Taking the EU Resource Efficiency Agenda Forward

A policymaker and business perspective
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REPORT PREPARED FOR THE EUROPEAN COMMISSION BY:

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1. Executive Summary

Resource efficiency has been gaining increasing attention from policymakers in Europe in recent years as a consequence of changes in commodity markets, with an agenda driven by issues of supply security, environmental protection and potential for economic and competitive gains to be derived from greater resource efficiency. During the Barroso presidency the EU Environment Commissioner, Janez Potocnik, placed great emphasis on resource efficiency and the circular economy, creating the European Resource Efficiency Platform, the Resource Efficiency Roadmap and the Circular Economy Package.

The Juncker presidency begins in an era characterised by a greater representation of Euro-sceptic parties in the European Parliament and a changed picture of Commission structure that sees combined Commissioner roles for energy and climate, and for environment, fisheries and maritime affairs, along with new Vice-President roles that alter the reporting and decision-making process. The circular economy package is at the heart of the early changes to the Commission both due to its prominent role within the restructured departments but also due to the withdrawal of the 2014 package in favour of a revised, and ‘more ambitious’ and flexible, package to be developed in 2015.

The research undertaken for this report has sought the views of both policymakers and businesses regarding the resource efficiency agenda in this time of flux. It has used a semi-structured interview approach to canvas the views of some 26 participants (13 from each of the policymaking and business communities). The research aims to provide a multi-actor vision of what the key priorities are as well as discuss different policy strategies and instruments that are needed to make the EU more resource-efficient, while understanding the constraints of the policy-making process and the diversity of views and values embedded in policy decisions.

For policymakers, the role of the EU was considered to be one of providing a clear policy framework, harmonisation across MSs and contributing to the exchange of best practices. The potential impact of taxation shifts was recognised, yet implementation issues acknowledged. Research and technological development was seen as critical, as was a detailed consideration of factors affecting the end-of-life of products. The practice of policy-making in silos was identified as a key barrier to more effective policy in the field of resource efficiency, a view that was also raised strongly by businesses which are accustomed to operating with a value chain perspective. The need for policy-making to understand and address trade-offs was also an important issue. With regard to the pillars of a new, ‘more ambitious’ circular economy package, the interviews pointed to the need to cover the entire material use cycle, with an emphasis on waste prevention and product design.

Businesses are looking for the EU to provide them with support in building the evidence base for understanding, measuring and monitoring resource use and efficiency and early stage R&D, whilst also supporting MSs to create the markets for recycled materials. They see the Commission as having great opportunity to engage and facilitate, promoting a level playing field internationally, linking value chain partners across borders, and ensuring that information flows are as well understood as
material flows, mirroring strongly those opinions of the policymakers interviewed. Finally they are looking to the Commission to demonstrate the criticality of resource efficiency in the drive for greater economic growth and competitiveness, and provide consistency of policy direction that can stimulate long-term investment, matching the views expressed by policymakers. Incentives-focused measures and those that address both supply and demand of materials, sometimes through review of existing legislation, were stressed as key to the transition to a more resource-efficient EU in the future.

2. Introduction

This research comes at the cross-over in the European Commission between the Barroso presidency and that of Jean-Claude Juncker. The political context is also shaped by the results of the European Parliament elections in May, when a number of countries elected candidates that are sceptical of the European Union and the manner in which it operates.

During the Barroso presidency the Environment Commissioner, Janez Potocnik, placed great emphasis on resource efficiency and the circular economy, including through the creation of the European Resource Efficiency Platform, the Resource Efficiency Roadmap and the Circular Economy Package. This research looks at how that agenda could be taken forward in the new political context.

To do this it canvasses the opinions of policymakers and businesses to understand drivers and barriers to the implementation of policies for resource efficiency, in order to gain insights into and offer suggestions for the role that the European Commission should seek to play.

The research has been undertaken by University College London’s Institute of Sustainable Resources (UCL ISR), led by Professor Paul Ekins. The research has also benefited from parallel funding from UCL’s European Institute to engage with stakeholders on the topic of resource efficiency.

In undertaking the work the authors would like to gratefully acknowledge the assistance of the Ellen MacArthur Foundation and the Aldersgate Group for reaching out to their business members to engage in the study, and also to the expert panellists who took part in a discussion on the future of the resource efficiency agenda, which took place at UCL on the 26th November 2014. We would also like to thank all the participants who were interviewed (see Appendix A for details).
3. The European resource efficiency agenda up to 2014

3.1. Policy and Strategy

Resource efficiency has gained increasing attention from policy makers in Europe in recent years. The growing attention has been the consequence of changes in commodity markets, with higher volatility and significant price increases (which began in 2002) and growing concerns about potential resource scarcity in a number of critical materials, about resource dependency, and about the potential threat to EU competitiveness from these issues. The resource agenda has thus been built around issues of supply security, environmental protection and the potential economic and competitive gains deriving from improved resource efficiency. By joining together economic and environmental concerns, resource efficiency thus entered the core of the policy strategy as a ‘flagship initiative’ at the EU level.

In 2010, the EU launched the 2020 strategy, which is the EU's growth strategy up to 2020. The strategy to a smart, sustainable and inclusive economy was not only about promoting the recovery of the EU economy but also setting the basis for development models that overcome the shortcomings of the existing predominant growth model. Resource efficiency was understood as an opportunity to maintain a high-tech manufacturing base in Europe, which uses resources in efficient ways and is able to compete and create jobs:

“Sustainable growth means building a resource efficient, sustainable and competitive economy, exploiting Europe's leadership in the race to develop new processes and technologies, including green technologies, accelerating the roll out of smart grids using ICTs, exploiting EU-scale networks, and reinforcing the competitive advantages of our businesses, particularly in manufacturing and within our SMEs, as well through assisting consumers to value resource efficiency. Such an approach will help the EU to prosper in a low-carbon, resource constrained world while preventing environmental degradation, biodiversity loss and unsustainable use of resources. It will also underpin economic, social and territorial cohesion” (EC, 2010)

Five headline targets were adopted in a number of key areas: employment, innovation, education, social inclusion and climate/energy - to be reached by 2020. The climate/energy target aimed for a 20% reduction of greenhouse gas emissions, 20% penetration of renewables and 20% increase in energy efficiency. No specific target was set for material efficiency, although resource efficiency was adopted as one of the 7 flagship initiatives, which provided the framework to support the priorities of the 2020 strategy.

This flagship initiative recognises the need to improve resource efficiency to face the challenges posed by the increasing pressure on resources linked to growing global population and the increasing resource consumption of large emerging economies, while it also highlights the potential economic opportunities and improved competitiveness deriving from reduced resource costs, and increased resource
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Productivity. Increased resource efficiency was seen as instrumental in achieving Europe’s greenhouse gas (GHG) emissions reduction targets of 80 to 95% by 2050 and contributing to the security of Europe’s supply of strategic raw materials and fuels. The main purpose of the flagship initiative was to create coordinated action and commitment to the long-term vision outlined in the 2020 strategy, thus, providing a sense of direction for investment and innovation. It made reference to ‘getting the prices right’ and the need for coordinated support on R&D and Innovation to develop necessary technologies and the designing of balanced policies that tackle both the demand and supply side. Roadmaps set out the main components of the flagship initiative.

The Roadmap to a Resource Efficient Europe (COM(2011) 571) has as a main aim to identify ways to increase resource productivity and achieve decoupling of economic growth from resource use and environmental impacts. It provides orientation in terms of policy strategy to transform Europe’s economy into a resource-efficient economy by 2050 and defines milestones for 2020 to track progress towards this 2050 vision. The roadmap specifically points to areas that have significant potential in terms of improving resource efficiency and practical ways to unlock that potential. Market and other barriers, such as inconsistency between policies are also identified. Economy-wide measures required to move towards a resource-efficient economy, such as environmental and resource taxes to reflect the environmental effects of resource use, and the desire to increase the value obtained from resources, and the need for long-term innovation, are also discussed.

In parallel to these processes and as proposed in the Roadmap, in 2012 the Commission set up the European Resource Efficiency Platform (EREP), a high-level advisory group with the mandate to provide policy guidance on the transition to a more resource-efficient economy. A manifesto and set of short-term, medium-term and long-term recommendations were published reflecting the work undertaken by the Platform.

In July 2014, the European Commission adopted the Communication "Towards a circular economy: a zero waste programme for Europe" and an annex to establish a common and coherent EU framework to promote the circular economy. The key elements of the circular economy package are:

- boosting recycling and preventing the loss of materials from the economy;
- creating jobs and economic growth;
- showing how new business models, eco-design and industrial symbiosis can move the EU economy towards zero-waste;
- reducing greenhouse emissions and environmental impacts.

Key measures of the package were the definition of an overall headline target to increase material productivity, measured as GDP relative to Raw Material Consumption (RMC) by 30% relative to the level in 2014, by 2030. The Commission also put forward a legislative proposal to review recycling and other waste-related targets in the EU, including a 70% recycling target for municipal waste, a 80% recycling rate for packaging waste by 2030, landfill bans for recyclable materials by 2025 and the objective to virtually eliminate landfill by 2030. Achieving the new waste targets was estimated to have the potential to create 180 000 new jobs, while making Europe more competitive and reducing demand for largely imported material resources. The
Commission also proposed other initiatives to promote the circular economy, related to sustainable buildings, green employment and green action for SMEs.¹

As noted above, headline targets for resources and the environment in the EU 2020 strategy, focused exclusively on energy and climate change. Discussions at the European Parliament and Commission included the question of whether to set a broader range of targets related to resource efficiency, as agreed in the 7th Environment Action Programme (EAP). In its last set of recommendations, published in March 2014, the EREP proposed the introduction of a lead indicator and target that could provide guidance to the European Semester process, whereby the European Commission suggests specific policies for MSs, in line with the EU 2020 objectives. The indicator proposed was, as noted above, a resource productivity indicator, GDP relative to RMC. Based on modelling exercises, resource productivity in the EU was expected, without further policies, to increase by 15% between 2014 and 2030. The proposal from EREP was to double this to a 30% increase by 2030. The modelling suggested that such an increase in resource productivity would have a positive impact on job creation and GDP growth (Cambridge Econometrics and Bio, 2014). Currently, the adoption of this target and its inclusion as part of the 2020 strategy is under discussion in the ongoing review of the strategy.

With regard to the specific mix of policies that would deliver the 30% target, thereby reducing primary material use, the former circular economy package proposed a review of waste targets with a focus on stricter recycling targets, and measures to promote secondary markets and improve resource management in the building sector, the most resource-intensive sector. It is hoped that the new circular economy package will provide an overarching framework to facilitate the transition to more circular models of resource use though much of the responsibility is likely to fall at the level of MSs. The policy mixes that MSs could adopt towards improving resource efficiency are varied and are briefly discussed below. In parallel with the headline indicator, the Commission is developing a resource efficiency scoreboard that provides a wider picture of the use of resources in the EU, including, in addition to carbon and materials, water and land.

### 3.2. Decision-making Dynamics

The rapid ascension of the resource efficiency agenda in EU policy has run in parallel with the development of national strategies. As also in other policy areas, regulatory policy making in the EU has a “reciprocal, two-level character” (Liefferink and Andersen, 2005: 50). On the one hand, policy making is highly influenced by MSs and, on the other hand, the EU policy framework has a direct influence in the national policy-making processes, because of its legal capacity to impose targets and regulations at the national level. The interface between EU and national policy making has been the object of increased academic interest (see, for example, Weale, 2005; Nilsson et al., 2012; Baker, 2014) although there is limited research that specifically addresses how the EU-national level interface and dynamics have influenced and played a role in the definition of the resource efficiency agenda. As at national level, but having also the extra dimension of different MSs, policy making in the EU is a complex process where policy priorities and policy instruments are negotiated with a

¹ Source: http://ec.europa.eu/environment/circular-economy/
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number of different actors that hold different and, sometimes conflicting, sets of values, interests and practices. This helps to explain the political difficulties in advancing the resource efficiency agenda when trade-offs are to be made. Also concerns have been raised recently about the capacity of the EU to lead the resource efficiency transition in a context of weakened institutions and rise of Eurosceptic fractions in the Parliament.

Even win-win policies that could significantly contribute to increased resource efficiency, such as the removal of environmental harmful subsidies, can be extremely difficult to implement in practice, given Commission decision-making rules (for example, unanimity or qualified majority), the distribution of power with MSs (decisions on environmental harmful subsidies are usually in the competence area of MSs) and lobbying by vested interests. Complexities of the policy making process at the EU level is also revealed in the recent review of waste policy. Environmental regulation is subjected to ordinary EU legislative processes, which entails the involvement of the EU policy institutions, namely the Council, the Commission and the Parliament. Negotiation of the legislation between and by these institutions can considerably affect the scope and ambition of a piece of regulation. In the environmental area, negotiations have been traditionally led by environmental lead-countries but the enlargement of the Union has increased the range between leaders and laggards. Liefferink and Andersen (2005) suggest a classification of strategies that leading MSs may adopt to try to influence environmental policy. This classification categorises strategies according to two variables: whether the MS acts as a direct or indirect pusher, and whether its forerunner role is purposeful or incremental. For example, countries with a long tradition of environmental regulation such as Denmark or Germany, may try to exert a push towards more stringent environmental regulation and try to align with other countries or commission experts to push EU regulatory standards. Although it could be said that the EU has generally contributed to more stringent environmental standards across Europe, it may, in some cases, have restricted the adoption of more ambitious policies when these were perceived as having a negative effect on the functioning of the internal market, such as the Danish bottle system that was perceived as being in conflict with the internal market and indirectly led to the drafting of the Waste Packaging Directive (Liefferink and Andersen, 2005). The complexity of the political landscape introduces important challenges for the negotiation of a new resource efficiency/ circular economy package.

