

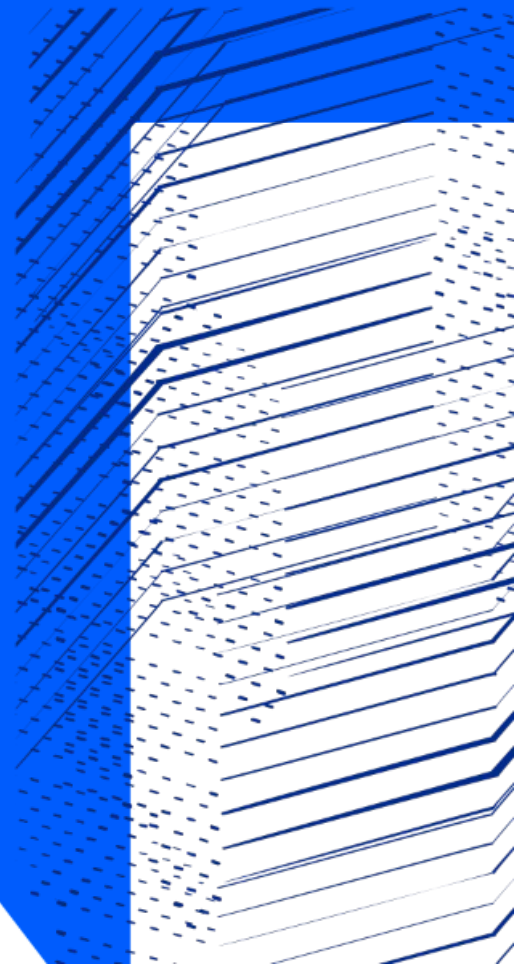


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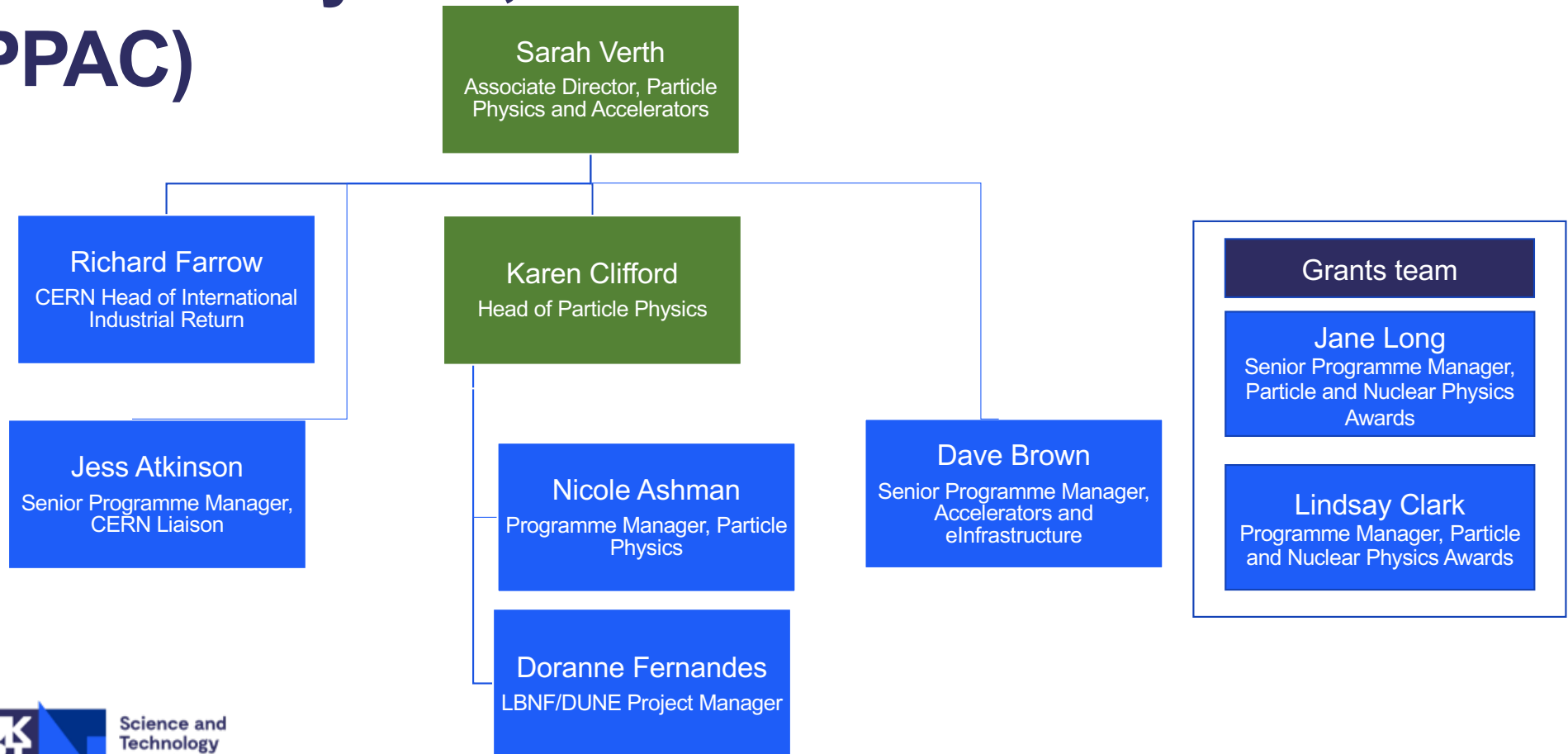
# STFC News

