UNIVERSITY OF LEEDS

This is a repository copy of *Co-producing a Vision and Approach for the Transition towards a Circular Economy: Perspectives from Government Partners.*.

White Rose Research Online URL for this paper:
http://eprints.whiterose.ac.uk/148808/

Version: Published Version

Conference or Workshop Item:
Velenturf, A, Purnell, P orcid.org/0000-0002-6099-3804, O'Callaghan, K et al. (10 more authors) (2017) Co-producing a Vision and Approach for the Transition towards a Circular Economy: Perspectives from Government Partners. In: 23rd Annual International Sustainable Development and Research Society Conference, 14-16 Jun 2017, Bogotá, Colombia.

Reuse
Items deposited in White Rose Research Online are protected by copyright, with all rights reserved unless indicated otherwise. They may be downloaded and/or printed for private study, or other acts as permitted by national copyright laws. The publisher or other rights holders may allow further reproduction and re-use of the full text version. This is indicated by the licence information on the White Rose Research Online record for the item.

Takedown
If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing eprints@whiterose.ac.uk including the URL of the record and the reason for the withdrawal request.

White Rose university consortium
Universities of Leeds, Sheffield & York

eprints@whiterose.ac.uk
https://eprints.whiterose.ac.uk/

Co-producing a Vision and Approach for the Transition towards a Circular Economy: Perspectives from Government Partners

ISDRS

Bogota ¦ 14 June 2017

Dr. Anne P.M. Velenturf

W: www.rrfw.org.uk

M: A.Velenturf@leeds.ac.uk

@RRfW6

Resource Recovery from Waste

RESOURCE RECOVERY FROM WASTE

NERC SCIENCE OF THE ENVIRONMENT

E·S·R·C ECONOMIC & SOCIAL RESEARCH COUNCIL

Department for Environment Food & Rural Affairs

Resource Recovery from Waste (RRfW)

RRfW vision:

A circular economy in which waste and resource management contributes to a resilient environment and human well-being.

RRfW mission:

RRfW is a UK-based collaborative environmental research programme engaging academia, industry, government and the general public to develop knowledge and tools to reduce pressure on natural resources and create value from wastes.

Today

1. Resource scarcity and waste overload
2. Participation strategy
3. Co-creation process government
4. **Key themes & Policy and regulatory approaches**
5. Where next?

RESOURCE RECOVERY FROM WASTE

Resource scarcity vs. Waste overload

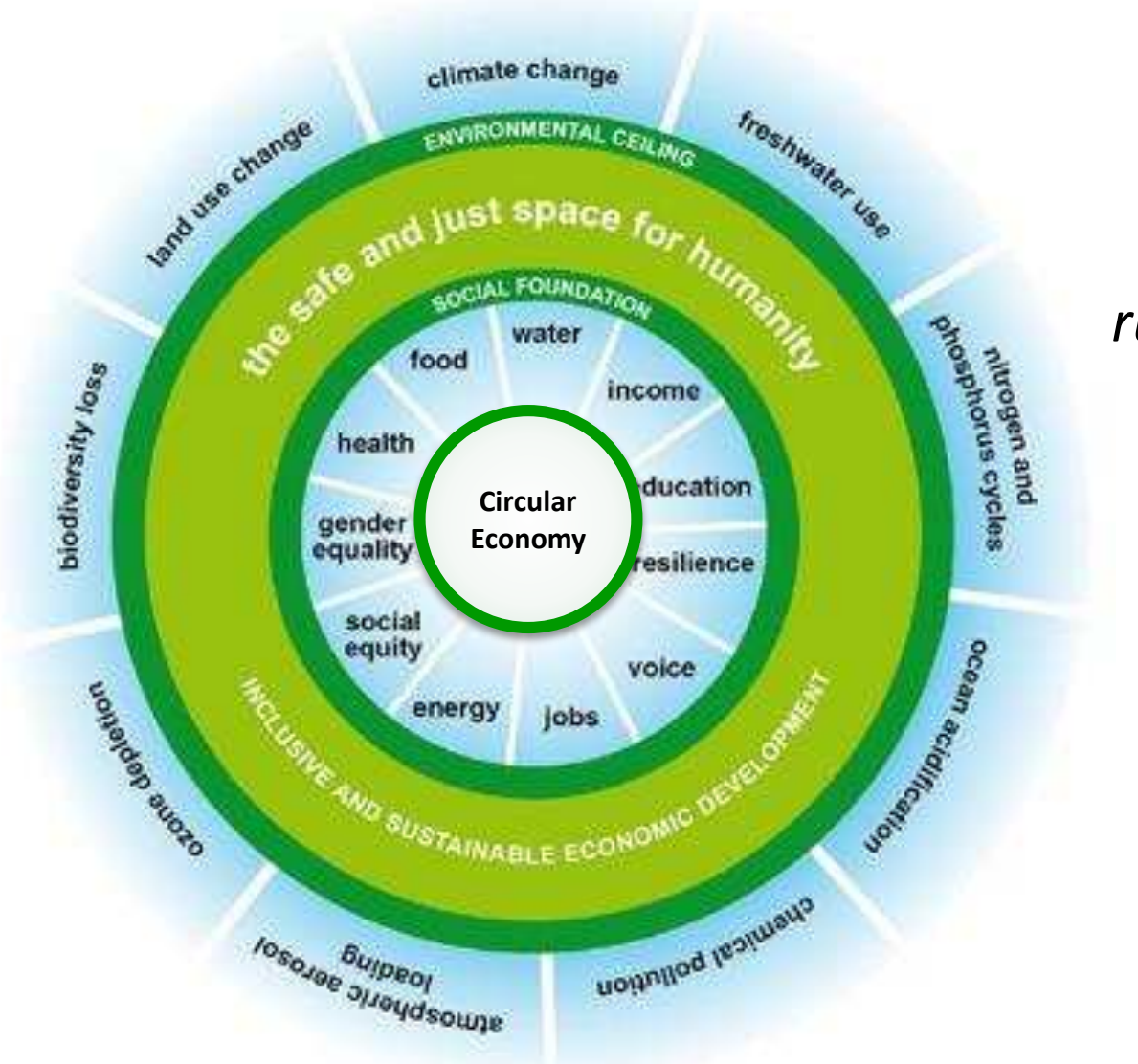
Environmental degradation
Habitat destruction and biodiversity loss
Resource depletion

