# Report on Digital transformation of quality assurance procedures and practices undertaken by QAAs in EHEA

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# Digitalisation of Quality Assurance processes

## Main objectives of WP7

- mapping the situation of QA systems in EHEA countries from the perspective of digitalisation (including changes triggered by the COVID-19 pandemic) as well as data management and sharing

- reflecting on a medium-term vision for enhancing QA processes and procedures based on technology.

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# Methodology Overview

## Objective:

- To assess the digital maturity of Quality Assurance Agencies (QAAs) in EHEA member countries.
- To analyze the integration of digital transformation within QA processes.

## Data Collection Method

➢ **Survey Methodology:**
- Distributed to QAAs across EHEA member countries.
- Aimed to gather insights on:
  - Digital maturity
  - Implementation activities related to digital transformation

➢ **Supplementary Data Collection:** Conducted structured interviews with QAA members (QA Austria + ENQA GA.
- Aimed to:
  - Provide contextual insights
  - Discuss challenges and opportunities in the digitization process

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# Focus Areas of the Survey

## Key Domains Explored:

- **Internal Workflows:**
  - Utilization of digital tools
  - Enhancement of data accuracy
  - Optimization of resource allocation

- **External Functions:**
  - Digital technologies in accreditation
  - Periodic assessments
  - Stakeholder engagement

- **Enhancing overall transparency and efficiency**

## Questionnaire Structure & Response Summary

- **Questionnaire Breakdown:**
  - General Data: 3 questions
  - Internal Work/Procedures and External QA: 7 questions
  - Sustainability and Security: 4 questions
  - Partnership and Communication: 6 questions
  - Risks: 1 question
  - Perspectives: 1 question
  - Other Experiences: Open answer

- **Response Summary:**
  - Distributed to QAAs in 46 EHEA countries.
  - Received 32 responses from 26 countries (one response per country, except Spain: 5; Belgium: 3).

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# Survey data analysis

- ✓ Unpacking the Data: Insights from Each Questionnaire Section;
- ✓ Data Cleaning: Removing incomplete or irrelevant responses;
- ✓ Calculate key descriptive statistics, such as: Frequencies and percentages for categorical data, Measures such as mean, median, and mode for continuous data;
- ✓ Validation of the responses - Cross-Tabulation Analysis to examine relationships between different survey variables;
- ✓ Examining the **differential impact** of strategic planning on addressing digital transformation across Quality Assurance Agencies (stratified approach)
- ✓ Visualize Data: Create charts, graphs, and tables to visually represent the survey findings.

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# Need for a Strategic Plan on Digitalization ???

➢ **Importance of a Strategic Plan:**
- Crucial for effective integration of digital technologies in quality assurance processes.
- Enhances agency operations and stakeholder engagement.

➢ **Survey Insights:**
- The survey results reveal a significant gap, with less than half of the agencies having a formal digital transformation plan.
- Only **43.75%** of responding QAAs have a digital transformation plan.
- **78.6%** integrate both internal and external processes, while **14.3%** focus solely on internal processes.

➢ **Approval Rates:**
- **64.3%** of agencies reported formal adoption of their plans by decision-making bodies.

➢ **Timeframes of Plans:**
- **92.9%** of agencies have multi-year plans (average duration: **3.67 years**), reflecting the complexity of digitization initiatives.

➢ **Alternative Approaches:**
- Interestingly, some agencies are leveraging their IT departments to initiate digitalization efforts without formal plans.

➢ **Gradual Digitalization Approach:**
- Most QAAs adopt a step-by-step method, aligning digitalization with internal needs and technology developments.

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# Results from the analysis of the answers to the questionnaires

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# Digital Transformation: Enhancing QAA Internal Operations

# 1. Digitalization Drives Significant Improvements in QAA Internal Workflows

➢ **Improved efficiency through automation of tasks (data collection, reporting, document management):** Automated data entry reduces manual workload, leading to faster report generation and improved turnaround times for key deliverables. Document management systems automate filing, retrieval, and version control, saving Y hours per week per employee.

