Resilience in the Round

Seizing the growth opportunities of a circular economy

ALDERSGATE GROUP

Leaders for a sustainable economy

Contents

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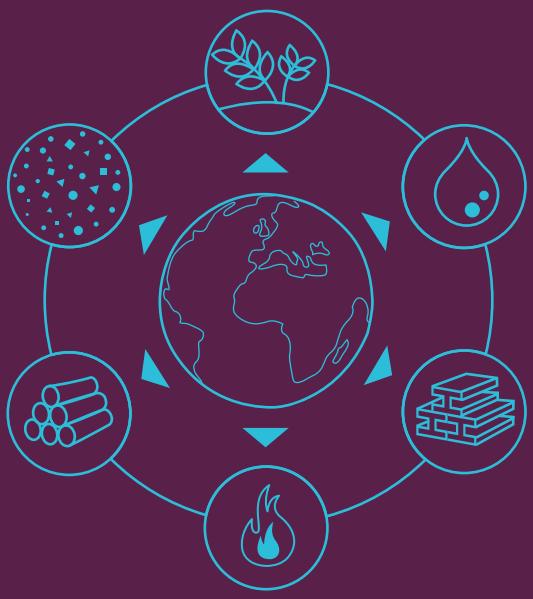

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The Aldersgate Group is an alliance of leaders from business, politics and society that drives action for a sustainable economy.

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Executive summary

The transition to a circular economy presents opportunities for growth and competitive advantage in a resource constrained world.

Resources are finite and better stewardship of them will insulate the economy from commodity price shocks and security of supply issues.

The absolute decoupling of economic progress from resource constraints is one of the greatest challenges of the 21st century. It can be achieved through adopting a circular economy framework – designing the industrial and agricultural system to be restorative by intention.

This scoping paper develops outcomes from a workshop that the Aldersgate Group held with members and external stakeholders, hosted in collaboration with the foremost organisations that are working in this field. It does not reinvent the vision for a circular economy but seeks to promote the concept more widely and outlines further areas for exploration to maximise the opportunity for growth and competitive advantage in a resource constrained world.

The challenge

Resource productivity will be one of the key determinants of economic success in the 21st century. Due to high and volatile resource prices over the last ten years – with resource scarcity likely to increase significantly in the future – there is an essential need to explore new economic models.

The opportunity

The shift to a circular economy will lead to increased growth, jobs and resilience. A 2012 report from the Ellen MacArthur Foundation, with analysis by McKinsey, has placed a material cost saving opportunity of adopting this approach in Europe of between $340bn and $630bn per annum by 2025.

The enablers

Interventions at the early stage of product development and the adoption of new business models (based on performance over product ownership) often represent the greatest economic opportunities. Other key enablers include the infrastructure to support the efficient collection of products after use (reverse cycles) and system changes (such as industry collaboration and the overarching policy framework).

The barriers

Businesses can adopt circular economy approaches now but progress would be accelerated by addressing economic, political and cultural barriers. These include cannibalisation, consumer acceptance, infrastructure, reporting metrics, procurement, resource information flows, regulation and taxation.

The timescales

The greatest economic potential to adopt circular economy principles is for medium life products but wider opportunities must not be overlooked.

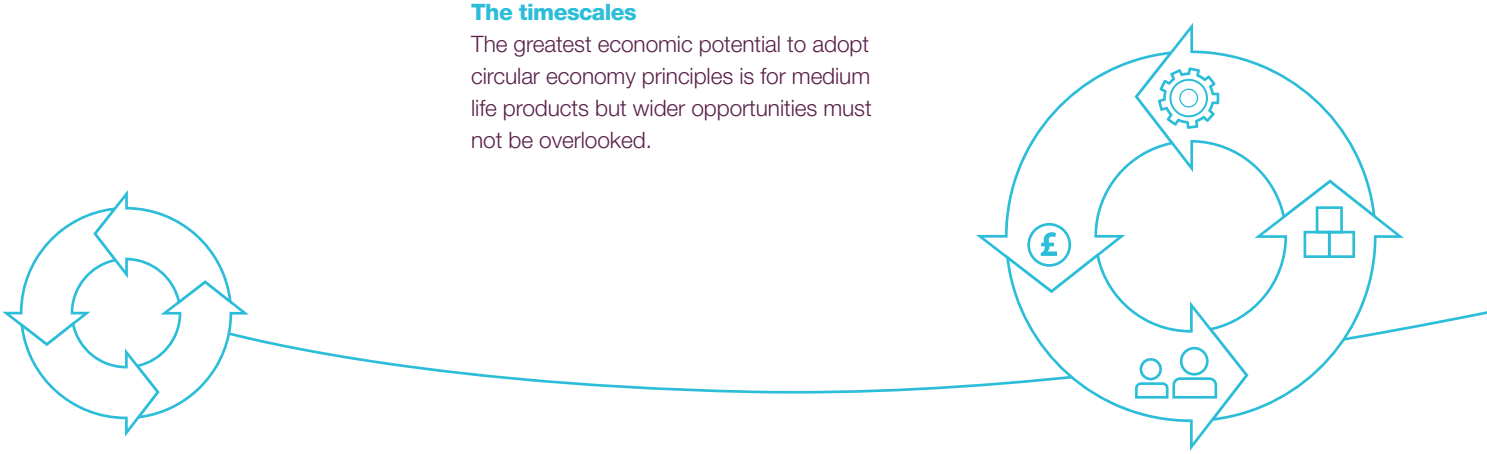
The exploration

Collaboration will be vital to gain competitive advantage and unlock economic value. How can the shift to circular economy principles be mainstreamed? Inevitably, at this stage, there are more questions than answers. As a result, the Aldersgate Group will continue to work with stakeholders to develop this concept further across a broad front. Particular themes will include business models, consumption, design, infrastructure, policy frameworks, procurement, skills and transparency.

Next steps

The Aldersgate Group would like to hear from stakeholders who would be keen to develop the evidence base and collaborate in forums, workshops and events. This will focus on building a portfolio of case studies that demonstrates the successes and barriers that are yet to be overcome, as well as developing recommendations for the most effective policy frameworks to enable a circular economy.

Working in partnership with the leading advocates in the field, we can accelerate the transition to a circular economy that is more resilient and innovative.



Introduction

The circular economy is restorative, with materials designed to circulate at high quality with their economic value preserved or enhanced.

It is clear that resources are finite and better stewardship of them will insulate the economy from commodity price shocks and security of supply issues. This is reflected in the Aldersgate Group's *Beyond Carbon* report[1], published in 2010, which made the case for securing competitive advantage through the efficient use of a wide range of resources.

It is also clear that we are not properly valuing the impact of our society on the environment and that new frameworks to incorporate the value of our natural systems into decision making will be vital to safeguard long-term economic growth. Many of these impacts come from the way that we exploit resources. Failure to value these properly supports the current linear approach to resource use whereby we take a resource, make something with it, use it for a while and then dump it (albeit with a gradually increasing emphasis on recycling).

