Editorial

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Biographical notes: Zoe Y.K. Wong is Associate Editor for *PIE* and Community Chair for Sydney Sustainability. She is a Senior Research Fellow and faculty member at Griffith University and Macquarie University. She holds a PhD, Master's in Advanced Information Systems and Management, Bachelor of Commerce and Graduate Certificate in Higher Education. She has authored scholarly research book (A1), book chapters, refereed journals and conference papers. Prior to her academic career, she has worked in the areas of ERP, consulting, e-commerce, logistics, operations and procurement, sales and marketing and product development.

Sustainable development has evolved into one of the most important strategic issues facing organisations worldwide. Incorporating principles of sustainable development within organisational policies and processes is a critical issue in addressing global environmental problems.

During the period 2009 to 2014, the compound annual growth rate in business spending on sustainability projects will be approximately 19% across all OECD countries. The ongoing industrialisation and urbanisation of both the developed and developing world, and the environmental, social and economic impacts resulting, have led to a greater awareness of the need to re-engineer organisational policies, processes and systems in order to facilitate sustainable development.

The central focus of this special issue is upon interdisciplinary research in the area of sustainability, particularly on the role of environmental management from an industrial ecology perspective. We encourage readers to explore this diverse collection of articles addressing sustainable development within industrial ecology.

This special issue comprises the following six stimulating scholarly articles in the area.

- 'Carbon management strategies – a quest for corporate competitiveness',
  Timo Busch and Julia Schwarzkopf.

  This multiple case study investigates global car manufacturer's application of carbon management strategies. The article discusses two key differences between carbon management and general environmental management strategies: the option of compensation and the demand for life-cycle efforts by stakeholders. An interesting

finding shows that the global car manufacturers are using similar strategies to achieve carbon reductions rather then adopt carbon compensation. The research team concludes that carbon compensation may not yet be fully exploited and is thus an option to consider when seeking competitive advantage in the automotive industry.

- 'An overview of the role of informatics-based systems in furthering an integrated paddock to plate food supply system', Robert Steele.

  This article describes the application of emerging technologies to improve functionality and efficiency in the food supply-chain system (from production to consumption). The integration of the food supply chain, nutritional and dietary information, food consumption and technological applications have the potential for significant impact upon the efficiency of the food supply-chain, diet and health across society, statistics gathering and the environmental, materials and energy optimisation within the food supply-chain. The researcher describes 'nutrition informatics' which can provide a path towards a large scale change in the sustainability of food supply and consumption, food waste management as well as health and life impacts.

- 'Building sustainability knowledge for product development and design – experiences from four manufacturing firms', Silje Helene Aschehoug, Casper Boks and Knut Einar Aasland.

  This study suggests that access to and use of information may increase knowledge about sustainability issues as well as firm's abilities to develop sustainable products, and thus enhance competitiveness by adding value to products beyond functionality, quality, and cost. This case study research was conducted in the Norwegian furniture and automotive supplier industries. The aim of this article is to identify the categories of sustainability information which firms find most important and relevant to product development. A framework is proposed to identify factors influencing accessibility of such information and support compiling sustainability information, for decision support and generating knowledge that may inspire entirely new product meanings.

- 'An exploratory study for the long-term integration of ecodesign in SMEs: the environmental Trojan horse strategy', Tatiana Reyes and Dominique Millet.

  This article proposes a new solution, 'environmental Trojan horse' for the implementation and integration of eco-design. The authors suggest that the environmental Trojan horse strategy favours the propagation of eco-design knowledge at different company levels. It also allows the company to progress along a trajectory of integration. The research team has experimented in an SME manufacturing systems for electrical power distribution for five years. The tool has been measured through three indicators: tool relevance, the degree of propagation of the tool, and the evolution of the environmental perception in the organisation.

- 'Seeking industrial synergies in the French Chemical Valley territory: a methodological approach for decision support', Cyrille Harpet, Emilie Gully, Christophe Blavot, Jacques Mehu and Jeanne Bonnet.

  The aim of the article is to create and strengthen synergies between willing industrial entrepreneurs by testing various decision support tools. The research analysed the

Chemical Valley in France that has been a source of environmental concerns. The proposed methodology in industrial ecology consists of identifying the various flows, defining collective action strategies, then comparing synergy scenarios using a multi-criteria analysis.

- 'A qualitative multi-criteria, multi stakeholder decision making tool for sustainable waste management', Nasrin R. Khalili, David Ehrlich and Khaldoun Dia-Eddine.

  One aspect of environmental management is to provide the tools and techniques, such as pollution prevention and cleaner production, and life cycle analysis models and methods for sustainable development. The aim of this article is to deploy and evaluate various environmental strategies from different stakeholder perspectives. This article mainly focuses on industrial ecology aspects and proposes a model for assessing environmental strategies to meet multi-criteria objectives and measurements.

I thank the authors for their innovative and insightful research contributions. I also thank the editorial team and reviewers for their support and contributions in putting together this special issue.