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Assessing the impact of Grant Managers on the success of grant applications

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Grant Managers contribute to the mission of research-intensive institutions by helping them to obtain competitive funding. However, their effectiveness in helping institutions and individuals secure funding is poorly studied. In this study, we provide an assessment of the contribution of Grant Managers in attracting competitive funding for research. We compare success rates of funding applications having benefited from specialised input into the grant proposal's content prior to submission (advanced support) with those having received less support. We collected information from two Grant Offices of Portuguese biomedical research institutions from 2008 to 2011 and focused on the European Commission Marie Curie grants. The results show improved success rates for funding applications which have received advanced support, suggesting that Grant Managers providing specialised support are essential for supporting the research activity. This study fosters the debate on Grant Management assessment and may contribute to a wider recognition of the profession.

Keywords: Research Management; Grant Manager; impact assessment; Marie Curie actions; Grant Office; grant success rate

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Understanding the role of Grant Managers

The diversity of funding sources and the general complexity associated with acquiring research funding

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often necessitate the help of professionals called Grant Managers. These professionals help prepare funding applications and facilitate the often complicated application process. Grant Managers embody the promise of money and time for research – two highly valuable commodities for researchers. Given the critical role that Grant Managers may play in contributing to the mission of research-intensive institutions, these professionals should be valued and their profession well recognised.

Grant Managers are part of a larger group of emergent professions in Research Management aimed at facilitating research activity. Research Management has arisen over the last fifty years from the need to manage the growth in number and complexity of research funding applications (Langley 2012). As a consequence, dedicated research offices were established in many universities, particularly in research-intensive institutions. The role of these offices is to provide support to both the individual researchers and wider institutional requirements (Langley 2012). Despite the emergence of dedicated research offices, particularly in countries such as the UK, Research Managers acting as research facilitators remain part of a diverse community of skilled people whose role, whilst increasingly important, is poorly understood (Langley 2012; Poli and Toom 2013; Whitchurch 2008).

A study by Green and Langley (2009) of twenty English universities revealed that Research Management suffers from a lack of sharing of good practice and networking, as well as opportunities for career or skills development. In addition, several people working in the field of Research Management feel they lack a professional identity and a structured career path or formal route for development (Green and Langley 2009; Lewis 2014). Indeed, Research Managers are part of a profession, in which career pathways, qualifications and scholarships may be under developed, not only in the UK but also in many other countries (Kirkland 2009; Langley 2012; Lewis 2014; Poli and Toom 2013; Trindade and Agostinho 2014; Whitchurch 2008).

A better understanding of the specific role of Research Management professionals is therefore necessary. In the particular context of Grant Management, it will help develop assessment methodologies and define best practice. Furthermore, it will foster the debate on how Grant Managers contribute to the mission of research-intensive institutions. We hope that this will also lead to a wider recognition of the profession, strengthening professional identity and providing a more structured career path.

According to Bauer (2001), the field of grants has not typically been thought of as a place of innovative and creative management based upon evaluation and assessment. Some authors argue the need to define more relevant performance indicators than have been traditionally used, such as the amount of money and

the number of grants secured, to measure success (Bauer 2001; Rung 2014). Indeed, to continuously assess Grant Management activities, acceptance of change is inevitable as part of an evolving research system, but any change in the grants system should be aligned with the institution's mission (Bauer 2001).

In this study, we assess the type of support given by Grant Managers, by measuring their level of contribution to successful competitive funding applications. The underlying hypothesis is that specialised support, such as that involving input into the grant proposals content prior to submission (advanced support), increases the success rate of applications, independent of the institution where support is given and of the funding scheme. If these grants are aligned with the institution funding goals and/or mission, then this effort is expected to contribute positively to the institution's overall mission.

