

Curving the Line – Circularity in the Data Centre Industry

Dr Beth Whitehead

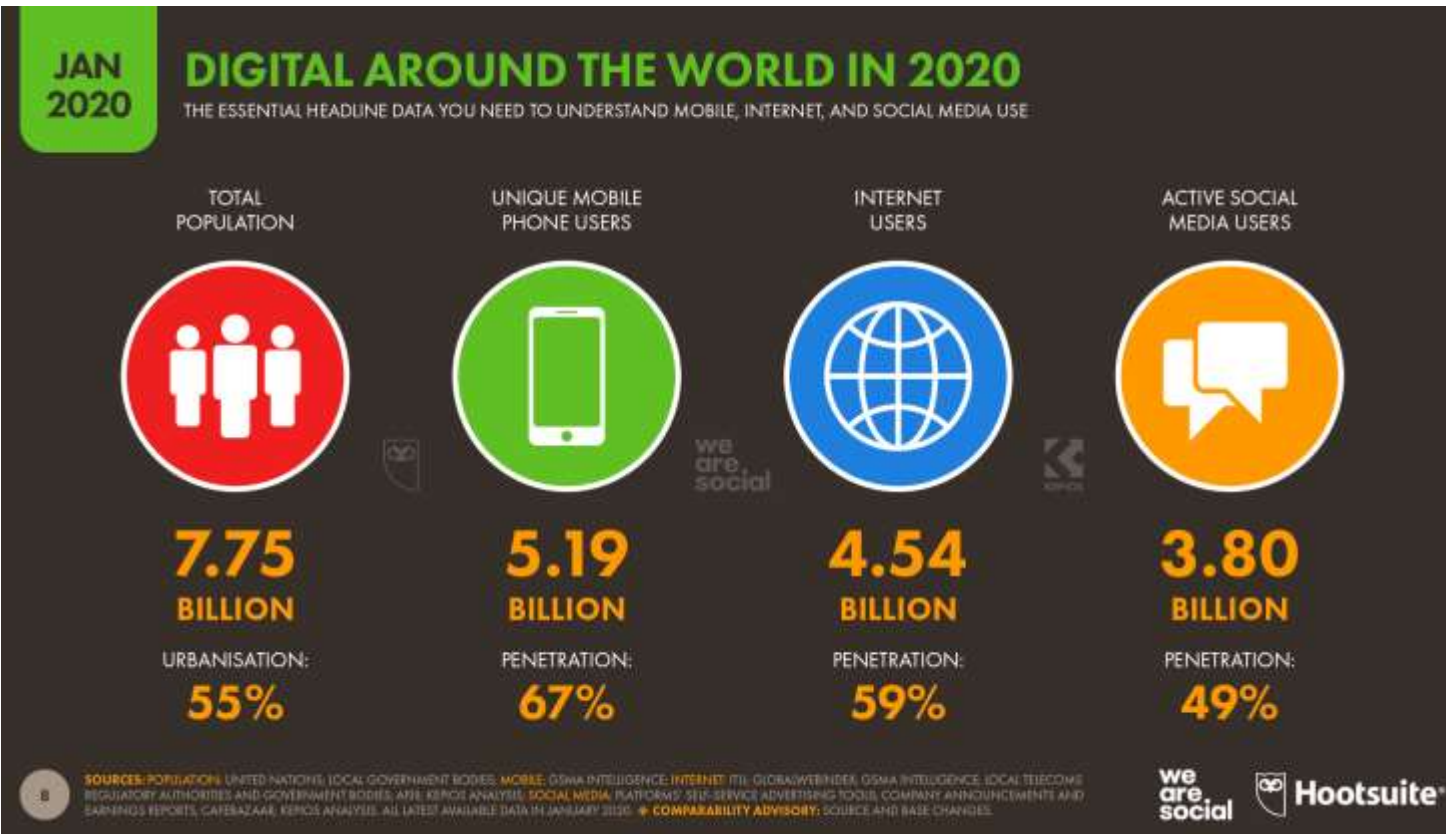
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Naeem Adibi WeLOOP, **Kristina Kerwin** CEDaCI/LSBU

Connectivity and the Data Centre



What is the
Fourth Industrial Revolution?



Industry 1.0
Steam

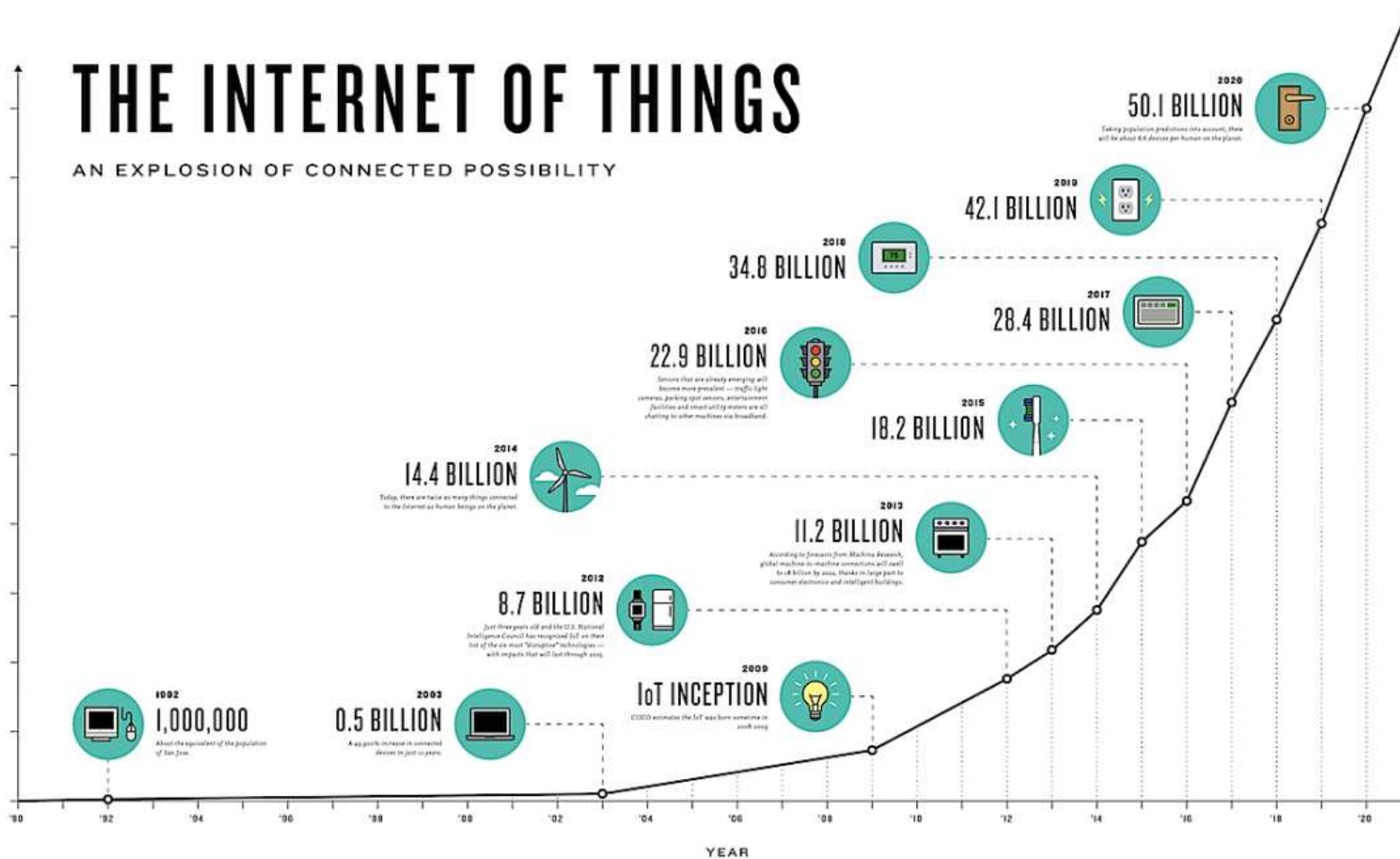
Industry 2.0
Electricity

Industry 3.0
Computing

Industry 4.0
Cyber-Physical Systems



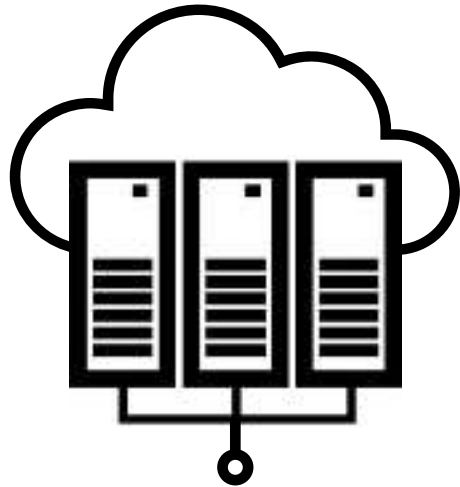
DC growth – 300% in EU by 2025 / 500% global 2030



