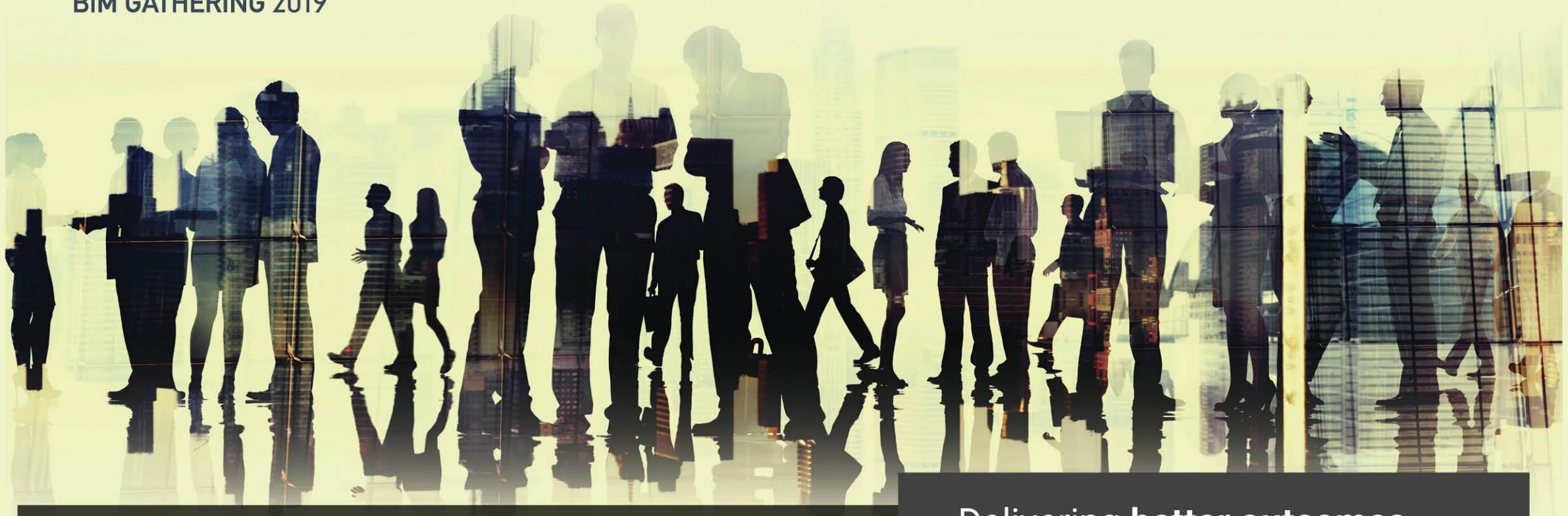


CitA

BIM GATHERING 2019



4th CitA BIM Gathering 26th September 2019, Galway, Ireland.

Delivering **better outcomes**
for Irish Construction



The BIM Futures Toolkit: Piloting a Professional Development Framework for Academic Staff

Dr. Mark Kelly, Gerard Nicholson, Jim O'Connor (all Department of Building and Civil Engineering in GMIT, Mark Costello (RPS Director of BIM)



How can higher education play a leading role in supporting the transition towards a digital built environment?



NATIONAL FORUM
FOR THE ENHANCEMENT OF TEACHING
AND LEARNING IN HIGHER EDUCATION



Direct construction employment grew up +7.9% or
10,600 persons in the year to the end of Q4 2018.

145,500 persons

(Jeanette Mair, CIF 2019 Update)



Full-time Undergraduate New Entrants 2017/2018

2017 Graduates

Undergraduate
48,931

Postgraduate
21,584

7,152
10%

Engineering,
Manufacturing
& Construction



11%

Engineering,
Manufacturing
& Construction
(4,746)

Postgraduate New Entrants 2017/2018 is at 10%

(HEA 2019)





2012/2013

GMIT Springboard Certificate in BIM.
Establishment of RPS BIM Working Group.