4. The new European context: 2014 onwards

4.1. Introduction

The resource efficiency agenda has built on existing environmental policy, which provides a comprehensive framework of policies aimed at reducing the environmental impacts associated with resource use and promoting the recycling and recovery of resources. Of special importance are the policies for waste management and energy efficiency, two areas in which the EU has been particularly active. In many cases, EU legislation has become an important driver for resource efficiency improvements in MSs and has also contributed to the setting of more stringent international
agreements or standards. However, the last elections for the EU Parliament in May 2014, and the changes in the European Commission have created uncertainties with regards to the future of the resource efficiency agenda and the circular economy package, which have generated anxiety among environmental actors and forward-thinking companies.

4.2. **The European Parliament**

Members of the European Parliament (MEPs) are directly elected by EU voters every 5 years. The Parliament is one of the EU’s main law-making institutions, along with the Council of the European Union (‘the Council’) and has three main roles:

- debating and passing European laws, with the Council
- scrutinising other EU institutions, particularly the Commission, to make sure they are working democratically
- debating and adopting the EU's budget, with the Council.

The role of the Parliament is stronger than in the past - the Lisbon Treaty of 2009 gave the European Parliament an equal role with the Council (which is made up of ministers from MS governments) in passing legislation. This is a result of an increase in the range of policies covered by the new ordinary legislative procedure whereby the Council and Parliament work together (called co-decision). Parliament must also give its permission for other important decisions, such as allowing new countries to join the EU, and has to approve the nominated Commissioners. The President of the European Commission is chosen by the Council, but the Lisbon Treaty requires the Council to take into account the outcome of the Parliament elections and this has created a presumption in favour of the candidate from the largest party.

The European Parliament elections of May 2014 saw a strengthened representation of Euro-sceptic parties in the EU Parliament, with such parties from seven countries now making up around 30% of the Parliament (Schwarzer, 2014). The breakdown of party representation is provided in Figure 1 below. Martin Schulz of the S&D party is the Parliament president.
The Parliament operates 20 standing committees, the most relevant to the resource efficiency agenda being the Committee on the Environment, Public Health and Food Safety (ENVI). With the introduction of the Lisbon Treaty and the extension of the legislation covered under co-decision, the powers of this Committee grew substantially as this area of policymaking was one of the main areas to move into co-decision, and as such, into the realm of Parliament decision-making on legislation. The new composition of the ENVI committee does not differ much from the previous committee with a balanced distribution of left-wing and right-wing parties, although the ALDE group may hold a strategic role in shifting the balance in a specific direction.

4.3. The European Commission

The Commission’s work is based on the principle of collective responsibility, which means that decisions are collectively taken by the College of Commissioners, which decides the strategic objectives and defines the annual work programme. The new Commission President Jean-Claude Juncker has expanded the number and roles of Vice-Presidents. The Vice-Presidents act on behalf of the President and can exercise the President’s rights and prerogatives in their area of responsibility. Their main role is to steer and coordinate specific areas of work singled out by the new Commission as key priorities. The introduction of these figures has been justified in terms of promoting cooperation among Commissioners in a number of key areas. In the mandate letters (letters written by the Commission President to new Commissioners), the role of Vice-Presidents includes (EC, 2014):
1. “Steering and coordinating work in their area of responsibility”.
2. “Assessing how and whether proposed new initiatives fit with the focus of the Political Guidelines”.
3. “Managing and organising the representation of the Commission in their area of responsibility in the European Parliament, the Council, national Parliaments and other institutional settings as well as at international level”.
4. “Promoting a proactive and coordinated approach to the follow-up, implementation, and communication of our priority policies across the Union and internationally”.

Moreover, Juncker clarifies that “as a general rule, (he) will not include a new initiative in the Commission Work Programme or place it on the agenda of the College unless this is recommended (...) by one of the Vice-Presidents on the basis of sound arguments and a clear narrative that is coherent with the priority projects of the Political Guidelines”. This statement gives an idea of the relevance of Vice-Presidents in the new organisation of the Commission and the control exercised by the President in setting the policy priorities that will define the work of the Commission. This restructuring has been welcomed by some as a sign of reducing conflicts and promoting cooperation, while it is seen by others as a measure to increase central control over policy-making (European Voice, 2014).

Another important change with a potential impact in the delivery of the resource efficiency agenda is the restructuring of portfolios. Commissioner Miguel Arias Canete has responsibility for both energy and climate. The Climate and Energy Commissioner responds to the first Vice-President, Frans Timmermans, and also to the Vice-President of the energy union, Maroš Šefčovič, and Vice-President for jobs, growth, investment and competitiveness, Jyrki Katainen. Some have interpreted this initiative as a way to create a stronger coordinated action between energy and climate change, some environmental NGOs have concerns that this would subordinate climate policy to the energy market dynamics (European Voice, 2014). Also Commissioner Karmenu Vella takes responsibility for both the environment and the fisheries and maritime affairs, as shown in diagram below. The Environment Commissioner has also to respond to the first Vice-President and the Vice-Presidents of the energy union and of jobs, growth, investment and competitiveness.
Figure 2: New structure of the European Commission. Source: European Commission, 2014.
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After some pressure from MEPs and NGOs regarding the lack of reference to sustainability issues in his political discourse, in his speech in the European Parliament on the 22nd of October, Juncker agreed to include the horizontal responsibility of sustainable development in his first Vice-President’s portfolio:

“I have decided to enlarge Frans Timmermans’ remit to include the horizontal responsibility for sustainable development. As you know, sustainable development is a principle enshrined in the EU Treaties (Article 3 TEU) and should thus be taken into account by all institutions in all their actions and policies. It is also part of the EU Charter of Fundamental Rights for which Frans is horizontally in charge. Sustainability and environmental concerns are important to our citizens. We have the tools to address them in the new Commission: with powerful green portfolios that have big budgets and regulatory teeth”.

4.4. The reassessment of the EU resource efficiency agenda

In the Environment Commissioner’s mandate letter, Juncker calls for the need to continue “to overhaul the existing environmental legislative framework to make it fit for purpose” (European Voice, 2014). The mandate later makes reference to the potential of the green economy and recognises that “Protecting the environment and maintaining our competitiveness can go hand-in-hand, and environment policy also plays a key role in creating jobs and stimulating investment”. Among specific mandates to Vella, Juncker emphasises the need to “Assess the state of play of the Circular Economy package in the light of the first reactions of the European Parliament and Council to see whether and how it is consistent with our jobs and growth agenda and our broader environmental objectives”.

On 16th December 2014 the Commission’s work programme was released and included the decision to withdraw the circular economy package, in favour of a “more ambitious” and flexible package to be developed in 2015, in consultation with different Commission Directorates, and other institutions and stakeholders.

4.5. Conclusions

The discussion above shows that there is uncertainty about the future direction of the resource efficiency agenda. With the previous proposal on the circular economy withdrawn, there is a need to reconsider and especially to examine what can be done to better complement the waste element of the circular economy through a broader focus on resource efficiency as a whole.

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5. Research approach

5.1. Introduction

This research addresses the initial question “What should the new Commission do to take the EU resource efficiency agenda forward?” that during the course of the research and the policy developments was reformulated to “what would a ‘more ambitious’ circular economy package look like?”. The research tackles these issues from both within the policymaking process and of businesses, canvassing the opinions of national and EU policymakers as well as experts in the policymaking field, and also those of businesses, as key partners in the delivery of a resource-efficient economy and strong influencers of the political process. The study was completed between August and March 2014.

5.2. The policymaker perspective

Participants
Policy-makers were selected on the basis of their expertise in the area of resource efficiency. A combination of Brussels-based and MSs’ policy officers was sought to have a more balanced view on their perceptions of the role the EU should play. The interviewees were selected on the basis of the following criteria: a) have a senior position in EU institutions, policy think tanks and/or MSs; b) have knowledge and expertise in the area of resource efficiency; c) be directly involved in shaping EU or MSs policies in resource efficiency.

A total of 20 policy officers were invited to participate in interviews. A total of 13 interviews were conducted, 12 with senior policy makers and 1 with a policy expert. The list of interviewees is provided in Appendix A.

Methodological notes
The research design was based on semi-structured in-depth interviews of about an hour of duration. The interview outline was sent to the interviewees in advance and provided a guide for the interview, although the interviews were organised more as an informal discussion, where the different topics were discussed as part of the conversation.

Summary notes of the interviews were taken and transcribed. Interview notes were coded to better identify emerging themes. A combination of content and discourse analysis was used in the analysis of the data. Interviewees were also offered the possibility to provide feedback and comment on the first draft of the report to ensure that their views were adequately reflected in the analysis.

Interview insights
Interviewees were asked about the role of the EU in the resource efficiency agenda as well as the key priorities. Policy strategies to address those key priorities as well as
policy instruments were discussed in the light of a new ‘more ambitious’ circular economy package. The interviewees were also asked about the potential impacts of the changes in the Parliament and Commission with regard to the resource efficiency agenda, and the policy approaches that are more likely to be supported in the new context.

5.3. The business perspective

Participants
Business participants for the study were sought through: a) invitations to businesses working with UCL ISR in other capacities; b) a mail-out to the members of the Ellen MacArthur Foundation C100 group of companies; and c) a mail-out to the members of the Aldersgate Group. This approach meant that 248 individuals were invited to take part.

Of these 13 businesses and business organisations chose to participate from the Metals & mining, Oil & gas, Electronics, Bio-resources, Finance, Textile, Renewable energy, and Recycling industries. A list of participating organisations is provided in Appendix A.

A mixed method approach
The research utilised a mixed method approach, combining a survey of core questions with a semi-structured approach. This allowed for some commonality across all participants but facilitated the flexibility required to take into account the different sectors and therefore the relevance of different resource efficiency measures for the businesses taking part.

All respondents were asked to answer two questions, delivered through an online survey.

2. Do you think it is useful to group some or all of these measures within a Circular Economy framework as per the EU’s recent communication. Select from “Strongly agree”, “Agree”, “Neither agree nor disagree”, “Disagree”, “Strongly Disagree”

The questionnaire outline is included in Appendix B and provides details of both the EREP short-term recommendations and the Circular Economy Package.

Respondents were also asked to provide details of the measures that they had identified as high priority, in particular what conditions are required to ensure they are successful and what the most effective way of implementing them is. Participants had the option to provide this information in the online survey or to complete an interview. Those that chose to undertake the interview were further prompted to comment on particular aspects of the EREP medium- to long-term recommendations (see Appendix B for details) that fell within their particular area of interest or expertise.

Limitations of the approach
The research aimed to capture reflections on the two core questions of the basic survey, although response rates were low and therefore further research is needed to
offer a more comprehensive analysis of what industries would like to see in a new circular economy package. The survey was complemented with semi-structured interviews, although the content of the interviews was not consistent across businesses as different individuals and sectors had different areas of interest. As such, the outcome of this section of the work can provide insights but not reflect an overall business position. Furthermore, as the research has focused on the potential role of the Commission in taking the resource efficiency agenda forward, it has by necessity sought the views of those companies that support resource efficiency. It has not been an aim of this research to provide a balanced view on whether resource efficiency should be a priority for the Commission. This would require a different approach to both questions and the recruitment process.

5.4. Stakeholder discussion

The preliminary findings of the research were presented at a stakeholder event on 26th November 2014 at UCL, in partnership with the UCL European Institute, to approximately 50 attendees. In addition to presentations from the authors of this paper, presentations were made by Andrew Warren, former Director of the Association for the Conservation of Energy, and Dr. Louis Brimacombe, Head of Environmental Technology, Tata Steel Group UK. Joss Blériot of the Ellen MacArthur Foundation chaired a panel discussion responding to audience questions. He was joined on the panel by Prof. Rudi Wurzel (Hull University), Dr. Charlotte Burns (University of York), Dr. Nick Eyre (Environmental Change Institute, Oxford University) and Dr. Louis Brimacombe. The insights gathered during this event have been incorporated into this research report.

Initial findings of the research were also discussed in an event hosted by MEP Gerber Jan Gerbrandy at the European Parliament on the 17th of March 2015. The aims of the event were to provide some research insights into the development of a new circular economy package.

