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The importance and the degree of implementation of the

European Standards and Guidelines for internal quality

assurance in universities: the views of Portuguese academics

Maria J. Manatos^{a, b}, Maria J. Rosa^{c, b} and Cláudia S. Sarrico^{a, b*}

^a ISEG Lisbon School of Economics & Management, Universidade de Lisboa, Lisboa,

Portugal;

^b CIPES Centre for Research in Higher Education Policies, Porto, Portugal;

^c Department of Economics, Management and Industrial Engineering, University of

Aveiro, Aveiro, Portugal

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*Corresponding author. Email: cssarrico@iseg.ulisboa.pt

The importance and the degree of implementation of the European Standards and Guidelines for internal quality assurance in universities: the views of Portuguese academics

This research seeks to explore academics' perceptions of the importance and degree of implementation of the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) for internal quality assurance. It uses empirical evidence from Portugal, gathered via a questionnaire given to all university academics. Results show academics' perceptions of the importance and implementation of the ESG in their institutions to be quite positive. Nevertheless, academics tend to find the standards more important than effectively implemented. Furthermore, significant differences in perceptions emerge between groups of academics. This study intends to contribute to a better understanding of the implementation of quality management practices in universities, and the influence of the ESG in this process.

Keywords: quality management; European Standards and Guidelines (ESG); universities; Portugal; importance; implementation

Introduction

In recent decades pressures from society for greater accountability have led governments and universities to implement organised quality assurance systems for higher education throughout Europe. The ESG were developed by the European Association for Quality Assurance in Higher Education in co-operation with the European University Association, the European Student Information Bureau and the European Association of Institutions in Higher Education (ENQA, 2009). This development was in response to demands from the Berlin Communiqué (2003) to 'develop an agreed set of standards, procedures and guidelines on quality assurance (and) to explore ways of ensuring an adequate peer review system for quality assurance and/or accreditation agencies or bodies'. This resulted in the development of European standards and guidelines for internal and external quality assurance within universities and European standards for

external quality agencies (ENQA, 2009).

Thus, the ESG emerged as a reference model providing guidance and assistance to universities in their efforts to implement internal quality management systems and to agencies in their external quality evaluations (Prikulis, Rusakova, & Rauhvargers, 2013).

In any event, one of the main groups of actors in these quality management systems – the academics – can adopt different standpoints, which in practice tend to translate into different degrees of acceptance, support and adaptation to the quality management idea, policies and implementation procedures (Cardoso, Rosa & Santos, 2013; Cartwright, 2007; Newton, 2002; Westerheijden, Hulpiau, & Waeytens, 2007). Still, academics seem to show growing acceptance of quality management, with a positive perception of its introduction (specifically in the case of Portugal) (Cardoso et al., 2013; Rosa & Sarrico, 2012).

This paper seeks to analyse how European standards and guidelines for internal quality assurance within universities are being understood and implemented in universities, based on a study of Portuguese academics' perceptions. The paper will start by analysing academics' knowledge of the ESG. Then, an investigation is made into academics' perceptions of the importance of these standards for quality management, as well as their degree of implementation in their institutions. As academics are not a uniform group, and as previous studies have shown that different groups of academics hold different perceptions of quality assessment (Cardoso et al., 2013), we will also analyse how different groups differ in their perceptions of the importance and degree of implementation of the standards.

Quality assurance, the ESG and academics' perceptions

Academics' perceptions of quality assurance

Academics have diverse interpretations of what a quality management system is and what

its focal points are (Huusko & Ursin, 2010). Academics can adopt a position towards quality management that varies from resistance and scepticism to acceptance and support.

Academics' resistance to quality management is often associated with several recurring factors. The process is bureaucratic (Harvey, 2006) and academics lack time to deal with its requirements which, inherently, steal time from the really important aspects of academic life, namely teaching and research (Newton, 2002). On top of this, quality management is perceived as an exercise in monitoring and controlling rather than enhancement and excellence (Cardoso et al., 2013) and academics often have little involvement in the development of quality management procedures (Cardoso, et al., 2013).

Even so, academics support quality management. At the time of writing, there are few reasons for academics to adopt a pessimistic discourse of resistance and scepticism concerning quality management models (Stensaker, Välimaa, & Sarrico, 2012), and recent studies developed in Portuguese universities show that academics as a group accept and support quality management in their universities (Cardoso et al., 2013; Rosa, Sarrico & Amaral, 2012).

Academics tend to be supportive 'towards quality assessment (...) namely its possible goals and purposes' (Cardoso et al., 2013, p. 109), and especially towards ideals of 'improvement' and 'communication'. Such outcomes are seen as capable of inducing improvement, especially in teaching and learning (Rosa et al., 2012, p. 363, 364), hence benefiting students, as well as academic work and decision-making processes (Huusko & Ursin, 2010; Kleijnen, Dolmans, Willems & van Hout, 2011).

Accreditation is also supported by those with managerial roles, who see it as providing the opportunity for institutions to reflect on their mission and purpose and 'to join an elite club' (Bell & Taylor, 2005, p. 248).

