

More attention to wicked problems in the European Standards and Guidelines (ESG).

Bazen, Eltjo; Senior Quality Advisor, University of Applied Sciences Utrecht

Van Kemenade, Everard; Director/owner Van Kemenade Audit Coaching & Training

ABSTRACT

This research was executed to gain a greater understanding of quality assurance in higher education. In Europe the European Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) are obligatory. The basic idea of the research was to see what other elements Quality Assurance Agencies (QAAs) incorporated into their external quality assurance (EQA) activities and to understand what these additions tell us about different visions of quality. The concept of visions of quality was operationalized by the Concept of the Four Quality Paradigms as introduced by Van Kemenade & Hardjono.

The results show a fit between the ESG and the additions made by the QAAs. There are no clear geographical patterns discernable for most additions or for their underlying quality visions. The results show that QAAs tend to make more additions that are capable of dealing with a context that is more on the side of wicked problems. The QAAs feeling the need to make these additions suggests that they think the ESG themselves are not fully adequate for dealing with this type of context. For this reason, this aspect should be included in current discussions around the upcoming revision of the ESG.

Keywords: European Standards and Guidelines, ESG, Higher Education, EHEA, Concept of the Four Quality Paradigms, Quality assurance, Complexity theory, Wicked Problems

Introduction

Adopted in 2005 by the European ministers responsible for education, the *Standards and Guidelines for Quality Assurance in the European Higher Education Area* (usually referred to as *European Standards and Guidelines*, ESG) were established that same year as a key outcome of the Bologna Process, a major reform initiative aimed at creating a more coherent and compatible European Higher Education Area (EHEA) (EHEA, 2024). The creation of the ESG was driven by the need for a shared framework that would ensure high standards in higher education throughout Europe, promoting transparency, comparability, and mutual trust among European institutions. The ESG was designed to support both internal and external quality assurance processes, providing a solid foundation for institutions to enhance their educational offerings and for external bodies to assess and improve institutional performance. A renewed version was adopted in 2015.

The ESG prescribe with which standards must be complied in internal quality assurance (in part I) and in external quality assurance (part II). Part I might be thought of as the content of quality assurance processes within an institution or program, where Part II is about the way in which quality is assessed externally. In Part III of the ESG, standards for quality agencies are established.

The 49 member states of the EHEA are expected to implement the ESG by embedding them into their national quality assurance frameworks (EHEA, 2005). In the process of adopting the ESG into national legislation, the quality assurance agencies (QAAs) which carry out this task are not just bound by the ESG, but also consider national circumstances. These circumstances might be political or social pressure, but it could also be that QAAs have a more elaborate idea of what constitutes educational

quality and optimal quality assurance than those laid down in the ESG. Although ESG standards are always the minimum to be adopted in the national framework, circumstances could lead to a situation in which a QAA uses more standards for quality assurance than those prescribed by the ESG.

The goal of this research is to map the quality assurance standards that are added to the ESG by specific QAAs. Furthermore, the goal is to determine whether the added standards are indicators of a difference in the vision of quality and quality assurance in higher education between the ESG and the QAA that added these additional standards, what the other vision of quality is and with which quality paradigm this vision aligns.

The importance of this research lies in expanding the knowledge of what is seen as the quality of higher education in Europe. The practical relevance of acquired knowledge might come to fruition in the possibility of reaching more fitting standards for quality assurance in higher education when the ESG is revised. Thus, as an external result, the results of this research can be used to advise the relevant stakeholders and ministers in their process toward a new revision of the ESG, planned for the years 2025 and 2026.

The main question for this research was: 'What vision(s) of quality appear(s) from the additions to the ESG, made by QAAs in their higher education EQA activities, how widely is/are this/these vision(s) spread, and how well do they fit the ESG and its underlying vision of quality?'

The sub questions were:

1. What standards are added on top of the obligatory ESG standards by QAAs in their frameworks?
2. How could the added standards be categorized?
3. Are there patterns visible in added standards, such as thematic or regional?
4. What do the patterns in the added standards indicate about differences in quality vision?
5. How can the ESG standards be categorized according to their visions of quality?
6. How do the additions to the standards and their underlying vision of quality, on the one hand, relate to the ESG and their underlying vision of quality themselves, on the other hand?

Review of the literature

A literature search was performed in Google Scholar using the search terms 'implementation of ESG in higher education', 'ESG quality assurance', 'external QA ESG', 'additions to ESG QA agencies', and 'categorizing higher education standards of ESG'. Reading abstracts of published articles and introductory chapters to books leads the author to conclude that there is no published research that focuses on the question of what QAAs are used in addition to the prescribed minimum. Additions are parts of an EQA activity that are not prescribed by the ESG. These could be aspects of the content a quality assurance agency is evaluating in a higher education institution (standards of the EQA framework or possibly using other terminology such as 'evaluation areas'), or they could be aspects of the procedural steps carried out in an EQA activity. When an agency has additions in its framework, a deliberate choice was made when designing that framework to include more aspects than would have been obligatory seen from the standpoint of the European Higher Education Area. The author read between 60 and 70 abstracts from publications. A takeaway from the literature research included that ideas on what constitutes quality in higher education from a broad range, from ownership (Greere & Riley 2013), through internationalization (Prechal & Messas 2015) to education as a public good (Bendixen & Jacobsen 2017), and that ideas on what should be part of quality assurance have an almost as broad range of possibilities pleaded for, such as risk management (Sarrico & Amaral 2013), employability (Kolster, Westerheijden & Frederiks 2014), excellence recognition (Wipf et al. 2015), and lay persons as members of evaluation panels (Berthiaume, Van Ouytsel & Duykaerts 2015).

Although EHEA research is published on the implementation of key commitments on a regular basis in the form of the Bologna Process Implementation Report (European Commission et al. 2024), in these studies only minimal implementation is of concern. Other research on the implementation of the ESG that has been published has mainly focused on the effects of the ESG on internal (institutional) QA, as derived from searches in the scientific literature. Examples include Westerheijden & Kohoutek (2014), Gover, Loukkola & Sursock (2015), and Zhang et al. (2019). This led to the conclusion that this research is almost certainly the first of its kind to look at the additions made to the ESG by agencies when developing their EQA activities.

