IEMA Transforming the world to sustainability

IEMA Fellows Working Group on the Circular Economy

Input on the Upcoming Resources & Waste Strategy

Executive Summary

1. **IEMA fully supports the development of a resources and waste strategy and the long-term target of eliminating waste.**
2. **Maximising resource utilisation and resource effectiveness should lie at the heart of the strategy – ensuring that we extract maximum value over precious resources and enhance overall economic productivity.**
3. **It is essential that the strategy should contain plans for a centralised coordination body on resource security, one that will ensure more cohesive policies across government departments and swift responses in the face of constraints on short term resource supply.**
4. **Fiscal instruments have the potential to reflect and transfer the true environmental costs of materials to their users and provide the basis for realising their full value.**
5. **The strategy should establish sector-based approaches with environment practitioners and industry stakeholders to explore alternative fiscal measures than those that simply further drive up recycling rates.**
6. **A data valuation methodology is essential to ensure that resource management in organisations is optimised - Clear milestones for achieving it will help make the strategy more resilient to post-Brexit scenarios**
7. **A strong focus on skills to support technical knowledge and systems thinking are key for ensuring a resource effective economy – the Strategy should integrate plans for an institution that provides the necessary learning resources and tool kits.**
8. **The UN Sustainable Development Goals offer UK organisations the opportunity to shift the way they operate and support a transition to a resource efficient economy – any regulatory proposal contained in the Strategy should be mapped against the SDGs.**

Businesses worldwide can achieve trillion-dollar savings by 2025 by transitioning to a circular economy[1]. With UK business standing to gain £23bn annually through resource efficiency savings, acting on this is clearly an under recognised opportunity for growth.

The 25 Year Environment Plan (25 YEP) is an ambitious plan touching on important topics such as increasing resource efficiency and reducing pollution and waste.

The government has confirmed its intention to work towards eliminating all avoidable waste by 2050 and all avoidable plastic waste by end of 2042. These are encouraging targets, but we believe that more can be done and that these targets can be brought forward by at least 10 years to match the efforts of the private sector. Indeed, retail players such as Iceland[2] are lining up to make pledges on plastic packaging well ahead of 2042. Nestlé CEO Mark Schneider stated, "Our ambition is to achieve 100% recyclable or reusable packaging by 2025[3]."

IEMA is the professional body for environment and sustainability practitioners. We have a membership of over 14,500 sustainability professionals who work at the interface between organisations, the environment and society to guide and lead the changes that will be required for a sustainable future.

IEMA members provide assurance and confidence that environmental and social risks are being effectively managed, that public health and the environment are being protected, and that opportunities for innovation and improvement are realised. Our members are drawn from all types and size of organisation across the public and private sector, Non-Government Organisations and academia.

IEMA has put together a common set of recommendations to support the development of the Resources & Waste Strategy (the Strategy) and promote positive and lasting change at scale. We would welcome the opportunity to discuss these recommendations at a roundtable meeting with DEFRA and others if that would be helpful.

The recommendations include:

On resource utilisation & effectiveness

There is no place for 'waste' in a circular economy; waste production represents a market failure in current mainstream economic thinking, as it disregards limits associated with finite natural capital and environmental pollution. However, there is increasing thought on how to better understand economic systems within resource availability and environmental limits. Resource efficiency is about making the most of material resources while minimising the production of waste. The concept of resource effectiveness goes further by optimising the efficient use of resources across their lifecycle to not only maximise economic gain, but also minimise harm to the natural environment and society and increasingly generate

[1] IEMA (2013) From Waste to Resources: Implementing Sustainable Resource Management in Your Business
[2] http://about.iceland.co.uk/wp-content/uploads/2018/01/Iceland-aims-to-be-plastic-free-across-own-label-range-by-2023-16.1.18.pdf
[3] https://www.nestle.com/media/pressreleases/allpressreleases/nestle-recyclable-reusable-packaging-by-2025

sustainability benefits. Low cost resource efficiency actions make up 80% of the £23bn a year potential saving available to UK business identified at the outset of this document.

