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EDITORIAL

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Innovation on Remanufacturing Engineering Management —Striving for Sustainable Development

The historic *Treaty of Paris* passed at the 21st UN Climate Change Conference on 12 December, 2015 makes a commitment to control global warming within 2°C. Data released by the Global Carbon Project showed that the goal of controlling global warming within 2°C may be achieved only if CO_2 emissions controlled must be less than 3.2 trillion tons. Since entering the era of industrialization, around 2 trillion tons of CO_2 have been emitted to the atmosphere. In view of the current mode and speed of economic growth, human beings may use up "Carbon Budget" in 20–30 years, accompanied by a large amount of solid waste, deteriorated living circumstance and less available energy. Therefore, persisting on green development has become a must choice for social sustainable development.

The UNESCO Report, *Engineering: Issues, Challenges and Opportunities for Development*, points out: "Engineering is one of the most important activities in the context of climate change mitigation and adaptation," and "one of the major areas of need and growth for engineering is in the area of sustainable or green engineering." Remanufacturing, as an advanced stage of maintenance, can recycle old and discarded products, update product performance as well as achieve energy and resource saving and emission reduction, obviously having characteristics of green engineering. So it is a necessity for human economic and social sustainable development to carry out remanufacturing engineering in a broader area and at a higher level. Considering that innovation, complexity and systematicness of remanufacturing engineering are different from those of ordinary manufacturing engineering, research on its management characteristics and rules should be conducted to ensure high quality and efficiency, low consumption and less emission on the basis of relevant basic theories, engineering practice and system construction. Only in this way can efficient methods be provided for remanufacturing engineering management.

This issue of *Frontiers of Engineering Management* takes remanufacturing engineering management as special subject, with an integration of innovation practices, research achievements and future prospects on remanufacturing engineering management at research institutes, universities and companies, including R&D management, quality management, logistics management, knowledge management and project management. We hope that the efforts and achievements these Chinese scientists and engineers made can enlighten and promote innovation and development of remanufacturing engineering management on a larger scale to fulfill their commitment to effectively implementing *Treaty of Paris* and contribute to the global ecological security and sustainable development.

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