E-assessment strategy at University of Geneva

8th SIG e-Assessment workshop
April 24th, 2017

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Definition

Currently, limited to on-campus exams

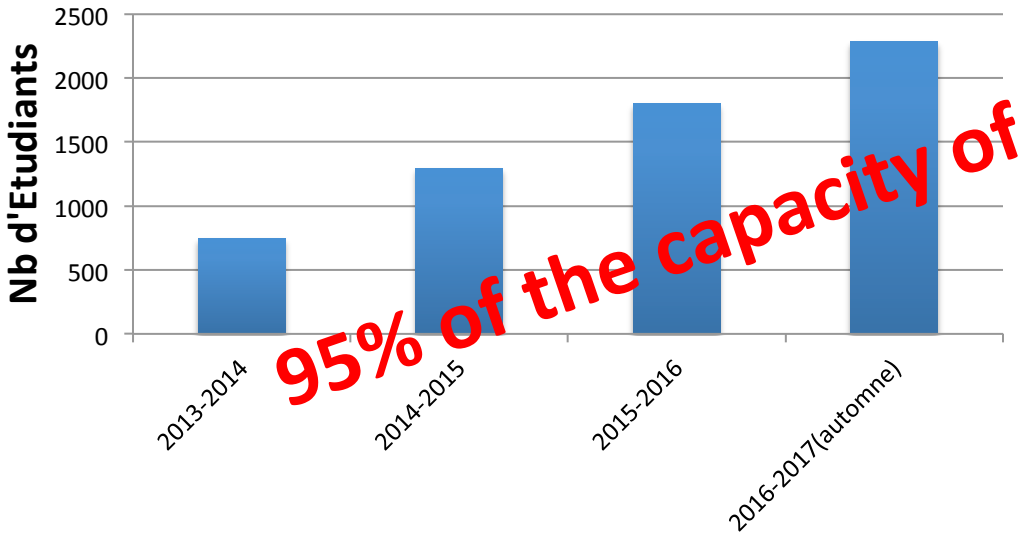
e-assessment refers to the use of information technologies for any activity related to evaluation, such as preparation, execution, management or correction.

Why doing e-assessment?

- Increase the evaluation coherency with respect to the learning objectives
  - Provide more authentic situations through third-party applications during the exam
- Better able to trace students' progression
- Improve the quality of the questions (e.g. through statistics) and bring more diversity in the exams (e.g. Team-Based Learning)
- Encourage self-evaluation (e-learning)
- Allow more efficient exam correction (more intelligible answers, auto-correction, etc.)
- Allow easier anonymisation of the exams

What's the current situation?

Increasing use of the e-assessment since 2013(*)



95% of the capacity of the infrastructure

➔ **We need an institutional service to respond to the increasing teachers' demands**

(*) Medicine faculty is not included in those numbers because has its own solution

Features of the e-assessment sessions performed since 2013

Année **2013-2014**: 6 examens + 2 examens blancs durant le semestre précédent

- 745 étudiants (707 étudiants Stat-FPSE + 38 FC)

Année **2014-2015**: 9 examens + 2 examens blancs durant le semestre précédent

- 1292 étudiants (750 étudiants Stat-FPSE + 460 Droit+ 30 GSEM + 52 Lettres)

Année **2015-2016**: 16 sessions d'examens

- 1800 étudiants dans 7 facultés : Sciences, Lettres, Droit, FPSE, FTI, GSEM, SDS

Année **2016-2017** (semestre d'automne): 27 sessions d'examens, 7 facultés

- 2130 étudiants: Sciences (Anthropologie, Math, CUI), Lettres (unité Chinois), Droit, FPSE, GSEM, FTI

Infrastructure

- One large room equipped with PCs, capacity 80 students
- Several small rooms, each for about 30 students