Waste generation
Pollution
Climate change refugees
Illegal waste trading

Anne P.M. Velenturf and Phil Purnell (submitted)
Resource Recovery from Waste: Restoring the Balance between Resource Scarcity and Waste Overload

RESOURCE RECOVERY FROM WASTE

Planetary boundaries & Human rights



Waste managers in circular economy: "from collectors of rubbish to custodians of resources"

(Velenturf and Purnell, submitted)

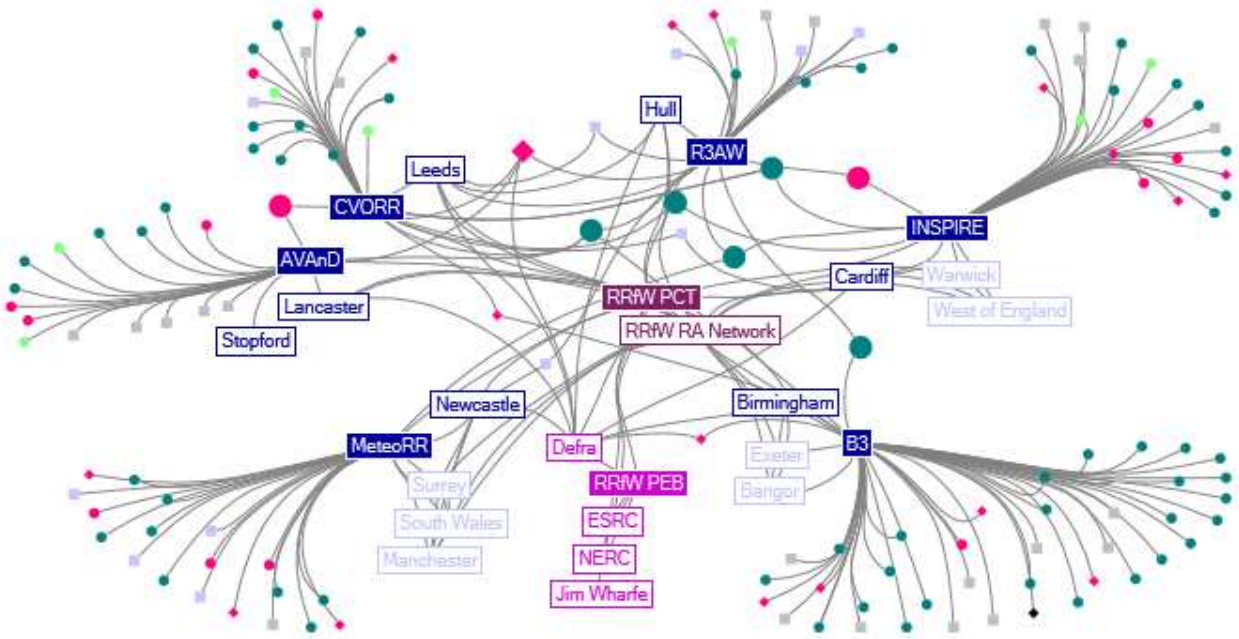
Source: Kate Raworth (2012) A safe and just space for humanity: can we live within the doughnut? Oxfam International.

