Participation Processes for Social Learning in the Transition towards a Sustainable Circular Economy:
The Case of the Resource Recovery from Waste Programme

ISDRS

Bogota ¦ 16 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

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RESOURCE RECOVERY FROM WASTE

RRfW in Numbers

RESOURCE RECOVERY FROM WASTE PROGRAMME IN NUMBERS

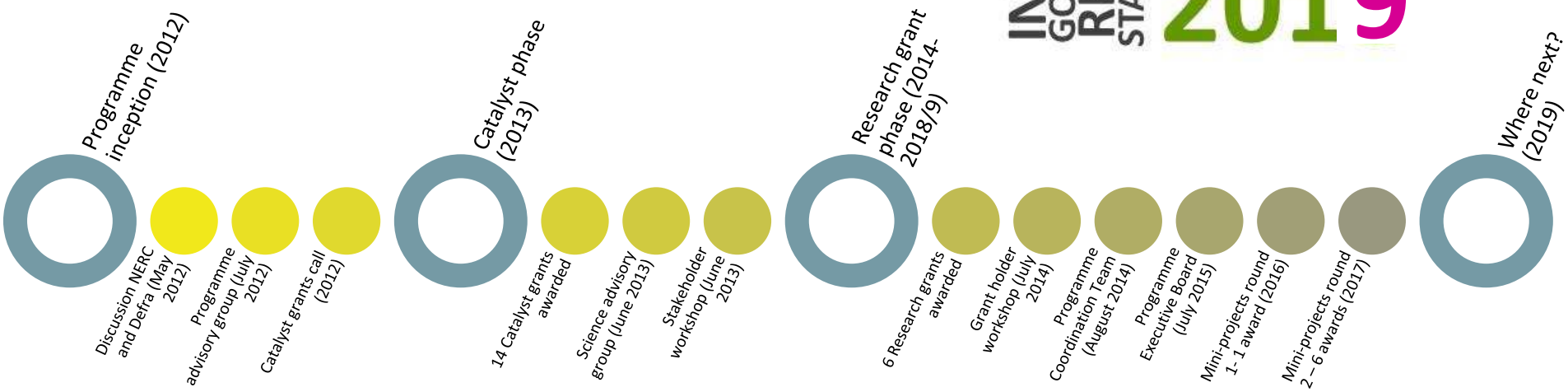
6 PROJECTS

15+ UNIVERSITIES

>80 INDUSTRY GOVERNMENT RESEARCH STAKEHOLDERS

7.2M FUNDING

2014 2019



RRfW purpose

To lead delivery of the strategic science needed to accomplish a paradigm shift in the recovery of resources from waste that is driven by environmental benefits (integrated across air, soil and water resources, and biodiversity) and for human health, rather than by economics alone. The programme will also forge new thinking that goes 'beyond carbon' to understand waste as a resource from the perspective of ecological and not just carbon outcomes.

RESOURCE RECOVERY FROM WASTE

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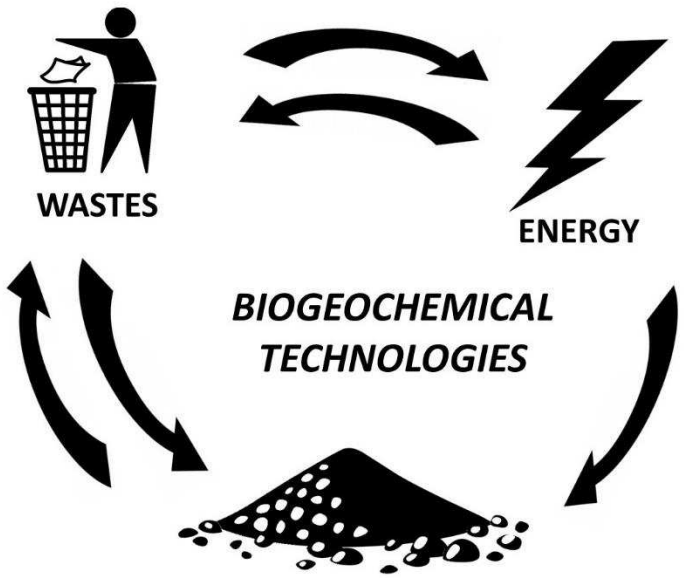
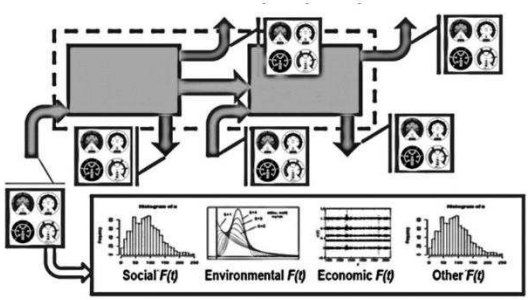
RRfW Projects

