Supply Chain Resource Sustainability

A collaborative and partnership game-changing model for sustainable competitive advantage

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TRL Opportunities

Resources & their supply chains

RD&D → T&I → BIG

S ← D
S ← S
D ← D
TRL Opportunities

Resources & their supply chains

R → G&S → U&S
S ↔ S ↔ S
D ↔ D ↔ D
Can industry and academia create a world leading supply chain in partnership?

1. Competition is now about supply chain against supply chain

2. To compete we need to marry up cutting edge research with seamless execution and commercialisation

3. In Sheffield, we believe that a focused and coordinated approach will deliver results
We need to build joint capability that is world leading and focus on our strengths.

Supply Chain Resource Sustainability (SCRS)

Advanced materials and manufacturing
Water
Agritech and food
Energy and nuclear

Advanced Resource Efficiency Centre (AREC)

Facilities
Partnership
Skills

SCRS 2022 Futures
We need to select areas where we can effectively build capability and collaborate.

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<th>Core</th>
<th>Non core</th>
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<td>Non specific</td>
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This collaborative approach has delivered results and it sets strong foundation with policy support going forward

**Looking back:** Success stories

- Advanced materials and manufacturing
- Water
- Energy and nuclear
- Agriculture and food

**SCRS 2022 Futures**

**Looking forward:** Achievable vision

- Competitive advantage through resource sustainable supply chains
- SCEnAT AMRC

**AREC**

Facilities

Partnership

Skills
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<th>Priority</th>
<th>Present – 12 months</th>
<th>1 – 2 years</th>
<th>2-3 years</th>
<th>3-4 years</th>
<th>4-5 years</th>
<th>5+ years</th>
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<td>Low risk risk</td>
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**Challenge Matrix**

**Time frame**
Breakout Session guidelines

• To seek opinions from industry about resource supply chain issues

• To identify key collaborative areas, capabilities, methods and tools around supply chain resource sustainability
Key Challenges and Priorities

Energy and Nuclear
- Help with defining the supply chain
- Developing coherent UK energy policy
- Understanding the future energy mix

Water
- Risk sharing is key
- Knowledge and transfer of best practice
- Understanding the difference between water and manufacturing

Agritech and food
- Engage with retailers
- Provide evidence base and ability to evaluate tradeoffs
- Innovation in energy and crop production

Advanced materials and manufacturing
- Fragility of global supply chains and resource availability
- Cyclic second life of materials
- Tools to design future supply chains
Concluding remarks and what next

Next Steps

- Prepare and issue report from this workshop
- Form collaborative group to steer SCRS/AREC development
- Create projects matrix
To Discover And Understand.