A study at two Portuguese research-intensive institutions

We tested whether input into the content of Marie Curie individual type of grants had quantifiable positive effects at two Portuguese research-intensive institutions: the Instituto de Medicina Molecular (IMM) and the Instituto Gulbenkian Ciência (IGC), both located in the Lisbon metropolitan area. These two institutions are amongst the twenty-six research-intensive institutions with an Associate Laboratory status, as part of an extensive and complex national research system (ERAWATCH Website 2015; Vieira and Fiolhais 2015). Launched in 1999, the title of Associate Laboratory was granted by the Ministry of Education and Science to research units (public or private non-profit) that were able to demonstrate (by means of periodic evaluations) that they possess ability to cooperate competently and efficiently towards the science and technology policy objectives (FCT Website 2015).

IMM and IGC share similar features and missions. Both are research-intensive institutions, of private non-profit nature, hosting a similar number of researchers (100–150 PhD researchers, depending on the year). Both are biomedical research centres, fully accredited by the Portuguese research council (Fundação para a Ciência e Tecnologia, FCT), and scored high grade in the 2008 and 2014 international evaluation exercises, commissioned by the FCT. In terms of funding, the IGC and the IMM were ranked in the top ten most active Portuguese research-intensive organisations with funding from the 7th Framework Programme of the European Commission (GPPQ Report 2014).

The mission of the IMM is to 'foster basic, clinical and translational biomedical research' while the IGC is 'dedicated to scientific excellence and to training a new generation of scientific leaders' in the Life Sciences (IGC Website 2014; IMM Website 2014). Marie Curie

individual type of grants provide funding to support the recruitment and installation of internationally competitive postdoctoral and young group leaders, who are key players in the pursuit of excellence in research, thus corresponding to a group of researchers that IGC and IMM were actively seeking to recruit. Marie Curie individual grants also contribute to the IGC's mission goal of 'training a new generation of scientific leaders'. As a result, obtaining Marie Curie Individual type of grants is a funding priority for both institutions.

In this study, we focus on three types of Marie Curie individual grants: Individual Fellowships (Intra-European Fellowships for Career Development – IEF, International Outgoing Fellowships for Career Development – IOF and International Incoming Fellowships – IIF), Reintegration Grants (International Reintegration Grants – IRG and Career Reintegration Grants – CIG) and Welcome Programme Grants (COFUND Welcome II programme, Marie Curie co-funding of regional, national and international programmes). Marie Curie individual grant schemes were maintained throughout the 7th Framework Programmes of the European Commission with minor changes over the period (Work Programmes 2007–2013). There is one annual call in all fields of research for each one of these prestigious grants.

The focus of this study is to evaluate the work performed by two small teams of Grant Managers (1–2 people in each team) during the period from 2008 to 2011. The Grant Management teams together included four staff with a scientific background in biomedical sciences (three with PhDs). The IGC was a pioneer in Portugal in the creation of a grants support structure in mid-2004; the IMM created a similar structure in 2008. Ultimately, the goal of the IMM and the IGC Grant Offices is to foster an environment for additional science funding by increasing competitive international funding. At both the IMM and the IGC, the Grant Managers encourage researchers to apply for grants, in particular international opportunities, and to diversify their funding sources. Support in preparing a grant is given to any researcher requesting it. In addition, for funding schemes such as the Marie Curie individual type of grants that were particularly attractive from an institutional perspective, candidates were generally coached throughout the whole process: from the planning of the application, to preparing the grant, submission and establishment of a grant contract. An effort is made to provide input into the grant's content (advanced support), such as editing, reviewing and/or writing parts of the proposal text. This aims to provide text coherence, logical flow of ideas, clear and simple language style, well-defined objectives and work plan, appropriate alignment with the goals of the funder and with the evaluation criteria, completeness, consistency of the team description and highlight the strengths of the proposal.

Submitted grants	Count	%
<i>Year</i>		
2008	16	20.5
2009	11	14.1
2010	20	25.6
2011	31	39.7
Total	78	100.0
<i>Institution</i>		
IMM	27	34.6
IGC	51	65.4
Total	78	100.0
<i>Funding scheme</i>		
Individual fellowship	49	62.8
Reintegration grant	16	20.5
Welcome II programme	13	16.7
Total	78	100.0

Table 1. Submitted grants – sample characterisation

Marie Curie individual type of grants provide many opportunities for a Grant Manager to input in an effort to effectively address evaluation criteria and render a proposal competitive. Typically, an individual grant application requires the preparation not only of a twenty-five to thirty-page text containing technical/scientific content, but also several other non-scientific aspects such as career goals, training needs, dissemination activities and ethics. Substantial information about the host institution(s) is also required, implying that a proposal should be jointly assembled by the host institution(s) and/or the supervisor and the candidate (according to the Guide for applicants for the Marie Curie Actions for the relevant year and call). Finally, knowledge of European funding policies and the Marie Curie Actions programme is necessary to explain how the project matches the agency's funding goals.

