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Research Interests	Construction and demolition waste prevention, reduction, and management; resource efficiency in construction; circular economy and the built environment; BIM and digital transformation; education for sustainability; behavioural and organisational change.
Recent Publications	<p>Kelly, M. and Gottsche, J. (2020) Resource Efficiency on Site Toolkit, EPA. https://www.epa.ie/waste/nwpp/sectors/</p> <p>Acted as peer reviewer for 'Introduction to Circular Economy for Beginners' toolkit prepared by Resource Futures Scotland for the Southern Waste Region (2020). http://southernwasteregion.ie/publications</p> <p>Gottsche, J. and Kelly, M. (2020) Assessing the impact of resource efficiency on selected case studies in Ireland, Proceedings of the Institution of Civil Engineers, Waste and Resource Management, https://doi.org/10.1680/jwarm.20.00006</p> <p>Tezel, A., Taggart, M., Koskela, L., Tzortzopoulos, P., Hanahoe, J. and Kelly, M., (2019) Lean construction and BIM in small and medium-sized enterprises (SMEs) in construction: A systematic literature review, Canadian Journal of Civil Engineering https://cdnsiencepub.com/doi/pdf/10.1139/cjce-2018-0408</p> <p>Gottsche, J. and Kelly, M. (2018) Assessing the impact of construction waste reduction on selected projects in Ireland, Proceedings of the Institution of Civil Engineers – Waste and Resource Management, V171(3), 71-81. https://www.icevirtuallibrary.com/doi/pdf/10.1680/jwarm.17.00034</p> <p>Kelly, M. and Dowd, D. (2017) A review of construction waste management practices on selected case studies in Ireland, Waste and Resource Management, ICE Proceedings.</p>
Other Publications	<p>Kelly, M., Costello, M., Nicholson, G. and O'Connor, J. (2021) book chapter entitled 'Exploring the Role of the Higher Education Sector in supporting the Digital Roadmap for the Irish Construction Industry' (in press), for book entitled 'Driving Transformational Change in the Built Environment' to be published by IGI Global in 2021.</p> <p>Kelly, M. (2021) Embedding Sustainability across the Built Environment Curriculum and Beyond, paper accepted for the Engineering Education for Sustainable Development Conference, UCC, June 2021.</p> <p>'BUILD 360 - Developing a Resource Management and Material Circularity Protocol for the Irish Construction Sector' poster and abstract at the EPA Research Programme's virtual, 28th of October 2020 and the EPA/HSE Environment Conference, 26th of November 2020.</p>

Kelly, M. (2020) Non-Linear Thinking: Obsolescence within a Circular Built Environment, Architecture Ireland Journal, January/February 2020 edition.

Kelly, M., Costello, M., Nicholson, G. and O'Connor, J. (2019) The BIM-Futures Toolkit: Designing, developing, and piloting a professional development capacity framework for academic staff involved in BIM-related education, CITA BIM Gathering 2019, September 26, Galway.

Kelly, M. (2019) Exploring material circularity opportunities for a construction-SME on small-scale projects in Ireland, Buildings as Material Banks – A Pathway for a Circular Future Conference, 5-7 February 2019, Brussels, Belgium.

Kelly, M., Costello, M., Nicholson, G. and O'Connor, J. (2016) Utilising an Academic-Industry Collaborative Partnership to Inform the Implementation of a BIM Strategy in a Higher Education Institute in Ireland, BAFUK Conference paper, September 2016.

Kelly, M., O'Connor, J., Costello, M. and Nicholson, G. (2016) A Collaborative Academia-Industry Approach to Developing a Higher Education Programme in Building Information Modelling, International Journal of 3D Information Modelling, V5(2), 39-54.

Gottsche, J., Kelly, M. and Taggart, M. (2016) Assessing the impact of energy management initiatives on the energy usage during the construction phase of an educational building project in Ireland, Construction Management and Economics, V34(1), 46-60.

