

Funded by:

**EPSRC**

Engineering and Physical Sciences  
Research Council

# Supergen



Offshore  
Renewable  
Energy

## Update on Progress

Lee Richards  
Supergen ORE Hub Manager

# Structure

## Our Management Group

Bringing together shared skills and expertise, allowing transfer of fundamental knowledge, shared learning and use of resources for interdisciplinary research.



Supergen ORE Hub Director  
Prof. Deborah Greaves  
University of Plymouth

+9 Co-Directors:



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# Structure

## Our Advisory Board

A wide group of stakeholders from across ORE disciplines, representing Research, Industry, Government, Academia, Innovation and Third Sector.



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# Objectives

- provide 'Visible Research **Leadership**'
- **Inspire**
  - execute, publish and inspire distinctive and ambitious world class research through the **core programme**
  - facilitate a programme of co-ordinated UK led research through the **flexible fund**
  - become a 'beacon for **equality, diversity and inclusion (EDI)**'
  - support development of **early career researchers (ECR)**
- **Connect**
  - be a respected voice for policy makers and a trusted partner for industry
  - have strong international collaboration
  - take a whole systems approach to ORE

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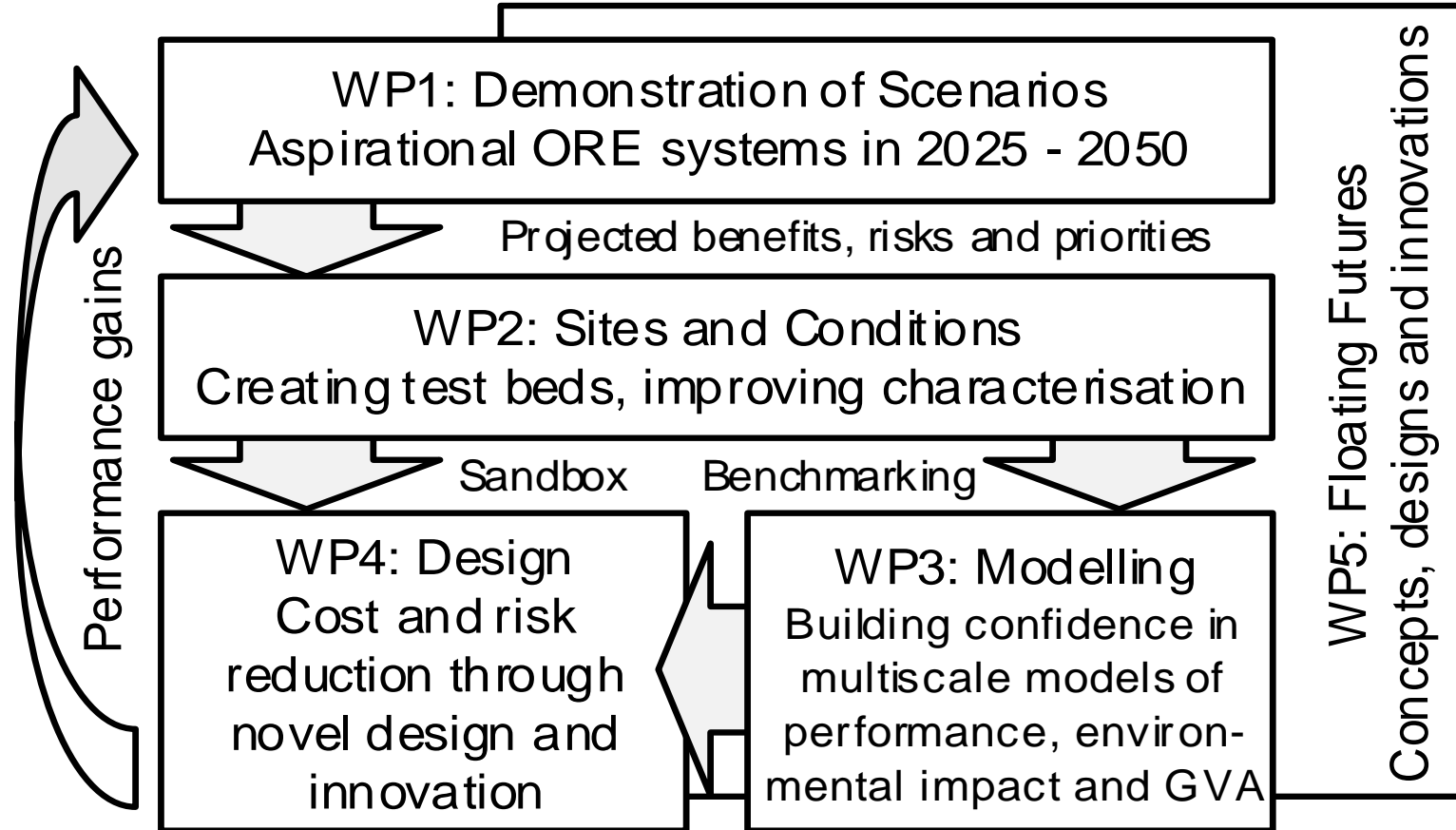
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# Core Research



