Name	**PhD Scholarship in circular economy principles for steel framed buildings**
Abstract	Australia is a world leader in the production of roll formed high strength steel building components. Start-up company Formflow (https://formflow.net.au/) has succeeded in developing new technologies for low cost manufacturing of steel framed modular buildings. These technologies support new approaches for design and construction that facilitate deconstructing existing buildings for reuse or recycling of components and materials. Currently, the Australian steel industry with BlueScope steel uses up to 20% recycled steel in their products. The potential for reuse and recycling of steel building components and the effects of associated environmental, sociotechnical factors, however, remain unexplored. It is therefore unclear if current models, technologies and approaches can be directly applied to real-life projects. This study aims at exploring the potential and implications of adopting circular economy principles to steel framed buildings. Current models and approaches such as the most commonly used, life cycle assessment, will be critically analysed, and solutions identified. The methods will be used to develop and analyse alternative steel building structure scenarios with the aim of reducing environmental impacts and applying circular economy principles while considering alternative supply chain structures and business models. **Keywords:** Building systems Structural steel frames Green supply chain Circular economy Design for recycling, reuse and re-manufacturing Supply chain business models Design for deconstruction and reassembly
Intro	One PhD scholarships is available for students interested in undertaking cutting edge research into innovative advanced design of steel building systems, to access and reduce environmental impacts and advance the agenda of circular economy principles. This is an interdisciplinary and collaborative research project between the Institute for Frontier Materials (IFM), Deakin`s School of Architecture and FormFlow.
Value and duration	Scholarship is valued at up to $27,082 per annum (tax free) for 3 years with a possible 6 month extension.
Number of scholarships available	One
Eligibility	To be eligible for this scholarship you must: • be an Australian citizen, Australian permanent resident or an international student currently residing in Australia • have a first-class honours or H1 honours or equivalent (such as a masters degree) in materials, industrial, manufacturing or mechanical engineering, architecture, construction management, structural engineering, civil engineering, • provide evidence of good oral and written communication skills

	• demonstrate ability to work as part of a multidisciplinary research team • meet Deakin University's entry requirements for the higher degree by research scheme
How to apply	Please contact Dr Matthias Weiss, email: matthias.weiss@deakin.edu.au
Open date	Applications now open
Close date	Applications will close when a candidate is selected
Terms and conditions	Read Deakin University Research Scholarship Terms and Conditions.
Further info	Project is to be conducted in conjunction with FormFlow. The successful applicant is expected to spend extended periods of time at industry partner FormFlow, situated in Geelong, Australia.
Contact	For further information contact Dr Matthias Weiss