
In search of excellence - Innovation contests to foster innovation and entrepreneurship in Portugal

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Abstract: Innovation contests are one of numerous initiatives of different nature which have taken place in Portugal over the recent years aiming at raising consciousness of the importance and advantages of innovation and entrepreneurship. From sporadic and unpretentious events before 2000, the phenomenon gained unprecedented dimension and became a popular means that many different organizations use to uncovering novel business ideas and promoting innovation and entrepreneurship. Based on a large data base purposefully built for this research by the author, this paper characterizes the phenomenon of innovation contests in Portugal over the period 2000-2008. Findings show an increasing trend in the number of innovation contests launched annually in Portugal, high rates of rotation of the innovation contests launched annually and growing diversification of promoters.

Keywords: Innovation contest, innovation, entrepreneurship, Portugal.

1. Introduction

Two things appear to be self-evident in the Portuguese economic and competitive landscape. On the one hand, the growing awareness that Portugal's under performance in innovation is essentially structural in nature, where an industrial base of medium and low technology sectors and an insufficient propensity to stimulate innovation entrepreneurship, encourage and nurture novel business ideas, accept risk and deal with failure play an important part. On the other hand, a general perception that innovation and constant search for novel solutions with economic value is, perhaps today more than ever, vital to strengthen competitiveness and revitalize the economy. But history teaches us that the innovation path is not a straight line and involves cultural changes and structural adjustments, starting with changes in the way the society organizes itself for change. The awareness of this has motivated policymakers, business people, scholars and other economic agents to promote numerous initiatives in Portugal over the last years aiming at raising consciousness of the importance and advantages of innovation, persuading businesspeople and investors to place innovation as strategic objective and encouraging would-be entrepreneurs to come forward with novel business ideas.

Innovation contests¹ fit within this set of initiatives to foster innovation and entrepreneurship and "provide a stimulus for new venture creation and for capturing the

ideas, talents and potential in the community” (Russel et al., 2004b). Innovation contests in Portugal are not original or even new, but the phenomenon stands out at present due to its unprecedented dimension concerning the number of innovation contests launched annually from 2000 onwards and the number and kind of promoters organizing those events. Indeed, many organizations of different nature, such as universities, private firms, financial institutions, business innovation centres, entrepreneurial associations or municipal councils, sometimes independently but often in partnership, became actively involved in organizing and promoting innovation contests. It is a recent phenomenon of which there is virtually no knowledge about and, thus, many important questions might be asked at this point concerning the characteristics of the phenomenon, the interest in innovation contests by organizations so different or the link between innovation contests and innovation, to mention just a few. The scientific literature on this topic is rather scarce, in particular literature that goes further than a case study approach and analyse the broader relevance of contests. Former research explored the role and impact of business plan competition in Australia (Russel et al., 2004a), analysed how business plan competitions in tertiary institutions can produce educational benefits to participants (Russel et al., 2004b), focused on the use of internet-based toolkits as a method for new product development in idea competitions promoted by a manufacturer (Piller and Walcher, 2006). Based on a large data base purposefully built for this research by the author, this paper aims to describe the phenomenon of innovation contests in Portugal and characterize its evolution over the period 2000-2008. This new approach sheds fresh light on the use of innovation contests and expose how different organizations in Portugal are making use of this instrument to attain innovation objectives. This is a first step in the direction of understanding the effectiveness of innovation contests in promoting innovation and how different organizations may use this instrument for that purpose.

The paper is structured as follows: a section describing the relevant methodological aspects of the research comes just after this introduction. The next three sections explore the object of this paper by setting the context in which innovation contests have taken place and characterize the nature and scope of these events, examining how the number of innovation contests launched in Portugal evolved over the period under analysis, and characterizing the innovation contest promoters. Some conclusions and policy implications close the paper.

