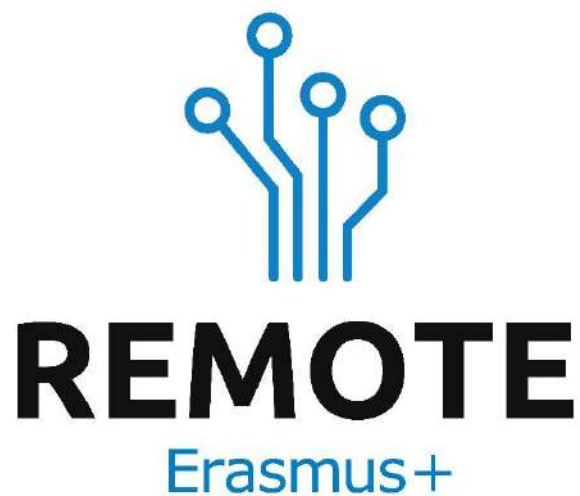

WP4-A9 Benchmark for Remote Assessment in STEM



REMOTE: Assessing and evaluating remote learning
practices in STEM



Politecnico
di Torino



Document Title	Benchmark for Remote Assessment in STEM V_08/07/2025																
Project title:	REMOTE: Assessing and evaluating remote learning practices in STEM																
Programme:	Erasmus +																
Action type	KA220-HED – Cooperation Partnerships In higher education																
Project Number:	Grant Agreement N°: 2022-1-ES01-KA220-HED-000085829																
Authors and Project partners:	<table> <thead> <tr> <th><i>OID</i></th><th><i>Organisation</i></th></tr> </thead> <tbody> <tr> <td>E10209101</td><td>Universitat de Girona (UdG)</td></tr> <tr> <td>E10186177</td><td>Universitat Internacional de Catalunya (UIC)</td></tr> <tr> <td>E10209398</td><td>Politecnico di Torino (PoliTo)</td></tr> <tr> <td>E10032297</td><td>Agencia per a la Qualitat del Sistema Universitari de Catalunya (AQU)</td></tr> <tr> <td>E10209514</td><td>Universidade Do Minho (UMinho)</td></tr> <tr> <td>E10262945</td><td>Agencia Nazionale di Valutazione del Sistema Universitario e della Ricerca (ANVUR)</td></tr> <tr> <td>E10199535</td><td>Agencia De Avaliaçao e Acreditaçao Do Ensino Superior (A3ES)</td></tr> </tbody> </table>	<i>OID</i>	<i>Organisation</i>	E10209101	Universitat de Girona (UdG)	E10186177	Universitat Internacional de Catalunya (UIC)	E10209398	Politecnico di Torino (PoliTo)	E10032297	Agencia per a la Qualitat del Sistema Universitari de Catalunya (AQU)	E10209514	Universidade Do Minho (UMinho)	E10262945	Agencia Nazionale di Valutazione del Sistema Universitario e della Ricerca (ANVUR)	E10199535	Agencia De Avaliaçao e Acreditaçao Do Ensino Superior (A3ES)
<i>OID</i>	<i>Organisation</i>																
E10209101	Universitat de Girona (UdG)																
E10186177	Universitat Internacional de Catalunya (UIC)																
E10209398	Politecnico di Torino (PoliTo)																
E10032297	Agencia per a la Qualitat del Sistema Universitari de Catalunya (AQU)																
E10209514	Universidade Do Minho (UMinho)																
E10262945	Agencia Nazionale di Valutazione del Sistema Universitario e della Ricerca (ANVUR)																
E10199535	Agencia De Avaliaçao e Acreditaçao Do Ensino Superior (A3ES)																
Project duration:	36 months: 01/11/2022 - 31/10/2025																
Project website:	http://epsapp.udg.edu/remote																

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them.



CC BY-NC-SA: This license allows reusers to distribute, remix, adapt, and build upon the material in any medium or format for noncommercial purposes only, and only so long as attribution is given to the creator. If you remix, adapt, or build upon the material, you must license the modified material under identical terms.

Table of contents

I.	Executive Summary	1
II.	Introduction.....	1
III.	Purpose and methodology	2
IV.	Best Practices.....	3
	IV.1. Best practices of Higher Education Institutions.....	3
	IV.2. Best practices of Quality Assurance Agencies	8
V.	Conclusions and Recommendations	13
	V.1. Higher education Institutions	13
	V.2. External quality assurance agencies	16
VI.	Appendix I. Best Practices Profiles of Higher Education Institutions	18
VII.	Appendix II. Best Practices Profiles of Quality Assurance Agencies.....	26

Benchmark

8th of July 2025

*This work has been developed by the partnership of the Erasmus+ co-funded project
'REMOTE: Assessing and evaluating remote learning practices in STEM'*

I. Executive Summary

This report presents a benchmark of best practices for remote assessment in STEM (Science, Technology, Engineering, Mathematics), based on Activity 9 of Work Package 4 (WP4) of the REMOTE project. It complements the WP4 Integration Report and Guidelines (WP4.A7 and WP4.A8) by identifying and analysing examples from both Higher Education Institutions (HEIs) and External Quality Assurance Agencies (EQAAs). The goal is to support HEIs and quality assurance (QA) bodies in designing, implementing, and evaluating effective, inclusive, and trustworthy remote assessment models, particularly relevant for hybrid and online education.

II. Introduction

The transformation of assessment practices in higher education (HE) has accelerated in recent years, primarily driven by the global COVID-19 pandemic, which forced institutions to rapidly transition to remote learning environments. In STEM disciplines, this shift posed challenges due to the traditionally hands-on, practical, and performance-based nature of teaching and assessment. HEIs had to reimagine how to ensure academic integrity, learning outcomes, and student engagement in digital formats. Likewise, EQQAs were called upon to adapt their frameworks, methodologies, and review mechanisms to ensure ongoing relevance and trustworthiness.

The REMOTE project, and specifically Work Package 4 (WP4), addresses QA and innovation in online and hybrid STEM assessment. While earlier tasks in WP4 focused on gap analysis and the development of guidelines (“Integration and harmonization of gap analysis results with state of the art realized in the mapping exercise” and “Guidelines for remote assessment in STEM”), Activity 9 contributes to the project by identifying, documenting, and analysing best practices in remote STEM assessment through a benchmarking approach. These practices serve as tangible examples to guide both HEIs and EQAAs in adopting or adapting models that promote equity, innovation, and quality in the digital era.

This report draws from institutional case studies, national QA policies, and international benchmarking initiatives. The practices documented cover a broad geographical spectrum, including Europe, as well global frameworks. By integrating practices from both institutions and agencies, this report aims to foster a shared understanding of what constitutes quality in remote assessment and how it can be supported, implemented, and reviewed effectively.

III. Purpose and methodology

The identification of good practices was carried out in collaboration with project partners, who provided examples from their own institutions and from other European HEIs and EQAAs. Furthermore, a literature review was conducted to gather additional evidence on remote teaching, learning, and assessment practices in HEIs and within the scope of EQAAs.

They were selected based on relevant criteria, particularly practices’ impact and innovation, applicability to STEM contexts, transferability and scalability.

Each best practice was analysed according to a benchmark framework with four thematic sections:

1. Practice description

1.1 Title

1.2 Brief description

1.3 Goals and purpose

1.4 Main context of implementation

2. Implementation details

- 2.1 Stages of implementation
- 2.2 Involvement of stakeholders
- 2.3 Resources

3. Assessment and impact

- 3.1 Benefits/Opportunities
- 3.2 Challenges/Difficulties
- 3.3 Feedback from users
- 3.4 Lessons learnt and future improvements

4. Additional information

IV. Best Practices

IV.1. Best practices of Higher Education Institutions

The best practices identified across HEIs reveal a rich and evolving landscape of remote teaching, learning, and assessment in HE. While each institution has tailored its approaches to its unique context, several cross-cutting themes emerge that underscore the strategic value of investing in pedagogical innovation, technological infrastructure, and stakeholder engagement.