6. The policymaker perspective

6.1. Introduction

Policy-making at the EU level is a complex process, populated by a large number of institutions and actors that interact at different levels to define policy priorities and trajectories of policy actions. Formal rules of policy-making and decision-making processes are laid down in the foundational treaties, but an array of different actors work within these rules to try to influence the policy agenda (Jordan, 2005). A growing body of literature within the field of EU policy dynamics has analysed “real-world” politics at the EU level (see, for example, Weale, 2005; Zito, 2005; Wallace et al., 2010). The resource efficiency agenda is not an exception to this and it has been built around the system of “concurrent majorities”, as expressed by Weale (2005). This system operates at two levels (Weale, 2005): horizontally and vertically. Horizontally, the system is defined by negotiation processes and power distribution among MSs and national agendas and vertically, across EU institutions. EU politics is thus much more than the sum of national policy agendas and has its own governance regime and
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institutional characteristics. The principle of shared authority between not only the EU and MSs but also among EU institutions (Parliament, Council and Commission) increases the chances of veto by actors operating at different levels (Weale, 2005), constraining policy change (Tsebelis, 1995). The resource efficiency agenda is a relatively new area of policy making, which has seen a rapid rise in profile due to changes experienced in global commodity markets since 2000. The growing material requirements of emerging economies have been reflected in the price trajectory of basic materials. Metals, for example, have nearly doubled their prices since 2000 and prices are expected to continue to be volatile (UNEP 2014).3

This research did not entail a study of the political economy of EU regulation and national environmental regulation, as this was out of the scope of the analysis. The focus has been to understand the perception of relevant actors with regards to the key priorities of the resource efficiency agenda and the possible ways and strategies to move it forward in a new context characterized by a more fragmented Parliament and a Commission with different values and views on the role of resource efficiency in promoting competitiveness and economic development. Parallel research (Kemp et al., 2014) has pointed to a number of key conditions that were required for an environmental policy to be adopted:

1) “it must address an environmental problem which is accepted by science and policy makers and politicians as a problem,
2) there should be an advocacy coalition for the policy intervention,
3) acceptance for the policy solution must be won (obtained) from the problem holder,
4) government is authorised to act legally,
5) society must view the policy intervention as reasonable and not an undue infringement of freedom or as distributionally unfair,”.

From these criteria, and with regard to the first issue, it should be noted that resource efficiency analysis has not yet achieved the sophistication of, for example, the scientific models used in relation to climate change, and the specific limits to resource exploitation are far from being agreed. The second and fourth criteria seem also crucial to build consensus over the need to adopt policy strategies and measures. With regard to the second criterion, although a growing coalition of forward-thinking companies has shown strong support for the circular economy and resource efficiency agenda, there is still a strong industrial base that see the change as threatening, and that has been well represented by Business Europe (see Chapter 7 for more details). Also societal perceptions on the issue may be fragmented and not well articulated, without a prevailing value-system in support of resource efficiency.

In this very complex policy context, a number of themes seem to have emerged from the interviews undertaken with senior policy officers, as captured in the diagram below. Themes discussed in all interviews appear in uppercase while issues that emerge in some of the interviews are represented in lowercase.

6.2. The role of the EU in the resource efficiency agenda

One common element present in all interviews was the recognition of the importance of the EU in relation to resource efficiency. A number of key areas were highlighted where the role of the EU is deemed crucial:

- To provide a clear policy framework, with a long-term commitment or policy vision that creates certainty for businesses and economic actors;
- To contribute to the harmonisation of policy frameworks across MSs, to provide a level playing field, in accordance with the single market, removing obstacles for companies operating in different levels;
- To define a strategic raw materials policy in line with the raw materials initiative.
• To contribute to the exchange of best practices and create economies of scale in innovation and development.

With regards to the first point, the creation of a desirable vision of the world is considered a strong element in providing policy coherence and guidance. This needed to be accompanied by a long-term commitment and by changes in the framework conditions and the structure of incentives in place. Some interviewees also pointed to the need to establish indicators, which provide guidance as to the progress being achieved towards the vision. However, the type of indicators and their binding or non-binding character was something on which the positions of different interviewees differed.

With regard to the second point, it is important to recognise that the EU28 is a very diverse group of countries with different starting points with regards to resource efficiency. Some of the interviewees called for a recognition of this diversity in starting points and the need to: 1) support the action of the "able and willing" or front-runners while 2) recognising the starting point of countries that are in a different stage of development, and also the diversity of cultural, economic and regulatory systems. The desirability of flexible regulation and also flexibility in the definition of targets is something that emerged from the interviews. The possibility to create a compliance range within targets or the definition of built-in flexible instruments within Directives is something that could play a role in that direction. The need for flexibility in regulation was also considered important in relation to changes in knowledge and technology that should be reflected in the level of ambition of the measures proposed.

One of the limitations pointed out by some of the interviews is the lack of involvement of the EU in the implementation phase of EU regulation. Although this is clearly a MS competence, some MSs with limited technical capability could benefit from more guidance in the transposition of Directives and exchange of best practices. The publication of guidelines could help in this direction but some suggested the creation of a coaching service (or resources available to commission this independently) where there is a more direct support in the implementation process. This type of measure could also contribute to the creation of the level playing field between MSs.

The changing character of the role of government and its reflection in policy-making processes, both at the EU but also at the MS level, is something that needs to be acknowledged, moving from top-down processes to more collaborative processes based on the dialogue of different stakeholders. In this respect a number of interviewees pointed to effectiveness of policy approaches that are based on collaboration along the supply chain (this will be elaborated in following sections) and the role of round tables, platforms and other mechanisms of stakeholder engagement.

### 6.3. Key priorities in the resource efficiency agenda

A number of key areas of priority for the resource efficiency agenda emerged from the interviews. Figure 2 below identifies those areas for which more support was shown as well as other areas that were also defined as a priority for some interviewees. The diagram represents in uppercase main areas identified as a priority, while the lower case denotes more specific areas of policy or elements discussed by interviewees in relation to the priority areas).
In some cases the areas of priority point to general framework conditions while in other cases they point to more specific policy strategies and even instruments. One element that came up in the interviews is the pivotal importance given to taxation systems. Although it is acknowledged that the competences of the EU in taxation are very limited, taxation systems were seen as a priority and a crucial component of the resource efficiency agenda. It should be noted that issues of feasibility were not discussed in this research and the complexity of changing taxation systems, although recognised, was not specifically addressed. Taxes are a key element of the often-quoted objective of ‘getting prices right’. In the absence of the right price signals it is unlikely that systematic progress can be achieved in the area of resource efficiency. For as long as resource use does not reflect the costs of pollution from resource extraction to the final disposal of materials, overexploitation of resources, and associated environmental damage, is likely to continue. Some of the MSs showed some progress in this area and they believe that the EU should be more active in supporting environmental fiscal reform, as this would support the work of front-runners, while leaving enough flexibility to MSs to adopt their own measures.
Greening the European Semester was also considered important in providing direction to MSs and creating policy coherence.

Research and technological development was also considered key in ensuring the feasibility of the policy vision. Resource efficiency has been an area where important progress has been made in reducing the material intensity of processes through technology, and this is an area which can not only provide economic benefits in Europe, but can also give the European economy an extra competitive edge. In fact, innovation and technology development was an area considered pivotal in moving towards more sustainable models of production and consumption.

With regards to the issue of defining indicators and setting targets at the EU level a number of different positions emerged from the interviews. In general all interviewees agree on the importance of the role of indicators in guiding policy action. However, there was disparity of opinion as to what types of indicators should be chosen, their character and the level at which they should be adopted. Generally, systems of indicators were preferred to single indicators as they provide a more comprehensive picture of an area as complex as resource efficiency. In line with the EREP recommendations and Circular Economy Package, some of the interviewees supported the inclusion of the target of a 30% increase in resource productivity, measured as GDP relative to RMC, by 2030, while others considered this indicator inadequate, as it does not take into account quality issues, such as the environmental impacts of different material streams. In addition, the ambition of the targets was a contested issue. Some pointed out that members of the International Resource Panel (IRP) in a recent meeting had estimated that the 30% increase would only represent a tenth of the effort needed to achieve a factor-four resource productivity improvement at a global level, while others showed concern at the level of ambition of the target for countries in different contexts and stages of development. In general, most of the interviewees agreed that if adopted the target should be non-binding and leave enough flexibility to MSs with regards to defining the policy mix to achieve it.

Aspects related to framework conditions such as a harmonised definition of ownership rights to ease the transition to a service-based economy, where ownership may be linked to the performance rather than product, or ‘getting prices right’, through changes in incentive structures, to provide consistent signals to economic actors, were identified as a priority by some interviewees. Also, instruments such as Extended Producer Responsibility (EPR) were thought by some to be among the key priorities of the resource efficiency agenda. EPR was seen instrumental in: a) extending business focus from ‘cradle to gate’ to a full life cycle approach and b) internalising end of life costs of products. It was also suggested that take back and physical responsibility systems could contribute to create incentives for the emergence of new business models in relation to product life extension, remanufacturing and component/ material recovery. However, the limitations of current EPR schemes in Europe and the lack of harmonised implementation were considered an important limitation of the potential of EPR systems. These elements will be discussed in more detailed in following sections.

6.4. Systemic barriers to resource efficiency and role of policy in easing the transition

A number of systemic barriers to resource efficiency were identified through the interviews, spanning a number of different areas and varying in their level of detail.
and specificity. Some of the barriers are related to the way products are designed and their management at the end of their lives – although products may contain valuable resources it is often very difficult to trace these materials and recover them in effective and economically feasible ways. Also, the planned obsolescence of products has significantly shortened the use-life of a number of products with important consequences in terms of resource consumption. Also related to products is the push of businesses for the differentiation of their products, which increases the costs and difficulties of end-of-life management and reparability of products.

Another important set of barriers is related to the sectoral, fragmented approach of policy-making processes. Policy makers tend to work in silos and develop strategies that are focused on specific sectors or industries. This often results in the perspective of the supply and material chain being lost, reducing the opportunities for beneficial interventions along the supply chain and creating trade-offs and frictions between different sectors or phases of the chain. Also related to this is the fact that policy-making processes are trapped in narratives of prevailing paradigms and that breaking that inertia is by no means an easy task. There is thus a need for narratives that build on a new vision for which past policy approaches may not be adequate and may indeed be the source of important obstacles. For example, it is very difficult to change the focus of materials management from waste to resources by just reviewing waste directives. The definition of waste itself has in some cases impeded the successful reuse of secondary materials and therefore presents obstacles to the emergence of new business models linked to the effective recovery of materials and keeping them in the productive system.

Related to this is also the framing of responsibility in society and the definition of what is or is not acceptable. It is important to change what it is perceived as being the default or “normal” way of doing things in respect of resources and in the use of natural capital more generally.

6.5. Framework conditions for resource efficiency

The framework conditions of a system define the basic context within which actors in that system behave and interact. The definition of such a framework for resource efficiency was agreed to be one of the key roles of the EU. What those framework conditions should be was more difficult to establish, although there was agreement among respondents that they should include:

- A clear vision and a long-term commitment that results in continuity and consistency to policy-making and therefore assurance to businesses about future policy priorities and directions;
- A structure of incentives that reflects the scarcity of resources and planetary boundaries.

While the policy concepts required to increase resource efficiency, such as the internalisation of externalities, are reasonably clear, on a practical level they are extremely difficult to implement because they require the creation of new institutions and the re-alignment of existing incentives. In the interviews it was suggested that voluntary approaches based on the supply chain had proven successful in promoting collaboration between the different phases of the supply chain, generating mutually beneficial improvements, and finding collaborative ways of optimising material use from its extraction to its final use and even through to its end-of-life management.
However, it is also important to recognise that the re-alignment of incentives and greater resource efficiency may benefit society overall, but would result in trade-offs that created losers as well as winners. Policy needed to recognise such trade-offs and give support, time and flexibility to enable the “losers” to adjust to the new circumstances.

6.6. Policy strategies and policy instruments for resource efficiency

The interviews explored in some detail the key policy approaches and strategies, as well as more specific policy instruments that are likely to play a role in moving the EU towards greater resource efficiency. Policy strategies, which showed some diversity, were favoured not only for their effectiveness but also for their feasibility in terms of gaining support from stakeholders.

It was noted that voluntary approaches have proven effective and generally raise less opposition. As noted above, action through the supply chain is an example of a voluntary approach that was cited by a number of interviewees as very transformative and effective. In fact, a number of MSs have adopted very successful pilot programmes to promote supply chain collaboration. In most cases these programmes do not only address environmental/resource efficiency issues but also aspects such as material quality, knowledge transfers and labour conditions. Government, or trusted independent actors, can play a very relevant role facilitating this kind of supply chain collaboration. A number of initiatives related to the food supply chain have been undertaken in, for example, the Netherlands or the UK with very positive outcomes. Supply chain actions can contribute to creating a safe space for pre-competitive collaboration that enables the testing of innovative initiatives and new approaches. Given the global character of supply chains and the high integration of EU markets, initiatives of this kind at the EU level could be very successful. Voluntary agreements at the sectoral level, where targets and timelines are collaboratively agreed between industries and government, but there is flexibility with regards to the specific mix of instruments to achieve those targets, have also proven effective. Examples of effective implementation of these types of instruments may be found in the Netherlands and Finland.

Most of the interviewees, though, recognised that soft approaches and instruments may not be sufficient to achieve transformational change in resource efficiency. The need to change taxation systems was again highlighted as an effective policy strategy, while respondents acknowledged the difficulty for the EU to play a role in this area, with the need for MS unanimity providing a formidable barrier to the viability of any EU-wide proposal. However, the EU could perhaps play a more active role by making recommendations through the European Semester and also through the provision of guidance and support to front-runners. The role of economic incentives, such as VAT reductions or tax allowances, has also been highlighted as a powerful financial instrument to help open new niches, promote innovation and help rolling out emerging technologies.