# Aspirational future ORE Systems

## A large scale floating ORE Farm

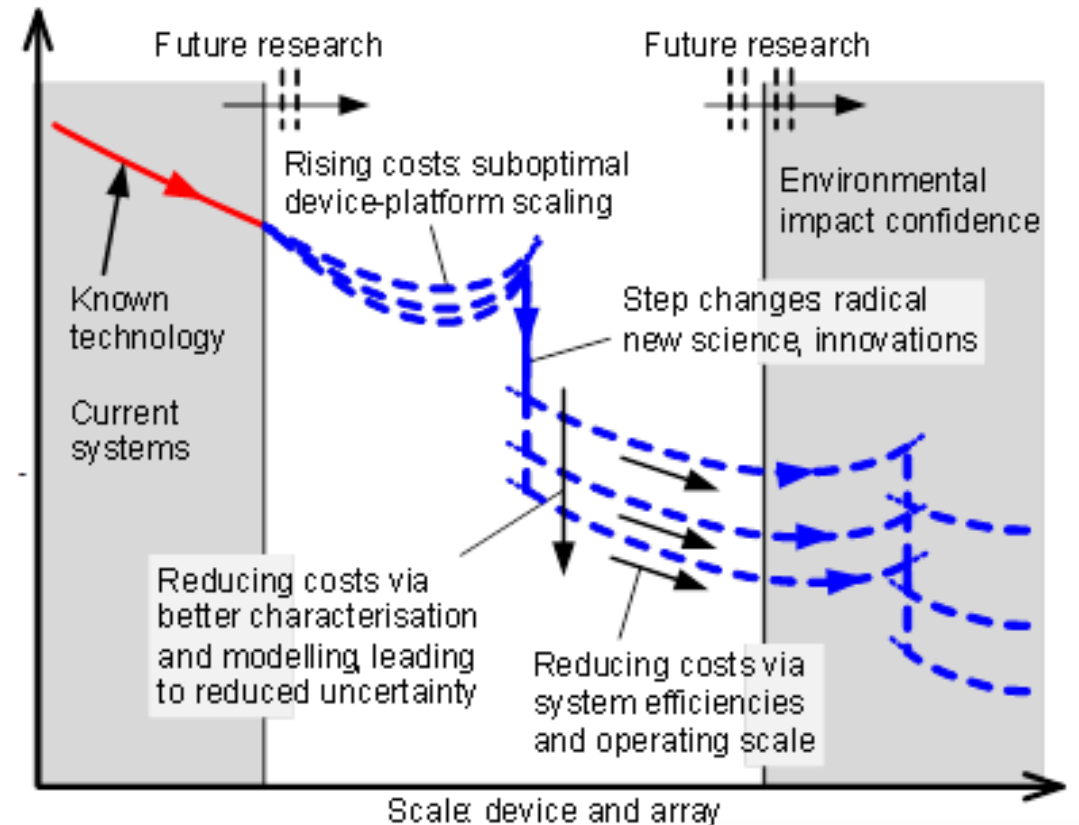
- A multi-GW floating ORE farm, unlocking ORE beyond the water depths currently targeted, and creating a step change in farm scale via innovative new engineering systems.

## Scaled-up and safe exploitation of tidal streams

- Reliable, predictable and commercially performing arrays that are ecologically acceptable.

## Viable farm-scale wave energy

- Scaled, multiple, commercially affordable wave devices.