One of the clearest trends is the **proactive investment in pedagogical training and faculty development**, as exemplified by Politecnico di Torino's TLLab. The structured and incentivised training programs on digital pedagogy, including flipped classrooms and interactive lecturing, are shown to increase faculty engagement, teaching quality, and the effective use of educational technologies. These practices stress the importance of continuous professional development and institutional support to keep pace with evolving digital teaching demands. Key goals included enhancing instructional quality, promoting active learning, and equipping faculty with tools for effective digital and hybrid delivery. Benefits involve increased teacher confidence, student engagement, and improved evaluation outcomes. Challenges often lie in aligning training with faculty time constraints and ensuring content relevance.

Politecnico di Torino and the University of Minho also demonstrate the importance of formalising flexible policies that support both teachers and

students. Allowing a defined quota of remote teaching helps reconcile pedagogical innovation with operational needs and work-life balance, while structured guidelines for students in remote assessment (which is not applied to final exams' rating) ensure fairness, reliability, and transparency. These practices aim to maintain continuity and flexibility in teaching and assessment processes. While they enable evidence-based guidelines for teachers, these remain free to choose the teaching format that best suits the needs of their courses (e.g. T-Lab in Politecnico di Torino). Benefits include smoother course management, autonomy for teachers, and reduced student anxiety. Challenges relate to maintaining pedagogical coherence and addressing infrastructural or environmental disparities among students.

Ensuring academic integrity in remote assessment is another core concern addressed through diverse strategies. The use of automated platforms (e.g., ACME), decision-making guides for assessment methods (University of Twente), and online proctoring tools (e.g., SMOWL) reflect the dual need for scalability and reliability. These tools not only streamline assessment delivery but also offer real-time feedback and analytics to support formative learning. Goals focus on preserving trust in assessment results, scaling exam delivery, and improving student outcomes. Benefits span from enhanced transparency and personalised feedback to reduced faculty workload and better alignment with QA standards. However, challenges such as privacy concerns, technical limitations, resistance to change, and AI-based false positives persist and require careful ethical and operational consideration.

Furthermore, practices from the University of Minho and Ghent University emphasise the necessity of clear communication and comprehensive preparation. Guidelines, mock exams, room scans, and contingency plans ensure that students are not only well-informed but also psychologically supported throughout remote assessment processes. Similarly, institutional responsiveness to user feedback plays a pivotal role in improving systems over time. Success factors include transparent communication, pre-assessment simulations, and mechanisms for user feedback. Benefits include higher student satisfaction, fewer disruptions, and more accurate evaluations. Challenges arise from privacy issues, digital literacy gaps, and the need for real-time support.

The table below presents selected HEIs benchmarked according to the main dimensions of our analytical framework. These best practice profiles serve as a practical toolkit for adaptation, transfer, and replication. Full implementation details and analysis for each practice are provided in Appendix I.

Table 1. Comparative analysis of best practices of higher education institutions

HEIs	Title of Practice	Goals and Purpose	Implementation Context	Key Benefits	Main Challenges
Politecnico di Torino (Italy)	TLLab – Incentivized Training on Innovative and Remote Teaching	Enhance faculty development and teaching quality	University-wide faculty development programme	Broad uptake, improved evaluations	Balancing time and content relevance
Politecnico di Torino (Italy)	Flexible Remote Teaching Quotas for Faculty	Support flexibility and teaching innovation	University-wide policy on teaching formats	High faculty satisfaction, continuity	Coordination to avoid fragmentation
University of Minho (Portugal)	Guidelines and Mock Exams for Remote Assessment	Improve student preparation and equity	Institutional guidelines for online exams	Reduced anxiety, better student performance	Ensuring digital access and procedural clarity
University of Girona (Spain)	Collaborative Online Exam Monitoring and Feedback	Enhance integrity and transparency	Institutionally coordinated online exams	Increased trust and rapid feedback	Balancing surveillance with privacy
University of Castilla-La Mancha and University of Burgos (Spain)	Use of SMOWL for Secure Remote Proctoring	Ensure academic integrity in home-based assessments	Adoption of AI-based proctoring tools	Scalable, low-cost monitoring	AI false positives and student trust
University of Twente (Netherlands)	Assessment Decision Guide and Data Dashboards	Support fair and scalable assessment design	Institutional-level assessment support	Formative feedback, scalability, analytics	Staff training and acceptance
Ghent University (Belgium)	360° Room Scan and Click Monitoring	Improve exam security remotely	Home-based remote assessments	Misconduct prevention data	Privacy and equity concerns

In reviewing the practices considering the twelve quality standards for online teaching, learning, and assessment (WP4.A8), it becomes evident that a shared commitment to quality, inclusion, and innovation underpins their approaches.

1. Institutional policies on online teaching, learning and assessment: Universities such as the University of Twente and Ghent University have embedded digital education within their strategic frameworks. Twente's overarching policy on blended learning explicitly links e-assessment to its pedagogical vision, and Ghent has institutionalised its digital transformation strategy, ensuring regular review cycles that verify achievement of digital education objectives while remaining attentive to legal and ethical standards.

2. Assessment objectives and methods (fitness for purpose): University of Minho has taken significant steps to diversify assessment formats in its remote courses, aligning them closely with intended learning outcomes. During the pandemic and in its aftermath, Minho adopted formative, self-regulated, and

project-based assessments, especially in engineering and education programmes. Universidad de Burgos introduced flexible online assessment frameworks, carefully matched to the learning context, demonstrating that robust alignment between goals, methods, and student profiles is not only possible but pedagogically enriching.

3. Transparency and integrity: Universidad de Burgos stands out for its integration of AI-based proctoring tools and identity verification procedures that preserve academic integrity in large-scale online examinations. TLLab runs training modules covering the full life cycle of online assessment: e.g., from designing rubrics to ensuring academic integrity during remote exams. Lecturers can also request on-demand consultations through a Moodle helpdesk whenever they are setting up large-scale online or blended assessments. These are accompanied by clear student guidelines and transparent protocols. Similarly, the Universitat de Girona has prioritised secure assessment environments by developing a detailed integrity charter for remote assessment, co-created with student representatives, which has become an integral part of its quality assurance processes.

4. System requirements, technical responsiveness, tools and resources: Ghent University has consistently invested in scalable and interoperable digital platforms, ensuring that their e-assessment tools support both formative and summative strategies. Their central IT support teams provide responsive troubleshooting, and the institution offers robust infrastructure tailored to course-specific needs. Likewise, University of Twente ensures platform compatibility and technical continuity by conducting technical audits prior to the deployment of any new e-assessment tools, demonstrating a forward-thinking approach to system readiness.

5. Scientific disciplines tailored and adaptable tools: Politecnico di Torino provides a strong example of contextualised assessment practices. These tools are aligned with pedagogical goals and uphold the institution's commitment to academic rigour and integrity. In the humanities and social sciences, Universidad de Castilla-La Mancha adapts peer-review tools and digital portfolios to suit the interpretive and discursive nature of assessment in those fields.

6. Information and support for learners: University of Minho has established a centralised support system that includes technical helpdesks, digital orientation for new students, and academic counselling with specific focus on online study skills. These services are seamlessly integrated into the institutional LMS and promote student autonomy. Likewise, Ghent University ensures that every course includes a clearly articulated support structure, including digital literacy training and real-time assistance during online examinations, which enhances student confidence and success.