Other strategies suggested by the interviewees were the sharing of best practices among MSs, sustainable sourcing approaches linked to supply chain initiatives, and adopting resource efficiency criteria for access to EU funding.
At the level of more specific instruments, interview respondents mentioned the following as among the more promising to improve resource efficiency:

- **Product passports** that provide details about the material composition of products and offers information for its repairing and recovering of materials;

- **Financial instruments**, both in the form of taxes or levies on materials and in the form of incentives such as VAT reduction for recycled or remanufactured products, or tax allowances for cleaner technologies. While taxes may be politically more contested, incentives could play an important role and have positive effects on innovation, although, of course, they have to be financed by taxes elsewhere.

- **Disclosure** of non-financial information by businesses;

- **Extended Producer Responsibility** (EPR) could be enhanced to better reward eco-design, through the implementation of modular fees. Case studies, though, suggest that it is extremely difficult to calculate the extent of fee modulation and the criteria to define it. The implementation of EPR has been very varied across MSs, with reports of considerable complexity in the implementation of different schemes. Lack of harmonisation may become an obstacle for companies operated in a number of MSs. To avoid this, modulation criteria should be defined at the EU level. Other potential challenges come from a focus on the inputs of the recycling processes rather than the outputs from it, an issue that relates to the quality of recycling and the production of recyclates of adequate quality to substitute for primary resources.

- Stimulating markets for green products through initiatives such as *environmental footprint indicators* for products. Some interviewees pointed to the need to ensure that the footprint indicators are useful and meaningful for companies, and propose a hotspot-focused approach to reduce the burden of compliance while ensuring impact; The single market for green products is currently implemented only in BtoB, where it seems to have yielded some positive outcomes, while communicating footprints effectively to final consumers can be extremely difficult and some businesses have expressed concerns regarding the disclosure of environmental information to consumer. The product environmental footprint pilot project, which is currently underway, will test communication both at the BtoB and BtoC levels.

- Informative instruments and *networking tools* for the manufacturing base to understand material flows.

- The power of activity licenses to close the cycle of materials in something raised by a number of interviewees. Although the competences of the EU on this area are limited, more could be done to strengthen the role of material cycles and systems in the process of licensing activities. Approaches such as *industrial symbiosis* could be promoted through a better understanding of the industrial metabolism of a region and the synergies that can be created.

**6.7. The circular economy package**

The withdrawal of the Circular Economy package by the Commission during the course of the research introduced an interesting shift of focus from gathering views on whether the former package provided an adequate framework for resource efficiency strategies to collating views on what new package should look like to adequately respond to resource efficiency challenges faced by Europe.
The next two sections provide some insights on the limitations of the previous package and what would stakeholders like to see in the new package.

### 6.7.1 The former circular economy package

Interviewees were asked for their views on the former circular economy package and whether it defined a comprehensive agenda for resource efficiency. The views of the respondents were diverse. While some of them recognised that it may provide a useful framework for advancing in this area, some considered it insufficient to tackle the challenges ahead. Even those who supported the package on general terms pointed to a number of possible gaps or problems. One common view was that the package focuses too much on waste and recycling, while approaches to actually prevent resources being wasted were insufficiently addressed. Although recognising the practical difficulties in measuring and defining targets for waste prevention, a number of interviewees thought that it should have been more of a priority. The notion of “preparing to reuse” is also insufficiently addressed in the package and, more generally, in the waste framework regulation. As it stands now, there are no actual incentives for MSs to act on reuse, partly at least because it is actually very difficult to account for something that has not yet become waste. The package has maintained a strong traditional focus on recycling of materials rather than on prevention, reuse or redesign to reduce the occurrence of waste in the first instance.

Hence, interviewees pointed to the need to shift the approach from waste to the product design and the supply chain, which is where much of the value-added for businesses resides and where more important savings can be made. The package needed a stronger focus on eco-design, life cycle assessment, supply chain management and new business models. However, in general, the view of the interviewees was that the withdrawal of the circular economy package have created a sense of uncertainty and discontinuity and could act to undermine perceptions of the importance and relevance of resource efficiency. Even those who see withdrawal of the package as an opportunity to create an improved package have concerns related to possible delays and the perception of discontinuity this may bring.

### 6.7.2 A ‘more ambitious’ circular economy package

In the light of the limitations of previous package, interviewees identified key pillars for a new CE package, as shown in figure 5 below, with each pillar discussed in the text that follows.
ENABLING POLICY FRAMEWORK

There were different interpretations as to what would be the main components of the enabling policy framework required for the transition towards more circular models of production and consumption, but in most cases interviewees pointed to the need to better integrate the ‘polluter pays principle’ mainly through economic instruments. They also pointed to the notions of ‘soft law’ and smarter regulation, involving the modernisation and simplification of regulations to reduce the costs of compliance and monitoring, and the adoption of flexible standards, which provide some room for innovation and encourage the development of bottom-up initiatives, such as industrial symbiosis. It also alludes to multi-stakeholder dialogue (e.g. round tables), more emphasis on certification routes with accreditation at the EU level to facilitate, for example, the development of end-of-waste criteria, and testing for pollution to guarantee safety of secondary materials and a transition from the concept of waste to that of cascade of resources.

The enabling policy framework also considers changes in taxation systems, with a shift from labour to material taxation. The interviewees, though, recognised that although green tax reform offers a transformative potential, implementation is extremely complex and politically difficult to negotiate. The European Semester is seen as potentially having an important role to play in guiding tax reforms. Fiscal measures can also be implemented to incentivise repair and reuse and/or product design, e.g. incentive schemes or VAT reductions. Finally, better enforcement of policies and monitoring of compliance are required to contribute to a level-playing field and ensure adoption of best practices in the implementation of EU regulation.

LIFE CYCLE THINKING AND SUSTAINABLE VALUE CHAIN APPROACH
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One element that was emphasised by both policy makers and businesses interviewed is the need to adopt a life cycle approach to material use, which would contribute to an improved understanding of the environmental implications of material use, not only in the production and consumption phase but also in the end-of-life phase. Life cycle thinking is also well aligned with a supply chain approach that considers the implications of the whole material cycle, from the sourcing of materials (e.g. sustainable sourcing of raw materials), manufacturing and production, consumption and use, and the final reuse, recycling or disposal/recovery of materials. The interviewees suggested that the new package should thus shift the focus from waste to the entire material cycle. The adoption of a supply chain approach in design policies aligns well with the way businesses operate and may create positive interactions between business and policy strategies.

The full life cycle and supply chain approach require a combination of policy instruments or policy mixes that work at different stages of the material cycle. This requires an overarching framework that ensures that all instruments work in the same direction, and intense dialogue across all stakeholders involved in the supply chain. Instruments primarily based on voluntary standards can operate at the raw material sourcing phase, while product design and extended producer responsibility (EPR) may cover the production-consumption phase and extend to the end-of-life stage. Reporting and labelling may also be employed for the use phase to provide information to help consumers to make sustainable choices, while waste regulation is also required to cover the end of life phase. Value chain approaches may also consider the introduction of incentives or market-based instruments for circular economy business models that prolong the use life of products/components and materials. Such models include remanufacturing, the share economy and urban mining approaches (including seabed mining, Rare Earth Oxides mining). Aligning instruments along the supply chain provides policy coherence with the business process and consistency between policy instruments.

CHANGE IN THE STRUCTURE OF INCENTIVES AND REMOVAL OF OBSTACLES

The next pillar would be the creation of market incentives to use resources more efficiently and the removal of obstacles to resource efficiency. Tax reforms would significantly contribute to change the structure of incentive towards more cyclical use of resources. Incentives for the use of secondary materials can also contribute to the creation of markets and reduce dependence on primary raw materials.

The creation of incentives for circular models of resource use needs to be accompanied by the removal of obstacles to resource efficiency. This includes the unsolved issue of ‘environmentally harmful subsidies’, but interviewees also pointed to concrete barriers such as accounting and depreciation rules that may create obstacles for the development of performance-based models or add to the administrative burden associated with the use of waste streams as a resource. In the latter case, end-of-waste criteria can play a role together with instruments such as certifications.

ECOINNOVATION AND NEW BUSINESS MODELS

Eco-innovation has been identified as the fourth potential pillar of the new circular economy package. Technological innovation but also organisational and system
innovation has been highlighted by policy-makers as a key component of the transition to circular economy models. There is an important potential for generating economies of scale of innovation across Europe but this requires further efforts to facilitate cooperation and knowledge transfer. This is an area where the role of the EU may be of special relevance, as it can foster exchange of information, knowledge and best practices. Interviewees pointed to the need to provide support to dissemination of eco-innovations and also adopt more flexible regulatory approaches (soft law) to create room for experimentation. Interviewees provided examples were waste regulations create obstacles for alternative ways of using waste as a resource.

In terms of product innovation, the top-runner approach was considered a good way to foster eco-innovation and also to create incentives for European firms but also importers to improve the performance of products. Industrial symbiosis also offers potential to identify how to make better use of underutilised resources, and can be integrated with planning and licensing processes. There is also a role for the EU to subsidize risky R&D that has the potential to bring systemic change.

CREATE A GOVERNANCE SYSTEM

The fifth pillar indicated by the interviewees is the creation of a governance system that provides an overarching policy framework for resource efficiency, which could operate in a similar way to that created for energy and climate change, providing a clear policy horizon and enhancing consistency between policy and instruments. This would be accompanied by the definition of a system of indicators that could monitor progress towards resource efficiency and the circular economy, that would also integrate issues of supply security linked to the raw material initiative agenda.

While the creating of a system of indicators is deemed necessary to monitor the resource trajectory and impact of policies, the definition of targets was a debated issue. Some interviewees strongly believed that a binding target set at the EU level was necessary to ensure progress and commitment, while others strongly opposed an EU-wide binding target. A non-binding target that provides reference is something that was in most cases accepted as a compromise solution.

6.7.3 Insights from MSs: what MSs would like to see in a new circular economy package

This section collects the views and insights of what a small sample of MSs would like to see in the new circular economy package. We invited MSs that took part in the initial research to provide a brief text of what they would like to see in a ‘more ambitious’ circular economy package. The five pillars approach proposed above is reflected in these contributions.

BOX 1: THE NETHERLANDS

The transition towards a Circular Economy is expected to anticipate the ecological challenges of the 21st century related to natural resource degradation and climate change. A key strategy to achieve this transition is resource productivity, which also creates economic opportunities and offers solutions to deal with (supply chain) risk management. The Circular Economy Package thus contributes to our society’s resilience and the competitiveness of Europe’s industry.
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With this position paper, the Netherlands wishes to provide input for the new proposal for a Circular Economy Package, in response to the European Commission’s announcement to publish a new and more ambitious proposal. The Netherlands consider this is an opportunity to improve and strengthen the package by addressing aspects that were previously insufficiently addressed, and to develop a more integrated approach of the European policy for circular economy, security of supply of critical raw materials and resource efficiency. The Netherlands therefore welcomes a broader and more ambitious proposal by the end of the year, in which key elements of the current proposal are likely to return and which incorporates the milestones of the Roadmap to a Resource Efficient Europe, as well as the Raw Materials Initiative. The transition towards a circular economy demands a system change of technical, institutional and cultural transformation. It requires a holistic and integrated policy framework that triggers capacity building for both technological and non-technological research, development and innovations. Such a framework should be accompanied by clear and consistent legislation to enable public and private actors across the EU to implement resource-productive strategies for the future, and plan and decide on long-term investments focusing on sustainable materials sourcing, sustainable production (Ecodesign, remanufacturing), sustainable consumption, waste prevention, reuse and recycling and security of supply.

The following describes the initial vision of the Netherlands regarding the main elements for a new Circular Economy package. The elements are discussed in order of 1) what aspects the package should address (the what), 2) using which policy instruments they should be addressed (the how), and finally 3) how we will ensure progress. The Netherlands would furthermore like to offer the Commission support in the development of the new package and would be pleased to elaborate on the elements presented below and share and discuss further ideas.

1. **The Circular Economy Package should address the entire circle**

   For a transition to a circular economy a wide array of measures is needed throughout the entire circle, from the extraction of raw materials to recycling. Therefore, besides proposals to improve waste management, the Package should also include proposals for sustainable sourcing, waste prevention and reuse, and resource security.

   1.1. **Sustainable Sourcing**

   Natural capital forms the foundation for all economic activity. To limit the environmental impact on ecosystems and ensure sustainable supply, it is therefore essential to stimulate sustainable trade and the market for sustainable primary resources. This can be achieved by developing standards for sustainable sourcing of raw materials and by facilitating public-private partnerships, multi-stakeholder schemes and supply chain initiatives (such as the Sustainable Trade Initiative).

   1.2. **Sustainable Production and Consumption**

   - Improving the sustainability and resource-efficiency of product design. The Package should introduce proposals for broadening the Ecodesign Directive and include dynamic product standards for all products with environmental impact, not only energy consuming appliances. In addition, the Ecodesign Directive should aim to improve material efficiency as well, addressing aspects such as reusability, reparability, recyclability, recycled content, recoverability, upgradeability and durability of products.

   - Better integrated product policy. Based on past experiences, the new Circular Economy package should identify ways to enhance, streamline and optimize the current set of instruments to provide a more integrated and coherent European policy framework for more sustainable products that have a lower ecological footprint.

   - Improving transparency in the market for sustainable products and services (incl. maintenance, reuse and refurbishment activities). This means ambitious follow-up on the Communication on a Single Market for Green Products and further development of the Product and Organisation Environmental Footprinting project, to harmonise sustainability labels, improve consumer communication and prevent misleading green claims.