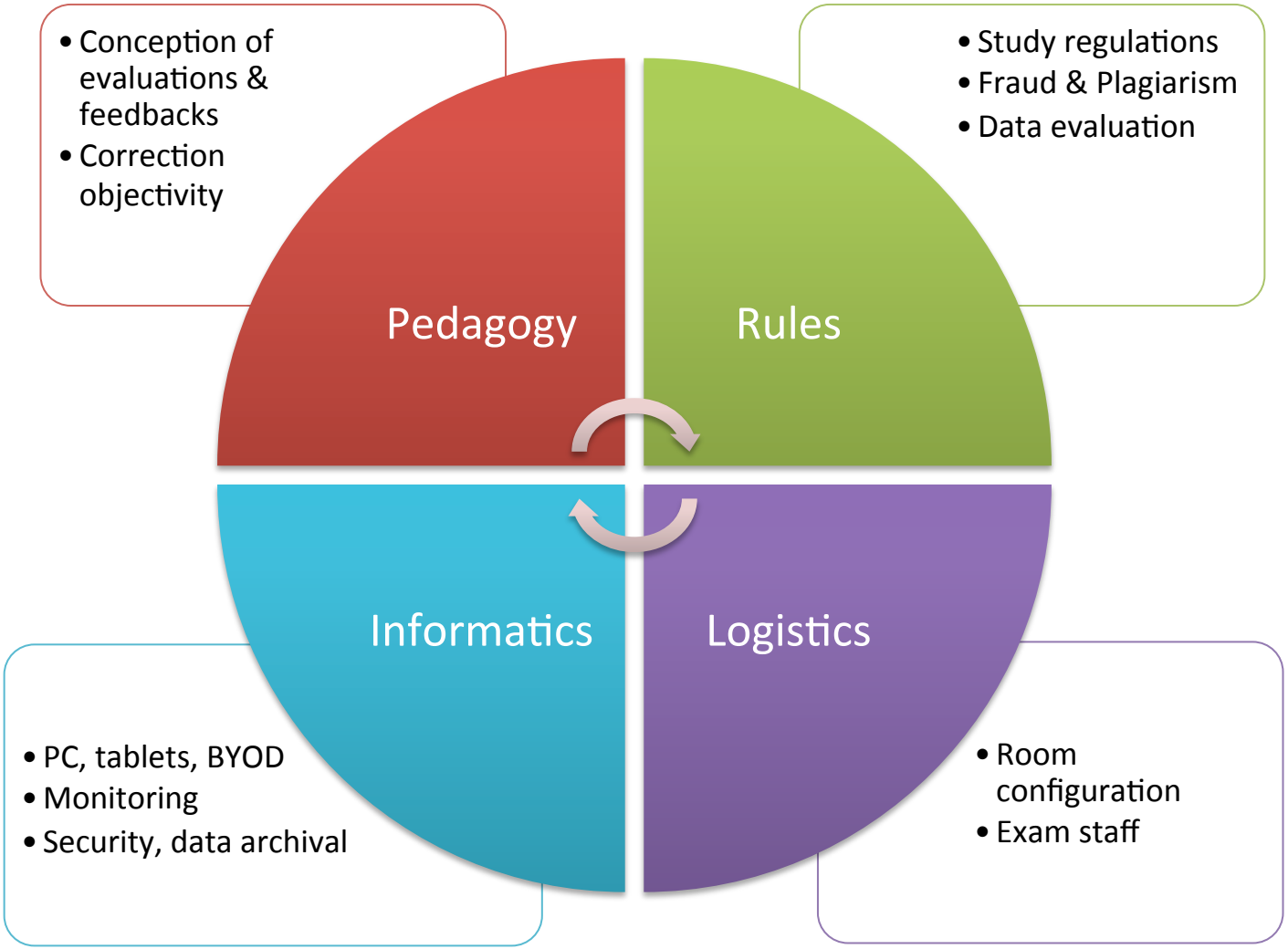
→ Not suitable for large classes of 200-300 students

