EXTERNAL EVALUATION OF E-ASSESSMENT

A CONCEPTUAL DESIGN OF ELEMENTS TO BE CONSIDERED

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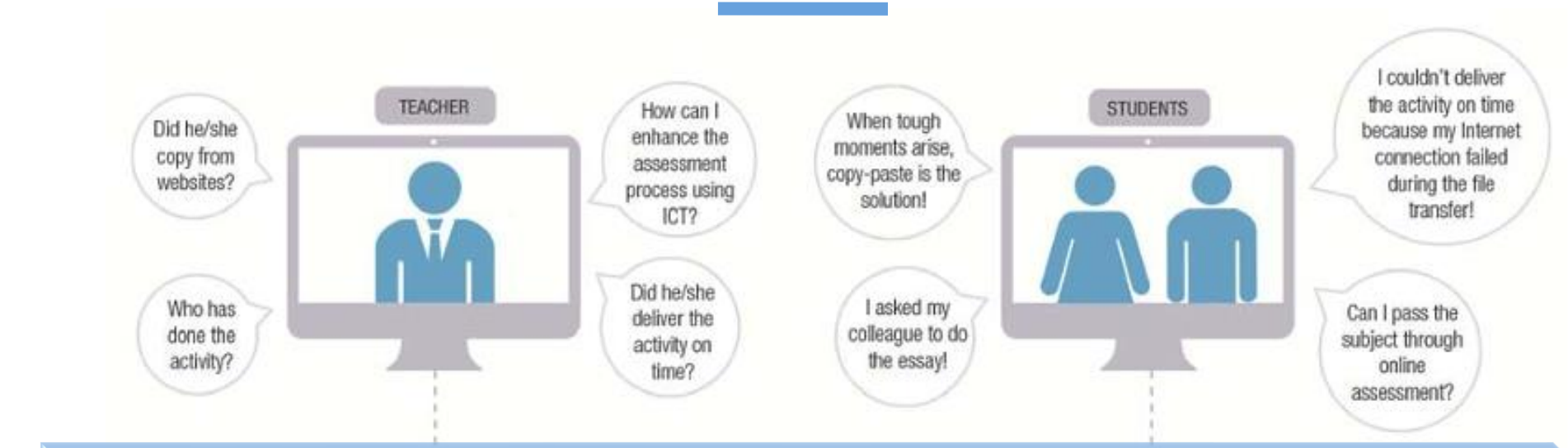
WHY?



ACADEMIC INTEGRITY & TRUST

Need

Resolve the gap In the current online evaluation system

- **E-learning provision is becoming more widespread in the EHEA**
- **The concept of quality in e-learning is as complex as the reality of e-learning itself**
- **There is not a European framework on e-assessment**
- **There is a lack of technologies to support authorship and authentication**

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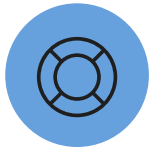
TeSLA MAIN OBJECTIVES

Define and develop an **e-assessment system**, which ensures learners **authentication and authorship** in online and blended learning environments while avoiding the time and physical space limitations imposed by face-to-face examination



The TeSLA project will support any e-assessment model (formative, summative and continuous) **covering teaching and learning processes as well as QA aspects, privacy and ethical issues, and technological requirements**.

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CONSORTIUM

18 Partners

8 Universities | **4 Research Centers** | **3 Enterprises** | **3 QA Organizations**

UOC Universitat Oberta de Catalunya

Св. Климент Охридски

ANADOLU ÜNİVERSİTESİ

ENQA European Association for Quality Assurance in Higher Education

EQANIE European Quality Assurance Network for Informatics Education

AQU Agència per a la Qualitat del Sistema Universitari de Catalunya

INSTITUT Mines-Télécom

LPLUS Professional Examination Management

Technical University Sofia

INAOE

The Open University

prot os Soluciones Educativas

idiap Research Institute

Open Universiteit www.ou.nl

Watchful Keep IT secret.

