



UNIVERSITY OF
Southampton

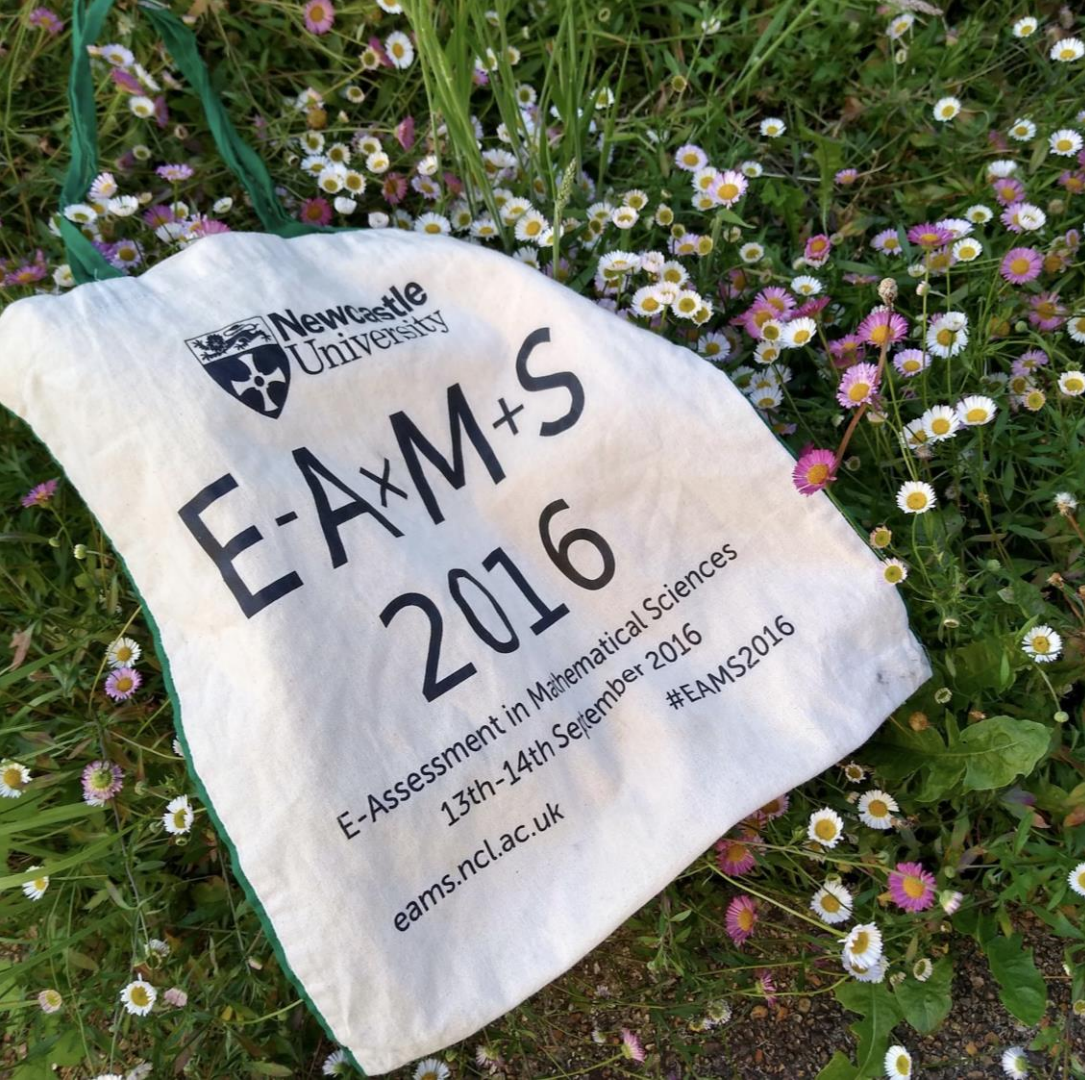
The logo for the University of Southampton features the words "UNIVERSITY OF" in a small, blue, sans-serif font above the word "Southampton" in a large, blue, serif font.