➢ **Enhanced accessibility of information and tools, enabling anytime, anywhere work:** Cloud-based systems provide 24/7 access to crucial information and collaboration tools, increasing flexibility and responsiveness to stakeholder needs. Remote work capabilities have improved employee satisfaction and work-life balance.

➢ **Streamlined collaboration and communication across teams and with beneficiaries:** Digital collaboration platforms facilitate efficient information sharing and reduce communication bottlenecks. Online communication tools have shortened response times to beneficiary inquiries .

➢ **Shift towards digital-first approach, reducing reliance on paper-based processes:** The adoption of digital document management has reduced paper consumption, contributing to environmental sustainability and cost savings. This transition has also minimized the risk of document loss or damage.

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## Key Tools and Technologies: They enable a shift towards more efficient, paperless operations

➢ **Video Conferencing:**
- Most widely adopted tool, crucial for real-time communication and collaboration in meetings.
- **Comment:** This near-unanimous consensus underscores the critical role that real-time communication technology plays in facilitating internal collaboration.

➢ **Online Collaboration Platforms:**
- Tools like Google Suite and Microsoft Teams are vital for real-time collaboration on documents and activities.
- **Comment:** This highlights the strong recognition of the value of integrated platforms for real-time collaboration.

➢ **E-mails and Calendars:**
- Essential for planning, organizing meetings, and ensuring effective coordination.
- **Comment:** E-mails and calendars frequently serve for efficient coordination of activities.

➢ **Document Management Systems (DMS):**
- Facilitate secure storage, editing, sharing, and management of electronic documents.
- **Comment:** DMS allow electronic documents to be stored, edited, shared, and managed securely and accessibly.

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## Current State of AI Adoption:

➢ **Limited Use for Data Analysis and Decision-Making:**
- Indicates early stages of AI integration in QAAs.
- Highlights potential for future growth in analytical capabilities.
  - **Comment:** The limited adoption of AI technology for data analysis and decision-making suggests that this is an area for potential future growth.

## Opportunities for Growth:

➢ As QAAs become adept with basic digital tools and gather more digital data, exploring AI capabilities can significantly enhance decision-making processes.
  - **Comment:** As agencies become more comfortable with basic digital tools and accumulate more digital data, they may increasingly explore AI capabilities.

➢ Emphasis on developing AI-driven systems for deeper insights and data-driven strategies.
  - **Comment:** This indicates that investing in AI could enhance their analytical and decision-making processes.

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**Strengthening Data Protection: A Multifaceted Approach**

➤ **Access Control:** Strict limitations on data access are in place to prevent unauthorized personnel from viewing sensitive information. This is a cornerstone of data protection, limiting the risk of breaches.

➤ **Regulatory Compliance:** Adherence to relevant standards (GDPR, HIPAA, etc.) ensures legal compliance and protects against potential legal repercussions. Policies are in place and are regularly reviewed and updated.

➤ **Data Encryption:** Sensitive data is protected through encryption techniques to maintain confidentiality, even if a breach occurs. This minimizes the impact of potential security incidents.

➤ **Staff Training:** Ongoing training programs raise awareness of data security best practices and empower staff to identify and report potential risks. Training is key to building a culture of security awareness.

➤ **Areas for Improvement:** While strong foundations are in place, enhancing staff training, conducting regular security assessments, and developing comprehensive incident response plans can further strengthen data protection measures.

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# Digital Transformation: Using Digital Tools in External QA Processes

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# 1. Key Objectives for Using Digital Tools in External QA Processes

QAAs are actively adopting digital tools to enhance their processes.

