

North West Arc Clean and Sustainable Growth Partnership

A Geography for Clean and Sustainable Growth



North West Arc Clean and Sustainable Growth Partnership



Membership of the North West Coastal Arc Partnership

- | | | |
|---------------------------------|-------------------------------------|------------------------|
| Bangor University | Liverpool John Moores University | Unilever |
| Blackpool and The Fylde College | Liverpool University | United Utilities |
| Centre for Ecology & Hydrology | Liverpool Innovation Park | University of Chester |
| Centre of Nuclear Excellence | Liverpool Science Park | University of Cumbria |
| Cheshire & Warrington LEP | Lloyd's Register | Welsh Water |
| CTech Innovation | Mersey Dee Alliance | Westlakes Science Park |
| Cumbria LEP | Myerscough College | |
| EDF Energy | National Nuclear Laboratory | |
| Edge Hill University | National Grid | |
| Environment Agency | National Oceanography Centre | |
| Hitachi GE Nuclear Energy Ltd | North Wales Economic Ambition Board | |
| Horizon Nuclear Power Ltd | Sci-Tech Daresbury | |
| Innovus | Siemens | |
| JBA Consulting | STFC Hartree | |
| Keele University | Stoke-on-Trent & Staffordshire LEP | |
| Lancashire LEP | Thornton Science Park | |
| Lancaster University | Trawsfynydd | |
| Liverpool City Region LEP | University of Central Lancashire | |

With input by more than 100 SMEs



North West Arc Clean and Sustainable Growth Partnership



Leading UK low carbon innovation to drive international competitive advantage

Science & Innovation Audit (Wave 3)

Expression of interest submitted January 2016

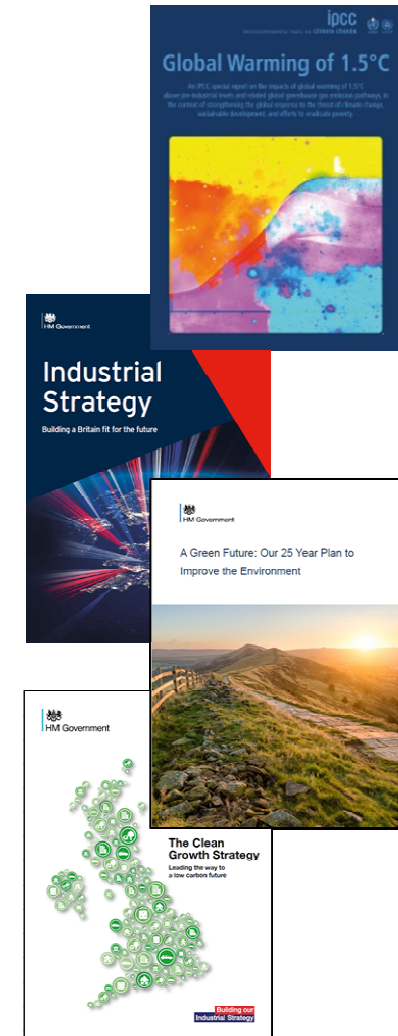
Final report published September 2018



Our Hypothesis



‘The NWCA will realise its potential as a global market leader for low-carbon and sustainable products, processes and services through greater networking, integration and connectivity across the whole of the region’s research base and business community, beyond that which exists in our current networks’.



Our Collective Vision...



Translating world-class research via innovation for Clean and Sustainable Growth in order to create regional economic value

Four foundations:

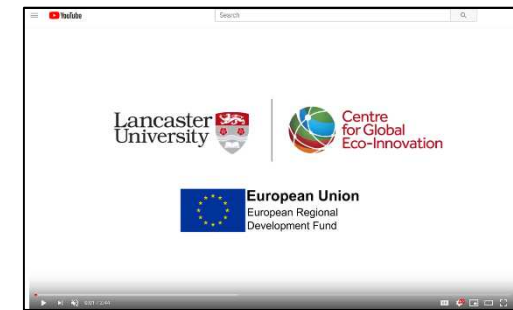
- Our industrial assets that exist across multiple sectors relevant to low carbon
- Our unique geography and natural assets are a natural test-bed for Clean and Sustainable Growth solutions
- Substantial base of significant human and infrastructure assets in science and innovation
- Our experience in demonstrating the power of business-driven collaboration through the Centre for Global Eco-innovation.



