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Editorial

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This is my first opportunity to provide an editorial introduction and I would welcome your comments on the briefing papers and articles that are included in this issue. Although this is not a themed issue both the three briefing papers and the majority of the full papers each have a common thread running through them.

The briefing papers examine different aspects of resource management to make best use of waste by returning it to the resource cycle; the first two focusing on the UK and the third Brazil and the Third World more generally.

David Greenfield (2013) looks at the contribution that local authorities and their waste management contractors could make to improve the security of the UK's resource availability through new collection methods and enhancement of treatment technologies for the main constituents of municipal solid waste (MSW). His material management matrix focuses purely on the resource potential options and opportunities of different techniques. Perhaps this aspect of wastes management is something we will need to examine more fundamentally as supplies of some critical raw materials become more difficult to access in future. Greenfield's paper echoes the MSW sector issues raised previously in this journal for the industrial sector by Lloyd *et al*. (2012) and Buijs *et al*. (2012) from the perspective of industry's access to critical raw materials.

Peter Jones (2013) examines the potential for greater synergies between the waste and waste water treatment sectors and addresses in particular the main carbon-based wastes across the waste spectrum. To limit regulatory pressures, and in contrast with their earlier forays into treating selective waste streams in sewage treatment plants, UK water companies have so far avoided extending their reach to waste management treatment. This is despite the presence of the two largest French-based water companies with substantial waste management undertakings in the UK and with a more limited ownership of UK water undertakings. Jones makes a compelling case for more integrated management of waste with water treatment facilities in future.

The third briefing, by Jutta Gutberlet (2013), again focuses on MSW but looks at the contribution of the informal sector in moving waste up the hierarchy primarily from the experience of Brazil, a country that has a more impressive record for integrating the informal sector into its waste management policies and practices than any other.

The following three papers examine different aspects of the construction waste sector. Mohamed Osmani (2013) evaluates the overall construction process from a life cycle perspective showing how improvements in the design of projects could reduce the generation of waste. Indeed, the building industry is the largest generator of waste in the economy apart from agriculture but the latter's wastes are more easily returned to the resource cycle. For construction it is the prevention of waste that is the main means of limiting the environmental impacts of waste. Osmani shows both the complexity of the construction design process and the opportunities for limiting waste within each element of the process, providing each actor can appreciate those chances to limit their own and others' environmental impacts.

Tam *et al*. (2013) look at the other end of the construction cycle to show how the resource potential of reclaimed aggregates can be maximised. Through undertaking testing of reclaimed aggregates in order to determine their key characteristics specific grades of reclaimed aggregates could be supplied to optimise end-market uses without compromising quality.

The third paper by Amaral *et al*. (2013) returns to a Third World theme to show how a common waste material, waste from eggshells, can be utilised in the production of a standard Third World construction material, bricks manufactured using soil and cement improving both the quality of the product and reducing the cement use.

The final paper tackles a very common but also an environmentally significant waste stream, waste vegetable oil. This is referred to as 'gutter oil' in China owing to the main method of its disposal from households and small businesses. Much of this oil was a few years ago reclaimed for the production of bio-diesel but latterly the amounts going to this sector have declined with the oil being reintroduced into the food chain instead. However, the Chinese government has recently introduced regulatory controls to try to prevent this. Lu *et al*. (2013) draw a contrast with the regulatory position in the USA where it re-use in any form has been more limited and where, not surprisingly, this waste stream predominantly ended up in landfill. Even now in the USA the use of waste

vegetable oil for bio-diesel has only recently started to make a small contribution to a reduction of the USA's dependence on fossil fuels.

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