a legal perspective, it should be taken into account that around 9 % of Spanish private foundations originated from public initiative, meaning public administrations and agencies control their boards, as they have played a dominant role in co-founding and/or co-funding them (Rey and Álvarez, 2011b). This is the case for a significant subset of R&I foundations created by public universities, hospitals or development agencies.

According to the previous definition, there existed 12 921 registered foundations as of late 2009; 9 050 of them are estimated as being active according to the INAEF census. Spanish foundations in general are characterised as predominantly young, small and operating. Only a minor portion holds substantial assets. 54.1 % of existing foundations have endowments over EUR 30 000, which is the minimum initial endowment currently considered as ‘sufficient’ by the law to incorporate a new foundation. The majority are
‘pass-through’ foundations, financially dependent on annual fundraising from public and private donors, and/or fees for services. As a result, the foundation sector is highly skewed, with 65.9 % of foundations with an annual income below EUR 500,000 and only 3 % with an annual income over EUR 10 million.

Although the rate of creation of new foundations has steadily increased since the advent of democracy, the true turning point in the annual rate of growth was the first foundation Law of 1994, according to the reasons mentioned in the previous section, with 65.3 % of registered foundations being created after that year. The annual average number of new foundations has risen in Spain from 80 in the 80s, to 255 in the 90s, and slightly over 370 in the 2000s. While 363 new foundations were created in 2009, the first full year under the effects of the current economic crisis in Spain, only 277 new foundations were created in 2013.

Even though the foundation sector shows an outstanding degree of diversity in terms of types of public benefits pursued (according to the International Classification of Nonprofit Organizations, ICNPO), research is mentioned by 36.6 % of foundations as being among their four main areas of activity, which is the second most prevalent after culture and recreation (46.5 % of foundations). Research is preferred both to traditional areas such as social assistance (35.3 %), education (25.7 %) and health (21 %), and to recently boom areas such as development and housing (27.7 %) and environment (13.5 %). The rest of the areas are mentioned by less than one fifth of foundations (see Figure 1). Whereas social services were the most prevalent area of activity for foundations created before 1978, culture and recreation took the lead from 1979 onwards, and research increased its share from the late 1990s onwards. This reflects the diversification of a traditionally beneficent-oriented foundation sector in response to both new societal demands and cultural change, and to public policies and funding focused on those newly emerging areas (Rey and Álvarez, 2011b).

Three out of four Spanish foundations (74.6 %) consider the operating model as their main model of activity, as they devote their resources to operating their own projects or programs, running establishments (particularly for social assistance), or managing entities with their own legal personality (basically other nonprofits such as associations). Only 31.9 % of foundations choose grantgiving as their main model of activity, and 18.6 % of foundations mainly devote their resources to raising public awareness or to mobilising civic action.

Figure 1: Main areas of activity (ICNPO) of Spanish foundations
96 % of foundations consider groups of individuals to be their main beneficiaries, with a special focus on the general public, followed by students, researchers and teachers; segments of population at risk of becoming socially excluded, infants and youth, disabled people and families. Moreover, 54.2 % includes other organisations among their main beneficiaries, mainly other nonprofits (e.g. associations of victims of diseases or disabilities), businesses (e.g. R&I foundations promoted by industry associations), or public entities (e.g. R&I foundations promoted by public universities or hospitals) (Rey and Álvarez, 2011a and 2011b).

Over 200 000 people committed their time and expertise to Spanish foundations, paid or unpaid, in 2008 (see Figure 2). Between 2008 and 2010 direct jobs experienced a 7.78 % increase (from 95 942 to 103 410 jobs); the number of foundations generating employment increased by 5.95 % (from 3 515 to 3 724 foundations); and the average number of direct jobs per foundation rose by 1.73 % (from 27.3 to 27.8 jobs per foundation). The full effects of the economic crisis on the foundation sector would be experienced in 2011, 2012 and 2013 resulting in closures, personnel cutbacks and wage reductions.

**Figure 2: Human resources involved in foundations: typology and basic data (2008)**

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<th>Internal</th>
<th>External</th>
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<tr>
<td><strong>Paid</strong></td>
<td>95 942 direct employees</td>
<td>15 916 indirect jobs</td>
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<td></td>
<td>N=3 515 foundations</td>
<td>N=498 foundations</td>
</tr>
<tr>
<td><strong>Unpaid</strong></td>
<td>36 135 board members</td>
<td>48 391 volunteers</td>
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<tr>
<td></td>
<td>N=1 281 foundations</td>
<td>N=1 281 foundations</td>
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Source: Rey and Alvarez (2011a and b)

Regarding financial variables, the data obtained for a sample of more than 3 800 foundations reveal their predominantly ‘spending’ nature, with aggregated expenditure of over EUR 5 222 million in 2008, and a narrow surplus-positive difference between revenue and expenditure. 53.6 % of foundations exceeded a total expenditure of EUR 150 000, and 11 % had a total expenditure of over EUR 2 400 000 Euros. Regarding assets volume, 60.1 % of the foundations in the sample had total assets of over EUR 150 000 Euros. Only one third had endowments similar or superior to their total revenue, confirming the non-endowed nature of the vast majority of Spanish foundations (an endowed foundation being defined as one which an endowment is significant enough for its returns to become the main funding source for its public benefit activities).

1.4 Research/innovation funding in Spain

From a policy perspective, Spain has made a firm and irrevocable bid for excellence and internationalisation in science during the last decade, resulting in the increased relevance of Spanish researchers (particularly in the biomedical field, but not only) and growing participation in the EC Framework Programme. However, the development of R&I in Spain is still lagging behind relative to the economic and demograph-
ic weight of the country. The successive National Plans of Research, Development and Technological Innovation implemented between 2000 and 2011 did not achieve their goals. Only in 2003 did expenditure on R&D exceed over 1 % of the GDP. However, important investments, mainly of public origin, have been made during the last two decades in research infrastructure and human resources, resulting in both quantitative (expenditure, employment) and qualitative (internationalisation, active policies, involvement of business players) advancements. Unfortunately, the economic turmoil has challenged these achievements as public funding for R&I has been subject to the biggest cuts in relative terms. Regardless of the effects of the crisis, it should also be noted that R&D efforts by companies, both national and multinational, still rank among the lowest in the EU, amounting to only around 50 % of the total R&D expenditure. Public-private partnerships and triple helix schemes are scarce, and many fail or operate below their potential (Gutiérrez, 2012).

Expenditure on R&D&I per inhabitant in Spain in 2011 amounted to EUR 303.7, far below other European countries of comparable size, such as Germany, France or the UK (with EUR 901, EUR 691 and EUR 496, respectively); and slightly below Italy (EUR 326). However, it should be noted that this indicator has experienced a 115.2 % increase since 2000 (with a 109.27 % increase in private sector expenditure, and 165.04 % increase in public sector expenditure); with an average annual growth of around 10.5 %, slowing down only during the recent economic crisis. Investments in R&D&I amounted to 1.33 % of the Spanish GDP in 2011, significantly below Germany (2.84 %), France (2.2 %) and the UK (1.77 %), or the EU-27 average (2.09 %). It should be noted, however, that the EU average is far below the USA’s and Japan’s. Once again this indicator grew in Spain between 2000 and 2011 (46.25 %), exceeding the rates of growth of Germany, France and the UK (14.98 %, 4.65 % and -2.21 %, respectively), and also the average for the EU-27 (12.37 %) (Strategic Research Centre, 2013).

Expenditure on R&D in Spain in 2012 amounted to EUR 13 392 million (equivalent to 1.3 % of the GDP), after a 5.6 % decrease relative to previous year. As far as the sectors executing this expenditure are concerned, businesses contributed the largest portion (53 % of the total), followed by higher education institutions (27.7 %), public administrations (19.1 %) and nonprofit organisations – mainly but not exclusively foundations (0.2 % of the total). Expenditure on military R&D represents a minor portion of the total relative to other comparable countries, as over 90 % of R&D expenditure goes to the civil sector. In 2012 public administration expenditure decreased by 7.4%, higher education expenditure decreased by 7.2%, and business expenditure decreased by 4.1% relative to previous year, reflecting the effects of the economic crisis (Sanz and Cruz 2010; Cotec Report, ICONO and INE, 2013).

In the specific area of innovation, Spain has been labelled a ‘Moderate innovator.’ Its performance in this field, despite improvements experienced between 2006 and 2013, is not only below the EU average for most indicators, but also the country’s performance gap relative to the EU has increased. In 2008 the relative performance level was 77 %, whereas in 2013 it decreased to 75 %. Relative weaknesses are in ‘license and patent revenues from abroad,’ and ‘knowledge-intensive service exports.’ Relative strengths are in ‘international scientific co-publications,’ ‘sales share of new innovations,’ and ‘community trademarks.’ Strong growth was observed in ‘international scientific co-publications,’ ‘sales share of new innovations,’ and ‘PCT patent application in societal challenges.’ The largest growth decline was observed for the ‘ven-
ture capital investment’ indicator. Other notable declines are in ‘SMEs innovating in-house’ and in ‘community designs’ (European Commission, 2014).

From a policy perspective, most relevant recent developments have consisted of the passage of the Spanish Strategy for Science and Technology and Innovation (2013-2020) and the National Plan of Scientific and Technical Research and Innovation (2013-2016). The general purpose of the Strategy is to promote scientific, technological and business leadership in the country and to improve the capacity of Spanish society and economy to innovate. It aims at fostering the collaboration of all the relevant players, both public and private, in the context of a full alignment of the national system with the goals deployed by the European Union through the ‘Union for Innovation’ and ‘Horizon 2020’ frameworks. The Strategy is open to all types of beneficiaries, including nonprofit organisations that are headquartered in Spain and undertake R&D as their main activity according to their charter, generating scientific or technological knowledge. Consequently, the foundations included in the EUFORI study have the potential to become relevant participants in the context of active R&D&I policies. The Plan establishes the purposes and priorities of the national policy of research, and development and innovation in the medium term. Both the Strategy and the Plan emphasise employability, research excellence, business leadership of R&D&I and the orientation of R&D&I towards societal challenges (Ministerio de Economía y Competitividad, 2013).
2 Data Collection

2.1 The identification of foundations supporting R&I

The first methodological task consisted of preparing a census of Spanish foundations developing R&I activities according to the conceptual framework established by the EUFORI study for all the participating countries. Elaborating this database was essential, as no nominative list of this type of foundation existed. The only available approximations were: (1) previously published directories of foundations (those from the Spanish Association of Foundations, 2007), (2) a census carried out at a national level (by the Spanish Association of Foundations) and at a regional level (by Andalusian, Extremaduran, Catalanian and Basque Country associations of foundations), and (3) studies on Spanish foundations, either at a regional (Andalusia, Aragon, the Canary Islands, Catalonia, Asturias), or a sectorial level (labour and health foundations).