2012/2014

GMIT/Carey Building Contractors M.Sc. (Research).

2013/2014

GMIT/RPS Higher Diploma in Engineering in BIM
design and pilot.

2014/2015

GMIT/RPS Higher Diploma expansion.
RPS BIM Technical Services Strategy 2014-2018.
GMIT/JJR Workshops.



2015/2016

GMIT Higher Diploma in Engineering in BIM offered industry-wide.

RPS awarded 'BIM Level 2 Business Systems Cert. by BRE Global.

2018/2019

Springboard funding for the GMIT Higher Diploma in Engineering in BIM to deliver in blended mode.



Best Academic Paper' Winner
2015 CITA BIM Gathering



'Business Collaboration'
Winner 2017 Irish
Education Awards



'Excellence in Education/Training' Winner
2017 Irish Construction Awards



....recognition of the collaborative academia industry approach taken by RPS and GMIT...

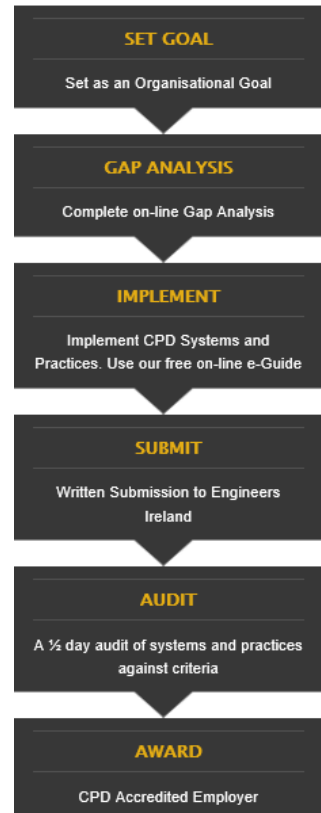
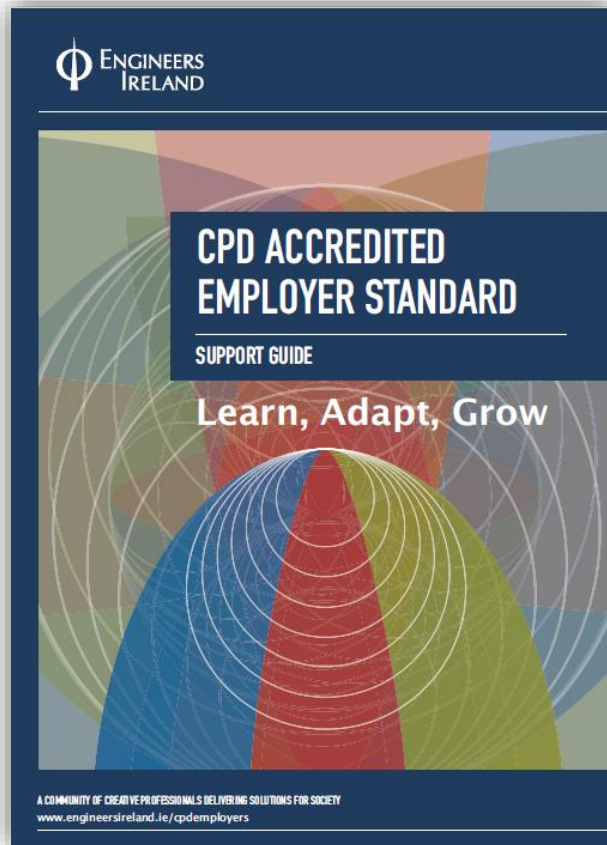


.... judged across the five key criteria of Excellence, Exceptionality, Impact, Communication and Authenticity to the Discipline....