Theoretical framework

Many approaches of looking more fundamentally into quality are starting from an industry perspective or at least from an industry background. Quality of services and quality of (higher) education specifically are researched quite extensively (for instance, leading to SERVQUAL by Zeithaml, Parasuraman & Berry, 1988), but not too often on fundamental levels. A relative new way of looking at the differences between concepts of quality is accepting the value of each concept in its own mindset and context. Van Kemenade & Hardjono (2018) present four different mindsets or paradigms in the thinking of quality, the Concept of Four Quality Paradigms (CFQP). The authors appreciate the neutrality of this thought system of paradigms toward the type of industry/activity.

This research has taken the work of Van Kemenade and Hardjono as a meta-theory that does not describe quality but describes different visions of quality. The CFQP presented in their work will function as possible visions of quality to be ascribed to the additional standards found. These paradigms are the relevant visions of quality in answering sub-questions 4, 5 and 6. Although the article in which the paradigms were introduced was published in 2018 (Van Kemenade & Hardjono, 2018), there are still additions and updates to the idea that are being made as evidenced by the chapter in the book not yet published by Marouchi (Marouchi, 2025). First, the basics of the four paradigms will be presented.

First, there is the Empirical Paradigm in which quality is conformance to set requirements (as put forward by Crosby; Crosby, 1979). This thinking is based on technicality and objectivity and has the motto 'to measure is to know.' Quality knowledge is objective and is expressed in quantities.

The second paradigm is the Reference Paradigm in which quality is fitness for use (as described by Juran). The starting point here is not reality as is, but convictions on how reality should be. Quality knowledge is the proponent of proving that an organization meets a norm, deduced by showing observable cases.

The third paradigm is the reflective paradigm, in which quality is subjective (as illustrated by Pirsig). It is accepted that different realities exist, with their own perceptions and interpretations. Quality knowledge is found in stories, conversations, and meetings, which makes peer review an extremely fitting instrument in this paradigm.

The fourth paradigm is the Emergence Paradigm in which quality can only be defined for a limited period of time, intersubjectively. It is based on pragmatism ("The truth is what works") and defines quality in a dialogue of all stakeholders, knowing that quality can be different tomorrow.

The latest development in the CFQP is how the different paradigms fit to differences in complexity of the context. Work on this aspect is done by Van Kemenade, to be published in the coming year (Marouchi, 2025). For describing the state of the context, Van Kemenade refers to the scale from tame to wicked problems, as used by Rittel and Webber (Rittel & Webber, 1973). The empirical paradigm is of best use in a context of relative simplicity with tame problems. When the situation is more complicated, the reference paradigm is more fitting. The reflective paradigm is a good fit for complex

situations. When problems get wicked and the context chaotic, the emergence paradigm thrives. The horizontal axis in Figure 1 shows this alteration.

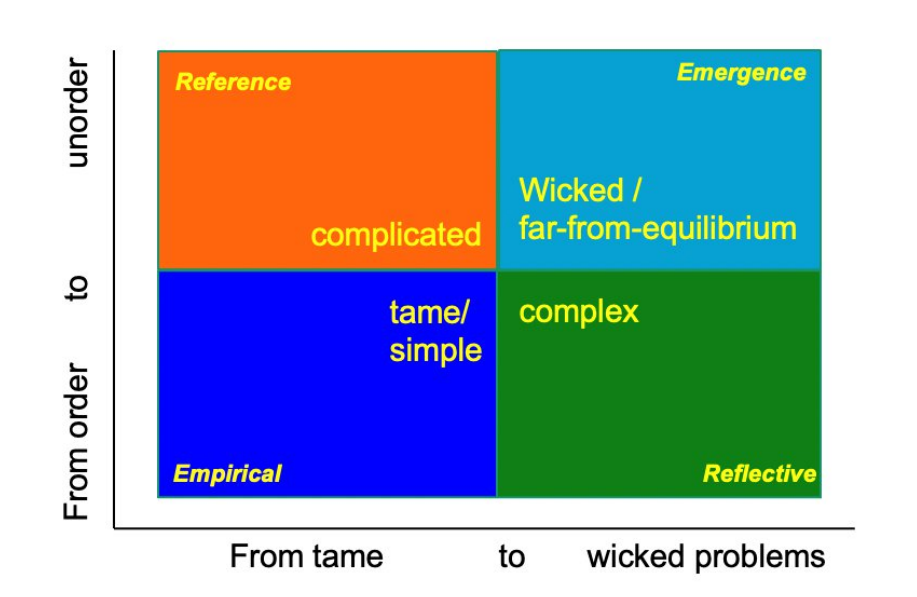


FIGURE 1: Paradigms and the Scale of Tame to Wicked Problems (Van Kemenade, 2025)

Wherever visualizations are used in this report, the authors followed the color scheme linked to the CFQP. Going into the reasoning behind this color scheme would be too much depth for this article; suffice to say the Empirical Paradigm is represented as blue, the Reference Paradigm as orange, the Reflective Paradigm as green, and the Emergence Paradigm as cyan.

Methods

Desk Research and Questionnaire

This research was built using different methods, in order to make the findings more meaningful. The research started with desk research, looking at frameworks for institutional external quality assurance activities, as designed by quality assurance agencies across the European Higher Education Area. These frameworks were checked against the ESG, resulting in a list of additions made by agencies, either to the content of external quality assurance (ESG part 1) or to the procedures used in the external quality assurance activities (ESG part 2). Parallel to the desk research, the agencies responsible for these frameworks were asked what they themselves see as additions they made to Parts 1 and 2 of the ESG. In this way of researching the same aspect in two distinct and parallel ways, the findings are more reliable. A questionnaire was made to ask the agencies what they thought that the additions to the ESG in their EQA activity frameworks were. A first draft was sent to a person in an agency, not being the person who would later be responsible for filing the questionnaire, in order to check if the task and the phrasing were clear. The feedback resulted in a minor change in the introductory text.

Of the 56 EQAR registered agencies with 91 different EQA activities at the institutional level, 23 activities remained eligible for this study after all considerations (institutional, not domain specific, ex-post, national, English documentation available, one per country) had been taken into account. For the questionnaire 14 responses were received. This means a response of just over 60%. Although two

activities (institutional audits in the Netherlands & Institutional reviews in Flanders) are administered by an agency that is formally one entity (NVAO), for the sake of this research, NVAO Flanders and NVAO Netherlands will be treated as separate agencies, the one active in Belgium and the other in the Netherlands.