Although foundations generally active in ‘research’ were included in all these sources, and the Statistics National Institute (INE) publishes data on R&D activities in the nonprofit sector, the category of foundations active in ‘innovation’ was rarely mentioned and never specifically quantified. It should be noted that Spain was not selected to test the methodology of the FOREMAP (Foundations Research and Mapping) study. This project, co-funded by the European Foundation Centre (EFC) and the European Commission (7th Framework Programme), was the first attempt to systematically document foundations’ contribution to research in Europe, and involved a pilot mapping for Germany, Portugal, Slovakia and Sweden (EFC et al., 2009).

The second challenge involved in the elaboration of a specific database for the EUFORI study consisted of distinguishing R&I foundations according to the EUFORI definition from a wider range of foundations that mention in their bylaws or activity reports either ‘research’ or ‘innovation’ as being among their purposes. It should be noted that most Spanish foundations include in their bylaws a broad range of public benefit goals, in order not to limit their future operations and fundraising opportunities. Furthermore, they frequently label as ‘research’ activities that do not fit with the EUFORI conceptualisation of R&I foundations (e.g. publishing and disseminating academic works).

In order to overcome this dual challenge, multiple secondary information sources were combined in order to identify a representative group of R&I foundations according to the EUFORI definitions of ‘research’ and ‘innovation.’ Sources included directories of scientific, research and technological development organisations under the State Protectorate of the Ministry of Education, Culture and Sports; relevant sectorial groups of the Spanish Association of Foundations; listings of scientific and technological parks and innovation centres under the Ministry of Economy and Competitiveness and the Basque, Catalan, Andalusian and Galician governments; as well as foundations’ annual reports and websites.
The results of this editing and systematisation process consisted of an initial database of 528 Spanish R&I foundations that could potentially fit the EUFORI definition and receive the online questionnaire. Each item included basic contact data such as the name and ID of the foundation, their email, phone number and target recipient. The questionnaire was sent to the person in charge of the daily activities and decisions of the foundation, mainly the director or, if unavailable, the chairman.

2.2 The survey

The online EUFORI questionnaire was sent by email, together with a cover letter inviting participation in the study, to the 528 R&I foundations in the ad hoc designed database. This mailing was not effective in the case of 36 foundations. A specific analysis of these items through the available online information and websites, phone calls etc. found that they were either inactive or undergoing a liquidation and dissolution process. Additionally, a group of 34 foundations had terminated their research activity, or the area was insignificant in comparison with their main area of activity. This second group was identified through a similar specific analysis, or through the first variable of the online questionnaire, as these foundations, when answering the filter question ‘Did your foundation fund/operate research and/or innovation (R&I) activities between 2005-2012?’ chose the option, ‘No, go to end of questionnaire.’ Consequently, the census of foundations as an object of analysis was reduced to a maximum of 458 Spanish R&I foundations. We argue that this group of foundations selected for the survey is highly representative of the R&I foundation sector, as they not only fit the EUFORI definition but are also are devoted to R&I as one of their main areas of activity.

The online questionnaire was filled in, to a greater or lesser extent, by a total of 229 foundations. However, as anticipated, not all the respondents can be considered R&I foundations, as 21 of them (9.2%) declared they had not been funding or operating research and/or innovation activities. Consequently, the final sample was reduced to 208 valid surveys, implying a response rate of 45.4% over the final census of 458 foundations that were the object of analysis. This is an overall improvement on the usual response rate for online surveys using the methodology described here, and involves a sample error for the worst possible case of \( p=q=0.5 \), of +/-5.03 %, which is within commonly accepted limits. However, despite the high response rate, it should be noted that the considerable length of the initial (complete) version generated a significant increase in the number of missing values as the questionnaire went on, preventing the conclusion of statistically significant results for some of the variables.

Finally, it should be mentioned that 63.9 % of the questionnaires filled in between April and August 2013 were the complete versions, while the remaining 36.1 % were the short versions, filled in between September and early November 2013.

2.3 The interviews

The method of the qualitative part of the study consisted of performing six semi-structured interviews with a selection of both representative R&I foundations (3) and external stakeholders (3). As the reference period of the EUFORI study was 2005-2012, the general selection criteria consisted of identifying which institutions are not only highly representative of the main transformations occurring during this period
both in the foundation sector and in the field of R&I funding and policies – already outlined in previous section – but which can also offer a global vision of the following challenges due to their professional background and position, namely:

1. The internationalisation of R&I players.
2. The growing importance of the involvement of businesses in the R&I field.
3. The deployment of active R&I policies at a State and regional level, under the stimulus of European policies in this field.
4. The institutionalisation of the Spanish foundation sector in general.
5. The consolidation of corporate foundations active in the field of R&I, and the restructuring of corporate foundations connected to savings banks active in the fields of social services and culture.

The specific selection criteria for foundations consisted of combining the largest Spanish foundation (in terms of total budget) of a corporate nature, with two relatively small foundations, one independent and the other corporate; all of them sharing a certain degree of internationalisation, innovation support and leading roles in collaboration networks; as well as utilising a range of tools (from prizes to science museums, fellowships or debate platforms). The specific criteria for stakeholders required expertise in the subfields of innovation, R&I policy and fundraising for R&D organisations. The presence of one expert formerly counseling the Ministry of Science and Innovation under Socialist rule (2008-2011), was combined with the participation of a current representative of a public foundation with the responsibility of promoting R&I at a State level, appointed by the conservative government now in place. An independent consultant with a long track record of fundraising at both a national and European level was also included.

As a result of the combination these general and specific selection criteria, the participation of the following interviewees was secured:

- Teresa Sanjurjo, Director, Fundación Príncipe de Asturias (founded 1980). This Foundation was created at the beginning Spain’s transition to a democratic system. It aims at consolidating the existing links between the Principality and the Prince of Asturias, and at promoting the scientific, cultural and humanistic values that form part of mankind’s universal heritage. The Prince of Asturias Awards, consisting of EUR 50 000, a specially commissioned Joan Miró sculpture, a diploma and an insignia, are presented annually by HM King Felipe VI in Oviedo. They include a ‘Technical and Scientific Research’ category, rewarding both basic and applied research achievements. The Foundation is a member of the European Foundation Centre and the Spanish Association of Foundations. Furthermore, Teresa Sanjurjo is a member of The Hague Club and used to be the director of the Spanish Association of Foundations.
- Enric Banda, Manager of the Area of Science, Research and Environment, Fundació ‘la Caixa.’ A general-purpose foundation with a strong social focus (receiving over 60 % of its investment), Fundació ‘la Caixa’ has also a very active profile as a supporter of both research (mainly through grants for institutions and researchers in the fields of biomedicine and environment), and research-related activities (science museums and science education). The origin of this foundation goes back to the early 20th century, with the institutionalisation of the so-
cial work (‘obra social’) of savings banks, which would later create their own corporate foundations. ‘la Caixa’ Foundation is now a banking foundation connected to a publicly traded bank (‘Caixabank’) resulting from the general restructuring of the savings banks sector in the country. With a budget of EUR 500 million for 2010, ‘la Caixa’ Foundation ranked as Spain’s leading private foundation, the second in Europe and the fifth in the world in terms of budget volume. It is also a leading member of the European Foundation Centre and the Spanish Association of Foundations.

- Miguel Osset, Executive director, Fundación Víctor Grifols i Lucas (founded 1998) until May 2014. This corporate foundation was created by the Spanish holding company Grifols, specialising in the health-pharmaceutical sector and parent company of the Grifols Group of companies, mainly active in the research, development, manufacturing and marketing of plasma derivatives and other hospital supplies. The foundation’s mission consists of promoting bioethics through a platform for dialogue between organisations and specialists active in the field of human health. Its activities include awarding grants and prizes, organising conferences, producing and disseminating publications, and collaborating with third-party research projects. Furthermore, Miguel Osset’s previous professional background is in R&D in a consumer goods multinational company. The interview was held while he was the Executive director of the foundation. He is currently a consultant for RRI & FMCG in the Southern European Region.

- José Ignacio Fernández, Director general, Fundación Española para la Ciencia y la Tecnología (FECYT) (created 2001). FECYT is a public foundation dependent on the Ministry of the Economy and Competitiveness, whose mission is to promote science, technology and innovation through integration in society, and at the demand of the needs of the Spanish system of Science, Technology and Business. Its goals consist of increasing private participation (from citizens to organisations) in R&D&I, promoting scientific culture and dissemination, analysing the metrics of science and innovation, increasing the international recognition of Spanish science, and supporting R&D&I management structures through better access to international databases of scientific works. As a public foundation, FECYT has been excluded from our EUFORI database, but it should be considered as a relevant stakeholder that has proactively interacted with private foundations in this field and explored their potential for public policy. On one hand, FECYT coordinates the national network of science, technology and innovation museums comprising over 24 centres, and including the scientific museum currently managed by ‘la Caixa’ Foundation in Barcelona (Cosmocaixa). On the other hand, in 2012 it promoted the Fundación de Apoyo al Museo Nacional de Ciencia y Tecnología (Famuncyt), in order to raise funds for the National Science and Technology Museum. Finally, FECYT has recently promoted the creation of a ‘Counsel of Foundations for Science’ including 10 private foundations supporting R&D&I: Fundación Ramón Areces, Fundación la Caixa (Área de Ciencia, Investigación y Medioambiente), Fundación Científica Asociación Española contra el Cáncer AECC, Fundación Pedro Barrié de la Maza, Fundación Botín, Fundación GMP, Fundación Víctor Grifols i Lucas, Fundación Josep Carreras, Fundación Salud 2000 and Fundación Alicia Koplowitz. It has also launched its own crowdfunding platform to promote individual donations to science (www.precipita.es).
• Diego Moñux, Executive Partner, Science & Innovation Link Office (SILO) (founded 2012). SILO is an advisory firm providing personalised services to companies and institutions’ senior management in the fields of science and innovation policy, internationalisation processes, new technology-based projects and start-ups. Moñux was formerly advisor to Cristina Garmendia while Spanish Minister of Science and Innovation (2008-2011). Before her appointment, Garmendia was President of the Inbiomed Foundation and the Spanish Society of Bio enterprises, and founded Genetrix, a biotechnology company, and YSIOS, a venture capital firm specialising in health and biotechnology, where she returned after her term was over.