Gottsche, J. and Kelly, M. (2015) Assessing the Impact of Energy Management Initiatives on Energy Use During the Construction Phase of an Educational Building Project in Ireland, ARCOM Conference paper, 7-9 September, Lincoln, UK.

Kelly, M. and Gottsche, J. (2015) The Development of a Construction-Phase Resource Efficiency Toolkit for the Irish Construction SME Sector, Final Report for Green Enterprise Programme Phase 2 (2012-ET-CP-30).

Kelly, M. and Dowd, D. (2015) A Review of Design and Construction Waste Management Practices in Selected Case Studies – Lessons Learned, EPA STRIVE Research Report 146.
<http://www.epa.ie/pubs/reports/research/waste/research146.html#.VfCkL5djxXE>

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<http://www.epa.ie/pubs/reports/research/waste/research146designoutwastefactsheets.html#.fCj-5djxXG>

Kelly, M., O'Connor, J., Costello, M. and Nicholson, G. (2015) A Collaborative Academic-Industry Approach to Programme-Wide Implementation of Building Information Modelling Processes using a Reciprocal Learning Framework, CITA BIM Gathering 2015, November 12-13, Dublin. Winner in the 'Best Academic Paper' category.

Kelly, M. (2011) Using Blogs, Podcasts and Twitter to Support Assessment in a M.Sc. in Environmental Systems at the Galway-Mayo Institute of Technology, Proceedings of the EdTech Conference 2011, Waterford Institute of Technology.

Kelly, M. and Hanahoe, J. (2009) The Development of an Audit Methodology to generate Construction Waste Production Indicators for the Irish Construction Industry, Synthesis Report for the ERTDI-funded project: 2001-WMWS-MS-1.

Kelly, M. and Hanahoe, J. (2009) The Development of an Audit Methodology to generate Construction Waste Production Indicators for the Irish Construction Industry, End-of-Project Report for the ERTDI-funded project: 2001-WMWS-MS-1.

Both of above are available at:

<http://erc.epa.ie/safer/iso19115/displayISO19115.jsp?isoID=122#files>

Kelly, M. and Hanahoe, J. (2008) The Development of Waste Production Indicators for the Irish Construction Industry, Proceedings of the Waste Management Conference 2008, University of Granada, Spain, June 2-4, 2008.

Kelly, M. and Hanahoe, J. (2006) The Development of Waste Production Indicators for the Irish Construction Industry, Proceedings of ESAI Environ Conference 2006, University College Dublin, p77-83.

	<ul style="list-style-type: none"> • Duggan, A., McCabe, B., Goggins, J., and Clifford, E. (2015). An embodied carbon and embodied energy appraisal of a section of Irish motorway constructed in peatlands. <i>Construction & Building Materials</i>. 79. 402–419. • Manton, R., Duggan, A., Goggins, J., and Clifford, E. (2014). Carbon costs and savings of Greenways: creating a balance sheet for the sustainable design and construction of cycling routes. <i>International Journal of Environment and Sustainable Development</i>. 13(1). 3–19. <p>Published peer-reviewed conference publications</p> <ul style="list-style-type: none"> • Duggan, A. R., McCabe, B. A., Clifford, E., and Goggins, J. (2015). Carbonation in stabilised peat: an accelerated pilot study. In <i>Proceedings of the 16th European Conference on Soil Mechanics and Geotechnical Engineering</i>, 2383–2388. Edinburgh. • Duggan A. R., McCabe BA, Goggins J, Clifford E. (2012). Factors affecting embodied carbon and embodied energy associated with ground improvement techniques for construction on peat. In: <i>Proceedings of a conference on Bridge & Concrete Research in Ireland</i>, 147–52. Dublin Institute of Technology, Ireland. • Manton, R., Duggan, A., Goggins, J., and Clifford, E. (2012). Use of carbon calculation tools for sustainable cycle network design. In <i>Proceedings of the 7th Conference on Sustainable Development of Energy, Water and Environment Systems (SDEWES)</i>, Ohrid, Macedonia.
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