See Table 1 for the list of EQA activities and agencies.

Full name	Country	Institutional EQA activity
Agency for Evaluation and Accreditation of Higher Education	PT	Institutional Assessment
Swiss Agency for Quality Assurance and Accreditation	CH	Institutional accreditation in Switzerland
The Danish Accreditation Institution	DK	Accreditation of higher education institutions
Quality Assurance of the National Center for Professional Education	AM	Institutional Accreditation
Catalan University Quality Assurance Agency	ES	Institutional accreditation
Agency for Science and Higher Education	HR	Audit (of higher education institutions)
British Accreditation Council for Independent Further and Higher Education	GB	Accreditation of Higher Education Institutions
Foundation for International Business Administration Accreditation	DE	Institutional accreditation in accordance with the FIBAA quality standards
Finnish Education Evaluation Center	FI	Institutional Quality Audits
Estonian Quality Agency for Education	EE	Institutional accreditation of higher education institutions
Institutional Evaluation Program	CH	Institutional Evaluation
Independent Agency for Quality Assurance in Education	KZ	Institutional Accreditation of Higher Education Institutions
Music Quality Enhancement	BE	Institutional accreditation
National Center for Educational Quality Enhancement	GE	Authorization (and reauthorization) of higher education institutions
National Evaluation and Accreditation Agency	BG	Institutional accreditation
Accreditation Organisation of the Netherlands and Flanders	NL / BE	Institutional audits in the Netherlands
The Netherlands and Flanders Accreditation Organization	NL / BE	Institutional Reviews in Flanders
Quality Assurance Agency for Higher Education	GB	Institutional review led by enhancement (Scotland)
Quality and Qualifications Ireland	IE	Institutional Quality Monitoring and Review
Slovak Higher Education Accreditation Agency	SK	Institutional Accreditation
Center for Quality Assessment in Higher Education	LT	Ex-post institutional review in Lithuania
Slovenian Quality Assurance Agency	SL	Accreditation of higher education institutions
Turkish Higher Education Quality Council	TR	Institutional Accreditation Program

TABLE 1: list of EQA activities and participating agencies

Interviews

In addition to desk research and questionnaire, experts were interviewed to categorize the findings of desk research and questionnaire. The use of experts in this phase made sure that the reliability of the findings was greatly improved. The criteria for the experts to be invited are that they are independent, have thorough knowledge of, and extensive experience in working with the ESG. The EQAR Register Committee (RC) is made up of ten members who are nominated by the stakeholder organizations ESU, EURASHE, EUA, ENQA, EI & Business Europe. The profile of RC members is that they are independent and have extensive experience working with the ESG. The experts asked to make the categorizations are therefore members of the EQAR Register Committee. Of the nine eligible members of the Register Committee (the tenth member being one of the authors), eight indicated that they wanted to cooperate with this research. Unfortunately, two members could not find time in the designated time frame and therefore were not part of this research. Six independent experts participated in the third phase of this research. To make sure that the experts have the same understanding of the CFQP a standardized explanation was prepared and shown to the experts. For this categorization, the framework of the CFQP, as described by Hardjono and Van Kemenade (2021), was used. For categorization, the online tool Mural was used (Table 2). The Mural that was prepared showed a table of four columns representing the four paradigms, above them screen shots from the preparatory video for referencing ease. Underneath the columns were the additions found written down on virtual sticky notes, which could be moved into the relevant column. Initially, the additions to ESG part 1 (yellow) and to ESG part 2 (blue) were visible to the experts. The standards of the ESG themselves were prepared slightly more down (pink). For optimal support of the experts, the interviewer operated the online tool, being directed by the experts. The output was recorded in the form of print screens.

Aspect	Empirical	Reference	Reflection	Emergence
Quality	Compliance to specifications	Fitness for use / fitness for purpose	An event	Dynamic concept. Determining value > defining Q
Value	Accountability	Success	Professionalism	Agility
Type of quality management	Quality control	Total Quality Management	Quality Care	Quality Culture
Manner of assessment	Objective	Inter-subjective	Subjective	Inter-objective
Decisions based on	Rules, standards	Models, guidelines	Professional principles	Shared values, interaction
Who in control	Manager	Customer	Professional	(Network, all stakeholders)
Role of quality expert	Internal auditors	Managers	Anyone willing to critically examine	Change agent
Instruments	ISO21001, 6 sigma	EFQM, Self-evaluation, BSC	Peer audits, "Reflection on reflection-in-action"	Socratic dialogue, Appreciative Inquiry

Empirical Paradigm	Reference Paradigm	Reflective Paradigm	Emergence Paradigm

- Positivism
- Quality means meeting the specifications, e.g. ISO
- Measuring is knowing, KPI's
- Quality officer for quality control
- Machine as metaphor for organizations
- Managers in charge

- Quality means fitness for use / fitness for purpose
- Exact specifications are lacking, so a norm/model is referenced to (e.g. 80/20)
- Measuring means meeting the frame of reference
- Quality manager, for managing the quality system
- Quality expert wants to improve by means of an expert
- Responsibility for Q of an organization as a whole is in leadership
- Continuous improvement for the customer in charge

- Quality is a subjective perception of an event
- Quality improvement is a change process, without normativity
 - "We is not going well!"
- Professionalism and professionals in charge
 - Conferences, professional dialogue, publications
 - Ethical and aesthetic observations deserve consideration
 - Values at the core
 - Instruments are EI, peer audits, inter-vision, story telling, 2nd opinion
 - The organization as a spiritual environment

- Emergence itself is elusive
 - Whole is different than sum of parts
 - Internal & external elements (co-creation), synchronous
 - Unpredictable, unplanned
 - Leading to a new coherent pattern (innovation)
 - Chaos that continuously needs to be given meaning
 - Antecedents & consequences are knowable
 - Quality does not exist, it emerges
 - (social) function/value is more relevant than defining Quality
 - Quality cannot be made, it can be facilitated by co-creation with all stakeholders involved.
 - Instruments can be Socratic Dialogue, Appreciative Inquiry

Results

The first sub-question was 'What standards are added on top of the mandatory ESG standards by QAAs in their frameworks?' The following additions were found to be used by quality assurance agencies in their external quality assurance activities, see Tables 3 and 4.