2. Methods

The idea for this research emerged in the course of the author’s participation in four innovation contests between 2006 and 2008, and the perception of the growing importance of these events in Portugal as a means to promote innovation. This paper aims to characterize the phenomenon of innovation contests launched in Portugal in the period 2000-2008. Using Google as the search engine, we have intensively searched the Internet for information on innovation contests launched in Portugal over that period. The Internet is the largest repository of information and it is being used in a growing number of innovation contests as the preferred (even the unique) communication channel between the organizing committee and participants in all stages of the contest. The Internet was fundamental to get access to information and documents about some contests that otherwise would be very difficult or even impossible to obtain. We were able to get information on 121 innovation contests launched in Portugal in the period 2000-2008

plus 9 other (information collected before March 30 2009) to take place in 2009, and for the vast majority of them we were able to get the contest rules and many other documents such as promotional material, application forms, news and event information. In a few cases, we contacted promoters directly to complete the scarce and even inconsistent information we had collected through other sources. The following criteria were observed during the process of collecting information: i) an event was considered an “innovation contest” if it was conceived to engage individuals, groups or firms in competition for a prize or similar incentive; ii) a contest was considered valid only if the object of the contest was to be evaluated from an entrepreneurial or business application perspective and it was subject to rules and conditions of participation set prior to the beginning of the contest; iii) the year of each contest was determined by year of the first day of the application period, no matter how long the application period and the whole contest would last; iv) each edition of a given contest counted as a new contest in a given year.

3. The nature of the Portuguese innovation contests

This section attempts to characterize the nature and scope of innovation contests in Portugal. A contest is an event in which two or more individuals or teams engage in competition against each other, often for a prize or similar incentive.² Contests take place in specific contexts, have distinguishing characteristics, objectives and rules, and, thus, can take many forms. This paper focuses on contests with an entrepreneurial or business content in which the competing ideas or projects are evaluated from an entrepreneurial or business application perspective. Yet, this type of contests can have great diversity in terms of purposes, scope, target audience and type of promoters. Here, we look at contests from the point of view of innovation in an attempt to understand the extent to which these events might be used as instruments to promote innovation and entrepreneurship. Thus, innovation contests might be seen as contests in which innovation is particularly important either as an objective of the contest, access condition or evaluation criterion to rank competing projects or ideas.

In the process of collecting information and selecting the “innovation contests” we have discarded those events that may satisfy some but not all of the requirements set above, including those academic events which are part of academic curricula but are not optional to participants and have no prize, or events to prize a person or firm in which the person or firm to be prized is selected according to merit, without participating in a contest. The prize is certainly a very important element of innovation contests because it is an inducement that attracts contestants to participate and be committed to the competition. From the promoter’s perspective, especially in the case of firms, prizes can be very powerful in achieving innovation objectives (Kamenetz, 2008). Prizes can be broadly classified in two categories, money prizes and in-kind prizes (Russel et al., 2004a). Prizes vary greatly from contest to contest and most contests offered both kinds of prizes. In-kind prizes included consulting (e.g., tax, funding, IPR), incubation and business services, business plan consulting, merit awards, direct admission to other contests (direct access to later stages of other competitions), specialized education and training, internships, prizes (e.g., computer, trophy). Money prizes also vary a great deal from contest to contest, ranging from a few hundred Euros to a maximum of 50000€. Often, money prizes were awarded subject to prize winners starting a business within a given period of time, or the money was awarded as capital for the new firm.

Contests may differ rather substantially in the purpose they are meant to serve, which normally is associated with the promoters' own objectives. These objectives include fomenting entrepreneurship, developing business skills³ of participants, uncovering and supporting novel business ideas (that otherwise would have not been supported or even exposed of), creating new technology-based firms, creating a business culture. Of all objectives set out for these events, promoting innovation is particularly important to most contests launched in Portugal in the period under analysis. Indeed, of all 121⁴ contests launched in the period 2000-2008, 103 (85,1%) considered innovation an important objective to reach, a required access condition for participants, a specific assessment criterion for the competition, or the three factors all together. Most promoters regarded these events as a good instrument to promote innovation since in about 90 (74,4%) contests innovation was considered a very important objective to achieve and quite often the main purpose of the contest. In 57 (47,1%) contests there were specific access conditions to be met concerning the innovativeness of the competing ideas or projects, in many cases with detailed description about the type of innovation accepted. Innovation was also explicitly used as an assessment criterion in 96 (79,3%)⁵ contests, with relative weights ranging from 10%, 20%, 30% to 50% depending on each case. Further to the above, it is important to say that about 34,7% of all contests used the word innovation or its derivatives in the name of the contest which is also indicative of the importance of innovation for promoters.