Source: Weforum.org



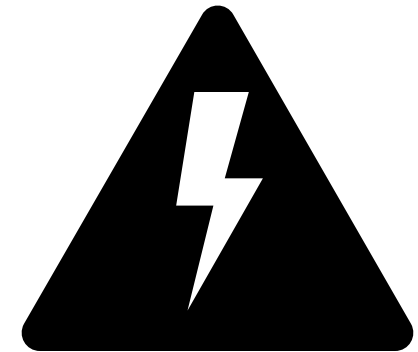
Reliance and Energy Consumption



Virtualisation



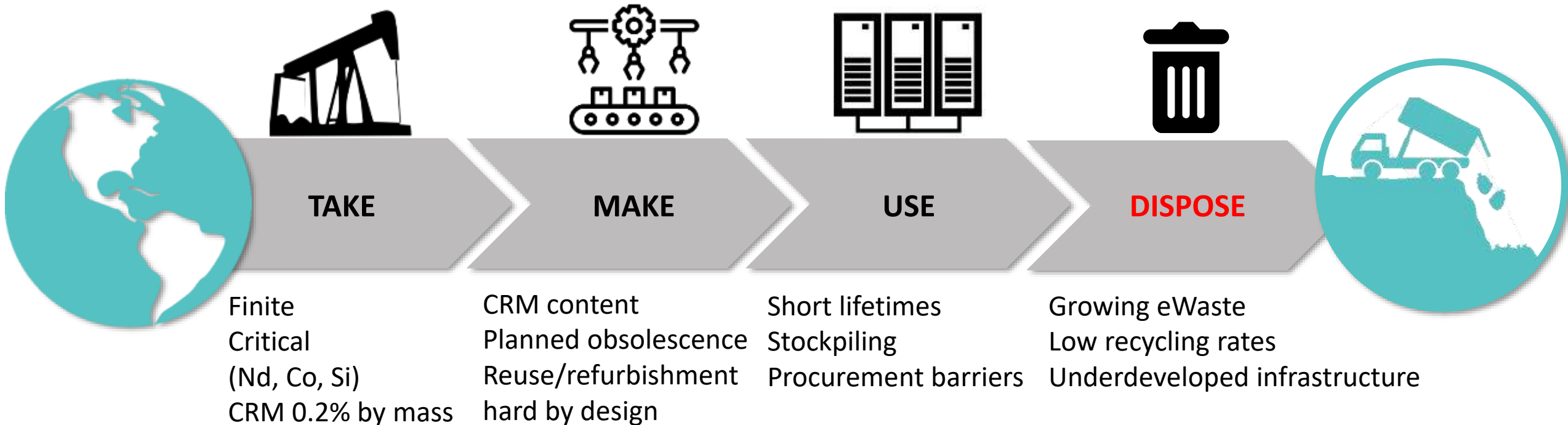
Cloud



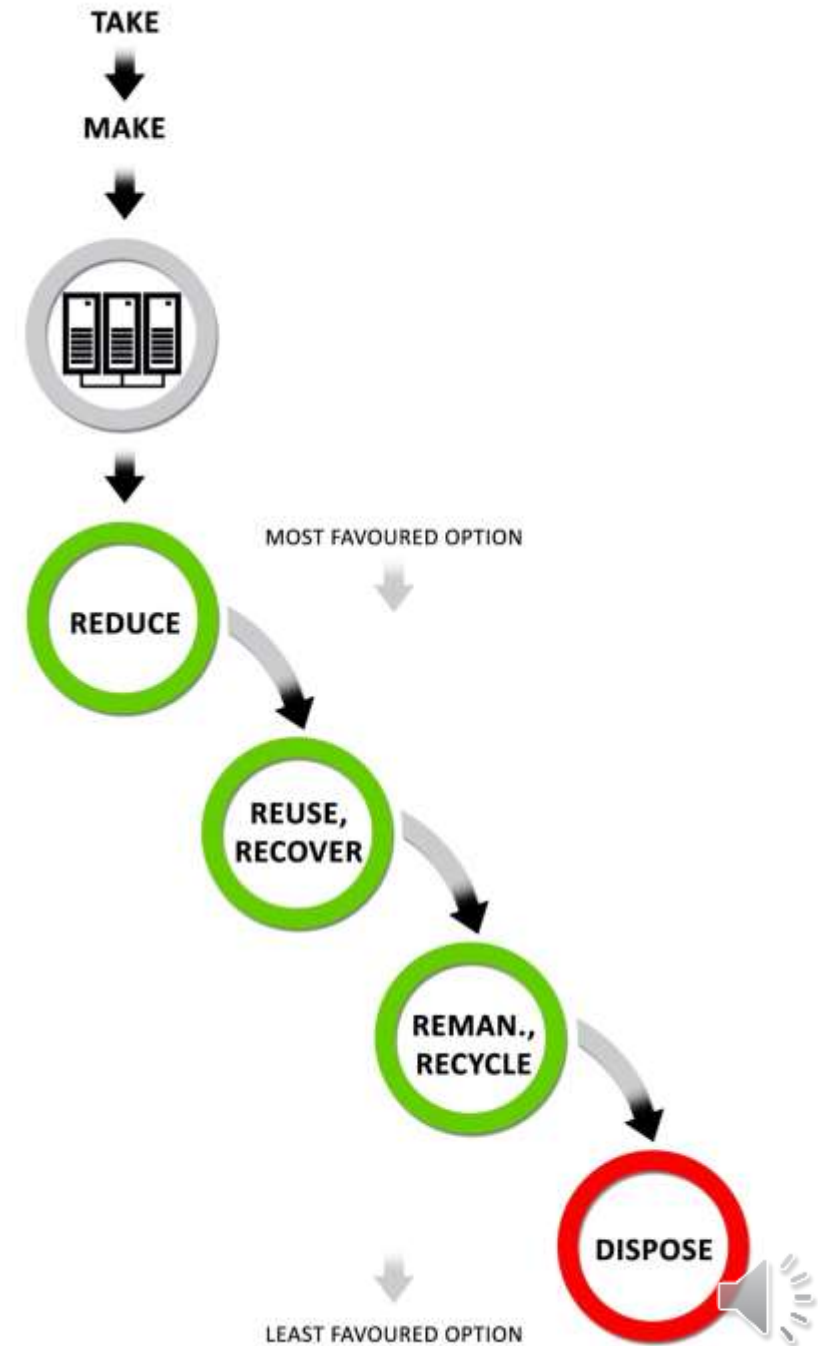
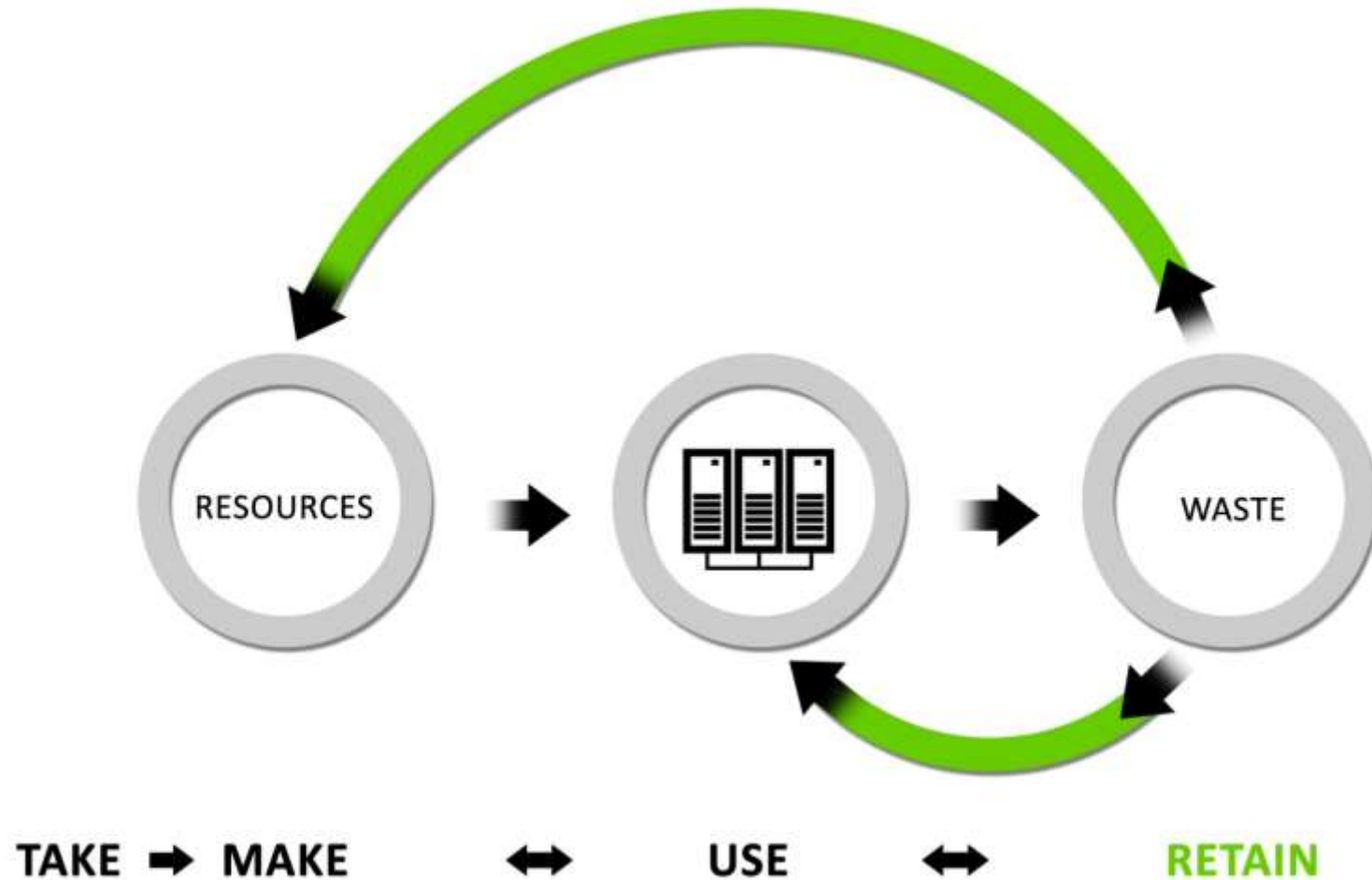
Power demand