ESG awareness and implementation

The European policy for higher education and the national assessment and accreditation agencies have played a crucial role in establishing quality assurance policies and practices (namely the ESG) in universities (Sarrico, Veiga & Amaral, 2013a; Veiga & Sarrico, 2014).

The European higher education quality landscape has evolved quite rapidly, and by 2010 almost all European universities 'had implemented some form of national quality assurance policy measures' and 'quality assurance has been embedded into (...) [their] institutional processes' (Kohoutek & Westerheijden, 2014, p.168). This evolution has been boosted by European entities, which have been encouraging the quality debate in the European higher education area and attempting to create a common understanding of the principles and procedures associated with internal and external quality assurance (ENQA, 2009; Kohoutek & Westerheijden, 2014; Veiga & Sarrico, 2014).

The national accreditation agencies have also played a role in this process. In Portugal the development of the Agency for Assessment and Accreditation of Higher Education (A3ES) made universities 'more aware of internationalisation' and of the 'exigencies' of the ESG 'with which the European Association for Quality Assurance in Higher Education had endowed itself' (Rosa & Sarrico, 2012, p. 259).

In fact, in Portugal, 'at the system level, the changes in the legal framework, some influenced by supranational level, are contributing to raising awareness about quality assurance' and act as facilitators 'to implement quality assurance policy procedures'. In turn, 'by promoting the certification of internal quality assurance systems, [A3ES] converges on the objective of favouring the implementation of ESG Part 1' (Rosa & Amaral, 2014, p. 164).

Nonetheless, even with increasing awareness of quality management practices,

the implementation process is not linear and problem free (Gornitzka, Kyvik, & Stensaker, 2005; Trowler, 2002; Trowler, Saunders, & Knight, 2003; Sin & Manatos, 2014). Regarding the ESG, there are two important elements explaining why there is no evidence of an effective implementation (Loukkola & Zhang, 2010; Motova & Psykko, 2012; Rosa & Amaral, 2014; Westerheijden & Kohoutek, 2014): the non-prescriptive nature of the standards (Prikulis, Rusakova & Rauhvargers, 2014); and the poor communication of the ESG to the universities (Kohoutek, 2014), which seems to have led to a fragmented and non-holistic application in universities (Loukkola & Zhang, 2010).

Nonetheless, the main challenge, which is simultaneously the main factor for the success of ESG implementation, is the need to interpret, adapt and translate (Westerheijden & Kohoutek, 2014). Actually, 'the institutional implementation of the ESG should be read in context and should take into account the level of penetration of different governance narratives at national and institutional level' (Veiga & Sarrico, 2014, p. 79).

Moreover, and as emphasised by Loukkola & Zhang (2010, p.12), 'ideally higher education institutions are not merely working on their quality assurance processes, but developing internal quality cultures adapted to their own institutional realities, which is a much more challenging task than that of simply setting up processes required by external parties'.

As mentioned above, this research seeks to examine academics' perceptions of the ESG. Specifically, it aims to understand how the ESG are being perceived by Portuguese academics, both in terms of importance and degree of implementation.

Thus, our research aims to answer the following five questions:

- What is the level of awareness and knowledge of the ESG by academics?
- What importance do academics perceive that the ESG hold for the

- development of quality management practices in their universities?
- What do academics perceive to be the degree of implementation of the ESG in their universities?
- Is there a significant difference (a gap) between academics' perceptions of the importance of the ESG and the degree of implementation of the ESG in their universities?
- Are there different perceptions among different groups of academics, taking into account their research area, gender, sub-sector, academic degree, performance of management functions and level of involvement in quality management activities?

For the last research question we assume academics' qualifications (whether they hold a doctorate), their research area, gender and the sub-sector they belong to (public or private universities) can influence their perceptions of the importance of the ESG and degree of implementation. This assumption is based on previous research on academics' perceptions of quality assurance (Cardoso et al., 2013; Veiga, Rosa, Dias & Amaral, 2013). The literature particularly shows that those academics performing management functions and involved in quality management activities tend to have a more optimistic view of such activities (Bell & Taylor, 2005; Rosa, Tavares & Amaral, 2006; Stensaker, Langfeldt, Harvey, Huisman & Westerheijden, 2011).

Data and methods

A questionnaire was devised taking into account the seven standards and the corresponding guidelines for internal quality assurance. The standards are: *ESG1*– *policy* and procedures for quality assurance, referring to a commitment to the development of a quality culture; *ESG2* – approval, monitoring and periodic reviews of programmes and awards, in respect of formal mechanisms and procedures; *ESG3* – assessment of students,

referring to 'published criteria, regulations and procedures consistently applied'; ESG4 – quality assurance of teaching staff, through the analysis of the teaching staff's competencies and quality; ESG5 – learning resources and student support, assuring that they are 'adequate and appropriate for each programme offered'; ESG6 – information systems, which should ensure the collection, analysis and use of 'relevant information for the effective management of their programmes of study and other activities'; and ESG7 – public information (ENQA, 2009).

One question inquired as to the respondent's knowledge of the ESG as a whole, while one or more questions (depending on the standard) focused on the academics' perceptions of each standard's importance for universities. A further set of questions for each standard then queried academics about its degree of implementation in their university.