This link between innovation contests and innovation established by the promoters remains strong across the scope of innovation contests on the dimensions of the degree of idea/project implementation and target audience (participants). Figure 1 shows the scope of innovation contests on these two dimensions, with several examples of contests to illustrate the relationship between them (with no particular order within each level of implementation or target group). In relation to the degree of idea/project implementation, idea contests are at the bottom of the scale since the main purpose was to put in competition new business ideas and creativity. In the second level, participants were required to deliver a full business plan, including a market study, an economic feasibility study and a marketing plan. The requirements of the business plan could vary from contest to contest and in some cases the business plan structure was previously determined in the contest regulation. In the third level, besides a full business plan projects were required to be ready for implementation, including adequate funding structure. It is becoming more common to condition the prize money (or part of it) to the start of a new business within a short period of time (often six months) after the ending of the contest. Prize winners only get the prize money if they start a firm within that period. In other cases, the prize money is not for the winner himself, but converted into capital which requires the starting up of a firm. The top level relates to established businesses and aims to prize business careers, new products or technologies or business internationalization from the perspective of innovation.

Figure 1 Scope of innovation contests.

Degree of idea/project implementation	Established business					COTEC	
						Prémio Produto-Inovação Cotec-Unicer	
						EMAF	
						Inov@nje	
	New firm/ market ready		SHIC '08		Alumnidea		
			Criatividade Empreendedora		START		
			Lena Business		CRIAR 08		
					Concurso de Criação de Empresas Inovadoras de Base Tecnológica		
	Business plan		Bioempreendedor		Concurso JEDI		
			Solvay Ideas Challenge		CINC Cascais		
			Concurso Ideias Luminosas	Concurso Nacional de Inovação BES			
					Concurso de Ideias de Negócio FIVE		
	Innovative business idea	CMSJM - Escolas Empreendedoras	Concurso de Ideias Setúbal Empreende				
			Arrisca Coimbra		Inov@nje	Conc. Ideias "modernizar e Inovar"	
		Cascais - Escolas Empreendedoras	Prémio InnovationPoint 2006		Conc. Regional de Ideias de Negócio		
			Concurso ANJE	Concurso Jovens com iniciativa	Concurso de criação de empresas de base tecnológica Open/Cemicro		
	High school students	University students	Degree holders/ researchers	Persons over 18/ no age limit	Young SME	Other firms	
Target audience (participants)							

Source: Own elaboration.

Innovation contests have two major targeting categories: persons (individually or in group) and firms (often SME). Within these categories, there are four main groups of participants to consider that cover the whole range of the target audience. There is a growing interest in promoting contests for high school students, especially by municipal councils. Other major group is university students, which may include degree holders and researchers and are the favourite target audience whenever higher education institutions are involved in the organization of these events. A third group includes participants aged 18 or over (sometimes an age limit of 35 or 40 is applied) and young SME (less than 1 or 2 years of activity). Group four includes firms of any size or age.

Further to the age and group, most innovation contests impose "membership" restrictions to participants in order to target a particular group, limit the number of potential participants or to meet promoter's objectives. Most frequent "membership" restrictions require participants the condition of students or former students of a particular university, of a higher education student (of any higher education institution), of a firm's employee or collaborator, of a resident of a specific geographic area, have Portuguese nationality, that new firms to be started should be located in a specific geographic area or in the promoter's own incubation premises (often for a year), of being part of the

Portuguese diaspora businesspeople, having an international business of a Portuguese origin. These participation restrictions are, in a sense, in contradiction with the general purpose of contests of promoting innovation, often in high technology industries, because innovation involves, by definition, breaking barriers, and may not go well with some of the restrictions such as being resident in a certain geographic area, locating the firm in a pre-determined incubation centre or being Portuguese not older than 40.

The above is a picture of the nature and scope of today's Portuguese innovation contests. The next two sections focus on the "number of contests" and "promoters" to analyse the evolution of innovation contests from 2000 onwards.