• Ricard Valls, Executive partner, Zohar Consultoría and Marketing Social. Ricard Valls-Riera is an independent consultant to nonprofit organizations and public administrations, with 25 years of experience in areas such as social marketing, social innovation, public-private partnerships and fundraising. He is founder of the European and Spanish Fundraising Associations and author of the book ‘How to Raise Funds With Success’ (2002), among other books related to the third sector.

Regarding the interview structure, the semi-structured topic list for interviews, provided by the EUFORI coordinating team as a supporting document for the Amsterdam workshop on 19 September 2013, was used as a basic reference. Additional questions were asked in order to clarify specific gaps in the quantitative data, to snowball the most innovative foundations in the field of R&I, and to effectively tap into the rich background of the interviewees’ expertise.
3 Results

3.1 Types of foundations

The majority of Spanish R&I foundations fund/operate a combination of research and innovation. More specifically (see Figure 3), 58% of R&I foundations funded or operated research and innovation activities between 2005 and 2012, almost doubling those focusing exclusively on research. Only 11% of foundations restricted themselves to innovation activities. It is worth noting that 81% focus exclusively (52%) or mainly (29%) on R&I (see Figure 4), reflecting the highly specialised profile of the foundations in this field.

Most Spanish R&I foundations are of the operating type, which is consistent with the overall profile of foundations in the country. While 83% of them (see Figure 5) state they exclusively use their expenditure to carry out their own projects, 9% use their expenditure on grants for other organisations, and/or to support projects carried out by other organisations. Only 8% consider they combine both types of category.

Figure 3: Types of foundation; research and/or innovation
As a percentage of the total number of foundations (N=208)

Figure 4: Types of foundation according to purpose
As a percentage of the total number of foundations (N=122)

Figure 5: Types of foundations; grantmaking versus operating
As a percentage of the total number of foundations (N=191)

Figure 6: Types of foundations according to year of establishment
Number of foundations by decade (N=115)
Although the average age slightly exceeds 14 years, most Spanish R&I foundations were established during the 21st century, and particularly during the 2000s, thus tending to be the youngest in a young Spanish foundation sector. Although 53% were registered after 2000, only slightly over 5% were created since 2010 (see Figure 6). These data are consistent with the evolution of the institutional framework: the first National Plan of Research, Development and Technological Innovation, started in 2000, combined with regional and EU funding opportunities for research; and the 2002 Foundation Law, currently in force, improved tax incentives for corporate and individual donors to all foundations, and was followed by specific tax breaks for R&I activities that could be accumulated as general deductions.

### 3.2 The origins of funds

#### 3.2.1 Financial founders

Spanish R&I foundations have not been promoted by any type of financial founder in particular. In fact, (1) for-profit corporations, (2) the public sector, (3) other nonprofit organisations (NPOs), (4) private individual(s) or families, and even (5) universities have promoted foundations with similar percentages, all around 30% (see Figure 7). This reflects the adequacy and potential of the foundation as a legal instrument to formalise and funnel the long-term partnerships of different players, both private and public, which are needed in the field of R&I.

**Figure 7: Financial founders**

As a percentage of the total number of foundations, multiple answers possible (N=116)

<table>
<thead>
<tr>
<th>Type of Founder</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>For profit-corporation</td>
<td>35%</td>
</tr>
<tr>
<td>Public sector (government, national or local)</td>
<td>30%</td>
</tr>
<tr>
<td>Other non-profit organisations (associations, etc.)</td>
<td>28%</td>
</tr>
<tr>
<td>Private Individual(s)/family</td>
<td>27%</td>
</tr>
<tr>
<td>University</td>
<td>22%</td>
</tr>
<tr>
<td>Research institute</td>
<td>6%</td>
</tr>
<tr>
<td>Hospital</td>
<td>3%</td>
</tr>
<tr>
<td>Other</td>
<td>0%</td>
</tr>
</tbody>
</table>

#### 3.2.2 Income: total income and sources of income

The total income of Spanish R&I foundations adds up to over EUR 980 million, with the majority of foundations having a total annual income between EUR 1 and EUR 10 million. 41% of foundations fall within that range (see Figure 8), while 22% count on a total income of between EUR 100,000 and EUR 1 million per year. As the distribution is highly skewed, the average total income is EUR 7.5 million per foundation/year, but the median value is under EUR 2 million.
The most frequent sources of income for Spanish R&I foundations are the following, in order of importance: (1) service fees or sales, (2) income from the government (EU, national, regional or local) and (3) donations from for-profit corporations. Around 70% of foundations rely on the first two types (see Figure 9); while the third is shared by 53% of foundations. This mix of earned income-government income-business donations is typical of technology centres and parks and research institutes incorporated as foundations. Furthermore, endowment incomes (interest, dividends and capital gains) are seen in 39% of foundations, while slightly over 20% count on donations from individuals and other NPOs. These data are consistent with the weakly-endowed profile of Spanish foundations in general; however, when compared with other areas of activity, they suggest there is a big opportunity for the growth of individual donations and bequests for research and innovation in the country. In the context of the qualitative part of this study, and according to Ricard Valls (executive partner, Zohar Consultoría and Marketing Social), an example of this untapped potential is provided by the Instituto de Ciencias Fotónicas (ICFO, The Institute of Photonic Sciences) in Barcelona: “the success of the ICFO in raising private funds demonstrates that the number of individual donors to R&I is increasing, that there are many untapped wealthy donors with a potential interest in health and science in general, and that crowdfunding is growing in Spain, almost doubling each year. Another tool with a potential for exponential growth consists of actively seeking out bequests, an untapped market worth EUR 132 million, with a high potential for health research”.

Figure 9: Sources of income
As a percentage of the total number of foundations (N=163)
However, as a portion of the total volume of income, the main source of income for Spanish R&I foundations is donations from for-profit corporations. Almost three out of every four Euros, exactly 72% of the (known) income, equivalent to at least EUR 316 million (Figure 10), comes from this source. Other relevant sources of income are: services fees, sales, etc. (12%), income from an endowment (9%) and income from the government (6%). These data are consistent with the corporate nature of some of the largest (in terms of income volume) foundations in the field, whose budget mainly comes from an annual donation from the business controlling them.

**Figure 10: Sources of income**
As a percentage of the total (known) income

<table>
<thead>
<tr>
<th>Sources of income</th>
<th>Amount in Euros</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income from an endowment (N=29)</td>
<td>41 300 000</td>
</tr>
<tr>
<td>Donations from individuals (N=14)</td>
<td>600 000</td>
</tr>
<tr>
<td>Donations from for-profit corporations (N=39)</td>
<td>316 000 000</td>
</tr>
<tr>
<td>Donations from other nonprofit organisations (N=14)</td>
<td>4 678 849</td>
</tr>
<tr>
<td>Income from the government (N=48)</td>
<td>26 444 204</td>
</tr>
<tr>
<td>Service fees, sales etc (N=48)</td>
<td>50 487 374</td>
</tr>
<tr>
<td>Other (N=17)</td>
<td>1 615 927</td>
</tr>
<tr>
<td>Unknown (N=17)</td>
<td>539 148 215</td>
</tr>
<tr>
<td><strong>Total income</strong></td>
<td><strong>980 274 569</strong></td>
</tr>
</tbody>
</table>

### 3.2.3 Assets

The total assets of Spanish R&I foundations add up to over EUR 4 690 million, with a majority of foundations counting on assets between EUR 1 and 10 million, followed by those within the EUR 10 to 100 million range. Specifically, 25% of foundations have assets valued between EUR 1 and 10 million, and 22% range between EUR 10 and 100 million (see Figure 11). This highly skewed distribution translates into average assets of slightly over EUR 41 million per foundation, and a median of EUR 5.5 million.
Taking into account the available observations, the main type of asset held by Spanish R&I foundations consists of long-term investments in securities (e.g. bonds, common stocks and/or long-term notes). This type of asset amounts to 83% of the total (known) assets, equivalent to EUR 2 771 million (see Figure 12). However, these data are strongly conditioned by one case with assets of over EUR 2 767 million, mostly consisting of securities. If this case is excluded, the main type of asset consists of long-term investments in fixed assets, with over EUR 357 million, followed by current assets (over EUR 206 million), and long-term investments in securities (EUR 169 million). Once again, it should be noted that there is no cap on shareholdings in companies that foundations own in Spain, so the foundation legal formula is sometimes utilised to favour the control of companies by their owners or managers.
3.3 Expenditure

3.3.1 Total expenditure

The total expenditure of the majority of Spanish R&I foundations during the last year ranged between EUR 1 and 10 million, totalling over EUR 770 million for the sector as a whole. 42 % of foundations fell within that range in a once more highly skewed distribution (see Figure 13) translating into an average expenditure of slightly over EUR 6 million per foundation/year, with a median value of almost EUR 2.3 million.
Expenditure on research by Spanish R&I foundations is almost triple those devoted to innovation. While the foundations in our sample devote over EUR 240 million to research, only EUR 86 million goes on innovation; this latter figure is significantly surpassed by over EUR 109 million of expenditure on ‘other purposes’ (see Figure 14). These data are consistent with the presence in the field of some of the largest (in terms of income volume or assets) foundations in the country, characterised by a general purpose profile, combining research and research-related activities with social, educational or cultural goals. In the context of the qualitative part of this study, they are also consistent with the comments by Diego Moñux (Executive Partner, SILO), who argued that ‘private R&I foundations have effectively contributed to enhancing the prestige of well-established researchers and the social valuation of basic research, but their role supporting technology transfer and developing public-private partnerships for innovation has been below potential so far in Spain.’
3.3.2 Research

Spanish R&I foundations overwhelmingly prefer to fund applied research instead of basic research. In monetary terms (see Figure 15), the financial resources devoted to supporting applied research (over EUR 70 million per year) are almost triple those devoted to basic research (over EUR 26.5 million per year).