Academics gave answers on a scale of 1 to 7, where 7 represents the maximum level of knowledge, importance or degree of implementation, and 1 represents the minimum. Academics could also choose a 'don't know/no opinion' option.

We opted to use a census as the data collection strategy: the questionnaire was sent to all Portuguese universities, requesting that institutions disseminate it among their academic staff. A total of 1,116 complete responses was gathered from universities (from a total population of 17,991).

We weighted our cases, according to four variables, which characterise the entire population: gender, research area, sub-sector and academic degree, to make it more representative of the population. The weighted sample selected 1,084 cases.

Table 1 presents the sample characterisation.

[Table 1 near here]

The data collected were analysed using descriptive and inferential statistics. A paired sample t-test was performed to identify the existence of statistically significant differences between academics' perceptions of the importance of the ESG and the degree of implementation of the ESG in their universities. This test was designed to reveal any statistically significant gaps between the perceptions of the implementation of the standards and the perceptions of their importance.

T-tests for independent samples, one-way analysis of variance (ANOVAs) and regression estimates were performed to assess whether there were statistically significant differences in the perceptions of different segments of academics, grouped according to the characterisation variables: gender, sub-sector, research area, performance of management functions, involvement in quality management activities and academic degree.

In order to synthesise the information collected and to focus the attention on a general overview of the importance and degree of implementation of the 7 standards, the initial variables (the questions that constituted the questionnaire), which theoretically represent each ESG, were aggregated into composite variables, and their mean used as a replacement variable. This process resulted in 7 variables related to the importance of each standard and 7 variables corresponding to their degree of implementation (see Appendix 1 for more information on these composite variables).

Results

Portuguese academics' knowledge of the ESG is presented in Table 2. We observe that 24.5% of academics placed themselves in the middle of the response scale. Moreover, 42.3% of academics know about the standards (answers of 5, 6 and 7 in the response scale). Of those that claim to know the standards, 10.5% indicated full knowledge of the

[Table 2 near here]

As Rosa and Amaral (2014) concluded, awareness of quality assurance is rising, partially due to 'changes in the legal framework, some influenced by the supranational level'. Nevertheless, it should not be forgotten that 11.6% of the academics claim to have no knowledge of the ESG.

Academics' opinions tend to be positive towards the importance of each standard. On average, using the scale from 1 to 7, responses vary between 5.4 (ESG3 – assessment of students) and 6.7 (ESG7 – public information) (See Table 3). Academics perceive ESG2 and ESG3 to be the least important (median values of 6.0), which refer to the approval, monitoring and periodic reviews of programmes and awards (ESG2) and to the assessment of students (ESG3), respectively.

[Table 3 near here]

As shown in Table 3, perceptions of the implementation of the standards are also very positive, although median scores are lower than those obtained for the perceived importance of the standards. Median scores for the implementation vary between 5.2 (ESG4 – quality assurance of teaching staff) and 5.9 (ESG3 – student assessment). Moreover, while the median values for the perceived importance of the standards vary between 6 and 7, the median values for the perceived implementation of the standards are always lower than 6.

Globally, opinions are positive relating to both the importance of the ESG and the

implementation degree of the associated quality practices. The average level of agreement with the statements relating to the importance of each of the ESG to higher education and to the existence in Portuguese universities of quality practices based on these standards and guidelines, is always higher than 5 (on a scale of 1 to 7). Nevertheless, the standards which were rated as having the lowest levels of importance are not the same standards as those with the lowest levels of implementation. As such, the importance the standards have for the academics does not seem to be reflected in a comparable degree of implementation in their universities.

Table 4 shows that there are statistically significant differences (p-values close to zero) between academics' perceptions of the importance of the ESG and their degree of implementation in universities. In other words, perceptions of the importance of the standards are statistically more positive than those related to their implementation, except for ESG3 (assessment of students). This means that, in general, academics consider that the standards are important, but the degree of implementation does not reflect their level of importance. The student assessment standard is, on average, the least important of the 7 standards for the academics included in the sample (mean score of 5.4), although in their opinion it is generally the most implemented standard in their universities (mean score of 5.7).

[Table 4 near here]

In the work above we have looked at the general trends regarding academics' knowledge of the ESG and their perceptions of the importance and degree of implementation of the ESG – as well as the gaps between these perceptions. To further understand these trends we also looked at how perceptions differ between different groups

of academics.

Table 5 shows that the perceived importance of the standards is generally similar for academics of different research areas, with the exception of ESG2 and ESG6. On the contrary, Table 6 shows that academics' perceptions of the implementation generally differ significantly depending on their research area, with the exception of ESG2.

[Table 5 near here]

[Table 6 near here]

Tables 7 and 8 look at other determinants of differences between groups. Significant differences can be seen between the private and public sub-sectors for the importance attributed to 4 standards, while focusing on academics' perceptions of the implementation shows significant differences for all standards. In general, the academics from private universities are found to have a more positive opinion of the importance and the implementation of the standards.

Statistically significant differences are visible regarding gender for the importance of 5 standards and for the implementation of 6 standards. Women seem to have a slightly more positive view of the importance of 4 ESG and of the implementation of all the ESG (see Tables 7 and 8).