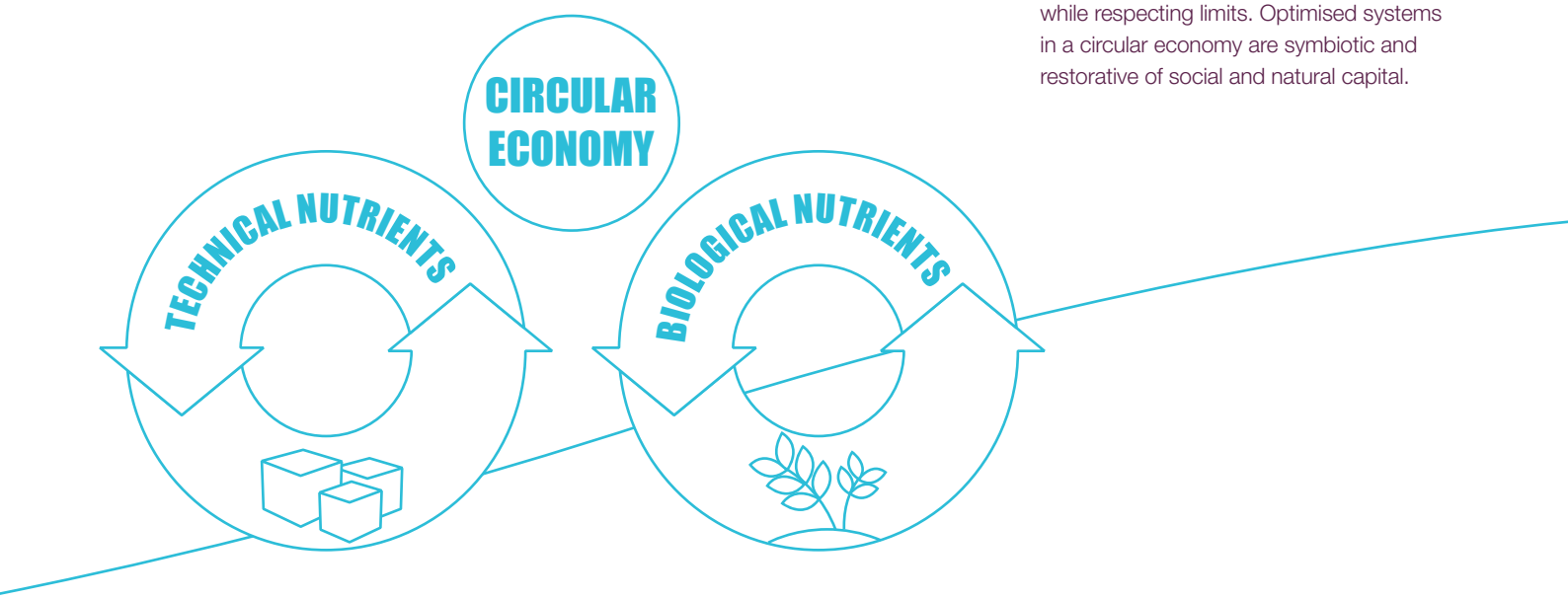
Getting good at end of life recycling just delays the inevitable day when specific resources either become unaffordable, unavailable or where the environmental burden associated with extracting them becomes unacceptable. Indeed, it could be argued that we are already past that point for some resources.

So what should we do about it? The circular economy seeks to provide a model to decouple economic progress from resource constraints. It is about fundamental change, not just getting better at recycling and as such it is an approach that has been shown to stimulate innovation through the entire lifecycle of a product, from design to materials recovery. With such innovation comes competitive advantage, growth and prosperity.

Circular economy definition

The circular economy is a generic term for an industrial economy that, by design or intention, is restorative and eliminates waste. Material flows are of two types; biological nutrients, designed to re-enter the biosphere safely, and technical nutrients (non-biological materials), which are designed to circulate at high quality, with their economic value preserved or enhanced.

While traditional approaches to resource efficiency seek to decouple growth from resource use, the circular economy has a different relationship. It seeks to optimise all flows in the economy. By converting waste into 'food' for the next cycle and shifting from consumer to user for technical products, it potentially creates significant opportunities for profitable clean and healthy flows. It is aimed at creating abundance rather than scarcity while respecting limits. Optimised systems in a circular economy are symbiotic and restorative of social and natural capital.



1 » Aldersgate Group (2010) *Beyond Carbon: towards a resource efficient future.*

Introduction

The Aldersgate Group has been using a circular economy approach to frame its current project on *Skills for a New Economy* in partnership with the Ellen MacArthur Foundation – a charity that works to accelerate the transition to a circular economy. One of the outcomes of this initiative is that Aldersgate Group members wanted to take a broader approach (beyond skills development) and ask what a circular economy could mean for business.

This scoping paper summarises a workshop that the Aldersgate Group held with members and external stakeholders, hosted in collaboration with the foremost organisations that are working in this field. It sets out the vast economic opportunity to redesign traditional economic processes of a linear consumption pattern, significant barriers that must be overcome and proposes areas for further examination.

There are three main phases in the transition to a circular economy:

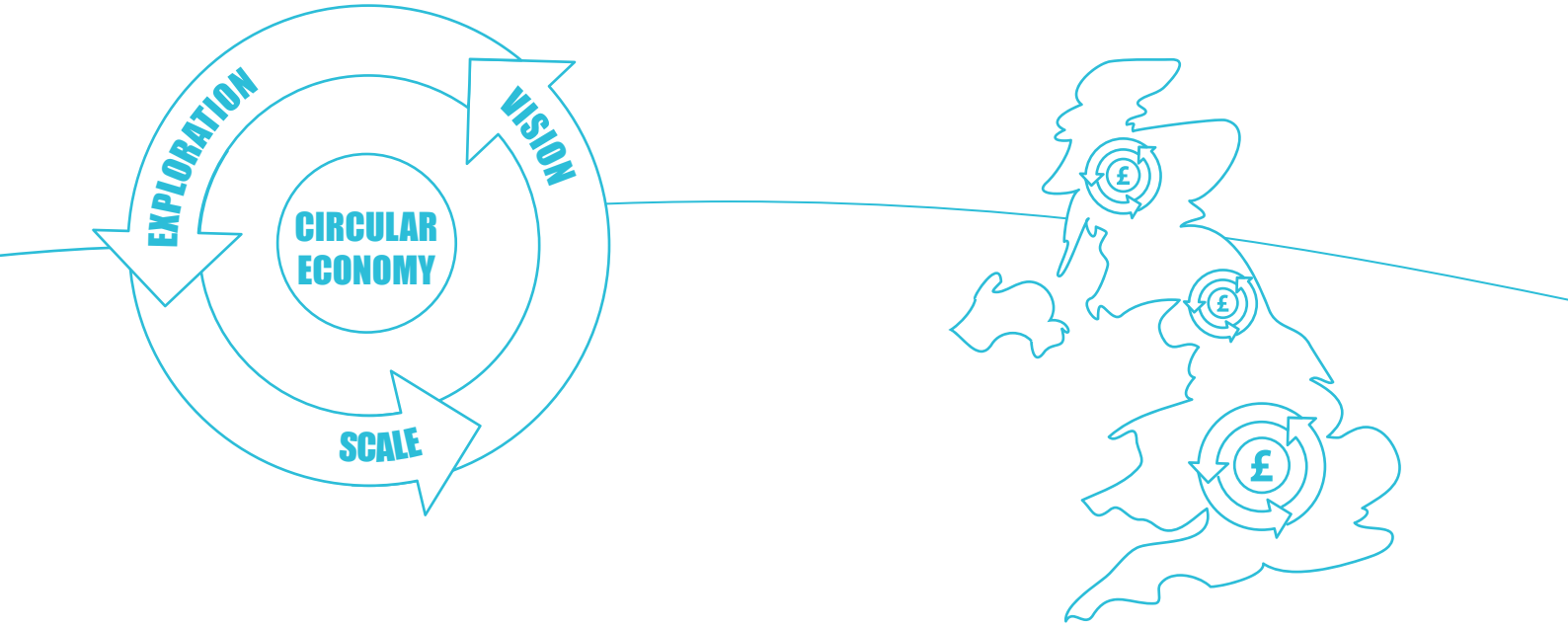
1 **Vision**
Defining the concept and increasing its traction.