RESOURCE RECOVERY FROM WASTE

RESOURCE RECOVERY FROM WASTE

Participation Process

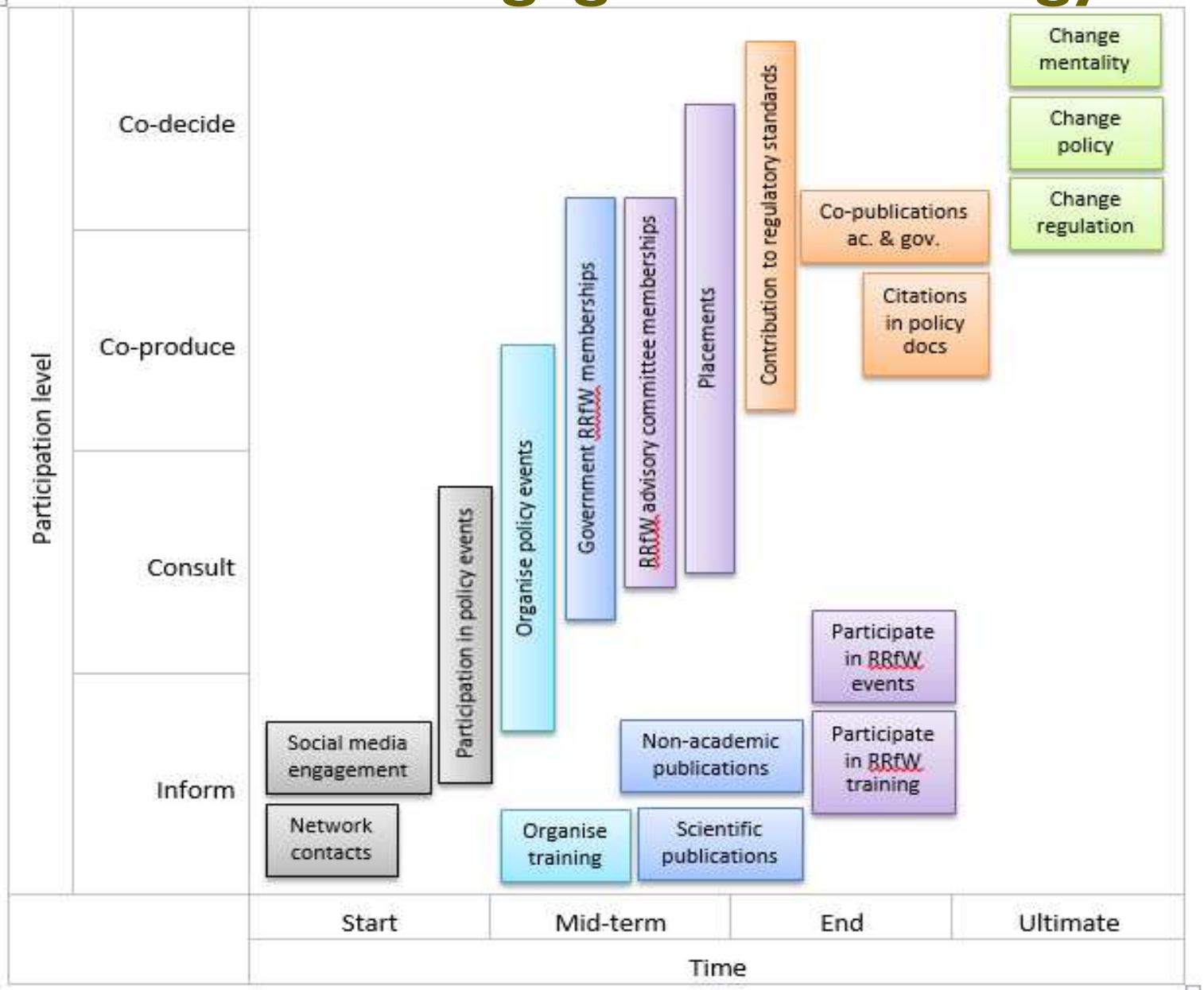
1. Stakeholder and network analysis
2. Learning and innovation
3. Engagement strategy



Created with NodeXL (http://nodexl.codeplex.com)