7. Teaching staff training and technical support: The training platform from Politecnico di Torino enables thematic training including remote teaching and assessment. University of Twente maintains a Centre for Expertise in Learning and Teaching that provides just-in-time support and resources for educators transitioning to hybrid or online environments.

8. Peer interaction (students) and networking opportunities (learners): The ACME platform from the Universitat de Girona enhance student engagement with the platform and enable immediate feedback.

9. Accessibility and equitable access to technologies and resources: University of Minho and Universidad de Castilla-La Mancha provide compelling examples. Both have offered device loan schemes and internet subsidies to students at risk of exclusion, especially during the COVID-19 emergency, and have continued these efforts into post-pandemic recovery plans. Furthermore, digital content is developed following accessibility standards.

10. Information management and storage: Universidad de Burgos ensures that e-assessment data are stored securely on institutional servers, in full compliance with GDPR, EU data privacy laws and national regulations.

11. Student-lecturer interaction and students' evaluation feedback adequacy: University of Twente emphasises synchronous feedback and dialogue through structured online sessions. Universitat de Girona guarantees that students receive formative feedback during the assessment process, allowing them to reflect and revise their work in line with learning goals. These practices foster an environment of engagement and continuous improvement.

12. Public information: generally, HEIs promote transparency by maintaining regularly updated web pages and open-access documentation outlining their policies on remote teaching, assessment procedures, and student support mechanisms. Their commitment to accessible and clear communication supports not only students and faculty but also external stakeholders such as employers, partner universities, and quality assurance bodies.

All best practices seem to align with all standards though with different degrees of alignment. The table below express the degree of alignment between each best practice and the 12 standards in the guidelines for remote teaching, learning, and assessment.

Table 2. Alignment of the best practices with the standards for higher education institutions for remote assessment (WP4-A8)

HEI	1	2	3	4	5	6	7	8	9	10	11	12
Politecnico di Torino – TLLab	☑	☑	☑	☑	☑	☑	☑	☑	☑	○	☑	☑
Politecnico di Torino – Remote Teaching Quotas	☑	☑	○	☑	☑	○	☑	☑	☑	○	☑	☑
University of Minho – Distance Assessment Guidelines	☑	☑	☑	☑	☑	☑	☑	○	☑	☑	☑	☑
University of Twente – Remote Assessment Guidance	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑
Universitat de Girona – ACME Platform	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑
Universidad de Burgos & UCLM – SMOWL Proctoring	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑
Ghent University – 360° Scan & Click Monitoring	☑	☑	☑	☑	○	○	○	○	○	☑	☑	○
Alignment is indicated using the following scale: ☑ = Strong alignment ☑ = Moderate alignment ○ = Weak or indirect alignment or information unavailable												

IV.2. Best practices of Quality Assurance Agencies

EQAAs have responded to the shift toward remote learning by updating their methodologies and introducing targeted strategies.

Agencies such as A3ES, ANVUR, ANECA, QQI, and AQU Catalunya have developed **dedicated evaluation criteria or guidelines for remote learning modalities**. These are often embedded within national regulatory frameworks and tailored to reflect institutional diversity and technological maturity and benefit institutions as they increase transparency and comparability of online offerings.

Several agencies (e.g., QQI, HAKA, AQU Catalunya) have moved beyond traditional input/output indicators to **include pedagogical soundness, digital infrastructure, learning analytics, and learner support in their evaluation rubrics**. The main benefits are improved instructional quality and learner engagement and more granular and formative QA processes and support for continuous improvement. The main challenges include reviewer capacity to evaluate pedagogical dimensions, lack of data standardisation and potential resistance from institutions unfamiliar with such metrics.

Another strong trend is the **co-development of tools with HEIs and stakeholders** (e.g., HAKA, QQI, AQU), alongside targeted training for institutional QA teams,

evaluators, and academic staff, which potentially increase institutional buy-in, better fit-for-purpose implementation, stronger evaluation consistency.

Furthermore, while not all agencies directly regulate assessments, many frameworks (e.g., QOI, SSG, HAKA) include **expectations for secure, fair, and accessible assessment processes in online and hybrid environments**, aiming at higher trust in learning outcomes, improved student experience, and alignment with ethical standards.

Frameworks such as APEC's Toolkit and NSQOL promote **international cooperation and shared QA principles** across jurisdictions, particularly relevant in cross-border and transnational education contexts, enabling stronger international trust and collaboration, shared and standards and alignment with global initiatives.

These agency-level and cross-national practices exemplify how EQAAs and global QA frameworks contribute to setting standards, ensuring inclusion, and safeguarding academic integrity in remote education. Further details on their implementation, challenges, and impact are included in the Appendix.

The table below presents selected EQAA benchmarked according to the analytical framework. These best practice profiles serve as a practical toolkit for adaptation, transfer, and replication. A detailed description of the best practices can be found in Appendix II.

Table 3. Comparative analysis of best practices of external quality assurance agencies

EQAA/ Organisation	Title of Practice	Goals and Purpose	Implementation Context	Key Benefits	Main Challenges
ANECA (Spain)	International Quality Label for Hybrid Education	Recognise and accredit quality hybrid programs	Spanish and international QA processes	Enhanced recognition of hybrid learning	Institutional readiness, standardisation
AQU Catalunya (Spain)	Fully online or blended degree programmes: design, implementation and assessment	Guide HEIs and QA evaluators in online/blended programme QA	Catalan university system	Shared framework; supports QA committee work	Need to cover wide practices and legal alignment
A3ES (Portugal)	Guidelines for remote new study programmes	Assess remote offer with adequate criteria	Remote study programmes	Assessment adapted to remote teaching and learning	Interpretation of the guidelines

ANVUR (Italy)	Evaluation protocol and guidelines for assessing new remote study programmes	Assess distance learning study programme with ad hoc criteria	Italian university system	Adequate framework for assessing remote study programmes	Updating and standardize guidelines and protocol
HAKKA (Estonia)	Digital Education Quality Label	Recognize well designed and executed online and blended learning courses	Online and blended learning courses	good self-evaluation tool and relevant quality criteria	Systematic and institutional approach
QQI (Ireland)	Statutory QA Guidelines for Providers of Blended and Fully Online Programmes	Reinforce the key principles that high-quality remote education	All types of providers of blended and fully online learning programmes of education and training	Promotion of a quality experience for learners	Academic integrity, platform solutionism, meeting learning outcomes
Asia-Pacific Economic Cooperation (Asia-Pacific)	APEC QA of Online Learning Toolkit	Provide structured quality criteria for online learning	Voluntary use by institutions and QA bodies	Clear standards and shared terminology	Contextual adaptation needed
National Standards for Quality (USA)	National Standards for Quality Online Learning and Online Programs	Improve national and institutional QA frameworks	Regional application in APEC member economies	Cross-national alignment and improvement	Resource disparity across countries

The best practices adopted by EQAAs agencies across Europe show varying degrees of alignment with the operational guidelines for the QA of e-learning and remote assessment in higher education. Several agencies have taken significant steps to embed digital teaching and/or assessment within their core QA mechanisms, although others remain in early phases of operationalising these standards.

1. Integration of QA for e-learning and e-assessment into existing QA processes:

Agencies such as A3ES, ANVUR, AQU Catalunya, QQI and ANECA exhibit strong alignment with this guideline. These agencies have incorporated explicit criteria for evaluating digital assessment within institutional reviews and accreditation procedures. For instance, AQU's "Guide for remote assessment" and ANECA's "Evaluación de enseñanzas no presenciales" require institutions to demonstrate

how digital tools align with learning outcomes and ensure academic integrity (e.g., use of anti-plagiarism software and secure assessment environments).