2 **Exploration**
The pioneers undertake trials and create value.

3 **Scale**
Shift to mainstream.

This report does not reinvent the vision for the circular economy but draws on the analysis of others – principally the Ellen MacArthur Foundation and McKinsey. The Aldersgate Group's key objectives are to promote the concept more widely and accelerate the exploration phase.

Resilience in the Round does not set out all the answers but outlines a number of questions that need to be addressed if the UK is to maximise the opportunity for growth and competitive advantage in a resource constrained world.



The challenge

Resource productivity will be one of the key determinants of economic success in the 21st century.

> *Nearly a third of profit warnings issued by FTSE 350 companies in 2011 were attributed to rising resource prices*[2]

Traditionally, economies have relied on cheap and accessible energy and materials, amongst other factors, to function effectively. Due to high and volatile resource prices over the last ten years – with resource scarcity likely to increase significantly in the future – there is an essential need to explore new economic models. With three billion new middle class consumers anticipated by 2030, all the evidence suggests that the relative decoupling of growth and resource use will simply slow the rate of resource depletion and sharp rises in material costs will continue[3].

The Aldersgate Group's *Beyond Carbon* report (2010)[4] argued that resource efficiency – the systematic reduction in the quantity of resource employed to produce goods and services in the economy – will be one of the key determinants of economic success and human well-being in the 21st century. It contends that a prudent economic policy would promote low resource consumption as a vital part of securing future competitive advantage, in advance of the market that might respond to short-term supply restrictions but is less effective at anticipating constraints in natural resource stocks.

This is consistent with McKinsey's *Resource Revolution* report (November 2011)[5] which finds that the past ten years have wiped out all of the price declines for natural resources (such as energy, food, water and materials such as steel), that occurred in the previous century (see graph overleaf). Soaring demand, predominantly from emerging markets, will occur at a time when finding new sources of supply and extracting them is becoming increasingly challenging and expensive. It identifies a resource productivity revolution comparable with the progress made on labour productivity during the 20th century – with improvement opportunities representing a market value of $2.9 trillion in 2030.

2 » Ernst & Young (2011) *Analysis of profit warnings issued by UK quoted companies.*

3 » For example, see Tim Jackson (2010) *Prosperity Without Growth.*

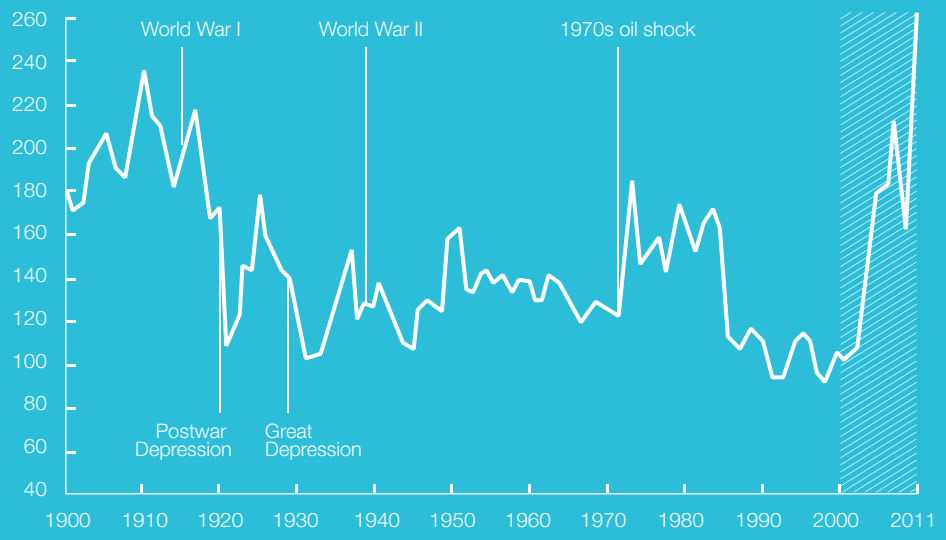
4 » Aldersgate Group (2010) *Beyond Carbon: Towards a resource efficient future.*

5 » McKinsey & Co (2011) *Resource Revolution: Meeting the world's energy, materials, food, and water needs.*

The challenge

Commodity Price Index[6]

Commodity prices have increased sharply since 2000, erasing all the declines of the 20th century.



The European Union has recognised that increasing resource efficiency will be key to securing growth and jobs for Europe by improving productivity, driving down costs and boosting competitiveness[7]. It has made resource efficiency one of its top seven flagship initiatives[8] in its vision for Europe 2020 and produced a roadmap on how these aspirations can be delivered[9].

The challenge for the UK is to be a leader in delivering this aspiration and to extract the full economic and employment benefits that will follow. It is welcome that the Government has responded to concerns over the availability of certain raw materials with the publication of the *Resource Security Action Plan* (March 2012)[10]. Developed in collaboration with the Aldersgate Group and other business groups, it sets out the opportunity of "closing the loop" and boosting resilience. It also explicitly responds to the Aldersgate Group's call for a dashboard or database to raise awareness and help companies understand the risk and issues associated with the security of materials.

While the *Resource Security Action Plan* sets out some key challenges and next steps, further actions are required to drive economic competitiveness. This should include a detailed exploration of the opportunities associated with a circular economy. There is an opportunity for the UK to take full advantage of the EU initiatives on resource efficiency, grasp the leadership role on the circular economy and benefit from the EU funding being offered to leading public and private organisations to mainstream this new approach.

6 » Ibid

7 » European Commission (2010) *Europe 2020: A European strategy for smart, sustainable and inclusive growth.*

8 » European Commission (2011) *A resource efficient Europe: Flagship initiative under the Europe 2020 strategy.*

9 »European Commission (2011) *Roadmap to a resource efficient Europe.*

10 » BIS & Defra (March 2012) *Resource Security Action Plan: Making the most of valuable materials.*

The opportunity

The shift to a circular economy will lead to increased growth, jobs and resilience.