Additions to the standards of ESG part 1	Number of agencies using this addition
Policy for research	11
Policy for Internationalization	7
Policy for the 3rd mission	6
Policy for Student Life	5
Valorization of Knowledge	3
Culture of innovation and entrepreneurship	2
Student involvement in research	2
Policy for SDGs	2
Policy for the integration of disadvantaged social groups	2
Definition/expectation of quality	1
Qualified leadership	1
Digital Transformation	1
Stakeholder participation in all decision-making bodies	1
Assessment of support services	1
Local language & English	1
Open science	1
Competitive graduates	1
Policy on student attendance	1
Policy for joint programs	1
Programming contextually coherent with other relevant programs	1
Teacher qualification higher than intended learning outcomes	1
Body for the protection of students' rights	1
Pastoral support	1
Residential accommodation fit for purpose	1

TABLE 3: Additions to the Standards of ESG part 1 and the Number of their Appearance

Additions to the standards of ESG part 2	Number of agencies that use this addition
A decision with legal consequences is made.	18
Requirements on the composition of the group of external experts	13
Sampling of programs/departments during site visit	4
English should be used in addition to the local language	3
HEI chooses an additional theme/area for evaluation.	2
Requirements on composition of self-evaluation group	1
HEI must engage in bench learning	1
Self-assessment report published together with external report	1
The evidence should cover the entire period between evaluations.	1
Evidence should not be produced for evaluation	1
Confidentiality of site visit interviews	1
Confidential meetings outside the site visit available	1
The decision body holds an oral hearing of the group of external experts before taking the decision.	1
External experts evaluate each other	1

TABLE 4: Additions to the Standards of ESG part 2 and the Number of their Appearance

The second sub-question was ‘How could the added standards be categorized?’ From the work of the experts, the following categorization was made. For the summarization of additions per part of the ESG a weighed approach was used, in which often-found additions weighed more heavily than seldomly-found additions. The results are shown in Figure 2.

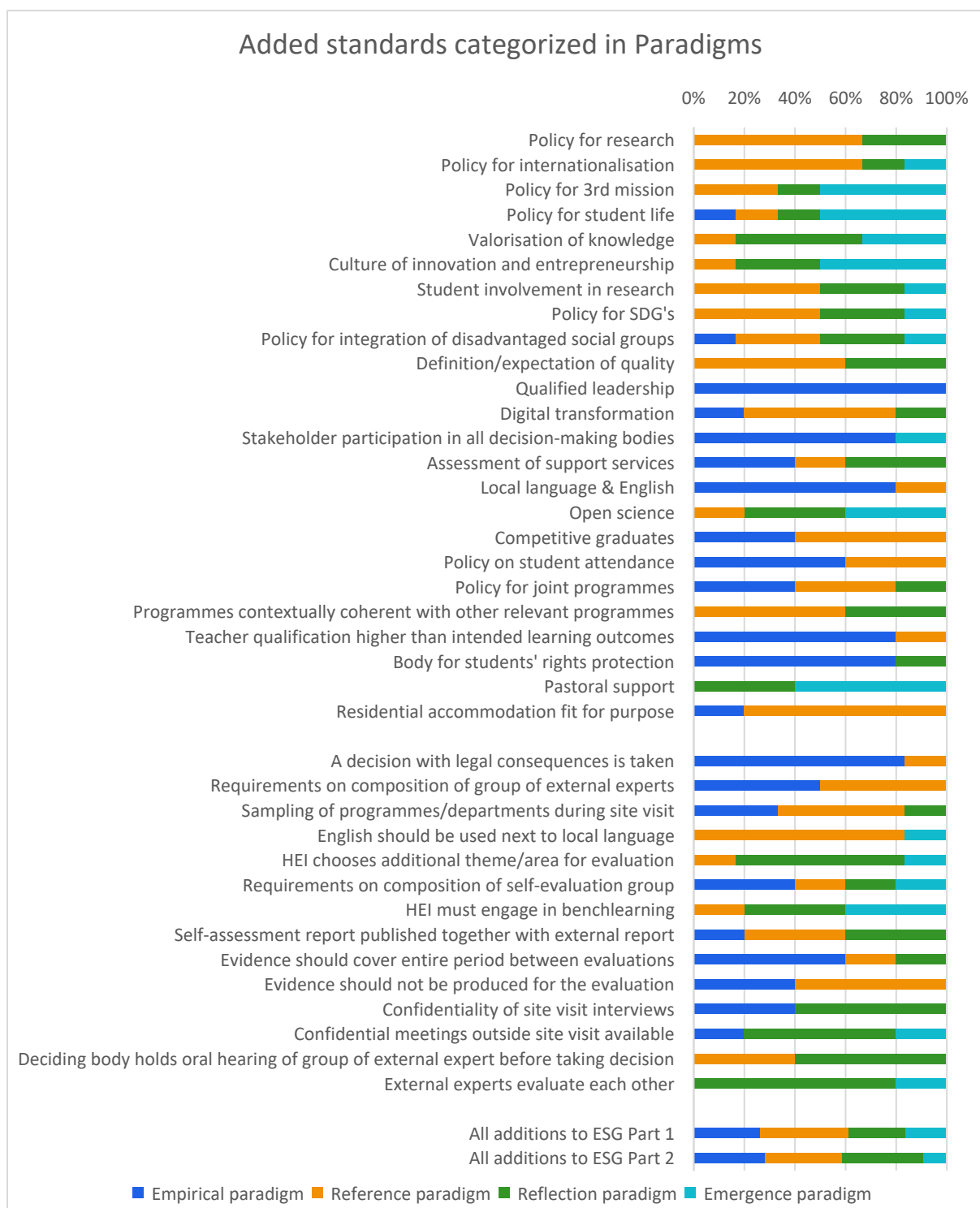


FIGURE 2: Added standards classified in parameters

The third sub-question was ‘Are there patterns visible in added standards, such as thematic or regional?’ In order to detect a pattern of additions, the additions found were plotted onto geographical maps of Europe. Overall, from these maps no clear patterns could be deduced on regional trends in specific additions to the standards of ESG part 2. The same goes for the fourth sub-question (‘What do the patterns in the added standards indicate about differences in vision of quality?’).