2. Acknowledgment of the specific needs of e-learning in review processes:

AQU Catalunya recognises the disciplinary specificity of remote assessment. Its evaluative tools account for virtual laboratories, simulations, and project-based learning in hybrid formats. ANECA and QQI show moderate alignment, encouraging STEM-sensitive assessments but without fully operationalizing discipline-specific indicators.

3. Motivations for blended assessment approaches:

AQU Catalunya demonstrates good practice by requiring clear pedagogical justification for blended assessment strategies during programme evaluations. QQI supports blended learning encouraging institutions to balance online and face-to-face components while maintaining equity of access. However, most agencies lack systematic criteria to assess whether blended formats are used appropriately, particularly in practical or resource-constrained settings.

4. Inclusion of reviewers with e-learning expertise in peer review teams:

ANECA, ANVUR, QQI and A3ES incorporate reviewers trained in digital pedagogy and e-assessment tools, enhancing the validity of their external evaluations. QQI includes experts familiar with learning analytics and AI-based assessment tools, while AQU plans to initiate training in remote evaluation methodologies.

5. Clear criteria for assessing learning outcomes:

QQI leads in this area by applying a learning outcomes-based approach supported by data-driven evidence, such as learner performance tracking and engagement analytics. It encourages the use of diverse assessment formats—oral questioning, collaborative assignments, and peer evaluations—to foster critical thinking and skill mastery. While ANECA and AQU are moving toward this model, other agencies provide only general guidance or leave outcome evaluation solely to institutional discretion.

6. Transparency in reporting:

Most agencies exhibit moderate to strong transparency, with agencies, such as A3ES, AQU, QQI, and ANECA publishing detailed review outcomes that include recommendations on e-assessment practices. These reports often highlight strengths, areas for improvement, and alignment with national standards. For example, AQU provides public documentation on how digital teaching is evaluated, reinforcing institutional accountability. However, transparency is weaker among regional platforms like NSQOL and APEC, which tend to aggregate findings rather than report at the institutional level.

7. Appeals procedures:

QQI is an example of strong alignment, offering a clear appeals mechanism that institutions can activate if they disagree with review findings, including those related to remote assessment. It also allows

submission of additional evidence for reconsideration. ANECA and AQU provide general appeal channels, though less tailored to the specificities of digital learning and assessment. Other agencies and platforms (e.g., NSQOL, APEC) do not describe formal procedures for contesting evaluations in the context of e-learning.

Table 4. Alignment of the best practices with the guidelines for quality assurance agencies for remote assessment (WP4-A8)

EQAA	1. Integration into QA Frameworks	2. Disciplinary Sensitivity (STEM)	3. Blended Assessment	4. E-learning Expertise in Peer	5. Learning Outcome Criteria	6. Transparency in Reporting	7. Appeals Procedures
A3ES (Portugal)	☒	☒	☒	☒	☒	☒	☒
ANECA (Spain)	☒	☒	☒	☒	☒	☒	☒
AQU Catalunya (Spain)	☒	☒	☒	☒	☒	☒	☒
ANVUR (Italy)	☒	☒	☐	☒	☒	☒	☒
QQI (Ireland)	☒	☒	☒	☒	☒	☒	☒
HAKA (Estonia)	☒	☐	☐	☒	☒	☒	☐
NSQOL (Nordic-Baltic)	☒	☐	☐	☐	☐	☒	☐
APEC Toolkit	☒	☐	☐	☐	☐	☒	☐
Alignment is indicated using the following scale: ☒ = Strong alignment ☒ = Moderate alignment ☐ = Weak or indirect alignment or information unavailable							

V. Conclusions and Recommendations

The analysis of best practices in remote assessment for STEM reveals a rapidly evolving landscape in which both HEIs and EQAAs have demonstrated adaptability, creativity, and a shared commitment to ensuring educational quality. The practices presented offer valuable insight into how assessment is being transformed in response to digitalisation, global disruptions, and changing expectations in higher education.

They also highlight a shared commitment to enhancing the quality and integrity of remote teaching and assessment through targeted innovation, policy development, and support structures.

V.1. Higher education Institutions

HEIs have adopted a wide range of remote assessment formats, reflecting a clear shift toward more student-centred and authentic evaluation models. Many practices demonstrate a strong alignment with pedagogical principles, especially in fostering active learning, higher-order thinking, and skill-based assessment.

Institutions are investing in **faculty training** which increases engagement with digital pedagogy and improves teaching outcomes. **Flexibility** in teaching delivery, such as allowing limited remote instruction, has been positively received by both faculty and students, helping to balance innovation with educational consistency. **Guidance and tools** for remote assessment, **student preparation guidelines**, and **automated platforms**, ensure fairer, more valid evaluations while supporting autonomous learning and easing instructor workload. **Online proctoring systems, and monitoring strategies** contribute to academic integrity but also raise concerns about privacy and student anxiety, which must be addressed with transparency and clear communication.

Across all cases, **benefits** include improved teaching quality, greater student engagement, enhanced assessment reliability, and institutional readiness for digital education. Common **challenges** involve technical limitations, resistance to change, privacy concerns, and the need for continuous training and support. Overall, these practices demonstrate that successful remote teaching and assessment depend on thoughtful integration of pedagogy, technology, and policy, with strong stakeholder involvement and continuous feedback loops.

The best practices also demonstrate strong alignment with the guidelines for remote assessment in HE, explored in the previous project report (WP4-A8). All cases seem to address all standards to varying degrees. HEIs have adopted clear **institutional policies** that integrate remote teaching and assessment into

their pedagogical models and strategic frameworks (Standard 1). These practices show consistent attention to **fitness-for-purpose assessment methods**, offering a variety of formats aligned with learning outcomes, disciplinary needs, and pedagogical goals (Standard 2). **Transparency and academic integrity** are reinforced through anti-plagiarism systems, secure proctoring tools, and clear communication of assessment criteria (Standard 3), while platforms ensure **technical reliability** and **scalability** (Standard 4). The use of adaptable, discipline-specific assessment strategies—particularly in scientific and technical subjects—demonstrates responsiveness to the need for **tailored tools** that align with academic integrity and educational goals (Standard 5). Institutions have also strengthened **learner support systems**, including tutoring, counselling, and digital literacy training (Standard 6), while simultaneously investing in **staff training** and responsive technical assistance to build digital pedagogical capacity (Standard 7). Several initiatives promote **peer interaction and learner networking**, especially through collaborative tools, digital forums, and co-assessment strategies (Standard 8). A notable concern across practices is the emphasis on **equitable access**, with institutions striving to reduce digital divides and support students with different needs and contexts (Standard 9). **Information management policies** also uphold **data privacy and ethical use**, with systems in place to protect academic records and personal data (Standard 10). Moreover, the feedback and evaluation practices in these cases reflect a commitment to **meaningful student-lecturer interaction** and **timely, formative feedback** (Standard 11). Finally, transparency and **public access to institutional information**—such as policies, support services, and assessment frameworks—enhance accountability and stakeholder trust (Standard 12).

In sum, the integration of these standards into daily practice demonstrates that remote and hybrid teaching are not ad hoc solutions but central components of institutional quality enhancement. The key lesson is that excellence in remote education requires not only digital tools but also coherent policies, continuous support, inclusive strategies, and a shared culture of innovation.