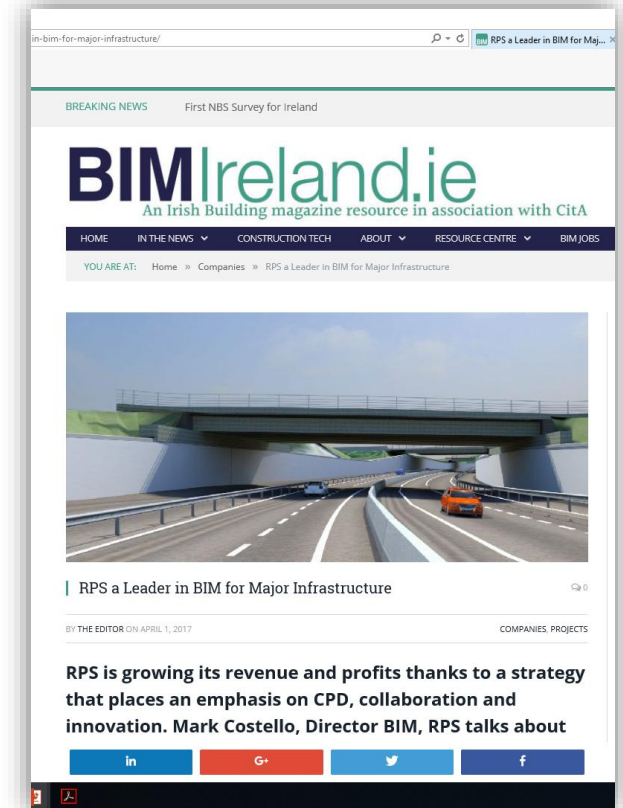
.... recognising performance excellence in Ireland's construction industry, highlighting achievements across a full range of construction disciplines and project categories.....







RPS achieves
new **ISO 19650**
international
BIM standard






Autodesk University 

@autodesku

Followed by no one you follow

Join the [#AU2018](https://autode.sk/2B1QPZJ) live stream  autode.sk/2B1QPZJ

 autode.sk/au2018  Joined August 2007

1'157 Following 65.3K Followers





Reciprocal Learning Framework
Industry needs v Graduate outcomes
Research-informed
Evidence-based
Curriculum, assessment and pedagogy
Knowledge, skills and competences



Explore opportunities to embed BIM
across the curriculum and graduate
outcomes.

Explore opportunities to use BIM as
a pedagogical methodology.

Provide capacity-building learning
opportunities for all staff.