   - Stimulate more sustainable consumption patterns: consumers are key to a socio-economic transition. The Circular Economy Package should also strive to enable consumers and producers to make better choices, resulting in a higher demand for sustainable products, an increase in sustainable lifestyles and sustainable diets, and consequently a race-to-the-top in the supply side of the market by companies. Furthermore, public authorities also play an important part through sustainable procurement. Assessment of consumption patterns in relation to sustainability should therefore be stimulated and harmonized.

1.3. **Improving Waste Management**
Waste legislation is an integral part of the Circular Economy package. The current framework is however not entirely suitable to stimulate the transition towards a circular economy and can be improved in many ways. Besides raising the ambition level, important elements include clear and harmonized definitions (e.g. municipal waste, food waste), improved monitoring and reporting, extended producer responsibility and easier international transport of (safe) secondary materials.

A new approach to the concept of ‘waste’ is needed to facilitate private initiatives based on the philosophy ‘from waste to resource’. Production residues should in some cases be qualified as by-products or as a resource for new products instead of waste (e.g. animal by-products), and for certain waste streams end-of-waste criteria should be developed (with environmental protection and public safety in mind). The practical implementation of waste legislation can more effectively be based on the actual risk of illegal disposal. The legislative framework should encourage more re-use and ‘upcycling’ (high quality recycling) instead of ‘downcycling’ and incineration. Furthermore, as in the recent waste package it should strive to eliminate the land filling of recyclable materials. In revising the waste legislation, sufficient consideration should be given to relating policy domains, such as REACH, renewable energy, fertilizers, animal feed and animal byproducts, in order to ensure policy coherence.

1.4. Resource security

For the EU to become more resource independent, it is necessary to identify resource vulnerabilities, limit the exposure to risks of supply and increase resource efficiency. The existing EU policies for resources, mainly 1) circular economy (e.g. the Circular Economy package and the Bioeconomy for Europe), 2) resource efficiency (e.g. a Resource Efficient Europe) and 3) resource security (e.g. the Raw Materials Initiative), are currently insufficiently integrated. Streamlining industrial policy within other EU policies is of pivotal importance, to raise productivity, integrity and sustainability of the EU industry. Streamlining and incorporating industrial policy with Resource efficiency and a circular economy is therefore of key interest. The Netherlands believes that an appropriate integration of these policies could enable them to act mutually reinforcing, allow the potential of a circular economy to accelerate the desired industrial revolution, and secure and strengthen the EU’s competitive position. For instance, the Netherlands is carrying out a quantitative analysis on supply vulnerabilities of certain metals and minerals as well as biotic resources, in order to relate these to opportunities for recycling and resource efficiency.

2. The Circular Economy Package should introduce market incentives and remove regulatory barriers for sustainable innovations

The transition towards a circular economy requires a major role to be played by the private sector and creates opportunities for business development and thus green growth. To facilitate the private sector in taking its part an enabling environment should be created for research and development and innovation, through directed funding, but also for wide scale implementation through smarter regulation, and application of the notion ‘the polluter pays’.

2.1. Stimulate investments in innovation and new business models

A new package should encourage mainstream adoption of best available practices and circular business models. Frontrunners should be promoted, while companies that lag behind should be pushed to improve. It should therefore include proposals to introduce new, and redirect existing EU instruments, funds and subsidies in order to stimulate investment in sustainable innovation and new business models. For instance through a new system of dynamic standard-setting regularly adapted to proven best practices for products and processes, avoiding lock-in at previous levels of environmental performance (e.g. Japanese Top-Runner approach and other examples). Knowledge and experience on best practices should be disseminated by promoting shared learning among companies, establishing knowledge platforms and encouraging multi-stakeholder alliances. These should also address resource vulnerabilities to ensure the EU’s resource independence. Lastly, sufficient EU funds and subsidies should be available for societally challenging and economically risky R&D with high potential for system changes towards circularity and sustainability, but also for market introduction and up scaling of sustainable innovations.

2.2. Price incentives and tax reform

To incentivize sustainable investments it is essential to incorporate external costs into the financial/economic system and accordingly create a level playing field. For instance by phasing out environmentally harmful subsidies (e.g. for fossil fuels) and by internalizing environmental costs in primary production. Reuse and recycling (the secondary materials market) can also be stimulated through market based instruments. Regarding environmental tax reform, the Commission is invited to support and work with progressive Member states on the shift of taxes from labor to energy and resources. For instance, by facilitating
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cooperation between Member States and encouraging Member States to implement green taxes (e.g. on fossil fuels).

2.3. Removing EU-wide barriers and regulatory obstacles
The current EU regulatory framework does not always take into account innovations and new developments. Frontrunners and circular business cases are sometimes hampered by regulatory constraints. By identifying and addressing these obstacles, by developing smart and result-oriented regulation and by creating room for experimentation, a more enabling environment is created for innovative companies. Modernization and simplification of EU regulations are needed to ease the administrative burden for companies. A critical assessment is also needed of obstacles created by existing regulation other than waste, for instance certain sectoral legislation which cause entry barriers for new products and applications (e.g. REACH; Novel foods regulation; Fertilizer Regulation, Nitrates directive; Hygiene Regulations).

3. Governance system based on monitoring and reporting

Along the lines of what will become the governance system of the 2030 Climate and Energy framework, the transition to a circular economy would also need an integrated governance and monitoring process to ensure that all policies and measures at European, regional, national and local level contribute to the set objectives. This governance system should:

- Adjust policies, measures and actions for circular economy in an overarching framework, resulting in long-term policy coherence and providing investors long term certainty.
- Secure delivery on existing and new targets for recycling and other aspects that facilitate the transition to a circular economy.
- Identify and assess resource vulnerabilities (metals and minerals as well as biotic resources) and establish appropriate options to ensure sustainable resource security.
- Keep track of progress through an appropriate system of existing and new monitoring and reporting activities and using appropriate and comprehensive indicators which reflect the true environmental impact of resources used (including land, water and CO2 emissions).

Note: within the current framework of the European Semester green growth is addressed using the 2020 objectives for reduction of greenhouse gas emissions, an increased share of renewable energy and increased energy efficiency. To ensure continuity of the 2020 framework, the Netherlands believes that for the period up to 2020 it is important to continue with these three objectives. However in light of the EU's efforts to become more resource independent and to initiate the transition to a circular economy, in the European Semester more attention and emphasis should be placed on sustainability and resource productivity. In due time (for the period beyond 2020) the European Semester should be adjusted to reflect the actual way the economy developing and the relevance of green growth. This should be accomplished by generating more information on the use of natural resources, their vulnerability and their environmental impact. An appropriate set of indicators should be developed to enable a better insight into the progress made on green growth.

BOX 2: ENGLAND

We feel that the guiding considerations for the development of more ambitious proposals should be to:

1) Seek greater resource efficiency, reduce reliance on virgin materials and keep materials in circulation;
2) Reduce complexity and ensure that measures are complementary not contradictory or duplicative;
3) Adopt a holistic approach to developing the new circular economy package as a whole - the impact of waste prevention actions needs to be taken into account in considering the “waste part of the circle”;
4) Maintain the integrity of the EU single market and support measures to deliver growth and innovation, avoiding and where appropriate reducing burdens on business, especially SMEs;
5) Respect the principles of subsidiarity and proportionality but also recognise when EU action is needed, to provide long term visions, harmonise policy frameworks where needed and ensure exchanges of best practice - essentially to create enablers at EU level, but to also;
6) Allow Member States freedom to act in the most economically and environmentally advantageous way.
The following ideas for measures to achieve these high level goals are ones we would want to see examined in the context of these considerations. They are drawn from our own thinking, from our discussions with a range of stakeholders and with other Member States and Commission officials. The types of measures set out below should not be seen as agreed UK policy but rather be viewed as constructive ideas intended to stimulate debate on what activities might best be pursued at an EU level. Measures considered should be tested against the guiding considerations identified above. We believe that actions focused on design and innovation; smarter regulation; overcoming barriers to recycling and re-use (including how waste is defined and regulated); exploring how we can stimulate new business models; and the scope for public procurement, in partnership with private sector buyers, to stimulate the market for remanufactured/reused goods, offer real potential for collective action by Member States.

1) Establishing an enabling policy framework – As in the Communication, this should combine smarter regulation, market-based instruments, research and innovation, incentives, measures of performance, information exchange and support for voluntary approaches.

2) Design and innovation - including:

   More coherent product policy: by consolidating and ensuring consistency among existing instruments (e.g. ecodesign, ecolabel) and closing loopholes.

   Create incentives and remove regulatory barriers for innovative business models: for example Product Service Systems (PSS), in which high turn-over products are leased rather than sold; Industrial Symbiosis, in which one business’ waste is another’s resource; guidance to encourage and streamline Extended Producer Responsibility schemes.

   Better, more sustainable, design which promotes growth in the reparability and re-use sector, and increases the use of recycled materials through: developing EU guidance; examining where the barriers to collaboration sit and how these might be addressed; and raising awareness through training and education.

   Promote circular innovation through collaborative R&D. We have been working with DG Research and Innovation to identify opportunities for this through programmes such as Horizon 2020. We would welcome the opportunity to share further learning.

3) Harnessing action by business and consumers and supporting SMEs

   Better information has a key role to play:

   Establish a European network to exchange good practice, standardise approaches and develop guidance, e.g. on life cycle costing methodologies and use of labels;

   Informative instruments and networking tools for the manufacturing base to understand material flows;

   Guidelines to encourage collaboration across businesses without breaching EU competition rules (e.g. to allow for collaboration in the pre-competitive space), to help facilitate action on Voluntary Agreements.

   Preventing unnecessary burdens on SMEs is key: we should take risk-based approaches to new burdens, seek to reduce burdens where possible and simplify reporting.

4) Modernising waste policy: waste as a resource

   We believe that targets should only be proposed when there is clear and robust evidence of their net social and economic benefits to the EU and its Member States.

   We support the Commission in their aim to take a holistic approach to developing the new circular economy package. This should critically examine the efficiency and efficacy of the target architecture across the circular economy proposals, as a whole.

   We would like the Commission to focus on measures necessary to meet the twin objectives of improving resource efficiency and keeping materials in circulation, thereby prioritising actions to prevent materials becoming waste. Interventions on waste necessarily need to take into account the consequences of actions proposed to prevent waste. If targets relating to the management of materials once they become waste are considered necessary, these should work together, and avoid duplication, complexity, and incentivising unintended outcomes with respect to these twin objectives. The ambitious challenge is to meet our
environmental objectives in a way which also promotes growth and jobs, by devising a simple structure which gives high level direction while leaving discretion to Member States and businesses in how best to meet these requirements.

The economic benefits of valuing waste as a resource are potentially huge. UK research estimates that the core waste sector generated £6.8bn (€9.2bn) in gross value added (GVA) and supported 103,000 jobs in 2013 in the UK alone. By removing barriers to repair, re-use and leasing activity that help extend the life of products, the contribution to the economy could be much greater. Data for 2013 suggest that the contribution of this sector could have been as high as £41bn (€55bn) to approximate GVA (aGVA) and 672,000 jobs in the UK.

Within the context of the approaches above, we feel that the Commission should therefore examine the opportunities to:

- Allow Member States to incentivise greater repair, reuse, remanufacturing and recyclability, and recycled content in specified products, in product design and remanufacture through: guidelines or a new approach to the current EU definition of waste which would promote greater re-use while continuing to ensure effective regulation; and seeking flexibility in existing EU structures to make more instruments available to Member States.

  Develop guidance to encourage and streamline Extended Producer Responsibility schemes;

- Encourage Member States to use public procurement to stimulate the market, in conjunction with private sector buyers where appropriate, for reused/remanufactured and recycled content in specified goods:

  ‘The Next Manufacturing Revolution’ report estimates that the potential benefit of remanufacturing, for 3 key sectors, could be in the region of £5.6bn-£8bn (€7.6bn-€10.8bn) a year in increased profitability, excluding initial capital outlay.

  A joint report by the All Party Parliamentary Groups for Sustainable Resource and for Manufacturing identified other sectors with potential for growth in reuse and remanufacture, including electrical appliances, white goods, paints and chemicals, post-industrial and pre-consumer textiles, and carpet flooring.

**BOX 3: FRANCE**

France regrets that the first “circular economy” package has been withdrawn. In this context, the preparation of a new package should be an opportunity to expand the scope of the package and to increase its ambition.

It could consist of the following actions:

**1) A legislative proposal related to «sustainable production and consumption»:**

Such a framework text would allow a better coordination between the policies on waste and on sustainable consumption and production. This would enable to close the loop of the “circular economy” by creating true EU market dynamics for recycled products and materials:

- A non-discrimination of recycled materials and products

- **Requirements for public procurement to drive the demand for sustainable products** (and notably criteria on the incorporation of recycled materials)

- **Extend the lifetime of products.** This requires actions at EU level, for instance: display of the product lifetime, display of the time availability of spare parts, promotion of the repair sector, prohibition of planned obsolescence, promotion of longer warranties, promotion of eco-design fostering the extension of product lifetime.