Based on the experiences, the following **policy recommendations** for HEIs are proposed to support effective, fair, and sustainable remote teaching, learning, and assessment:

- **Incentivise teaching staff training:** Provide structured, flexible, and incentivized training opportunities for teaching staff on digital pedagogy, remote assessment, and innovative teaching methods. Linking training to professional recognition or financial support significantly boosts participation and impact.
- **Embed flexibility in teaching delivery:** Implement policies that allow for limited and well-regulated remote teaching quotas. A modest degree of

flexibility (e.g., up to 15% of teaching hours) supports pedagogical innovation, work-life balance, and course continuity without undermining the student experience.

- **Standardize remote assessment procedures:** Develop and disseminate clear institutional guidelines for students and staff involved in remote assessment. Include technical setup instructions, conduct expectations, and contingency plans to reduce anxiety, promote fairness, and ensure exam validity.
- **Support informed assessment design:** Offer practical decision-making tools and guidance to help instructors choose appropriate remote assessment methods. This ensures alignment between learning outcomes, assessment formats, and academic integrity.
- **Invest in scalable digital assessment tools:** Adopt platforms that automate feedback and grading processes while supporting individualized learning. Such tools improve engagement, reduce instructor workload, and enhance the reliability and transparency of continuous assessment.
- **Ensure responsible use of proctoring technologies:** When using online proctoring systems, institutions must prioritize transparency, data privacy, and informed consent. Combine automated monitoring with human review and offer students detailed onboarding and practice sessions to mitigate stress and build trust.
- **Address privacy and ethical concerns proactively:** Establish ethical frameworks and opt-out mechanisms for more invasive monitoring techniques (e.g., room scans, behaviour analytics). Open communication with students about data use and the purpose of such tools is essential.
- **Foster continuous feedback and improvement:** Create structured feedback loops with students, faculty, and technical staff to continuously improve remote education tools and policies. Regular evaluations help adapt practices to emerging needs and maintain user acceptance.
- **Provide robust technical and pedagogical support:** Ensure reliable infrastructure, responsive technical support, and ongoing access to instructional designers and e-learning specialists. Sustained adoption of digital education depends on ease of use and consistent support.
- **Plan for scalability and sustainability:** As digital practices expand, institutions should anticipate future needs by investing in server capacity, integration with existing systems, and the continuous development of educational technologies and staff capabilities.

V.2. External quality assurance agencies

EQAAs have developed structured, context-sensitive approaches to assess and promote the quality of online, blended, and hybrid higher education. These practices generally aim to ensure the **equivalence of quality** between remote and traditional programmes; **guide and support institutions** in designing, implementing, and evaluating remote education through clear criteria and tools; promote **innovation, accountability, and learner-centred design** in digital education and enhance **recognition and credibility** of hybrid/online programmes.

The common features across EQAAs and cross-national organisations are: the development of **specific QA criteria and rubrics**; the implementation through **multi-stakeholder collaboration**, including experts, institutions, evaluators, and students; the use of **labels, guidelines or toolkits** to standardise and promote quality and the emphasis on **capacity building and institutional engagement**.

The main **benefits** observed include standardised and fit-for-purpose QA frameworks for diverse delivery modes, recognition mechanisms enhance credibility of digital programmes, improved self-evaluation capacity and quality culture in institutions, cross-border cooperation and policy alignment.

Common **challenges** comprehend balancing standardisation with institutional autonomy and innovation, addressing institutional readiness and digital infrastructure gaps, ensuring continuous updates to QA criteria as technologies and pedagogies evolve, and integrating QA systems that cut across modes of delivery in a blurred landscape of hybrid education.

Overall, agencies show the strong alignment with the operational guidelines, especially in the areas of integration into QA processes, transparency, and inclusion of digital expertise in review panels. Yet, gaps remain, particularly in ensuring STEM-sensitive assessments, formalizing blended learning criteria, and defining structured appeals processes tied to digital formats. Emerging networks serve as useful transnational frameworks but require further institutionalization to fully align with these quality imperatives.

Based on the best practices and challenges identified, the following policy recommendations are proposed to strengthen external QA in remote HE:

- **Strengthen QA systems for digital learning**, by encouraging context-specific QA criteria for online, blended, and hybrid programmes, promoting continuous revision of QA guidelines to reflect pedagogical and technological changes and supporting QA agencies in developing rubrics and tools that can capture the learner experience and digital integration.

- **Support capacity building and institutional readiness**, by investing in training for QA reviewers, HEI staff, and faculty on digital pedagogy, instructional design, and e-assessment and encouraging cross-agency collaboration for shared tools, peer learning, and resource pooling, especially in smaller systems.
- **Promote transparency and shared recognition**, by developing digital quality labels and accreditation marks to improve the visibility and trust in online programmes across borders and encouraging mutual recognition agreements that include remote learning quality criteria.
- **Facilitate national and transnational dialogue**, by building platforms for policy exchange and convergence, especially in cross-border regions or frameworks, aligning national QA approaches with international reference frameworks while respecting local context.
- **Foster innovation while ensuring integrity**, by supporting pilot programmes that test new forms of delivery, assessment, and credentialing with embedded QA and by monitoring academic integrity mechanisms in online and blended learning.

In sum, the analysis of institutional and agency-level practices reveals a clear commitment to enhancing the quality, integrity, and adaptability of remote teaching and assessment in higher education. HEIs demonstrate strong alignment with quality standards by integrating digital assessment into strategic and pedagogical frameworks. Institutions have invested in structured faculty training, flexible teaching policies, and robust digital platforms. Their practices promote active learning, academic integrity, and student engagement, while addressing challenges such as equitable access and workload management. These initiatives reflect strong alignment with standards related to transparency, assessment validity, academic support, and digital capacity building. EQAAs are increasingly embedding e-learning and e-assessment within their external review mechanisms. Agencies are integrating digital criteria into institutional evaluations, involving reviewers with e-learning expertise, and promoting transparency in reporting. While progress is evident, areas such as STEM-sensitive assessment, formal criteria for blended learning, and structured appeals processes require further development. Overall, agency practices show growing alignment with operational guidelines for digital QA but highlight the need for ongoing adaptation in response to evolving educational technologies.

Together, these best practices indicate a shared effort toward building more resilient, inclusive, and pedagogically sound systems for remote education.

VI. Appendix I. Best Practices Profiles of Higher Education Institutions

Politecnico di Torino (Italy)

1. Practice description

1.1 Title: TLLab-Incentivized training on innovative and remote teaching.

1.2 Brief description: structured thematic training on innovative teaching methodologies through the TLLab (Teaching and Language Lab) platform. Topics include flipped classroom, hybrid teaching, interactive lecturing, student engagement strategies, digital assessment.

1.3 Goals and purpose: Enhance teaching quality and promote faculty development in innovative and digital pedagogy, namely in remote teaching teaching and assessment.

1.4 Context: University-wide, with a focus on ongoing faculty development.

2. Implementation details

2.1 Stages: Development of the TLLab platform and training modules; Communication campaign to promote faculty participation; Linking financial incentives to training completion.

2.2 Stakeholders: TLLab team, Rectorate, Teaching staff, QA units.

2.3 Resources: Internal funding, instructional designers, platform management staff.

3. Assessment and impact

3.1 Benefits: Broad uptake among teaching staff; increased awareness of innovative pedagogy; improved teaching evaluations; advise on remote-teaching platforms (for example Moodle, proctoring plugins and virtual-classroom tools) and on the design of reliable digital assessments.

