

QUEENSLAND UNIVERSITY OF TECHNOLOGY CENTRE FOR FUTURE ENTERPRISE

ABOUT THE INSTITUTION

The Centre for Future Enterprise (CFE) is one of QUT's 12 tier 1 research centres consolidating research expertise across five faculties. CFE is investing its research capacity into the purpose of providing ca- 2. Algorithmic Enterprise pabilities that matter for future enterprises. The focus is on those emerging attributes of organisations, and their leaders, that have not seen sufficient professionalisation. Dedicated to demand-driven, rigorous research exploring and testing possible futures for enterprises of all sizes ranging from large incumbents to emerging start-ups, from the internationally listed corporation to the regional nonprofit charity, CFE works closely with industry partners across various sectors.

Centre for

Enterprise

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CFE research inspires, informs and enables navigation in a fast-emerging new world, differentiating essential requirements 3. Trusted Enterprise from distracting noise. Based on the fundamental hypothesis that an increasingly opportunity-rich environment will require new enterprise capabilities, CFE research focuses on three themes and the nexus between these:

1. Robust Enterprise

Robustness is a much-needed characteristic of future enterprises as they increasingly have to master digital, pandemic and other forms of disruption. Headed by Prof. Kevin Desouza, related research takes place in these four streams, (1) the management of contradictions, (2) digital resilience and transitivity, (3) design of adversarial robustness, and (4) robust transformations (e.g., green transitions). A specific feature of this theme is its 'Paradox

Moonshot' initiative in which a cross-disciplinary team of CFE researchers consolidates and examines various mechanisms for dealing with conflicting aims.

Headed by the Chair in Digital Economy, Prof. Marek Kowalkiewicz, this group studies the characteristics and potential of the emerging economy of algorithms. Research within this theme is organised in these four streams, i.e. (1) business models of algorithmic enterprises, (2) humanalgorithm interaction models, (3) governance models for algorithmic enterprises, and (4) innovation models of algorithmic enterprises. A comprehensive set of executive courses, also as part of QUT's Digital MBA, makes research from this theme accessible to current and future leaders.

As our societies and economies are becoming more trust-intensive, the conscious design, management and measurement of trust-aware products, services and business processes is of increasing importance. In our research, we break down trust into the management of uncertainty, vulnerability, confidence and benevolence, and develop operational, validated practices and principles for these. The newly appointed Cisco Chair in Trusted Retail is exploring how technologies can facilitate new, trusted solutions and with this unlock previously unseen sources of competitive advantage. The Brisbane Trust Alliance is a community of *(trust)* professionals which brings 40+ executives across multiple sectors together on a monthly base to collectively develop higher levels of trust literacy.

CFE cultivates an ambitious, proactive, global research community, characterised by mutual support and collective curiosity, nurturing young talent, valuing diversity and connecting researchers with competitive grant funding and reputable industry partners from leading enterprises, charities and governments.

CFE's research capability is bundled in 'The Lab' which builds scientific and research management capabilities for CFE members to conduct not just rigorous, real-world research, but also to build the mindsets, skillsets and toolsets for effective and efficient research processes. 'The Hub' is CFE's industry engagement centre. Called Innovation Central Brisbane (ICB) and headed by Mrs Gemma Alker, ICB is an open innovation hub that connects students, researchers and industry with global technology giant Cisco with a purpose to accelerate digital transformation and skills through rapid prototyping projects. Embedded in Cisco's National Industry Innovation Network and is CFE's one-stop engagement point. A key value proposition is the engagement of multidisciplinary coursework students in industry-funded projects providing development capacity which meaningfully extends CFE's research.

SELECTED CURRENT RESEARCH PROJECTS • Digital Industrial Platforms

This project studies digital industrial platforms in the context of manufacturing and Industry 4.0. These platforms facilitate transactions and innovation by leveraging industrial asset data fuelled by Industrial IoT, cloud computing, edge computing, data analytics, and artificial intelligence. While digital platforms have been a prominent research topic, their use for industrial,

B₂B applications is quite distinct. This requires new theoretical and empirical insights. As such this project targets developing the research agenda and conducting case studies of digital industrial platforms. and the role of abductive approaches driv-



This project is a collaboration between Dr. turer at OUT's School of Information Systems and member of the Centre for Future Enter-

prise, and Prof. Dr. Martin Matzner, Chair of Digital Industrial Service Systems at the Friedrich-Alexander University Erlangen-Nürnberg. It is part of the ERCIS Research Cluster on Smart Manufacturing. Dr Erwin Fielt presented his research on Business Model Innovation for Manufacturing in 2022 as part of a Cluster meeting.

