

Editorial

Welcome to the New Open-Access Journal—*Recycling*

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The potential to convert a waste or previously unutilised material as a reusable material will be of increasing importance in the 21st century as we see burgeoning population growth put further pressure on the world's finite resources and waste management options. This proposition alone will see increasing economic and environmental benefits gained from recycling activities. The essential decoupling of economic growth and the depletion of non-renewable resources is one of the most significant challenges for sustainable development over the next century. This challenge involves reducing the total consumption of raw materials as well as developing further impetus for recycling and reuse activities to meet the increasing demand for materials.

Recycling involves many advantages including the conservation of material resources, conserving energy, providing alternate materials/resources as well as providing jobs in new industries and reducing pressures on outdated landfill waste management options. Whilst the scuttles of war, economic depression and rapidly rising energy costs have historically induced rounds of increased recycling behaviour, environmental regulations, waste management legislation, resource scarcity and newly developing recycling technologies are also providing new impetus for recycling products and activities. In addition, whilst increasing corporate stewardship activities and legislated utilisation of recycled materials are increasing the adoption of recycled materials and methodologies, the movement towards “zero waste” economies will also be supported by the economics of recycled production activities and an increasing demand from consumers for recycling outcomes. From a consumer perspective, the kitsch recycling stores of the 1950s and 1960s could well become historic icons in the future.

Recycling in the industrial and manufacturing sectors will also present a variety of opportunities for new industries, recyclates and technologies.

Currently, recycling materials and programs are considered across many disciplines including waste management, industrial ecology, circular economy, sustainable engineering, environmental management, behaviour change and urban metabolism, to name a few. Recycling covers many applications across science, chemistry and management including in-agent based modelling, sustainable

construction, green chemistry and biodegradability, waste collection, waste processing technologies, material flow analysis, life cycle assessment, eco-design, embodied energy, energy recovery, sustainable transition management, utilisation/valorisation of organic waste and biomass, raw materials characterisation, waste auditing, bio composites/biopolymers, extended producer responsibility, hazardous waste management, consumer psychology and resource conservation. E-waste, plastics, water and chemical recycling in particular provide significant opportunity for resource recovery as well as in reducing environmental degradation.

The *Recycling* journal will endeavour to develop as an important scientific and management online, peer reviewed journal that publishes research papers, original articles and critical reviews in the areas of resource recycling and waste reutilisation. We hope to provide an international online forum for the sharing of best practice in waste management, policy, technology, regulations and assessment in order to encourage the uptake of recycled products, systems and cradle-to-grave waste management activities. Whilst there is still considerable debate in some areas on the “sustainability” of recycling activities, recycling and waste management decision support can be ably assisted with life cycle (LCA), and cradle-to-grave assessment methodologies which can help determine the water, energy and material flows and costs associated with recycling activities, and can importantly assist in determining the environmental sustainability of the recycling activity.

We have an excellent Editorial Board whose depth of experience covers a very broad spectrum of recycling issues from eco-design to waste processing technologies, remanufacturing, extended producer responsibility and hazardous waste management.

The potential resources and industries involved in recycling go across almost all industry spectrums including e-waste, mineral/mining processing, construction waste, energy production, municipal waste, waste plastics and agricultural and biomass waste, to name a few.

The Editorial Board believes that the *Recycling* Journal has the opportunity to both promote the need for sustainable development as well as to provide some very valuable and fundamental methodologies and strategies for future waste management and resource development. We believe the potential for the word “recycling” to become a common pseudonym for sustainable development is also significant.

We invite you to join us in the development of a valuable journal and forum, for international review of resource recycling and waste reutilisation topics. We look forward to receiving your papers, reviews and ideas for Special Issues of the *Recycling* Journal.

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