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Simon is a Chemical Engineer who obtained his BE(Chem)/BSc (First Class Honours) and his PhD (under Prof Darren Martin and Prof Max Lu) at The University of Queensland.

In the Dow Centre he leads two flagship projects: Rapid Switch and Low CO_2 iron/petrochemicals. Rapid Switch seeks to answer the question how fast can we decarbonise the global economy and is unique in all the climate and energy literature for taking an engineering-based infrastructure delivery approach. The Low CO_2 iron project, which won a UQ Foundation Research Excellence Award in 2016, is a technology disruptor for the iron industry using halide salt chemistry to dehydrogenate methane and transform iron ore into iron via a molten salt intermediate at moderate temperatures (500-800°C).

His other research interests include Membrane and Membrane Reactor Technologies, CCS, Energy for Development and System Wide Energy Optimisation.

He has 77 publications (h-index of 22) including 8 book chapters and 69 international peer-reviewed journal articles.