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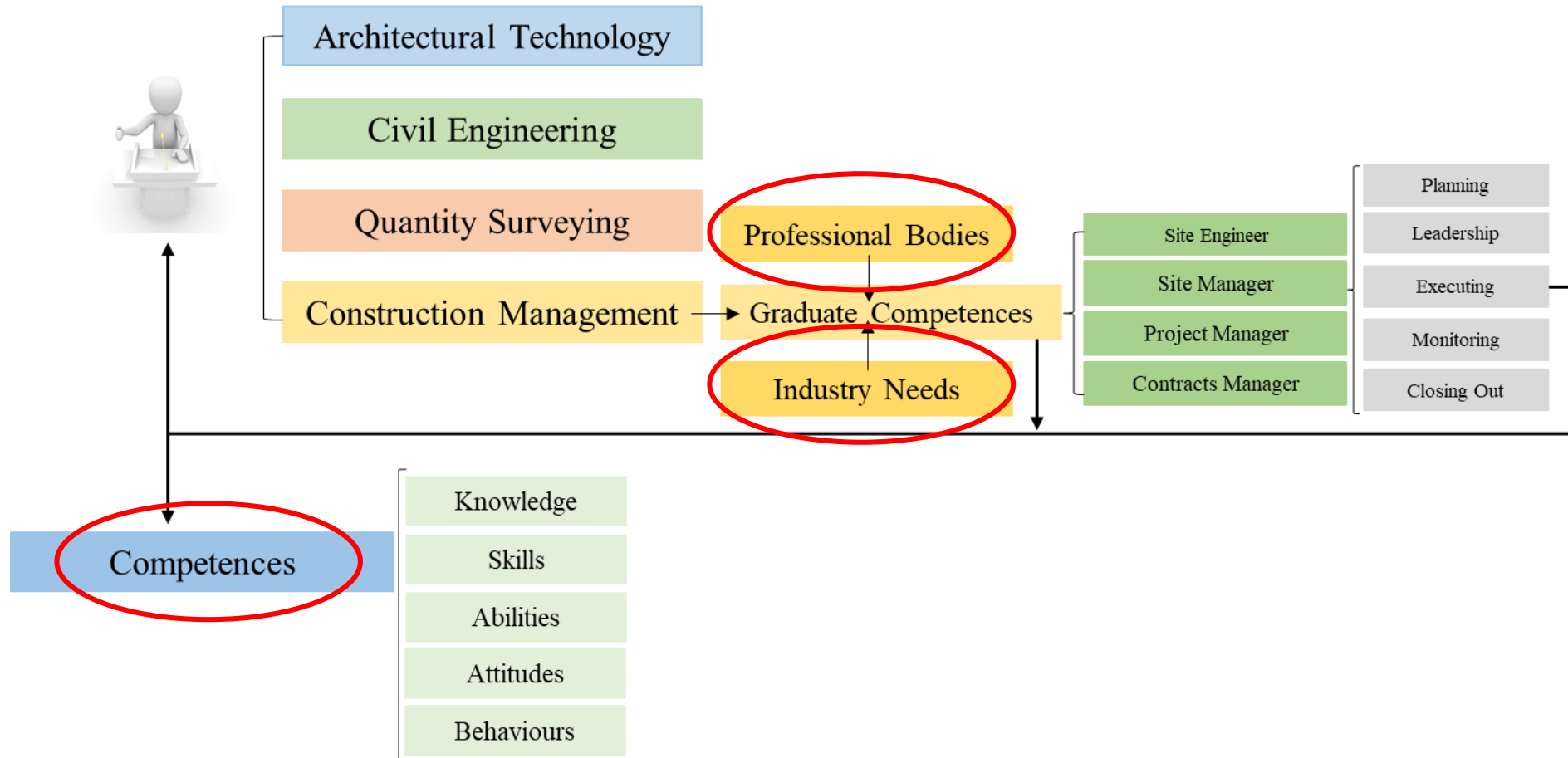


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AND LEARNING IN HIGHER EDUCATION

What are the graduate BIM skills and competences required by industry?

What academic staff skills and competences are required to facilitate the achievement of these graduate outcomes?

What type of education reimagines a future built environment.





Competency

‘A combination of knowledge, skills, abilities, behaviours and attitude.’

(Scottish Futures Trust, 2018)

Roles v Activities v Phases

Assessment and Benchmarking



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AND LEARNING IN HIGHER EDUCATION



Academic Staff Engagement

BIM Leaders Digital Badge

Basic

Intermediate

Advanced

Expert

Aligned with CPD plan of work.



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National Professional Development Framework

National Forum for the Enhancement of Teaching and Learning in Higher Education



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Types of learning



‘BIM Bites’ series for students and staff.

‘Digital Demos’ series for students and staff.

BRE BIM AG course embedded into four Level 8
programmes.

BRE BIM AG course adapted for staff CPD.

BIM AG BRE Accelerator Support Framework.



