



ENERGY  
RESEARCH  
ACCELERATOR

At the forefront of energy  
transformation

# Energy Research Accelerator

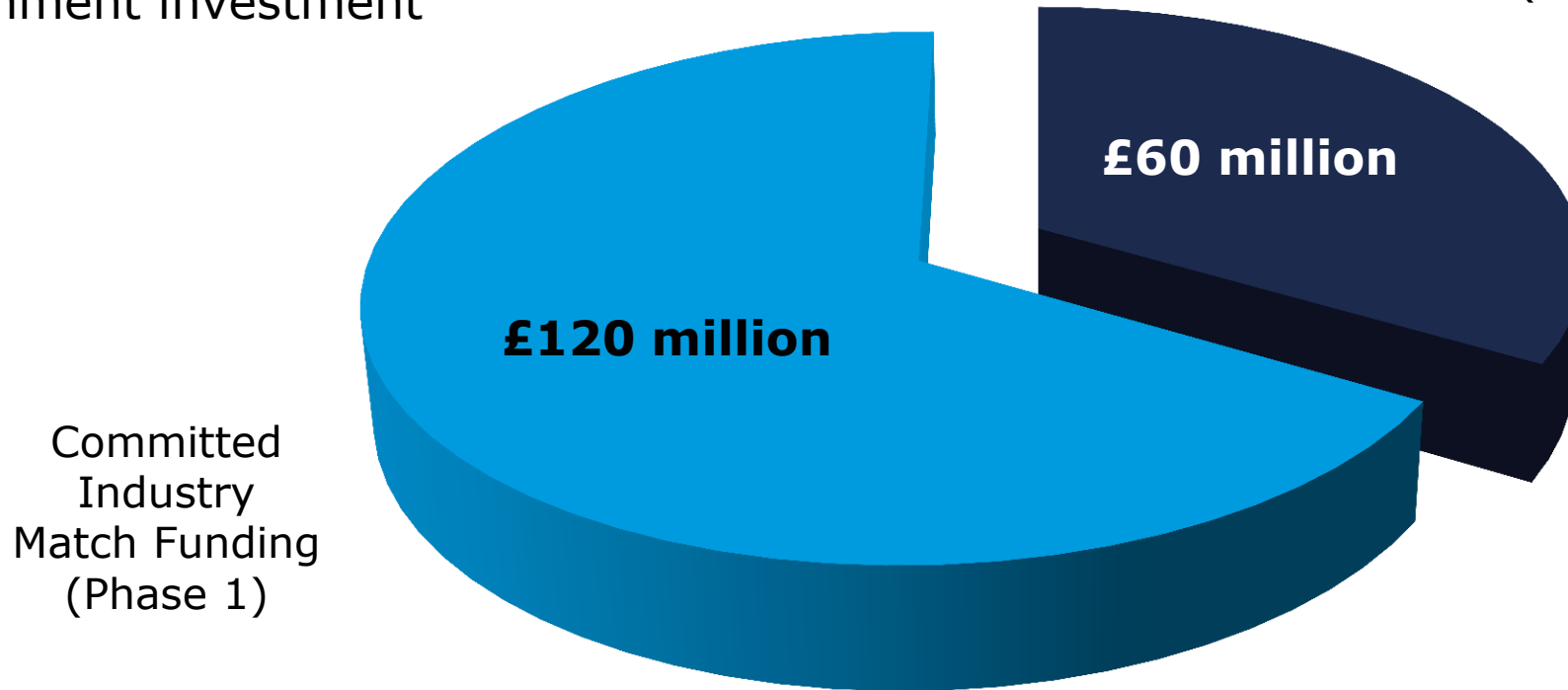
- At the forefront of energy transformation, ERA is a consortium between six Midlands' universities and the British Geological Survey addressing market failures and driving decarbonisation by marrying innovation and industry through facilities and demonstration.
- ERA is drawing on academic and industrial expertise across three key research themes:
  - **Geo-energy**
  - **Integrated Energy**
  - **Thermal Energy**



# ERA Phase 1 Funding

The value of Industrial Commitment is currently around £2 for every £1 of Government investment

Government  
Capital  
Investment  
(Phase 1)



Committed  
Industry  
Match Funding  
(Phase 1)