3.2 Challenges: Balancing faculty time with training demands; ensuring relevance of training topics.

3.3 Feedback: Positive feedback on flexibility and practical content.

3.4 Lessons learnt: Incentivization significantly increases participation and engagement.

4. Additional information: <https://www.polito.it>

Politecnico di Torino (Italy)

1. Practice description

1.1 Title: Flexible remote teaching quotas for faculty.

1.2 Brief description: faculty are allowed to conduct up to 15% of their classes remotely. This flexible quota (recently increased from 10%) supports teaching innovation and work-life balance and enables online midterm assessments or lectures when pedagogically justified.

1.3 Goals and purpose: maintain flexibility in teaching delivery, accommodate diverse needs, and support digital innovation in higher education.

1.4 Context: University-wide across all departments and courses.

2. Implementation details

2.1 Stages: Establishment of a formal policy regulating remote teaching quotas; departmental monitoring and reporting mechanisms; Internal communication to teaching staff.

2.2 Stakeholders: University governance, department chairs, faculty, IT support.

2.3 Resources: Existing online platforms (e.g., Zoom, Polito Virtual Classroom), coordination staff.

3. Assessment and impact

3.1 Benefits: High faculty satisfaction; smoother course management; continuity during temporary unavailability.

3.2 Challenges: Need for coordination to avoid excessive fragmentation of in-person learning.

3.3 Feedback: Faculty appreciate the autonomy; students welcome well-integrated digital elements.

3.4 Lessons learnt: Limited flexibility yields great benefits without compromising educational goals.

4. Additional information: <https://www.polito.it>

University of Minho (Portugal)

1. Practice description

1.1 Title: Distance Assessment – Student Guidelines

1.2 Brief description: A structured set of guidelines for students undertaking distance assessments. It includes preparation strategies, recommendations on technical and environmental setup, instructions for the day of the exam, and proper conduct during the assessment.

1.3 Goals and purpose: To ensure that remote assessments are conducted under conditions comparable to in-person exams. To prepare students and teachers to prevent technical disruptions and ensure exam integrity. To outline procedures for handling disruptions, ensuring exams remain valid and fair.

1.4 Context: University-wide, across all academic programmes involving remote or hybrid assessment formats.

2. Implementation details

2.1 Stages: Pre-exam preparation: Clarify the exam format, platform, and rules; offer technical trial runs. Environment selection: Choose a quiet, well-lit, stable internet-connected room. Technical check on the day: Test equipment, have backups ready. During the exam: Follow conduct rules, report issues with screenshots, switch to backup platforms.

2.2 Stakeholders: Students; Course instructors; Programme coordinators.

2.3 Resources: Financial, human and technical resources.

3. Assessment and impact

3.1 Benefits: Enables remote exams to be carried out reliably and transparently; reduces student anxiety through clear instructions and practice sessions; Minimises exam disruption with well-defined contingency plans.

3.2 Challenges: Lack of ideal technical or environmental conditions from students; Real-time problem-solving requires coordination and digital fluency; Authenticity and academic integrity still present challenges without in-person supervision.

3.3 Feedback: Students appreciate the pre-exam simulations; teachers value the detailed procedures and the ability to maintain assessment validity during incidents.

3.4 Lessons learnt: Trial runs are essential; redundant technology and support must be available; continued training in digital tools for both students and faculty is needed.

4. Additional information:

<https://www.usaae.uminho.pt/en/Estudantes/AvaliacaoDistancia/Pages/default.aspx>

University of Twente (Netherlands)

1. Practice description

1.1 Title: Guidance to choose the suitable remote assessment method

1.2 Brief description: Guidance for teachers when choosing the appropriate remote assessment method.

1.3 Goals and purpose: To help teachers choosing the most appropriate assessment method.

1.4 Context: All university.

2. Implementation details

2.1 Stages: Availability of a 'decision scheme' for teachers; Explanation of the remote assessment methods; Guides for the design of the different remote assessment methods.

2.2 Stakeholders: Teachers. E-learning specialists. Specialists on TELT-Technological Enhanced Learning and Teaching.

2.3 Resources: Human and technical resources.

3. Assessment and impact

3.1 Benefits: Guide teaching staff on their assessment; Contribute to adequate assessment methods; Offer students more valid and reliable assessment methods.

3.2 Challenges: Guarantee valid, reliable and transparent assessments.

3.3 Feedback: Positive feedback from students and teaching staff who make better decisions and feel more secure about their assessment methods' decisions.

3.4 Lessons learnt: Sharing information, guidelines is crucial.

4. Additional information:

<https://www.utwente.nl/en/learning-teaching/expertise/online-lectures/remote-assessment/choosing-remote-assessment/>

Universitat de Girona (Spain)

1. Practice description

1.1 Title: Implementation of the ACME platform for automatic assessment and learning support in Higher Education.

1.2 Brief description: Web-based e-learning platform designed to automate the generation, delivery, correction, feedback, and grading of a wide variety of exercises in higher education. The system allows both formative (practice-based) and summative (graded) assessments.

1.3 Goals and purpose: Improve the efficiency and accuracy of continuous assessment processes; Reduce manual grading workload for instructors; Enhance student engagement and motivation through individualized assignments and immediate feedback; Support autonomous learning and mastery of complex problem-solving skills; Provide a scalable, multi-disciplinary tool adaptable to various fields beyond engineering.

1.4 Context: Used university-wide across multiple engineering and technical programs, including computer science, industrial engineering, agri-food engineering, building engineering, and architecture.

2. Implementation details

2.1 Stages: Needs assessment; Initial Development; Pilot testing; Feedback collection; Iterative improvements; Full-scale deployment; Continuous monitoring and updating.

2.2 Stakeholders: Instructors and course coordinators: Designing and configuring exercises, providing academic content and overseeing assessment use. Students: Engaging with the platform for practice, continuous assessment, and exams. IT teams: Developing, maintaining, and updating the ACME platform, ensuring integration with Moodle and other institutional systems. University leadership and QA unit: Supporting adoption, evaluating impact, and aligning with institutional QA strategies and educational improvement goals.

2.3 Resources: Financial, Human and Technological resources.

3. Assessment and impact

3.1 Benefits: Provides tailored, individualized problem sets for each student; Reduces plagiarism and promoting independent learning; Empowers teachers by reducing manual grading workloads; Enhance learning experience for students and learning outcomes; Increase student motivation; Offers instant feedback and partial scoring, even for multi-step problems; Versatile use cases; Improve QA: Detailed tracking of student progress supports institutional QA efforts and provides data for evaluating teaching effectiveness.

3.2 Challenges: Initial resistance to change: Some instructors and students were initially hesitant to adopt the platform, requiring training and awareness-raising efforts. Technical limitations: Certain advanced functionalities, like dynamic tables in Excel, are not fully supported, limiting some types of exercises. Learning curve for instructors: Teachers need time to become familiar with the platform and learn how to set up and configure effective activities. Infrastructure dependence: The system's success depends on reliable server performance and internet connectivity.

3.3 Feedback: Students: Highly value the immediate feedback, individualized tasks, and clarity on their learning progress; appreciate the reduced stress during assessments thanks to partial scoring and multiple trials. Professors: Report significant time savings, improved control over student progress, and better opportunities for meaningful interaction during face-to-face sessions. Evaluators: Recognize the platform as a valuable innovation that aligns with modern QA standards and enhances the teaching-learning process.