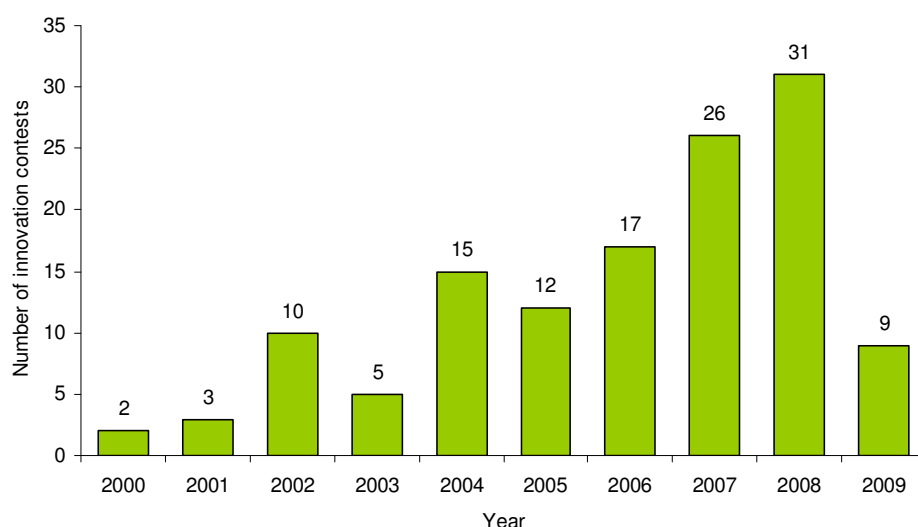
4. A growing phenomenon in Portugal

Innovation contests aiming at promoting innovation and entrepreneurship are not new in Portugal, although it is not an old practice either. The first innovation contests, of which we are aware of, were launched in the second half of the 1990s, but only recently the phenomenon has gained greater importance in quantitative terms and in terms of social visibility and increasing sophistication as an innovation instrument. Figure 2 below shows the number of innovation contests launched annually in Portugal over the period 2000-2009, which amount to a total of 130 contests. It shows an increasing trend in the number of contests launched each year, which is particularly consistent in the period 2004-2008 when an average growth rate of 37.3% per year has been observed. The number of innovation contests launched in 2008, 31 contests, is more than fifteen times bigger than the number of contests launched in 2000, and about two times bigger than that of 2004. The years 2002 and 2004 are two "atypical" years because they do not fit in the overall trend, probably meaning that the phenomenon could have taken off sooner than it really did. 2002 registered a big jump in the number of contests which did not have expression in the preceding and after years due to a combination of new one-off events, new editions of contests that did not run the previous year, and the launch of new biennially contests.

Three factors may explain this increasing interest in innovations contests in Portugal. A first explanation is that promoters truly believe that innovation contests are instruments that, de facto, promote innovation and entrepreneurship, since these events help to create a favourable entrepreneurship environment and have the potential to stimulate people to battle for their novel business ideas. The relevance given to innovation across the range of innovation contests seen above and the increasing diversification of the type of promoters (analyzed in detail below) appear to support that claim, although the fact that there is a high percentage of first edition contests each year, as shown in Figure 2 below, do not seem to support a strong link between innovation contests and innovation. A second factor would be that of an increase on the demand side, that is, a positive change in the people's attitude towards entrepreneurship and the rise in the number of people encouraged to carry forward their innovative business ideas. Indeed, the GEM⁶ (2008) report confirms an important increase in the TEA⁷ indicator for Portugal for the period 2004-2007, leading Portugal to be ranked first amongst the 18 EU assessed countries concerning the entrepreneurial activity. It is not feasible to assess the change on the demand side by the number of participants (projects) in each contest because it is usual the participation in more than one contest with the same idea/project⁸, making it very difficult to cross information. A third reason has to do with what could be called

“contagious effect” due to a mix of media visibility of some contests in mid-2000s, competition among promoters (namely higher education institutions and financial institutions), and the instrumental way some contests are used to reach promoters’ objectives (e.g., getting firms for incubation, getting media attention, supporting local entrepreneurship, promoting innovation within the firm).