The Co-Leader of the ERCIS Smart Manufacturing Cluster, Prof. Dr. Jens Pöppelbuß visited QUT's Centre for Future Enterprise for two weeks in October 2022 and presented on Multi-Actor Smart Service Innovation. Leandro Jesus, PhD candidate at CFE, conducted his final PhD seminar on Digital Platforms in the Automotive Industry.

SELECTED PUBLICATIONS

Matzner, M., Pauli, T., Marx, E., Anke, J., Pöppelbuß, J., Fielt, E., Gregor, S., Sun, R., Hydle, K. M., Aas, T. H., Aanestad, M., Gordijn, 669–687. J., Kaya, F., Wieringa, & Roel. (2021). Transitioning to Platform-based Services and Business Models in a B2B Environment. Journal of Service Management Research, 5(3), 143–162.

Pauli, T., Fielt, E., & Matzner, M. (2021). Digital Industrial Platforms. Business & Information Systems Engineering, 63(2): 181-190.

Innovation Systems

The transformational performance of organisations in the context of innovation tends to be under-developed. Whereas transactional information systems have matured, innovation systems are at infan-

cy. CFE's related research is dedicated to the design of systemic approaches for innovation. This includes patterns for explorative process design, ideation frameworks en by a sense of ambition (as opposed to sense or urgency).

Erwin Fielt, Senior Lec- SELECTED PUBLICATIONS

Buck, C., Kreuzer, T., Oberländer, A., Röglinger, M and M. Rosemann (2022). Four Patterns of Digital Innovation in Times of Crisis. Communications of the AIS, 50.

Grieshold, T., Groß, S., Stelzl, K., vom Brocke, J., Mendling, J., Röglinger, M. and M. Rosemann (2022). The Five Diamond Method for Explorative Business Process Management. Business & Information Systems Engineering, (64) 149–166.

Kölbel, A. and M. Rosemann (2022). The Early Process Catches the Weak Event: Process Latency and Strategies for Its Reduction. Proceedings of the Business Process Management Forum, Münster, 11-16 September, 55–69.

Röglinger, Maximilian, Plattfaut, Ralf, Borghoff, Vincent, Kerpedzhiev, et al. 2022, 'Exogenous Shocks and Business Process Management: A Scholars Perspective on Challenges and Opportunities. Business and Information Systems Engineering, (64)

Chasin, F., Kowalkiewicz, M., & Gollhardt, T. (2022). How SME Watkins Steel Transformed from Traditional Steel Fabrication to Digital Service Provision. MIS Quarterly Executive, 21(3), 4.

NEW LEARNING ECONOMY

The current model of learn-THE NEW LEARNING ECONOMY ing has three deficiencies. First, knowledge depreci-MARTIN BETTS AND ates faster making ongo-... ing learning more relevant than ever. Second, experience increasingly is becoming counter-productive. Third, there is no consciousness for one's state of educa-

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> Queensland University of Technology – Business and Law Faculty – Centre for Future Enterprise https://www.qut.edu.au/research/centre-for-future-enterprise



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tional well-being. Studying the business models of organisations such as Amazon, Google, Tesla and Spotify, led to six new strategic options (e.g., personalisation, *scalability*) for the New Learning Economy that we describe as options for leaders with a sense of ambition in our new book launched this year. As part of his visit to the BPM Conference in Münster in September 2022, Prof Dr Michael Rosemann discussed the idea of continuous educational well-being and upgradeable, subscriptionbased degrees as described in this book with representatives of the executive education department ('Weiterbildung') of the University of Münster.

M. Betts and M. Rosemann: The New Learning Economy. Thriving Beyond Higher Education. Routledge (2022).