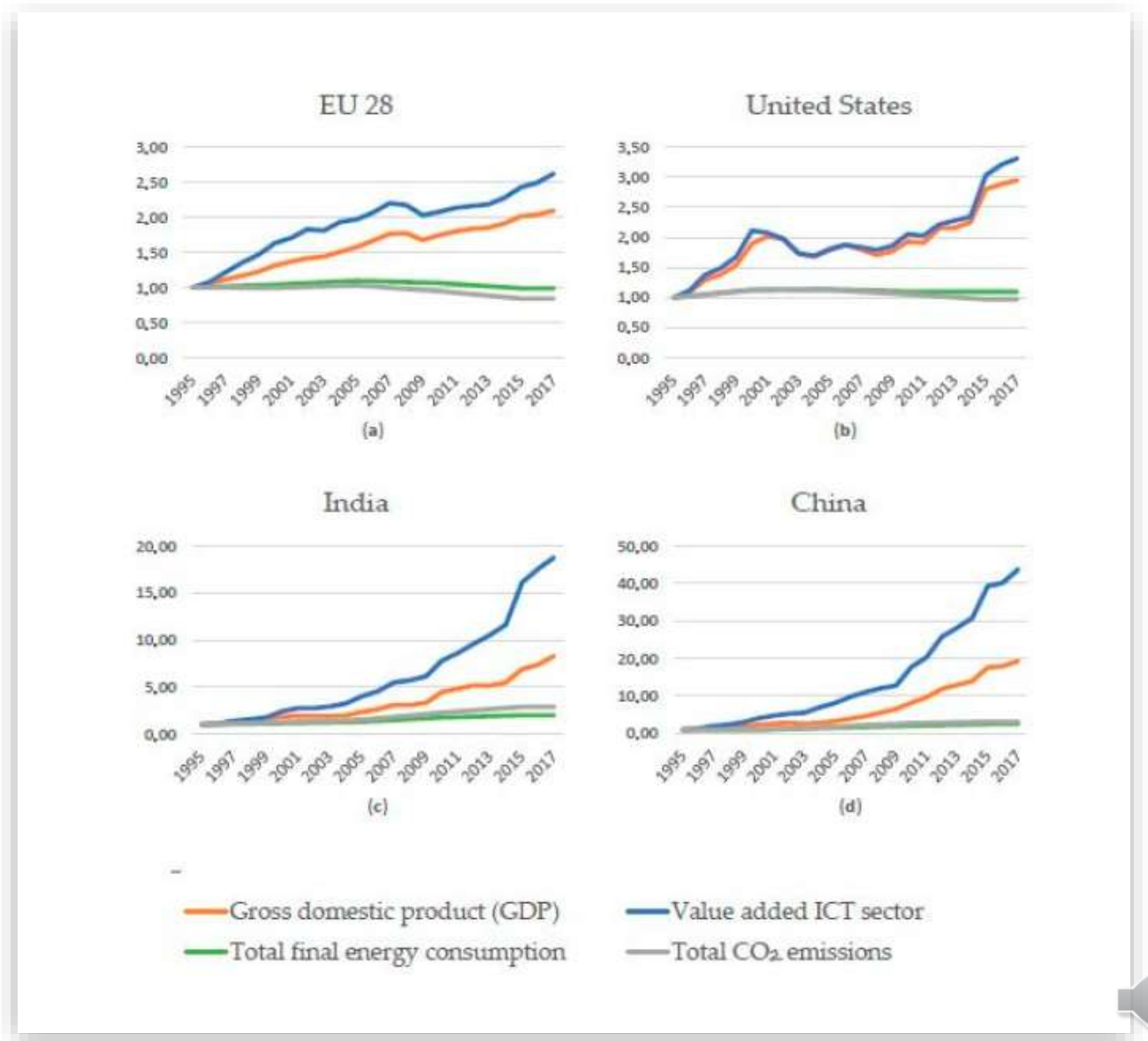
Linear Model of Consumption



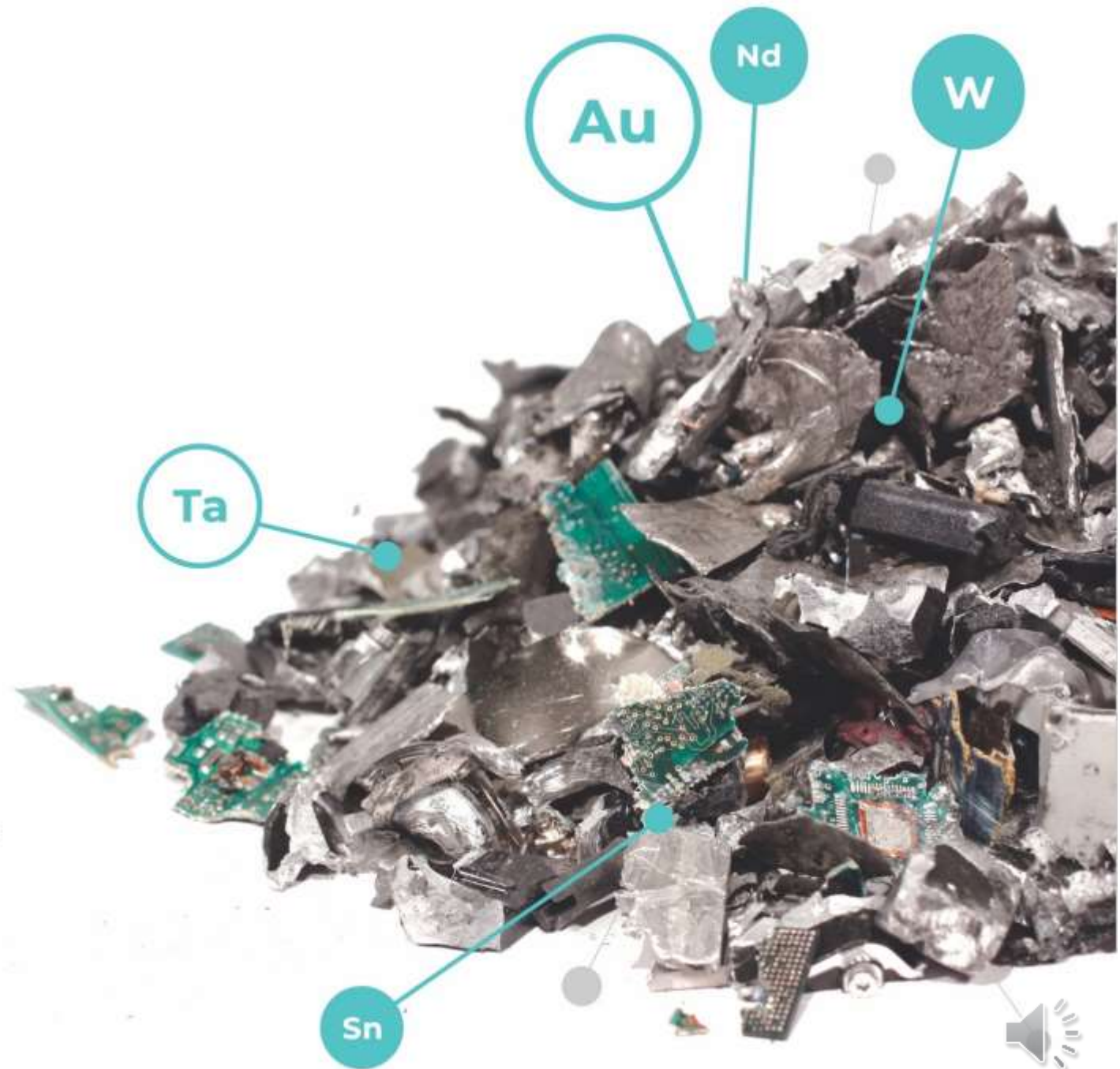
Curving the Line

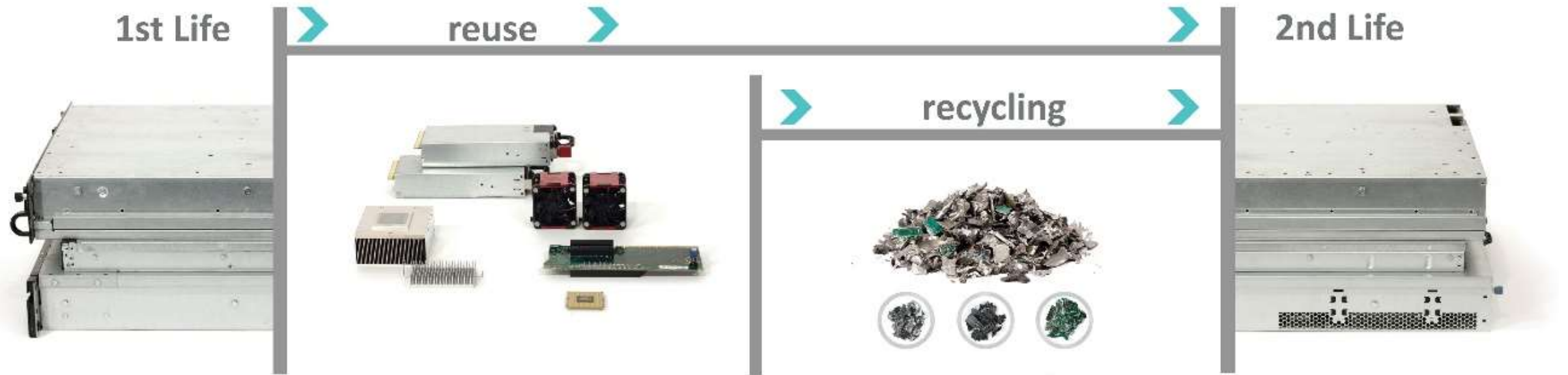


A Circular Economy Post-COVID 19



CEDaCI

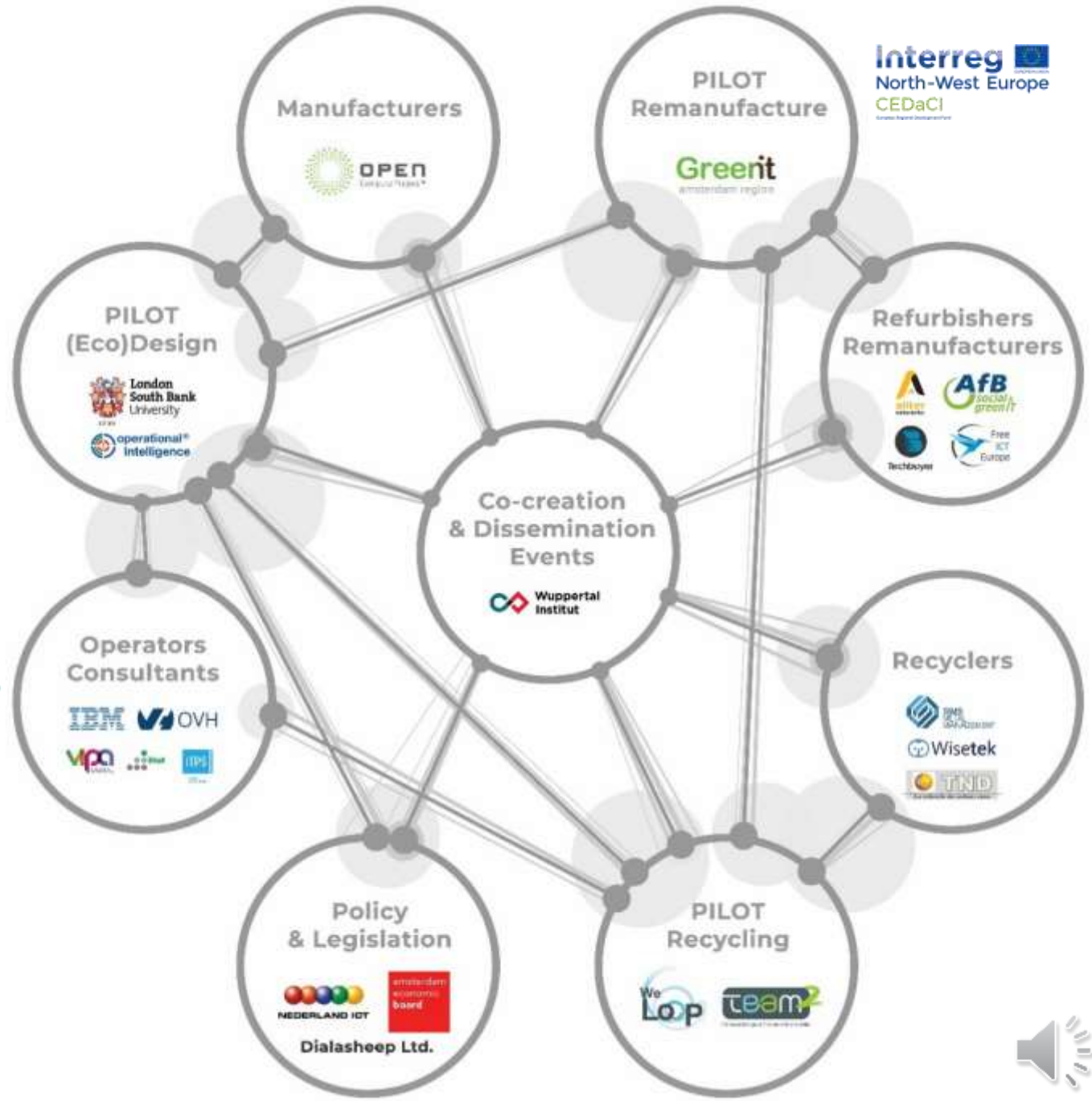