The e-assessment in Switzerland

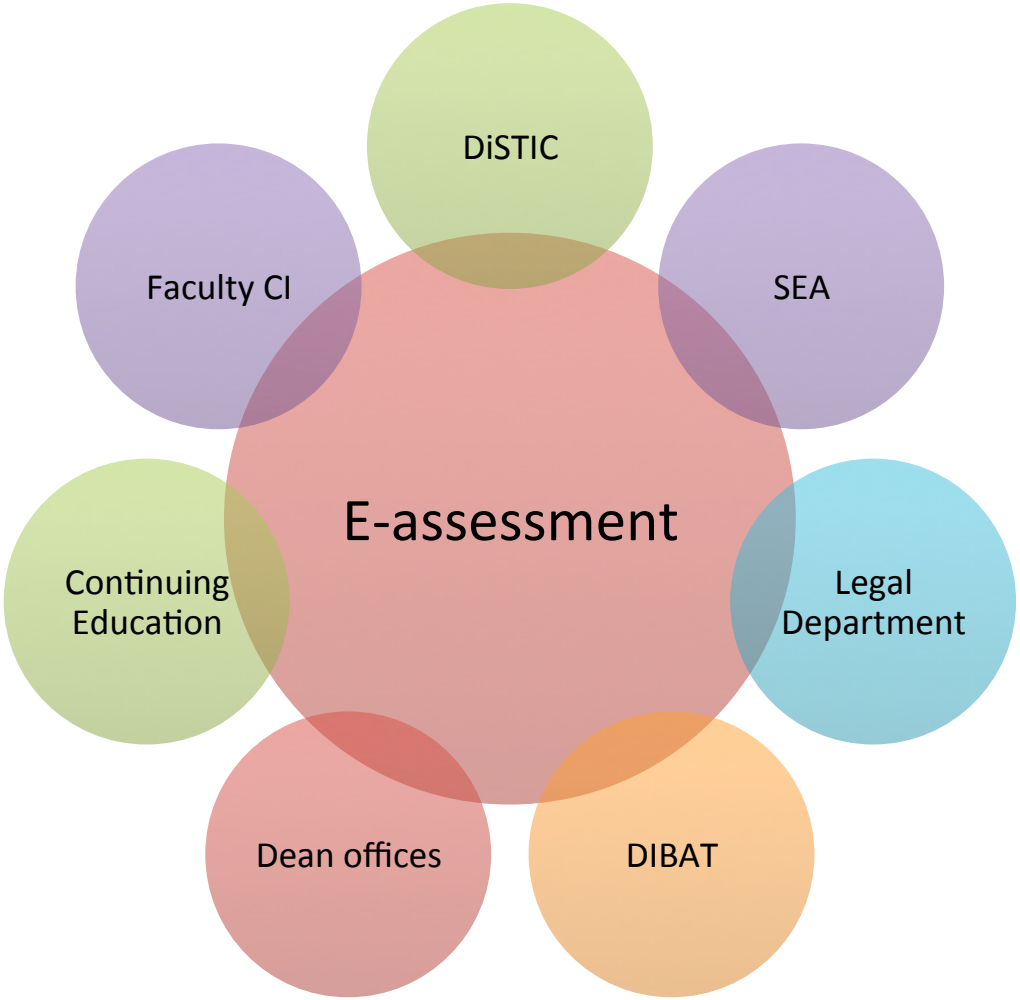
- ETHZ: 10'000 students involved each semester
- UNIZH: 800 students involved at the law faculty ; 350 laptops provided by the institution
- University of St-Gallen: started to use e-assessment in BYOD mode
- UNIBAS: currently preparing the e-assessment environemnt for 7 faculties ; some exams already performed on iPad via BeAXi (mainly in medicine)

Pilote project

The 4 key elements



The involved services



Project Organization

- Project team with techno-pedagogical expertise
- Steering Committee:
  - Representatives from six faculties : Laurent Moccozet (GSEM), Olivier Renaud (FPSE), Rita Trigo Trindade (Droit), Ur Shlonsky (Lettres), Pierrette Bouillon (FTI), Bernard Cerutti (Médecine)
  - Representatives of the Rectorat (Teaching dicastery) : Mathieu Crettenand
  - Representatives from various common services : Stéphanie Schmid (legal department), Jean-François Rossignol (PRODS/ DiSTIC), Suzanne De Jonckheere (continuing education)
  - President : Pierre-Yves Burgi (NTICE/DiSTIC).