➢ **Key Objectives for Digital Transformation:**
- ▪ **Increased Efficiency:**
  - ✓ Streamlining operations through online platforms and mobile apps
  - ✓ Reducing time spent on document analysis and administrative tasks
  - • **Comment:** The focus on efficiency reflects QAAs' recognition of technology as a key driver in optimizing their external processes.
- ▪ **Enhanced Accessibility:**
  - ✓ Making assessment results available to a wider audience
  - ✓ Improving transparency and communication with stakeholders
  - • **Comment:** This underscores the importance of transparency and effective communication in quality assurance.
➢ **Improve Collaboration and Communication:**
  - ✓ Fostering stronger partnerships among stakeholders
  - ✓ Facilitating knowledge sharing and best practice exchange
  - • **Comment:** Enhancing collaboration is essential for fostering a transparent QA environment. Improve collaboration and communication among stakeholders ensure quality assurance transparency.

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# 2. Improving Assessment Outcomes and Flexibility

Enhancing assessment outcomes through specialized digital platforms points to a strategic shift

➢ **Enhanced Assessment Outcomes. Leveraging Technology:**
- ✓ Leveraging specialized platforms and advanced algorithms
- ✓ Improving the quality and depth of evaluations

- **Comment:** Agencies are actively leveraging technology to go beyond digitization, enhancing the quality and depth of their evaluations.

➢ **Increased Flexibility and Adaptability:**
- ✓ Responding rapidly to the evolving needs of higher education
- ✓ Automating routine tasks like data collection and report writing

- **Comment:** This adaptability is crucial for QAAs to address the evolving needs of the educational system effectively.

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# 3. Automation and AI Integration in QA Processes

Automation adoption is not universally high; concerns regarding full automation exist.

➢ **Automation of Evaluation Processes:**
- ✓ Automation is seen as a key tool for streamlining and modernizing evaluations. Essential for streamlining tasks such as data collection, report writing, and infographic reports.
- ✓ However, agencies are cautious about fully automating certain processes..

- • **Comment:** While automation is prioritized, the mixed responses suggest agencies are cautious in applying full automation to ensure quality.

➢ **AI Tools in Experimentation:**
- ✓ Currently in experimental stages for uses like generating executive summaries.
- ✓ Concerns about the validity and reliability of AI outputs highlight the need for human oversight in decision-making.
- ✓ Future emphasis on incorporating practical examples of AI applications in quality assurance, with workshops to equip stakeholders with hands-on experience.

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# 4. Digital tools for supporting on-site visits

➢ **Key Digital Tools:**

   ✓ **Video Conferencing:**
- Essential for real-time communication, enabling efficient interactions across different locations.
- Highlights the importance of maintaining effective communication and assessment capabilities.

   ✓ **Online Presentations:**
- Multimedia presentations provide interactive access to assessment locations and share relevant data.

   ✓ **Live Streaming & Virtual Tours:**
- Live transmission of events enhances accessibility; virtual tours guide users through key locations.
- **Note:** 38.2% rated virtual tours as low relevance, indicating mixed perceptions.

   ✓ **Mobile Applications & 360-Degree Views:**
- Apps offer access to information and interaction opportunities, while 360-degree views provide immersive exploration.

➢ **General Impression:**

   ✓ QAAs are pragmatically embracing digital tools, focusing on clear communication and information sharing while balancing traditional methodologies.

   ✓ Future on-site visits are anticipated to be **increasingly hybrid**, combining physical presence with digital enhancements for improved communication and effectiveness.

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➢ **Key Security Measures:**

✓ **Controlled Access**:

- Restricts users to specific areas or information related to the visit, ensuring access is limited to necessary information for their role.

✓ **Firewalls:**

- Protect the server against cyber-attacks and block suspicious activities, demonstrating a commitment to external threat mitigation.

✓ **Data Backup:**

- Agencies create backup copies of information to ensure data recovery in case of incidents, reinforcing data resilience.

➢ **Diverse Security Approaches:**

➡ Varied responses indicate different levels of implementation and perception of security measures across agencies due to:

- Differences in technological capabilities.
- Specific security requirements.
- Perceptions of associated risks.