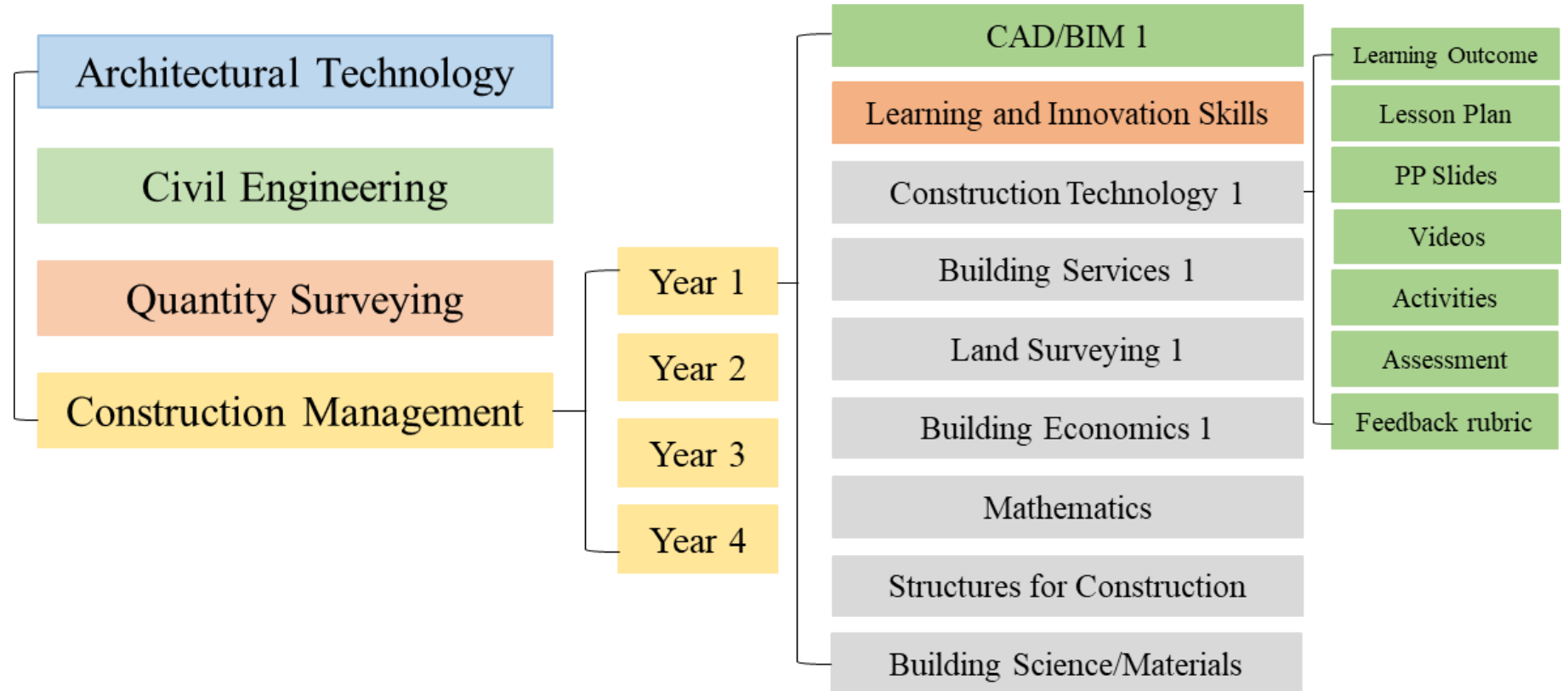
BIM World Skills, Hackathons and BIM Futures
Student Competition.

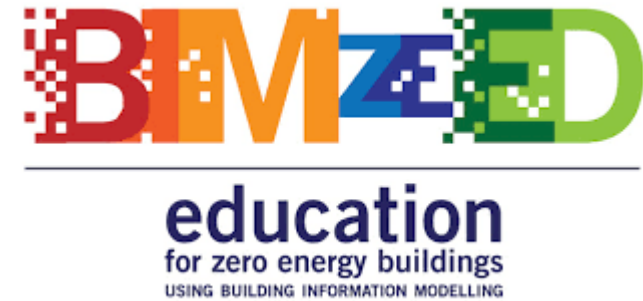
Open Education Learning Resources to
encourage experiential learning by staff.



BIM Futures Research Journal.

Digital Citizenship workshops.







Higher Education provision seems to reflect industry.

Demonstrate best practice

What does a truly collaborative digital construction learning environment look like on a national scale?

Supporting the disruptors, change-makers, innovators and future leaders

Reimagine the curriculum to provide a vision of the possibilities.



School of
**Science
and Computing**





Thank you
Mark.Kelly@gmit.ie