# Second tranche of funding secured

- Following submission of second proposal to EPSRC, Supergen ORE Hub secured an additional £4m of funding in June 2019 – bringing **total funding to £9m**
- Additional funding is split between **additional £2m of Flexible Funds** and employment or extension of additional researchers across the 10 partner institutions to work in core research areas

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# Flexible Fund – First call completed

- Flexible fund total available **£3.5 million**
- First call released on 17<sup>th</sup> April 2019 now closed (deadline 12<sup>th</sup> June)
- Total value of first call - **£1m**
- Requested proposals up to maximum of £100k. The call covered all research themes
- Very high volume of proposals received
- Announcement of successful proposals by mid July 2019
- Next call anticipated at the end of 2019 or early 2020

## Key Research Challenge Themes

Key Research Challenge Themes	Description
A	Resource and environment characterisation
B	Fluid structure seabed interaction
C	Materials and manufacturing
D	Sensing, control and electro-mechanics
E	Survivability, reliability and design
F	Operations, management, maintenance and safety
G	Environmental and ecosystem aspects
H	Marine socio-economics and governance

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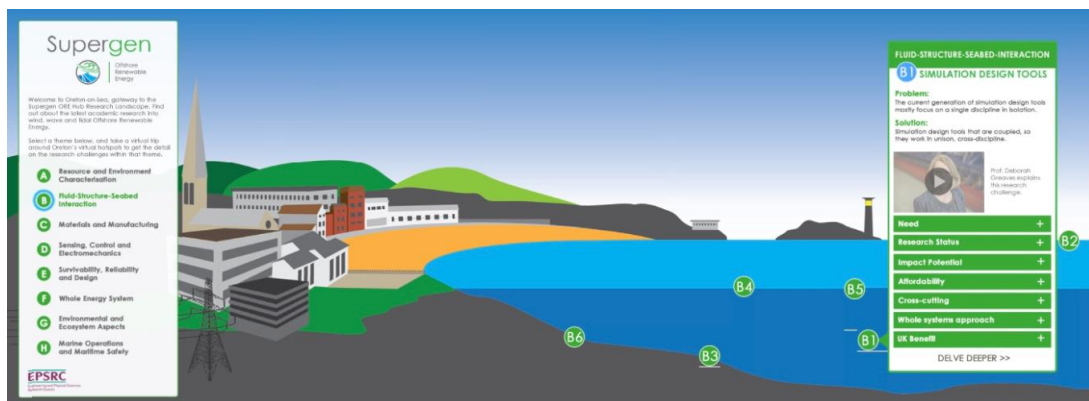


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# ORE Research Landscape Tool

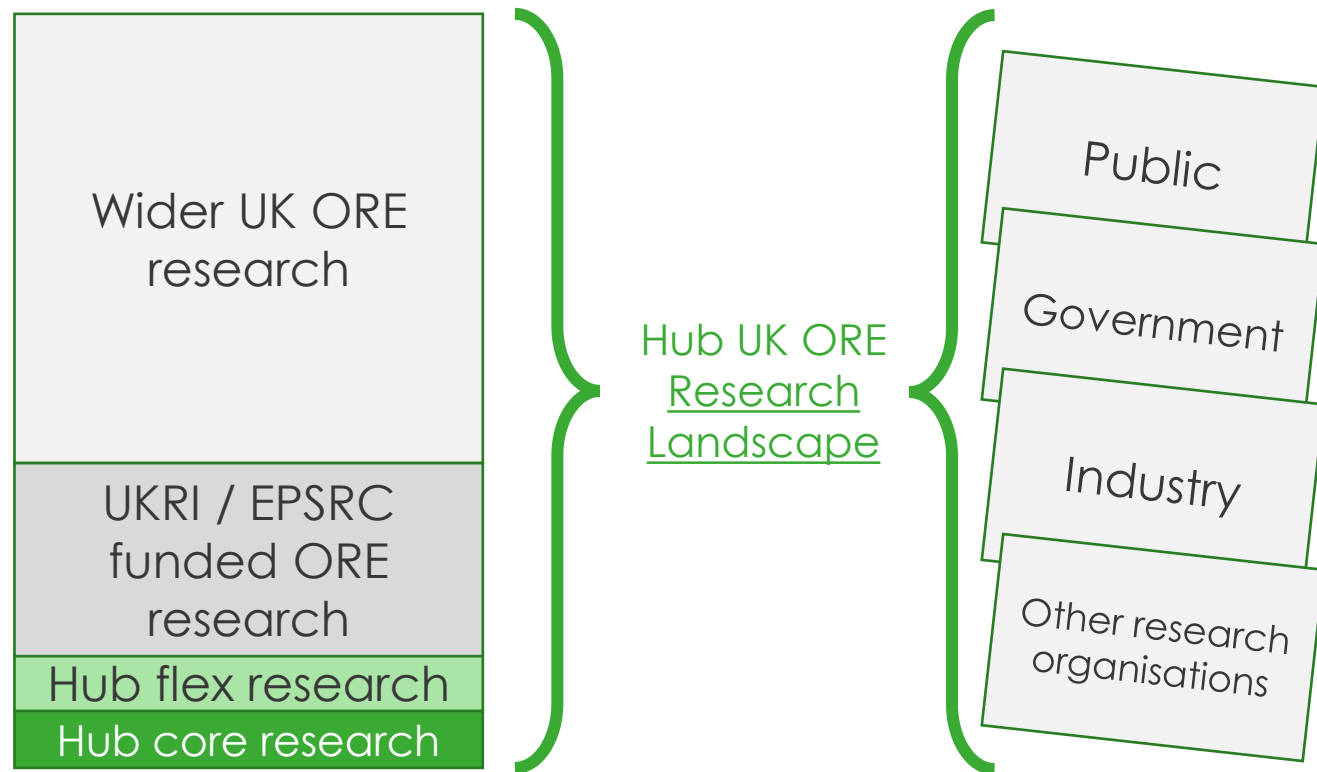
- Interactive research landscape tool is currently being developed
- Due for launch by the end of July 2019
- Interactive model to engage the Public, Government, Industry and other researchers on key ORE research challenges