In relation to the performance of management functions, we can only find statistically significant differences in academics' perceptions of the importance of ESG7 (public information). Academics without management functions attach more importance to it (see Table 7).

[Table 7 near here]

[Table 8 near here]

Table 9 looks at whether the academic degree has a significant effect on perceptions. On this basis, statistically significant differences are visible in all but one case, covering perceptions of importance and perceptions of implementation. The exception here is perceptions of the importance of ESG4 (quality assurance of academic staff). We also observe that, in general, academics with a doctorate tend to have a weaker perception of both the importance and the degree of implementation of the standards.

[Table 9 near here]

Table 10 further explores how the involvement of academics in quality management activities influences their perceptions of the importance and degree of implementation of the standards. The data suggests that the differences regarding importance are statistically significant only regarding ESG3 (student assessment). For this standard, the perceptions of academics with high involvement in quality management activities are slightly higher than the perceptions of academics with low involvement. Regarding academics' perceptions of the implementation of the standards, we observe that there are statistically significant differences for five standards. For these five cases, the perceptions of academics with high levels of involvement in quality management activities are more positive than the perceptions of academics with low levels of involvement, as we initially hypothesized.

Thus, the perceptions of the importance and the implementation of the standards vary among different groups of academics. Indeed, academics with different disciplinary affiliations tend to have different perceptions of the implementation of the standards. Academics from private universities have more positive opinions of the standards than academics from the public sector. Moreover, women seem to consider the standards more important and more implemented than men. Contrarily, academics with a doctorate consider the standards less important and less implemented than academics without a doctorate. Finally, the perceptions of academics with high levels of involvement in quality management activities are slightly more optimistic than the perceptions of academics with low levels of involvement.

Discussion

Several European countries, including Portugal, have followed a trend in recent years whereby universities have designed and implemented internal quality assurance systems. Among other factors, this trend can be seen as a consequence of the Bologna process and the development of the Standards and Guidelines for Quality Assurance in the European Higher Education Area. In this study Portuguese academics have been found to have positively 'welcomed' the ESG, reinforcing the results of other recent studies (Cardoso et al., 2013; Rosa et al., 2012), and somehow contradicting the picture of academics as showing resistance and scepticism to quality management models (Harvey, 2006; Newton, 2002).

The positive perceptions of the importance and the degree of implementation of the standards and guidelines can be related to the European as well as the Portuguese legal frameworks and the work of the Agency for Assessment and Accreditation of Higher Education, which act as a facilitator in the implementation of quality assurance policy procedures (Rosa & Amaral, 2014; Sarrico et al., 2013a). Thus, in general, academics consider the different European standards and guidelines important for both higher education and their universities and believe that their universities implement the ESG to a certain extent.

Another plausible explanation for the fairly positive general results may be that the academics who answered the questionnaire are those who know, or at least are interested in, the quality management topic and the quality management practices in their universities. The academics who are less committed to the quality agenda may be underrepresented among the respondents of the questionnaire. In fact, and although we can assure the representativeness of the sample considering some characteristics of the population, namely gender, research area, subsector and academic degree, we cannot know who these academics are regarding their level of commitment to the issue of quality. We do note that almost ¾ of the respondents report a high level of involvement in quality management practices (see Table 1), which is probably higher than for the population as a whole.

Still, there are differences between the knowledge of the standards, the perceptions of their importance, and the perceptions of their implementation. Knowledge of the standards is lower than perceptions of their implementation, and these perceptions are lower than the perceptions of their importance. Even so, this situation represents a favourable environment for the development of internal quality management systems in Portuguese universities, since an implicit acceptance of the standards is more relevant than explicit knowledge of them (Sarrico, Veiga & Amaral, 2013b).

Hence, academics consider the standards important but also consider that the level of implementation in the universities is not comparable. The exception is ESG3, covering

student assessment, which is the only ESG where the perceptions of its implementation are higher than the perceptions of its importance. Contrasting this with the results of Sarrico and Rosa (2014, p. 172), which show that 'students' expectations about (...) [different] aspects of the quality of their academic experience are significantly higher than the perceptions of the quality of service actually received', we believe that the results for ESG3 would possibly be different if we were analysing the perceptions of the students, rather than academics.

In this sense, there are gaps between what academics perceived as important for quality management activities considered in the standards and what is actually being implemented in their universities. As the literature has been showing, the implementation of quality management practices - and of ESG in particular - is a problematic and complex process in universities (Loukkola & Zhang, 2010; Motova & Psykko, 2012; Rosa & Amaral, 2014; Westerheijden & Kohoutek, 2014). Furthermore, there does not seem to be a relation between the importance academics place on standards and the degree to which they perceived them to be implemented in their own universities.

We assessed a number of variables for their influence on academics' perceptions and concluded that variables such as gender, academic degree, sub-sector and scientific area seem to play an important role in explaining the differences in the perceptions of academics.

Concerning gender, our research is in line with other studies on the perceptions of quality in higher education (Cardoso et al., 2013), showing that women have a more positive view of quality management. These results can have different explanations. Assuming that the essence of quality is linked with caring and that women are socially more related with caring roles, women are, consequently, more committed to quality activities (Luke, 1997; Morley, 2005). Moreover, quality may be regarded by women as

a means of power, equitable participation, inclusion and enhancement (Luke, 1997; Morley, 2005).

