

TEA@SUNRISE

A Next Generation Solar Network for Transforming Energy Access

@info_specific
#ActiveBuildings
#GenerateStoreRelease



About the SPECIFIC IKC



Swansea University
Prifysgol Abertawe

- Innovation & Knowledge Centre
- Fundamental research and development through to building demonstration
Printed photovoltaics, Battery electrode manufacture, materials re-use and recycling
Innovation & Knowledge Centre
- Full Scale Building Demonstration Program



The POD



The Active Classroom



The Active Office

W: <https://specific-ikc.uk>

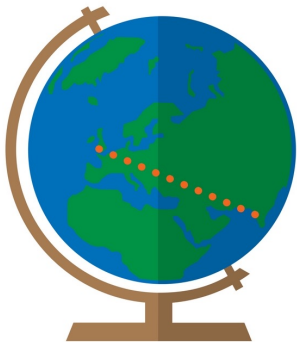
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Strategic university network to revolutionise indian solar energy

"Solar technology is evolving, costs are coming down. . . The dream of universal access to clean energy is becoming more real. This will be the foundation of the new economy of the new century." – Prime Minister Modi

International Network

Interdisciplinary partnerships across UK and India, with a global network of industrial support

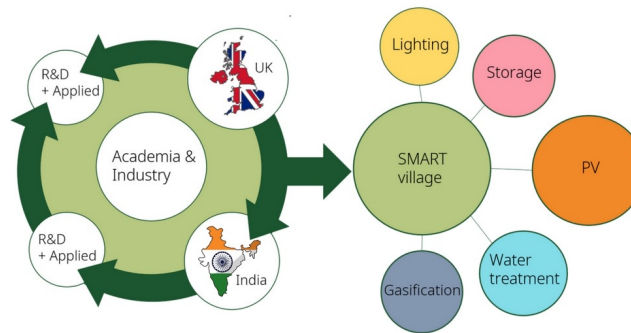


Led by Swansea University in partnership with:

- IISER Pune
- NPL New Delhi
- IISc Bangalore
- JNCASR Bangalore
- IIT Delhi
- IICT Hyderabad
- IIT Kanpur
- University of Oxford
- University of Cambridge
- Imperial College London
- Brunel University London

Growing Capabilities

Developing and delivering solar power technology through innovation and collaboration with India

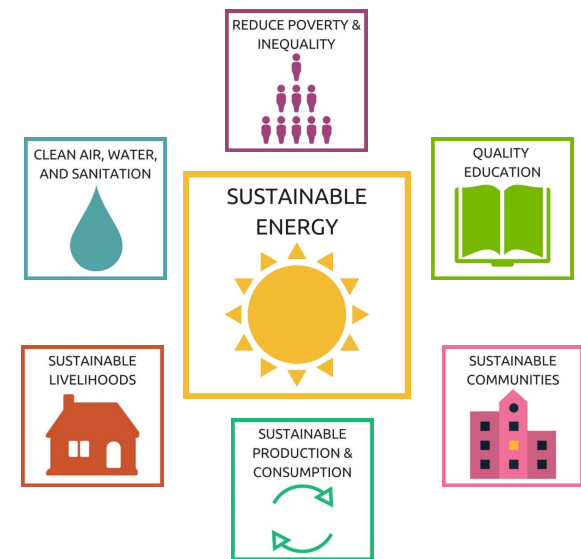


Delivery and Legacy

- Development of low-cost PV, potentially manufactured locally
- Demonstrators at a minimum of five rural Indian villages incorporating PV, storage, lighting, water treatment, and gasification
- Co-created industrial engineering doctorate programme linking Indian research with industry
- Long term UK/India solar energy collaboration and trade opportunities

Providing Sustainable Energy

Contributing to several GCRF challenge areas but with a focus on 'affordable, reliable, sustainable energy'