Developing resource recovery technologies, valuing whole supply chains.





ASSESSMENT TOOL MULTI-DIMENSIONAL VALUE OF WHOLE SUPPLY CHAINS

UNIVERSITY OF LEEDS

C-VORR Complex Value Optimisation for Resource Recovery from Waste

INSPIRE In-situ Recovery of Resources from Waste Repositories

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

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Multi-parametric Assessment of Policies for RRfW

Formulating the Environmental and Social Business Case for a RRfW process

Life Cycle Sustainability and Policy Analysis of Plausible Systems for RRfW

The Resource Recovery from Waste Retreat

Recovering the Multi-Dimensional Value from Compost Oversize

Resource Recovery from Parys Mountain: past, present and future

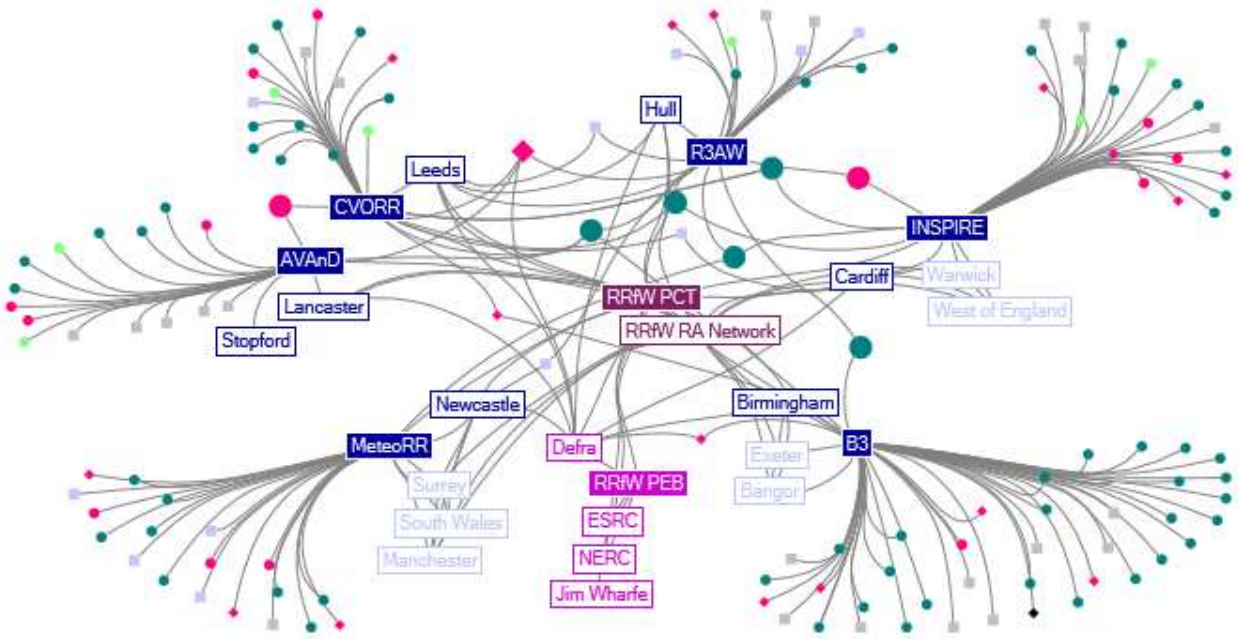
Participatory Situational Analysis for the Implementation for RRfW technologies and vision