Karen Clifford

Head of Particle Physics Programme



# Particle Physics, Accelerators and CERN (PPAC)



# About Me...



- Not a Particle Physicist!
- Not new to STFC
- Not from BEIS or UKRI



- Desire to learn from you
- Fresh perspective
- Strategic thinking
- Clear and transparent processes
- Reduction of beauracracy
- Value open and honest conversations

**My aim is to enable and support you to do brilliant and awe-inspiring science**



- Science background
- Joined STFC in 2017
- (Corporate Strategy, Impact Evaluation, Capital Projects, Science Board, Advisory Panels, PA and NP, IPWG)
- Home Office Administration
- HMP Erlestoke
- Academic laboratories in UK and Canada

# STFC Strategic Delivery Plan

## Supporting the UK's ambition to be a science superpower;

- An increase of £19M for STFC supported frontier research programmes in PPAN
- Enhancing UK scientific links globally
- Delivery of a portfolio of infrastructure projects to benefit UK research and innovation communities
- Investment in a pipeline of novel technologies (blue skies to commercialisation)
- Supporting the development of a pipeline of skilled engineers and technicians
- Expanding our reach and impact to deliver community focused activities
- Ambitions to grow our links to business and industry



# Particle Physics Updates

**Consolidated Grants— provide year on year increases in funding from FY23/24**

## **Experiment**

Open Responsive PDRA call to complement the 2018 CG round

## **Theory**

Uplift was added to the round and the Panel reconvened for a final meeting to allocate in late August.

Working towards an October announcement

*Extend our thanks to the Chairs of the PPGP Professor Helen O'Keefe and Professor Nick Evans for their leadership of the Panels.*

# Particle Physics in the UK

## We are aware of some of the challenges faced by the community

- Delays or slippages to international experiment schedules
- Increased demands for computing capacity
- Expectations from Detector and Accelerator R&D roadmaps
- Engagement in future projects
- Impact of inflation

**Please keep STFC updated as to the situation**

**Keep us updated on positive news as well!**



# Get in touch

## 1 If you have a paper due

We can work with your institution to maximise the reach of your paper, through our social media and website.

## 2 If you reach a project milestone

STFC has a long history of working with science journalists in the BBC and other mainstream titles. If you are about to reach a big project milestone, let us know as we might be able to make it into a media pitch!