An e-Assessment Landscape

Vesna Perišić
School of Mathematical Sciences
University of Southampton

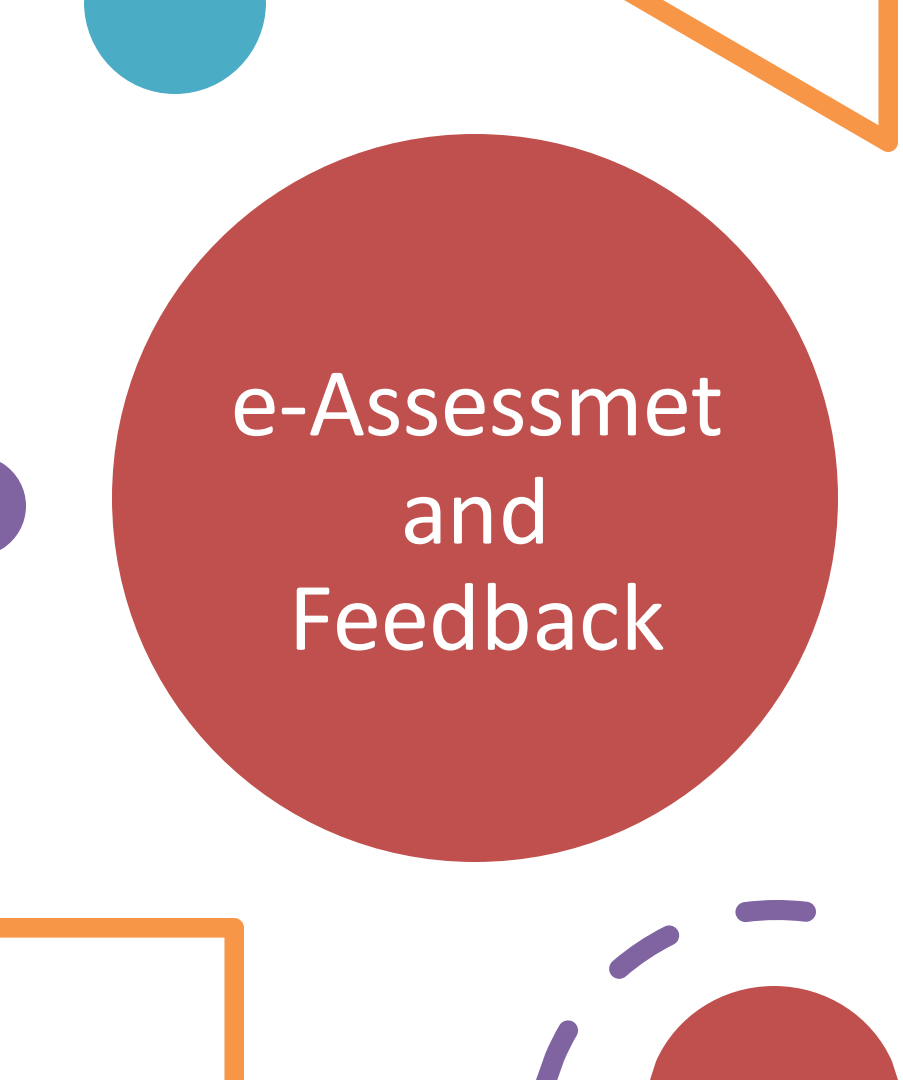
E-AxM+S 2022

13/06 - 24/06



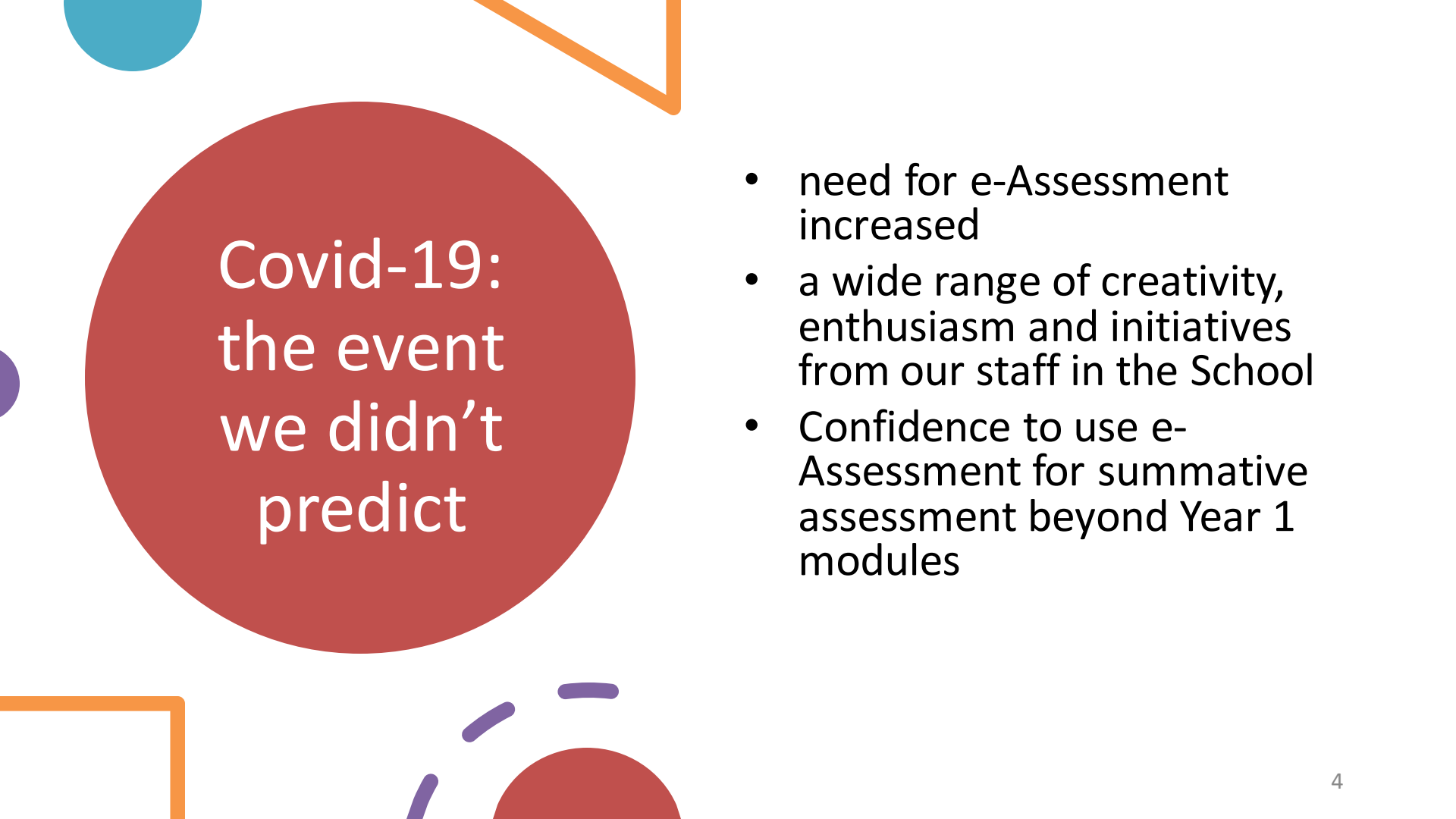
Outline

- Where are we with e-Assessment?
- Diversified Provision: NUMBAS, DEWIS, STACK
- Where are we going with e-Assessment?
- References



e-Assessment and Feedback

Use e-Assessment to assess computational tasks and free up resources to provide high quality one-to-one formative assessment and **feedback** on more **cognitive tasks** (higher up in the Bloom's taxonomy).



Covid-19: the event we didn't predict

- need for e-Assessment increased
- a wide range of creativity, enthusiasm and initiatives from our staff in the School
- Confidence to use e-Assessment for summative assessment beyond Year 1 modules



NUMBAS

- Year 2 Engineering module - Formative and summative assessment
- Currently the module is assessed through 100% final exam – coursework is not contributing towards the final module mark
- Multiple Choice Questions created in NUMBAS contribute with 50% towards the final module mark
- Increasing confidence in using e-Assessment in summative assessment