Figure 15: Distribution of expenditure on research; basic versus applied
As a percentage of the total number of foundations (N=72)
Spanish R&I foundations overwhelmingly prefer to fund direct research activities, instead of research-related activities. The available data suggest funding for direct research activities are almost double (EUR 82 million) the resources devoted to research-related activities (EUR 45 million) (see Figure 16).

**Figure 16: Distribution of expenditure on research; direct versus research related**

<table>
<thead>
<tr>
<th>Expenditure</th>
<th>Amount in Euros</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct research (N=55)</td>
<td>81 912 489</td>
<td>34%</td>
</tr>
<tr>
<td>Research related (N=55)</td>
<td>45 130 933</td>
<td>19%</td>
</tr>
<tr>
<td>Unknown</td>
<td>113 605 694</td>
<td>47%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>240 649 116</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Additionally, Spanish R&I foundations devote twice as much to funding their own operating costs as to grants (including awards and prizes). 67% of foundations’ total (known) expenditure on research goes into funding their own programs, projects or centres, while only 32% goes into grants (see Figure 17).

**Figure 17: Distribution of total expenditure on research (both direct and research related)**

As a percentage of the total (known) expenditure

- Grants (N=60): 32%
- Own operating costs: 67%
- Other (N=61): 1%

**Expenditure on research**

<table>
<thead>
<tr>
<th>Expenditure</th>
<th>Euros</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grants</td>
<td>34 638 460</td>
</tr>
<tr>
<td>Own operating costs</td>
<td>71 503 451</td>
</tr>
<tr>
<td>Other</td>
<td>518 439</td>
</tr>
<tr>
<td>Unknown</td>
<td>20 383 072</td>
</tr>
<tr>
<td><strong>Total expenditure on research</strong></td>
<td><strong>127 043 422</strong></td>
</tr>
</tbody>
</table>
3.3.3 Innovation

The portion of Spanish R&I foundations’ total (known) expenditure on innovation going into funding their own operating costs is triple that going into grants. The ratio is 78% for innovation expenditure on their own projects, programs or centres versus 22% on grants for third parties (see Figure 18).

**Figure 18: Distribution of total expenditure on innovation**

As a percentage of the total (known) expenditure

<table>
<thead>
<tr>
<th>Expenditure on innovation</th>
<th>Euros</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grants</td>
<td>8 777 269</td>
</tr>
<tr>
<td>Own operating costs</td>
<td>31 697 288</td>
</tr>
<tr>
<td>Other</td>
<td>161 316</td>
</tr>
<tr>
<td>Unknown</td>
<td>45 707 057</td>
</tr>
<tr>
<td><strong>Total expenditure on innovation</strong></td>
<td><strong>86 342 930</strong></td>
</tr>
</tbody>
</table>

A total of 93 examples of innovative projects were provided by the 42 Spanish R&I foundations funding/operating them. In order of importance, the fields of biomedicine (cellular therapy and cancer research), information and communication technologies or ICT (telemedicine, online and/or virtual platforms), energy and the environment (mainly eco-efficiency and renewable energy) and nanotechnology were the most prevalent. It should be noted that many of these projects have applied new technological developments to segments of populations that are at risk of social exclusion, such as the elderly or people with physical or psychological disabilities or serious dependency or accessibility problems (Alzheimer’s disease, autism, spinal cord damage etc.), thus involving a clear aspect of social innovation. Some of the innovative projects were funded by the European 7th Framework Programme, or in the context of other competitive calls for funding at a European, national or regional level that were not specifically designed for research initiatives, but had an innovative focus prioritising transnational projects, ICTs, SMEs and/or public-private partnerships (e.g. the SUDOE program 2007-2013 funded by FEDER; or Plan Avanza 2006-2015 supporting ICT usage by the Spanish Ministry of Industry).
### 3.3.4 Changes in expenditure

To conclude this section, it should be noted that the expectations of Spanish R&I foundations regarding R&I expenditure for the following two years are not bad, if the socio-economic context of the country is taken into account. For 2013 compared to the previous year, 37% of foundations expected their expenditure to remain about the same, with another 33% expecting it to increase (see Figure 19). For 2014, 61% expected their expenditure to remain about the same as in 2013, and only 11% expected it to decrease (see Figure 20). This suggests that the impact of the crisis had already caused its greatest damage in 2009-2012.

### 3.4 Focus of support

#### 3.4.1 Beneficiaries

The most frequent beneficiary profiles for R&I foundations consist of research institutes and higher education institutions (HEIs); individuals being directly served by only 33% of foundations, mainly through prizes, grants and fellowship for research (see Figure 21). These data are consistent with the emergence of two important subcategories of R&I foundations, which are fundraising tools for the organisations controlling them: university foundations funnelling research contracts and projects and corporate donations into their controlling university, and ‘foundations of friends’ supporting research institutes, state agencies and non-profit organisations active in the field of R&I. The latter raise funds for their beneficiary from corporate and individual donors and secure partnerships with other players, both public and private. An outstanding example of this type of foundation is the Fundación General CSIC. Its mission is to facilitate knowledge transfer from the Centro Superior de Investigaciones Científicas (CSIC, the Spanish National Research Council), while promoting and funneling private collaborations with this State agency. The CSIC, a part of the Spanish Ministry of Economy and Competitiveness, is the largest public institution dedicated to research in Spain and the third largest in Europe, with a staff of over 15 000 people. The high prevalence of these beneficiary profiles reflects the adequacy and potential of the foundation as a legal instrument under private law to combine administrative flexibility and favourable tax treatment for the benefit of both its private and public partners.
3.4.2 Research areas

The areas of research supported (funded/operated) by Spanish R&I foundations in 2012 were, in order of importance: (1) medical science, (2) social and behavioural science and (3) engineering and technology. 52 % of foundations are active in medical science (see Figure 22). Social and behavioural science and engineering and technology are chosen by slightly more than 40 % of foundations; followed by 36 % of foundations being active in natural science.

Figure 22: Research areas
As a percentage of the total number of foundations, multiple answers possible (N=72)

<table>
<thead>
<tr>
<th>Research area</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural sciences</td>
<td>36 %</td>
</tr>
<tr>
<td>Engineering and technology</td>
<td>40 %</td>
</tr>
<tr>
<td>Medical sciences</td>
<td>52 %</td>
</tr>
<tr>
<td>Agricultural sciences</td>
<td>16 %</td>
</tr>
<tr>
<td>Social and behavioural Sciences</td>
<td>41 %</td>
</tr>
<tr>
<td>Humanities</td>
<td>19 %</td>
</tr>
<tr>
<td>Other</td>
<td>0 %</td>
</tr>
</tbody>
</table>

3.4.3 Research-related activities

Most Spanish R&I foundations disseminated their research results (i.e. through seminars, conferences and/or publications) in 2012. Additionally, two out of three undertook science communication/education activities (i.e. museums, science parks television programmes) and 58 % promoted research mobility and career development (see Figure 23). Other research-related activities (technology transfer, infrastructure/equipment and civic mobilisation) were undertaken by one out of two R&I foundations. Unfortunately, the number of observations available for this variable (n<10) prevents ascertaining a significant result as to whether foundations have supported different research areas and research-related activities over the past five years, as well as the subsequent changes in expenditure on research and research-related activities.
The geographical dimensions of activities

3.5.1 Geographical focus

Spanish R&I foundations deploy their efforts in a balanced way between a local/regional and the national level. However, the portion of R&I expenditure on a European (Union) or international level is far less (see Figure 24): 6% and 5%, respectively. Although the low number of Spanish R&I foundations undertaking activities at a European (Union) level prevents meaningful conclusions being drawn about the barriers encountered by these organisations when trying to fund R&I projects in other EU countries, some valuable insights can be gained from the qualitative part of the study. According to Enric Banda (Manager of the Area of Science, Research and Environment, Fundació ‘la Caixa’), ‘no significant political or legal barriers exist within the European Union.’ Along those lines and according to Ricard Valls (Executive partner, Zohar Consultoría and Marketing Social), the barriers are instead related to, ‘strong pressure over funds coming from local and regional stakeholders, and a lack of global vision and of global networks on the part of many foundations. Public funding has been too easy for many years, making it useless to invest in fundraising.’ Teresa Sanjurjo (Director, Fundación Príncipe de Asturias) agreed that the barriers are mainly cultural, and emphasises that creating international networks of partners and beneficiaries takes a long time and a great deal of energy. The example of the Prince of Asturias Foundation is highly significant, as it was founded with a built-in international imprint in 1980, but it was limited to the Iberian-American world, and started going truly global in 2000. Once that goal was achieved in recent years, a network of excellence was launched, where former recipients of the Awards prescribe nominees and further commit themselves to the international initiatives of the Foundation.
3.5.2 The role of the European Union

Three out of four Spanish R&I foundations would like to become partners in projects with the European Union, while two out of three considered its role should consist of providing an adequate legal framework, fiscal incentives and a structure to enhance collaboration. The majority of foundations (54%) considered the European Union should contribute to awareness raising about foundations, while 40% expected it to invest in an information infrastructure, and 32% wanted it to evaluate projects from foundations (see Figure 25). In the context of the qualitative part of this study, José Ignacio Fernández (Director, FECYT) argued that ‘the role of the EC through the Framework Programme has been outstanding, as it has acted as a catalyst for excellent and global science in Europe.’ According to Ricard Valls (Executive partner, Zohar Consultoría and Marketing Social), ‘the EU has fully understood that civil society commitment is a necessary lever in order to implement the change of direction of European economies towards innovation.’
3.5.3 Contribution to European integration

Most of the Spanish R&I foundations considered their activities contribute to European integration, in particular regarding integration on research and educational issues. While 89% considered their activities contribute to European integration, 7% stated the opposite, and 4% were not sure. In particular (see Figure 26), 72% felt they contribute to integration on research issues, 52% on educational issues, 48% on cultural issues and 41% on social issues.