## 3 If you have a story to tell

We are always happy to tell stories of our funded academics, so please get in touch if there's something you're working on that you're excited about!

## 4 If you're not sure!

Not sure if it's a story? Just get in touch – we're happy to talk it through.



[pressoffice@stfc.ukri.org](mailto:pressoffice@stfc.ukri.org)



# UKRI Infrastructure Fund

## UKRI Infrastructure “Roadmap”

- **International Science Projects**
  - SKA Construction: £33m (total £66m) from Infrastructure Fund
  - Simons Observatory (CMB): £12m (total £18m)
  - Hyper-Kamiokande: £6.2m (over next 3 years, future TBC)
  - LHCb 2030+: £1m (total £49.5m)
- **Also a number of preliminary prep-phase projects, including**
  - Boulby – Dark Matter and beyond (scoping): £2.8m
  - Electron Ion Collider (scoping): £2.3m (total £2.9m)

**Very positive news for STFC and UKRI as a whole**



# Strategic Review of Particle Physics

## Launched a light-touch Strategic Review of Particle Physics:

- In consultation with STFC Council, we have initiated a light-touch strategic review of particle physics:
  - Will provide guidance on a refreshed strategic framework for particle physics
  - Will **not** prioritise projects – **this is not a project prioritization exercise**
  - Covers particle physics, including Dark Matter searches, and the accelerator and computing disciplines that support the field
- Prime aim is to consider how to best ensure the long-term health of PP in the UK
- Inform STFC's approach of supporting the PP programme
- Outcomes reported to STFC Council in autumn

# UK Strategy for CERN

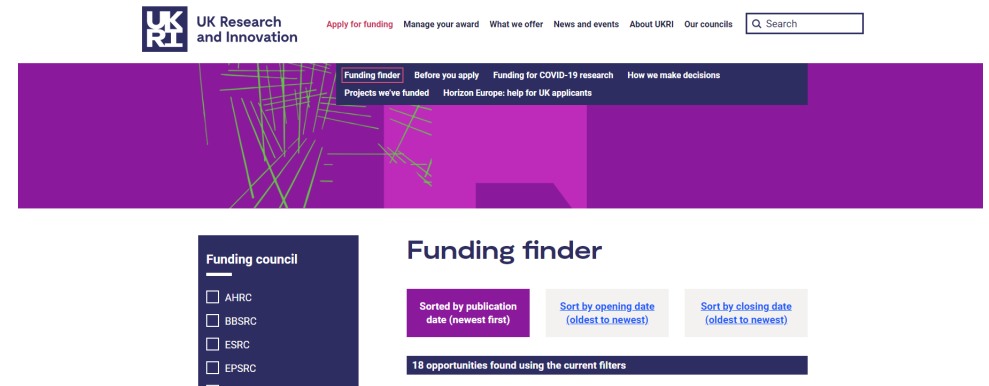
## We are developing a first UK Strategy for CERN

- Collaborative effort between BEIS and STFC. Aims:
  - To describe the vision for the UK's membership of CERN and how we will get there
  - Aim for publication on gov.uk by the end of 2022
- Will also aim to address UK's low industrial return from CERN:
  - In 2021, we completed autopsy of historic tenders to understand barriers to success and wider issues. Now working with CERN on an action plan
- Similar issues exist for the UK “HR return” and we are working on a skills return autopsy to describe the current picture and barriers to success.
- VIP visits to CERN have included Minister for International Trade and the **Science Minister George Freeman**



# Current Funding Calls

- Early R&D funding call – closed
  - Capital Call – open until 22 September
  - Outline proposals for Nuclear Physics projects – closes 17 October
  - **Responsive PDRA Call – closes 27 October**
  - Future Leaders Fellowships Round 7 – closes 6 December
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- **Other Funding calls open on the UKRI Funding Finder**





