

Strategic Materials for a Low-Carbon Future: From Scarcity to Availability
2-3 November 2017 – Session Summary

Groundwork session 3: Disruptions in resource availability - The case for the circular economy

The circular economy has the potential to disrupt and radically change the resource use and availability landscape. The circular economy can contribute to decarbonising the economy and a fully circular economy could even be a new source of resources and materials. How can we encourage a true paradigm shift?

Paul Ekins, Professor of Resources and Environmental Policy & Director, UCL Institute for Sustainable Resources, University College London

Richard Kirkman, Chief Technology and Innovation Officer, Veolia UK & Ireland

Martin Stuchtey, Founder & Managing Partner, SYSTEMIQ Ltd

Moderator: Sophie Lambin, Co-Founder & Managing Director, Kite Global Advisors

- Speakers suggested there is no business or regulatory case for the circular economy currently, but some positive trends are reason for optimism: climate change and the desire to manage risks like volatile resource prices may end up pushing business to move to circular economy models, and the plethora of customer data available via product-as-service business models may be a pull factor.
- Technology and pilot innovations are available: for example, Veolia UK has been able to recover platinum and palladium (emitted in car exhaust) from street sweepings. It also helps a Scottish distillery digest its waste for biogas - that biogas is then burned for energy to treat water, which helps the distillery reduce its primary water consumption.
- However, such business models suffer from a lack of scale. Although the PGM metals in street sweepings have the same concentrations as in primary material, there is only a few tonnes' worth available.
- Manufacturers need to recognise where products have potential for recycling, and take steps to achieve greater circularity (eg. increasing the quality of materials for recovery; making less-complex products that can be taken apart for recovery, remanufacturing and recycling; making waste more traceable). Legislation and policy innovation is necessary, such as that proposed by Paul Ekins in which sellers own and are responsible for the end-of-life fates of the materials in their products.