The study analyses seventy-eight Marie Curie grant applications submitted by the IGC and the IMM between 2008 and 2011, including information on date of submission, funding scheme, institution hosting the proposal and evaluation result (approved/

Submitted grants	Count	%
<i>Level of support</i>		
Basic	4	5.1
Intermediate	33	42.3
Advanced	41	52.6
Total	78	100.0
<i>Approved grants</i>		
No	46	59.0
Yes	32	41.0
Total	78	100.0

Table 2. Level of support given and grant evaluation result

Basic support (given to all applications)

Administrative support:

General provision of information on funding application opportunities and/or provision of on-line resources

Intermediate support

In addition to basic support:

Advice on application strategy and/or provision of institutional texts and/or budget review and validation (if applicable)

Advanced support

In addition to intermediate support:

Input into the proposal content including editing, reviewing and/or writing parts of the proposal text. This input focused on either text coherence, logical flow of ideas, language style, clarity of objectives and work plan, alignment with the goals of the funder and evaluation criteria, completeness, consistence of team description, highlight of strengths/positive aspects, etc.

Table 3. Reference classification for the level of support provided to grant submissions

non-approved) (Table 1). The number of submitted grants varied each year, from eleven in 2009 to thirty-one in 2011; the majority of grants were submitted by the IGC (65.4%); and the submission of individual fellowships predominated (62.8%).

Submitted grants were organised according to the level of support given and plotted against the evaluation

result (Table 2). We consider three levels of support defined according to the reference classification in Table 3. The majority of the submitted proposals received advanced support (52.6%), whereas only four applications (5.1%) received basic support and thirty-three (42.3%) received intermediate support. The data show that thirty-two out of seventy-eight submitted proposals were approved (41%).

Using statistics to determine if Grant Managers help secure grants

To address the question of whether advanced support increases the success rate of grant proposals, a statistical analysis was performed using descriptive and inferential uni- and bi-variate techniques (Laureano 2013). To evaluate the significance of the relationship between the levels of support given and grant evaluation result, we used the chi-squared test for independence (χ^2). The relationship is statically significant when the p -value (the probability of getting a test statistic at least as extreme as the one that was actually observed, given the null hypothesis is true) is equal or inferior to 0.05 (level of significance of 5%). In order to complete the chi-squared analysis we used Cramer's V measure of association to assess the intensity of the relationships. Cramer's V coefficient falls between 0 (no relationship between the two variables) and 1