- **Combat food waste.**

**2) Amending the ecodesign directive:** France is favourable that the ecodesign directive incorporates a more “circular economy” dimension in order to define, where possible, minimum requirements related to resource efficiency and the circular economy (integration of recycled materials, recyclability, reparability, product lifetime..).
3) Extending the scope of the waste framework directive (WFD) to facilitate “circular economy”: in addition to the progress of the Council work, France would be favourable to the “de-compartmentalisation” of the WFD. To this end, it should fully take into consideration the concept of “circular economy”, and the promotion of industrial ecology by presenting waste policy as a pillar of “circular economy” policy; it should cover all types of waste (including industrial); and should harmonise issues of waste status and end of waste status.

4) Furthermore, it would be appropriate to further develop the life cycle approach in product policies, including the definition of harmonized methodologies for assessing the environmental performance of products. France supports the Commission’s pilot on product environmental footprint (PEF) and its communication.

5) Waste prevention. France considers that prevention is legitimate to be detailed in the WFD in that it is at the top of the waste hierarchy. It is therefore quite normal to require Member States to implement preventive measures. However, France is not convinced of the relevance of an annual reporting to the extent that the effectiveness of a preventive measure can only be measured over time (let alone the bureaucracy of such reporting).

7. The business perspective

7.1. Business and the Resource Efficiency Agenda

Businesses are critical to the delivery of a resource-efficient Europe. Not only do they control the resource extraction and use that takes place to create the economy’s infrastructure, goods and services, they also influence the way in which consumers use resources as they interact with those goods and services through their design. Businesses may be thought of as sitting in the middle of the system, as reactive agents that respond to regulatory and policy frameworks applied at the national and EU level, and also react to consumer demand. However, businesses may also be thought of as proactive agents in the system. Working with policymakers as part of the governance system, as implementers and advisors, and influencers of consumer behaviour by providing goods and marketing that can shift their buying practices. As outlined earlier in this report, the European Commission has taken a strong stance on resource efficiency and businesses will need to be willing and able parts of the system to deliver it.

Availability of resources is a key issue for businesses in the EU, not just due to technical constraints, but also due to geopolitical issues such as export restrictions, threatening their ability to remain competitive. Emerging competitors from outside the EU may acquire an advantage in terms of price and accessibility to natural resources, and also face less stringent standards of environmental and social performance (Rademaekers, Asaad & Berg, 2011). Increasing resource prices impact on the competitiveness of EU industry along with other aspects such as labour cost and productivity (Rademaekers, Zaki & Smith, n.d.).

A number of recent studies have looked to identify the opportunity that resource efficiency offers to business as well as characterise the drivers and barriers for its adoption. Cost reduction, product quality improvement and increased productivity are seen as major direct benefits, along with regulatory compliance (Rademaekers, Asaad & Berg, 2011; AMEC & Bio Intelligence Service, 2013). AMEC & Bio Intelligence Service (2013) calculated the potential for gross savings for businesses in three
sectors to be between 10% and 17% of turnover from realising the opportunities from resource efficiency. Looking economy-wide and assessing three different baseline efficiency scenarios, gross economic benefits ranged from €466 billion to €914 billion, and when considered as net values (taking into account investments needed with assumptions made on the cost of capital) between €245 billion and €604 billion, or between 3% and 8% of turnover for the three sectors. Indirect benefits include relationships with business-to-business customers and investors, and improved corporate image (Rademaekers, Asaad & Berg, 2011).

Barriers to adoption of more resource-efficient practices within businesses can be considered to arise from five different types of sources, often acting in concert as a web of constraints (from Bastein et al., 2014):

- institutional – barriers caused by political institutions, e.g. regulations and laws;
- market – market conditions, economic climate, value network conditions, e.g. monopolies, lack of information, subsidies, supplier leverage;
- organisational – firms as social systems influenced by goals, routines, organisational structures, e.g. company strategy or focus, lack of funds, lack of a Chief Sustainability Officer (CSO);
- behavioural – individuals’ values and attitudes within companies, e.g. lack of attention, lack of perceived control, lack of information;
- technological – insufficient or too costly technology, e.g. lacking equipment or other tools, undeveloped technology from the market, unable to support technology.

The figure below summarises the various drivers and barriers to resource efficiency.

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4 Sectors analysed were food and drink manufacturing; fabricated metal products; and hospitality and food services.
Action on resource efficiency by businesses is already taking place with economic conditions in Europe applying pressure on companies to seek savings in production and material supply costs in their own operations and throughout their supply chains (AMEC & Bio Intelligence Services, 2013). Approaches include “first order learning” where companies adopt incremental changes in production by implementing short-term investments, and (less frequently) “second order learning” where companies adopt fundamental changes to the way they operate usually involving longer-term investments (Rademaekers, Asaad & Berg, 2011). Diaz Lopez et al., (2014) categorised the types of activities that companies undertake to increase their resource efficiency as (1) delivering greener products and product-service combinations; (2) greener production within their own company; (3) greener production and closing the loop along the supply chain; and (4) focus on life-cycle redesign.

A number of businesses have also become active in promoting the resource efficiency agenda within Europe. Examples include the Resource Efficient Alliance, facilitated by European Partners for the Environment, formed in 2006 as “a group of public and private economic players developing synergies to accelerate the implementation of the EU Objectives 2020 by leveraging their market forces” (Resource Efficiency Alliance, n.d.). In addition, Boots, Kyocera, Sinvestec, The Resource Association, Unilever, Veolia, Viridor and WRAP are on the UK NGO Green Alliance’s Circular Economy taskforce investigating policy solutions that would enable businesses to make the necessary changes for a more circular economy, optimising the UK’s resource use, and Veolia Water, Kingfisher, Unilever, KPMG, Siemens, Mapei and Umicore are
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represented on the European Resource Efficiency Platform. Other prominent business groups have made resource efficiency an important part of their mandate, the Ellen MacArthur Foundation and Aldersgate Group, described in more detail in Box 1, being key examples of this. Business Europe, however, are more measured in their support calling into question the use of targets for resource productivity whilst supporting the principle of resource efficiency⁵. Many have also been active in response to recent actions by the new Commission on the resource efficiency and circular economy agenda, as discussed in Section 4.4.

BOX 4: KEY BUSINESS ORGANISATIONS LEADING IN RESOURCE EFFICIENCY

The Ellen MacArthur Foundation
The Ellen MacArthur Foundation works in education, business innovation and analysis to accelerate the transition to a circular economy. It has instigated the “Circular Economy 100” - a global platform bringing together leading companies, emerging innovators and regions to accelerate the transition to a circular economy. The Circular Economy 100 programme is based on the principle that more value can be gained from collective problem-solving than can be achieved by working alone and supports this transition through (a) creating a mechanism for collective problem-solving; (b) building a library of best practice guidance to help businesses fast track success; and (c) providing a scalable mechanism for building circular economy capabilities within businesses. The Ellen MacArthur Foundations global partners are Unilever, Renault, Kingfisher, Philips and Cisco and the Circular Economy 100 boasts a membership of some 90 companies.
For more details see http://www.ellenmacarthurfoundation.org

The Aldersgate Group
The UK-based Aldersgate Group is an alliance of leaders from business, politics and civil society that drives action for a sustainable economy. Their members include some of the largest businesses in the UK with a collective global turnover of over £300bn and politicians of all parties. The Aldersgate Group Manifesto, launched in December 2014, includes "prioritisation of energy and resource efficiency" as one of its six target areas for the next parliament to help the UK effectively address today’s big environmental challenges, whilst maximizing economic benefits for the UK, alongside (i) accelerating the move to a competitive low carbon economy; (ii) improving our understanding and the state of our natural capital; (iii) equipping the UK’s workforce with the right skills to benefit from the opportunities offered by the transition to a sustainable economy; (iv) increasing financial flows towards low-carbon and other environmental projects; and, (v) ensuring the UK continues to benefit from progressive European environmental standards.
For more details see http://www.aldersgategroup.org.uk

This report seeks not to re-evaluate the drivers and barriers to adoption that have been covered in the previous research, or indeed to investigate further the role of business lobbying within the EU, but instead to address the specific question of the role that the European Commission should take in facilitating a resource-efficient economy.

7.2. Business-wide survey

As described in Section 5.3 of this report, participants were asked to rate the 14 EREP short-term proposals (described in Appendix B), as high priority, medium priority, low priority or no priority. Figure shows the results.

![Figure 7: Results of business-wide survey asking companies how they would prioritise the EREP short-term recommendations](image)

**Table 1: Key for vertical axis of Figure 7**

<table>
<thead>
<tr>
<th>Ref. in Figure</th>
<th>EREP short-term recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Set ambitious and credible targets for overall resource productivity of the EU economy.</td>
</tr>
<tr>
<td>2</td>
<td>Develop indicators to include carbon, materials, water and land</td>
</tr>
<tr>
<td>3</td>
<td>Give attention to valuing ecosystems, identifying opportunities arising from waste management and recycling and developing footprint indicators to account for EU imports</td>
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The results in Figure 6 show the importance ascribed by respondents to the survey to a varied and comprehensive resource efficiency agenda: all of the measures were identified as “high priority” by at least one respondent.

The two measures most commonly identified by companies as “high priority” are:
- Review the EU waste management and prevention targets and encourage Member States to move to a circular economy
- Develop indicators to include carbon, materials, water and land

Those that received the least support, in terms of low numbers of companies identifying them as high priority, and also those identifying them as no priority were:
- Work towards a binding reporting framework for businesses to report non-financial information
- Initiate pilot schemes for natural capital accounting of Member States and businesses

The second part of the cross-business survey asked participants whether they thought it was useful to group some or all of these measures within a Circular Economy framework as per the EU’s recent communication. As Figure shows, the response was a largely (although not entirely) positive one. This does not necessarily reflect approval of the content of the package. Instead it demonstrates the importance of having a set of interconnected policies on resource efficiency that reflects the
interdependence of the issues. Even the respondent that disagreed with the statement, by virtue of a more strategic disagreement with the use of the circular economy agenda to achieve resource efficiency, agreed that the use of a package of policies was a positive feature when addressing resource efficiency. Others warned of “policymaking by buzz words” and stressed the importance of the individual measures.

Figure 8: Results of business-wide survey on the Circular Economy Package

7.3. Business Insights
The comments summarised below delve deeper into the EREP measures and expand beyond them to consider broader themes within the resource efficiency agenda. As discussed in Section 5.3, due to the semi-structured nature of the investigation, and the low number of businesses responding to the survey, these views do not necessarily represent an industry consensus but give insights into the range of industry opinions around resource efficiency, particularly in the context of the EU.

The text below is divided into two sections. The first highlights some common themes that arose across the interviews and that apply to more than one of the measures discussed. The second section provides insights on particular resource efficiency measures, and how they can be applied in the most beneficial way, or particular industry challenges.

Common themes
The systems approach
Life cycle thinking and analysis over the whole value chain were deemed critical to achieving a resource-efficient economy, moving from just producer responsibility, to value chain responsibility. Understanding resource use as a system can facilitate the most effective interventions and avoid unintended consequences in other parts of the value chain. Many of the businesses interviewed pointed to a systems approach in
their own way of working, which has increased their awareness of resource efficiency issues and has made them more nuanced in their understanding of risks and opportunities. Yet policy-making tends to operate through departmental silos. When trying to implement a circular economy or resource efficiency based approach this creates challenges and causes frustration among businesses. In essence, the life cycle, systems approach, relies on relationships between governments, consumers and businesses from all sectors to be truly successful. Facilitating these relationships is an important component of the move to a resource-efficient economy.

**An economic imperative**

Despite the indication from the Commission that the resource efficiency and circular economy agendas do not fit with the Juncker presidency goals of jobs and growth, many businesses in fact saw the opposite – that resource efficiency was essential to strong economic performance by European companies. Innovative business models and approaches to resource efficiency were seen as an important area in which European companies could successfully compete, with the potential to offset the competition on cost coming from outside the EU, where labour and production costs may be lower, and access to raw materials greater. In this regard, businesses are already addressing the resource efficiency agenda, and making progress through new technologies and new business models that can make the best use of materials. With greater policy support, however, they could do much more. The need for resource efficiency to be much more than just a DG Environment agenda was strongly communicated. Some businesses, however, took a more cautious view – feeling that the resource efficiency agenda could be one of growth and jobs, as long as the policy support was developed in an appropriate way that would allow for opportunities to be realised rather than adding to the burden on businesses.

Seeing resource efficiency as an economic benefit, along with the need for a value chain approach, were overwhelmingly the most common themes in the interviews.

**A level playing field**

A common theme running through the interviews was a need for a level playing field, expressed by one participant as “EU is good; global is better”. Different standards can create the potential for a disparity in operational costs (and therefore competitiveness) as a result of production/operational methods. Where imports are not subject to the same compliance requirements as EU-based firms this can create significant business challenges. Differential requirements can also create an administrative burden and increased reputational risk due to higher levels of transparency. Indeed the reluctance for companies to take on binding regulations for non-financial reporting observed within the survey may at first seem to reflect a desire to hide poor performance. However concerns regarding the global, and indeed within country differences in reporting obligations due to state or private ownership structure, are very prominent. A mandatory system operating at the global level, and covering both listed and non-listed companies of sufficient scale, could gather more support. Some progress towards creating a level playing field through ‘soft’ routes such as supply chain requirements of EU companies and Europe’s involvement on the international stage in organisations such as the World Bank, International Monetary Fund and the Organisation for Economic Cooperation and Development were noted, but others felt that the Commission could do much more.
The need for scale
To capitalise on the potential economic benefits, resource-efficient business models need to be able to work at scale, and have application beyond the single company of the individual visionary business leader. There needs to be a greater understanding of the barriers to scalability as this is likely to represent the difference between a niche model and one that can provide strong economic benefits and therefore wide adoption.