Figure 26: Contribution to European Integration
As a percentage of the total number of foundations, multiple answers possible (N=82)

| Yes on research issues | 72%  |
| Yes on educational issues | 52%  |
| Yes on social issues | 48%  |
| Yes on cultural issues | 41%  |
| Yes on other issues | 5%  |
| No | 7%  |
| I don’t know | 4%  |

3.6 Foundations operations and practices

3.6.1 The management of foundations

The planning of the annual strategy of the majority of Spanish R&I foundations lies in the hands of a governing board with elected members. This is the case for 59% of foundations (see Figure 27). A governing board with appointed members is in charge of defining the annual strategy for 34% of foundations, and the original financial founder was only indicated by 12% of them.
The size of the governing boards of Spanish R&I foundations varies widely. The percentages of foundations that are small in size (between three and five members) and the larger ones are not far apart, the average size being 12 members (see Figure 28). On the other hand, supervisory boards tend to be rare and small. Only one out of every two foundations has a supervisory board, and in 48% of cases it is composed of five or fewer members (see Figure 29), the average size being seven members.

Figure 27: Annual strategy of foundations
As a percentage of the total number of foundations, multiple answers possible (N=114)

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>The original financial founder</td>
<td>12%</td>
</tr>
<tr>
<td>Governing board with appointed members</td>
<td>34%</td>
</tr>
<tr>
<td>Governing board with elected members</td>
<td>59%</td>
</tr>
<tr>
<td>Other</td>
<td>5%</td>
</tr>
</tbody>
</table>

Figure 28: Number of governing board members
As a percentage of the total number of foundations (N=110)

<table>
<thead>
<tr>
<th>Number of governing board members</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-5</td>
<td>26%</td>
</tr>
<tr>
<td>6-10</td>
<td>28%</td>
</tr>
<tr>
<td>11-15</td>
<td>19%</td>
</tr>
<tr>
<td>15 or more</td>
<td>19%</td>
</tr>
</tbody>
</table>

Figure 29: Number of supervisory board members
As a percentage of the total number of foundations (N=54)

<table>
<thead>
<tr>
<th>Number of supervisory board members</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-5</td>
<td>48%</td>
</tr>
<tr>
<td>6-10</td>
<td>33%</td>
</tr>
<tr>
<td>11-15</td>
<td>19%</td>
</tr>
</tbody>
</table>

Almost 100% of Spanish R&I foundations have professional paid staff, although micro- and small foundations predominate. More specifically, if 90% of foundations have paid staff, 42% of them do not exceed nine employees and 37% rank between ten and 49 employees, resulting in 80% foundations being characterised as micro- or small foundations, according to the classification criteria suggested by the European Union for small and medium enterprises (see Figure 30). 95 foundations in our sample generate almost 6 000 paid jobs, with an average of 63 employees per foundation, and a median value of 16.
3.6.2 How do grantmaking foundations support research?

A small portion of Spanish foundations consider themselves as grantmaking, and R&I foundations are no exception to this prevailing self-perception. Consequently, the number of available observations on this issue is low (n<30). However, it should be noted that grantmaking foundations overwhelmingly tend to prefer long-term support for projects, to be involved in their implementation, to demand evidence-based evaluations and to proactively search for proposals (see Figure 31).

3.6.3 Engagement in partnerships

Spanish R&I foundations generally tend to develop joint research activities in partnership with other organisations active in the field of R&I. More specifically, 87 % of foundations are partners in developing joint research activities; partner organisations mainly consisting of, in order of importance (see Figure 32): (1) universities (85 %), (2) foundations (79 %), (3) research institutes (68 %), (4) companies (58 %) and (5) other nonprofits (50 %). Although in the minority, collaboration with (1) governments (47 %) and (2) hospitals (44 %) is also relevant.
Two out of every three Spanish R&I foundations considered that their main motivations to engage in partnerships with others in the field of R&I are, in order of importance: (1) pooling expertise and/or sharing infrastructure, (2) expanding activities (internationally or otherwise), and (3) increasing impact. A majority of foundations (see Figure 33) also argued that avoiding duplication of efforts (54 %) and pooling money due to a lack of funds are relevant motivations (53 %).

Figure 33: Motivations for partnerships
As a percentage of foundations, multiple answers possible (N=67)

<table>
<thead>
<tr>
<th>Motivation</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pooling expertise and/or sharing...</td>
<td>75 %</td>
</tr>
<tr>
<td>Expanding activities (internationally or...</td>
<td>69 %</td>
</tr>
<tr>
<td>Increasing impact</td>
<td>66 %</td>
</tr>
<tr>
<td>Avoiding duplication of efforts</td>
<td>54 %</td>
</tr>
<tr>
<td>Pooling money for lack of necessary...</td>
<td>53 %</td>
</tr>
<tr>
<td>Creating of economies of scale</td>
<td>28 %</td>
</tr>
<tr>
<td>Increasing legitimacy</td>
<td>15 %</td>
</tr>
<tr>
<td>Other</td>
<td>4 %</td>
</tr>
</tbody>
</table>

3.7 Roles and motivations

3.7.1 Roles

Two out of every three Spanish R&I foundations considered their role to be complementary or additional to public/other support. More specifically, 67 % of foundations perceived this as their role (see Figure 34) and, also, a majority (58 %) perceived themselves as playing an initiating role, aiming to start a project with the expectation that others will take over. Fewer than one out of three (30 %) considered their role to be a substitute for public/other support, or to be competitive, aiming at competition with other organisations. This perception is consistent with the relatively small size (in terms of income), and the low degree of financial independence (due to an insufficient endowment base) of the majority of R&I foundations in the country. As they mostly depend on income from corporate donations, publicly-funded projects or...
services for clients, they need to take on a complementary role, and to deploy new initiatives in order to secure the collaboration of all the R&I players. However, a revealing contrast to the extended self-perception of this complementary role is provided by the qualitative part of this study, as far as grantgiving is concerned. Diego Moñux (Executive Partner, SILO) asserted that ‘grantgiving R&I foundations should re-orientate their programs in order to behave in a more complementary way relative to existing State public funding, and focus instead on those needs – particularly technology transfer, private innovation and technology-based entrepreneurship that are not catered for by public programs.’

**Figure 34: Roles of foundations**

As a percentage of the total number of foundations by role

<table>
<thead>
<tr>
<th>Role</th>
<th>Never/rarely</th>
<th>Sometimes</th>
<th>Often/always</th>
<th>Don't Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competitive</td>
<td>49 %</td>
<td>18 %</td>
<td>30 %</td>
<td>3 %</td>
</tr>
<tr>
<td>Initiating</td>
<td>17 %</td>
<td>22 %</td>
<td>58 %</td>
<td>3 %</td>
</tr>
<tr>
<td>Substituting</td>
<td>43 %</td>
<td>23 %</td>
<td>30 %</td>
<td>4 %</td>
</tr>
<tr>
<td>Complementary</td>
<td>10 %</td>
<td>20 %</td>
<td>67 %</td>
<td>3 %</td>
</tr>
</tbody>
</table>

### 3.7.2 Motivations

Regarding motivations for foundations to fund/operate R&I, the interviewed foundations and experts suggested there are no substantial legal or fiscal reasons that provide specific incentives for foundations to choose R&I as their field of activity. In fact, many pointed out as a priority that tax deductions for corporate and individual donors to foundations in general should be substantially improved in Spain, along the lines of the tax treatment that France has implemented to promote corporate donations and corporate foundations, or the tax breaks established in the US for individual donors. According to the estimations by Ricard Valls (Executive partner, Zohar Consultoría and Marketing Social), ‘adopting the French model of deductions for corporate giving would boost corporate donations in Spain by 50 %. However, due to budgetary constraints at a State level, no improvements to philanthropic giving are foreseen in the short term, and if implemented they would be quite moderate.’

According to Miguel Osset (former Executive Director, Fundación Víctor Grifols i Lucas), ‘favourable fiscal treatment should not be the leitmotiv of the existence of foundations; instead, its ultimate raison d’être is social transformation, and research and innovation perfectly fit within this.’ In line with this argument, the most frequently alleged motivations to fund/operate R&I are related to ‘the potential of R&I to achieve the ultimate purpose of transforming society through the generation and dissemination of knowledge, and to think globally’ (Enric Banda, Manager of the Area of Science, Research and Environment, Fundació ‘la Caixa’), and the capacity of science ‘to provide role models of effort and excellence for society’ (Teresa Sanjurjo, Director, Fundación Príncipe de Asturias). In the case of corporate foundations an additional
argument relates to the eventual synergies with one company’s industrial and business model. Miguel Osset further explained that the specific choice for bioethics as the exclusive focus of the Fundación Víctor Grifols i Lucas was made by the founder of the company, who wished to actively participate in the increasingly challenging social debate on the subject.

Furthermore, some experts argue there are actually both fiscal and social disincentives for getting involved in R&I though foundations. José Ignacio Fernández (Director General, FECYT) states that both general and R&I specific tax incentives for foundations and their donors should be substantially improved, as existing tax breaks tend to favour direct corporate R&I expenditure by firms, rather than companies donating to foundations that fund/operate R&I. José Ignacio Fernández, however, explained that ‘the main lack of motivation for foundations to fund/operate R&I came from the fact that social incentives for doing so are far more reduced that the social incentives for funding/operating social, cultural or educational programs.’
This section does not have a normative intention – the degree of success of these initiatives is not judged here – but it aims at illustrating innovation in R&I foundations in Spain. Our definition of innovation in this case is very specific: innovative initiatives are those that fully understand and/or realise the potential of R&I as a force to transform society through the generation of new knowledge, the development of new applications of that knowledge and the transfer of new tools and solutions (products or processes) to other economic players. Several categories of specific activities that fit within the proposed definition are described in the following paragraphs.

