

# Horizon 2020

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Welsh European Funding Office  
*Cangen Ymchwil ac Arloesi  
Swyddfa Cyllid Ewropeaidd Cymru*



# Strwythur - Horizon 2020 - Structure

## Horizon 2020 - Three pillar structure

### 1. Excellent Science TRL 1-3 (24.4€Bn)

European  
Research  
Council (ERC)

Future & Emerging  
Technologies (FET)

Marie  
Skłodowska-Curie  
actions

Research  
Infrastructures

### 2. Industrial Leadership TRL 4-7 (€17Bn)

Leadership in  
Enabling and  
Industrial  
Technologies

Access to Risk  
Finance

Innovation in SMEs

### 3. Societal (€29.7Bn)

Health, demographic change  
and wellbeing

Food security, sustainable  
agriculture, forestry, marine,  
maritime, inland water and  
bio-economy

Secure, clean and  
efficient energy

Smart, green and  
integrated transport

Climate action, environment,  
resource efficiency and  
raw materials

Inclusive, innovative and  
reflective societies

Secure societies – protecting  
freedom and security of  
Europe and its citizens

Spreading Excellence and  
Widening Participation

Science with and  
for Society

EIT

JRC

# Gwyddoniaeth Ragorol

## Excellent Science

- **European Research Council**
  - Frontier Research by the best individual teams
    - E.g. Modelling the global human-ocean system
- **Future and Emerging Technologies**
  - Collaborative Research to open new fields of innovation
- **Marie Skłodowska-Curie Actions (including COFUND)**
  - Opportunities for training and career development
    - E.g. Wave energy PhD Programme; Fellowship in Larval Dispersal
- **Research Infrastructures (including e-infrastructures)**
  - Ensuring access to world-class facilities
    - E.g. Blue Biotech; Ocean Data; Coastal Observatories; MARINET2



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Europe & Wales: Investing in your future



# Arweinyddiaeth Ddiwydiannol

## Industrial Leadership

- **Leadership in Industrial and Enabling Technologies**
  - ICT, nanotechnologies, biotechnology, photonics, manufacturing, space.
    - Eg underwater robotics; earth obs.
- **Access to risk finance**
  - Leveraging private finance and venture capital for research
    - EIB First of a kind energy demonstration; Inno-Energy KIC
- **Fast Track to Innovation**
  - Industrial collaboration, last push to market.
    - E.g 2MW marine current generator
- **Innovation in SMEs**
  - SME Instrument, Eurostars
    - Energy; monitoring; aquaculture; shipping; surveillance; pollution; surfing



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# Heriau Cymdeithasol 1-4

## Societal Challenges 1-4

### 1. Health, demographic change and wellbeing

### 2. Food, agriculture, marine research and the bioeconomy

Eg. Blue Growth: Multi-use (MARIBE); sustainable fishing/aquaculture; litter; coastal value chains; circularity; algae biorefineries; novel marine-derived biomolecules (INMARE); Atlantic observation; governance.

### 3. Secure, clean and efficient energy

- see the next presentation

### 4. Smart, green and integrated transport

E.g. Safety, automation, emissions/pollution



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# Heriau Cymdeithasol 5-7

## Societal Challenges 5-7

### 5. Climate action, resource efficiency and raw materials

- Circular economy, water, cities, raw materials (including from the sea), climate, earth obs., natural solutions, cultural heritage.

### 6. Inclusive, innovative and reflective societies

- Migration; culture; creative industries

### 7. Protecting freedom and security in Europe

- Maritime border security

### Science with and for Society

- Citizen engagement, young people

### ERANETs, Joint programming

e.g. Ocean ERANET, JPI Oceans, MarTERA



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# Horizon 2020 funding

**25<sup>th</sup> September 2017**

**Helen Fairclough**

***EU Energy Focus***

***UK National Contact Point for H2020 Energy***



# Presentation overview

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- Introduction to EU Energy Focus
- Introduction to Horizon 2020
- Horizon 2020 Energy
- UK performance in Horizon 2020 Energy
- Current status of Horizon 2020 Energy
- Support available



# EU Energy Focus

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- Funded by the Department for Business, Energy and Industrial Strategy
- Provide support for UK organisations on European energy programmes
- Part of UK and European National Contact Point network  
[http://ec.europa.eu/research/participants/portal/desktop/en/support/national\\_contact\\_points.html](http://ec.europa.eu/research/participants/portal/desktop/en/support/national_contact_points.html)
- The Treasury has confirmed that it will **underwrite funding** for approved Horizon 2020 projects applied for before the UK leaves the European Union, even when specific projects continue beyond the UK's departure from the EU.