3.4 Lessons learnt: Importance of training: Providing robust initial and ongoing training for faculty and students helps ensure effective adoption and use. Continuous module development: Expanding the range of supported subjects and problem types keeps the system relevant and responsive to emerging needs. Enhancing user experience: Improving error message clarity and adding more customizable feedback features can further support student learning. Scalability considerations: As usage grows, maintaining strong server capacity and technical support will be essential for sustainability

4. Additional information: <https://acmex.udg.edu/equip.php>

Universidad de Burgos and Universidad de Castilla La Mancha (Spain)

1. Practice description

1.1 Title: Implementation of SMOWL for Online Exam Proctoring

1.2 Brief description: online proctoring solution, designed to ensure academic integrity in digital assessments. The tool verifies student identity and monitors behaviour during exams using webcam image capture, desktop activity tracking, and sound detection. Additionally, it provides the option for human proctoring to review automatically flagged incidents.

1.3 Goals and purpose: To ensure the authenticity of online assessments through identity verification and behaviour monitoring; To prevent academic fraud and promote fairness in remote examinations; To support the implementation of fully online academic programmes, enabling institutions to

expand their digital offerings; To comply with current data privacy and protection regulations.

1.4 Context: Universities and training centers that offer fully or partially online academic programmes.

2. Implementation details

2.1 Stages: Initial needs analysis; Solution Evaluation and Selection; Pilot phase and technical integration; training and guidelines development; full deployment; continuous evaluation and improvement.

2.2 Stakeholders: Institutional Leadership: University administration and QA bodies oversee the selection and strategic implementation. IT and e-Learning Departments: Responsible for technical integration, LMS configuration, and support. Teaching Staff: Create and supervise assessments using the SMOWL tool. Students: Participants in monitored evaluations and contributors to feedback loops. SMOWL Support Team: Provides onboarding, technical support, and training resources for the institution.

2.3 Resources: Financial, Human and Technological resources.

3. Assessment and impact

3.1 Benefits: Enhanced Exam Integrity: Successfully ensured the credibility of online assessments by minimizing academic misconduct through its AI-based and human-supervised monitoring system. Flexible and Scalable Integration: Institutions reported smooth integration with their LMS platforms and appreciated the ability to adapt the level of monitoring (basic webcam, full desktop, or dual-device monitoring). GDPR-Compliant and Ethical Approach: Complies with EU data privacy laws, which builds trust among users and institutions, especially in the higher education sector. Support for Online and Hybrid Learning: Expand fully online programmes while maintaining robust assessment procedures.

3.2 Challenges: Connectivity and Device Limitations: Some users experienced technical issues due to unstable internet connections or inadequate hardware (e.g., outdated webcams or incompatible browsers). User Familiarity and Anxiety: Students and professors unfamiliar with proctoring tools initially reported anxiety or concern over being monitored, necessitating extensive onboarding and transparent communication. False Positives in Monitoring: The AI occasionally flags non-problematic behaviours as suspicious, requiring manual review and creating additional workload for evaluators.

3.3 Feedback: Professors appreciate the added security and the comprehensive reporting features, which help them review incidents effectively without watching entire recordings. Students value clear communication and fairness

when trained properly and when privacy is respected. Some initially express concern about being monitored but later accept it as part of digital exam culture. IT staff commend SMOWL's responsive customer support and ease of integration.

3.4 Lessons learnt: Importance of Clear Guidelines: Institutions must provide students with detailed instructions and mock exams to reduce stress and improve compliance with proctoring procedures. Human Review Remains Key: While AI helps scale monitoring, human verification is essential to ensure accurate interpretation of flagged incidents. Continuous User Feedback Loop: Incorporating regular feedback from all stakeholders helps improve the system's acceptance and effectiveness over time.

4. Additional information: <https://smowl.net/en/>

Ghent University (Belgium)

1. Practice description

1.1 Title: 360° Room Scan and Click Behaviour Monitoring.

1.2 Brief description: Online exams with room scans and behaviour analytics to prevent academic misconduct.

1.3 Goals and purpose: Increase control over home-based assessments.

1.4 Context: Used in remote summative assessments.

2. Implementation details

2.1 Stages: Policy setup, technology piloting, full implementation.

2.2 Stakeholders: IT services, ethics boards, teaching staff.

2.3 Resources: Webcam software, analytics tools, privacy framework.

3. Assessment and impact

3.1 Benefits: Discourages misconduct; data supports review.

3.2 Challenges: Student resistance and privacy concerns.

3.3 Feedback: Mixed—effective but controversial.

3.4 Lessons learnt: Transparency and opt-out mechanisms are essential.

4. Additional information: <https://www.ugent.be/student/en/class-exam-exchange-intern/class-exam/guidelines-online-examinations>

VII. Appendix II. Best Practices

Profiles of Quality Assurance Agencies

ANECA (Spain)

1. Practice description

1.1 Title: International Quality Label for Hybrid Education.

1.2 Brief description: An accreditation scheme focused on evaluating hybrid programs for design quality, technology integration, and student experience.

1.3 Goals and purpose: To support recognition of high-quality hybrid programs.

1.4 Context: Used in Spanish and international QA processes.

2. Implementation details

2.1 Stages: Criteria development, pilot application, formal deployment.

2.2 Stakeholders: QA reviewers, HEIs, external experts.

2.3 Resources: QA protocols, digital rubrics, trained evaluators.

3. Assessment and impact

3.1 Benefits: Enhanced recognition of hybrid programs.

3.2 Challenges: Institutional readiness and standardisation.

3.3 Feedback: Positive reception from institutions applying.

3.4 Lessons learnt: Importance of student experience metrics.

4. Additional information: <https://www.aneca.es>

AQU Catalunya (Spain)

1. Practice description

1.1 Title: Fully online or blended degree programmes: design, implementation and assessment. Tools for university quality.

1.2 Brief description: a set of guidelines for the design, implementation and assessment of fully online or blended degree programmes.

1.3 Goals and purpose: to provide guidance to universities and assessment committees on how they should approach the design, implementation and assessment of online degree programmes.

1.4 Context: Online and blended learning degree programmes.

2. Implementation details

2.1 Stages: This document, published in 2023 by AQU Catalunya, is the 3rd from a collection that offers universities a range of tools to help them improve quality.

2.2 Stakeholders: Methodologists and an expert in: E-learning; online education; universities and the network society; education and technology.

2.3 Resources: Human and financial (experts)

3. Assessment and impact

3.1 Benefits: Helpful tool for universities and QA Agency evaluators; it develops AQU Catalunya's Guide to the formulation and validation of proposals for recognised Bachelor and Master's degree programmes; it establishes a common framework for all universities from the Catalan university system and allows the QA Agency to assess the quality of online and blended degree programmes with specific criteria set for these programmes.

3.2 Challenges: It had to encompass a wide range of practices across the university system and ensure alignment with the existing legal framework.

3.3 Feedback: No systematic collection of user feedback has been carried out, but the document is currently being used by universities and evaluation committees in their assessment processes.

3.4 Lessons learnt: successful implementation and evaluation of online or distance learning requires institutions to have a clear strategy and well-defined resources. Quality assurance systems also need to play a key role in supporting initiatives for the virtualisation of study programmes. The boundaries between face-to-face, hybrid, and online learning are becoming increasingly blurred. Future updates to the guidelines will be necessary.

4. Additional information:

<https://www.aqu.cat/en/doc/Universitats/Metodologia/Focus-3.-Titulacions-amb-modalitat-d-ensenyament-no-presencial-o-semipresencial>

A3ES (Portugal)

1. Practice description

1.1 Title: Guidelines for remote new study programmes.

1.2 Brief description: Specific guidelines for remote study programmes

1.3 Goals: Adapt national assessment guidelines to a new legal framework for remote education; Assess adequately remote study programmes

1.4 Context: online study programmes.

2. Implementation details

2.1 Stages: New legal framework for distance higher educationn regulating and standardising distance learning in higher education, and establishing criteria for HEIs to offer degrees through distance learning.