Figure 2 Number of innovation contests launched in Portugal in the period 2000-2009.⁹



Source: Own elaboration.

Innovation contests are different in many ways and looking at the number of editions of each contest certainly helps to better characterize the phenomenon. Many innovation contests are one-off events while others are typically re-launched on an annual or biennial basis and are several editions old. Table 1 presents the number of innovation contests by the number of editions and Figure 3 shows the number of first edition innovation contests launched annually in the period 2000-2009 and the percentage of the total innovation contests launched each year (in brackets). Of a total of 130 innovation contests, just less than 45% are first editions and only about 30% of the contests are 4 editions or older; 58 contests are new while 72 are repeated editions.

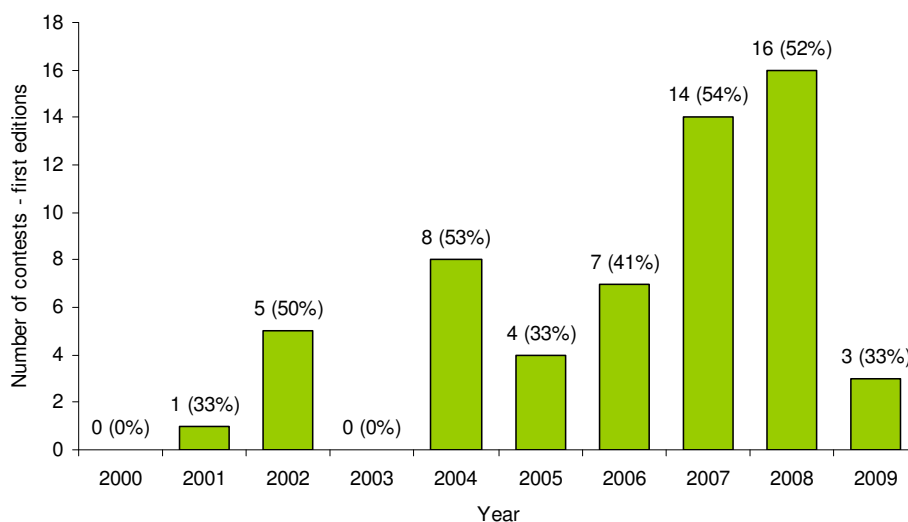
Table 1 Innovation contests launched in Portugal in the period 2000-2009 by number of editions.

	Total	Number of editions											
		1	2	3	4	5	6	7	8	9	10	11	12
Number of contests	130	58	19	13	9	6	7	5	3	3	3	2	2
%	100	44,6	14,6	10,0	6,9	4,6	5,4	3,8	2,3	2,3	2,3	1,5	1,5

Source: Own elaboration.

In Figure 3, it is striking the high rate of rotation of innovation contests launched annually over the period under analysis, which follows the general evolution pattern of contests depicted in Figure 2. Such a high percentage of new contests launched annually, reaching fifty percent change or more in some years, may denote promoters' inexperience and lack of strategic use for this instrument, on the one hand, and failure in meeting objectives on the other hand. Several contests were specific activities of a major economic project benefiting from public financial support and, thus, were planned to be one-off events from the outset.

Figure 3 Number of first editions of innovation contests launched in Portugal in the period 2000-2009.



Source: Own elaboration.