The fifth sub-question (‘How can the standards of the ESG be categorized, according to their visions of quality?’) can be visualized using the results of experts. The resulting categorization can be seen in Figure 3.

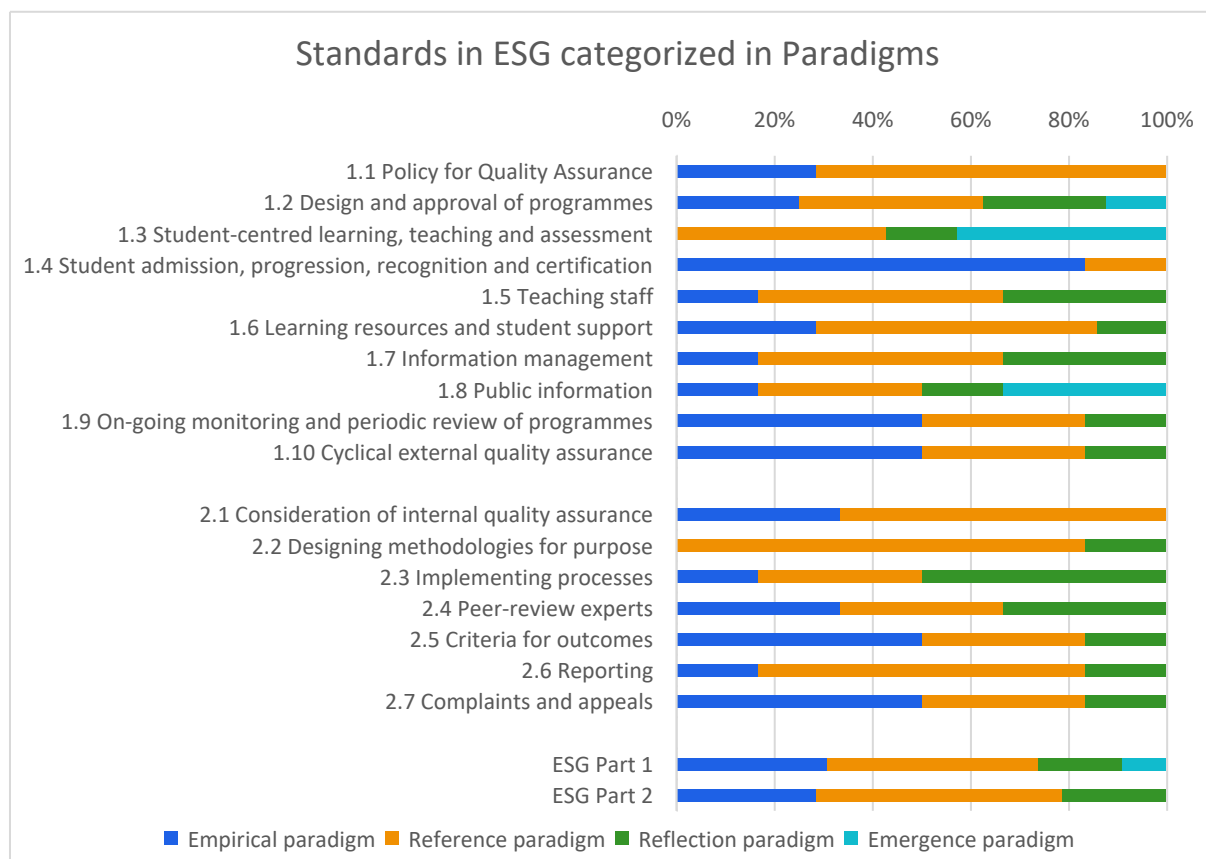


FIGURE 3: Standards of ESG Categorized in Paradigms

It can be concluded that the empirical and reference paradigms are dominant. The emergence paradigm is least represented, in ESG part 2 not at all. On the sixth sub-question (‘How do the additions to the standards and their underlying vision of quality, on the one hand, relate to the ESG and their underlying vision of quality themselves, on the other hand?’) there are some interesting results visible, as can be seen in figure 4. The additions found occur slightly less in the Empirical Paradigm than in the standards of the ESG. For the Reference Paradigm the additions were found to fit significantly less than the standards of the ESG. The additions found fit significantly better in the Reflection Paradigm than the standards of the ESG. And for the Emergence Paradigm finally the additions found fit better than the standards of the ESG fit to it.

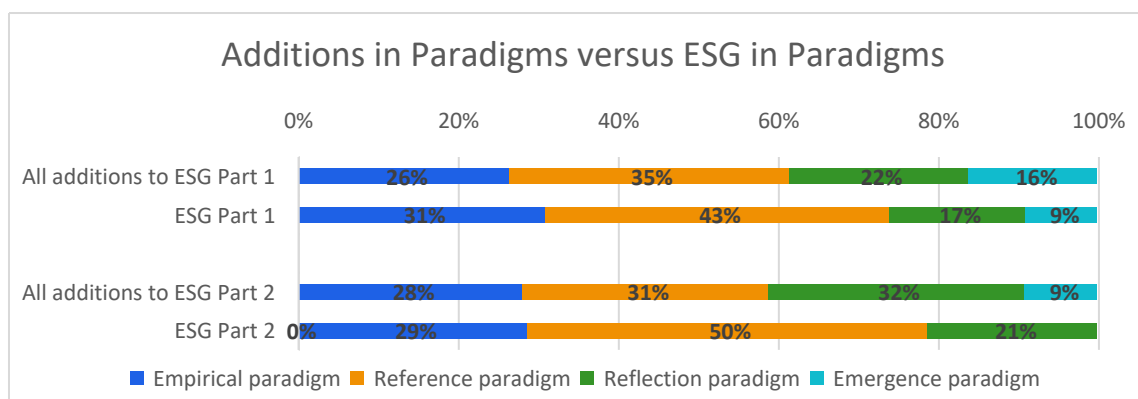


FIGURE 4: Visions of Quality underlying Additions versus Vision of Quality underlying ESG

The fact that the same pattern holds for both part 1 and part 2 of the ESG is an indication that this pattern indeed demonstrates differences in quality vision. The agencies making their frameworks tend to hold beliefs that quality should fit more on the side of 'wicked' context or more fluid concepts of quality where quality is dependent on professionalism and circumstances than on strict prescriptive systems. To gain more insight into the tame versus wicked use of additions, countries have been ranked according to their percentages. One can say that the Finnish and Portuguese QAAs might be leading in the use of additions that fit wicked problems. The resulting list can be seen in Figure 5. For clarity, the ESGs have been added to this list, as part 1 and part 2 separate, and the ESG as a whole.