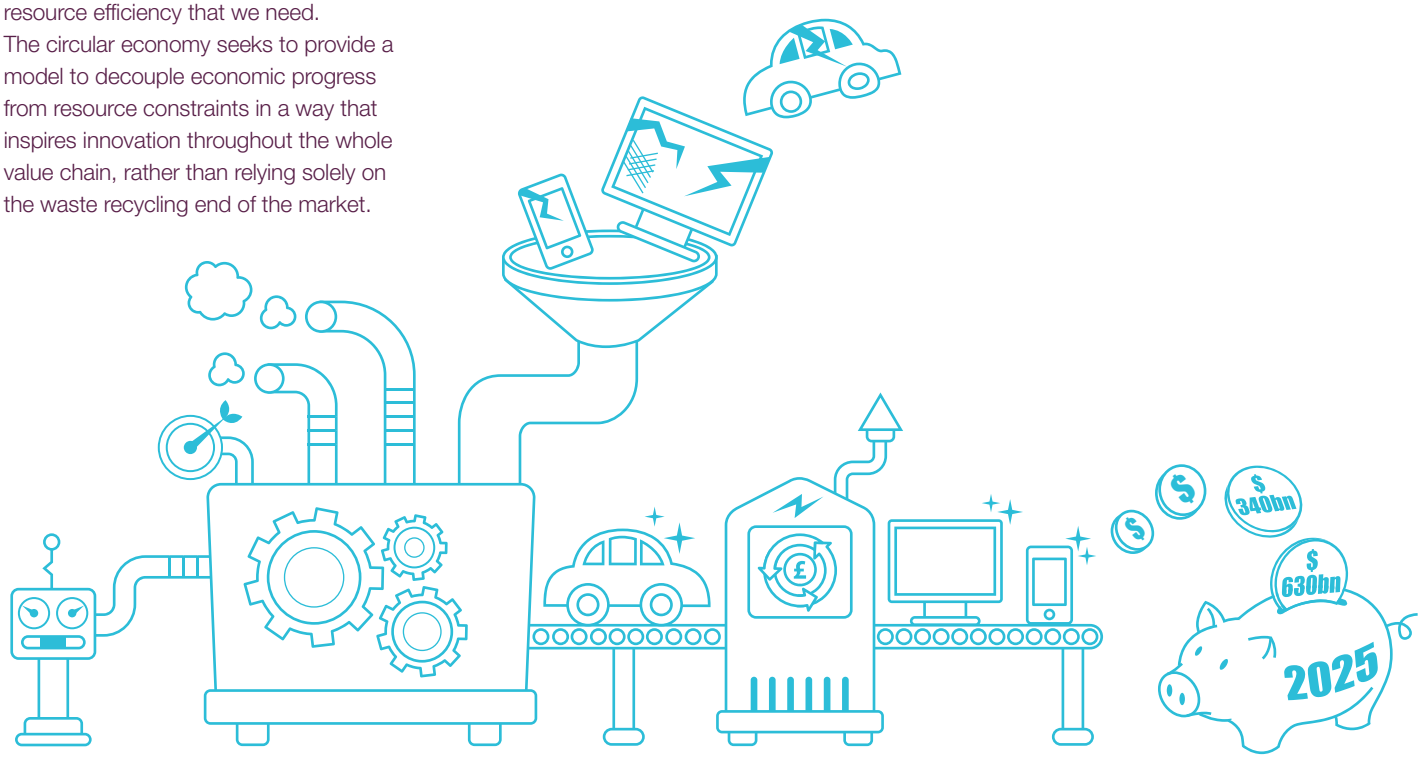
> *There is a multi-billion pound opportunity in the massive amount of valuable metals lost because of how we deal with products people no longer want.*[11]
>
> **Caroline Spelman, Secretary of State, Department of Environment Food and Rural Affairs (Defra)**

There is a very clear business and economy-wide need to adopt a different way of managing the resources required to sustain our society. End of life recycling has been on the agenda for many years but it is clearly failing to deliver the step change in resource efficiency that we need.
The circular economy seeks to provide a model to decouple economic progress from resource constraints in a way that inspires innovation throughout the whole value chain, rather than relying solely on the waste recycling end of the market.

Most of the value in the circular economy comes much further up the chain (or loop); recycling is the last resort. It is the componentisation, remanufacture, refurbishing and reselling of goods that is of most value to the economy and, in doing so, creates the most high value jobs.

A 2012 report from the Ellen MacArthur Foundation[12], with analysis by McKinsey, has placed a material cost saving opportunity of adopting this approach in Europe of between $340bn and $630bn per annum by 2025. In addition, there are a number of macro-economic benefits such as the mitigation of price volatility and supply risks, reduced environmental externalities and employment benefits (particularly in the tertiary services sector).

Furthermore, as the transition to a circular economy involves all aspects of a product's lifecycle from design to recovery, the challenge is inspirational to a very wide range of sectors and disciplines compared to traditional, end of life, recycling. This includes the potential for improved customer interaction and loyalty with the shift of ownership structures and increased supply chain resilience to rising resource prices.



11 » Defra Press Office (16th March 2012) *Golden business opportunity hidden in consumer goods.*

12 » Ellen MacArthur Foundation (January 2012) *Towards the Circular Economy: Economic and business rationale for an accelerated transition.*

The enablers

Interventions at the early stage of product development and the adoption of new business models often represent the greatest economic opportunities.

> *The best way for industry to mitigate the risks to resource supplies through the recycling, recovery, and substitution is often to start from the design stage.*[13]
>
> **Vince Cable, Secretary of State, Department of Business, Innovation and Skills (BIS)**

It is clear that the circular economy approach provides significant opportunities for growth and value creation. So what actions can be undertaken by businesses, politicians and consumers in order to stimulate the uptake of circular economy approaches? At what point of the resource circle can the most effective interventions be made?

Enablers can be broken down in four main areas[14]:

1. Design and innovation

Designing restorative economic models that eliminates waste by intention is the underlying philosophy of the circular economy and often represents the greatest opportunity for value creation. Design sits at the heart of the challenge to create a circular economy. Approximately 80% of a product's environmental impact is 'locked in' at the design stage, so understanding production cycles and reconfiguring them for maximum effectiveness is essential.

2. New business models

A fundamental principle of the circular economy is "a new contract between businesses and their customers based on product performance"[15]. Supported by a gradual shift in consumer behaviour, this will enable greater consumer trust and puts emphasis on the fastest, best performance rather than ownership.

3. Product collection and reuse

An infrastructure to support the efficient collection of products after use (reverse cycles) is an essential component for a circular economy. This can be heavily influenced by government policy (such as landfill tax), producer responsibility, new business models and take-back schemes. As resource scarcity leads to further increases in prices, it is likely that companies will not be paid for waste collection in the future but bid to take waste (resources) away from customers.

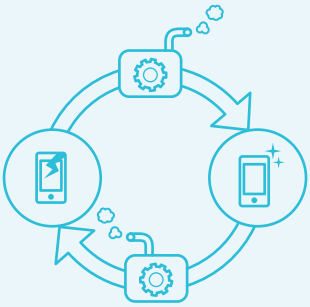
4. System changes

The alignment of incentives would help to create stronger drivers for the adoption of circular economy approaches. These include industry standards and collaboration, access to finance and revision of the regulatory and fiscal framework.