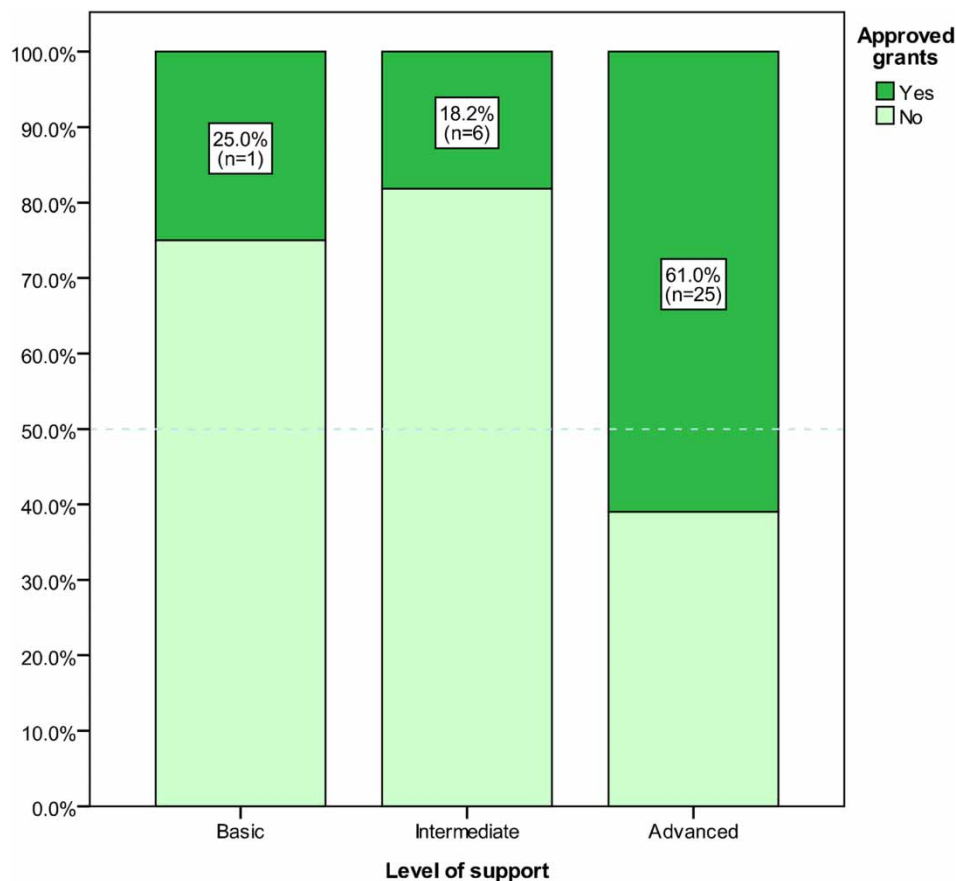


Figure 1. Distribution of the grant evaluation results according to level of support given

Institution	Approved grants	Level of support								Chi-squared test (Cramer's V)
		Basic		Intermediate		Advanced		Total		
		Count	%	Count	%	Count	%	Count	%	
IMM	No	2	66.7	7	70.0	6	42.9	15	55.6	$\chi^2(2) = 1.909; p = .406$ (Cramer's $V = .266$)
	Yes	1	33.3	3	30.0	8	57.1	12	44.4	
	Total	3	100.0	10	100.0	14	100.0	27	100.0	
IGC	No	1	100.0	20	87.0	10	37.0	31	60.8	$\chi^2(2) = 13.642; p < .001$ (Cramer's $V = .517$)
	Yes	0	0	3	13.0	17	63.0	20	39.2	
	Total	1	100.0	23	100.0	27	100.0	51	100.0	

Table 4. Distribution of the grant evaluation results according to level of support given, by institution

Funding scheme	Approved grants	Level of support								Chi-squared test (Cramer's V)
		Basic		Intermediate		Advanced		Total		
		Count	%	Count	%	Count	%	Count	%	
Individual fellowship	No	3	75.0	24	88.9	12	66.7	39	79.6	$\chi^2(2) = 3.340; p = .220$ (Cramer's $V = .261$)
	Yes	1	25.0	3	11.1	6	33.3	10	20.4	
	Total	4	100.0	27	100.0	18	100.0	49	100.0	
Reintegration grant	No	0	0	3	50.0	3	30.0	6	37.5	$\chi^2(1) = .640; p = .607$ (Cramer's $V = .200$)
	Yes	0	0	3	50.0	7	70.0	10	62.5	
	Total	0	0	6	100.0	10	100.0	16	100.0	
Welcome II programme	No	0	0	0	0	1	7.7	1	7.7	NA (Level of support is a constant)
	Yes	0	0	0	0	12	92.3	12	92.3	
	Total	0	0	0	0	13	100.0	13	100.0	

Table 5. Distribution of the grant evaluation results according to level of support given, by funding scheme

(perfect relationship), the higher the value, the stronger the relationship (Laureano 2013).

Figure 1 shows that the applications receiving advanced support are more successful (61%), compared to those submissions receiving intermediate or basic levels of support, in which percentages of success were 18.2% and 25%, respectively. The χ^2 test confirms that the strong relationship between the level of support given and the grant approval rate is statistically significant ($\chi^2(2) = 14.287$; $p < 0.001$; Cramer's $V = 0.427$). Thus, the results show that specialised input of professional Grant Managers into the content of grants prior to submission tends to increase success rates compared to non-specialised forms of support (basic and intermediate support).