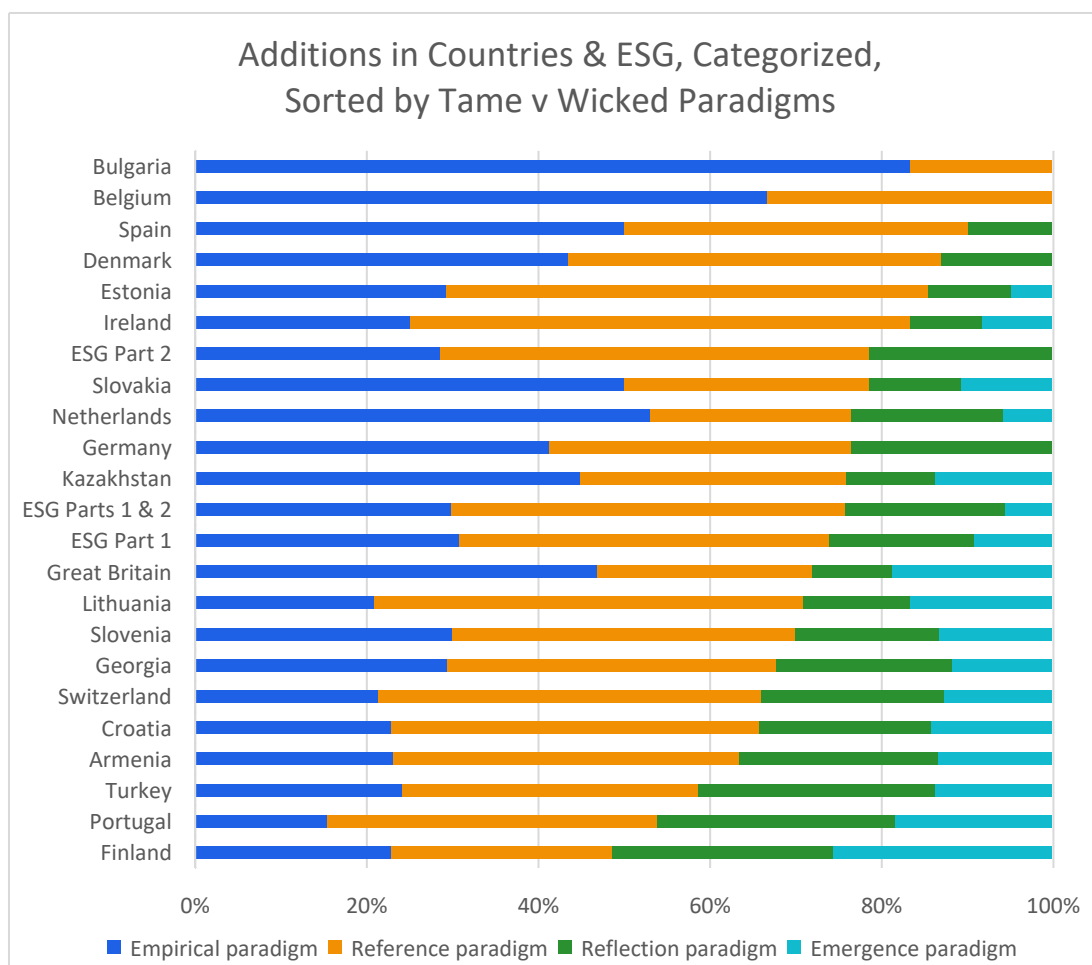


FIGURE 5: Underlying Visions of Quality in Countries and of ESG sorted by Tame versus Wicked Paradigms

Conclusions

Having all the sub-questions answered, the main question can be returned to. The main question of this research was: What vision(s) of quality appear(s) from the additions to the ESG, made by QAAs in their EQA activities of higher education, how widely is/are this/these vision(s) spread, and how well do they fit to the ESG and its underlying vision of quality?

There are no clear patterns discernable in visions of quality or in how they differ from the vision of quality underlying the ESG. Using all the answers to the sub-questions, the answer to the main research question is that the ESG and their underlying vision of quality on the one hand and the EQA activities from QAAs and their underlying visions of quality on the other show a quite close fit. A deviation in underlying vision of quality from the underlying vision of quality of the ESG is visible when all additions, and their relative appearance, are observed together. This effect is especially present when only looking at part 2 of the ESG, and the additions QAAs made to these standards. The additions made by QAAs in their EQA activities of higher education to the obligatory ESG show a slight veering off to the side of the paradigms that fit in a wicked context, being the reflective and emergence paradigms. Examples of additions found that fit well in these paradigms are shown in figure 6.