IEMA's research in its report entitled *From Waste to Resources – Implementing Sustainable Resource Management in Your Business*[4] (the Waste to Resources Report) indicated that Environment & Sustainability professionals are already achieving significant benefits by acting on resource management. Over 500 respondents surveyed, 19% of respondents in very large companies[5] indicated their company saved over £1m per year whereas 63% of respondents in SMEs stated that they had saved at least £5,000 per year, with nearly 70% of those saving over £10,000 per year. Improving knowledge related to the use of key materials across organisations will often identify opportunities to reuse or redistribute materials between processes and teams.

Within the context of the Resources & Waste Strategy, we want to ensure that organisations are given the tools to better understand the benefit of fully utilising resources across their supply chain so that they may become more resource efficient. One way of doing this would be to set resource utilisation against economic indicators. Instead of focusing on waste minimisation, these indicators would help to showcase the business case for minimising resource use while promoting resource productivity. The outcome for the UK would be that it supports a business community incentivised to continually explore resource efficient solutions under a closed-loop resource management system with zero waste produced.

On resource security

The Industrial Strategy confirmed the government's objective to make a strong shift to electric vehicles and underscored the important role that battery technology will play in this regard. As worldwide sales of pure electric vehicles grew by 45% last year[6] it became clear that to power these cars, millions of new lithium-ion battery packs would need to be built.

65% of all Cobalt, a key raw material used in the battery packs, is sourced in the DRC. With battery demand rising fast, production being cut in the country due to corruption and political instability, a supply deficit is starting to emerge[7].

Considering such geopolitical events, the UK will need to develop a strategy that is also more resilient to potential post-Brexit scenarios when resources may become more constrained. UK based battery manufacturing businesses for example may require some form of guarantee that these resources will be available if the country is to deliver on its objective for almost every car and van on the road to be a 'zero emission vehicle' by 2050[8].

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4 https://www.iema.net/assets/newbuild/documents/IEMA_From%20Waste%20to%20Resources.pdf

5 The following definition was used to aggregate company size Very Large = >1000 employees, Large = 250 to 1000 employees, SME = 1 to 249 employees (SME definition based on European Commission's work found here http:eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:124:0036:0041:EN:PDF)

6 https://innovateuk.blog.gov.uk/2017/12/11/the-challenge-of-creating-a-uk-vehicle-battery-industry/

7 http://uk.businessinsider.com/materials-needed-to-fuel-electric-car-boom-2016-10

8 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/633269/air-quality-plan-overview.pdf

The initial step for any organisation wanting to review its resource security resilience is to develop an effective understanding of the materials it relies upon within its operations and the associated supply chain threats and opportunities. As co-founder of the UK Material Security Working Group, IEMA has worked with professional bodies, materials trade associations, NGOs and other interested parties to promote positive action in response to increasing resource security risks to individual business, business sectors and Government. Having launched a paper in Parliament in March 2015 calling for the setup of a central Office for Resource Management (ORM)[9], IEMA continues to call for the creation of a policy unit responsible for driving the shift from 'waste' to 'resource' and towards the circular economy; the proposed new environmental body could also have an important role to play. Our 2015 report found that at least nine departments had resource-related policy roles. This amalgamation of parallel roles has clearly led to a lack of coherence and constrained progress on this topic.

IEMA and its members call for government to adopt an overarching vision of materials to ensure coordination of resilience against resource-availability risk. The members of this working group strongly support the idea of a centralised coordination body, one that would help to cohesively tackle these resource security concerns. To help further consider this idea, our members would be keen to share their insight on what cross cutting, environment and sustainability skills are needed to help identify, plan, manage and respond to resource risks.

On fiscal measures

Fiscal policy plays a crucial role in transforming economies to become greener and more inclusive. By reflecting the cost of externalities from natural resource use in the prices of goods and services, fiscal policy can send the right signal to the market. If we want to truly value resources, we need to fully reflect the full costs in prices.

