

Course Study Calendar

The rationale for transition to a circular economy

Business at the end of an era of cheap energy, materials and credit: challenges for a linear economy and the role of frameworks for thinking in successful reorientation. Changing world of volatility of

prices, increasing risk, pervasive ICT and the rise of 3 billion new consumers lead to a need to decouple revenues and material input. The notion of a circular economy gains ground: its relationship to a more advanced understanding of science: complexity and non-linear systems thinking. New times, new circumstances, new models as an innovative business response.



Use v consumption. Will it go round profitably?

Retaining quality and embedded energy while meeting demand. Products of service vs products of consumption. Selling performance and using the power of circles to seek value creation. The potential in various markets for variations on use rather than consumption and the variety of strategies applied. The importance of product and/or service to evolve within a context.



Energy Flows

Whole systems design in the energy sector, with reference to the Rocky Mountain Institute model in Reinventing Fire to discuss the relationship between efficiency, renewables and the prospects for leaving behind fossil fuels -at a profit and led by business. New opportunities in devolved energy grids. Whole system design and how the benefits compound.



Business thriving in the longer term

In a circular economy all flows have potential value. How do we recognize and harness these flows? At what scale? The trade off between efficiency (streamlining) and resilience, between fragility and stagnation. Metrics of flows in systems. Efficiency vs effectiveness debate and finding the appropriate scale of operation. A circular economy as an optimised and restorative system – multiple cash flows and rebuilding capital. Different perspectives: mature and developing economies, the role of innovation. Whole system design and how the benefits compound.



Big cycles and deep dives

The characteristics of materials in both material cycles in detail, and the role of time (product cycles/cascading). Draws on the reports from the Ellen MacArthur Foundation (2012 and 2013) and the work of William McDonough and Michael Braungart. The identified trends and opportunities in specific product types. The size of the prize and an introduction to barriers and opportunities.



Markets, prices and finance

The role of prices and the globalisation of costs as benefits in a circular economy. Distortions in markets especially tax on renewables (labour), subsidies with an adverse effect, lock in through inappropriate legislation and short term financing. Making the most of markets and the opportunities for financing through the now appreciating assets.