RESOURCE RECOVERY FROM WASTE

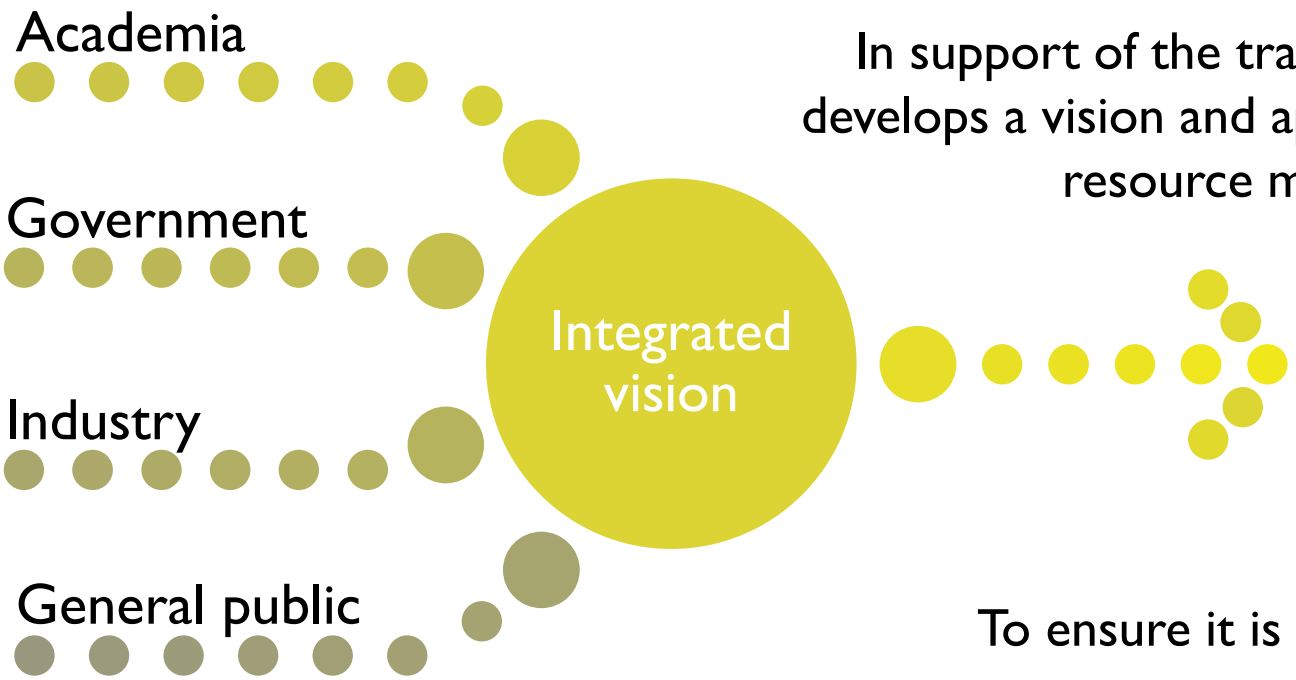
Government Engagement Strategy



RESOURCE RECOVERY FROM WASTE

Co-creating a Vision and Approach for Waste and Resource Management

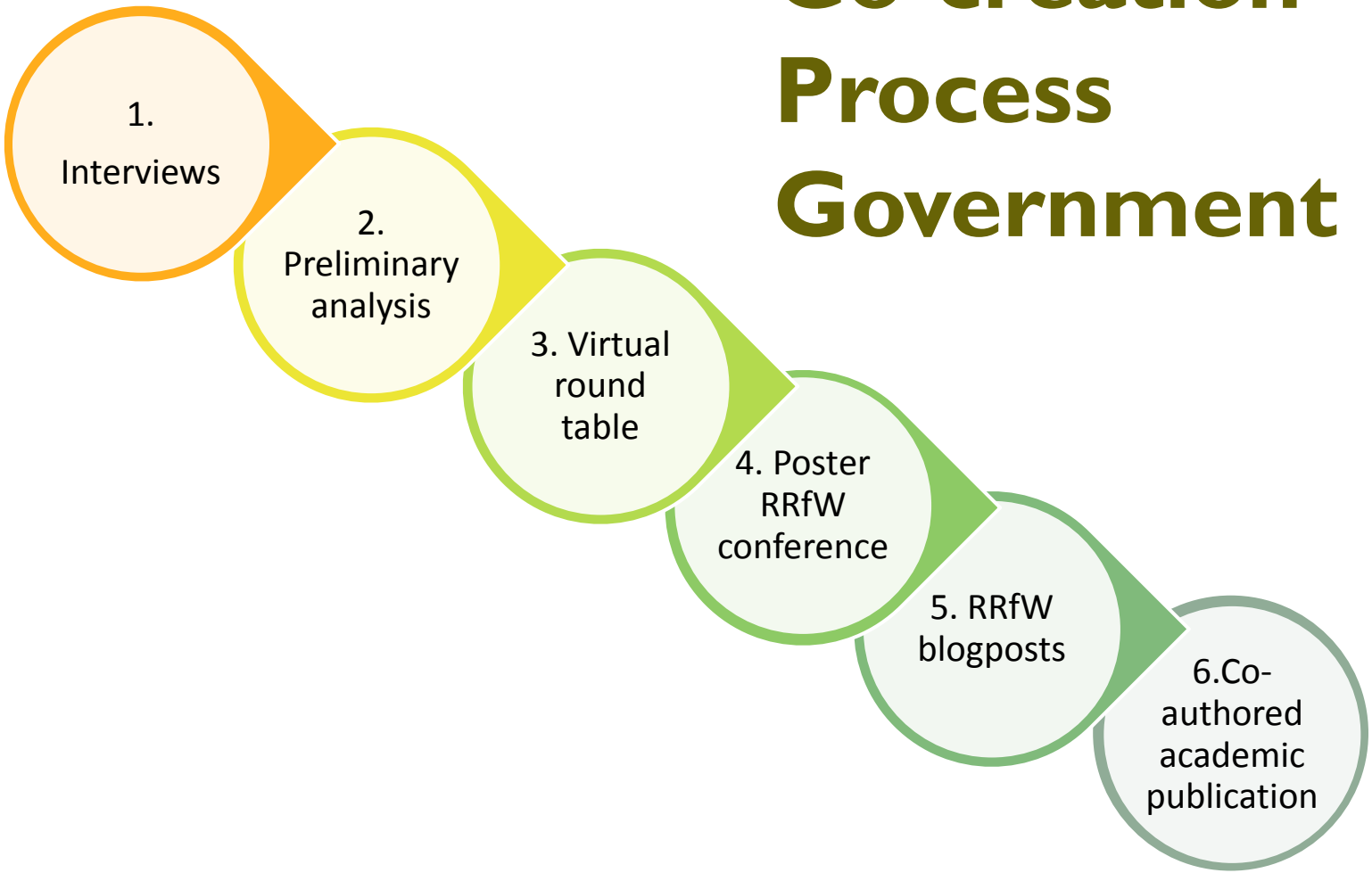
RRfW aims to contribute to a paradigm shift in waste and resource management.