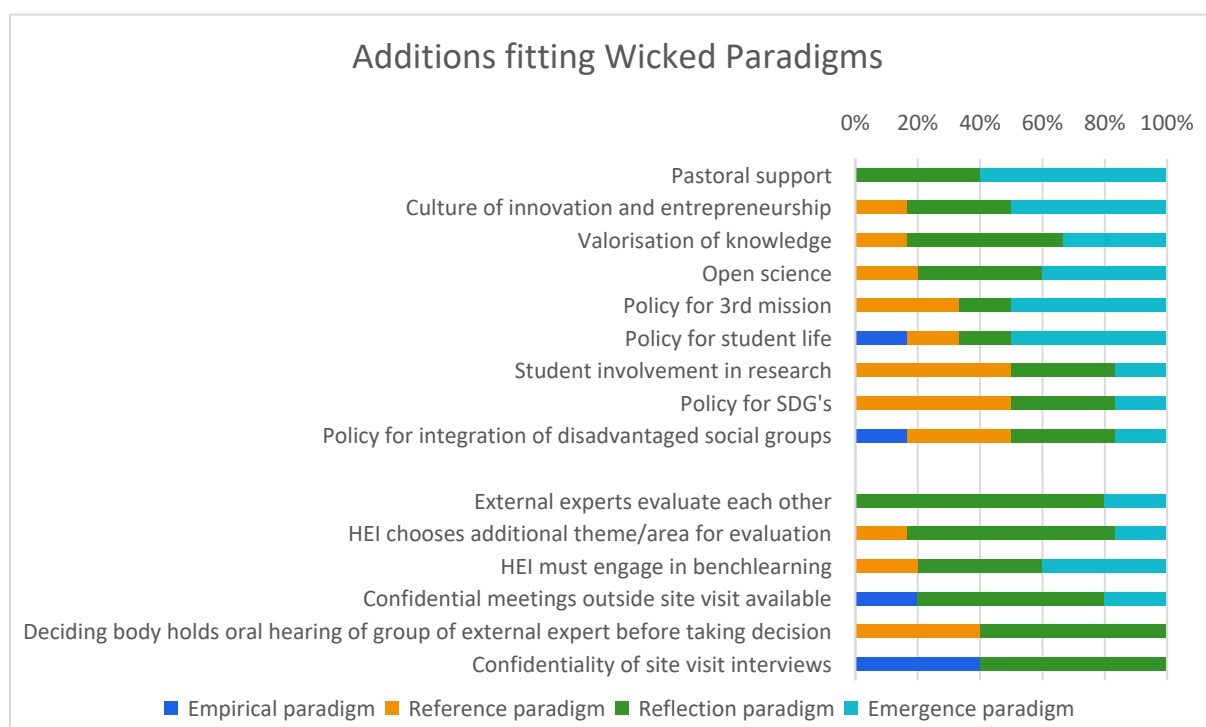


FIGURE 6: Additions fitting the wicked paradigms

This means that regarding the vision on quality, quality is understood by the QAAs as somewhat more dynamic and contextual than the ESG understand quality. That there is no one answer to the issues at stake. That more stakeholders, both inside and outside of the institutions, play a role in making quality. And consequently, quality instruments need to be less structured.

Discussion, Limitations and Recommendations

Some aspects of this research deserve critical consideration. The perspective of tame versus wicked problems in higher education is an insightful way to understand how well the EQA activities of QAAs are geared toward assuring the quality of education. From the results of this research, mainly the answer to the alternative sixth sub-question and the resulting figure 4, it might be concluded that the QAAs feel that the higher education they need to assure the quality of is further on the scale to wicked problems than the ESG can accommodate. Wicked problems are associated with high-complexity situations in which there are not just unclear answers, but it might even be the case that it is not clear what the right questions are. If that is the case in European higher education, which is certainly an option, quality assurance should be aligned with this context. This can be observed throughout Europe, so it stands to reason that the ESG as a European framework would be aligned with this as well. In the ESG revision process that is currently underway, this aspect deserves serious consideration.

Limitations

This research had some limitations. Although more than 60% of the QAAs invited responded, almost 40% did not. It is not clear if and how the results would have been different if the response to the questionnaire had been better.

The interviewed experts might have had difficulties in scoring the additions found in one of the paradigms, although they received a training to this end. There were some differences visible between the answers given by the experts. The author compared the results of the expert interviews with the result of the same exercise carried out by himself as a preparation, and this comparison also yielded several differences. It might have been the case that the interviewed experts did not fully understand the quite complex Concept of the Four Quality Paradigms.

From the desk research to find additions used by agencies, 38 additions were found in 23 EQA activities, an average of 1.65 per agency. From the questionnaire sent to the agencies, 8 additions were found in 14 EQA activities, an average of 0.57 per agency. Although further investigation is needed to determine what is causing this remarkable difference, several factors could be at play. One reason for this difference might be that the respondents to the questionnaire were less motivated to examine their EQA activities in a deeper way than the author. Another reason could be that the people who completed the questionnaire were not fully aware of the specificities of the activities. A third reason could be that the people who completed the questionnaire were well aware of their own procedures, but less aware of the content of the ESG standards. The possibility that people were so used to their own activities that they did not realize that they might be deviating from the ESG, although they do know the content of the ESG standards, is a final option.

Recommendations and further research

This research and its results are believed to be usable for the intended goal. Although the insights gained from this research are modest, both QAAs, stakeholder groups, and ministries can use the outcomes of this research in their own thinking on the fundamentals of what quality is, and how it can and should be assured. The results could have an interesting effect on the ESG revision process that is currently underway.

Additionally, the effects on knowledge creation and knowledge valorization are expected to be as follows. This research has created new knowledge. What quality assurance agencies put in their frameworks more than what they are obligated to has not been studied before. Moreover, categorizing

standards for external quality assurance to understand the basic ideas of quality that underlie those standards is a new venture. The results are interesting knowledge for the European community of those engaged in quality assurance of higher education, both practitioners and policy makers.

Quality Assurance Agencies are recommended to engage in a process of reflection, in order to answer the question where the context of their national higher education stands on the scale of tame to wicked problems. Following that reflection, agencies are recommended to turn to introspection and check how well their EQA activities are geared toward what they found.

As requested by the ministers responsible for higher education (of the member states of the European Higher Education Area) in the Tirana Communiqué (EHEA, 2024), the ESG will undergo a revision in the coming years. A revised version of the ESG is planned to be accepted by the ministers in 2027; in the meantime, it is the results of this research that might be valuable input to the process. The recommendation for the actors in this revision process is to consider changing standards to be more adjusted to wicked problems. For examples of this type of standards, see Figure 6.

Although this research shed some light on several aspects of quality assurance in higher education and visions of quality in higher education, there are quite a few other aspects that would be very interesting to investigate. First, it would be very interesting to perform a qualitative check with quality assurance agencies to see what the reasons and arguments were for including the additions found in their EQA activities. Other suggestions for further research are directed to the theoretical basis used in this research. This research contributed to the further development of the Concept of the Four Quality Paradigms by confirming that it can be used to map standards and the underlying visions of quality onto the four paradigms. Research has shown that it is plausible that the four paradigms fit best in different contexts, from tame to wicked.