Project WPs

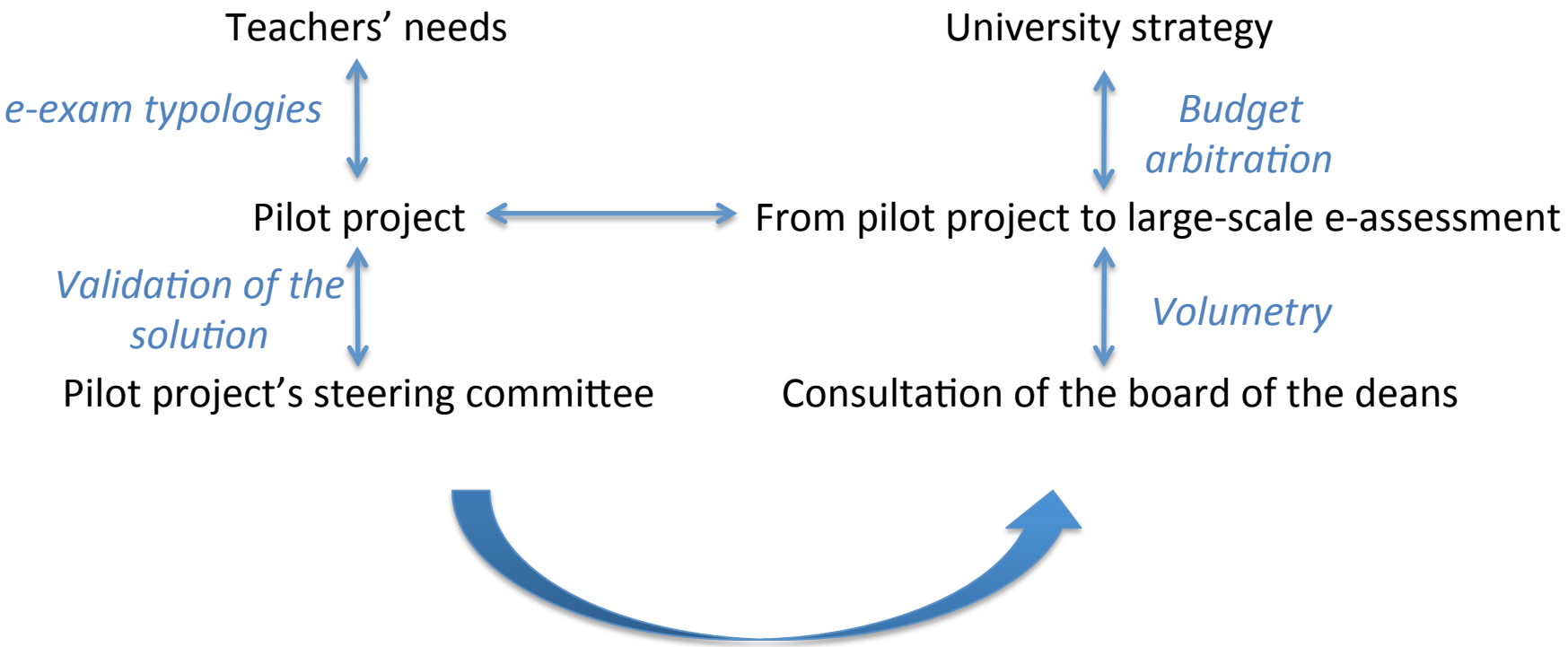
- Legal framework ; lead : Continuing education
- Pedagogical framework ; lead : SEA unit
- e-assessment & Service Level Agreement ; lead : Customer relations (SRC/DiSTIC)
- Integration into the institutional portal ; lead : NTICE/ DiSTIC
- Infrastructure ; lead : PRODS/DiSTIC
- Deployment, scalability & performance tests ; lead : Application architect (NTICE/DiSTIC)
- Project management: O. Benkacem (NTICE/DiSTIC)