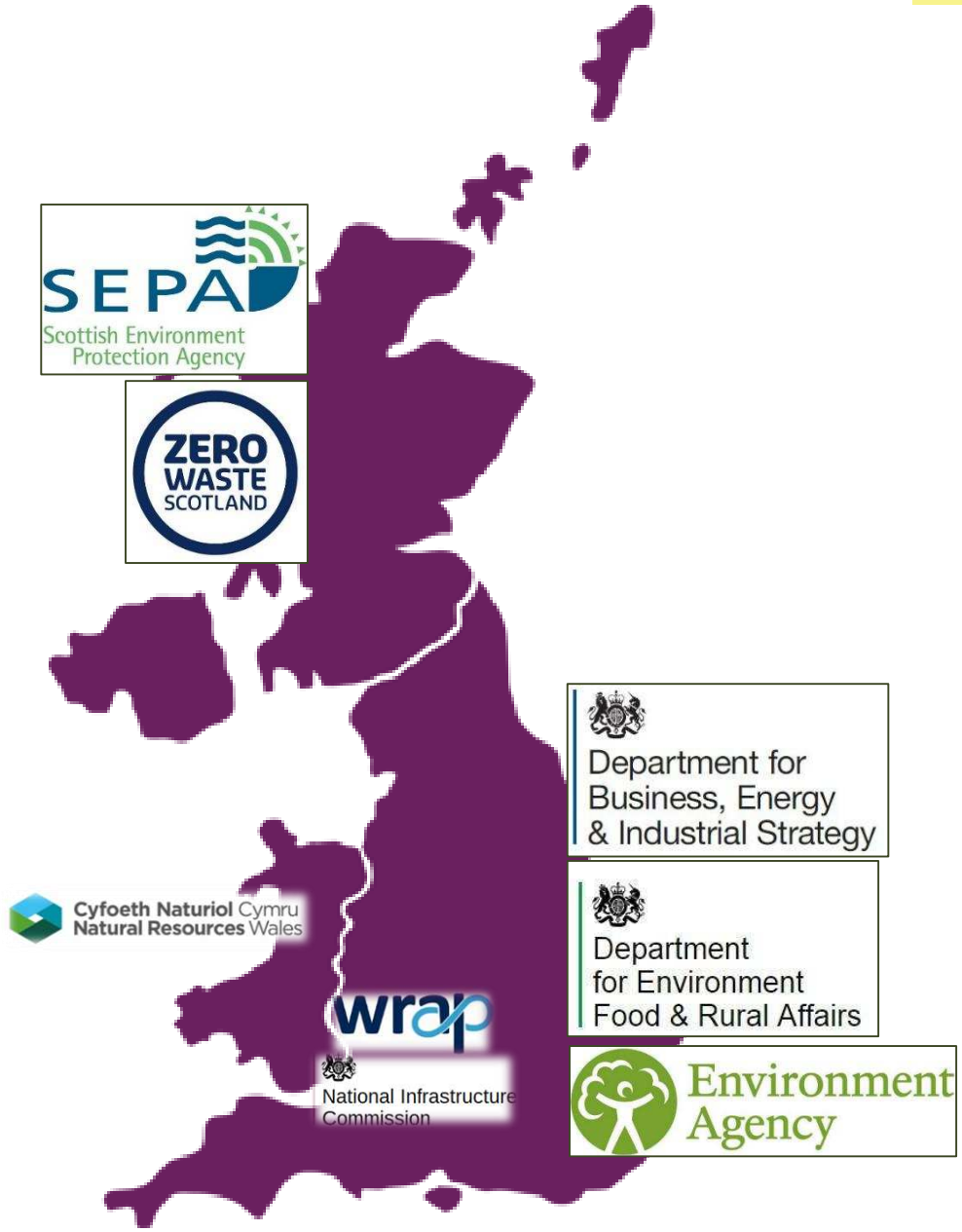


In support of the transition process, RRfW develops a vision and approach for waste and resource management in the UK.

To ensure it is realistic and ultimately can be implemented, it is important to include the views of our partners in government, industry, and the general public.