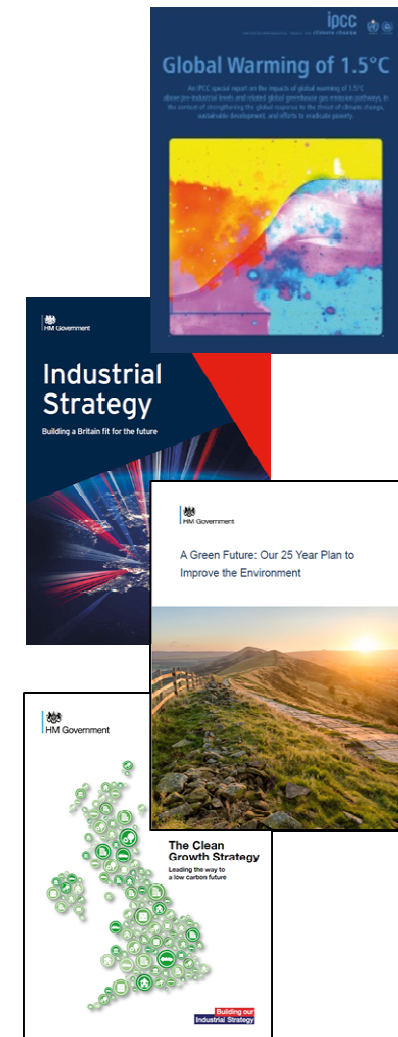
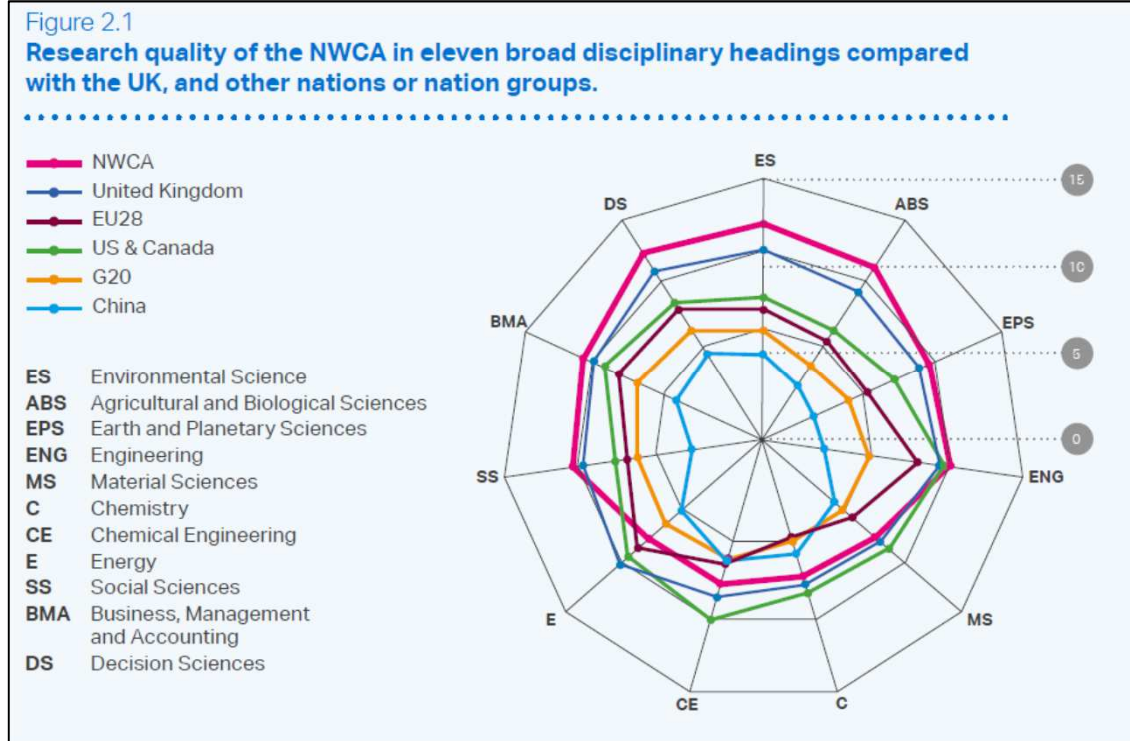
The Centre for Global Eco-Innovation[®]



- Launched 2012
- £17m funding to date
- ‘Challenge led and solution driven’
- Demands an interdisciplinary approach
- Eco-innovation the ‘engine’ for Clean Growth
- Focussed on measurable economic + environmental outputs/results



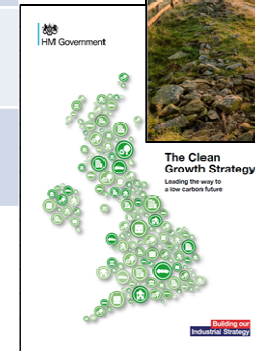
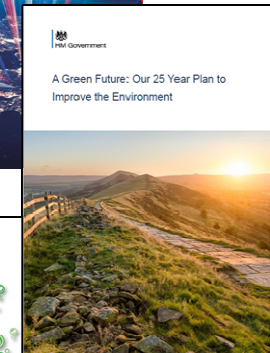
SCIVAL analysis revealed 3 world leading research capabilities