➢ **Conclusion:**

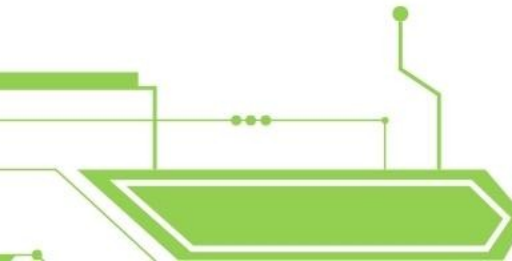- QAAs must balance robust protection needs and resource constraints in their security practices.

# Perspectives on Digitalization of Quality Assurance Processes

•QAAs are focused on enhancing both internal and external quality assurance processes using digital tools.

➢ **Goals for External Quality Assurance:**
- ✓ **Automation of Processes:**
  - **46.9%** prioritize efficiency and cost reduction.
- ✓ **Development of New Services:**
  - **43.8%** focus on services that align with legislative changes.
- ✓ **Increase User Satisfaction:**
  - **50%** highlight the need for efficient, user-friendly services.
- ✓ **Enhancing Evaluation Efficiency:**
  - **43.8%** aim to optimize processes and increase transparency.
- ✓ **Stakeholder Participation:**
  - **28.1%** is the least prioritized action.

➢ **Goals for Internal Quality Assurance Focus:**
- ✓ **IT System Development:**
  - **62.5%** prioritize facilitating internal information management.
- ✓ **Employee Satisfaction:**
  - **56.3%** support modern and efficient work environments.
- ✓ **Staff Training on New Technologies:**
  - **40.6%** emphasize productivity increases.
- ✓ **Data Interoperability:**
  - **31.3%** note its importance for managing internal tasks.

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# Key Benefits and Recommendations of Digital Implementation

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# Recommendations for Internal Quality Assurance Processes

➢ **Prioritize Automation of Repetitive Tasks**
   - ✓ Implement automated systems for data collection, report generation, and document management.
   - ✓ This frees up resources for higher-level strategic initiatives, allowing staff to focus on critical analysis and evaluation.

➢ **Invest in Robust Data Management Systems**
   - ✓ Develop real-time data collection and analysis systems tailored for internal QA processes.
   - ✓ Ensure these systems integrate seamlessly with other digital tools for effective, data-driven decision-making.

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# Recommendations for External Evaluation Processes

➢ **Develop Digital Platforms for External Evaluations**
  - ✓ Create tools for automating external evaluation processes, such as online survey tools and automated report generation software.
  - ✓ Streamlining these processes enhances efficiency and allows staff to concentrate on in-depth analysis and developing insightful recommendations.

➢ **Enhance Communication and Collaboration**
  - ✓ Invest in collaboration platforms designed for seamless communication among HEIs, public authorities, and other stakeholders.
  - ✓ This improves information flow, reduces ambiguity, and facilitates effective partnerships in quality assurance efforts.

➢ **Implement Data Migration and Integration Strategies:**
  - ✓ Ensure careful planning and execution of data migration from legacy systems.
  - ✓ Maintains data integrity and smooth communication between systems.

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# Recommendations for Flexibility and System Integration

➢ **Focus on Flexibility and Adaptability of Tools**
- ✓ Develop and implement digital tools that can quickly adapt to changing needs and emerging challenges in higher education.
- ✓ For example, utilize online surveys to gather timely feedback from stakeholders.

➢ **Implement Holistic Integration Strategies**
- ✓ Conduct thorough evaluations of existing systems and establish standardized data protocols for smooth operational flow across systems.
- ✓ Utilize integration platforms to ensure effective communication and coordination between various digital solutions.

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# Parallel sessions – Digital transformation in QA

The objective of the parallel sessions is to discuss the proposed recommendations, and potentially identify new ones, reflecting on the following questions:

✓ Describe best practices related to the digital transformation of quality assurance processes and procedures, and of quality assurance agencies' functioning.

✓ Describe best practices in the use of data related to higher education and quality assurance at the national level.

✓ Which of the proposed recommendations you find most relevant?

✓ Which of the proposed recommendations you find less relevant?

✓ What other recommendations you think should be included?

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