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# STFC Visions



# STFC Visions

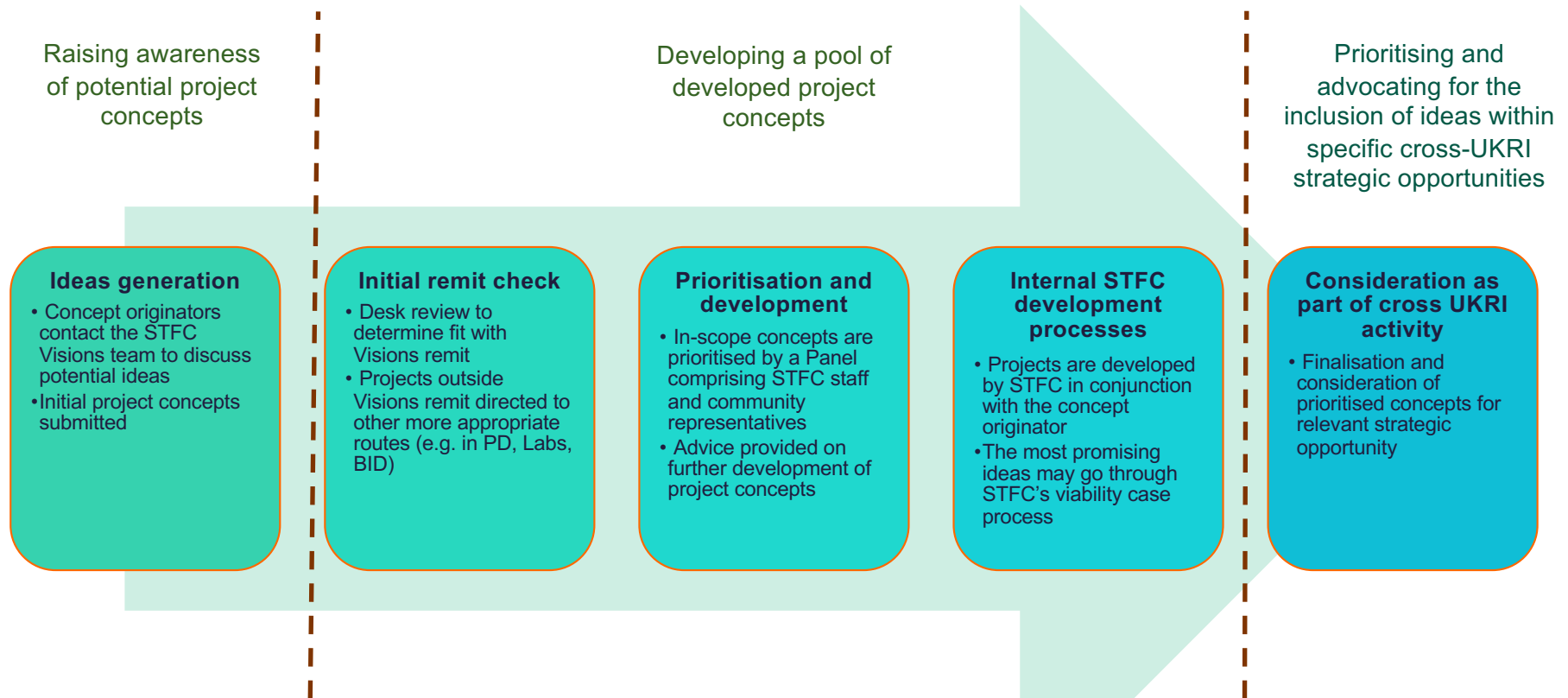
Executive Board have commissioned **STFC Visions** to identify ground-breaking, **early-stage concepts** that have the potential to be developed into **ambitious initiatives and infrastructures**, and might not be captured by STFC's current processes.

## Key Aims:

- to build capacity to react quickly to **emerging opportunities**
- to better position STFC to influence **new strategic and funding opportunities**, outside of core funding (note: there is no direct funding attached to the scheme)
- To support STFC research communities to drive forward ambitious programmes of science and innovation

All concepts must have the potential to create a step change in national or international level capability, hold appeal beyond any individual research group and be compelling to the wider research and innovation communities that would deliver and/or benefit from the concept.