Our research also shows that academics without a doctorate have more positive perceptions. We provide two possible explanations: (a) younger academics without a doctorate are probably in the process of obtaining one; they are likely to find quality management practices more socially acceptable than older more established academics, and consequently perceive those practices as beneficial; (b) older academics without a doctorate are mainly engaged in teaching rather than research, being more receptive to and also more involved in practices related to the quality improvement of teaching, which is mostly what the ESG are about.

Academics from private universities also have a more positive perception of quality management. This may be related to the need for private universities to achieve recognition, credibility and reputation, which public universities traditionally already have.

Academics from different scientific areas also tend to have different perceptions of the importance and the implementation of the standards, as previous studies of academics' perceptions of quality assurance also show (Cardoso et al., 2013). Actually, the disciplinary affiliation tends to influence academics' perceptions and practices, constituting the framework in which academics' social practices, values and attitudes can be found and explained (Becher & Trowler, 2001; Clark, 1986).

Surprisingly variables which we initially believed to be the most influential, namely experience of management roles and involvement in quality management activities, were less significant – a comparable result to the findings of other studies (Cardoso et al., 2013; Veiga et al., 2013). In particular, academics without management functions attached more importance to ESG7 (related to public information) than those

with management functions. A possible explanation may reside in the fact that people without management functions feel more of a need to be informed about what is actually happening in their institutions, considering that the university should more regularly publish impartial and objective information about its activities.

Academics with high levels of involvement in quality management activities had more positive perceptions of the standards (where the differences were statistically significant). This lends credence to the view that "experience in quality assurance may contribute to more optimistic views of it" (Cardoso et al, 2013: 109).

Results reported in this paper suggest a general scenario describing academics' perceptions of the ESG. This allows us to understand how academics are reacting to the practices that are established in the standards and if they perceive their universities to be implementing those practices. The results may be important for practitioners developing and implementing quality management policies and practices in universities and may also give some clues as to which standards need more effort to improve their implementation in universities. Based on our results, the standard which has the lowest levels of implementation appears to be ESG4 (teaching staff), while both ESG4 and ESG7 (public information) have the largest gaps between academics' perceptions of implementation and importance, indicating the lowest level of consistency between what is perceived as being most important and what is perceived as being most implemented. Moreover, the results depict some of the variables that can influence such perceptions, which are mainly: possession of a doctorate, higher education sub-sector, research area, gender and involvement in quality management activities. These types of results may be useful for those responsible for defining and developing quality management (both at a system and institutional level). For example, they may wish to consider working towards improving the perceptions of certain groups of academics, as this may help counter unsupportive, or even more resistant, attitudes, encouraging academics' engagement with quality management. There are some pitfalls, however. Admittedly, this research is limited in its ability to identify the deep-seated motivations and explanations for the reported perspectives. It would also benefit from a deeper understanding of the manner in which quality practices – influenced by the European and national models – are being implemented in Portuguese universities. Furthermore, it would be interesting to understand to what extent implementation of the quality practices embedded in the ESG is due to the ESG themselves, or if such practices were already in place in universities. Future questionnaires may benefit from some open questions, where academics can comment and give a more detailed opinion about particular topics.

It would also be interesting to use a qualitative approach to explore these and other questions related to the implementation of quality management practices in universities. Such an approach would allow for an in-depth exploration of the perceptions, the motivations, and the resistance behind them, providing a more substantiated portrait of the quality management practices and namely the level of influence that the European and national quality models have on the quality practices of the universities. Moreover, and considering the above mentioned limitation related to the representativeness of the sample, the qualitative approach should embrace different types of academics with different involvement levels in the internal quality management systems and with different hierarchical positions in the organisational structure. At the same time, other internal stakeholders such as students and non-teaching staff should be heard, helping to complete our insight into the awareness, the importance and the implementation of the ESG and, globally, of the quality management practices, in universities. That is what we intend to do as further research.

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Table 1. Sample characterisation.

		No. of academics	% of academics
Gender	Male	637	59.8
	Female	429	40.2
	Missing values	18	-
Sub-sector	Public	904	83.4
	Private	180	16.6
	Missing values	0	-
Research area	Natural sciences	206	19.4
	Engineering and technology	245	23.1
	Medical and health sciences	167	15.7
	Agriculture	29	2.7
	Social sciences	292	27.5
	Humanities	123	11.6
	Missing values	22	-
Performance of management functions	Management functions	455	42.2
	No management functions	623	57.8
	Missing values	6	-
Involvement in quality management practices	Low involvement	232	25.7
	High involvement	669	74.3
	Missing values	183	-
Academic degree	Doctorate	718	70.8
-	No doctorate	296	29.2
	Missing values	70	-

Table 2. Portuguese academics' knowledge of the ESG.

		1 – No knowledge	2	3	4	5	6	7 – Full knowledge	Mean	Median	Standard deviation
Knowledge of the ESG	%	11.6	8.4	13.2	24.5	19.3	12.5	10.5	4.1	4.0	1.77

Table 3. Academics' perceptions of the importance and the implementation of the ESG.

