

# How do universities engage with controversial industries?

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Universities are being encouraged to engage more closely with industry, to solve complex energy challenges and to be more accountable to all stakeholders. Drawing on the corporate communications of ten industry-funded onshore unconventional gas research centres, observations of the UQ-Centre for Coal Seam Gas and insights from the higher education, innovation, management and public policy literature a model for “socially responsible” university-industry engagement (UIE) is developed, extending the current “quadruple helix” innovation model.

## Ten sites

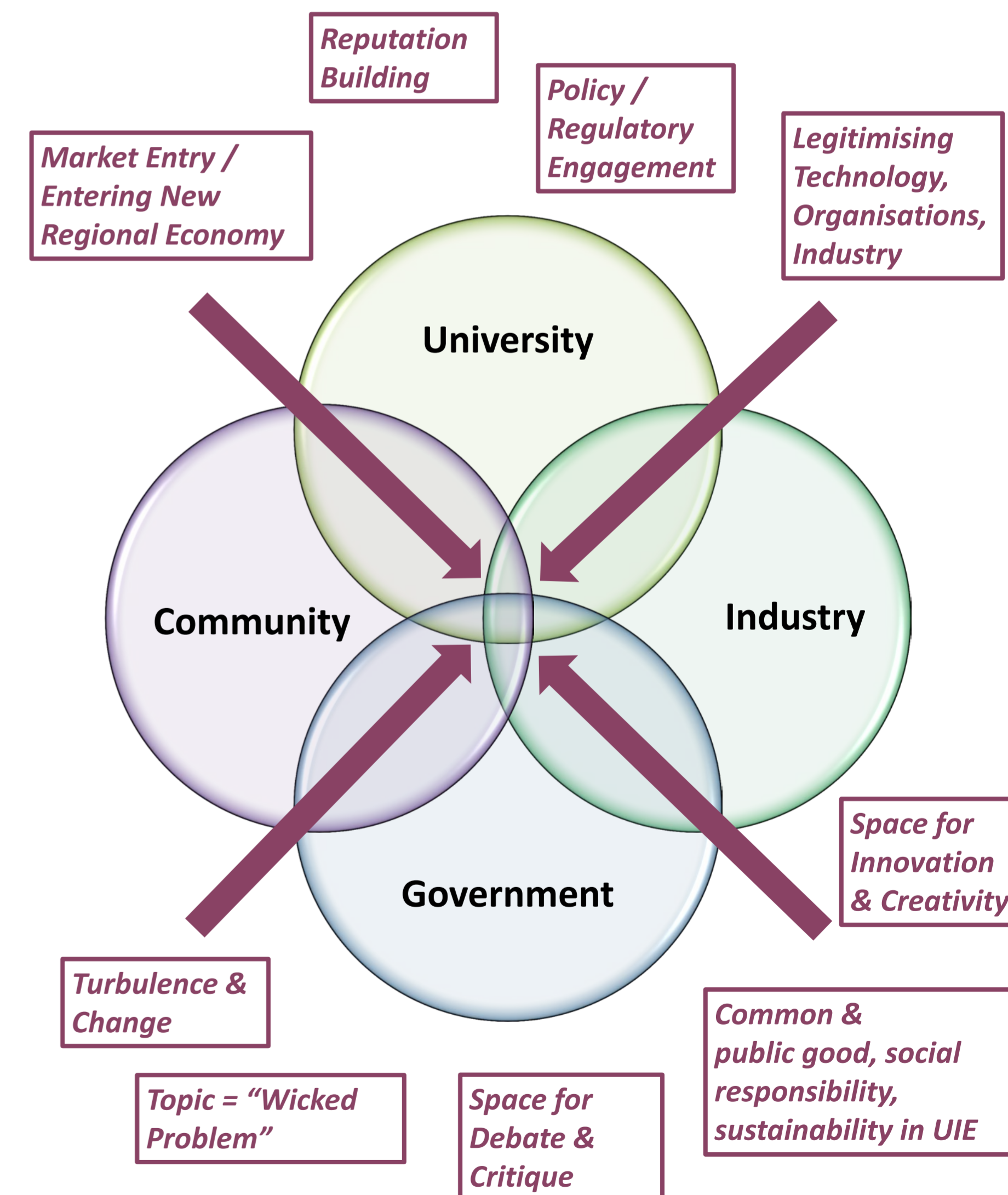
Abb.	Name	University	Country	Established	Corporate Partners
CCSG	Centre for Coal Seam Gas	University of Queensland	Australia	2011	Queensland Gas Company, Santos, Arrow, Australia Pacific LNG
UGRI	Unconventional Gas Research Institute	Technical University Delft	The Netherlands	2010	Shell & others
SGI	Sustainable Gas Institute	Imperial University	UK	2014	British Gas
URG	Unconventional Research Group	Durham University	UK	2011	Total, Shell, Chevron & others
SO	Shell Oxford Research Program	Oxford University	UK	2012	Shell
MCOR	Marcellus Centre for Outreach and Research	Pennsylvania State University	US	2010	Marcellus Shale Coalition, General Electric, ExxonMobil & others
SUTUR	Shell-UT Unconventional Research Program	University of Texas	US	2011	Shell
UNGI	Unconventional Natural Gas Institute	Colorado School of Mines	US	2012	ENI, Halliburton, HESS, Schlumberger, Pemex, Statoil, Talisman Oil & others
CSSD	Centre for Sustainable Shale Development	Carnegie Mellon University	US	2013	Chevron, CONSOL Energy, Shell & others
TOC	Tight Oil Consortium	University of Calgary	Canada	2011	ARC Resources, Black Swan, BP, BHP, CNRL, Conoco Phillips, Crescent Point Energy, Total & others

## What is missing from current UIE models?

Higher Visibility of Research Centre than others	New Market Entrant & Immature Industry	New form of governance arrangements – “virtual research centre”
New Institutions & Organisations in unconventional gas research	Global Expansion of Research Integrity & “Responsible Research & Innovation”	Phases of Production / Volatile Market Dynamics / Low Oil Price
Company “Social Licence to Operate” strategy includes university engagement	“Adaptive Legislative Frameworks” – regulators seeking advice	“Information Gap” re: onshore gas for community / NGOs / media
Expansion of University Social responsibility and Sustainability initiatives	Stakeholder Concern – “Frackademia” and “Fossil Fuel Divestment”	Competition with other research and knowledge providers
Changing Government policy / incentives regarding university-industry engagement	Stigmatisation of staff, and research centre within the university, unions, student groups	University External Reporting (Sustainability & Financial)

There is a growing evidence-base from which researchers and practitioners are learning to maximise the outcomes of UIE arrangements. Nonetheless the specific challenges for universities engaging with controversial industries have so far been overlooked. These challenges can disrupt, distort or prematurely end the university-industry collaboration if not acknowledged.

## The emerging model



1. Supervisors: Assoc. Prof Will Rifkin, Chair Social Performance, Centre for Coal Seam Gas / Centre for Social Responsibility in Mining & Professor Mark Dodgson, Director, Technology and Innovation Management Centre, University of Queensland Business School. CCSG Project: The Governance of Research Integrity of Coal Seam Gas