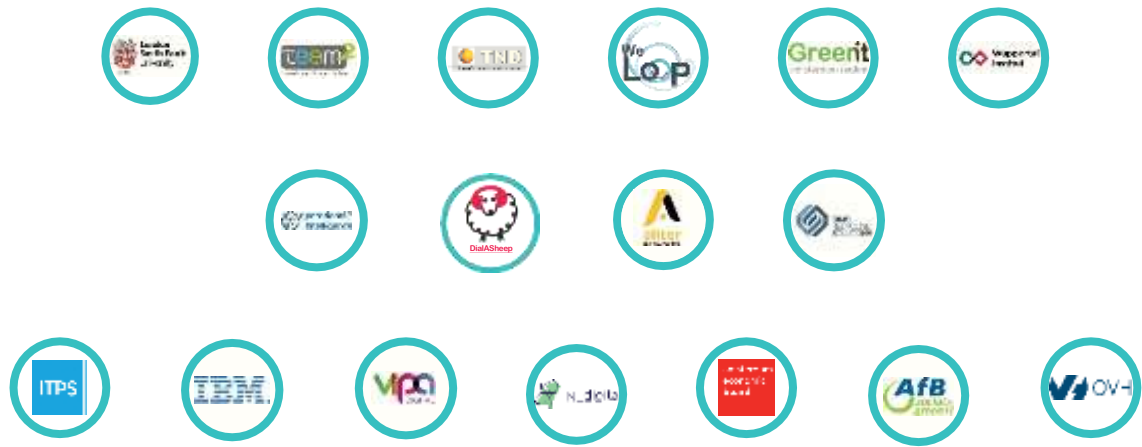




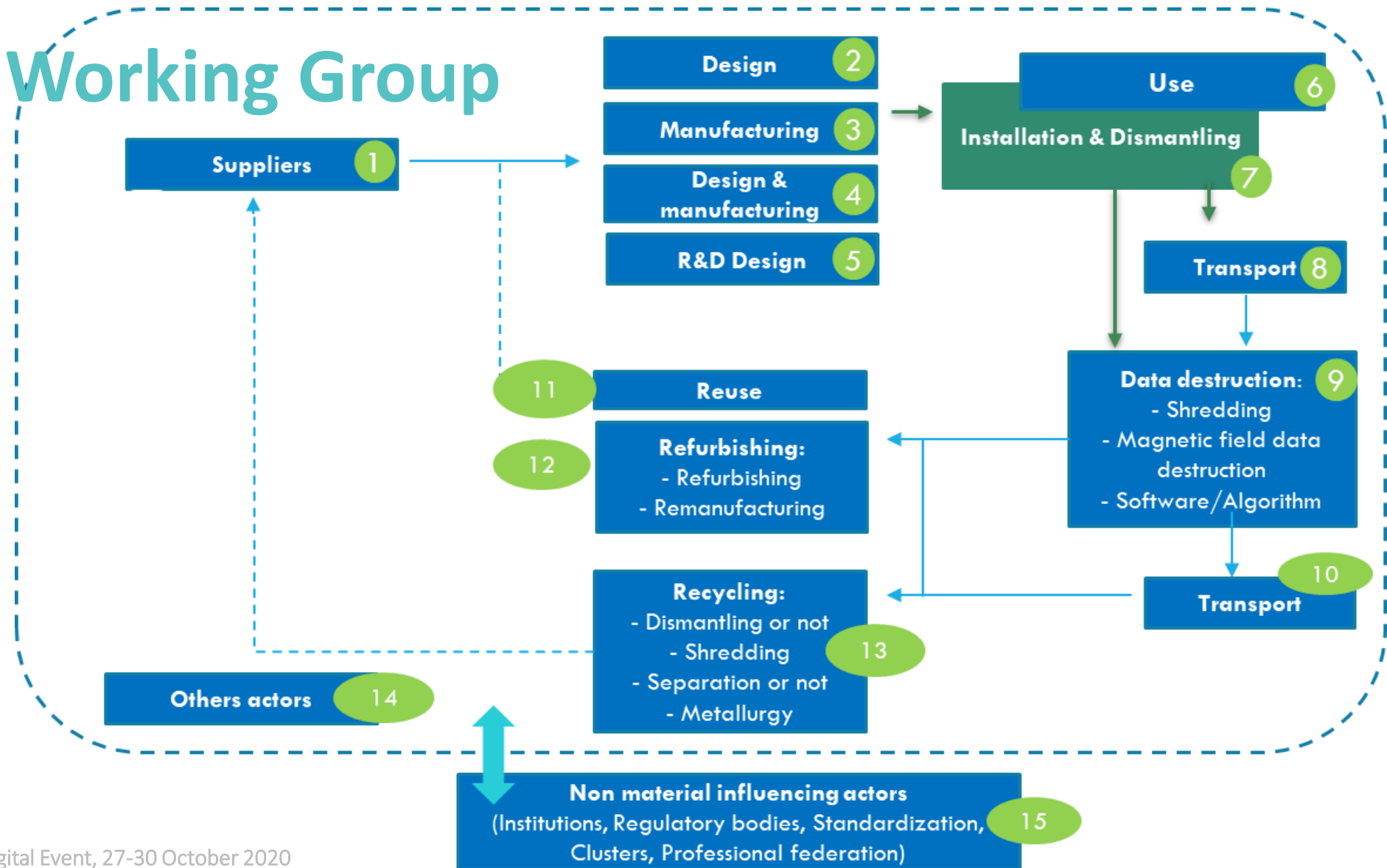
Vision

CEDaCI is a unique, interdisciplinary, ground-breaking, multi-output initiative that uses whole-life thinking and brings together representatives from all DCI sub-sectors to share knowledge and accelerate development of a sectoral Circular Economy. **It will reduce waste and prevent supply chain problems to secure uninterrupted DC operation and service in the future.**