Co-creation Process Government





Anne P.M. Velenturf, Phil Purnell, Kenneth O'Callaghan, Mike Tregent, John Ferguson, Andrew Woodend, Lee Davies, Arjan Geveke, Louise McGregor, Helen Jamieson, Caroline Spencer, Andrew Dickson and Alan Holmes. (forthcoming) Co-producing a Vision and Approach for the Transition towards a Circular Economy: Perspectives from Government Partners.

RESOURCE RECOVERY FROM WASTE

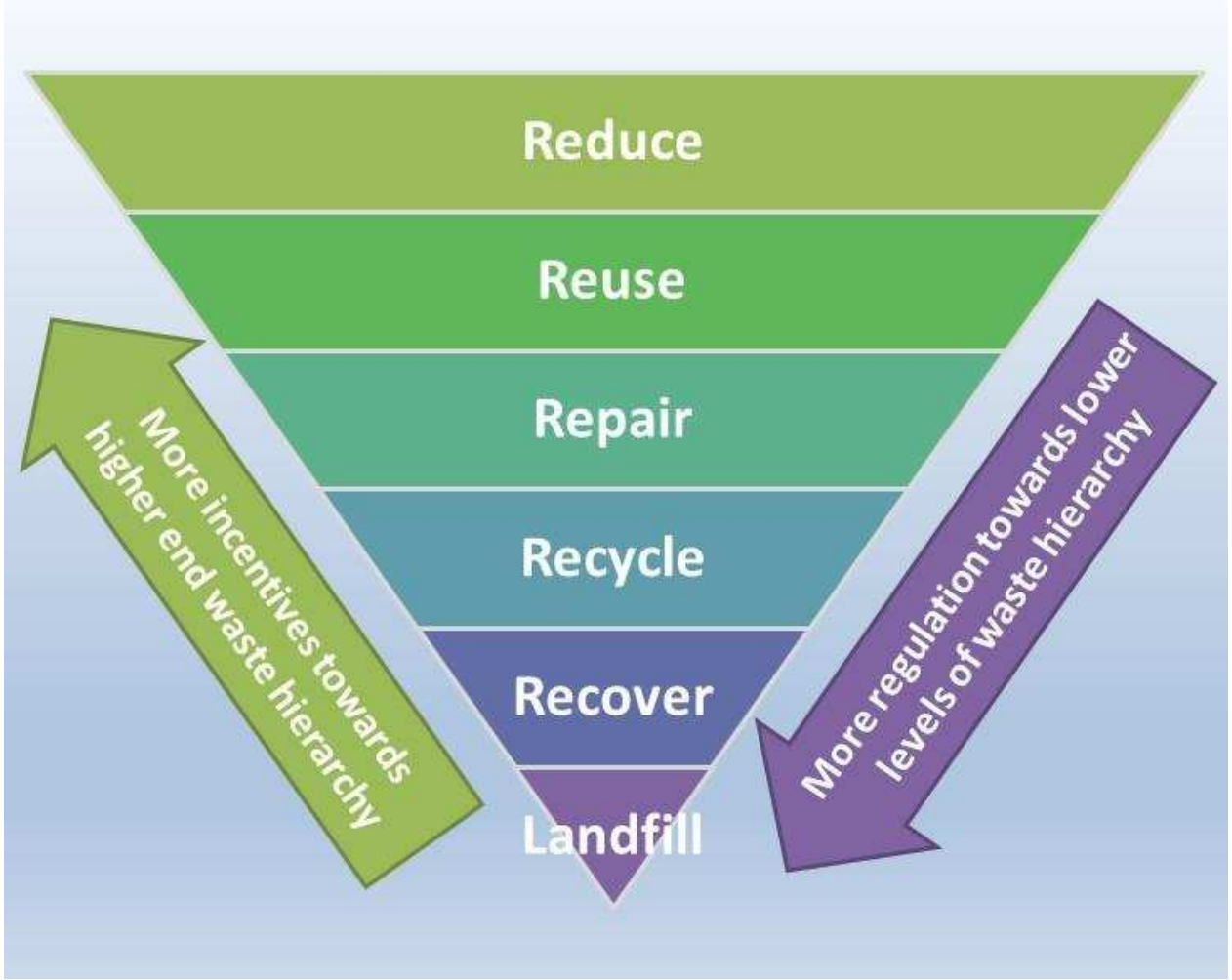
Shared Vision

Move away from end-of-pipe approaches by maximising the value created from materials whilst keeping them in the economy for as long as possible.

Key Themes


Radical change in economic theory and practice.
Progress redefined to include social and environmental factors.
Maximise environmental, social and economic value created from resources.
Internalise or integrate environmental social and economic metrics.
Decoupling: consumption from economic growth; resource use from waste production.
Move away from end-of-pipe approaches and higher up the waste hierarchy.
Integrating social and environmental values with economic benefits
Keep materials in economy as long as possible; increased product lifetimes.
Decarbonisation+ has to include waste and resource management.
Supporting secondary resource markets
Incentivise/ regulate emerging secondary resource markets.
Enabling key areas of innovation
Enable circular economy through (decentralised) waste infrastructure.
Whole system approach, identifying key intervention points
From supplier-led to demand-led markets.
Whole system approach but identify key intervention points for targeted action.
Realise radical change through engagement of government, industry, academia and general public.
Digitisation enabling recycling, but growing e-waste.
Material and product design including end-of-life options.
Business model innovation vs. business as usual with improved recycling tech.

