



WASTE NOT, WANT NOT

The authors of a new book argue that the next wave of innovation will be motivated by the market opportunities created through resources' scarcity.

Report Anthony Sibillin

● Waste, services and the convergence of the digital and natural worlds are where investors who want to catch the next wave of innovation should be putting their money, say the authors of *The Sixth Wave: How to succeed in a resource-limited world* (Random House Australia, 2010).

James Bradfield Moody, international development general manager at the CSIRO, and Bianca Nogrady, a freelance science journalist, argue the world is being “transformed from one heavily addicted to the consumption of resources to a world in which resource efficiency is the name of the game”.

“In this next wave of innovation, resource scarcity and massive inefficiencies will be the big market opportunity,” they write.

The inspiration for Bradfield Moody and Nogrady is a book by Nikolai Kondratiev. In his 1925 classic, *The Major Economic Cycles*, the Russian economist observed that long periods of rapid economic expansion always peter out until a new period of expansion begins. Austrian economist Joseph Schumpeter subsequently linked each “Kondratiev cycle” to a particular wave of innovation: cotton, iron and water power (1780s-1848); railways, steam power and mechanisation (1848-1895); steel, heavy engineering and electrification (1895-1940); oil, automobiles and mass production (1941-1980); and, finally, the

information and communication technology wave now coming to an end.

In the resource-efficiency wave following close behind it, “waste equals opportunity”, Bradfield Moody and Nogrady say. “If you can find waste in a system, the opportunities will follow, because in a world of limited resources waste is a huge source of untapped value,” they write.

The authors cite Dutch company Multi Purpose Industries, which rehabilitates landfill sites that can then be turned over to urban development or industry in return for anything of value it finds in the waste.

Value will also increasingly be found in services rather than products, *The Sixth Wave* contends. For example, cars will eventually be sold like mobile phones. “You might get a car for free as long as you agreed to pay a certain amount per kilometre.”

GPS and other technologies such as Bluetooth, radio-frequency identification and satellites are also accelerating the convergence of digital and natural worlds and opening up “enormous opportunities for resource efficiency”. Demand-management devices, already appearing in homes, offices and warehouses, point the way. Allied with smart electricity grids, these devices switch off or reduce the activity of air-conditioners and other energy-hungry devices during peak electricity load times. **BRW**