# Overview of Horizon 2020

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# Key aspects of Horizon 2020

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**Horizon 2020 – the biggest EU research and innovation programme – nearly €80bn funding**

- Research, innovation and market transformation
- Priorities – usually defined in Work Programmes
- Collaborative in majority of cases
- European impact
- Innovative at European level
- Cost sharing (no profit)

## H2020 funding rates

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- **Funding Actions** include Research and Innovation Actions (RIA), Innovation Actions (IA), Coordination and Support Actions (CSA)
- Two basic **funding rates**:
  - RIA and CSA – up to 100% of total eligible costs
  - IA – up to 70% of total eligible costs, up to 100% for non-profit organisations
- One **flat rate for overheads**: 25% of eligible direct costs excluding subcontracting and 3<sup>rd</sup> party resources

# H2020 Energy Objectives

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- Reducing energy consumption and carbon footprint
- Low-cost, low-carbon electricity supply
- Alternative fuels and mobile energy sources
- A single, smart European electricity grid
- New knowledge and technologies
- Robust decision making and public engagement
- Market uptake of energy and ICT innovation

**Budget of €6Bn from 2014 to 2020**

## 2015 Energy Call results

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- **103** of **795** submitted proposals were successful i.e. **1** in **8** success rate
- **€594m** allocated to successful projects i.e. **€5.8m** per project
- **14** of the successful proposals are led by UK organisations
- **55** of the successful proposals involve UK organisations
- **€88m** allocated to UK organisations (**15%** of budget)
- UK is second in terms of funding allocation behind Germany with **15.5%**
- More info, including funded project examples at [http://docs.euenergyfocus.co.uk/2015\\_Call\\_results\\_overview.pdf](http://docs.euenergyfocus.co.uk/2015_Call_results_overview.pdf)

## H2020 project example – FloTEC

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### H2020 project – Floating Tidal Energy Commercialisation project – Innovation Action

Demonstrate the potential for **floating tidal stream turbines** to provide low-cost, high-value energy to the European grid mix. The new turbine will be **deployed** alongside an existing one **at European Marine Energy Centre** on Orkney to form a 4MW floating tidal array.

Led by UK organisation – **Scotrenewables Tidal Power Ltd**

- 10 partners - from UK, Ireland, France, Germany
- Total project budget of €14m with €10m funding from H2020
- Project started in January 2016 and will finish in June 2019
- More details at and <http://www.scotrenewables.com/projects/flotec> and [http://cordis.europa.eu/project/rcn/199964\\_en.html](http://cordis.europa.eu/project/rcn/199964_en.html)

# Current status of H2020 Energy

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## 2018-2019 (2020) Energy Work Programme development

- Draft Work Programme 2018-2020 for Energy is being finalised
- European Information Days on the 2018 Calls taking place on 23<sup>rd</sup> to 25<sup>th</sup> October 2017 in Brussels

<https://ec.europa.eu/easme/en/horizon-2020-secure-clean-and-efficient-energy-info-day>

- Possible pre-publication of Work Programme prior to Information Days



## 2018-2019 (2020) Energy WP structure

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- **Energy Efficiency** e.g. decarbonisation of the EU building stock: innovative approaches and affordable solutions changing the market for buildings renovation
- **Global Leadership in Renewables** e.g. developing the next generation of renewable energy technologies
- **Smart and clean energy for consumers** e.g. consumer engagement and demand response
- **Smart citizen-centred energy systems** e.g. flexibility and retail market options for the distribution grid
- **Smart Cities and Communities** e.g. lighthouse cities
- **Enabling near-zero CO<sub>2</sub> emissions from fossil fuel power plants and carbon intensive industries** e.g. advanced capture technologies

## Further information

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- Further information on Horizon 2020 support in the UK

<https://www.gov.uk/business-finance-support/horizon-2020-business-grants-uk>

- Horizon 2020 funded projects – ocean energy

<https://ec.europa.eu/inea/en/horizon-2020/h2020-energy/projects-by-field/ocean>

# EU Energy Focus support services

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EU Energy Focus is the UK National Contact Point for Horizon 2020 Energy, our services are **free and confidential**, they include:

- Telephone and email helpline 9am to 5.30pm
- Monthly email bulletins and alerts to new information
- Website [www.euenergyfocus.co.uk](http://www.euenergyfocus.co.uk)
- Factsheets
- Webinar sessions on H2020, Work Programme and proposal development
- Proposal clinics in person or conference call
- Proposal review service
- Stakeholder group coordination

# Consortium development support

- C-energy partner search facility  
<http://www.c-energy2020.eu/>
- Search for partners and post information about your organisation



# EU Energy Focus contact details

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Please contact the EU Energy Focus team if you are interested in Horizon 2020 Energy

**0845 6000 430**

**[mail@euenergyfocus.co.uk](mailto:mail@euenergyfocus.co.uk)**

**[www.euenergyfocus.co.uk](http://www.euenergyfocus.co.uk)**



# Horizon 2020 synergies

## Synergedd gyda Horizon 2020

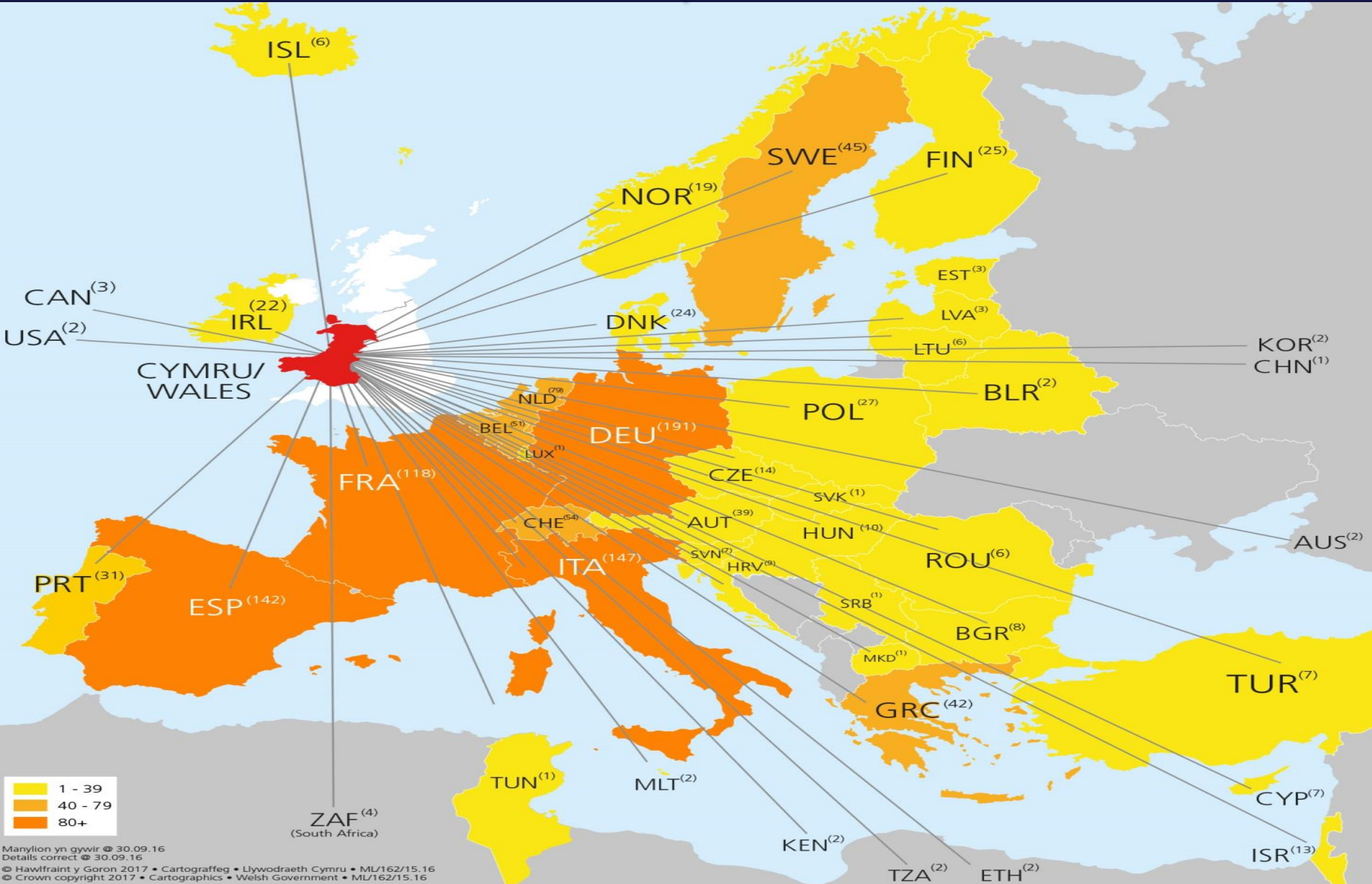
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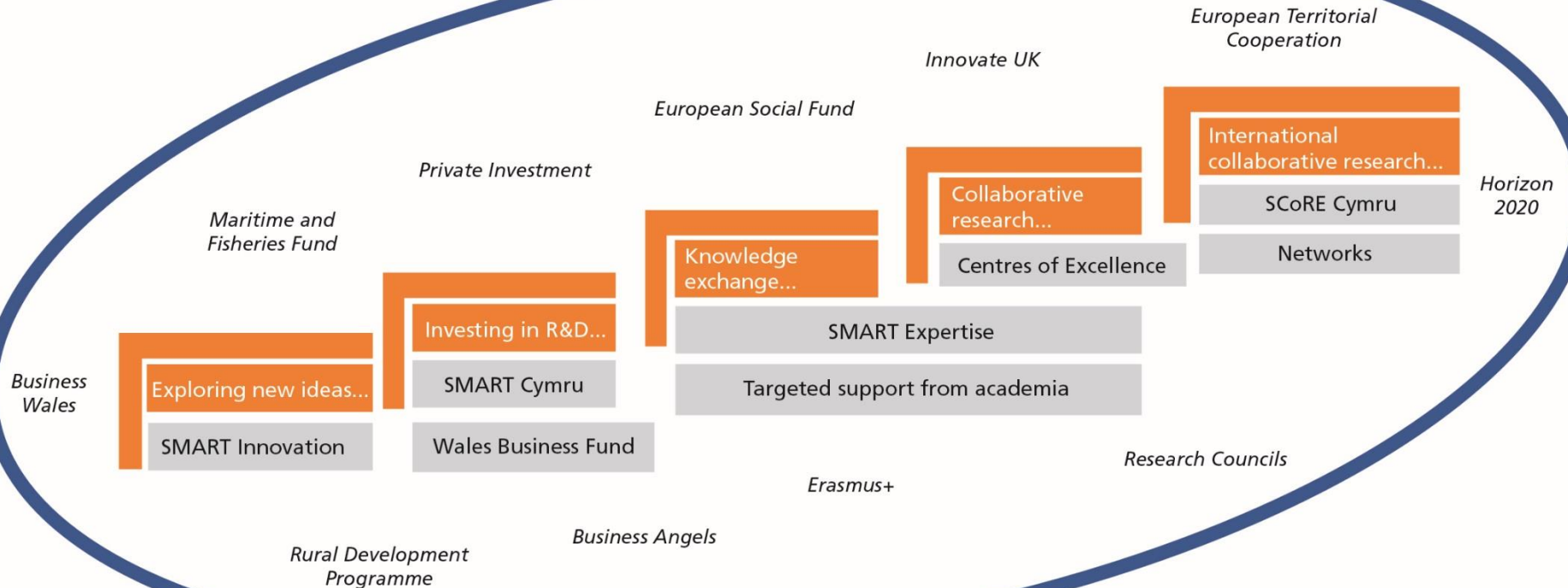
# Cydweithrediadau rhyngwladol