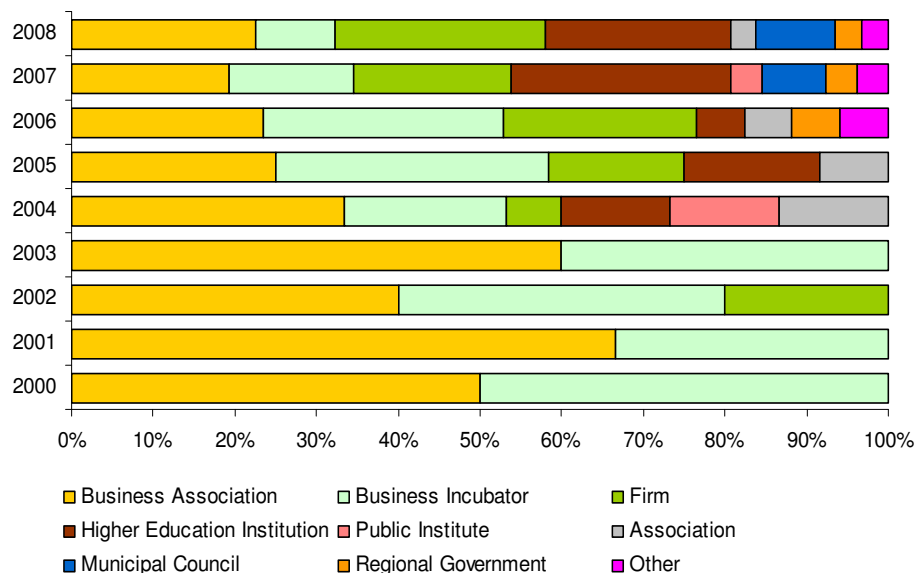
5. The nature of contests promoters

Sometimes independently but often in partnership, promoters play a key role in innovation contests. Although varying from contest to contest, partnership is becoming the dominant form for organizing contests. Better and more detailed regulations, better and bigger prizes, a more demanding competition process, better support to participants over the competition process and a growing involvement of major firms and institutions are clear signals of an increasing level of sophistication and professionalism of these events. Depending on each event in particular, organizing innovation contests may involve several major activities, including: i) forming a partnership with complimentary partners to include specialized expertise (IPR, funding, market analysis, marketing, management,...), sponsorship, technological partners, venture and seed capital, incubation and business services,...), ii) organizing the event (regulation, application forms, promotion material and activities, website,...), iii) screening (pre-selection of applications, if applicable) and selection process (provide coaching and business plan

support, thematic workshops and courses, promote contacts with potential investors funding institutions,...), iv) evaluation and award attribution.

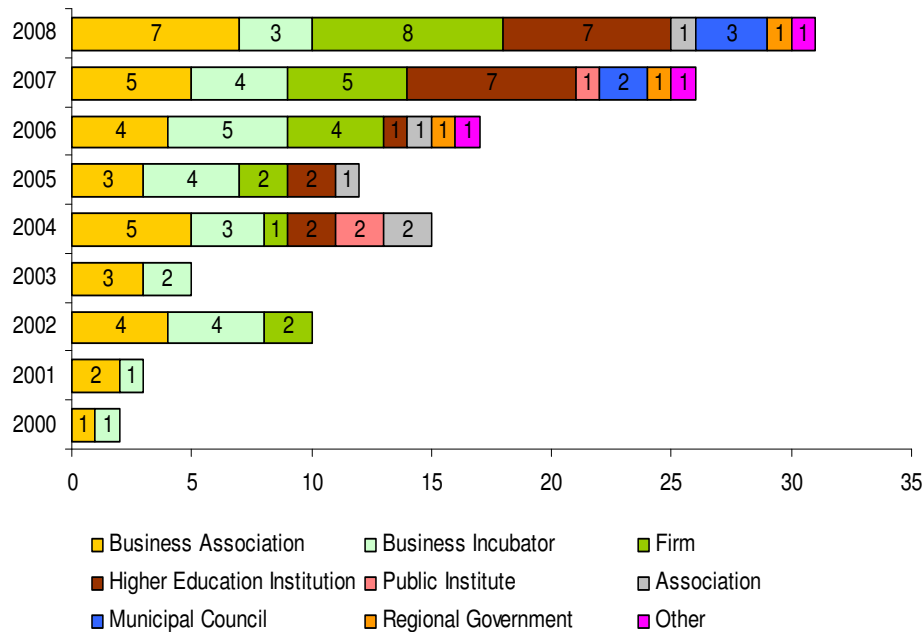
Promoters can be institutions or organizations of a very different nature and this particular aspect represent another major feature of the innovation contests phenomenon in Portugal. The organizing body varies considerably from contest to contest in number, type of institutions or organizations and role played by each of them. Figures 4 and 5 show the evolution of the type of promoters in the period 2000-2008, in quantitative and percentage terms. Information in Figures 4 and 5 relates only to the first promoter, usually the most prominent of the contest organizing body; other co-promoters, sponsors and associated partners are not considered here. Two major trends are apparent: first, a growing diversification in the type of promoters which is particularly clear from 2004 onwards; second, the relative importance of each type of promoter is changing over time, with increasing relevance of business associations, private firms and higher education institutions. While in the year 2000 there were only two types of promoters (business associations and business incubators), in 2009 we have identified nine different types of public and private promoters, including business associations, business incubators, higher education institutions, private firms, public institutes, municipal councils, regional government and other. The growth in the number of innovation contests registered over the period under analysis was followed by a diversification of type of promoters, both private and public, and the enlargement of the target audience, which now goes from stimulating new business ideas in high school students to prize innovative entrepreneur's careers. Such diversification of promoters is informative about the importance given to innovation contests as a means to promote innovation and a clear indication that many different institutions and organizations understand the need to change and wish to have an active participation in the innovation process.