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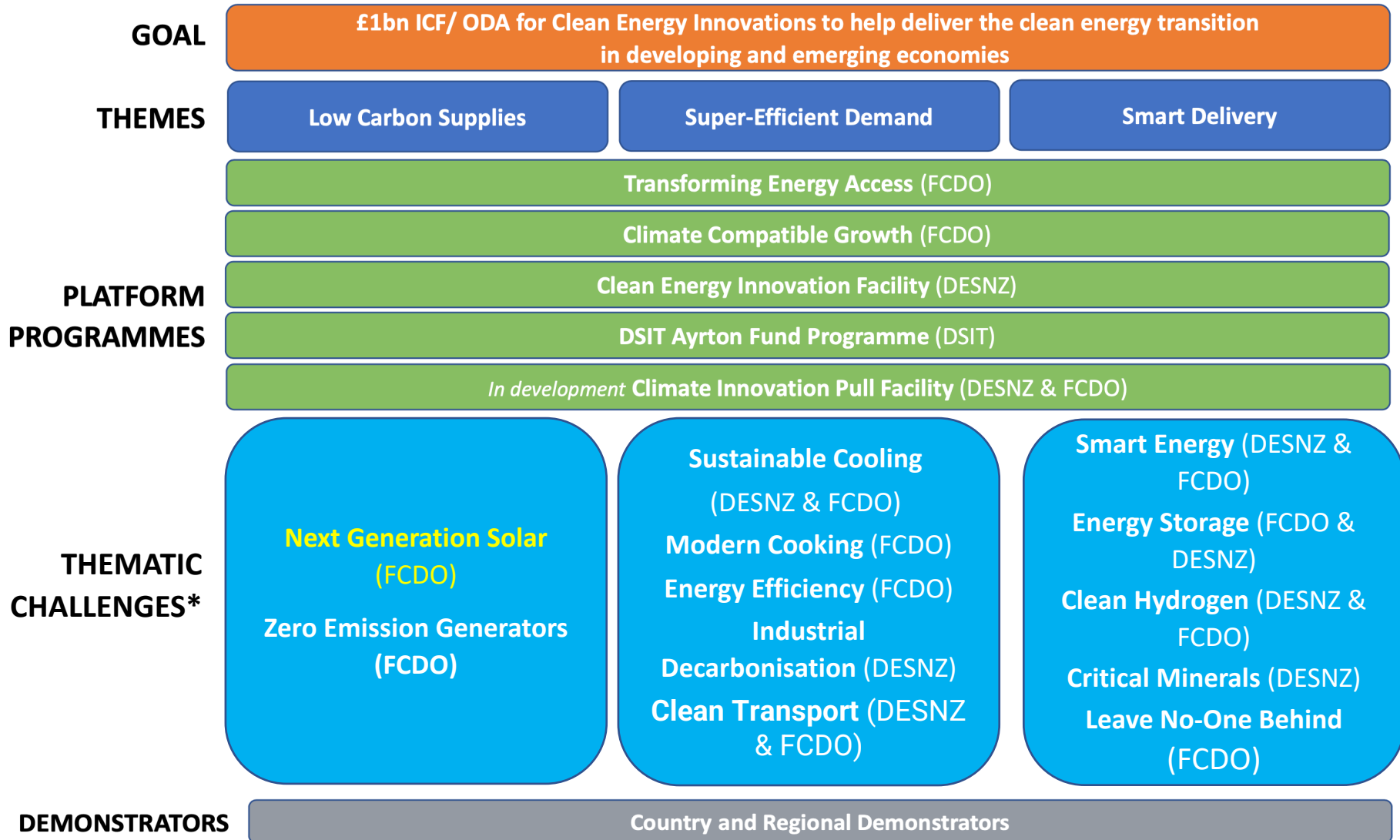
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Why Next-Generation Solar?

The Opportunity

- The UK is at the forefront of Perovskite and OPV developments. These present an opportunity to **bring PV manufacture much closer to its point of use**, reducing logistics costs, creating jobs, and utilizing lower carbon sources of electricity.
- Encouraging diversification of manufacturing locations and promoting responsible practices in the solar energy supply chain may help to **mitigate the potential environmental, economic, and ethical challenges** associated with concentrated PV production.
- The IEA forecasts that 125GW of PV will be installed in Africa before 2030. PV generated electricity is already cost competitive with natural gas on the Continent and with further cost reductions and logistics improvements its competitiveness is set to improve even further. With abundant solar energy, mineral resources and a large continental market **can Africa become a manufacturing hub for efficient, low-cost PV modules?**

WP1: Outreach

Building the network

WP2: Market Acceptance

What is needed to enter the market?

WP3: Mapping of the State of the Art

Materials, properties, TRL

WP4: Opportunities for Next-Gen Energy Technologies

What and where?

WP5: End of Life/Circular Economy

Opportunities for best practice with current and next-gen modules

WP6: Inclusivity

Ensuring a just energy transition and that no-one gets left behind

WP7: Ayrton Challenge Leadership

- Strategic leadership coordinated across the Ayrton portfolio (> TEA)
- Identify and communicate the R&D needed to cross critical thresholds of viability or performance to reach commercialisation.
- Communicate technology breakthroughs that may impact on other Ayrton Challenges
- Develop a joined-up and integrated pathway of support and acceleration for the development, deployment and long-term impact of next generation solar technologies for emerging economies

NETWORK MAP



SOCIAL MEDIA / WEBSITE



sunrisenetwork.org



x.com/SUNRISEnet1



linkedin.com/company/sunrisenetwork



youtube.com/@sunrisenetwork1589



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<https://ayrtonfund.info>



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A global network aiming to achieve #SolarPowerForAll through the deployment of next-generation solar technologies.

📍 Swansea, Wales sunrisenetwork.org 🗓 Born 12 April 1996
📅 Joined January 2018

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 **SUNRISE** @SUNRISEnet1 · 14 Feb
Introducing... TEA at SUNRISE! 🌞

A new collaboration will build on the success of SUNRISE to enable sustainable, locally manufactured PV in Africa, Asia, and the Indo-Pacific 🌍

Read more 🌞 sunrisenetwork.org/news/new-colla...

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