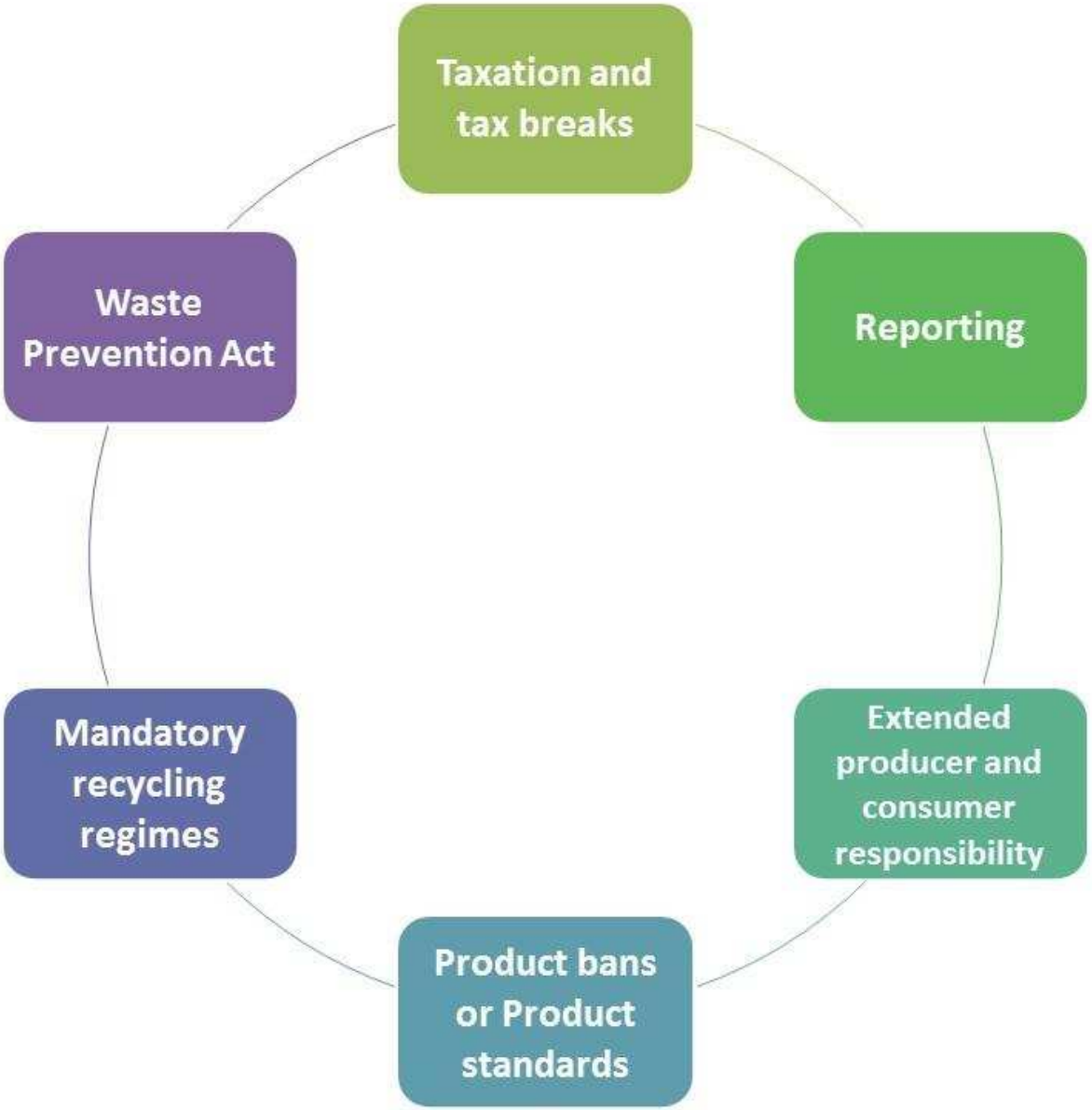
Policy and Regulatory Approaches



Directions for Policy Development

1. Stable and predictable policies
2. Focus on resources and resource efficiency rather than waste and waste reduction
3. Build on EU Circular Economy Strategy
4. Focus on reduction of single use superfluous products/ packaging
5. Waste infrastructure integrated in decarbonisation agenda

Regulatory Instruments



Academic-government collaboration

1. Regularly engage organisations at all levels of government from the start and throughout research projects.
2. Present holistic system perspective but with practical recommendations targeting key intervention points.
3. Explicitly link recommended changes to specific policies and regulations as well as regions.