CEDaCI Working Group

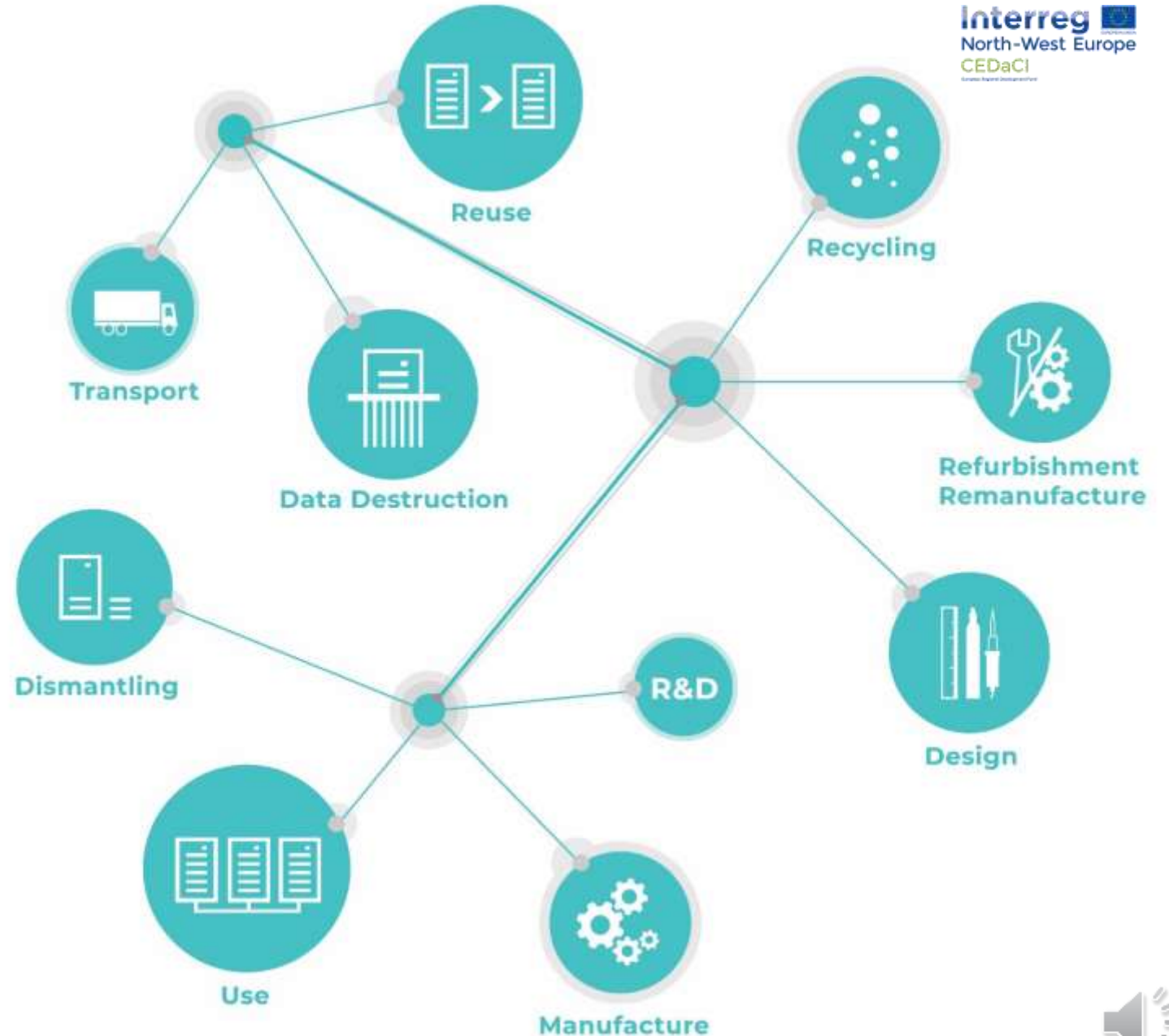


CEDaCI Network

To join:

<https://www.cedaci.org/>

Trans-national knowledge-sharing network encompassing representatives from all data centre industry life cycle stages

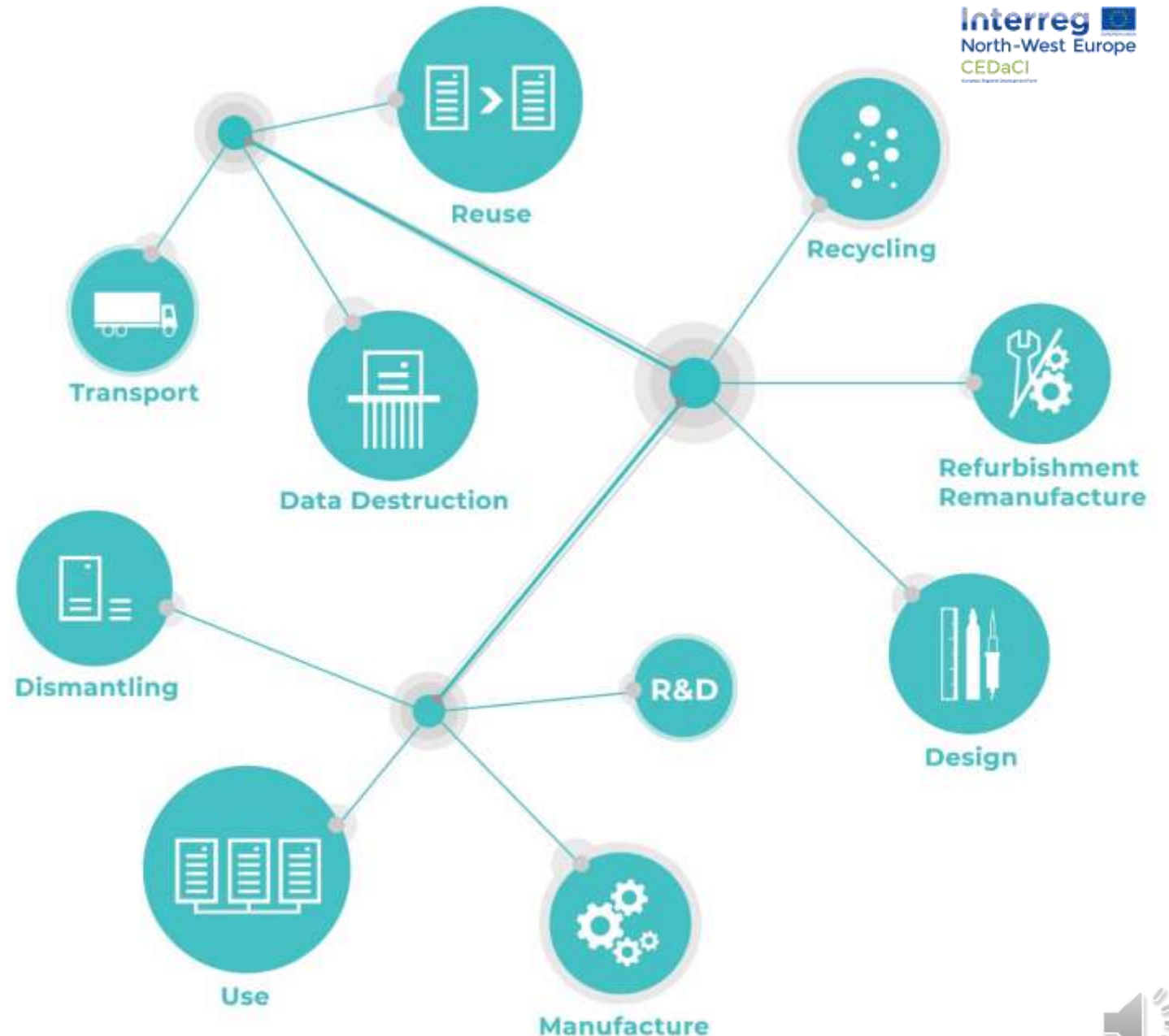


CEDaCI Network

Maximise transfer of expertise between stakeholders and the project, demonstrate the feasibility and benefits of CE practice, and boost sectoral uptake.