	ESG1	ESG2	ESG3	ESG4	ESG5	ESG6	ESG7
Importance							
Mean	6.3	6.0	5.4	6.3	6.4	6.0	6.7
Standard deviation	.99	1.03	1.33	.66	.88	1.05	.58
Median	6.5	6.0	6.0	6.5	7	6.5	7
Implementation							
Mean	5.6	5.5	5.7	5.2	5.6	5.4	5.5
Standard deviation	1.16	1.17	1.13	1.26	1.07	1.23	1.12
Median	5.9	5.8	5.9	5.2	5.7	5.6	5.6

Table 4. Gaps between academics' perceptions of the importance of the ESG and of the degree of implementation (results of t-tests on paired samples).

Gap: Implementation – Importance	Mean	Standard deviation	p-value
Gap ESG 1	-0.6	1.42	.000
Gap ESG 2	-0.4	1.39	.000
Gap ESG 3	0.2	1.56	.000
Gap ESG 4	-1.1	1.37	.000
Gap ESG 5	-0.8	1.25	.000
Gap ESG 6	-0.6	1.34	.000
Gap ESG 7	-1.3	1.17	.000

Table 5. Academics' perceptions of the importance of the ESG according to their research area (results of one-way ANOVAs).

		ESG1	ESG2	ESG3	ESG4	ESG5	ESG6	ESG7
Natural	Mean	6.3	6.0	5.7	6.3	6.3	6.1	6.7
sciences	Standard deviation	1.16	1.07	1.16	.63	.78	.97	.52
Engineering and	Mean	6.3	5.9	5.4	6.2	6.4	6.1	6.7
technology	Standard deviation	.81	.93	1.21	.69	.80	.84	.60
Medical and	Mean	6.2	6.1	5.6	6.4	6.2	5.3	6.9
health sciences	Standard deviation	.61	.49	1.06	.37	.66	1.23	.35
Agriculture	Mean	6.5	6.0	5.5	6.2	6.1	6.2	6.6
	Standard deviation	.81	.68	1.04	.51	1.23	.75	.78
Social sciences	Mean	6.3	6.1	5.3	6.3	6.4	6.2	6.7
	Standard deviation	.91	.99	1.31	.66	.80	.79	.56
Humanities	Mean	6.1	5.9	5.3	6.3	6.4	6.2	6.7
	Standard deviation	1.01	.97	.63	.79	.97	.86	.61
	p-value	.062	.001	.061	.126	.255	.000	.973

Table 6. Academics' perceptions of the degree of implementation of the ESG according to their research area (results of one-way ANOVAs).

		ESG1	ESG2	ESG3	ESG4	ESG5	ESG6	ESG7
Natural	Mean	5.3	5.2	5.3	4.7	5.3	4.9	5.2
sciences	Standard deviation	1.08	1.19	1.27	1.29	1.14	1.18	1.15
Engineering and	Mean	5.6	5.5	5.6	5.2	5.6	5.4	5.4
technology	Standard deviation	1.08	1.25	1.19	1.27	1.10	1.30	1.09
Medical and	Mean	5.7	5.7	5.9	5.1	5.5	5.0	5.0
health sciences	Standard deviation	.85	.87	.87	.97	.82	.94	.95
Agriculture	Mean	5.2	5.2	5.6	4.6	5.2	5.0	5.2
	Standard deviation	1.26	1.18	.99	1.36	.89	1.22	1.05
Social sciences	Mean	5.7	5.6	5.6	5.2	5.5	5.4	5.6
	Standard deviation	1.17	1.12	1.14	1.25	1.16	1.20	1.13
Humanities	Mean	5.5	5.4	5.5	5.0	5.3	5.5	5.5
	Standard deviation	1.29	1.19	1.17	1.30	1.19	1.35	1.15
	p-value	.003	.164	.006	.006	.000	.000	.010

Table 7. Determinants of academics' perceptions of the importance of the ESG (regression estimates)

		Sı	ıb-sector		G	ender		Manag	ement fui	nctions
		Public	Private	p-value	Female	Male	p-value	Without	With	p-value
ESG 1	Mean	6.2	6.5	.005	6.3	6.2	.004	6.4	6.2	.398
E3G 1	Stand.Deviation	.90	.80		.88	.88		.81	.95	
ESG2	Mean	6.0	6.2	.000	6.1	5.9	.001	6.1	5.9	.170
ESGZ	Stand.Deviation	.91	.91		.87	.93		.77	1.01	
ESG3	Mean	5.5	5.5	.134	5.4	5.5	.020	5.5	5.4	.768
ESGS	Stand.Deviation	1.19	1.4		1.19	1.20		1.09	1.28	
ESG4	Mean	6.3	6.2	.958	6.3	6.3	.334	6.3	6.3	.075
E304	Stand.Deviation	.62	.68		.65	.62		.58	.68	
ESG5	Mean	6.3	6.6	.002	6.4	6.3	.002	6.4	6.3	.155
ESGS	Stand.Deviation	.84	.71		.81	.83		.71	.92	
ESG6	Mean	5.9	6.4	.000	6.2	5.9	.001	6.0	6.0	.434
E3G0	Stand.Deviation	1.02	.81		.75	1.07		1.21	.88	
ESG7	Mean	6.8	6.8	.560	6.8	6.8	.580	6.9	6.7	.001
ESG/	Stand.Deviation	.56	.62		.55	.58		.43	.66	