Project integration

RESOURCE RECOVERY FROM WASTE

Participation Process

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



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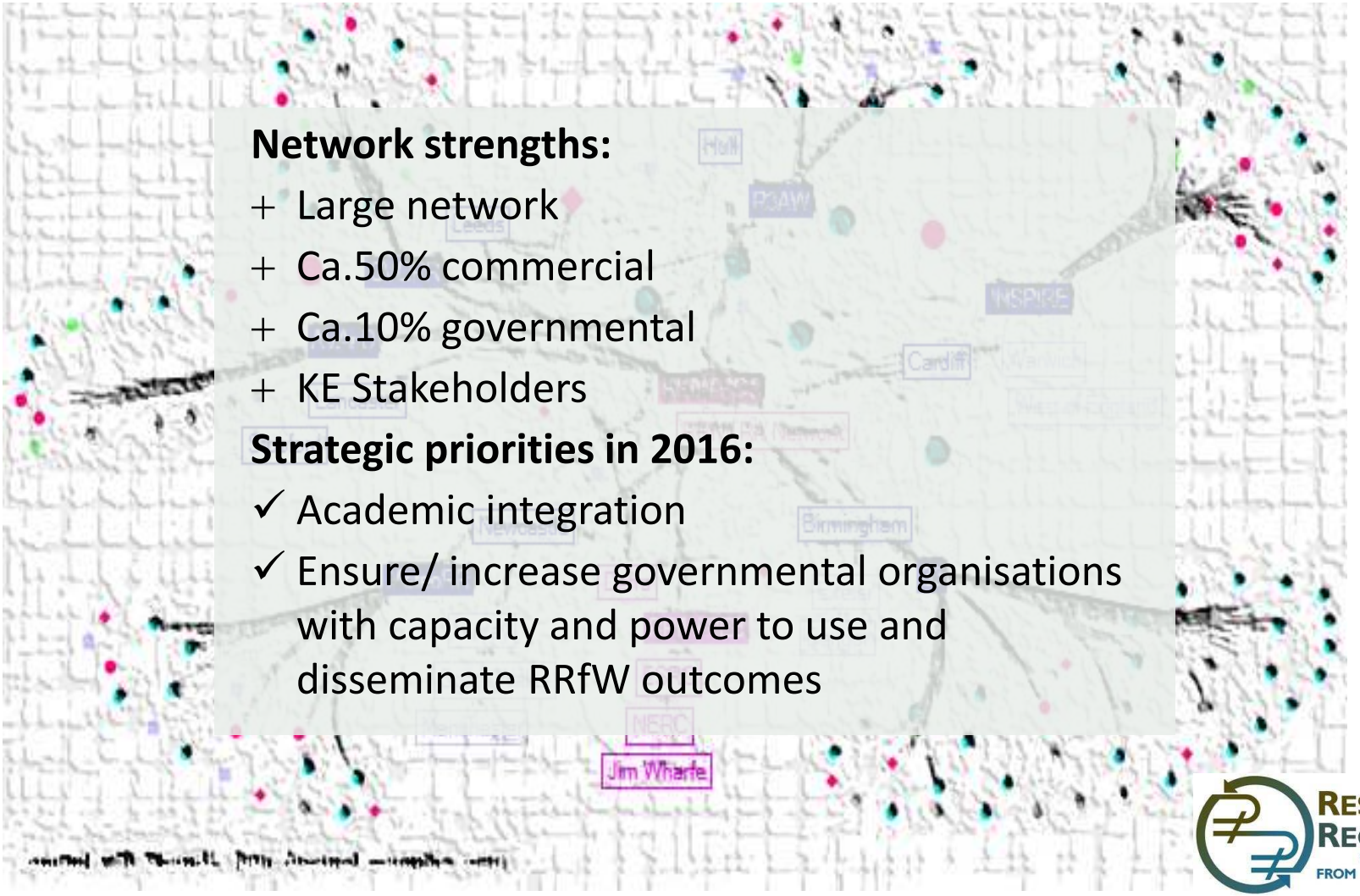
Strategic network expansion