1. Design and innovation

2. New business models

3. Product collection and reuse



4. System changes

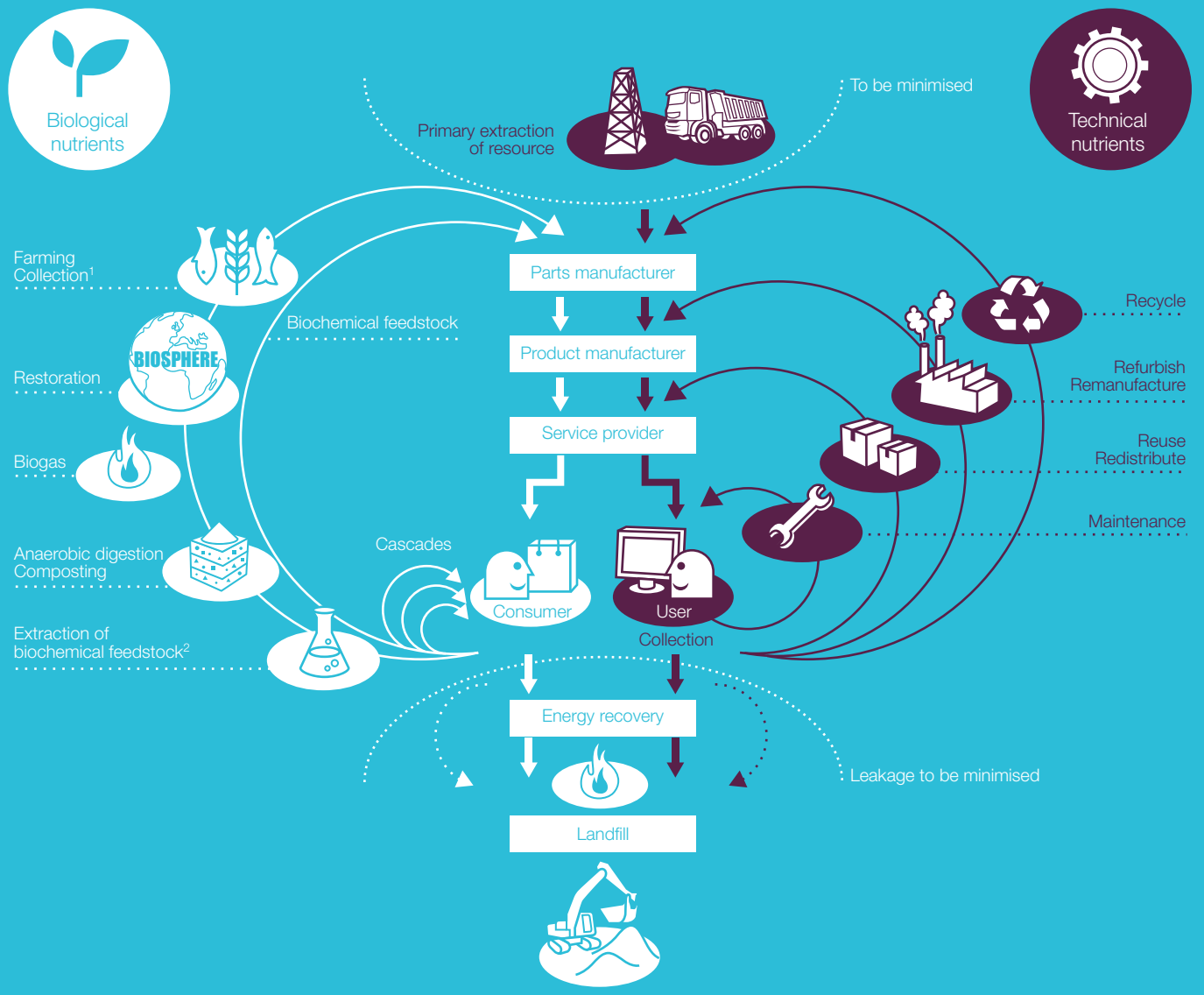
13 » Vince Cable (12th December 2011) *Speech at CBI & Green Alliance Conference.*

14 » For more information on these enablers, see Ellen MacArthur Foundation (2012) *Towards the Circular Economy: Economic and business rationale for an acclerated transition.*

15 » Ibid.

The enablers

The Circular Economy[16]



1. Hunting and fishing
2. Can take both post-harvest and post-consumer waste as an input

Source: Ellen MacArthur Foundation

16 » Ibid.

The barriers

Businesses can adopt circular economy approaches now but progress would be accelerated by addressing economic, political and cultural barriers.

> *Intelligent thinking in terms of lifecycles, whereby products are designed with their eventual recycling in mind, is always worthwhile – whether we are talking about constructing trains or recovering valuable, scarce resources from electrical equipment.*[17]
>
> **Peter Löscher, CEO, Siemens**

While linear consumption patterns are coming up against constraints posed by the availability of resources, there are significant barriers to the transition to a circular economy that need to be overcome. Some of these are simply inertia (the entire economy was founded on a linear system), which can be addressed by companies at the vanguard leading by example coupled with better knowledge sharing, or by improved education, whereas others will require government leadership and policy interventions.

Even though some developments, by necessity, will be 'slow burn', opportunities exist now to adopt circular economy approaches. There is an urgent need to identify and stimulate these, rather than seeing them simply disappear for other economies to take the value. Lessons should be learnt from the experience of other countries and these could be used to 'leapfrog' the evolving recycling economy and go straight to the circular economy, with the associated increase in value for UK businesses.

The main barriers to accelerating circular economy approaches that have been identified by Aldersgate Group members are as follows (but these are far from an exhaustive list):

Cannibalisation

There will be a number of winners and losers in the shift to a circular economy. As new business models develop and there is a shift from ownership to services, the result will be various "cannibalisation rates" where certain businesses lose market share to innovators. Vested interests will seek to maintain the status quo and be resistant to change.

Cultural and consumer acceptance

While there has been a discernible societal shift towards access rather than ownership (such as leasing mobile phones and car clubs), consumer acceptance needs to grow significantly. In addition, there must be a realignment of cultural values and incentives – particularly in the sales functions of businesses.

17 » Peter Loescher (3rd November 2011) *Reuters. The Great Debate: Strategies to save the only planet we have.*

The barriers

Infrastructure

Large companies and their tier one suppliers might be big enough, in their own right, to adopt the principles of a circular economy but the majority of companies are reliant on external providers to create closed loops. Recycling rates for many materials are still low and perhaps an opportunity exists to 'leap frog' the linear economy (such as investment in recycling and waste incineration plants) and move directly to the circular economy, with the associated higher added value. There may be a role for Government to stimulate this through support for regional infrastructure and for companies seeking to develop in this market.

Metrics and measurement

There is currently no adequate way to account for the extent to which a product embraces circular economy principles. For broader environmental impacts, the Aldersgate Group supports the approach of a "magic metric" which focuses on the largest impact of a product, based on robust Lifecycle Assessment (such as engine efficiency for the car industry).

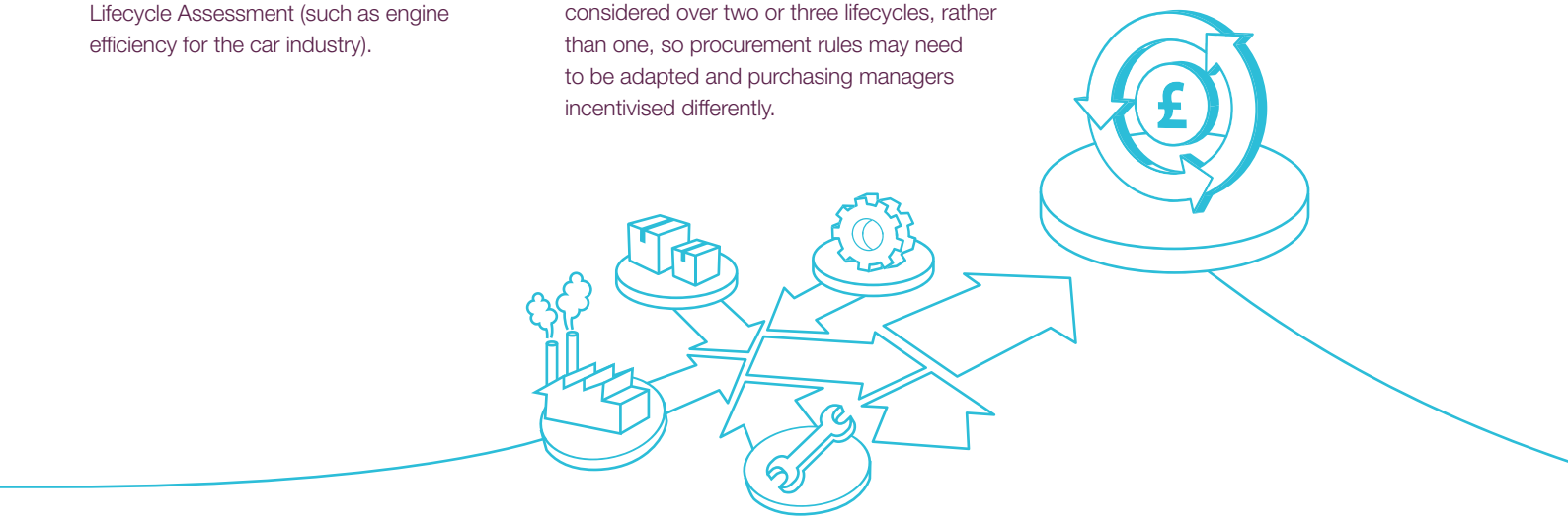
However, it is not immediately apparent what metrics would most effectively enable a circular economy and it is proposed that the Aldersgate Group works with others to develop this agenda. As part of the transition to a circular economy, metrics could focus on the post-consumer recycled content of products, embodied carbon (as products that use virgin material are generally more carbon intensive)[18] and durability (such as warranty and real lifetime of product). Open standards and metrics are considerably more transparent than tick box certification schemes.