4.1 Successful public-private partnerships involving foundations and venture philanthropy schemes

The most innovative initiative in the field of R&I in general probably consists of the launching of public-private business consortia for long-term, large projects, mainly under the State-wide CENIT Program. In the specific field of foundations, and despite the fact that the proliferation of new R&I foundations can be partly explained because of the adequacy of this legal formula to articulate much-needed public-private partnerships, these partnerships are not only relatively scarce, but also encounter significant barriers. Some experts have mentioned the charity Cancer Research UK as an international reference for future developments in the field. Although not many successful examples of public-private foundation partnerships in Spain came to the minds of the interviewees, and the social impact of such partnerships is yet to be systematically evaluated, it is undeniable that collaboration schemes involving foundations, as in the Triple Helix formed by the State, the private sector, and universities and research centres, are slowly emerging. The following illustrative examples can be mentioned:

- Research centers incorporated as foundations or created by foundations, that have become internationally recognised for excellence in research and/or innovation through a mix of public-private governance and funding. The Institute of Photonic Sciences (ICFO) in Barcelona provides an outstanding example of such an R&I foundation. Launched by the Government of Catalonia and the Technical University of Catalonia – Barcelona Tech in 2002, it has attracted talented scientists from around the world to conduct both basic and applied research in photonics, developing advanced light-based technologies aimed at creating new knowledge, solutions and tools for the industry. Its facilities have been funded by the Spanish and Catalanian Governments, the EU and the Cellex Foundation (a private foundation focused on giving large research grants within Catalonia). Research at the ICFO is supported by founding institutions, by competitive projects from national and international funding agencies, by R&I contracts, and by donations from private institutions (e.g. private foundations such as Cellex or those connected to former savings banks in the region), companies, and big and small in-
dividual donors (crowdfunding). Another example, although on a more modest scale, would be that of the IrsiCaixa Institute for AIDS Research (founded in 1995). It was founded by the ‘la Caixa’ Foundation and the Department of Health of the autonomous Catalan government, with the aim of contributing to improving our understanding of HIV and AIDS, its prevention and treatments with the ultimate goal of eradicating this epidemic. It is located in a public hospital in Badalona. Apart from the stable funding provided by ‘la Caixa’ Foundation, the IrsiCaixa Institute has succeeded in raising funds from competitive calls at a regional, national and international level, and participates in a consortium that has secured European Commission funding under the 7th Framework Program for Health (e.g. the iHIVARNA Project). A recent example of public-philanthropic partnership is provided by the five-year program against malaria in Mozambique to be developed by Spanish researcher Pedro Alonso, Director of the World Health Organization (WHO) Global Malaria Programme, through the Instituto de Salud Global de Barcelona (ISGlobal). The program (2015-2020) is funded by ‘la Caixa’ Foundation with EUR 5 million and the Bill and Melinda Gates Foundation with EUR 11 million.

- Endowed foundations supporting the transfer of technology by public universities, research groups and research centres through a mix of grants and equity investing in spin-offs originating from their activities, according to program-related investment and venture philanthropy trends. The Botín Foundation has pioneered this approach in Spain since 2005 with its Statewide Technology Transfer Program, involving over 20 research groups active in the biomedical area. From the side of the investigators, this program combines long-term research grants for selected IPs, with management, marketing and legal support for the valorisation (idea evaluation and protection) and commercialisation stages, as well as foundations’ investments in the equity of the eventually resulting spin-off companies. From the side of the industry, the ‘Mind the Gap’ program aims at bridging existing gaps between academic discoveries and the market by funding R&D projects with commercial potential to the validation phase, and by taking mature technologies to more commercially attractive stages of development. The Barrié Foundation has recently launched a training program on the transfer of technology for Galician public universities and researchers in collaboration with Isis Innovation, a subsidiary of the University of Oxford that manages the transfer of technology and academic consulting for its owner and also for external clients.

- Company-sponsored University Chairs at public universities. These Chairs combine new educational offerings with research and research-related activities, all complementing the mainstream offerings at their universities. In some cases the role of the foundation (generally the corresponding university foundation) consists of facilitating the administrative implementation of the partnership (e.g. Fundación Universidade da Coruña and the Inditex Chair of Social Responsibility at the University of A Coruña, sponsored by the global retailer Inditex in Galicia). In other cases the foundation is the sponsor of the University Chair (e.g. the Ramón Areces Chair on Retail Management at the University of Oviedo, sponsored by the Fundación Ramón Areces, connected to the El Corte Inglés Group).

- Foundations from public universities providing professional counsel to PhDs in order to integrate them into companies interested in technology and/or knowledge transfer in their specific field of specialisation (e.g. Fundación Empresa Universidad de Alicante de la Comunidad
4.2. Foundations focusing on the support of an innovation culture

According to Diego Moñux (Executive Partner, SILO), ‘the most substantial cultural transformation in the field of R&I in Spain has consisted of the concept of innovation becoming socially visible and, within some specific contexts, a relevant concern and even a buzzword.’ In this context, foundations that focus exclusively on innovation and try to mobilise public opinion around it in order to increase its perceived value to society have been created. The focus of the Bankinter Innovation Foundation (founded in 2003) provides a representative example of this transformation. It was founded with the motivation of moving away from the traditional concept of R&I foundations. Its mission consists of promoting and consolidating innovation in the Spanish business world, reinforcing the creation of long-term value for all stakeholders, especially entrepreneurs and those that are transformative agents of the country’s economy. Its main activity is the Future Trends Forum (FTF), a multidisciplinary, multi-sectorial and international think-tank focusing on innovation. It is composed of around 300 international experts and leaders of opinion. Its main objective is to anticipate the immediate future, to detect social, economic, scientific and technological trends and to analyse their possible scenarios and impacts on current business models. In 2011 and 2012 it was recognised in the world annual rankings of 'The Think Tanks and Civil Society Program,' of the University of Pennsylvania. In 2012 the foundation ranked twenty-fifth in the top 50 science and technology think tanks in the world; it was the only Spanish think tank out of only 13 European organisations, and the only one dedicated entirely to trends in innovation.

4.3 Projects engaging the public’s interest in research and promoting its social valuation

Some Spanish R&I foundations have taken the lead in transforming the traditional tools of support such as prizes or science museums into innovative media to engage the public’s interest in research, thus increasing the value of R&I in the eyes of larger segments of society.

The Fundación Príncipe de Asturias does high-profile work in mobilising local communities and the national media in science and research. This is achieved not only on the occasion of the awards ceremony – which is subject to strict protocol and capacity restrictions – but also by building long-term relationships with Laureates and by bringing their contributions closer to society. In 2013 the Prince of Asturias Award for Technical and Scientific Research was awarded to Peter Higgs, François Englert and CERN, and the Prince of Asturias Award for International Cooperation was awarded to the Max Planck Society for the Advancement of Science. During ‘Prizes Week,’ a forum on ‘Opportunities in the Max Planck Society for Spanish Researchers’ was organised, and Peter Higgs, François Englert and CERN participated in a ‘scientific meeting’ at the University of Oviedo. After receiving their award, CERN organised, in collaboration with the foundation, a contest to promote science and technology among Spanish youth. In general,
the Laureates participate in a broad set of activities with diverse communities in Asturias. The Fundación Príncipe de Asturias has also organised exchanges and networking opportunities abroad, e.g. between Spanish scientific institutions and researchers and the British Royal Society.

The Fundació ‘la Caixa’ has been the private leader in the field of science museums in Spain. The CosmoCaixa Science Museum of Barcelona, funded and operated by the ‘la Caixa’ Foundation, offers interactive, enjoyable science. In addition to its permanent facilities and open areas, CosmoCaixa offers a scientific and educational program that includes exhibitions, workshops, conferences, courses and debates involving experts from all over the world. Furthermore, ‘la Caixa’ Foundation coordinates a consortium that has developed a research project, funded under FP7 (2007-2013), on ‘Responsible Research and Innovation (RRI) Tools.’ The project plans to develop an innovative and creative set of tools aimed at raising awareness, training, disseminating and implementing RRI, i.e. a process where relevant stakeholders (researchers, citizens, policy-makers, business, educators etc.) work together throughout the whole research and innovation (R&I) process in order to align its outcomes to the values, needs and expectations of European society.

4.4 Foundations working on the interface between R&I and entrepreneurship

The meeting point between R&I and entrepreneurship has attracted a significant portion of innovative projects, some of them at a pilot stage, such as those by the Celera and INLEA foundations. The mission of the Celera Foundation consists of identifying talented people and developing their talent to its full potential. It was founded by Javier García, a university professor with a PhD in Chemistry, founder of Rive Technology, Young Global Leader (World Economic Forum), TR35 Innovator of the Year (MIT), and Silver Medal European Young Chemist (EuCheMS). Its @celera Program aims at accompanying, developing and training talented Spaniards in the field of science, innovation, technology and entrepreneurship. The program hosts a maximum of ten participants, includes a broad set of networking and training opportunities, and lasts for three years. Another representative example is provided by the INLEA Foundation, which focuses on promoting entrepreneurship among research and technology experts, particularly in the field of ICT. The foundation channels the CSR of its parent company, INLEA, specialising in providing technological solutions in the field of education. In 2008 it launched linktoStart, a nine-month comprehensive training and mentoring program that supports the development of new ideas and provides business training for entrepreneurs in Spain’s ICT sector in order to transform their technology-based projects into a business model worthy of the attention of investors. The foundation also organises a training program for future business angels.

4.5 Introduction to the market of socially innovative products, methodologies, services and/or technologies

The sub-category of the application of research and technology to improve the quality of life of people with disabilities or dependencies has been the object of many innovative projects led by foundations that combine a strong social orientation with an interest for adapted technologies. Fundación ONCE (founded
in 1988), a long-term member of both the European Foundation Centre and the Spanish Association of Foundations, and a leader of the institutionalisation process of the third sector in the country, has a track record of achievements in developing new adapted technologies and influencing public policy in order to improve accessibility for the visually impaired and other segments of population with disabilities. In the specific field of adapted tourism, the Fundación Lantegi Batuak, with a long track record of integrating disabled people through employment in firms with a strong technological component, has launched the BBK Bilbao Good Hostel, the first hostel managed by disabled people in the Basque Country. It is also adapted to host disabled people, and 52% of its guests are international.
5 Conclusions

The following conclusions consist of two parts. First, an interpretation of the highly representative results of the EUFORI study in Spain. On the quantitative side, 45.4% of the census of 458 R&I foundations agreed to participate in the study. It should be noted that this census exclusively includes foundations that not only funded/operated research and/or innovation according to the EUFORI definitions between 2005-2012, but most of them prioritised R&I as their top areas of activity. On the qualitative side, six interviewees representative of both relevant foundations and stakeholder groups shared their expertise on the sector. The generous and insightful collaboration by all of them – both the foundations answering the questionnaire and interviewees – is deeply appreciated by the authors. Secondly, these conclusions are also based on the extensive research and practical background of the authors in the Spanish foundation sector, as they were the researchers in charge of the first census and the socioeconomic characterisation of Spanish foundations (the Institute of Strategic Analysis of Foundations or the INAEF project, 2010-2011).