# International collaboration



# Gwneud y mwyaf o synergeddau

# Maximising synergies



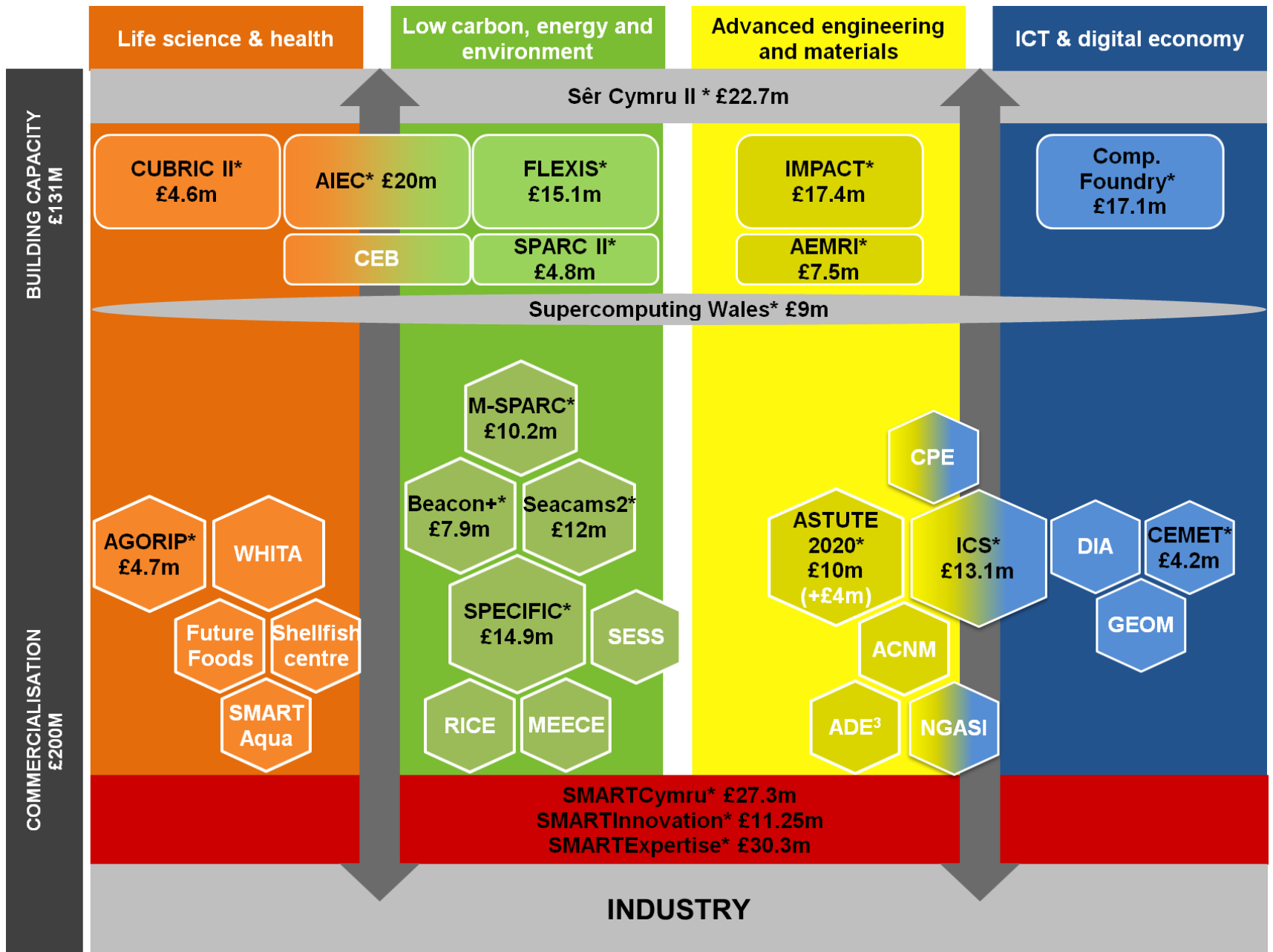
## Key

■ Main stages in the stairway to excellence

■ Direct supporting activity mostly supported through the European Regional Development Fund

