

Towards the Circular Economy: Accelerating the scale-up across global supply chains

The Circular Economy is a new economic model, which replaces today's "take-make-dispose" economy with one that is restorative by design and in which stocks and flows of resources are rebuilt as opposed to degraded/disposed. This results in lower and less volatile costs, and holds huge potential for innovation and job creation. Ultimately, the circular economy can help to decouple economic growth from resource consumption – truly a step-change. Over the last 3 years this has been discussed at World Economic Forum events, informed by two major reports published at Davos in 2012 and 2013, by the Ellen MacArthur Foundation (with analysis by McKinsey & Co). These highlighted the potential scale of the business opportunity – over US\$ 1 trillion. Interest and activity has accelerated throughout this time.

The time has come to mobilise this interest and analysis into action. During 2013, the World Economic Forum, the Ellen MacArthur Foundation and McKinsey & Company spoke to key business leaders and experts to identify the relevant trigger points for scaling up this new model. The report, 'Towards the Circular Economy: Accelerating the scale-up across global supply chains,' describes the results of this research and lays out a plan of action. It will be launched in the Forum's 2014 Annual Meeting in Davos, where global leaders will be convened to steer and drive the next phase of work.

Activity has already started on many fronts. Many pioneer companies are progressing projects within their own supply chains. The Forum is working in partnership with the Ellen MacArthur Foundation, with the support of McKinsey & Co., on the key levers of business innovation, education and economic analysis. Current initiatives include the Circular Economy 100 (CE100), a platform for collaboration and learning among companies, regional governments, and innovators. A fellowship programme is in place with leading universities, focussing on design engineering and

business. The 2014 Davos discussion will add a new dimension, building on the latest report by considering the need for cross-industry pre-competitive collaboration, on topics which no one industry, let alone one company, can progress by themselves.

To put the report's recommendation into action, the three collaborating parties are launching Project MainStream. This will leverage participation from a broad range of critical stakeholders, building scale, and will accelerate a range of vital enablers for the transformation to the circular economy. Within 2 years, this will achieve a successful proof of concept, which will accelerate the required business innovation movement. One of the goals is to achieve circular flow of key materials, bringing direct benefit in itself and enabling wider change. Others could include enablers such as information systems that can facilitate the circular economy, targeted regulatory changes, or development of financing models.

Project MainStream could deliver benefits of US\$500 million (materials cost savings) and 100,000 new jobs (reverse logistics, remanufacturing/refurbishment and materials recycling), and avoid or valorise 100,000,000 tonnes of waste within 5 years. Once initial success is proven, momentum will build to help this circular economy revolution get to scale.

At Davos, the collaborators will seek ideas, advice and participation to mobilise the cross-industry collaboration. The scope of Project MainStream will be refined to target the enablers which add most value for the overall transformation. A Steering Board will be formed to provide high-level leadership for the collaboration going forward.

Project Outline - MainStream

Project Scope

MainStream will address a range of enablers for the circular economy, targeting those that add the most value in the short and longer term. The common theme will be the breadth of pre-competitive collaboration required – beyond the scope of individual companies and industries – unlocking the stalemate that can prevent systems-level change.

One Enabler – Materials Flows

Based on the analysis of the new report, one key area of focus will be to build a successful proof of concept for material flows. This will address a prioritised group of major global materials – for example polymers or paper – and establish the basis for these to be continually reused, as opposed to becoming waste after first use. Ultimately this work will lead to a set of standardised “circular materials,” which can be the basis of product design.

This will start with detailed analysis of prioritised material flows, to build the business case and transformation roadmap. Then leakage points will be identified – failures of markets, lack of infrastructure, regulation and information, which today result in waste. Levers to overcome these will be identified, and the project will convene stakeholders to drive action. Finally, pilot projects will demonstrate the circular flows in practice.

Other Enablers

The project also encompasses the enablers required for the full circular economy to work, including those supporting the “inner loops” of the circle, where intact products and components are re-used and refurbished, and new business models are created with customers, such as leasing or shared ownership. Information solutions and technology will be vital. Regulatory change will be required in some areas. Innovative financing models will be needed. Each of these can be developed in pre-competitive collaboration, tested in pilot projects, then widely implemented.

Project Structure and Delivery

We envisage teams as follows, combining participants from business and other sectors.

- A Steering Board at senior CEO level providing strategic leadership.
- A Coordination Team driven by dedicated resources from the three collaborating parties.
- Working Groups delivering specific elements, such as the roadmap for a particular material, a regional pilot, or a specific enabler (e.g. IT and regulation).
- All supported by an Expert Panel drawn from the Forum and Foundation networks.

Project Timetable

We will assemble the Steering Board and Coordination Team through February and have the kickoff in March, by when we will have confirmed our initial choice of enablers, including the prioritised material stream. The business case building and transformation planning will go until second half of 2014, with pilots starting in Q4 2014. The project will last for 2 years.

Impact of MainStream on Your Business

MainStream enables you to be part of the revolution that drives change and shapes the next generation of business models globally, building the circular economy. It may allow first-mover advantage for those involved in setting new standards, creating new business models, and valorising materials flows to form new markets along the circular supply chain.