Since the introduction of the first European Directive on Waste, European environmental legislation has centred on waste controls to protect human health and avoid environmental pollution. With increasing concern about the environmental consequence of low cost waste disposal (e.g. landfill), this led to the integration of the EU waste hierarchy[10] , where waste production is avoided in preference to lower level actions, such as reducing and re-using material and energy recovery. The EU waste hierarchy continues to rank waste management options according to environmental preference. But while subsequent EU environmental action programmes have brought more policy prominence to sustainable production and consumption, much of the underlying emphasis is still on strengthening waste legislation as the main way to achieve greater progress towards sustainable resource management.

IEMA calls for legislation that adjusts the cost of disposal to best reflect the waste hierarchy, instead of the hierarchy reflecting which methods have the least environmental impact.

[9] https://resourceassociation.com/news/material-security-working-group-letter-party-leaders
[10] Directive [2008/98/EC] of the European Parliament and of the Council on waste (the Waste Framework Directive)- http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=celex:32008L0098

Legislative action in the 1990s saw many governments, including the UK[11], act to correct market failures associated with waste disposal. The UK Landfill Tax has incentivised business to develop ever more sophisticated 'kit' to (re)process end-of-life waste streams however, there is little market stimulus to incentivise the pull of these (secondary raw) materials through the productive economy.

IEMA calls to explore the possibility of reflecting the true environmental costs of goods in the price of material, and for this in turn to be transferred to the users for them to gain a better understanding of the value of raw materials.

IEMA welcomes the government's intention to negotiate with the EU as to whether the 2030 recycling targets contained within the EU Circular Economy Package should apply to the UK. DEFRA needs to carefully consider whether adequate transitional progress on resource efficiency can be delivered through the current waste hierarchy. Under the current process, policy interventions have a recurring focus on higher end-of-life weight-based recycling targets, but these exert little influence on the upstream supply chain. Something isn't 'recycled' unless it usefully re-enters the productive economy, otherwise it is just a (secondary) resource without a home.

Ongoing consultation with environment practitioners and industry stakeholders, by way of sector-based approaches seeking to establish specific resource efficiency needs, should be arranged to explore alternative solutions to fiscal measures that simply further drive up recycling rates.

On the role of data

Lack of accessible data on materials and resource flows across the value chain mean that most environmental & sustainability professionals lack the means to make an effective assessment of their organisation's waste and resource management performance. IEMA's research shows that when collaboration occurs, with sustainability professionals working across organisation and with the support of senior figures, then they are found to drive a fundamental shift in resource management and reporting.

Robust data (and information), underpinned by sound science and appropriate accounting methods, are central to evidence-based policymaking, smarter regulation and any wider risk assessment of market-based interventions, including financial incentives. For example, those businesses leading in cradle-to-cradle have the metrics to understand the whole life financial, environmental and societal implications of products or services and the materials used. Companies can then develop products that are less harmful and have fewer adverse impacts as well as designing products and services that deliver a net positive impact.

Measuring meaningful progress on resource stewardship should include the development of a range of supporting metrics, including some consideration of natural capital extraction to indicate the current level of sustainability of key resource use. In its latest report for 2018, the Natural Capital Committee (NCC) has confirmed that it has been working with Defra's Environment Analysis Unit as well as the Office of National Statistics to appraise suitable metrics, models, datasets and tools to aid the measurement of natural capital and how it is

[11] The UK introduced the Landfill Tax in October 1996, increasing the cost of disposing of each tonne of waste sent to landfill.

changing over time, with a view to develop natural capital accounts, which are scheduled for completion in 2020. Together with its recent guide to natural capital valuation [12] and confirmation that the NCC is working on a series of methodological papers on natural capital valuation, seeking to align accounting and more traditional economic appraisal methodologies has the potential to understand the true value of natural resources and use this to reflect in fiscal policy.