Reflections on Co-creation Process

Positives

- Captured diversity of perspectives
- Identified circular economy scenarios
- Cross-fertilisation of perceptions
- New connections within governance system
- Added value due to proximity to government
- Demand for continued engagement

Areas for improvement

- Reducing engagement as co-creation process progressed
- Organisational challenges to bring people together
- Virtual/ telephone meetings no replacement for meeting in person
- Gaps between formal and personal positions
- Limited input Members of Parliament and House of Lords

Where next…?

1. Participatory situational analysis
2. Facilitate discussions around diverging subjects between industry, government and academic partners
3. Case studies of RRfW applications
4. Continue contributions to government consultations

RESOURCE RECOVERY FROM WASTE

Resource Recovery from Waste

NERC SCIENCE OF THE ENVIRONMENT

E·S·R·C ECONOMIC & SOCIAL RESEARCH COUNCIL

Department for Environment Food & Rural Affairs

Participatory Situational Analysis for the Implementation of RRfW

Resource Recovery from Parys Mountain: past, present and future

Recovering the Multi-Dimensional Value from Compost Oversize

The Resource Recovery from Waste Retreat

Life Cycle Sustainability and Policy Analysis of Plausible Systems for RRfW

Formulating the Environmental and Social Business Case for a RRfW process

Multi-parametric Assessment of Policies for RRfW

UNIVERSITY OF LEEDS

C-VORR Complex Value Optimisation for Resource Recovery from Waste

CARDIFF UNIVERSITY PRIFYSGOL CAERDYDD

INSPIRE In-situ Recovery of Resources from Waste Repositories

Lancaster University

AVAND Developing a Suite of Novel Land Conditioners and Plant Fertilizers from the Waste Streams of Biomass Energy Generation

UNIVERSITY OF Hull

R3AW Resource Recovery and Remediation of Alkaline Wastes

UNIVERSITY OF BIRMINGHAM

B3 Beyond Biorecovery: Environmental Win-Win by Biorefining of Metallic Wastes into New Functional Materials

Newcastle University

MeteoRR Resource Recovery from Wastewater with Bio-electrochemical Systems

W: www.rrfw.org.uk

M: A.Velenturf@leeds.ac.uk

@RRfW6

Resource Recovery from Waste

Outcomes co-creation process

NATIONAL INFRASTRUCTURE COMMISSION

BS 8001 - a new standard for the Circular Economy

The move to a 'circular economy' has been identified as a significant opportunity for business. It will contribute towards a resource efficient and low-carbon economy, reducing costs and supply chain risks, while generating economic and social value. BS 8001 will enable organisations to take action practical action to realise these benefits.

Department for Business, Energy & Industrial Strategy

Department for Environment Food & Rural Affairs

- Article series
- Conference papers
- Blogposts
- Input for consultations
- Platform for further engagement

Article

Resource Recovery from Waste: Restoring the Balance between Resource Scarcity and Waste Overload

Anne P.M. Velenturf [1,*] and Phil Purnell [1]

Co-producing a Vision and Approach for the Transition towards a Circular Economy: Perspectives from Government Partners

Anne P.M. Velenturf, Phil Purnell, Kenneth O'Callaghan, Mike Tregent, John Ferguson, Andrew Woodend, Lee Davies, Arjan Geveke, Louise McGregor, Helen Jamieson, Caroline Spencer, Andrew Dickson and Alan Holmes

Abstract

British economy is overly reliant on unsustainable production and consumption practices. economy depends on finite resources that are consumed at a fast pace, causing the letion of natural resources, climate change and pollution through emissions and wastes. h environmental degradation severely impacts on human wellbeing. Maintaining current duction and consumption patterns violate human rights and risk economic instability. To e this paradox of growing resource scarcity and waste overload, the Resource Recovery n Waste programme (RRfW) proposed a transition towards a circular economy that tributes to a resilient environment and human wellbeing. Such radical change in waste resource management can only be achieved if all relevant actors are engaged in the sition process. RRfW coordinates on-going engagement of actors in academia,

Government Office for Science

From Waste to Resource Productivity – Our Vision

Working towards a shared vision for waste and resource management (3): Key changes and pivot points

Resource Recovery from Waste programme on LinkedIn

February 15, 2017

Building our Industrial Strategy

Green Pape January 201

Building an Industrial Strategy for a Stronger Waste and Resourc Management Sector

Resource Recovery from Waste programme on LinkedIn

January 24, 2017

EPA Network

23rd INTERNATIONAL SUSTAINABLE DEVELOPMENT RESEARCH SOCIETY CONFERENCE

14th - 16th OF JUNE 2017 IN BOGOTA COLOMBIA

Towards a shared vision for waste and resource management (2): Policy and regulatory approaches

Resource Recovery from Waste programme on LinkedIn

February 3, 2017

Towards a shared vision for waste and resource management (1): Effective government – academic collaboration

Resource Recovery from Waste programme on LinkedIn

January 23, 2017

Co-creating a Shared Vision for Waste and Resource Management

Resource Recovery from Waste programme on LinkedIn

October 6, 2016

Why care about waste?

- Growth and productivity
- Resilience
- Resources and environment

RESOURCE RECOVERY FROM WASTE