Université de Namur

University of Jyväskylä

Imperial College London

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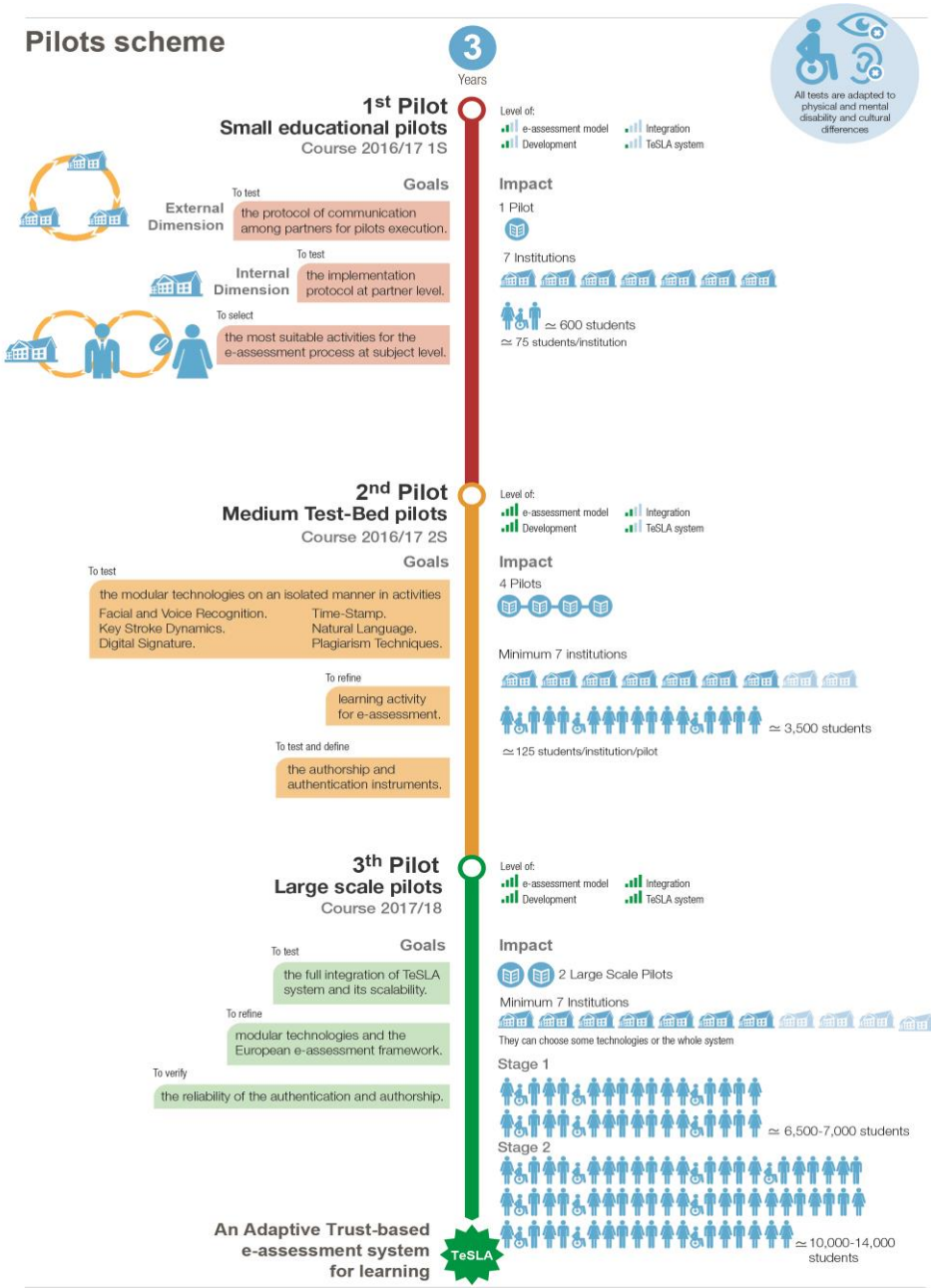
TIME PERIOD