Several IEMA Fellows, have played a major role in both the development and drafting of British Standard BS8001:2017 – the world's first practical guidance for organisations to implement circular economy principles and move to a more circular and sustainable mode of operation. The Standard focuses on helping organisations to implement key circular economy principles through a flexible framework, to create value through process, product, service or business model innovation. They align themselves with IEMA's view that the government needs to play a larger role in helping to identify information flows and supporting organisations to better understand the life cycle of key materials. As we enter the post-Brexit phase, the need for an established valuation methodology will become essential to ensure resource management in organisations is optimised. The Strategy will therefore need to include clear milestones for setting out such a methodology, to ensure organisations have sufficient quality data to affect the transition to a circular economy.

On skills

To truly manage resources, organisations must understand the impacts, risks and opportunities throughout the lifecycle of the materials they rely upon. This cannot be achieved without strong relationships and communication across the value chain. It involves going beyond conventional thinking to consider a material from its source, through the supply chain and the organisation's activities, onto clients, the end user and its potential as a future resource. While detailed analysis of these factors for all materials will remain beyond the capabilities of most organisations, the need to adopt lifecycle thinking and improved knowledge across the value chain is increasingly becoming the norm in larger organisations.

This trend can be clearly seen in the calls from business to see lifecycle thinking embedded in ISO 14001, as established in IEMA's influential 2012 position statement[13] and integrated in the latest version of the standard[14]. A much greater level of communication and activity between organisations is required to enable continuous improvements in resource efficiency, security and cycling across the value chain.

Such actions will be enabled by those organisations with access to staff with clear communication, leadership and systems thinking skills who look at resource issues along their lifecycle, skills already embedded in IEMA's standards[15].

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12 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/608850/ncc-natural-capital-valuation.pdf

13 https://www.iema.net/assets/uploads/position_statement_climate_change_and_energy_v4.pdf

14 https://committee.iso.org/sites/tc207sc1/home/projects/published/iso-14001---environmental-manage/life-cycle.html

15 https://www.iema.net/skills

A strong focus on skills to support technical knowledge and systems thinking are the backbone of a resource effective economy, one that minimises future reliance on the use of virgin technical material inputs (e.g. fossil fuels) and thus aims to avoid the negative environmental and social effects often associated with extracting raw materials. IEMA therefore calls on DEFRA to integrate plans into the Strategy for a centralised institution with the learning resources and tool kits necessary to future proof organisations and transition to a zero-waste economy.

On the Sustainable Development Goals:

With targets ranging from promoting decent work and economic growth to responsible consumption and production, the UN Sustainable Development Goals (SDGs) offer organisations the opportunity to shift the way they operate to more sustainable forms of production. Increasingly, companies from all sectors are confronting and adapting to a range of disruptive forces including globalisation, intense competition for raw materials and natural resources and a revolution in technology that is challenging the business models of many sectors. Within the UK, business alliances like the retail industry's Better Retail Better World pledge[16] contain a series of commitments mapped against the SDGs to reduce waste sent to landfill, measure all operational water use and progress responsible sourcing practices.

IEMA recognises the need for sustainability professionals across the economy to have access to more practical advice to steer their organisations towards effectively contributing to the SDGs. This understanding is evidenced by the recent release of its practical guidance document on change management in the context of sustainable development[17]. Change Management for Sustainable Development has cross-sector and cross-profession relevance for anyone – regardless of their profession – who is seeking to help change and transform organisations. Business leadership on resource efficiency is key and we are actively working with our members and the wider business community to help make this transition.

Government also has a key role to play. The devolved administrations in Scotland and Wales are already making good progress in this field. But if we are to ensure the implementation and success of the 25 YEP, the Strategy needs to contain recognition at the national level of the role that the SDGs are playing in helping us transition to a resource efficient economy. This must be supported by strong regulatory proposals that are mapped against the goals and targets. While the strategy announces the government's intention to cut waste, promoting markets for secondary materials and incentivising better product design, this plan will only come to life and have the right impact if it is enforced with the right legislation and governance. Only with the right level of governance will the UK ensure it retains its global leadership on restoring, enhancing and protecting the environment.

[16] https://www.edie.net/news/7/UK-retail-giants-sign-up-to-collaborative-SDG-commitment
[17] https://www.iema.net/cmsd/cmsd-worksheets

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