Network strengths:

+ Large network
+ Ca.50% commercial
+ Ca.10% governmental
+ KE Stakeholders

Strategic priorities in 2016:

✓ Academic integration

✓ Ensure/ increase governmental organisations with capacity and power to use and disseminate RRfW outcomes

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Learning and innovating – industry

Waste and reprocessing sectors

1. Only 10-25% knowledge sourced externally; most generated in-house
   - Narrow resource specs, small markets
   - Highly specialised companies
2. Innovation processes: Supply chain partners; Trade associations; Professional membership bodies
3. Most trusted knowledge providers: Colleagues in other waste management companies + Environment Agency
4. Most important and trustworthy communication channels:
   - Government reports; Trade shows; Trade association magazines; Internet incl. specialist online channels and libraries; Direct personal contact

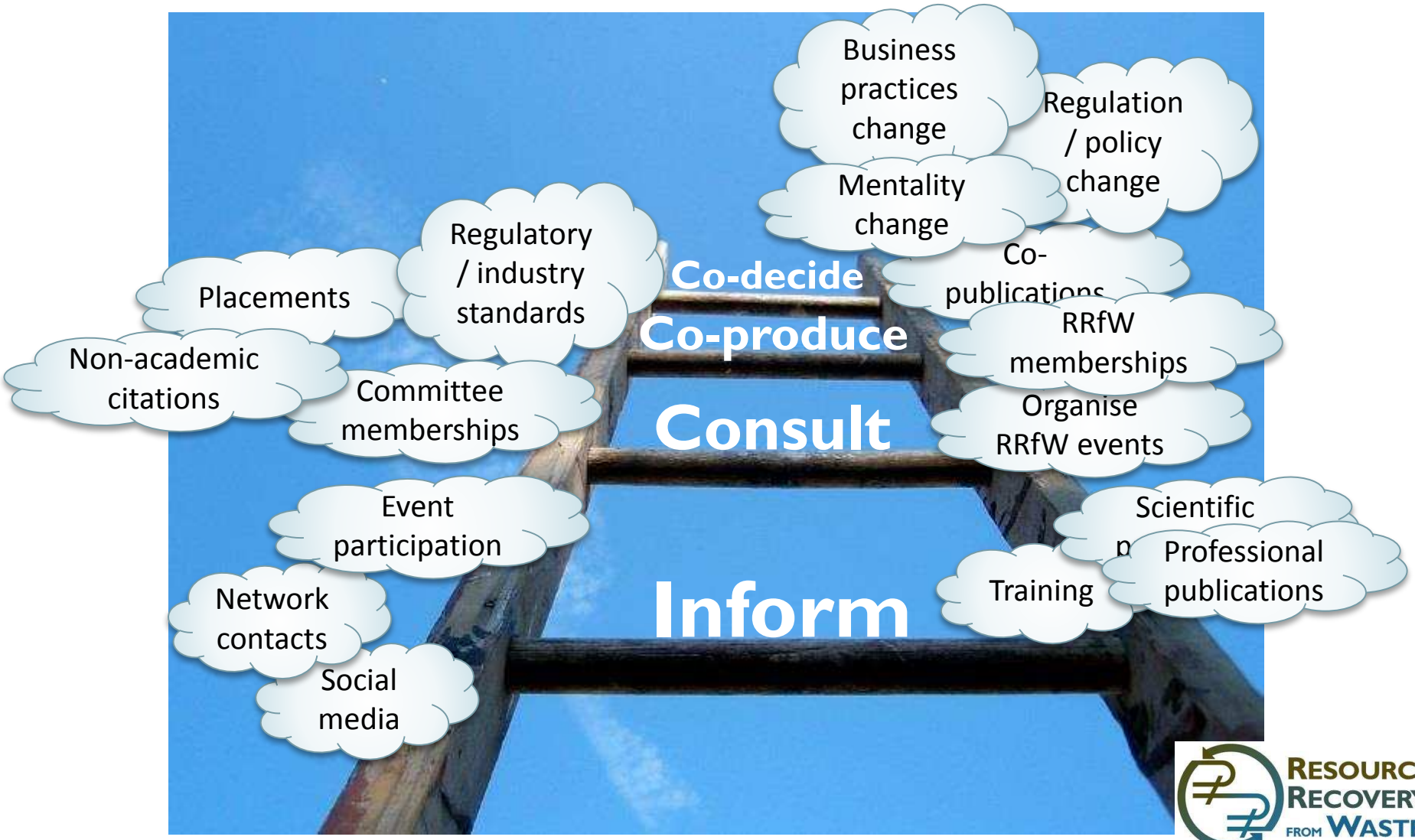
↘ Least valued: Twitter, TV; Radio

RESOURCE RECOVERY FROM WASTE

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.

Participation ladder



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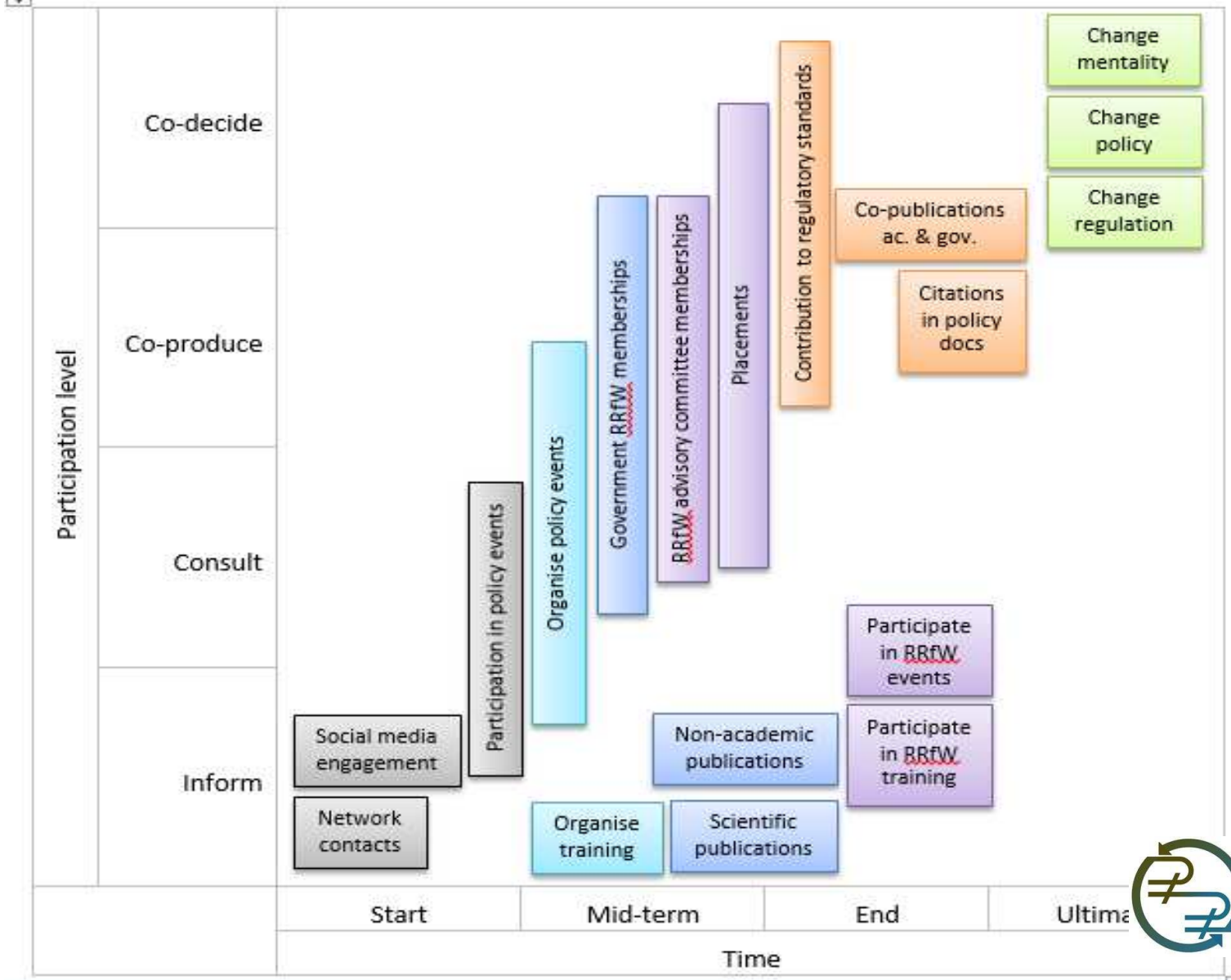
Participation strategy - government