2016

2018



1st PILOT
SMALL EDUCATIONAL PILOTS
Course 2016/17 1S

2nd PILOT
MEDIUM TEST-BED PILOTS
Course 2016/17 2S

3th PILOT
LARGE SCALE PILOTS
Course 2016/18

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TeSLA INSTRUMENTS

AUTHORSHIP

DOCUMENT ANALYSIS
Involves the analysis of written material using a qualitative analysis package that describes discourse and its interpretation

Plagiarism tools

Analyses written material and detects similarities among various written documents

Forensic analysis

Determines the authorship verification and authorship attribution of written documents based on the comparison of current documents with stored data

AUTHENTICATION

BIOMETRICS
Allow the clear identification of humans based on some specific physical characteristics or special behaviour

Facial recognition

Analyses facial expressions in two stages: facial detection and recognition

Voice recognition

State-of-the-art audio description method. Speaker segmentation and cluster grouping

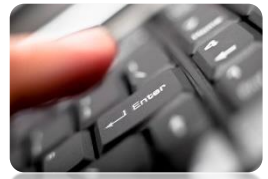
Keystroke dynamics

Measures how the user writes in regards to pressure and time-based measuring

CONFIDENCE

SECURITY TECHNIQUES
Deploy a security service provided by a layer of communicating systems

Timestamp



Generates a sequence of encoded information identifying when an event is recorded

Digital signature

Guarantees the authenticity of a digital message or document by a mathematical scheme

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QA PILLARS IN THE TeSLA PROJECT

Assure and guarantee the quality of e-assessment processes in HE

METHODOLOGY

EXPERTS

PROCESS

IMPROVEMENT

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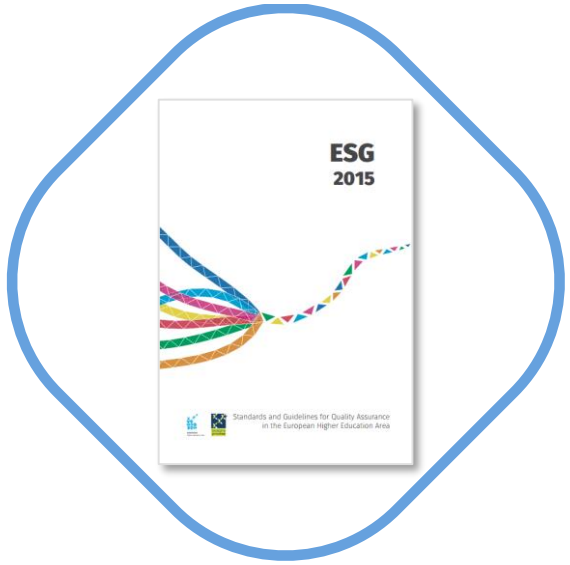
ESG (2015) are the basis for the assessment methodology developed in the TeSLA project



1

PART 1. INTERNAL QUALITY ASSURANCE

Development of internal quality assurance elements

+

2

PART 2. EXTERNAL QUALITY ASSURANCE

Design of the external review methodology for the pilots

+

3

PART 3. QUALITY ASSURANCE AGENCIES

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RELEVANT ELEMENTS FOR THE EXTERNAL EVALUATION OF E-ASSESSMENT

1. POLICIES, STRUCTURES, PROCESSES AND RESOURCES FOR QA OF E-ASSESSMENT

The institution has appropriate policies, structures, processes and resources ***to ensure that e-assessment is timely and fair****, and it includes* ***ethical and legal considerations****. Besides, the proposal for the e-assessment is aligned with the* ***pedagogical model*** *of the institution and ensures the constant achievement of its objectives.*

Main aspects:

- Organisation and protection against academic fraud
- Accessibility to students with special educational needs
- Adoption of new technologies to ensure the expected quality of e-assessment
- Technical support
- Electronic security measures
- Alignment with educational objectives and pedagogical models
- QA procedures for external partners