Members can:

- Share knowledge and ideas
- Access innovative CE case studies
- Access CE business models
- Access CE decision making tools
- Enlarge their business network



Methodology and Outputs

3 integrated pilots that focus on:

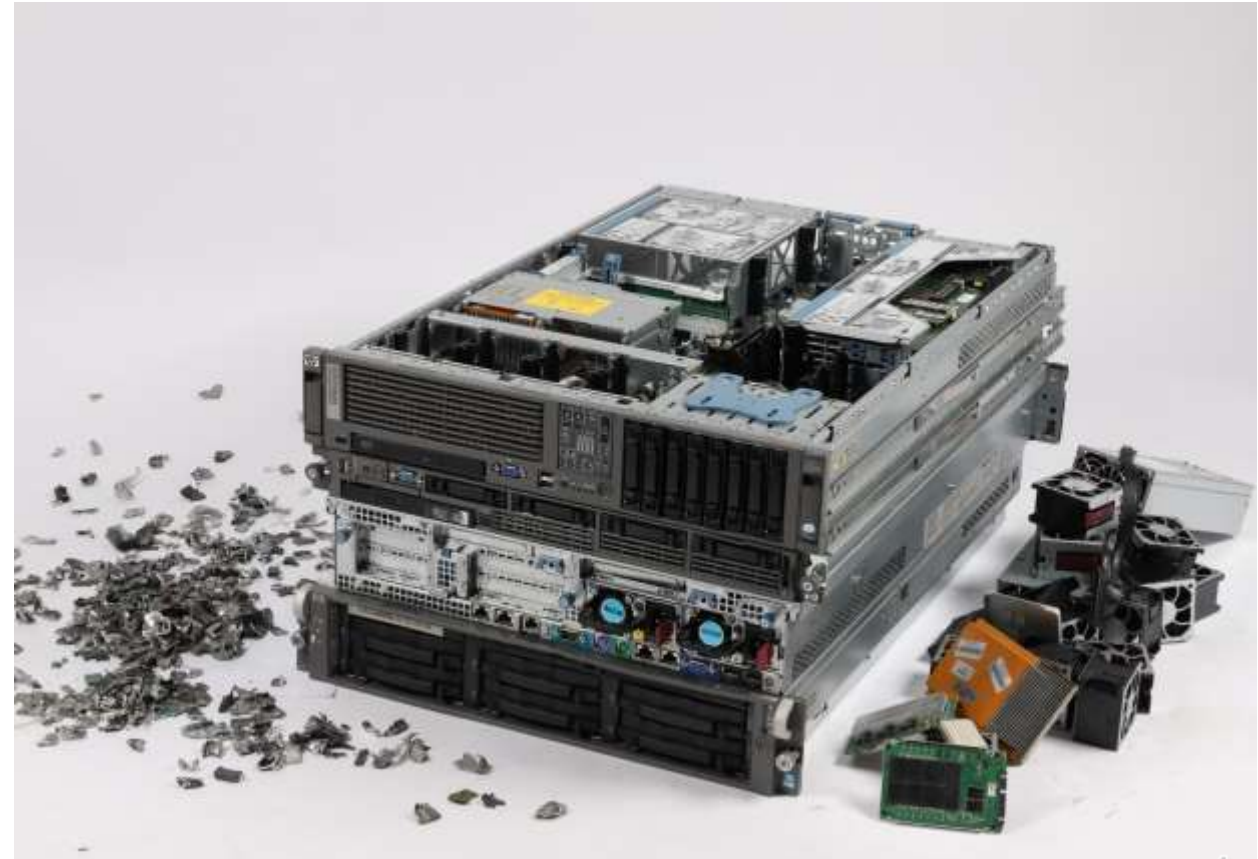
1. Design and manufacture
2. Life extension – second use & refurbishment
3. End-of-life – recycling

OUTPUTS:

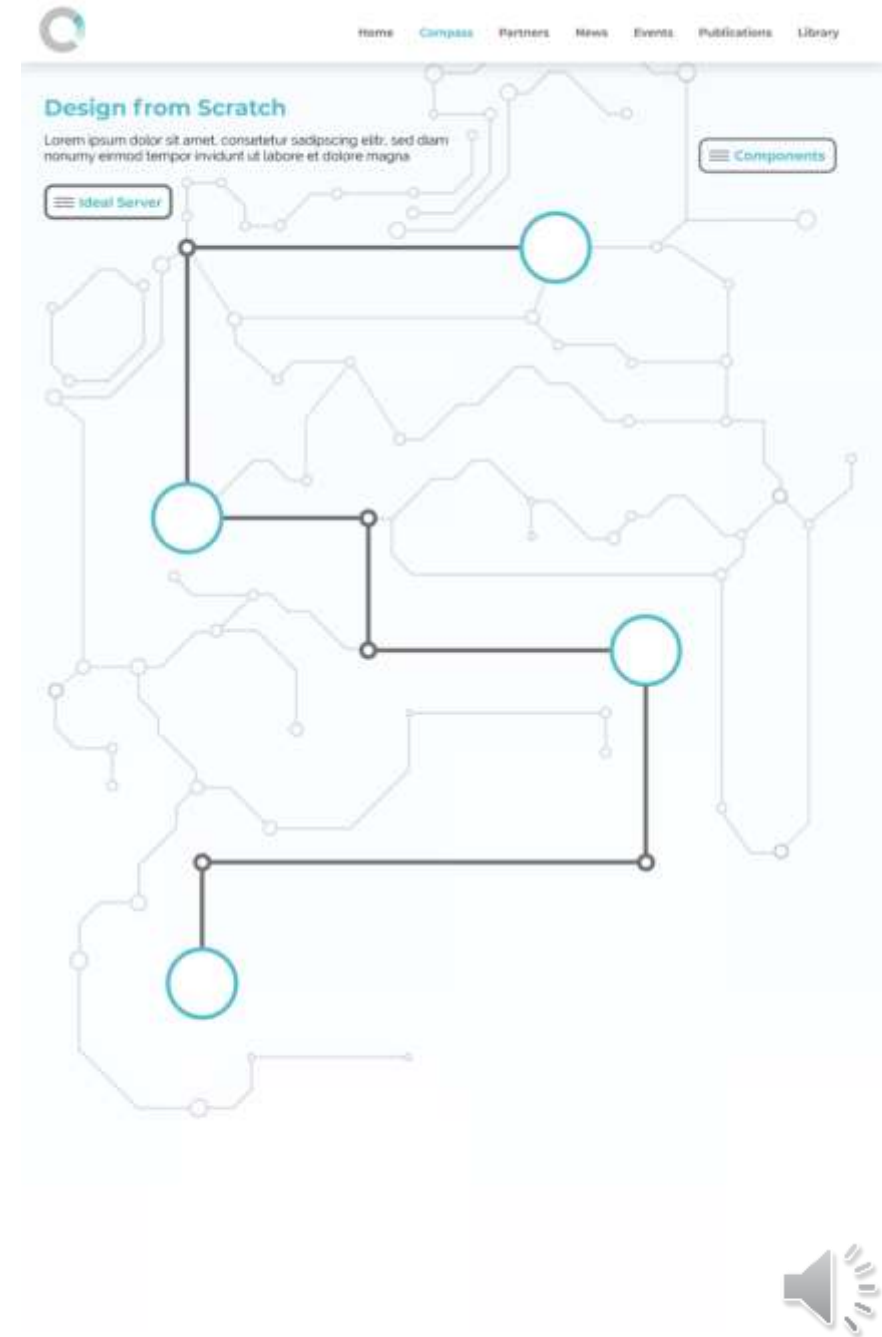
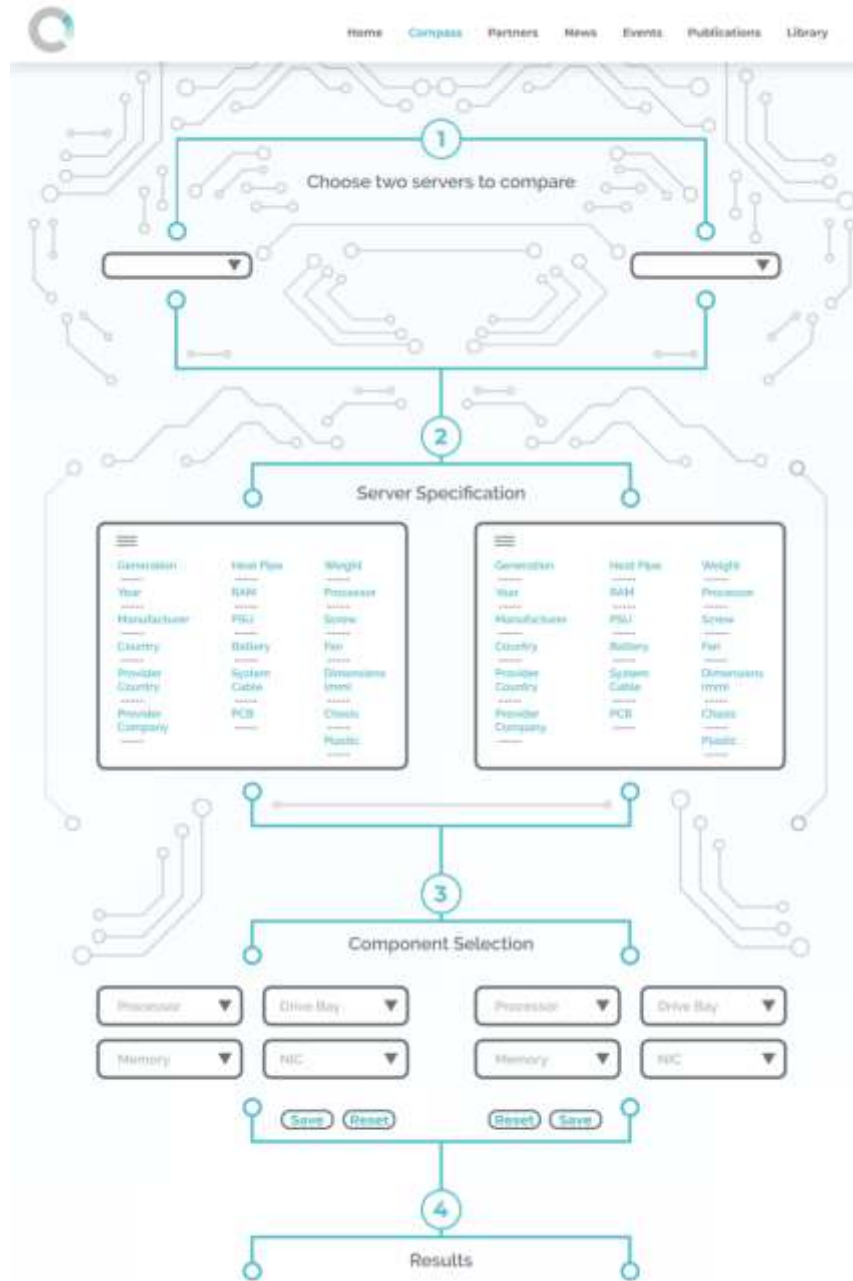
- EcoDesign/Design for CE Guidelines;
- LCA methods and database;
- CDCC – the Circular Data Centre Compass; and
- improved refurbishment, recycling and reclamation strategies.