# ERA Partners



Universities  
&  
Research  
Institutions



Businesses  
that have  
committed  
funding to ERA



And 29 further supportive organisations



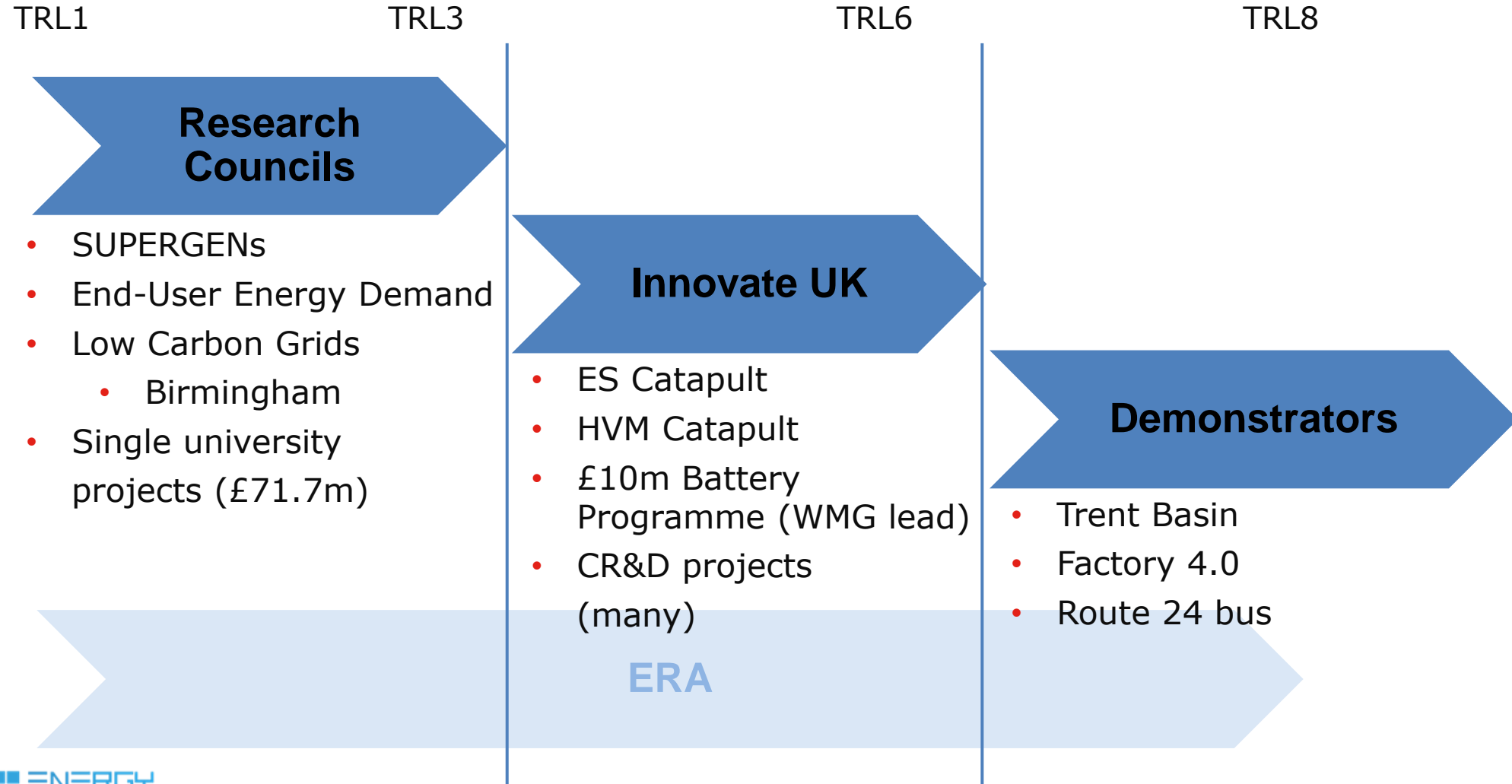
# ERA partners

ERA partners have:

- 450 academics working on energy related projects
- Around 50 of these researchers in social sciences, business schools and design
- 1000 postgraduate students on taught and research energy courses
- Connections to industry partners, Local Economic Partnerships (LEPs), business intermediaries and other research institutions
- A central role in Midlands Innovation and the Midlands Engine for Growth