We also tested whether the relationship between the level of support given and the evaluation result is independent from the host institution (Table 4) or the funding scheme (Table 5).

Table 4 shows that at the IGC the majority of the proposals receiving advanced support were approved (63%), while the majority of proposals receiving basic or intermediate support were not approved. Also in this case, the χ^2 test confirms that the relationship between the level of support and grant approval rate is statistically significant ($\chi^2(2) = 13.642$; $p < .001$; Cramer's $V = 0.517$). For the proposals submitted by IMM researchers we observe a similar trend: for grant proposals receiving advanced support, more than half were approved (57.1%) while those applications receiving less support had a percentage of approval of 33.3% for basic and 30% for intermediate support, although those differences are not significant ($p > .05$), possibly due the smaller sample size used for this specific analysis.

Finally, the study of the relationship between the level of support given and the approval rates by type of funding scheme (Table 5) indicates a similar positive trend for improved success rates for funding applications which have received advanced support. In this analysis the relationships are not statistically significant ($p > .05$), most likely due to the small sample sizes of submitted grants per type of funding scheme.

In our study, slightly different situations are observed for each grant scheme. Individual fellowships always present low approval rates, independent of the support given, however the approval rate is higher when advanced support is given (33%) in comparison to intermediate (11.1%) or basic (25%) support. Typically, these grants are very competitive: the European Commission official success rates for IEFs, IOFs and IIFs from 2008 to 2011 ranged from 11.8% (on the IIF call of 2010) to 26.6% (on the IEF call of 2008) (EC Officer, personal communication). In line with the observed trend, the specialised input provided to the individual fellowships is substantially above the European success rates for individual fellowships during the period of analysis.

As for the Reintegration Grants, they target a subset of researchers reintegrating in a European research institution having previously secured an independent position. Thus, the number of potential applicants is lower, the competition is less intensive than for the individual fellowships, and success rates tend to be higher: official success rates ranged from 27.8% (on the second CIG call of 2011) to 67.9% (on the IRG call of 2010) during the period of analysis (EC Officer, personal communication). In this study, 70% of the applications having received advanced support and 50% of those having received intermediate support were approved. As before, the specialised input provided to the reintegration grants is above European success rates.

Lastly, Welcome II programme grants correspond to grants co-funded by the national research council (FCT), which organised and launched a call for applications in 2010/2011. Official success rates of the Welcome II call were 88.1% (FCT Activity Report 2011). In this study, all Welcome II programme grants submitted at the IGC and the IMM received advanced support and the majority of these applications were approved (92.3%). These success rates are higher than the national success rate, which is in line with previous results for the other types of funding schemes. When excluding the Welcome II grants from the initial sample in Table 1, the relationship between approved grants and level of support given is still statistically significant ($\chi^2(2) = 5.740$; $p = .049$; Cramer's $V = 0.297$; results not shown). This ensures that including the Welcome II grants in the study does not bias the result that shows that specialised input of professional Grant Managers into the content of grants prior to submission increases success rates compared to non-specialised forms of support.

Looking ahead for extended roles in Grant Management

The provision of advanced support is time consuming therefore a Grant Manager can only support a limited number of grant proposals and researchers. It also requires highly qualified staff, demanding sizable human resources costs. From an institutional perspective, it is important to assess advanced support in order to help senior administration plan and decide the level of human resources that should be invested in Grant Management and that best suit a given institution. The results of this study argue in favour of the idea that specialised input into grants increases their approval rate, suggesting that it is important in a research-intensive institution to have Grant Managers able to provide this type of support.

One may not exclude the possibility that the researchers seeking advanced support from the Grant Manager are a priori those more likely to have their grants approved. Successful candidates can be those

having better knowledge of the grants system, practice of discussing project ideas or simply those who dedicate more of their time to preparing the grant. If that were the case they might be the candidates more likely to seek advanced support and therefore obtain a higher success rate. These features would encourage interactions with the Grant Manager and this could trigger the provision of advanced support. It might thus be important to test whether there is a relationship between the profile of candidates (number of years after PhD, number of grant proposals submitted at the time of the call, etc.) and the success of their grant. This was not tested, and would require additional data. At this stage we can only guarantee that Grant Managers do not select which researchers they support.