FEED INTO:

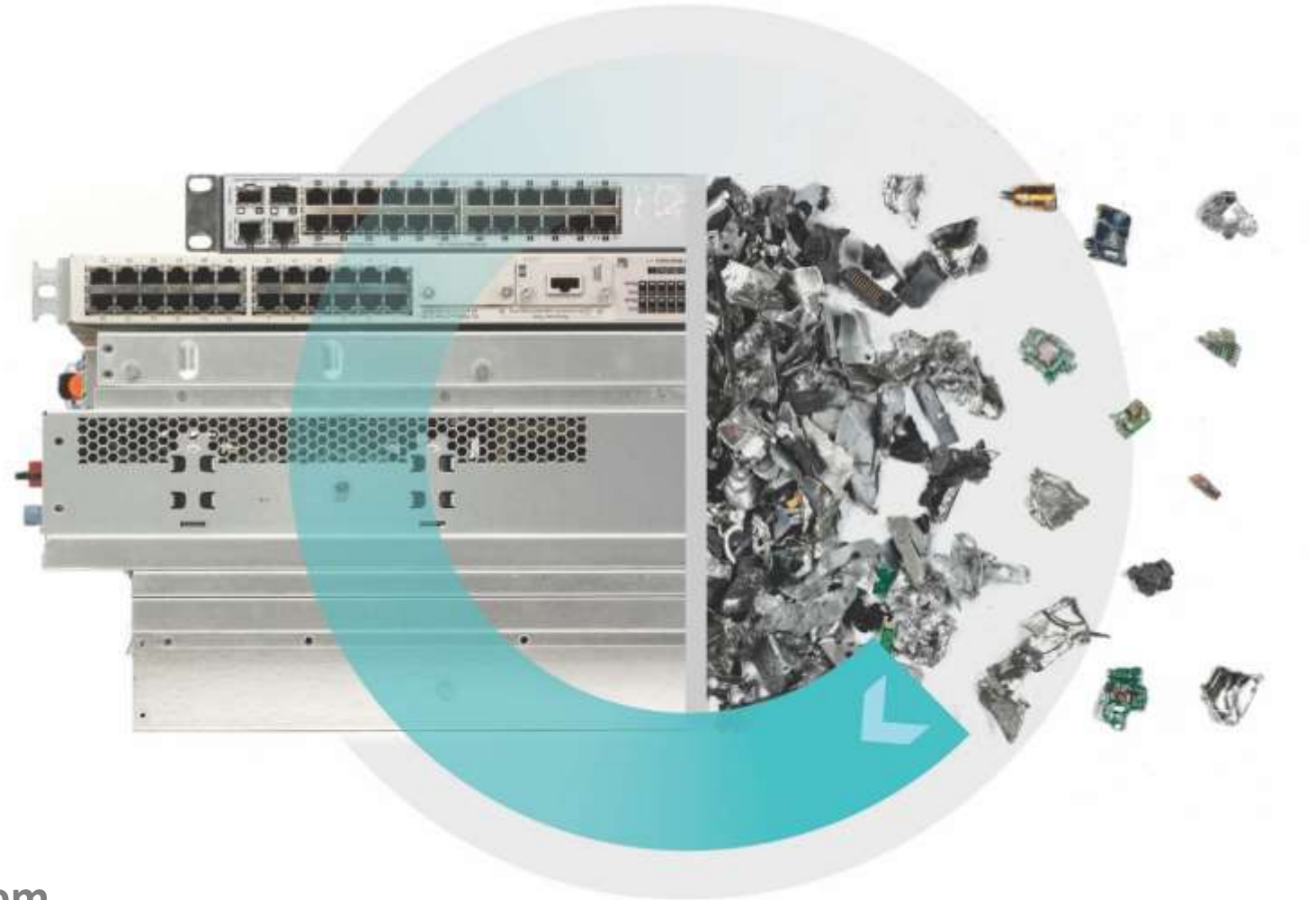
- bespoke 1-2-1 technical assistance for 50 SMEs;
- advice and guidance for policy-influencers and makers;
- Ecodesign guidelines for Circular Economy
- a physical and virtual demonstrator; and
- development of a Circular Economy for the DCI.



CDCC – Circular Data Centre Compass



Thank you – any questions?



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