5.1 Main conclusions

R&I foundations show some relevant differences regarding the basic features of the Spanish foundation sector as a whole, as characterised in Rey and Álvarez (2011a and 2011b). Although research and innovation are priority areas for a select group of well-established, influential, generalist, corporate or family foundations in existence over 30-50 years, most Spanish R&I foundations belong to the 21st century and tend to have a specialised profile. Apart from being the youngest in a late-arriving foundation sector, R&I foundations are relatively more active, bigger in terms of average income, and their activities are geared to a greater extent to a national level, to the detriment of the regional and local levels. With the aforementioned exception, another difference relates to the outstanding role played by the public sector, particularly at a State level and also in certain regions. National Ministries, regional governments (Madrid, Catalonia, Navarra and the Basque Country contribute with the largest R&D expenditure as a percentage of regional GDP), and public agencies, universities and hospitals have been actively involved in the creation, governance, promotion and support of R&I foundations during the last two decades.

The early 2000s saw a true turning point for R&I foundations, as the incentives and public funding opportunities derived from the First National Plan of Research, Development and Technological Innovation were combined with public funding for research at a regional and European level. Improved tax breaks for donors to research foundations and their activities built on the broader trend of increased business expenditure in R&D. All these variables, in combination with improved social and media perceptions of the potential contribution of research activities to societal welfare, resulted in a boom of this type of foundation both in terms of the number of new players and the resources attracted and applied.
However, it should be noted that the reference period of the EUFORI study (2005-2012) includes two radically different stages of foundation development: the first five years fully captured the effects of this boom, while from 2010 onwards the consequences of the economic recession become evident, particularly on the side of public funding. A significant portion of R&I foundations experienced staff cutbacks and financial hardship during this period, and some merged or even terminated their activities. The stress was greater for those with undiversified income structures and/or a low capacity to generate earned income, particularly if they were dependant on non-competitive sources of public funding and/or certain corporate donors – e.g. savings banks. Technology centres, parks and institutes incorporated as foundations and promoted by regional and local governments and universities provide a case in point of the different effects of the crisis on R&I foundations. While some lacked the capacity to innovate or a strategy to compete for sustainable business partnerships and service contracts, or faced closures and mergers during the period, others have grown and become leading organisations in a European context.

Regarding size in terms of both income and assets, R&I foundations include a greater percentage of large organisations relative to the sector in general. On one hand, a certain critical mass of resources and the capacity to commit them in the long term are obviously required to operate ‘research’ and ‘innovation’ according to the EUFORI definitions. On the other hand, the specific structure of this sector in Spain has resulted in a diverse group of major players in this area of activity. While the diversity of these financial founders reinforces the idea that traditional foundations have expanded or added research to their preferred areas of activity, it further suggests that the new profiles of founders have been entering the foundation sector with research as their top or only purpose. Traditional and new players – typically businesses, public agencies, other nonprofits and organisations and centres active in the fields of higher education and health – have funnelled or helped to attract an unprecedented volume of resources into research during the last two decades.

R&I has become one of the top priorities for some of the largest family endowed (e.g. Botin, Areces, Barrie), and corporate (e.g. Mapfre and la Caixa) generalist foundations in the country. Also, some specialised R&I foundations rank among the biggest non-family, non-corporate foundations in Spain in terms of revenue. This is the case of the Tecnalia Foundation, based in the Basque country, and which is the largest private R&D&I entity in Spain and the fifth largest in Europe. This applied research private foundation, resulting from the merger of eight technological centers, has a substantial impact at a local industry level. In 2012 it reported staff of 1 473 people and an income of EUR 110 Million. Tecnalia develops products, delivers services and participates in high tech startups in a diversity of areas, from energy to health. According to the European Research Rankings, it ranks 20th out of over 5 000 organisations in Europe for its participation in the VII Framework Programme projects (participating in 353 projects and leading 76 between 2007 and May 2013).

As for the business model of R&I foundations – understood as being how they create and capture social and economic value – an overwhelming majority (83 %) perceive themselves as operating only; whereas only 17 % self-report as being grantmaking (solely, or in combination with the management of their own programs). The operating profile is more prevalent than for the sector in general, with 74.6 % of Spanish foundations considering themselves as operating. However, this apparent ‘operating’ homogeneity
conceals an extremely rich diversity of foundation models and, ultimately, also the heterogeneity of the visions of the roles that foundations might play in society. This diversity is undoubtedly a source of dynamism for the sector, but should be carefully taken into account when making international comparisons. The typology we propose in order to better understand the models and roles of the main groups of R&I foundations coexisting in Spain distinguishes between: 1) R&I foundations created by entrepreneurs and wealthy families; 2) corporate R&I foundations; 3) R&I foundations promoted by other nonprofits; 4) R&I foundations instrumental for one public entity; and 5) technological centres and parks and R&I institutes or groups incorporated as foundations.

The first distinct type of R&I foundation constitutes a minority created by entrepreneurs and wealthy families. Apart from the aforementioned traditional endowed foundations, new players such as the Rafael del Pino (1999), Esther Koplowitz (1995), Alicia Koplowitz (2003) and Cellex (2003) foundations have recently emerged. Cellex has the lowest institutional profile of the four foundations, but is the only one exclusively devoted to research. Created by Pere Mir, an entrepreneur and former university professor with a PhD in Chemistry, its focus is on supporting top performing research centres in Catalonia. In 2010 the Esther Koplowitz and Cellex foundations gave the largest private donations to science ever recorded in Spain, mostly to one centre devoted to translational biomedical research. The Koplowitz Foundation donated EUR 15 million to the biomedical research institute at the Hospital Clinic and the University of Barcelona (IDIBAPS); and shortly afterwards the Cellex Foundation donated EUR 10 million to the same centre, and also EUR 16 million to the Institute of Photonic Sciences (ICFO) in Barcelona.

The second type is composed of corporate foundations, both of a generalist and a specialised character. Mapfre (insurance), la Caixa and BBVA (banks) foundations stand out in the first sub-category, as they have a broad purpose but donate significant amounts to R&I, deployed through the sustained funding of their own research institutes and science museums, the operation of selected research programs, and grants and prize awards. In the latter category the BBVA Foundation’s generously-endowed ‘Frontiers of Knowledge Awards’ should be mentioned. The BBVA Foundation selects the recipients of these research awards in collaboration with the Spanish National Research Council (CSIC), in the categories of Basic Science (Physics, Chemistry, Mathematics), Biomedicine, Ecology and Conservation Biology, Information and Communication Technologies, Economics, Finance and management, and Climate Change.

Unsurprisingly, most specialised corporate foundations are controlled by pharmaceutical, health and chemical companies, as is the case of the Víctor Grifols I Lucas Foundation. According to its former Executive director, Miguel Osset, ‘the Foundation can be a useful tool because it is not under the pressure of the bottom line of the company, and this guarantees a certain autonomy for a more open and long-term vision. The combination of autonomy and integration with the company provides foundations with an authoritative voice.’

It should be noted that most of these family and corporate R&I foundations have one important grantmaking activity (in fact in the United States they would probably be labeled as grantmakers), but prefer to present themselves as operating in the eyes of public opinion for several reasons. First, they try to prevent or minimise the external pressure from organisations and individuals searching for research funding, and to
avoid unsolicited grant proposals. Second, they expect to maximise the image returns on their donations by publicising the programs they support as their own. Third, their managers frequently adopt a hands-on approach and get involved in the implementation and follow-up of the projects they support.

**The third** type of R&I foundation includes those promoted by other nonprofits, mainly mono-cause associations (i.e. those focusing on the prevention and treatment of one illness or health problem in particular), and by scientific societies. The scientific foundation of the Spanish Association against Cancer (Fundación Científica Asociación Española contra el Cáncer AECC) is the oldest and most established within the first subtype; while the Fundación Española del Corazón, promoted by the Spanish Society of Cardiology (originating in 1967), is probably the oldest example of the second. Regarding expenditure, these foundations mostly focus on funding research projects and fellowships for their preferred cause, on raising social awareness about its relevance, and on disseminating applied research. On the income side, they frequently reinforce the fundraising capabilities of their founding nonprofit, as they combine the possibility of receiving tax-favoured donations, with the capacity of integrating donors (‘friends’ or supporters of the cause) and other relevant stakeholders under their governance, without granting them membership rights.

**The fourth** and relatively large group of R&I foundations is made up of those that are instrumental for one public entity, such as a university, hospital, research centre or development agency, either national, regional or local. In this case the perceived advantage of the foundation formula consists of the administrative flexibility deriving from its private nature. The controlling public entity uses the public initiative, private foundation to raise funds from institutional and individual donors who are interested in earmarking their contributions for one particular centre, project or researcher. In this way it is perceived as a friendly interface between business and civil society. The Fundación Pro CNIC provides an outstanding example, as the tool of the public National Centre for Cardiovascular Research (Centro Nacional de Investigaciones Cardiovasculares, CNIC), headed by the world famous cardiologist Valentín Fuster, it raises private funds. Its board comprises only chairmen from leading Spanish companies. Additionally, the controlling public entity frequently uses the foundation, on an overhead basis, to flexibly manage research projects and technical assistance contracts, as it can source from suppliers without complying with the strict rules of public contracting, and hire personnel without further overloading public administrations. Most of these instrumental foundations have a reduced permanent staff mainly dealing with management and administration as they contract with the IPs (researchers or university professors) and take responsibility for the short-term hiring of the research personnel and interns that may be required on a project-by-project basis.