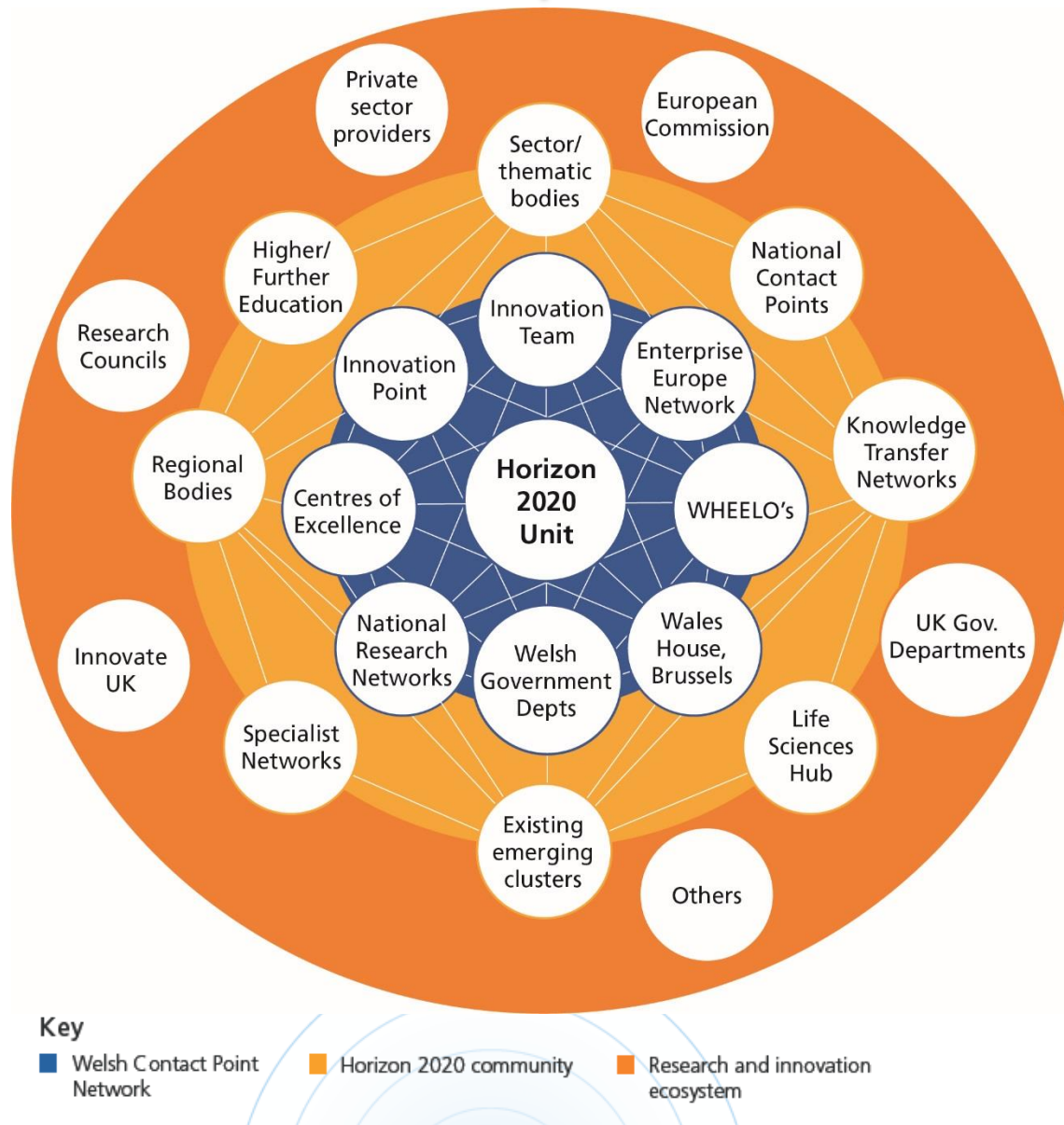
■ Wider support environment





# Gweithio mewn partneriaeth

# Working in partnership



# SCoRE Cymru

*Cefnogi Ymchwil ac Arloesi  
Cydwethredol yn Ewrop*

Cynllun gan Lywodraeth  
Cymru sy'n cynnig cyllid i  
ysgogi sefydliadau yng  
Nghymru i  
gymryd rhan yn rhaglenni  
ymchwil ac arloesi Ewrop fel  
Horizon 2020.

*Supporting Collaborative  
Research & Innovation in  
Europe*

A Welsh Government scheme  
which offers funding to  
stimulate participation by  
Wales-based organisations in  
European research and  
innovation programmes such  
as  
Horizon 2020.



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**Europe & Wales: Investing in your future**



Diolch

Thank you

**Dysgwch fwy / Find out more:**

E-bostiwch / Email: [horizon2020@gov.wales](mailto:horizon2020@gov.wales)

Ffoniwch / Call: 0845 010 3355

ewch i / visit:

<http://gov.wales/funding/eu-funds/horizon2020/?skip=1&lang=en>