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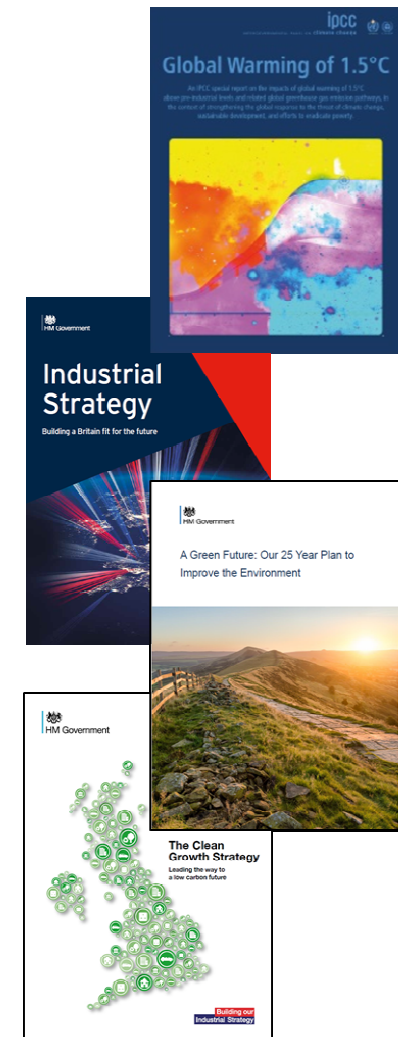
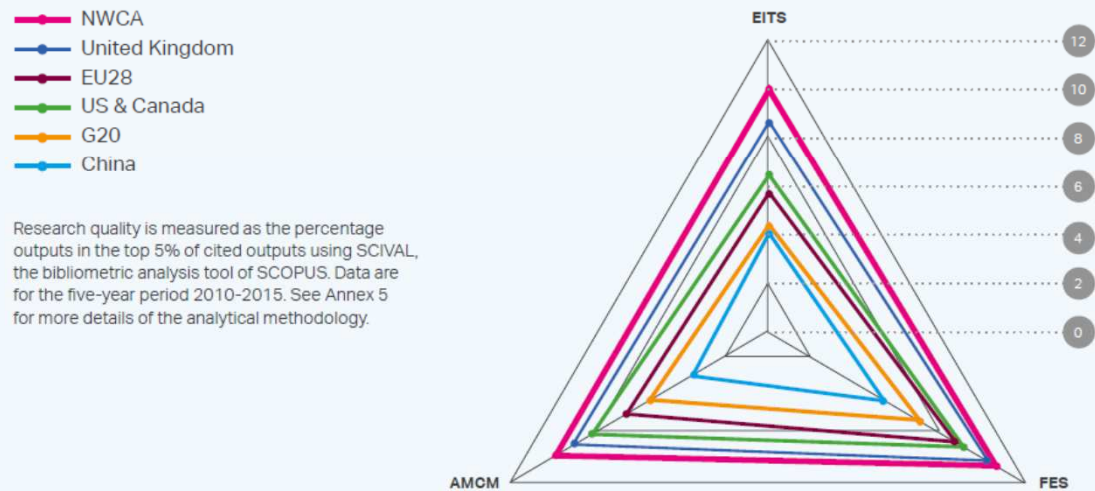
PRIME CAPABILITIES			
	Advanced Manufacturing, Chemicals and Materials	Environmental Science and Technology	Future Energy Systems
SCOPUS sub-disciplines	Analytical Chemistry	Agronomy & Crop Science	Aerospace Engineering
	Ceramics and Composites	Food Science	Architecture
	Materials Chemistry	Geography, Planning & Development	Automotive Engineering
	Metals and Alloys	Plant Science	Building and Construction
	Polymers and Plastics	Waste Management & Disposal	Environmental Engineering
	Process Chemistry & Technology	Water Science & Technology	Ocean Engineering