2.2 Stakeholders: HEIs, QA evaluators, QA staff

2.3 Resources: Reporting templates, guidelines on remote learning

3. Assessment and impact

3.1 Benefits: Fit-for-purpose assessment; Criteria standardization

3.2 Challenges: Interpretation of the guidelines

3.3 Feedback: Institutions see it as a quality enhancer

3.4 Lessons learnt: Constant update of guidelines to new contexts

4. Additional information:

<https://a3es.pt/en/assessment-and-accreditation/study-programmes/new-study-programmes/>

ANVUR (Italy)

1. Practice description

1.1 Title: Evaluation Protocol: Distance learning study programme

1.2 Brief description: Specific guidelines and criteria for assessing distance learning study programmes

1.3 Goals: Assess adequately remote study programmes

1.4 Context: online study programmes.

2. Implementation details

2.1 Stages: New guidelines and protocols already implemented (AVA3)

2.2 Stakeholders: HEIs, QA evaluators, QA staff

2.3 Resources: Guidelines and protocols on remote learning

3. Assessment and impact

3.1 Benefits: Fit-for-purpose assessment, dedicated experts' involvement

3.2 Challenges: Updating guidelines and criteria

3.3 Feedback: Positive feedback from HEIs for ad hoc assessment criteria and expertise

3.4 Lessons learnt: Guidelines updating is necessary to face changes in HE practices

4. Additional information:

https://www.anvur.it/sites/default/files/2025-01/Protocollo%20Accreditamento%20Iniziale%2025_26_ANVUR_Telematici.pdf

https://www.anvur.it/sites/default/files/2025-01/AVA3_LG_Atenei_2024_08_08.pdf

Estonian Quality Agency for Education (HAKA, Estonia)

1. Practice description

1.1 Title: Digital Education Quality Label

1.2 Brief description: The Digital Education Quality Label recognizes well designed and executed online and blended learning courses. Courses that demonstrate excellence in applying digital technologies in teaching and learning may be awarded the Excellence in Digital Education label.

1.3 Goals: To recognize well designed and executed online and blended learning courses, as well as excellence in applying digital technologies in teaching and learning.

1.4 Context: Online and blended learning courses.

2. Implementation details

2.1 Stages: The working-group was formed with digital education experts from different universities and worked out the quality criteria that are regularly

updated. The training programme “Developing My E-course to Qualify for a Quality Label” for the members of the academic staff was developed and has been conducted every year. The process model for the annual competition was developed and the conference for sharing the best digital education practice has been organized every year.

2.2 Stakeholders: Management of universities and professional HEIs, educational technologist, study designers, students (evaluators, feedback).

2.3 Resources: Financial, working group, training, seminars and conference, technical platform for annual competition.

3. Assessment and impact

3.1 Benefits: Shared understanding of what constitutes a good quality in digitally enhanced teaching and learning at the course level; development of the Learning Community; Educational technologist and educational designers work together and share good practices (as evaluators in the teams as well as in the annual Conference); University teachers get feedback and ideas from experts – what to develop in their course; recognition (the Label) is highly valued; good self-evaluation tool and relevant quality criteria.

3.2 Challenges: Support the quality in digitally enhanced teaching and learning at the institutional level; systematic and institutional approach.

3.3 Feedback: Positive feedback from teachers and external stakeholders; opportunity to conduct self-evaluation; useful guidelines and quality criteria for digital education; good platform for exchange of good practices; quality criteria can be used as framework for internal QA

3.4 Lessons learnt: need for individual and institutional engagement; institutions lack guidelines for digital education.

4. Additional information:

<https://haka.ee/en/ecourse/>

Quality Qualifications Ireland (QQI Ireland)

1. Practice description

1.1 Title: Statutory Quality Assurance Guidelines for Providers of Blended and Fully Online Programmes.

1.2 Brief description: Statutory guidelines established by QQI for all providers of blended and fully online learning programmes of education and training. They address the specific responsibilities of providers regarding the QA of programmes supported by blended and fully online learning study modes. They

are to be used by providers when establishing, developing, implementing, evaluating, maintaining, or reviewing QA procedures for blended learning programmes involving a combination of on-site and online study; for fully online programmes; and as a basis for the approval, as required, by QQI of a provider's internal QA procedures.

1.3 Goals and purpose: Reinforce the key principle that high quality teaching, learning and assessment, coupled with pedagogically sound programme design and appropriate administration, underpins all modes of programme delivery, including blended and fully online.

1.4 Context: All types of providers of blended and fully online learning programmes of education and training.

2. Implementation details

2.1 Stages: Comprehensive review of the contemporary literature and of several similar initiatives underway or published by other national EQAAs; Input and feedback gathered through several stages of consultation; Final version.

2.2 Stakeholders: Providers of blended and fully online learning programmes of education and training.

2.3 Resources: QA guidelines.

3. Assessment and impact

3.1 Benefits: Ensure a quality experience for learners; Support good practice and a positive experience when programmes are blended or fully online, with QA, improvement, and enhancement in place.

3.2 Challenges: Academic integrity, platform solutionism; Assurance online or blended provision is of full equivalency to any other in providing the opportunity to meet the learning outcomes.

3.3 Feedback: Positive from providers.

3.4 Lessons learnt: Good practice principles underlying guidelines recognise a variety of contexts and provide a reference point rather than a recipe to inform, benchmark and enhance the design of blended and fully online learning experiences. They indicate quality considerations across a broad spectrum of providers and recognise that programmes with an online component can take many different forms.

4. Additional information: https://www.qqi.ie/sites/default/files/2023-12/statutory-quality-assurance-guidelines-for-providers-of-blended-and-fully-online-programmes-2023_1.pdf

NSQOL (USA/International)

1. Practice description

1.1 Title: National Standards for Quality Online Learning (NSQOL)

1.2 Brief description: A comprehensive framework for evaluating quality in online programs, teaching, and courses.

1.3 Goals and purpose: Provide structured, evidence-based guidance for improving and evaluating online education.

1.4 Context: Adopted voluntarily by institutions and QA bodies globally.

2. Implementation details

2.1 Stages: Standards development, piloting, public release, institutional uptake

2.2 Stakeholders: Educators, instructional designers, QA professionals

2.3 Resources: Public standards documents, implementation guides, training modules

3. Assessment and impact

3.1 Benefits: Shared vocabulary and expectations for quality online learning

3.2 Challenges: Adaptation to local/national contexts
3.3 Feedback: Widely endorsed and adapted for internal QA

3.4 Lessons learnt: Clear criteria enable systematic improvement

4. Additional information: <https://www.nsqol.org>

APEC (Asia-Pacific)

1. Practice description

1.1 Title: APEC Quality Assurance of Online Learning Toolkit

1.2 Brief description: Toolkit offering strategies, indicators, and resources to strengthen QA of online learning across education systems.

1.3 Goals and purpose: Strengthen QA of online and blended learning at national and institutional levels.

1.4 Context: Adopted by QA agencies and ministries across APEC member economies.

2. Implementation details

2.1 Stages: Toolkit development, regional dissemination, national adaptation

2.2 Stakeholders: QA agencies, policymakers, institutional leaders

2.3 Resources: Toolkit, case studies, self-assessment guides

3. Assessment and impact

3.1 Benefits: Shared framework for improving QA policy and practice

3.2 Challenges: Resource constraints in some countries

3.3 Feedback: Adaptable across contexts; basis for policy dialogues

3.4 Lessons learnt: Cross-national QA dialogue is key to progress

4. Additional information: <https://www.apec.org/publications/2019/12/apec-quality-assurance-of-online-learning-toolkit>