Project deliverables

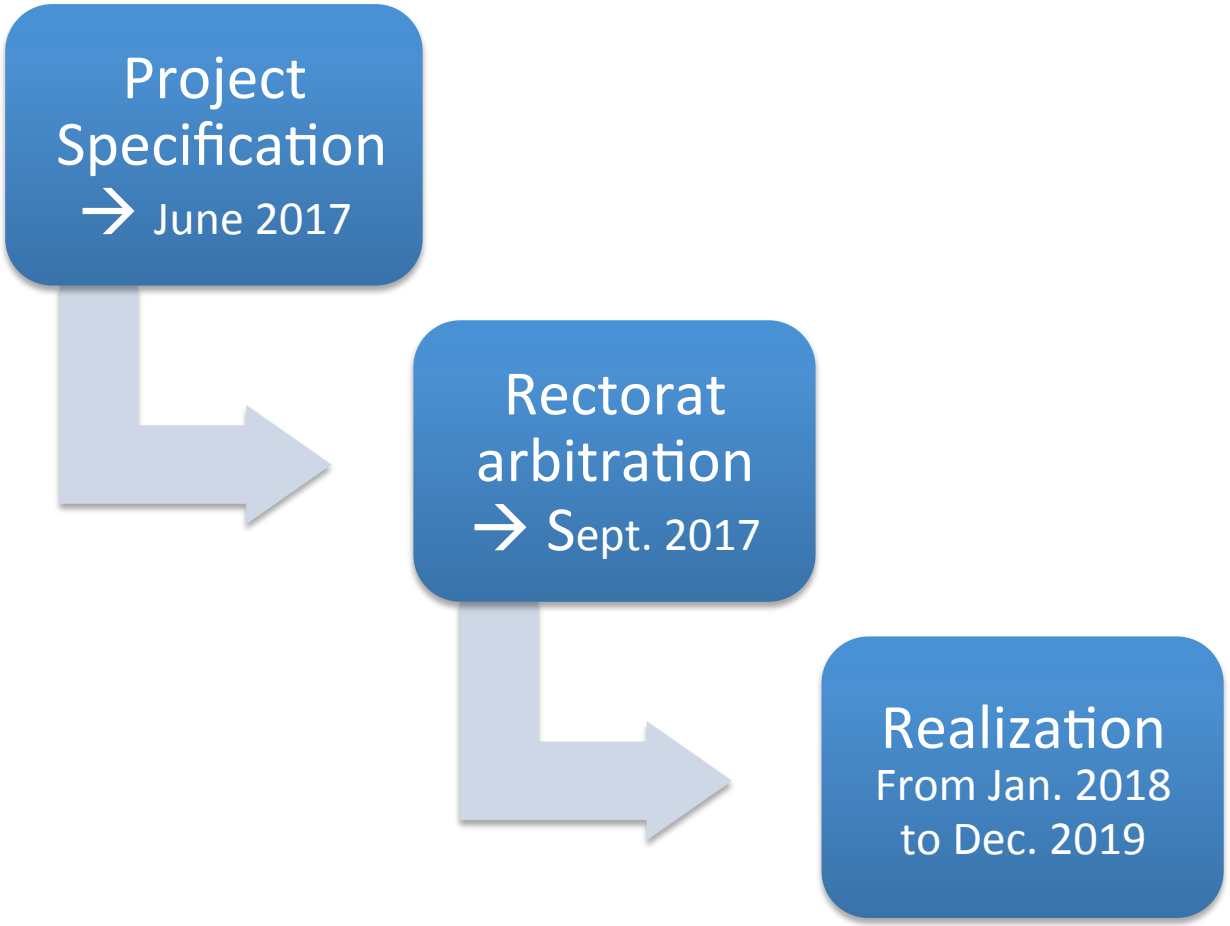
- A secured architecture that meets the different needs and enables a large scale deployment of the e-assessment
- A protocol allowing teachers to carry out their examinations on the proposed architecture
- A pedagogical framework (practical sheets, training, coaching)
- A legal framework