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# Who is in ORE research landscape?



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# Who is the research landscape for?

- Industry, policymakers, the public
  - To provide easy access to sector research knowledge
  - To influence research efforts – shape the landscape, set challenges
- Academia
  - To promote and publicise research activities and outcomes
  - To provide easy access to sector research knowledge
  - To focus research efforts and proposals
- Supergen ORE Hub and EPSRC
  - To assist prioritisation of research resources, including flexible funding

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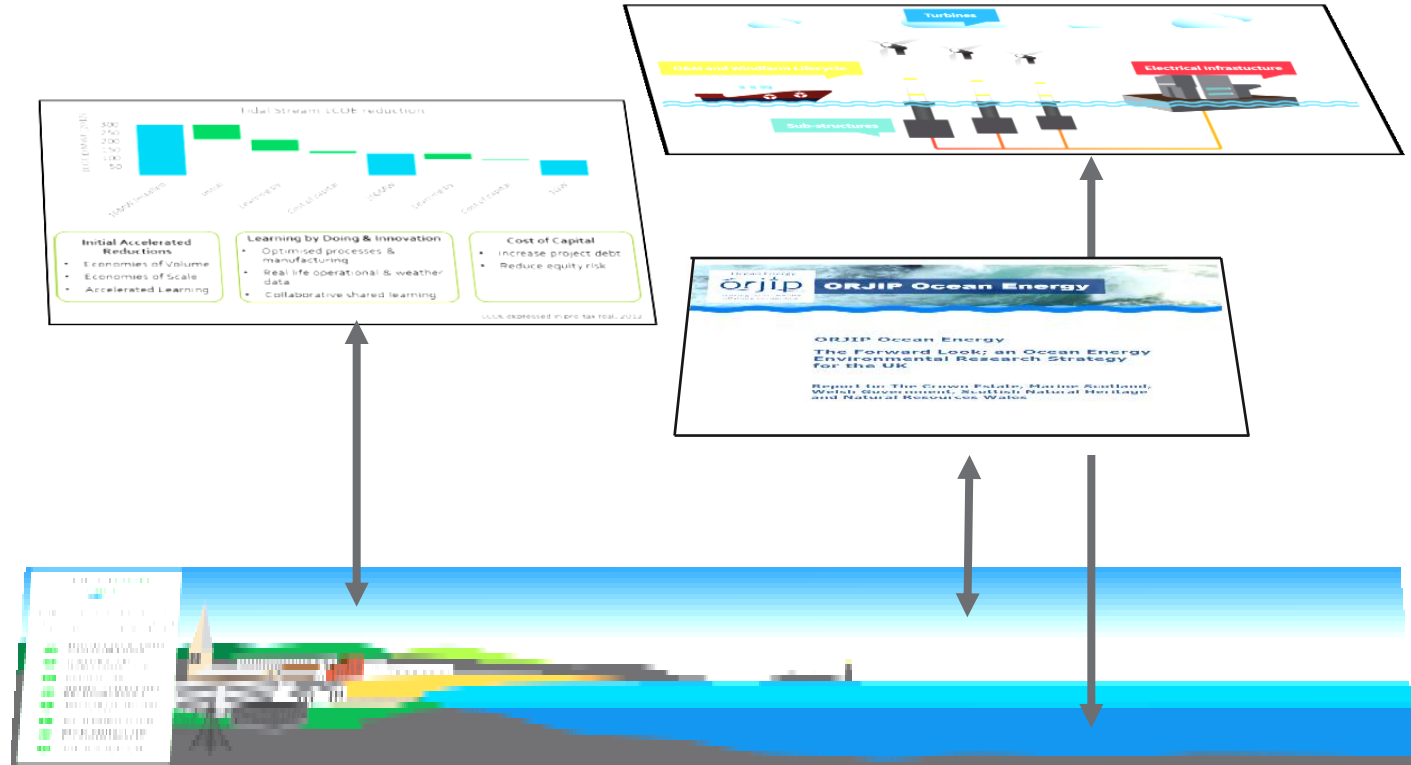


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# How does it fit with existing roadmaps?