The Concept of the Four Quality Paradigms is still being developed. When using the theory, the author encountered several aspects that might require further work. The first is the allocation of paradigms to certain types of context or certain types of problem. In the upcoming book edited by Marouchi (Marouchi, 2025) that was referred to earlier, Van Kemenade is connecting the paradigms to the scale of tame to wicked problems. For practical use, it would be good if the concepts were brought in connection with practical tools. This would make it possible for quality officers in any organization to find a better fit between their context and the set-up of quality instruments in terms of roles and tools. To go deeper into this relationship, the CFQP and the scale from tame to wicked problems might be connected to the Cynefin framework. This framework developed to support decision making by Snowden and Boone (Snowden & Boone, 2007) seems like it could be a close fit to the combination of concepts of paradigms and tame-to-wicked. Making this connection could make it easier to take the step to practical tools, since this framework is already quite well known in the quality assurance community.

References

- Bendixen, C. & Jacobsen, J. C. (2017). Nullifying quality: the marketization of higher education. *Quality in Higher Education*, 23(1), 1-15. <https://doi.org/10.1080/13538322.2017.1294406>
- Berthiaume, D., Van Ouytsel, A., Duykaerts, C. (2015). *A tribute to transversal expertise: What is the contribution of non-disciplinary experts to evaluation committees in academic program evaluation in French-speaking Belgium?* [Conference November 19-21]. EQAF, Londen, UK.
- Bologna process. (2015). *ESG 2015 standards and guidelines for quality assurance in the European Higher Education Area*. EURASHE.
- Carnerud, D., & Bäckström, I. (2019). Four decades of quality research: summarizing, Trendspotting, and Looking ahead. *Total Quality Management & Business Excellence*, 32(9–10), 1023–1045. <https://doi.org/10.1080/14783363.2019.1655397>
- Crosby, P.B. (1979). *Quality is free*. McGraw-Hill.
- De Caluwé, L. & Vermaak, H. (2003). *Learning to change: A guide for organizational change agents*. Sage.
- Deming, W.E. (1986). *Out of the Crisis*. MIT Press.
- EHEA. (2024). *Quality Assurance*. Retrieved from <https://eha.info/page-quality-assurance> on July 25 2024.
- EHEA. (2005). *The European Higher Education Area Achieving the Goals Communiqué of the Conference of European Ministers Responsible for Higher Education, Bergen, 19-20 May 2005*.
- EHEA. (2024). *Tirana Communiqué. Tirana EHEA Ministerial Conference*. Retrieved from <https://eha2024tirane.al/2024-tirana-communique/> on 17 October 2024.
- European Commission, EACEA, Eurydice. (2024). *The European Higher Education Area in 2024 Bologna Process Implementation Report*. Publications Office of the European Union.
- EQAR. (2024). *Registered Agencies*. Retrieved from <https://www.eqar.eu/register/agencies/> on 10 November 2024.
- EQAR. (2024). *Reliable information on the quality of European higher education and its assurance*. Retrieved from <https://www.eqar.eu/> on 25 July 2024.
- Gover, A., Loukkola, T. & Sursock, A. (2015). *ESG Part I: Are Universities Ready?* EUA.
- Greere, A. & Riley, C. (2013, November 21-23). *Engagement, empowerment, ownership: How to nurture quality culture in higher education [Conference session]*. EQAF, Gothenburg, Sweden.
- Hardjono, T. & Van Kemenade, E. (2021). *The Emergence Paradigm in Quality Management. A Way Towards Radical Innovation*. Springer.
- Harvey, L., & Green, D. (1993). Definition of quality. *Assessment & Evaluation in Higher Education*, 18(1), 9-34. <https://doi.org/10.1080/0260293930180102>
- Juran et al. (1974). *Quality Control Handbook, 3rd Ed.*, McGraw-Hill.
- KNAW, NFU, NWO, TO2-federatie, Vereniging Hogescholen, VSNU. (2018). *Nederlandse gedragscode wetenschappelijke integriteit*. DANS. <https://doi.org/10.17026/dans-2cj-nvwu>

Kolster, R., Westerheijden, D. & Frederiks, M. (2014, November 13-15). *Learning for Employability: Integrating employability into professional bachelor programs and quality assurance in four higher education systems [Conference session]*. EQAF, Barcelona, Spain.

MapChart. (2024). *Europe*. Retrieved from <https://www.mapchart.net/europe.html#> on November 29 2024.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 64(1), 12–40.

Prchal, M. & Messas, L. (2015,). *How to support quality through international activities: Case studies from the field of higher music education [EQAF Conference November 19-21]*. EQAF, Londen, UK.

Rittel, H., & Webber, M. (1973). Dilemmas in a general theory of planning. *Policy Sciences*, 4(2), 155-169.

Sarrico, C. & Amaral, A. (2013, November 21-23). *Quality of academic staff in Portuguese higher education institutions: a risk management approach*. [Conference session]. EQAF, Göteborg, Sweden.

Snowden, D.J. & Boone, M.E. (2007). A Leader's Framework for Decision Making *Harvard Business Review*, 85(11), 68-76.

Spear, S. (2004). Learning to Lead at Toyota. *Harvard Business Review* 82(5), 78-86.

Van Kemenade, EA, & Hardjono, TW (2019). Total Quality Management for the 21st Century: The Emergence Paradigm. *The TQM Journal*, 31, 150-166. <http://doi.org/10.1108/TQM-04-2018-0045>

Van Kemenade, EA (2025). Bridging the gaps in quality assurance systems. In: M. Marouchi (Ed.), *Quality Assurance in Higher Education: then, now, and after*. Palgrave McMillan.

Westerheijden, D. F & Kohoutek, J. (2014) Implementation and Translation, From European Standards and Guidelines for Quality Assurance to Education Quality Work in Higher Education Institutions. In H. Eggins (red.), *Drivers and Barriers to Achieving Quality in Higher Education* (1-12). Sense Publishers. https://doi.org/10.1007/978-94-6209-494-9_1

Wipf, A., Hall, C., Messas, L., Ebert, L., Sparre Kristensen, R. (2015,). *Challenges and barriers to assessing and recognizing excellence in (professional) higher education [EQAF Conference, November 19-21]*. EQAF, Londen, UK.

Zhang, L., Liu, S., Yuan, X, & Li, L. (2019). *Standards and Guidelines for Quality Assurance in the European Higher Education Area: Development and Inspiration*. ICESD. <https://doi.org/10.12783/dtssehs/icesd2019/28072>