2. ASSESSMENT OF LEARNING

E-assessment methods are varied, facilitate pedagogical innovation and determine rigorously the level of achievement of learning outcomes*. They are consistent with course activities and resources and adapt to the diversity of learners and educational models.*

Main aspects:

- Informed and consistently applied
- Reflect innovative pedagogical practices
- Encourage the use of a variety of assessment methods
- Understand the diversity of learners
- Learning feedback is timely given to students
- Satisfaction procedures and student appeals processes

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RELEVANT ELEMENTS FOR THE EXTERNAL EVALUATION OF E-ASSESSMENT

3. E-ASSESSMENT SYSTEM SECURITY, CAPACITY AND AUTHENTICITY

*The development and implementation of the e-assessment include protective measures that **guarantee learner authentication and work authorship**. The e-assessment system is secure and fit for purpose.*

Main aspects:

All-inclusive fail-safe technology development plan for:

- Technologies, data protection and privacy requirements
- Building and maintenance of the infrastructure and processes for the ongoing review of technologies
- Ensure the operability and security against external attacks

Code of conduct on academic integrity, including sanctions and good practice

4. INFRASTRUCTURE AND RESOURCES

*The institution utilises the **appropriate technologies** that match the course content in order to enhance and expand learning for all types of students' needs.*

Main aspects:

- Ease of use for all students
- Consider ethical and legal aspects
- Constant update in light of technological changes
- Support of a variety of methods and tools
- Sufficiently tested prior to its use
- Ensure coverage and the setup of the required technical system
- Accessible for SEND students

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RELEVANT ELEMENTS FOR THE EXTERNAL EVALUATION OF E-ASSESSMENT

5. STUDENT SUPPORT

Students are aware, have access and use *effective and well-resourced* ***support services*** *for counselling, orientation, tutoring and facilitation in order to increase retention and success. Student support* ***covers pedagogical, technological and administrative related needs*** *and is* ***part of institutional policies and strategies****.*

Main aspects:

- Student support policies
- Access to timely and adequate support services
- Satisfaction procedures with student support

6. TEACHING STAFF

The teaching staff is ***skilled and well-supported*** *in relation to* ***technological and pedagogical requirements and e-assessment methods****.*

Main aspects:

- Teaching staff is trained and proficient
- Procedures to identify the support requirements of the teaching staff
- Adequate, accessible and timely technical and pedagogical support services
- Satisfaction procedures

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RELEVANT ELEMENTS FOR THE EXTERNAL EVALUATION OF E-ASSESSMENT

7. LEARNING ANALYTICS

*The institution has an **information management system** that enables agile, complete and representative collection of data and indicators derived from all aspects related to e-assessment methodology and authenticity and authorship technologies.*

Main aspects:

- The institution collects, analyses and uses relevant information from stakeholders for the effective management of the e-assessment methodology

8. PUBLIC INFORMATION

*The institution appropriately **informs** all stakeholders of **pedagogical development, the e-assessment method, and resources technology**. The institution **publishes** reliable, complete and up to date information on pedagogical methods and technical support. Students should be made aware of the hardware requirements and learning resources technology and technical support.*

Main aspects:

- The institution publishes reliable, complete and updated information on e-assessment methods, students' technical requirements and institutional technical support

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CONCLUSIONS

- The **ESG as the basis** for quality assurance any provision of higher education, including virtual learning environments.
- This methodology can be considered as an **initiation** to reflect more broadly on the specificities of the quality assurance of **e-learning** and that specifically of **e-assessment**.
- The assessment methodology **will be adapted if necessary** in the next phases of the project so that at the end of the project a **fully applicable e-assessment methodology will be provided**.

THANK YOU FOR YOUR ATTENTION

ACKNOWLEDGEMENTS

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DISCUSSION QUESTIONS

- What is the most challenging element in the assessment of e-learning for quality assurance agencies? And for higher education institutions?
- Does e-learning / e-assessment call for new approaches to internal and external QA?
- What can QA of e-learning / e-assessment contribute to the development of higher education provision? Can it widen access and delivery by making provision more open, transparent and flexible?