It would also be interesting to try and identify the profile of a Grant Manager more suited to providing advanced support. For instance, is it important to hold a PhD? Is it relevant to have a scientific background in the field of the grant? These are questions that may be addressed in future studies. In fact one could also argue that the most important factor is the ability to write well-organised proposals and this would be best achieved by teams of Grant Managers, with both scientific and non-scientific background.

In terms of impact assessment methodologies used in Grant Management, several other approaches could be envisaged, the most direct one being traditional indicators such as the amount of money and number of grants secured (Bauer 2001). Nevertheless, this author draws attention to the fact that traditional indicators can provide superficial evaluation and have little to do with moving the institution towards its pre-defined purpose. Indeed, in countries where research funding is unstable, depending more on availability of government funding than long-term research strategy, traditional indicators may not be suited to assess facilitation in grant preparation. Money is definitely important, but it is equally important to prepare researchers at all career stages for an environment of competitive funding by helping them to become familiar with funding opportunities and confident enough to initiate and carry out suitable applications. We believe that the advanced support described in this study plays a role in developing a proximity culture of co-work between researchers and managers, which has intangible benefits for research-intensive institutions. Indeed, after a period of intense co-work for the preparation of a grant application, it is not uncommon to hear positive feedback from applicants acknowledging the Grant Manager's valuable contribution. It is also pleasant to observe, from a Grant Manager's perspective, that after a period of initial suspicion before the grant preparation work starts, issues such as fear of sharing confidential information or the applicant's own text, tend to fade away.

Research Managers may also have roles in training early stage researchers for dealing with the high

demands of the competitive research funding system. For example, several national doctoral training programmes throughout Europe include grant writing training modules. Such transferable skills are increasingly acknowledged in doctoral training at the European level (MSCA Work Programme 2014). The results of this study, arguing for the need for Grant Management teams able to provide advanced support, also call for research-intensive institutions to use their Grant Management capital for researcher training. It is perhaps due to a growing awareness of the multitude of roles in research facilitation that a certified qualification in Research Management is in full expansion in Europe (EARMA Qualification 2014; Poli et al. 2014), and institutional investment in Research Management staff should be positively viewed.

The study performed involved four years of data collection and collaboration between two Grant Offices. Improvements on the statistical robustness of data could be obtained by performing longer studies and increasing sample sizes. However, this may be difficult to implement in practice. Additionally, further studies could involve content analysis of the proposal and evaluation reports received by the applicants of approved and non-approved grants, or other qualitative methods (interviews, surveys and focus groups), to assess whether reasons for rejection may be overcome by the input of Grant Managers. Finally, and as noted above, several parameters such as experience and background of the Grant Managers and applicants, should be studied in the future by collecting the corresponding data and using more advanced statistical techniques.

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References

- Bauer, David G. 2001. *How to Evaluate and Improve Your Grants Effort*. 2nd ed. Westport, CT: American Council on Education/Oryx Press series on Higher Education. ISBN-10: 1573563633, ISBN-14: 978-1573563635.
- EARMA Qualification. 2014. "EARMA Certificate in Research Management Training Programme 2014." European Association of Research Managers and Administrators. Accessed September 2014. <http://www.earma.org/Certification>.