Procurement

There is an enormous linear lock in procurement systems driven by traditional approaches to valuation. For example, equipment that has been designed to meet circular economy criteria might require a greater capital outlay than the linear equivalent, resulting in the decision being taken to purchase the latter. A positive Net Present Value might only be apparent when considered over two or three lifecycles, rather than one, so procurement rules may need to be adapted and purchasing managers incentivised differently.

Regulation

Regulation or even choice restriction (such as the transition from incandescent light bulbs) can be used as a means of accounting for an environmental externality so that circular economy based approaches can compete on a more even footing. For example, a carpet manufacturer's circular economy based product is, in effect, competing against 'one use' manufacturing processes coupled with low cost landfill disposal for the end of life product. In EU countries where landfill disposal of carpet is prohibited, the circular economy product is increasing in market share.



18 » Such approaches would also fit well with recent calls (such as from the Energy and Climate Change Committee) for a switch to consumption based GHG emissions measurement.

The barriers

Resource data

We need to get much better as a nation at tracking, and making visible, material flows so that opportunities can be more readily identified. Valuable resources are currently being exported by our economy for others to use and sell back to us at a premium. Rather than recyclable waste being one of the UK's biggest exports to China, would it not be better to retain this material and add value to it within our own economy? Or does this generally represent a low level of economic benefit that will not assist the UK's long-term access to scarce resources?

Taxation

Aside from some relatively small demographic groups, consumers currently do not pay a premium for sustainable products. Whilst in the long run, circular economy approaches will insulate consumers from resource price shocks, stimulation is needed to enable the transition. Varying VAT or product taxes could be a significant driver but more work is required in order to define the target areas and demonstrate a net positive economic case based on stimulating British industry, thereby increasing market share. HM Treasury must also ensure the tax system must also ensure that a circular economy product is not penalised by the tax system.

Valuation of externalities

A key principle of a circular economy and the Aldersgate Group's *Beyond Carbon* report is that prices must reflect real costs. Progress towards a circular economy would be significantly accelerated if cradle to cradle externalities were fully incorporated into the value of goods and services. This should seek to include a realistic price of carbon based on a marginal abatement cost analysis of the interventions required to achieve statutory emissions reduction targets, as well as appropriate valuation of biodiversity and ecosystem services.

In broad terms, this means moving to valuation methods that properly take into account the economic value of environmental damages avoided or caused. Without these market signals, the transition to a circular economy could be delayed by not making visible the true cost of many of our resources. Development of such approaches should happen in parallel with seizing the opportunities that already exist. These issues have been covered in earlier Aldersgate Group reports and are therefore not considered further here.

The timescales

The greatest economic potential to adopt circular economy principles is for medium life products but wider opportunities must not be overlooked.

> *To be sustainable, there's no option but to strive for a zero-waste society – a circular economy – a place where one company's waste becomes another's resource.*[19]
>
> **WWF UK**

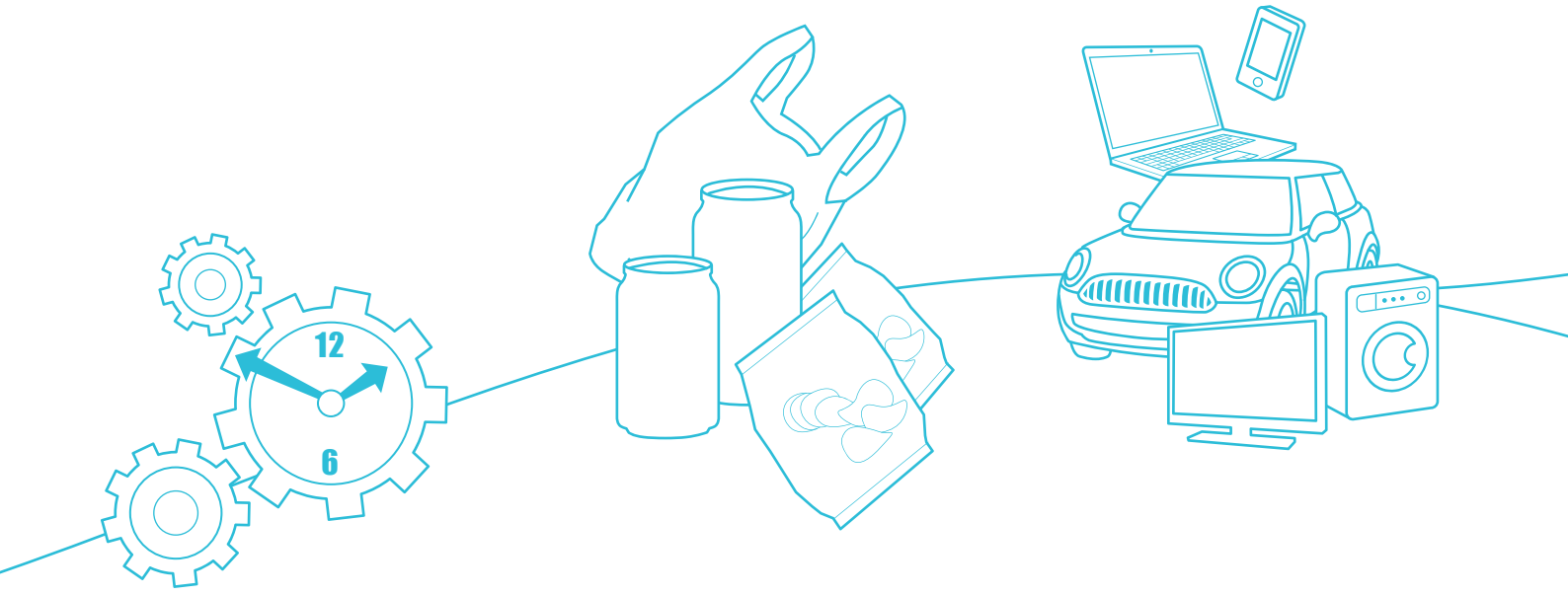
We live in a society that has entrenched linear consumption patterns and change is required across all sectors. Opportunities to adopt circular economy approaches might be usefully broken down into the following categories:

1 Short lifecycle (such as fast moving consumer goods)

This is where resources are used for goods and services that have a short lifecycle (with products that are replaced or fully used up over a period of up to one year). Typically these are consumables and therefore systems based on biological nutrients are generally preferable. We live in a disposable society where many things are made to be used once and then thrown away, wasting valuable resources and energy[20].

2 Medium lifecycle (such as hand held equipment, mobile phones, domestic appliances and vehicles)

Over this timescale, it is easier to attribute value to the resources that are being used and there are opportunities to recover that value within economic cycles in current business models. There are also more opportunities to learn from experience as the process can be improved with each cycle and the economic benefits recognised.