Next Steps

From Bottom-Up to Top-Down



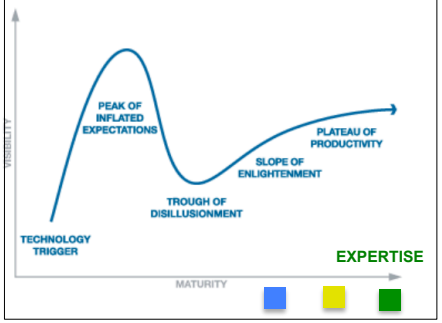
Institutionnalizing the e-assessment: Next steps



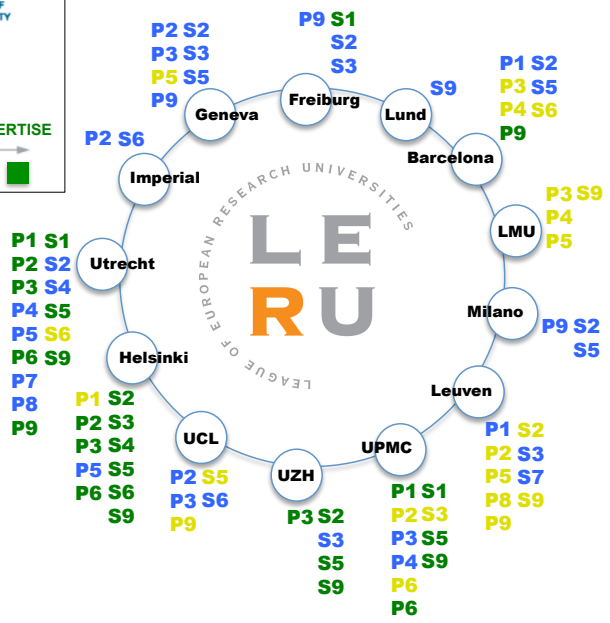
Thanks for your attention !

E-Assessment Maturity @ LERU Universities: Survey 1 Results

Gartner Hype Cycle



E-Assessment Maturity Map



Representative value:
21 LERU Universities
13 in E-Learning Thematic Group
13 responding, delegates' estimate

12.01.17 / ES

E-Assessment Maturity Scale

- On the slope of enlightenment (increasing, sensible use)
- Plateau of productivity (widely used)
- Expertise availiable (my institution has experience and could provide consultancy)

E-Assessment Practices

- **P1** Diagnostic E-Assessments (relating to the very beginning of the learning process, to support future decision making or benchmarking of the learning process)
- **P2** Formative E-Assessments (interventions during the learning process, allowing to assess the learning progress for learners and teachers)
- **P3** Summative E-Assessments (measuring the success of the learning process at the end of a course)
- **P4** MOOCs: Automated essay grading
- **P5** MOOCs: Online peer assessment, peer review, peer grading
- **P6** MOOCs: Successful course completion certificates allow students to take an exam at the university, to get real credits for a specific university study program
- **P7** MOOCs: Proctored online assessment with online-verification of student identity and continuous identity control online until end of exam
- **P8** Adaptive Learning: Automated assessment of learning activities to generate adapted learning environments
- **P9** E-Portfolios: Use of students' e-portfolios to support learning and teaching processes and grade learning results

E-Assessment Scenarios

- **S1** Self Assessment: E-assessment allows an early match of the students' interests with the subject of study to support an appropriate choice of study program
- **S2** Feedback: E-assessment process enables teachers to provide quick feedback to students
- **S3** Safety: From a legal perspective, the e-assessment result is incontestable (not appealable)
- **S4** Flexible: Assessment takes place independently from location and time.
- **S5** Massive: It is possible to handle a large number of assessment candidates
- **S6** Motivation: The assessment scenario is motivating and contributes to student satisfaction
- **S7** Adaptive: E-assessment helps to generate an individually adapted learning environment or assessment level, according to the learners' needs
- **S8** Research: E-assessments is designed in a way triggering researchers' interdisciplinary or soft skills (e.g., project work)
- **S9** Paper: Assessment is paper based, but processes are supported digitally (eg., scanning of student ID, scanning and processing results from MC forms)