# Visions Process Flow





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# UKRI Infrastructure





# UKRI Infrastructure Fund

- The Infrastructure Roadmap Programme began in January 2018
- Published 'First Edition' 'Opportunities to grow our capabilities' in November 2019
- Identified a list of approximately 250 options across UKRI
- UKRI Infrastructure team developing an approach to prioritisation - **a long-term strategic view for an infrastructure portfolio**
- Infrastructure Advisory Committee (IAC) established
- IAC will provide advice to ExCo > UKRI Board > Ministers



**The UK's research and innovation infrastructure: opportunities to grow our capability**



# Scope of the UKRI Infrastructure Fund

- aimed at supporting significant investments that **enable a step change in R&I** infrastructure
- can be a single-site, distributed and can be accessed in person, remotely or virtually.
- international- or national-level capability.
- Funding is **time bound** to cover the costs of the significant change in capability.
- Does not support longer-term maintenance needs/operational costs or uplifts
- Projects could be single or multi- or inter-disciplinary, spanning all UKRI interests
- The infrastructure must **provide access, resources or related services to the wider, UK R&I community** outside the infrastructure institution itself

## Infrastructure is defined as:

- Development/design and build of a new capability
- Major upgrade/re-purposing/transformational development/consolidation or more effective use of existing capability
- Decommissioning or repurposing a resource at the end of life

# Preliminary Proposals

- Well formed concepts of a new / upgraded Infrastructure.
- Further spend is needed to further develop the specification, delivery mechanisms or costs prior to the development of a BC.
- Potential to lead onto the initiation of large capital projects
- This could include:
  - Architectural or technical design studies
  - Prototyping
  - Piloting a smaller scale infrastructure/ data collection method
  - Planning and testing how to make the Infrastructure more environmentally sustainable.