Figure 4 Innovation contests by type of promoter in percentage.



Source: Own elaboration.

Figure 5 Number of innovation contests by type of promoter.



Source: Own elaboration.

Business associations, private firms and higher education institutions appear to be consolidating their relative importance within the different types of promoters, being altogether accountable for 65,4% and 71% of all innovation contests launched in Portugal in 2007 and 2008, respectively. Municipal councils are also showing greater activity, with particular focus on business contests for high school students. On the down side appear to be business incubators but their role is changing from promoters to co-promoters, sponsors or associated partners. Private firms can benefit directly from innovation and are unsurprisingly taking a leading role in innovation contests, not just as promoters but also as sponsors. These firms belong to various industrial sectors including energy, electrical equipment, banking, insurance, chemical and pharmaceutical, security services, postal services, construction and business services. Most private firms that promote innovation contests tend to restrict the contest scope to their business sector in order to increase the prospect of obtaining economic benefits from it. Higher education institutions have direct access to university students, probably the major group of the innovation contests target audience. Besides that, these institutions are interested in improving academic curricula, providing better education and establishing strong links with firms, all of which can be achieved with innovation contests. These factors might explain why higher education institutions appear to be assuming their “natural” role in promoting these events.

There has been no specific public policy or programme in Portugal directed at promoting and financing innovation contests, but most contests benefited directly or indirectly from public funding at least from four different sources: Portuguese higher education institutions are mostly public; there were at least three innovation contests

promoted and financed directly by public institutes, but in many other contests public institutes such as IAPMEI were co-promoters or sponsors; the involvement of regional governments and municipal councils either as promoters of own contests or by attributing sponsorship subsidies in other situations; several contests benefited from financial support from country programmes.

6. Conclusion and policy implications

This paper looks at innovation contests as instruments which are being used by many different institutions and firms in Portugal primarily to promote innovation and entrepreneurship. Literature on this topic is rather scarce, particularly literature that do not take a case study approach and attempts to study the phenomenon from a broad perspective, taking into account the evolution and main characteristics of the phenomenon like in this paper. Several major aspects characterize the phenomenon of innovation contests in Portugal from 2000 onwards, including: i) a general use of contests as instruments to promote and prize innovation across a range of target audiences going from high school students to established businesses; ii) an increasing trend in the number of innovation contests launched annually in Portugal, particularly clear from 2004 onwards; iii) high rates of rotation of the innovation contests launched annually over the period under analysis, which follows the general evolution pattern of the number of contests launched annually; iv) a growing diversification in the type of promoters which is particularly clear from 2004 onwards; v) private firms, higher education institutions and business associations appear to be gaining a prominent role as promoters of innovation contests. This research sheds some light on a virtually unstudied issue in the Portuguese context, but the research approach followed gives it wider relevance.

These findings have policy and practical implications. There has been no specific public policy in Portugal regarding innovation contests so far, although, as noted above, many innovation contests have been promoted by different public institutions and benefitted from different sources of public funding. This might be the appropriate moment for implementing a structured public policy to capitalize from this favourable environment regarding innovation contests. There are clear signs of growing maturity of innovation contests in Portugal which can be seen in the emerging pattern of promoters headed by higher education institutions and private firms, the quality of partnerships formed to run the contests, the competition process, the support and assistance provided to competitors and the prizes offered. On the other hand, there is growing interest in taking innovation contests to high schools, namely by municipal councils. The high rates of rotation registered is a clear sign that the phenomenon has not stabilized yet but there still exists renewed interest and initiative to carry out these events aiming at stimulate the community to carry forward the innovative ideas and projects. Findings have also practical relevance to contest promoters and participants. Maturity and experience will contribute to better innovation contests and will, probably, reduce the total number of contests launched annually, diminishing the proportion of those contests with a local character. Future contest participants will certainly benefit from better contests. Table 2 summarizes the main findings of this paper and the expected practical consequences.