19 » WWF UK (2011) *Green Game Changers: 50 innovations to inspire business transformations.*

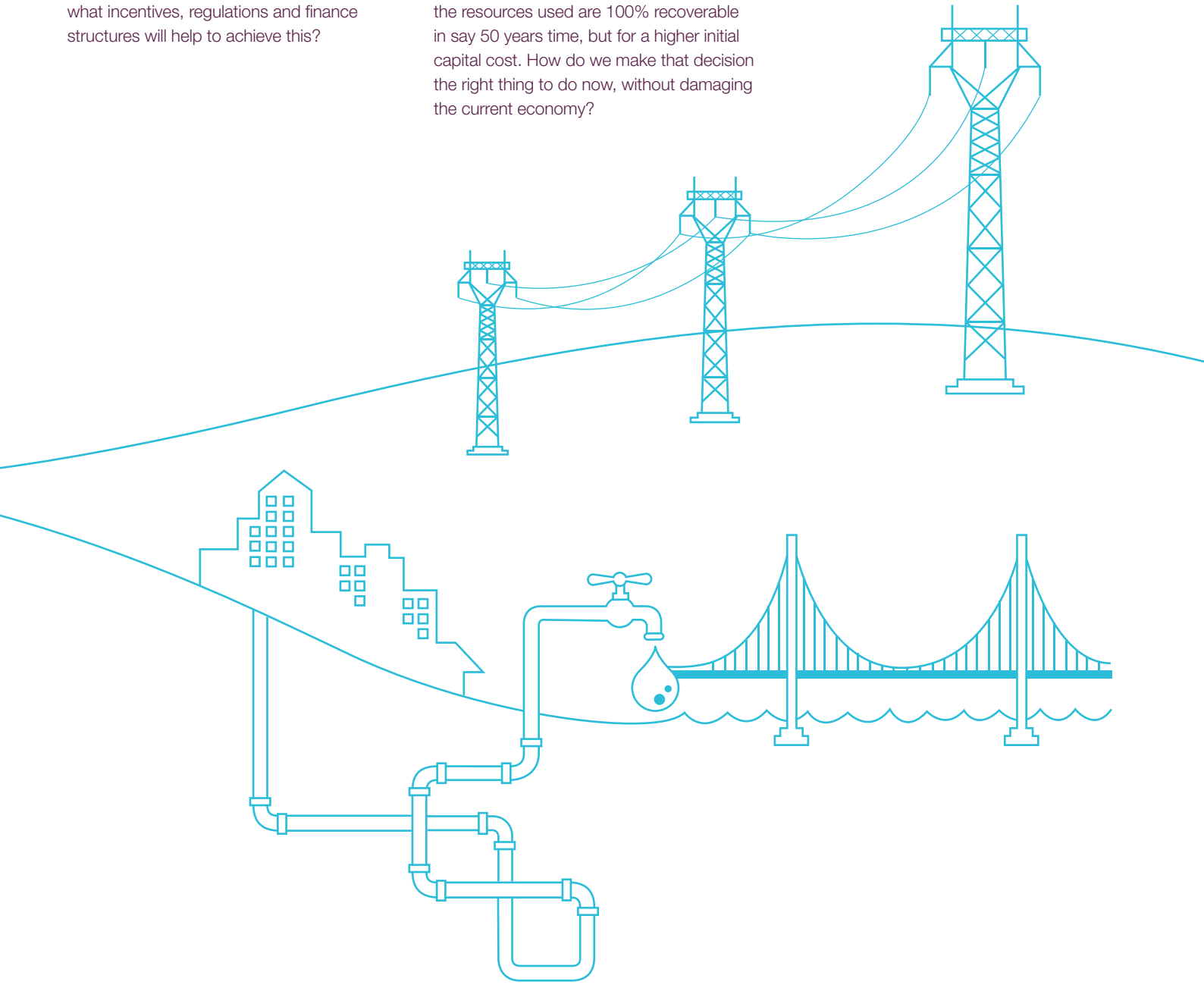
20 » Whilst waste to energy plants do recover some of the embedded value in these materials, other processes such as biomethane manufacture for distribution grid injection (which would support decarbonisation of the domestic space heating market coupled with compost manufacture) are significantly more effective. The time to stimulate this market is finite as increasing amounts of organic waste are being directed towards long-term waste to energy contracts.

The timescales

3 Long lifecycle (such as buildings and energy, transport, communications and water infrastructure)

(i) Existing. We must recognise that we have long life infrastructure and assets in place already, most of which were never designed with the circular economy in mind. It is essential that end of life recovery is optimised through better recycling. But, what incentives, regulations and finance structures will help to achieve this?

(ii) New. We must grasp the opportunity to design tomorrow's infrastructure with the circular economy in mind. However, unlike the short cycle case, how do we do this when the payback in terms of the value of the resources recovered is outside normal economic assessment criteria and business models? For example, the supplier of a long lived asset might be able to design it so that the resources used are 100% recoverable in say 50 years time, but for a higher initial capital cost. How do we make that decision the right thing to do now, without damaging the current economy?



The exploration

Collaboration will be vital to gain competitive advantage and unlock economic value.

The time is coming when it will no longer make economic sense for 'business as usual' and the circular economy will thrive. Our thinking is in its infancy but we're taking steps now to see what works in practice and to understand the implications of reworking our business model.[21]

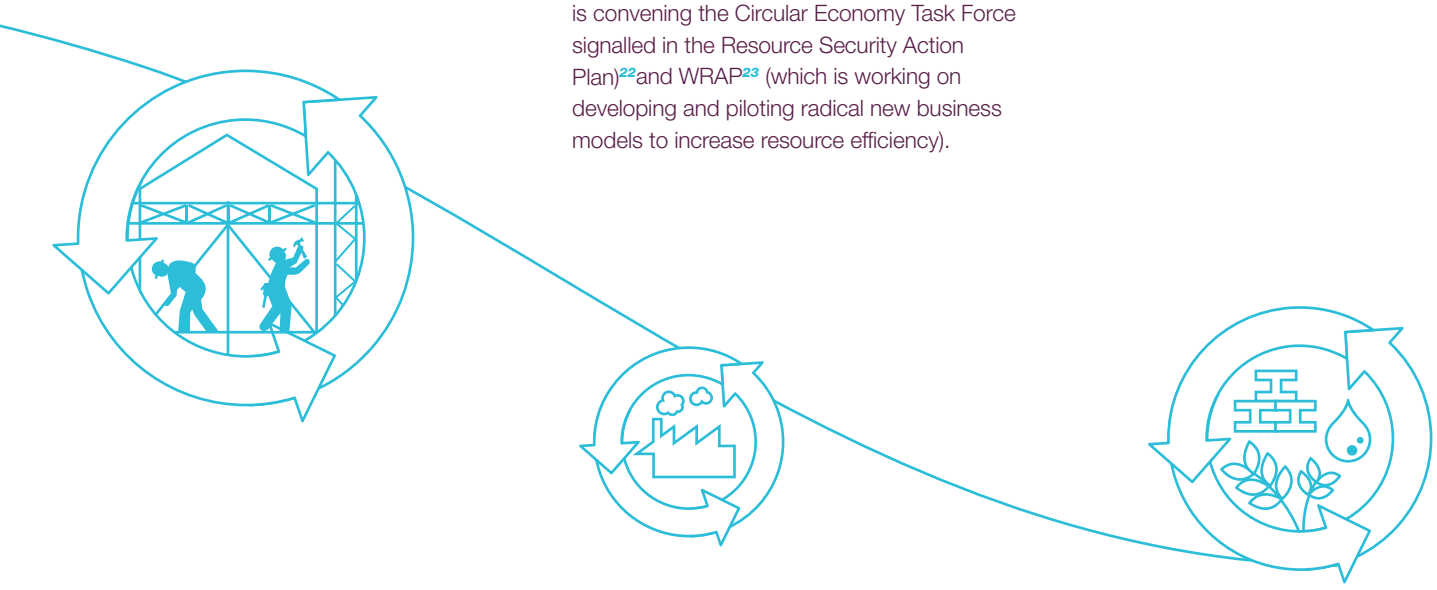
Euan Sutherland, CEO, Kingfisher UK & Ireland

A small number of companies at the vanguard of applying circular economy thinking are already demonstrating that it is a real value proposition. Adopting new approaches in these companies has not been without its challenges and there are some great examples of drive and vision within their leadership teams. But the pioneers should not be left to go it alone if the economic opportunities are to be maximised. How can the shift to circular economy principles be mainstreamed? How can large businesses learn from the smaller innovators?