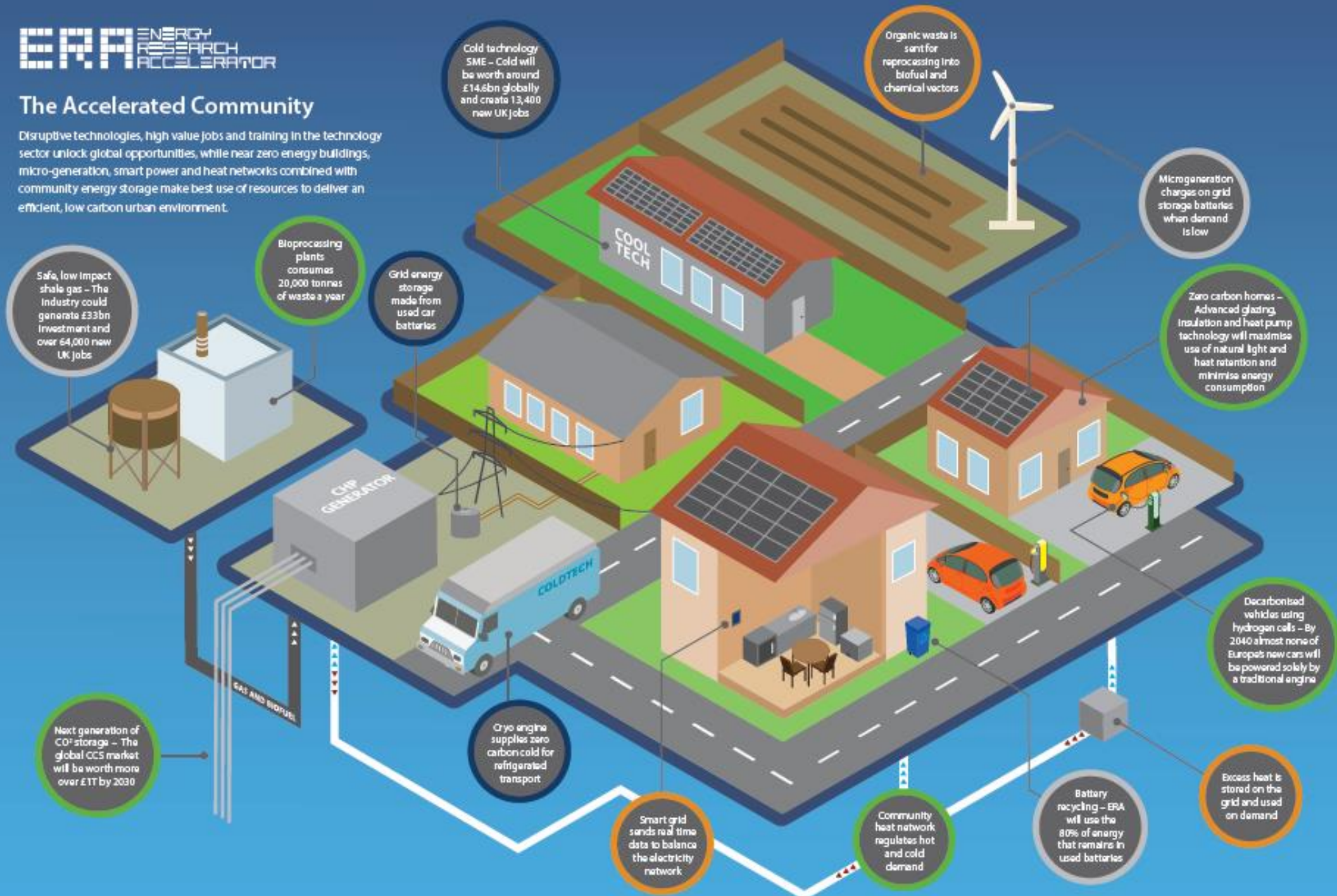


# ERA Working across all TRL levels



## The Accelerated Community

Disruptive technologies, high value jobs and training in the technology sector unlock global opportunities, while near zero energy buildings, mikro-generation, smart power and heat networks combined with community energy storage make best use of resources to deliver an efficient, low carbon urban environment.



# Nottingham Trent Basin

- Community demonstrator for new energy technologies.
- Plans for 240 low energy homes.
- Infrastructure is being “future proofed” with ducts available for future energy technologies.
- Opportunity to demonstrate new energy technologies ‘at scale’

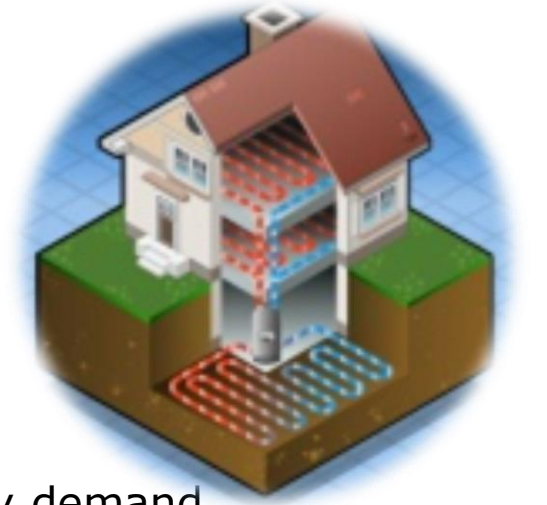


Images Courtesy: Homes & Communities Agency  
<https://udc.homesandcommunities.co.uk/news/nottinghams-trent-basin-gets-green-light>





# ERA Priorities



- Developing thermal technologies
  - Cold as well as heat, energy efficient buildings, reducing the electricity demand
- Energy storage
  - Electrochemical, hydrogen, compressed air, cryogenic
- Increasing public confidence in geo-energy technologies (eg fracking, nuclear storage) within environmental systems
  - Sensor science for geo-energy, disposal of waste and management of data
- Integrated energy systems
  - Technology development within an energy systems landscape
- Facilitating large-scale demonstration
  - Understanding the business and behavioural aspects to new technology implementation



# Summary



ERA will create capital assets that benefit the whole UK energy research community.



ERA will create data that can be accessed by institutions across the UK.



ERA will reinforce intellectual leadership in key technologies.



ERA will work with industrial partners to accelerate new technologies to market through demonstration.



ERA will tackle critical skills challenges through the development of a Learning Academy in energy.





ENERGY  
RESEARCH  
ACCELERATOR

Thank you