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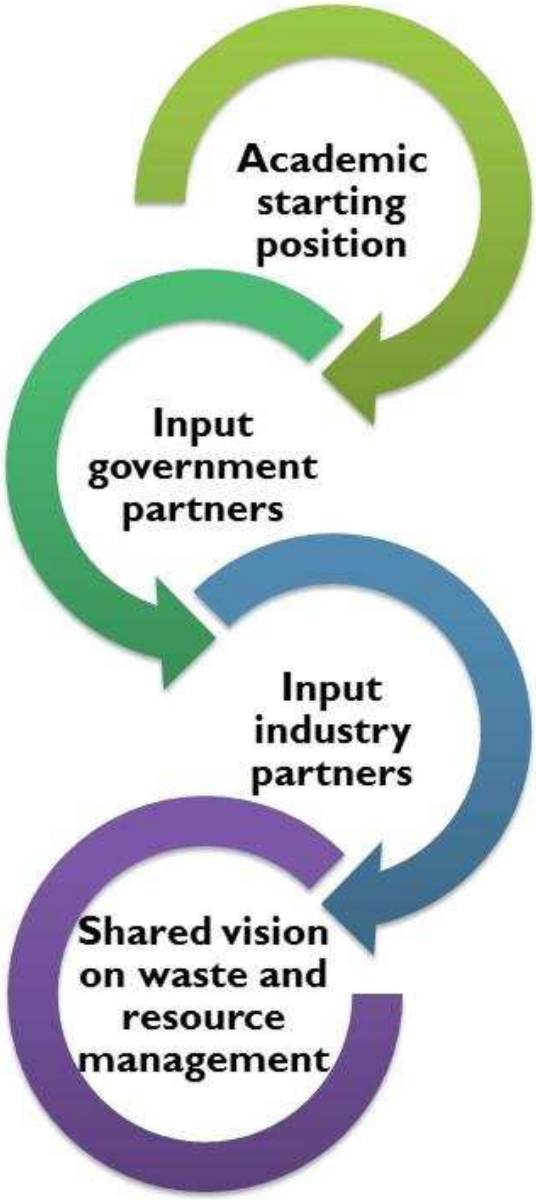

Co-creating a Vision and Approach for Waste and Resource Management

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

Where next…?

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

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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

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