SCIVAL analysis revealed 3 world leading research capabilities



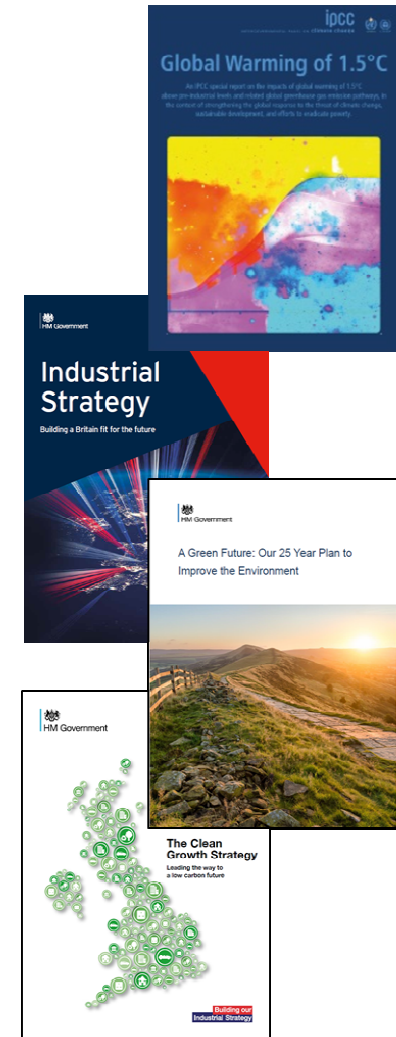
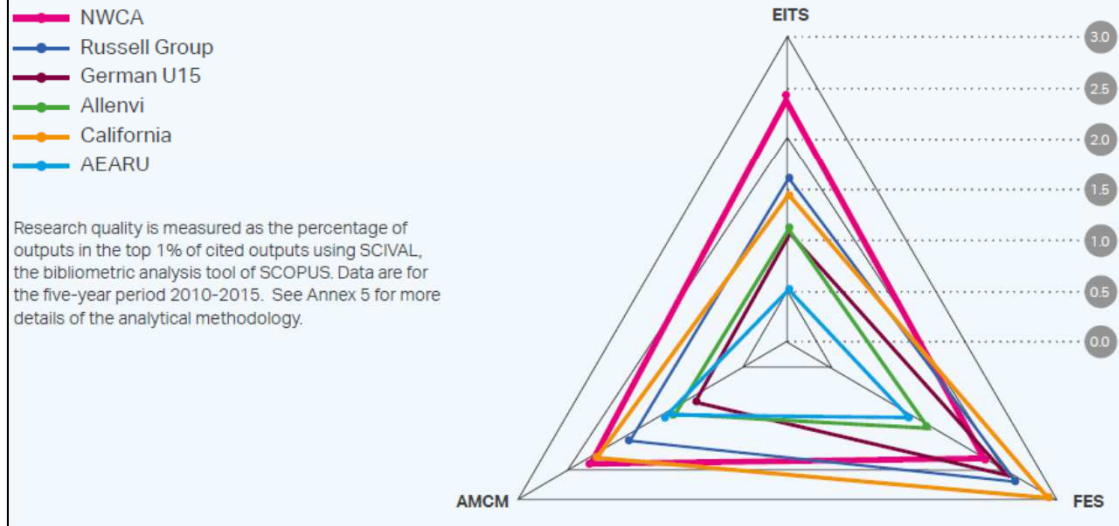
Figure 2.2
Research quality of the NWCA in the three prime capabilities of this SIA compared with the UK and other nations or nation groups. The three capabilities are Environmental Industries, Technologies and Services (EITS), Advanced Manufacturing, Chemicals and Materials (AMCM) and Future Energy Systems (FES).



SCIVAL analysis revealed 3 world leading research capabilities



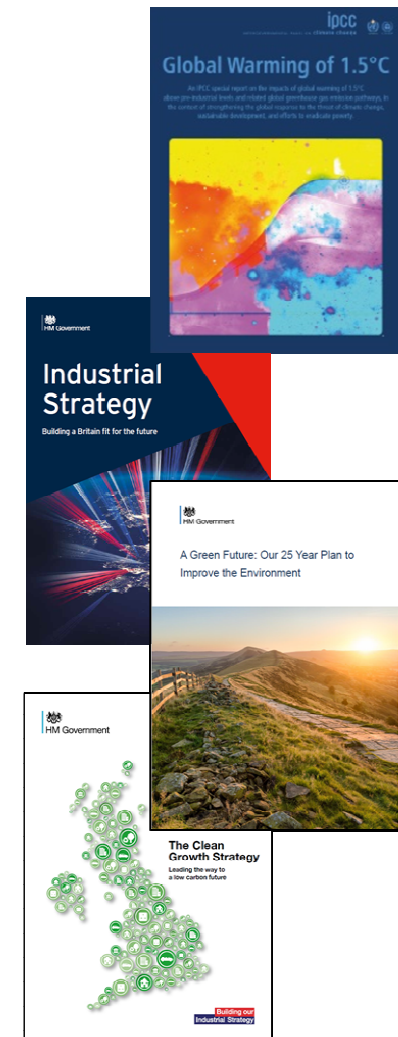
Figure 2.4
Research quality for the NWCA across our three core capabilities compared with other major university groups or regions. The three capabilities are Environmental Industries, Technologies and Services (EITS), Future Energy Systems (FES) and Advanced Manufacturing, Chemicals and Materials (AMCM).