Inevitably, at this stage, there are more questions than answers. The Aldersgate Group will continue to work with stakeholders to develop this theme further and it is clear that progress must be made across a broad front. This will include working in partnership with some of the leading advocates in the field, including the Ellen MacArthur Foundation, Green Alliance (which is convening the Circular Economy Task Force signalled in the Resource Security Action Plan)[22]and WRAP[23] (which is working on developing and piloting radical new business models to increase resource efficiency).

One of the strengths of the Aldersgate Group is its ability to draw on its diverse membership in order to provide case studies that both demonstrate the success stories and illustrate some of the barriers that still need to be overcome. This will produce an evidence base that will allow others to follow and that will inform a better regulation agenda.

The Aldersgate Group would be interested to hear from companies that would be prepared to offer such studies and stakeholders that would like to collaborate in forums, workshops and events. The following areas will be a particular focus for further exploration and debate:



21 » Ellen MacArthur Foundation (January 2012) *Towards the Circular Economy: Economic and business rationale for an acclerated transition.*

22 » The Green Alliance Task Force aims to develop links between government, business and other organisations to address resource opportunities and concerns and to disseminate leadership thinking and best practice.

23 » *Working together for a world without waste – Business plan 2011–15* (page 9).

The exploration

Business models for a circular economy
A circular economy requires a shift towards access over ownership and repair over repurchase. What are the most innovative business models for leasing a product rather than purchasing one? What have been the most significant economic, financial, political and cultural barriers for businesses to scale up? How can open loops between businesses be facilitated rather than closed loops within an individual business' own activities?

Consumption for a circular economy
Consumer acceptance is a key enabler to mainstream the circular economy. What are the most encouraging consumer trends, research, trials and engagement that can help make the circular economy a reality? To what degree should the journey seek to be consumer facing or undertaken by technocrats behind the scenes? How can cultural values and incentives be realigned most effectively?

Design for a circular economy
Circular system design calls for investigation into materials at a molecular scale. It demands true co-creation, with everyone involved in the life cycle of a particular product. Finally, it requires a new logistical approach to capturing and recirculating materials.

In this context, the RSA is leading a programme called The Great Recovery that will seek to fill the knowledge and innovation gaps by building a community of designers, connecting them with networks of scientists, business leaders, academics, manufacturers and material recyclers and running a programme of practical demonstration projects focusing on 'problem products'. Future phases will take lessons learnt to businesses, government, education and, ultimately, consumers.

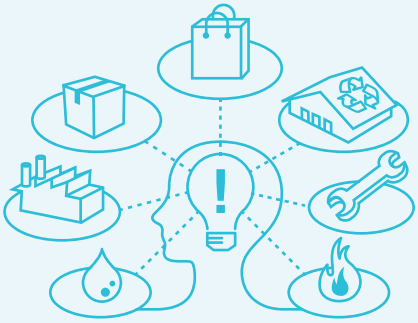
Infrastructure for a circular economy
There are specific challenges associated with bringing circular economy principles to bear in organisations which build and/or operate long lived assets such as buildings and national infrastructure. For example, do current appraisal and valuation systems place enough emphasis on the value of components that can be recovered through better design, better materials and better construction methods, rather than considering the value of construction and demolition waste almost as an afterthought? To what extent do we need a more strategic national approach so that loops are closed at a societal level, rather than within individual companies?

More widely, to what extent does more circular economy thinking imply more local deconstruction, remanufacture and resource recovery and therefore more UK jobs? Is there a market opportunity, like the renewable energy industry, that the British economy can profit from? What stimulation is needed to create this industry?

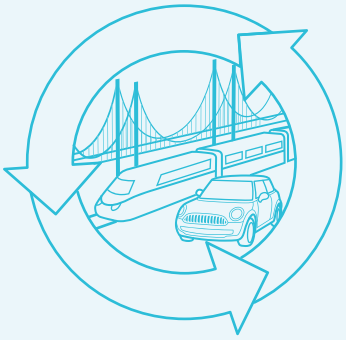
Business models for a circular economy

Consumption for a circular economy

Design for a circular economy



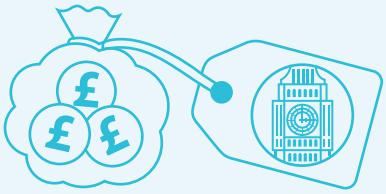
Infrastructure for a circular economy



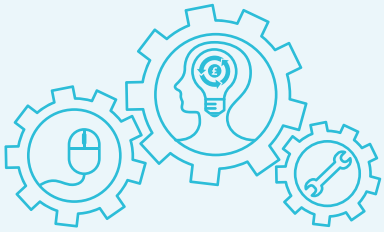
The exploration

Policy frameworks for a circular economy

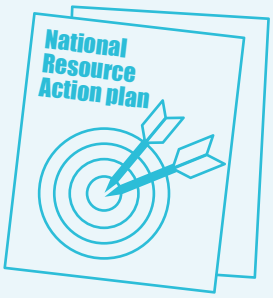
Procurement for a circular economy



Skills for a circular economy



Transparency for a circular economy



Policy frameworks for a circular economy

The EU has placed resource efficiency and the circular economy at the heart of its Europe 2020 strategy for smart, sustainable, inclusive growth. The UK has a national waste strategy, but is the time now right to replace it with a national resource strategy based on circular economy principles? The Resource Security Action Plan goes some way to addressing this, but it could be developed to shift the bias further from end of life recycling towards circular by design and intention. What government policies do we need to make the circular economy a reality? How can the UK be positioned to lead the EU drive to resource efficiency, gain maximum benefit from EU funding to assist in this change and extract the economic and employment opportunities that follow?

Procurement for a circular economy

The Aldersgate Group is currently undertaking a joint initiative with Defra on how public procurement can better drive innovation and growth and this will seek to identify opportunities to incorporate circular economy principles. In the current economic climate, identifying a procurement category that can both deliver financial savings and the desired functional outcome through adopting a circular economy approach would be a great win-win that would inspire others to follow. Indeed, Defra Minister Lord Taylor of Holbeach observed that the Government cannot afford not to be interested in sustainable procurement and described it as “a powerful tool to drive and support the green economy.”

Perhaps Government and selected interest groups such as the Aldersgate Group could work together to showcase such an approach? How can we encourage public sector procurement to test circular economy principles and where do the quick wins lie?

Skills for a circular economy

The Aldersgate Group and the Ellen MacArthur Foundation are currently embarking on a joint initiative that seeks to identify the key challenges to accelerating the knowledge and practical skills required for all professions in the transition to a circular economy. How can we inspire the next generation to re-think, re-design and build a positive future? What are the skills needed at all levels of a business to ensure competitive advantage in a resource constrained world? And what does that mean for education, in terms of content but also in terms of delivery?

Transparency for a circular economy

To what extent are companies recognising the intrinsic value of the resources that they own on their balance sheets? Do we need better ways of recognising these values in order to identify a benefit now for good resource stewardship? What metrics would be suitable to report and account for circular economy approaches?

Contact us

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