Table 2 Summary of major findings and expected practical implications.

Subject	Major findings	Practical implications
Innovation contests	<ul style="list-style-type: none"> - Growing number of innovation contests and high rates of rotation; - Wide scope of innovation contests in terms of target audience and degree of project implementation; - Greater experience and growing sophistication of contests; - A favourable environment to the development of these events; 	<ul style="list-style-type: none"> - Phenomenon is not stabilized yet (it is likely a future downward adjustment in the number of annual contests); - Organizations and firms keep interest and see efficacy in innovation contests; - Better innovation contests and stronger motivation to participate; - Greater support to competitors over the competition; - More ideas and projects will have the chance to be challenged and eventually implemented; - Stronger culture of innovation and entrepreneurship;
Contest promoters	<ul style="list-style-type: none"> - Growing diversification of the type of promoters; - Growing interest/participation of firms and higher education institutions (HEI) in innovation contests; - Innovation contests are attracting firms of very different sectors; - Events often organized in partnership; 	<ul style="list-style-type: none"> - Innovation contests serve different purposes and firm's interests; - Firms will be intensifying the use of innovation contests to get "cheap" access to external knowledge and novel ideas; - Stronger links between firms, academia and other bodies; - Easy access to students, researchers and knowledge give HEI a privileged position to have a greater role in innovation contests;

Source: Own elaboration.

This study uncovered the main characteristics of innovation contests in Portugal and raised some more questions for further investigation. Most promoters use contests as instruments to promote innovation but the link between innovation contests and innovation is not yet clear due to lack of relevant research. Indeed, no systematic research has been done on this issue to understand the way innovation contests can potentiate innovation. Another important line of research should analyse the motivations of such different types of contest promoters and understand in what way they could better contribute to innovation by promoting and sponsoring innovation contests. A third line of research deserving attention has to do with participants and the benefits they get from participating in innovation contests. This matter has not been much touched in this paper but is absolutely relevant if one is to understand the link between innovation contests and innovation.

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¹ In the data base used for this research there are other expressions to refer to these contests, including "idea contest" (*concurso de ideias*, in Portuguese), "entrepreneurship prize" (*prémio de empreendedorismo*), "business plan contest" (*concurso de planos de negócio*). "Innovation contest" (*concurso de inovação*) appears to be the most appropriate wording to refer to events in which innovation is by far the commonest element.

² <http://en.wikipedia.org/wiki/Contest>.

³ (Russel *et al.*, 2004a) found out that "the most common aim (approximately 60%) cited by organisers is to foster skill development in business planning and entrepreneurial activity within the university and the broader community."

⁴ Despite considering the whole data set - 121 records -, we were unable to find conclusive information on the purposes and assessment criteria of about 2-3% of the cases.

⁵ This does not include those few cases we could not have access to the contest regulation and those cases where regulations were completely vague about the assessment criteria. In some cases, like in the case of contests restricted to biotechnology projects, innovation would be implicit but it has not been considered as such.

⁶ The Global Entrepreneurship Monitor (GEM) research program is an annual assessment of the national level of entrepreneurial activity. GEM (2008) report refers to research conducted in 2007 in 42 countries, of which 18 are EU countries.

⁷ Total Entrepreneurial Activity (TEA) measures the proportion of individuals (between 18-64 years old) in a country that are active in either a nascent business (those that are active in starting up a business and have not paid wages for more than 3 months) or managing a new business (those managing a firm that is 3 - 42 months old). (GEM, 2005).

⁸ For instance, the author participated with the same project in four different contests.

⁹ 2009 includes all the contests about which there was information available on the Internet before the end of March 2009.