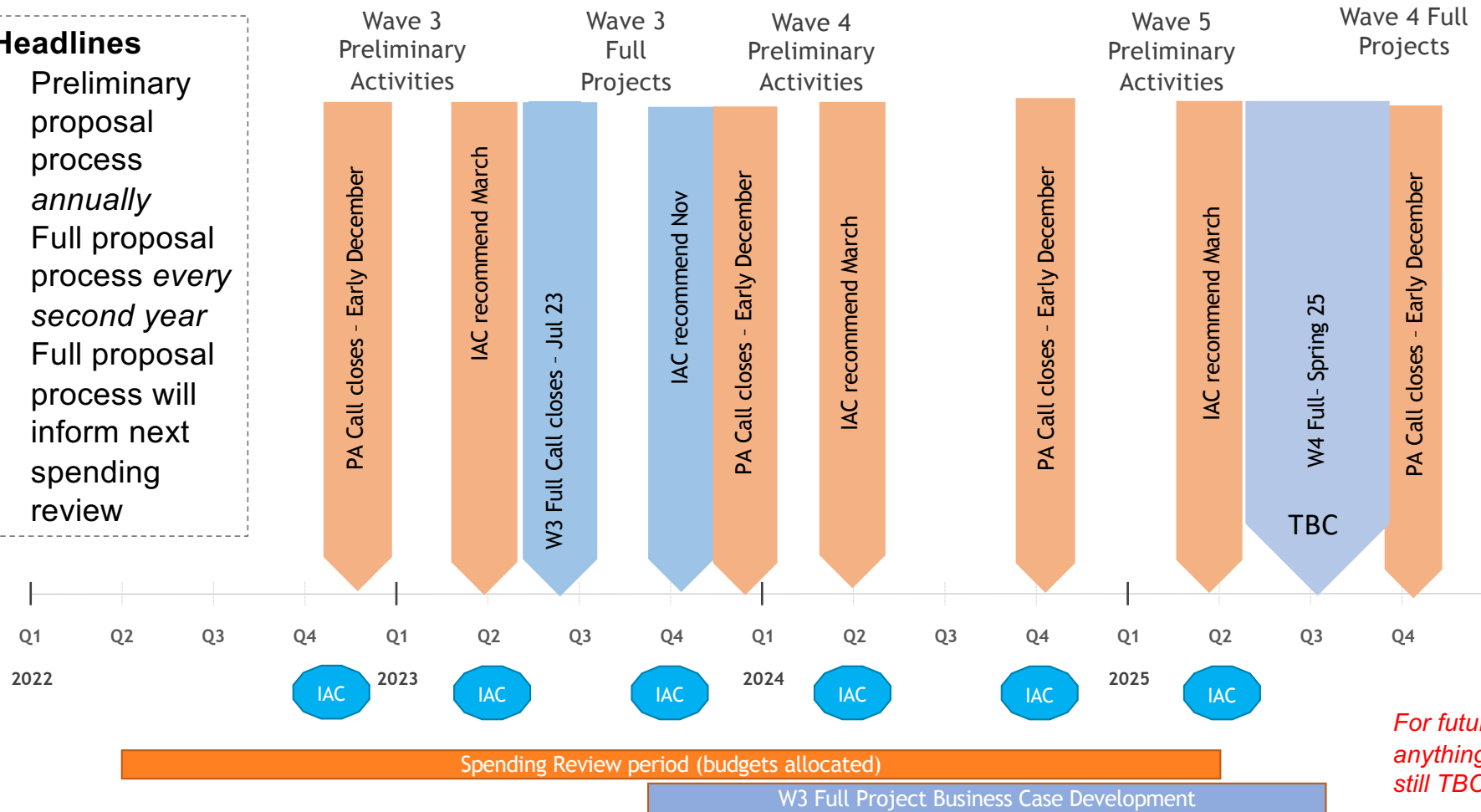
# Full Proposals

- Large capital project (~£15M or upwards)
- Initiated within 2-3 years
- Identified preferred option with costs and specification
- In process of developing a BC
- Identified routes to funding for operational costs once construction is complete.

# Future Waves of the Infrastructure Fund

## Headlines

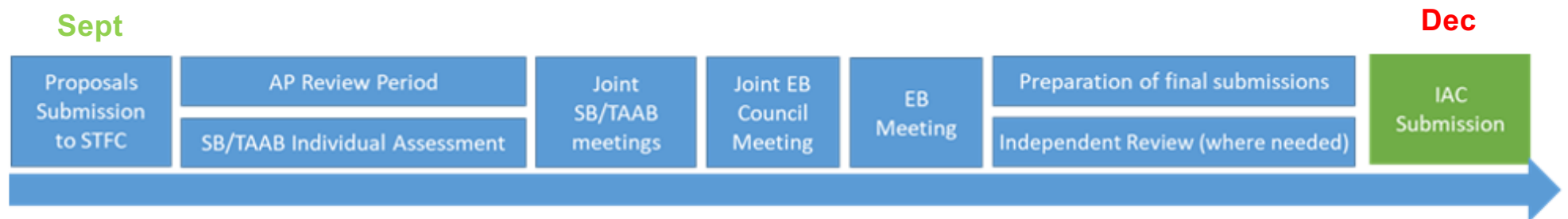
- Preliminary proposal process *annually*
- Full proposal process *every second year*
- Full proposal process will inform next spending review



*For future IF waves, anything past this SR is still TBC*

# STFC Process for 2022: Preliminary Activities

- Each of the five PPAN Advisory Panels will be able to endorse submission of up to three preliminary activity proposals
- Encourage cross-Panel/PPAN area ideas submission we would like the proposal to be submitted jointly by the relevant Panels.
- Advisory Panels should discuss possible proposal concepts with relevant Programme Managers and with the STFC Infrastructure Team prior to submission





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# Questions?