## As per the Hub remit, our Research Landscape:

- Has 'bottom up' opportunities from research discoveries as well as industry challenges
- Publicises and promotes existing UK research
- Is fully cross sector – i.e. offshore wind, wave and tidal
- Is fully cross-disciplinary with a whole systems approach



# Stay in touch



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@SupergenORE



[www.supergen-ore.net](http://www.supergen-ore.net)

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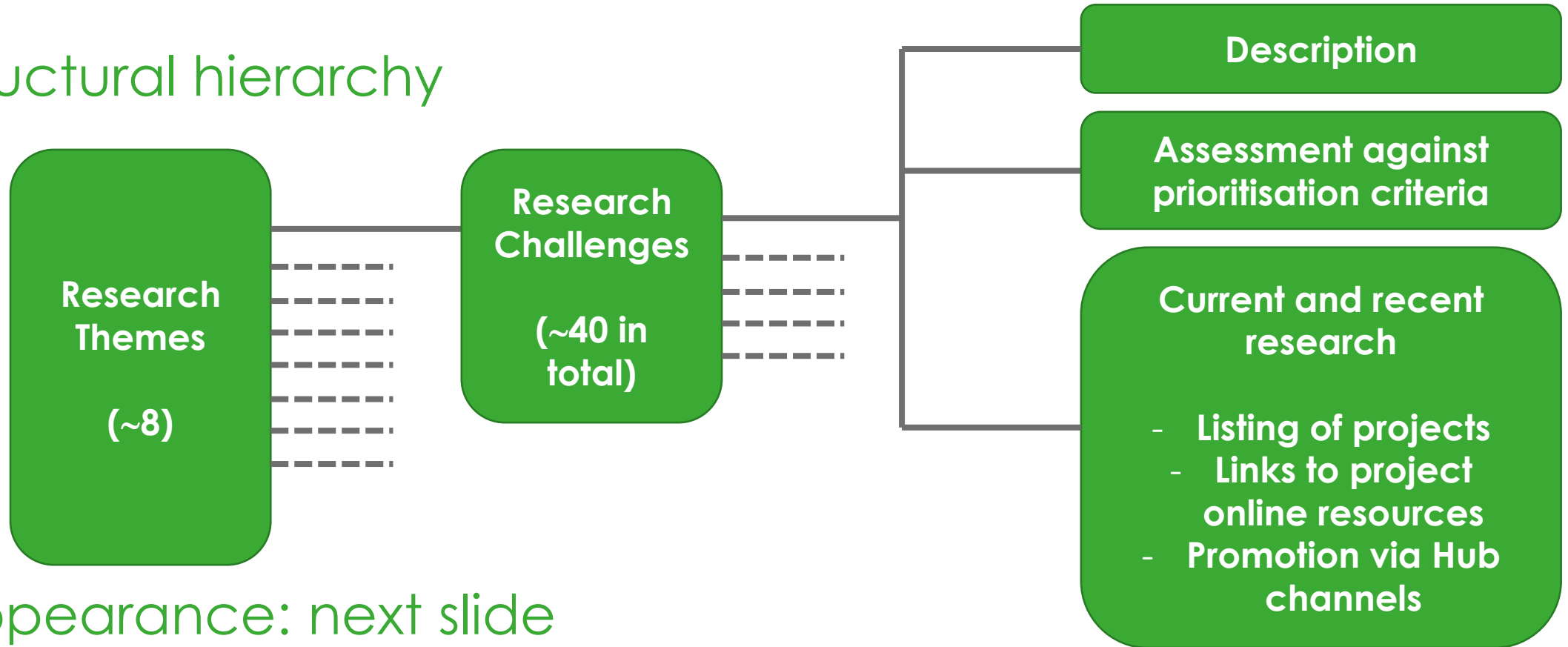
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# What will it look like?

- Structural hierarchy



- Appearance: next slide

# What is the Supergen ORE Hub?

Engineering and research synergies across ORE...



WAVE



WIND



TIDE

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