A challenge of short-termism
Short-term attitudes to investment create barriers for adoption of some resource efficiency practices and new business models. This is prevalent within businesses, but also within their customer organisations including public bodies. Can businesses be encouraged to follow Unilever’s lead in not giving quarterly earnings guidance and profit updates?

A need to move forward despite uncertainty
Many businesses were unsure of how the new Parliament and Commission would impact on the Commission’s activities at this early stage, although most did not see the changes to the European Parliament as being a blockage per se to progress at the European Union level – instead they encouraged the Commission to move forward with a resource efficiency agenda. The opportunity for the new Parliament to encourage more cross-DG working was voiced, as was the potential for the resource efficiency agenda to be one that could demonstrate the positive aspects of collaboration at the European level.

Issue-specific insights
Indicators
The importance of widening the indicator set to include all of carbon, materials, water and land was recognised by a number of businesses. However, so too were the difficulties associated with that, in particular with regard to indicators for water and land. The need for research to provide the evidence base for the development of these indicators was seen as crucial, including the methods of calculation and what should be taken into account. A need for a better understanding of the inter-linkages between carbon, materials, water and land was also highlighted, and the need to consider this in any indicator development work.

Indicators when done well were seen to incentivise technological development, however when done poorly were seen to just create burden and cost – hence the call for a strong evidence-based approach, and a thorough consideration of how the indicators should be used. Indeed the difficulties associated with formulating accurate and robust indicators apart from carbon more than likely underpin the reluctance to move towards natural capital accounting in the short term expressed by some respondents. Creating a mechanism for businesses to input data into the evidence-building processes of the Commission was seen as an important opportunity where business and the Commission could collaborate to support strong evidence-based policy making.

In applying indicators at the corporate level, some businesses stressed the need for flexibility in application, along with transparency in the calculation approaches used.
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**Targets**
As indicators are developed the natural extension is to set targets and this was seen as one of the key strengths of the Commission, reflecting their ability to rise above national agendas and look across the Union, setting a clear direction of travel. The two themes of flexibility and a thorough evidence base were highlighted, as they were on discussion around indicators. For the former, the need for flexibility in how to meet the targets was emphasised. For the latter the complexity of resource efficiency targets was discussed. Here the concept of life cycle, or system, thinking is relevant – there is a need to ensure that the target is placed on the right part of the value chain to ensure that the maximum resource efficiency is enabled. For example, recycled content targets cannot be met by manufacturers if the recycling industry is not incentivised to provide the right quantity and quality of materials.

**The value and availability of materials**
There is a need to focus the debate on the quality of recycling and not just the quantity. In line with one of the common themes coming out of this research, taking a full system view will enable efforts to be appropriately allocated to ensure that the quality of the material is maintained as much as possible as it cycles through the economy without creating negative impacts on other resources through, for example, extra energy use. The point was made that much of the focus to date has been on metals; however manufacturing industry needs a good supply of high-quality resins to be able to provide more products with reused materials. As noted above, incentives to create supply of these materials need to be matched with those to create demand for them.

**Information management**
One of the fundamental requirements for achieving the evidence base that will support moves towards increased resource efficiency is the generation of robust information flows throughout the value chain - these information flows were seen as equally important as knowing about the material flows themselves. With information on material components passed through the value chain alongside the products in which they are embedded, the highest-quality recycling and maximum reuse of materials can be achieved. The availability and transparency of repair manuals was identified as another means through which greater resource efficiency could be achieved. This is something that, when previously available, supported extensive networks of repair shops, and still operates effectively in the automotive industry. Yet in many other industries such manuals and practices based on them have been discontinued.

**The relationship between resource efficiency and carbon**
A couple of respondents commented on the EU Emissions Trading System (ETS) and its relevance for resource efficiency. Some highlighted the need to make the carbon price through the ETS the most prominent tool in addressing carbon emissions and to avoid anything that could dampen the signal and place other indirect carbon costs onto businesses. High carbon prices achieved through the ETS were seen as key to driving innovation in carbon reduction, and the need to make this a global system was stressed. Apart from the level of the price, some businesses pointed to the fact that emissions trading has changed the way people think about things and there is now an expectation in the wider industry that carbon will get more expensive. In theory it should be easier to monetize material efficiency than carbon efficiency, and therefore it is important to learn lessons from the ETS. If you get material efficiency right then...
carbon will come down anyway – in this regard the ETS is running before you can walk.

**New business models**
The leasing economy is one of the new business models gaining attention at the moment in the resource efficiency debate. The concept is a good one and in some industries application is relatively simple. In others however the implementation phase is difficult and therefore support is needed. The public sector as a large-scale purchasing body, and one with a longer-term perspective and incentives for higher levels of sustainability, should in theory be a good customer for new business models that enhance resource efficiency. However barriers in adoption of leasing systems have been experienced due to accounting practices that are focused on the short term and a lack of awareness.

**Investing in R&D**
R&D is a risky and costly endeavour, and taking research through basic R&D to commercial application is difficult. Businesses can only take on this risk in policy-created markets where they have reasonable certainty that the market will be supported at the level required for profitability. Short-termism is a challenge within organisations and investments with a payback period of more than 3 years are very difficult to justify within businesses. It was felt that the Commission did not do enough to support business-led innovation in resource efficiency, and that there was a need to develop an innovation strategy that facilitates a research agenda closely linked to commercialisation opportunities. Public private partnerships were identified as potential ways to deliver this.

**Re-considering legislation through the lens of the circular economy**
A need to review and potentially clarify existing legislation from a circular economy perspective was identified. Examples given included the high cost of transport of products for recycling and re-use due their classification as hazardous waste, constantly evolving legislation on chemicals and other materials that prevent their recovery and reprocessing, and subsequent re-sale into the European market; planning constraints on developing industrial symbiosis on existing sites; and building codes that do not accommodate recycled materials. Whilst this legislation is in place for a reason, it is important to consider how it may be revised to complement new business models and how the original purpose can still be served within a new-style economy that maximises material re-use at the scale required to be economically viable. Again, this needs to be done from a full life cycle perspective and work across policy area boundaries to be fully effective. This includes both consideration of non-environmental policy and also looking outside of areas that are within EU control. For example, fiscal policy and public procurement are within the control of MSs, yet the potential for them to provide incentives for resource efficiency were noted by some respondents, and the need for the Commission to provide a supporting role to Member States in this regard was highlighted.

**Incentives-led approaches**
Resource efficiency was seen as something that should be stimulated by incentive-driven rather than penalty-based approaches to ensure that it can go hand in hand with European competitiveness. Examples given included support for business-led innovation, stimulating demand for recycled materials through public procurement, and lower VAT for reused/recycled materials. Such an opportunity-based viewpoint on
resource efficiency was considered to open the door for investment and also to address some of the negative perceptions from the wider community regarding European-level bureaucracy.

**An engagement challenge**
A final insight, not from the interviews but from the research process itself, is that it has been difficult to get companies to engage on this issue for this research. This is undoubtedly for the most part a reflection of multiple requests and small teams fielding such queries but could also reflect a growing apathy within the business community for resource efficiency initiatives arising from the EU, and perceptions of inconsistencies and a lack of long-term direction in the messages coming out of the Commission. Indeed, some interviewees commented on the lack of engagement with businesses from the European Commission in the policy-making process, which, in their view, missed opportunities for the development of implementable and evidence-based legislation.

### 7.4. The Role for the European Commission

Drawing from the survey results and the insights gathered during the interviews, the following are considered to be businesses priorities for the Commission in terms of taking forward the resource efficiency agenda.

**SUPPORT**

**Make the case:** The European Commission can assist the resource efficiency “champions” within organisations by providing a suitable evidence base. Key areas for research identified by different participants included development of indicators, especially for water and land, and their interactions; technical development of materials for re-use beyond metals; measuring, monitoring and accounting of material use within the value chain; communication of recycled material quality and potential; and a focus on the whole value chain. Industry seems willing to contribute data to support the creation of this evidence base.

**Support the early stages:** By providing support mechanisms for early-stage research and development, risk-sharing and long-term investment opportunities the Commission can help to overcome many of the barriers faced by businesses in developing more resource-efficient business models, which once operational, can be economically beneficial.

**Support Member States:** Some of the key opportunities for driving a resource-efficient economy are within the control of Member States, including fiscal policy and green public procurement. Whilst the European Commission cannot mandate in this regard it can provide the support and the evidence base for Member States to allow them to implement more resource-efficient policies that will promote a more circular economy.

**ENGAGE & FACILITATE**

**Outside the EU:** The European Commission can help to promote resource efficiency outside the EU through addressing imports and engaging with colleagues worldwide to support the standardisation of indicators, requirements and mechanisms. This applies as much to information tools as to economic tools. Europe is a key influencer at the
global level and can do much to facilitate the uptake of existing European standards, which would lead to a greater competitive advantage for those European companies already following those procedures.

**Throughout the value chain:** To achieve its full scale, resource efficiency requires full value chain cooperation and the Commission has an important role to play in facilitating this holistic view and creating partnerships that work across businesses and sectors and the wider community. It is well placed to do this as it can transcend national boundaries in the way that value chains do. It needs to foster openness in its own policy making to such a multi-actor approach.

**Get the information flowing:** The need for good information flows has been highlighted and the Commission has a great opportunity to facilitate this. It already has a track record in developing labelling systems and therefore is in a good position to progress into new areas of information management.

**SET THE DIRECTION**

**Strong direction:** Businesses are looking for consistency, direction and strong support that will enable them to make important investments, which they will not get with a constantly changing EU agenda. Targets are a key means for the Commission to set a long-term direction, and one in which it has been successful in the past.

**Show circular thinking:** The Circular Economy package received much support from the interviewees, mostly as a result of the integrated policy approach that it supports. The need to review other legislation for its ability to support the circular economy was also identified, as was the need for the Commission to work across its own departmental boundaries to address the full implications of policy and the need for integrated thinking on policy implementation.

**Seize the potential:** Those that commented on the changes in the European Parliament and Commission, and their potential effect on European policy making, stressed the importance of strong and coordinated European action. They saw the potential for the resource efficiency agenda to demonstrate the benefits of collaborative approaches, and to speak to the core objectives of the incoming Commission of stimulating growth, jobs and competitiveness.

**8. Discussion**

The findings from the interviews reported above seem to point to the recognition of the importance of the role the EU can play in the area of resource efficiency. Both policy makers and businesses have placed great emphasis on the need for policy guidance and the long-term commitment that provides a stable framework for long-term investment. Consistency between policies and policy areas is something deemed crucial by both businesses and policy makers. Changes in the direction of the policy process as a result of short-term political cycles create the perception of disruption and discontinuity and constrain the actions of economic actors and businesses. The definition of a clear vision with well-defined milestones has been one of the issues
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raised by policy makers and businesses. In this sense, the withdrawal of the circular economy package by the new European Commission has created unwelcome uncertainty with regards to the future of the policy agenda in this area.

Another common issue that emerges from both businesses and policy makers is the role of the EU in promoting a level playing field. While businesses would prefer global action, improving the single European market though harmonised legislative frameworks can reduce the obstacles faced by companies operating in more than one country. Although it is important to retain the flexibility of MSs in their transposition of Directives, most of the interviewees agreed to the need for: a) setting a core of common compliance requirements that reduces the administrative burden of compliance and b) providing more guidance in the implementation process, including evidence of best practices and technical support.

The need to frame resource efficiency as an economic imperative to create wealth and jobs in Europe is also an important aspect raised by both businesses and policy makers. Resource efficiency is seen as a route to increase the optimal use of resources and help to close material and energy cycles. It can therefore contribute to generating economic savings in a context of rising and volatile raw material prices. Also important is the supply risk angle and the dependency of Europe on resources from outside its boundaries. In this sense, resource efficiency will contribute to preserve resources within the European productive system, reducing the dependency on virgin raw materials. Both businesses and policy makers noted that the idea of resource efficiency could add a new dimension to the emphasis on growth and jobs, and would be in tune with the profound changes in the business context in recent years, recognising the competitive edge that increased resource efficiency can bring to EU-based companies. Some interviewees also expressed the concern that, if the EU does not move quickly in this area, other countries with a strong focus on resource efficiency and circular economy, such as China, would take the lead and this will be a missed opportunity for Europe to retain its leadership.

The discussion of the role of indicators revealed a general agreement by both businesses and policy makers of the usefulness of indicators in guiding action. While in general the proposals of the EREP in this direction were welcomed, interviewees stressed the risk that poorly-designed indicators could generate both unintended consequences and extra burdens on business. Collaborative approaches and a strong evidence and scientific base could help to create a broad consensus about the indicators to be used.

Innovation and research is highlighted by both policy-makers and businesses as pivotal in gaining improvement in resource efficiency. The role of the EU in this area is also considered extremely relevant as it can support pilot programmes and early stages of development, where risk is high, and also can contribute to generate economies of scale and wider applications of innovation with potential gains in terms of competitiveness and job creation.