Table 8. Determinants of academics' perceptions of the implementation of the ESG (regression estimates)

			Sub-sector			Gender		Manag	ement fur	nctions
		Public	Private	p-value	Female	Male	p-value	Without	With	p-value
ESG 1	Mean	5.5	6.0	.000	5.6	5.5	.215	5.6	5.5	.382
	Stand.Deviation	1.15	1.16		1.04	1.21		1.05	1.24	
ESG2	Mean	5.4	6.0	.000	5.5	5.4	.005	5.5	5.4	.386
	Stand.Deviation	1.12	1.14		.98	1.21		1.04	1.21	
ESG3	Mean	5.4	6.1	.000	5.6	5.5	.010	5.7	5.5	.223
	Stand.Deviation	1.14	1.07		1.04	1.20		1.02	1.54	
ESG4	Mean	4.9	5.8	.000	5.1	5.0	.015	5.0	5.0	.417
	Stand.Deviation	1.24	1.20		1.20	1.29		1.11	1.38	
ESG5	Mean	5.3	6.0	.000	5.5	5.4	.033	5.6	5.3	.113
	Stand.Deviation	1.05	1.14		1.03	1.10		.92	1.18	
ESG6	Mean	5.1	5.9	.000	5.4	5.2	.001	5.3	5.2	.452
	Stand.Deviation	1.16	1.28		1.10	1.24		1.08	1.30	
ESG7	Mean	5.3	5.8	.000	5.6	5.2	.000	5.4	5.4	.301
	Stand.Deviation	1.09	1.05		.97	1.15		1.01	1.19	

Table 9. Academics' perceptions of the importance and degree of implementation of the ESG according to their degree (results of t-tests for independent samples).

			Mean	Standa	rd deviation	p	-value	
		Importance	Implementation	Importance	Implementation	Importance	Implementation	
ESG 1	No Doctorate	6.5	5.9	.68	.92	.000	.000	
	Doctorate	6.2	5.4	1.10	1.24			
ESG 2	No Doctorate	6.3	5.8	.88	.98	.000 .000		
	Doctorate	5.9	5.3	1.10	1.23			
ESG 3	No Doctorate	5.4	5.9	1.25	1.02	.029	.000	
	Doctorate	5.4	5.4	1.40	1.17			
ESG 4	No Doctorate	6.3	5.6	.60	1.12	.087	.000	
	Doctorate	6.3	4.9	.68	1.30			
ESG 5	No Doctorate	6.5	5.8	.89	.99	.004	.000	
	Doctorate	6.3	5.2	.90	1.11			

ESG 6	No Doctorate	6.4	5.8	.78	1.08	.000	.000
	Doctorate	6.1	5.2	.93	1.26		
ESG 7	No	6.8	5.7	.45	.96		_
	Doctorate	0.0	5.7	. 15	.,,	.010	.000
	Doctorate	6.7	5.4	.61	1.16		

Table 10. Academics' perceptions of the importance and degree of implementation of the ESG according to their involvement in quality management activities (results of t-tests for independent samples).

]	Mean	Standa	rd deviation	p	-value	
		Importance	Implementation	Importance	Implementation	Importance	Implementation	
ESG1	Low involvement	6.2	5.1	1.06	1.38	.716	.014	
	High involvement	6.3	5.7	.95	1.05	./10	.014	
ESG2	Low involvement	5.9	5.1	1.07	1.38	.168	001	
	High involvement	6.1	5.6	.94	1.05	.108	.001	
ESG3	Low involvement	5.2	5.1	1.45	1.24	.004	.006	
	High involvement	5.6	5.7	1.27	1.05	.004	.000	
ESG4	Low involvement	6.3	4.7	.61	1.50	.831	.004	
	High involvement	6.3	5.2	.62	1.14	.031	.004	
ESG5	Low involvement	6.3	5.2	.99	1.22	.337	.019	
	High involvement	6.3	5.6	.83	.98	.557	.019	
ESG6	Low involvement	6.0	5.0	.86	1.41	.215	401	
	High involvement	6.0	5.3	1.01	1.15	.215	.421	
ESG7	Low involvement	6.8	5.2	.50	1.27	265	.604	
	High involvement	6.8	5.5	.52	1.03	.265	.004	