- ERAWATCH Website. 2015. "Portugal." ERAWATCH, Platform on Research and Innovation policies and systems. Accessed January 2015. http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/pt/.
- FCT Activity Report. 2011. "Fundação para a Ciência e a Tecnologia Activity Report Year 2011." [in Portuguese]. http://www.fct.pt/docs/RA2011_20121206.pdf.
- FCT Website. 2015. "R&D Institution – Associated Laboratories." FCT-Fundação para a Ciência e Tecnologia, Ministério da Educação e Ciência. Accessed January 2015. <https://www.fct.pt/apoios/unidades/laboratoriosassociados.phtml.en>.
- GPPQ Report. 2014. "Participação Portuguesa no 7º PQ." [Portuguese Participation overview at the FP7]. Gabinete de Promoção do Programa-Quadro de I&DT. Accessed December 2014. http://www.gppq.fct.pt/_7pq/participacao_pt.php.
- Green, John, and David Langley. 2009. "Professionalising Research Management." Higher Education Funding Council for England (HEFCE) and the Medical Research Council (MRC). <http://researchsupportarchive.leeds.ac.uk/images/uploads/docs/PRMRreport.pdf>.
- IGC Website. 2014. "The IGC – Overview". Instituto Gulbenkian Ciência. Accessed September 2014. http://www.igc.gulbenkian.pt/pages/facilities.php/A=124___collection=article.
- IMM Website. 2014. "Home Instituto de Medicina Molecular." Instituto de Medicina Molecular. Accessed September 2014. <http://www.imm.fim.ul.pt/web/imm/home>.
- Kirkland, John. 2009. "Research Management: A Global Profession?" *Perspectives: Policy and Practice in Higher Education* 13 (2): 33–36. doi:10.1080/13603100902805383.
- Langley, David. 2012. "Research Management and Administration: A Reflection of Where We Are and Where We Need to Go as a Profession." *Perspectives: Policy and Practice in Higher Education* 16 (3): 71–76. doi:10.1080/13603108.2012.659289.
- Laureano, Raul. 2013. *Testes de Hipóteses Com o SPSS. 2ª Edição* [Hypothesis Testing with SPSS. 2nd ed.]. Lisboa: Edições Sílabo. ISBN: 9789726187356
- Lewis, Kenton. 2014. "Constructions of Professional Identity in a Dynamic Higher Education Sector." *Perspectives: Policy and Practice in Higher Education* 18 (2): 43–50. doi:10.1080/13603108.2014.914107.
- Marie Curie Work Programmes. 2007–2013. "Seventh Framework Programme (FP7): People." CORDIS, European Commission. Accessed September 2014. http://cordis.europa.eu/fp7/people/home_en.html.
- MSCA Work Programme. 2014. "Horizon 2020 Work Programme 2014–2015. Marie Skłodowska – Curie Actions Revised." European Commission Decision C (2014) 4995 of 22 July 2014, 1–53.
- Poli, Susi, Jan Andersen, Kristel Toom, and Lars Wilkman. 2014. "Shaping a New Profession in Higher Education and Research Institutions in Higher Education and Research Institutions. Introducing the EARMA European Certificate in Research Management." *NCURA Magazine*, August, 54–56.
- Poli, Susi, and K. Kristel Toom. 2013. "Exploring the Theory. Research Management as a Newer Field of Investigation." EARMA LINK, European Association of Research Managers and Administrators. Accessed January 6–7, 2013. http://www.earma.org/Resources/Pictures/LINK/EARMA_LinkJanuary2013.pdf.
- Rung, Emilia. 2014. "Performance Indicators and Impact Assessment of a Professional Grants and Innovation Office." Oral presentation at the 20th annual conferences of the European Association of Research Managers and Administrators (EARMA), Tallinn, Tallinn University, Estonia, June 30–July 2.
- Trindade, Margarida, and Marta Agostinho. 2014. "Research Management in Portugal?: A Quest for Professional Identity." *Research Management Review* 20 (1): 1–8. http://www.ncura.edu/Portals/0/Docs/RMR/v20n1_TrindadeAgostinho.pdf.
- Vieira, Armando, and Carlos Fiolhais. 2015. *Ciência e Tecnologia em Portugal: Métricas e impacto (1995–2011)* [Science and Technology in Portugal: Metrics and Impact (1995–2011)]. Lisboa: Fundação Francisco Manuel dos Santos. ISBN: 978-989-8662-94-1.
- Whitchurch, Celia. 2008. "Shifting Identities and Blurring Boundaries: The Emergence of Third Space Professionals in UK Higher Education." *Higher Education Quarterly* 62 (4): 377–396. doi:10.1111/j.1468-2273.2008.00387.x.