Gaps that limit our ability to connect current capabilities with future market / application opportunities



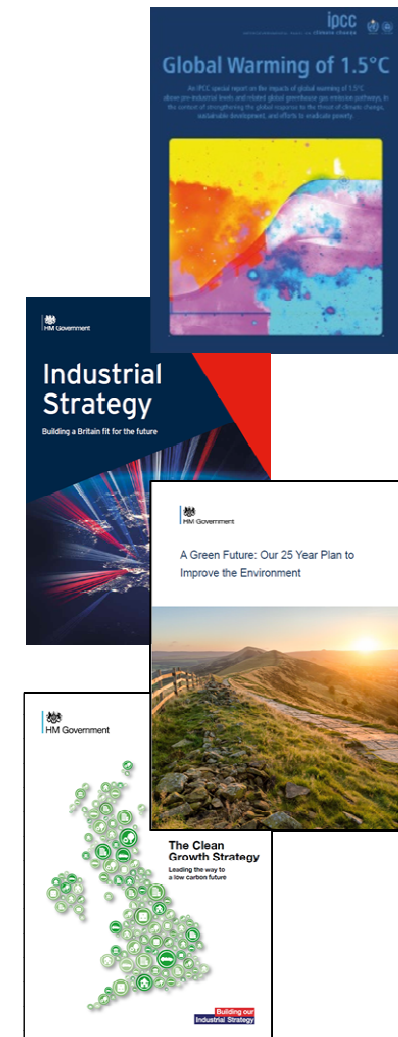
- A. A **poor understanding of the Opportunities** for Clean and Sustainable Growth.
- B. **Lack of connectivity** across the region's assets for research, development and demonstration.
- C. A **substantial skills-gap** at all levels in sectors relevant to Clean and Sustainable Growth.
- D. Limited use of the partner's **international networks** to maximize shared benefits.
- E. **Poor integration in funding** research and innovation in Clean and Sustainable Growth.



North West Arc Clean and Sustainable Growth Partnership: Opportunities



1. Communicating the economic importance of clean and sustainable growth
2. Creation of an **International Centre of Excellence for Clean and Sustainable Growth**
3. Enhanced support for *connecting business to global markets*
4. Training regional talent through a virtual **Clean Growth Training Academy**
5. Freedom/flexibility to operate at regional scales beyond LEP boundaries.



North West Arc Clean and Sustainable Growth Partnership: Opportunities



2. Improving connectivity between the region's assets for Clean and Sustainable Growth

- Develop a single point of focus— an International Centre of Excellence for Clean and Sustainable Growth.
- Specific opportunities for a more 'joined-up' approach to the region's existing research, development, demonstration and co-location facilities.



North West Arc Clean and Sustainable Growth Partnership: Next Steps



Next Steps: a plan for implementing the opportunities identified by this Science and Innovation Audit

Autumn 2018	Next steps post publication – a discussion meeting with BEIS. December 2018
	Final Clean and Sustainable Growth SIA published and formally launched
	Regional launch of SIA and the North West Coastal Arc Alliance for Clean and Sustainable Growth “Clean and Sustainable Growth Roadshow” by all Alliance partners to communicate the key outcomes and recommendations of the audit “on the ground” in all the sub-regions of the NWCA. Partner representatives on alliance steering group agreed, and times/dates of monthly meetings of the steering group agreed until July 2019
Winter 2018-2019	Planning for Alliance communications under the ‘2019 Year of Action for the Environment’ begins
	Steering group leads a scoping exercise to review work-streams. The current proposal is that the work-streams will be based on Opportunities 1-4 above, but that Opportunity 4 in particular might generate multiple work-streams.
Early 2019	Initial alliance communications and engagement activities under ‘2019 Year of Action for the Environment’ (continues through the year)
	Final work streams agreed, including decisions on which partner leads which work-stream
Spring 2019	Work stream carry out their activities
Early summer 2019	Work-streams assessments and recommendations submitted to alliance steering group
Late summer 2019	Steering group agrees priority actions.
Autumn 2019	Planned Centre for Global Eco-Innovation Conference (September 2019) will provide a public-facing platform to communicate further steps



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