Appendix 1. Original variables and new composite variables

Original variables (questions)	Composite variables
It is important that HEIs have formal procedures for the quality assurance of their programmes and awards.	Importance
Formal policies and procedures for quality assurance provide public confidence in institutional autonomy.	ESG1
HEIs should have formal mechanisms for the approval, periodic review and monitoring of their programmes and awards.	Importance
The confidence of students and other stakeholders in HE is more likely to be established and maintained through effective quality assurance activities.	ESG2
The assessment of students is one of the most important elements of HE.	Importance ESG3
It is important that teachers have a full knowledge and understanding of the subject they are teaching.	Importance ESG4
Teachers are the single most important learning resource available to most students.	2501
Students rely not only on teachers but also on a range of resources to assist their learning.	Importance ESG5
Institutional self-knowledge is the starting point for effective quality assurance.	Importance
It is important that HEIs have the means of collecting and analysing information about their own activities.	ESG6
HEIs have a responsibility to provide information about the programmes they are offering.	Importance ESG7
The quality assurance policy of the institution contains the statements of intentions and the principal means by which these will be achieved.	
The strategy, policy and procedures for quality assurance of the institution have a formal status and are publicly available.	
There is procedural guidance which gives detailed information about the ways in which the policy is implemented.	
The institution has a policy and associated procedures for the assurance of the quality and standards of their programmes and awards.	
The institution develops and implements a strategy for the continuous enhancement of quality.	
The strategy, policy and procedures include a role for all the stakeholders: teachers, students, non-teaching staff, employers, professional associations, etc.	Implementation ESG1
The policy statement for quality assurance includes:	
-the relationship between teaching and research in the institution	
-the institution's strategy for quality and standards	
-the organisation of the quality assurance system	
-the responsibilities of departments, schools, faculties and other organisational units and individuals for the assurance of quality	
-the involvement of students in quality assurance	
-the ways in which the policy is implemented, monitored and revised	
The institution has formal mechanisms for the approval of their programmes and awards.	
The institution has formal mechanisms for periodic review and monitoring of its programmes and awards.	Implementation ESG2
Quality assurance activities ensure that programmes are well-designed, regularly monitored and periodically reviewed, thereby securing their continuing relevance and currency.	

The quality assurance of programmes and awards includes:

- -development and publication of explicit intended learning outcomes
- -careful attention to curriculum and programme design and content
- -specific needs of different modes of delivery (e.g. full-time, part-time, distance-learning, e-learning)
- -formal programme approval procedures by a body other than that teaching the programme
- -monitoring of the progress and achievements of students
- -regular periodic reviews of programmes, including external panel members
- -regular feedback from employers, labour market representatives and other relevant organisations

Students are clearly informed about the assessment strategy being used for their programme, what will be expected of them and the criteria that will be applied to the assessment of their performance.

Students are clearly informed about what examinations or other assessment methods they will be subjected to.

The assessment of students is carried out professionally and takes into account the extensive knowledge that exists about testing and examination processes.

Students are assessed using published criteria, regulations and procedures which are applied consistently.

Student assessment procedures:

- -are designed to measure the achievement of the intended learning outcomes and other programme objectives
- -are appropriate for their purpose, whether diagnostic, formative or summative
- -have clear and published criteria for marking
- -are undertaken by people who understand the role of assessment in the progression of students towards the achievement of the knowledge and skills associated with their intended qualification
- -do not rely on the judgements of a single examiner
- -ensure that assessments are conducted securely in accordance with the institution's stated procedures
- -are subject to administrative verification checks to ensure the accuracy of the procedures

The mechanisms which ensure teachers' qualifications and competencies are discussed in internal reports for the quality assurance of the institution.

Teaching staff are encouraged to value their skills.

The institution has the means to remove teachers from their teaching duties if they continue to be demonstrably ineffective.

The institution has ways of satisfying itself that staff involved in teaching activities are qualified and competent to do so.

The institution provides poor teachers with opportunities to improve their skills to an acceptable level.

Teachers can access feedback on their own performance.

The institution ensures that their staff recruitment and appointment procedures include means of making certain that all new staff have at least the minimum necessary level of competence.

Teachers have the necessary skills and experience to transmit their knowledge and understanding effectively to students.

Learning resources and other support mechanisms are readily accessible to students.

Learning resources and other support mechanisms take into consideration the needs and the feedback from the students.

The institution ensures that the resources available for the support of student

Implementation ESG3

Implementation ESG4

Implementation ESG5

learning are adequate and appropriate for each programme offered.

The institution routinely monitors and reviews the support services available to its students.

The institution has human resources such as tutors, counsellors and other advisors to support student learning.

The institution has physical resources such as libraries or computing facilities to support student learning.

The institution routinely improves the effectiveness of the support services available to its students.

The institution compares itself with other similar organisations in the European higher education area and beyond.

The institution collects and analyses relevant information for the effective management of its programmes of study and other activities.

Based on the collected information, the institution knows what is working well and what needs attention, and the results of innovative practice.

The comparison with similar institutions allows the institution to extend the range of its self-knowledge and to access possible ways of improving its own performance.

The quality-related information systems of the institution cover:

- -student progression and success rates
- -employability of graduates
- -students' satisfaction with their programmes
- -effectiveness of teachers
- -profile of the student population
- -learning resources available and their costs
- -the institutions' own key performance indicators

The institution publishes information about the views and employment destinations of past students.

The institution publishes information about the profile of the current student population.

The institution publishes information about the intended learning outcomes.

The institution publishes information about the qualifications they award and the learning opportunities available to its students.

The public information is not used simply as a marketing opportunity.

The public information is accurate, impartial, objective and readily accessible.

Implementation ESG6

Implementation ESG7