**The fifth** type is composed of technological centres, technological parks, and R&D institutes, centres or groups incorporated as foundations and therefore operating with their own legal status. The staff tends to be larger than in the previous category and is mainly made up of researchers and technicians. Their boards frequently comprise a mix of representatives from public administrations, public universities, businesses and industrial associations.
Some of these foundations integrate a broad expertise and an industry-wide scope, as is the case of the aforementioned Tecnalia Foundation, or of the Parc Científic de Barcelona (PCB), the oldest scientific park in Spain (created in 1997), hosting over 2,000 researchers and staff members, and managed by a public-private board. Others have a more specialised profile. The Galician region hosts several outstanding examples of specialised, fast-growth foundations in this category, well connected to European networks and funding. Some focus on the area of technological expertise of the founding research groups or university departments, such as the Galician Research and Development Centre in Advanced Telecommunications (Gradiant) Foundation. This foundation originated from the Signal Processing on Communication Group at the University of Vigo in 2007, and is devoted to generation and transfer of knowledge in information technology and communications (ICT) to private companies. Its board is made up of representatives from the public sector (the Ministry of the Economy and Industry and the Innovation Agency of the Regional Government of Galicia), the three public universities in Galicia and seven telecom companies. With a budget of EUR 5 million in 2014, it is participating in seven European projects. Other foundations focus on one industrial or economic sector, such as the Centro Tecnológico del Mar-Fundación CETMAR (2001), promoted by the Regional Government of Galicia and the Science and Innovation Ministry to support R&D&I in the maritime and fishery sector. A third type of specialised foundation serves the R&I priorities of a group, as is the case with the Galician Automotive Technology Centre (Centro Tecnológico de Automoción de Galicia, CTAG). This foundation aims at making automotive companies more competitive through the implementation of new technologies and the encouragement of research, development and innovation. The CTAG Foundation is integrated with the Cluster of Automotive Firms of Galicia (CEAGA), formed by the PSA Peugeot Citroën factory in Vigo in 1997. The Cluster itself was incorporated as the CEAGA Foundation in 2006 and currently involves over 100 automotive suppliers. These models –both generalist and specialized in research groups, industry clusters or sectors- have been extended to most Spanish autonomous communities, and have reached a considerable level of development in the Basque Country, Catalonia, Madrid, Navarra, Andalusia and Comunidad Valenciana.

5.2 Strengths and weakness of the R&I foundation sector in Spain

The R&I foundation sector in Spain emerged and grew rapidly between the late 1990s and 2008 in the context of a favourable policy framework at a State and regional level under the stimulus of European policies in the field of R&D, of increasing public and private funding opportunities, of the growing internationalisation of R&I players and of a highly institutionalised foundation sector. While the role of the government – State and regional – and of higher education institutions and public research centres (e.g. CSIC) has been pivotal during this boom, there has been also a growing involvement of businesses in the R&I field, providing further resources and outsourcing opportunities. Despite public and private budget cuts due to the economic crisis, previous qualitative and cultural improvements (such as a propensity for public-private partnerships, a quest for excellence and internationalisation, etc.), have survived and become permanent features of a significant portion of the R&I sector in Spain.
In this increasingly competitive environment, there will be opportunities for those R&I foundations that have the organisational capabilities needed to achieve competitive funding at a European level and to increasingly partner with business in knowledge and technology transfer schemes. Another untapped opportunity lies in the market of individual donors. Big individual donations, crowdfunding and bequests for science have only started to be explored by R&I foundations during the last five years, with some few exceptions such as the Fundación para la Investigación Médica Aplicada at the University of Navarra and other health-related foundations. This market holds particular promise given that only a small portion of R&I foundations actually devote their budgets to grantgiving.

From an internal perspective, the most significant weakness consists of the low level of financial independence of a significant portion of R&I foundations, as most rely on a mix of service income, government subsidies and/or business donations, but, except for the large family endowed foundations, lack significant endowments. On the expenditure side, the overwhelming preference for applied research over basic research and innovation, and the small portion of resources available for grants after covering operating costs, may be linked to the self-reported operating nature and complementary role of the sector in the context of the State’s focus on basic research. However, it may also suggest a short-term, low-value added approach to the field of R&I, and the existence of further room for improvements in efficiency. Other important weaknesses lie in the low level of international exposure and in a lack of strategic focus, leading to a moderate capacity for innovation.

On the plus side, Spanish R&I foundations are extremely dynamic in their role of identifying and addressing new needs and areas of activity; they utilise a broad range of approaches to R&I issues, and there is an increasing trend of partnerships as most see themselves in complementary or initiating roles. The partnership between ‘la Caixa’ and the Bill and Melinda Gates foundations against malaria is a case in point. From 2009 onwards the effects of the economic crisis and public funding cuts at a State and regional level have been visible but also ambivalent. While some large corporate foundations have strengthened their budgetary commitment to research, the foundations connected to savings banks have undergone radical restructuring. While a minority of public initiative foundations burst in a bubble-like manner, other R&I foundations with mixed public-private governance have overcome their financial hardships by streamlining their organisational structures and programs, better defining their business models, and becoming further internationalised.

For the sake of simplicity we will use a SWOT Analysis for a synthesis of the internal strengths and weaknesses detected in Spanish R&I foundations through the EUFORI survey and interviews, and the main external opportunities and threats they face according to our historical and policy analysis. The SWOT analysis is summarised below in Figure 35.
5.3 Recommendations

At a European level, the recommendation would be for policy-makers to further advance in their understanding of what foundations in general do in Europe, of their relevance for the wellbeing and civic participation of Europeans, and of their potential to detect social challenges and to take preliminary steps towards solving them in a collaborative and flexible manner in the field of R&I. In this way, not only a truly European framework would be developed to facilitate and internationalise philanthropic activities (whose first step is the European Foundation Statute), but also the EC would further partner with foundations in R&I projects, thus attracting private resources to the field. At the same time, the European Union would further contribute to furthering citizens’ appreciation of and committing resources to science, therefore including civil society in the target of achieving an innovation-based European economy.

At a national R&I policy level, the recommendation would be to further advances in the cultural and structural changes required to extend and intensify partnerships between higher education institutions and public research centres and companies or entrepreneurs so that an effective transfer of knowledge and technology from academia and researchers to businesses and society takes place. Also, incentives for further collaboration in the specific field of innovation should be implemented, and the best practices for the efficient transfer of technology should be replicated. Entrepreneurial ventures by public research groups and units should definitely be facilitated from an administrative perspective.
Both European and national policy-makers have a phenomenal instrument for providing the right incentives in the R&I system in order to attain the aforementioned goals, which are competitive calls for public R&D&I funding (e.g. those under Horizon 2020, or by the Centre for Industrial Technological Development (CDTI) of the Spanish Ministry of the Economy and Competitiveness). In this regard, the most immediate way to commit more of foundations’ efforts and resources to R&I would be to quantitatively prioritise their participation in all groups applying for competitive funding, so that the benefits of partnering with higher education institutions, R&D centres or companies are combined with the potential complementary role of foundations. This could be reinforced with the inclusion of social impact indicators among the grant selection criteria, so that the public benefit roles of the participating foundations and the social outcomes of the project are enhanced.

In the field of overall foundation policy, Spanish policy-makers should consider applying the increased demand for more accountability and transparency to foundations, with more generous fiscal incentives for donations to science, so that the participation of individual donors in R&I funding is boosted. Although public opinion’s fondness for science and research has undoubtedly increased during the last decade, this still has to translate into more private philanthropic support for R&I, which is still mostly perceived as being in the public domain. Wealthy donors, crowdfunding and bequests are yet to be explored to their full potential.

As for Spanish R&I foundations in general, and despite the clear advancement of internationalisation as an important concern, only a very minor portion (11%) actually fund or operate activities at an international or European level. Our main recommendation would be for them to adopt a global vision, even if they do not fund/operate activities abroad. While there already exist a group of Spanish researchers who are global leaders in their specialties and a critical mass of research centres in Spain that are leaders in their fields at a European level, some Spanish R&I foundations are clearly ready to play a similar leadership role as R&I funders or operators. Regarding operating R&I foundations, the most important recommendations would be for them to increase their strategic focus according to an analysis of their own strengths and capabilities, and to become more market-oriented so that the knowledge they create translates into improved or new products, processes etc. that have commercial value. It is imperative that they develop a sustainable business model that combines earned income and competitive public funding under Horizon 2020 and other international opportunities, with a policy to build their own endowment in the long term.

Regarding foundations that mainly fund R&I, our recommendation would be to utilise instruments and approaches that are truly complementary to those of State and European funding. There is clearly a gap at the meeting point between technology transfer and entrepreneurship. Excellent researchers and new technologies with a high commercial potential need high-risk philanthropic investments, management savvy and mentoring before becoming attractive to for-profit private investors and public institutions. Furthermore, R&I foundations can use their connections to wealthy or entrepreneurial families, venture capital firms or corporations in order to increase and multiply their own contributions in this field.

The EUFORI quantitative results reveal further opportunities for the improvement of R&I foundations’ governance and management. First, R&I is not the main activity for 19% of R&I foundations. As one of
the weaknesses of the Spanish foundation sector is atomisation and the advantages of specialisation in the R&I field are clear, it would seem more reasonable to provide incentives for a greater or more solid commitment by the established R&I foundations in this area, complementary to the initiatives already in existence, rather than to support growth in this sector through the creation of new foundations. Second, the financial structure of R&I foundations should be diversified in order to strengthen their independence and sustainability over time, beyond the effects of business cycles. R&I foundations should increase their investment in fundraising among individual donors, both through crowdfunding and bequest building tools. They should and also try to increase donations from other nonprofit donors. Endowment-building policies and active asset management should also be improved in order to increase the portion of income from endowments. Third, it is surprising that only 8% of foundations indicate the business or the government sectors as their target beneficiaries beyond their commitment to the very specific private or public players they are instrumental to. These results suggest the need for stronger and broader partnerships between R&I foundations and both these sectors, which may have a synergic effect on the competitive improvement of all the key players in the R&I system, ultimately translating into economic growth. Connected with the need for a renewed vision of their potential role in society, some research areas that are currently neglected by R&I foundations, particularly those related to the primary sector (agriculture and natural science), should be revisited in the context of the global demand for economic growth based on environmental sustainability. Finally, regarding the motivations to engage in partnerships, both the generation of economies of scale and improved legitimacy are perceived as relevant motivations by a small percentage of R&I foundations. This suggests a need to further explain and input the potential advantages of meaningful cross-sector and intra-sector partnerships, for both increased efficiency and effectiveness in the strategies of Spanish R&I foundations.


Fundación COTEC para la innovación tecnológica (2013) ‘Informe Cotec 2013: Tecnología e Innovación en España.’


Strategic and Research Centre (2013) ‘La inversión en I+D+i 2013. EAE Business Scholl.’ Available at: http://ep00.epimg.net/descargables/2013/03/25/7ca726236e2b6a289e428a514ae7235c.pdf

Websites of the interviewed institutions


Fundació ‘la Caixa’: http://obrasocial.lacaixa.es/laCaixaFoundation/home_en.html


Fundación Española para la Ciencia y la Tecnología (FECYT): http://www.fecyt.es/fecyt/seleccionarMenu1.do?strRutaNivel1=;la32fundaci243n&tc=gobierno_consejos