DEWIS

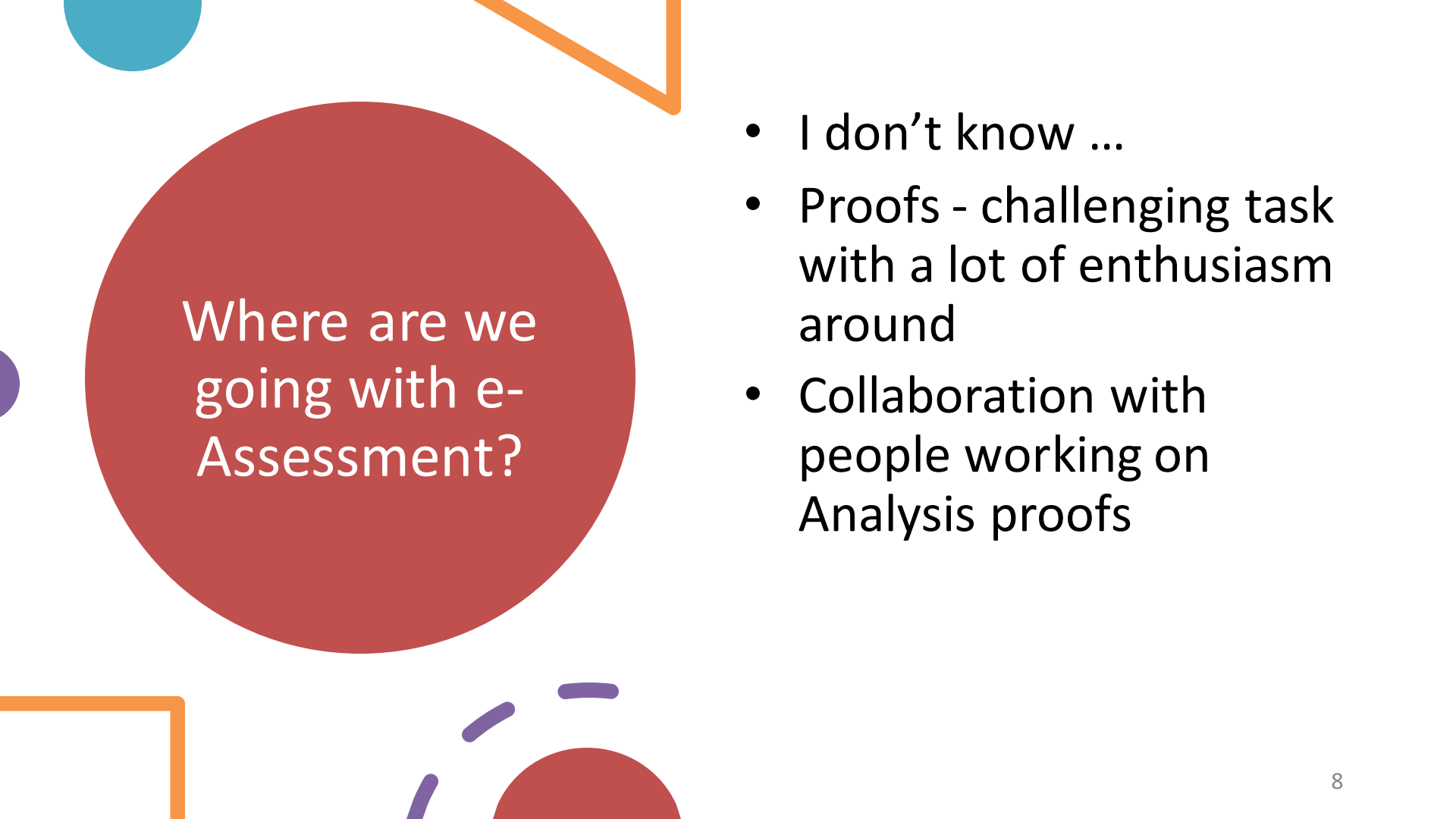
- Year 1 “Calculus Driving Test” (reported at the EAMS 2018)
- Year 1 Engineering module - end of semester 1 test and final exam (ca. 700 students)
- Year 2 Engineering module: formative and a small percentage of summative assessment





STACK

- **Foundation Year (FY) Mathematics** (optional tests)
- **Linear algebra I and II** (problem sheets and class tests; from complex numbers to matrix problems and group theory)
- **Multivariate Calculus** (weekly problem sheets)
- **Vector Calculus and Complex Variables** (weekly problem sheets ranging from flux integrals to residue calculus); provision for complex variable is developed in collaboration with a colleague from Edinburgh
- **Partial differential equations:** weekly problem sheets are turned into STACK quizzes accommodating partial, *method marks*.



Where are we going with e-Assessment?

- I don't know ...
- Proofs - challenging task with a lot of enthusiasm around
- Collaboration with people working on Analysis proofs

References

1. https://eprints.soton.ac.uk/417264/1/EAT_Guide_April_FINAL1_ALL.pdf
2. <http://dewisprod.uwe.ac.uk/cgi-bin/welcome/index.cgi>
3. Bickerton, R. and Sangwin, C.J. *Practical Online Assessment of Mathematical Proofs*
arXiv:2006.01581v1
4. Sangwin, Chris *Computer Aided Assessment of Mathematics*. Oxford University Press, 2013





Thank you for your attention!
vp@soton.ac.uk