A number of systemic barriers to resource efficiency were identified by both policy makers and businesses. Some of these barriers are linked to the frictions between current laws and practices in relation to resources and those that would promote resource efficiency. For example, the issue of waste and its current definition may be a hurdle for new business models based on the re-use and re-circulation of secondary
resources. Similarly, the definition of ownership, or the obstacles to sharing business models, provide other examples of the need to adapt legislative frameworks to the needs of a circular economy.

Related to this is the issue of setting the right framework conditions. This is something discussed mainly by policy officers but it is also of obvious relevance to businesses. An area that was consistently mentioned by respondents was the importance of incentives and the internalisation of externalities. Taxation can play an important role in this regard although gaining support for taxation reforms, especially at the EU level where unanimity is required, is extremely challenging.

Among the policy approaches, it is interesting to note that both policy makers and businesses highlighted the usefulness of approaches based on the supply chain that are collaborative in nature and can potentially lead to important benefits in the different stages of the chain. The life-cycle and material-centric approaches of these initiatives gives them a transformational potential to improve resource efficiency both in the EU and beyond EU. The pilot approaches adopted in a number of countries have not only proven effective for resource efficiency, but have also had a wider scope, covering interrelated issues such as sustainable sourcing, quality of materials, innovation, and training and knowledge transfer to primary producers.

In general, businesses seem to prefer soft instruments to regulation as they allow for greater flexibility and can be more cost-effective. However, while policy makers considered that voluntary instruments were important, they also thought that they may not be sufficient to achieve the change required and should be accompanied by measures such as taxation that help to change the structure of incentives. Businesses, on the other hand, are more inclined towards positive incentive structures such as tax exemptions rather than penalties or tax increases. The shift of taxation away from labour and towards pollution and the use of resources was extensively discussed during the policymaker interviews, which revealed that its practical implementation is complex and requires a strong societal support, which is not yet present in many MSs.

New business models and emerging new business niches are gaining increased attention by policy makers and businesses alike. There is, however, not much understanding of under what circumstances these models emerge and what hurdles and obstacles may impede their further development. Although there is a body of research has looked at new business models for resource efficiency (see, for example, Bastert et al., 2014), it is clear that many obstacles and systemic constraints to the widespread success of these models remain. There is general agreement of the need to support new business models for resource efficiency, but a limited understanding of how to do so, and whether this was best done by MSs or the EU. Incentives are obviously important in this respect. Other specific instruments mentioned in the interviews are the clarification and harmonisation of ownership rights, changes in the definition of waste, and conditions of support for pilot schemes through research and development and flexible regulatory approaches.

Respondents also stressed the need to reform a policy process that is highly fragmented and move to one that is more integrated and coordinated. Some interviewees emphasised the need to build on synergies between different policy strategies and create connections between the resource efficiency agenda and the energy/climate change agenda. This could help the wider resource efficiency agenda...
learn from the better established area of energy efficiency while ensuring that the
potential GHG emission reductions from wider resource efficient measures were
properly taken into account.

9. Conclusions

Resource efficiency and the circular economy have gained increasing attention in
recent years from policy makers and businesses. Changes in commodity markets have
increased awareness of potential resource scarcity, and the link between natural
resource management and ecosystem preservation. The emerging EU agenda on
resource efficiency has a number of key components: a) security of supply and
sustainable management of natural resources; b) efficient use of resources and the re-
circulation of materials round the economy, and c) development through innovation of
more efficient, less material-intensive products and processes. The previous European
Commission placed great emphasis on resource efficiency as a route to economic
growth and job creation, and a condition for future European competitiveness. The
work of the previous Commission culminated in the Circular Economy package that
was approved on July 2014.

Changes in the European Parliament as a result of the elections in May and a profound
restructuring of the Commission have created uncertainty about the future of the
resource efficiency agenda, which has been enhanced by the withdrawal of the circular
economy package later in 2014, although with the promise that it will be reintroduced
in 2015 in a ‘more ambitious’ form. In this research we have explored both from the
policy-making angle and from the business side the main issues relating to taking
forward the resource efficiency agenda, such as priority setting, policy approaches and
policy instruments. The aim of the research was to provide a multi-actor vision of what
are the key priorities for improved resource efficiency, and to explore different policy
strategies and instruments that could give them effect, while understanding the
constraints of the policy-making process and reflecting the diversity of views and
values of different stakeholders.

From the point of view of the policy makers, the EU is perceived to have an important
role to play in setting the framework conditions to support a move towards more
resource-efficient business models and the circular economy, while ensuring a level
playing field for businesses and economic actors. The resource efficiency agenda is
also considered to have the potential to promote job and wealth creation and maintain
an innovative industrial base in Europe. A number of policy strategies, including both
voluntary and more formal approaches, have been highlighted by policy makers as
priorities for resource efficiency. Among the first type of approaches, the supply chain
approach where government facilitates collaborative interactions among key players in
the supply chain seems both promising and politically feasible. For the second type,
shifting taxation away from labour to materials/resources was of keen interest to
policy makers, tempered with the recognition of political barriers to the policy at both
MS and EU levels. More broadly, innovation in the development of new products and
processes, as well as business models, was perceived to have a pivotal role to play in
increasing resource efficiency in ways that can both reduce resource use and achieve economic savings and competitive edge.

Similarly, from the point of view of businesses, the EU has a very important role to play in increasing resource efficiency. The priorities here include ensuring a level playing field and harmonising regulatory systems and compliance requirements to fully exploit the opportunities of the single market. Companies also stressed the importance of having a long-term policy commitment based on a well-defined vision to guide investment and innovation at the company level. Incentive-led programmes, rather than taxation or penalties, and voluntary schemes based on a supply chain approach are also seen as effective and adequate by businesses. Resource efficiency is framed more as an economic imperative rather than a merely environmental policy and is seen as important for cost savings and gaining competitive advantage in highly globalised markets.

In summary, the research findings point to the relevance and desirability of the EU adopting a policy framework for increasing resource efficiency in Europe. Such a framework could play an important role in setting the priorities and long-term commitments of both MSs and businesses, in creating a level playing field in respect of resource use, and influencing companies in moving towards a more circular economy. There are many possible policy instruments, ranging from voluntary approaches to economic instruments and regulation, that could be combined in different ways, and the precise mix of instruments will clearly need to be the subject of negotiation with stakeholders. However, the research shows the need for these instruments, and accompanying indicators and targets, to have a sound evidence base, to be aligned with a long-term vision for resource efficiency, and to be built from a life-cycle, systemic perspective that integrates economic as well as environmental policy objectives.
10. References


Kemp, R., Dijk, M., Domenech, T., 2014. Why have resources been used inefficiently, synthesis report to the European Commission as part of the POLFREE project. Available at www.polfree.eu/publications


11. Appendix A: Participants

11.1. Policymakers

The following senior policy officers and experts were interviewed as part of the research:

- Stephane Arditi, European Environmental Bureau (EEB)
- Marion H.J. Braks, Ministry of Economic Affairs (The Netherlands)
- Sylvain Chevassus, General Commission for Sustainable Development (MEDDE), Ministry of Environment, sustainable development and Energy (France)
- Ander Elgorriaga, Ihobe- Sociedad Publica de Gestion Ambiental (Basque Country)
- Paula Eskola, Motiva (Finland)
- Neil Fourie, Department for Environment, Food and Rural Affairs- DEFRA (UK)
- Simon Johnson, DEFRA (UK)
- Isabella Murfin, DEFRA (UK)
- Doris Nicklaus, Department of the Commissioner General for Sustainable Development (MEDDE), Ministry of Environment, sustainable development and Energy (France)
- Pieter de Pous, EEB
- Christine Reh, University College London, Department of Public Policy.
- Ariadna Rodrigo, Friends of the Earth
- Koen de Snoo, Ministry of Infrastructure and Environment (The Netherlands)
- Clare Southworth, DEFRA (UK)

It should be noted that the views expressed by the interviewees are based on their personal perceptions and do not necessarily represent the official views of the organisations they represent.

11.2. Businesses

The following businesses took part in the survey:

- ADBA
- CEFIC
- Environcom Group
- Euromines
- Hewlett Packard
- iFixit
- Philips International
- Schilder and Brown
• Shell
• Sun Power Corporation
• Tata Steel

An additional 2 organisations took part in the research but did not wish to be named.
12. Appendix B: Business survey/interview outline

Section 1: Basic survey
A brief tick box survey looking at priorities for some key components of resource efficiency policy based on the European Resource Efficiency Platform (EREP) recommendations and the EU’s Communication on a Circular Economy Package.

Q1a. The European Resource Efficiency Platform (EREP) considers the following to be essential components of a resource-efficient economy in the short term. Please indicate the priority you place on each of the components. Responses will be discussed during the interview. If you do not feel you can select one of the options provided, please leave that row blank.

[for each of the options below tick “High Priority”, “Medium Priority”, “Low Priority” or “No Priority”]

- Set ambitious and credible targets for overall resource productivity of the EU economy.
- Develop indicators to include carbon, materials (GDP/Raw material consumption), water and land.
- Give attention to valuing ecosystems, identifying opportunities arising from waste management and recycling and developing footprint indicators to account for EU imports.
- Work towards a binding reporting framework for businesses to report non-financial information.
- Initiate pilot schemes for natural capital accounting of Member States and businesses.
- Phase out environmentally harmful subsidies as a matter of urgency with special emphasis on subsidies to fossil fuels and the use of water in agriculture, energy and industry.
- Review the EU waste management and prevention targets and encourage Member States to move to a circular economy with adequate collection and processing, high quality recycling, phasing out landfill and reducing residual waste to a minimum.
- Review EU waste policy to set the right price signals through market based instruments (payment schemes, charges and taxes) accompanied by technical criteria and carefully targeted bans if necessary.
- Develop guidance to encourage, expand and improve Extended Producer Responsibility schemes.
- Explore the use of a "product passport", such as an Environmental Product Declaration.
- Promote a pan-European network of industrial symbiosis initiatives.
- Adopt a more coherent product policy by mainstreaming, consolidating and ensuring consistency among existing instruments (ecodesign, ecolabel...) and closing loopholes.
- Develop a systematic monitoring mechanism based on real public tenders to assess Green Public Procurement.
- Establish a European network to exchange good practice, standardise approaches and develop guidance on issues such as life cycle costing methodologies and use of labels.
Q1b. Do you think it is useful to group some or all of these measures within a Circular Economy framework as per the EU's recent communication, the main components of which are summarised below:

[respondents select from “Strongly agree”, “Agree”, “Neither agree or disagree”, “Disagree”, “Strongly Disagree”]

- Setting up an enabling framework
  o analysing governance and market failures which hamper the avoidance of waste and its reuse;

- Designing and innovating for a circular economy
  o designing out waste along the supply chain;
  o a coherent EU framework for promoting the circular economy;
  o demonstration and innovation projects across supply chains;
  o more circular models for products and services through product policy and eco-design; and
  o cascading use of biomass.

- Unlocking investment in the circular economy
  o development of new financial instruments;
  o targets and guidelines for green public procurement;
  o integration of resource efficiency and circular economy into funding criteria of EU funds;
  o analysis of the effectiveness of newly adopted instruments to promote non-financial reporting and long term financing; and
  o public private partnerships.

- Modernising waste policy and waste targets
  o a review of waste targets; consideration of priority waste streams (food, C&D waste, critical raw materials, phosphorus and marine litter); and a resource efficiency target.

**Section 2: Semi-structured discussion**

The interview will take the format of an informal conversation and not necessarily cover all of the questions below. They are included as a guide only. Interviewees can choose not to answer certain questions or focus on certain areas only, and additional questions may arise as the conversation progresses.

Potential areas of conversation are:

2a) Discussion of survey results from Section 1, focusing on “high” and “low/no” priority measures.

2b) Discussion based around six themes identified as medium to long term priorities in the EREP proposals with a particular focus on anticipated barriers and how the EU can
assist in overcoming them. The six themes are as follows, with potential guide questions included below each theme:

1. Promoting new, resource efficient business models
   - What are the most important measures that the EU needs to put in place to enable your business to fully exploit the resource efficiency potential in production processes, product design and end of life management?
   - What measures should the EU establish to promote service-based business models such as leasing and sharing?

2. Boosting Extended Producer Responsibility
   - How can the EU create a fair business environment and level playing field with regard to EPR schemes?

3. Enabling consumers to make more sustainable choices
   - What EU policies can support consumers to make more sustainable choices?
   - How important will EU common principles and methods for measuring environmental impacts of products and organisations be? What are the challenges?
   - What will be the most important aspects of product standards development?

4. Developing employment and skills
   - What are the key needs with regard to green skills and employment in your business and how can the EU support this?

5. Financing to enable the transition
   - What are the key barriers to investment in resource efficiency in your organisation? How can the EU assist to overcome this?
   - How can increased reporting and transparency of non-financial information assist in supporting resource efficiency investment? What is needed to maximise this potential?
   - What is needed from investors and how can the EU support this?

6. Speeding up the development and use of indicators.
   - What are the most relevant footprint and other indicators to support resource efficiency? What are the challenges with collecting this data at the organisational level?

2c) How do you think European policy making will be changed by the changing public attitudes to the EU as reflected by changes in the EU Parliament?

2d) Are there any other key issues that you would like to add or discuss which you believe will have a relevant influence in the way the resource efficiency agenda is taken forward?
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