
Community update on actions/discussions related to PPAN funding

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Introduction and scope of this talk

- There are several sessions relevant to the ongoing PPAN funding concerns.
- We want these meetings to be complementary and constructive- we will focus on:
 - Recent updates
 - Discussion of next steps
- Key point: we are (and must continue to be) an integrated community and avoid “hard” divides between ECRs/non-ECRs, and between the PPAN areas.

Hopefully there will only be one type of “reeling” this evening...

Wed 08/04 Thu 09/04 Fri 10/04 All days

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09:00 **Plenary: Thursday morning plenary** Christopher McCabe
This talk!
John McIntyre Conference Centre 09:00 - 10:00

10:00 **Welcome: Conference photo**

Morning coffee **AGM: HEPP** Dr Melissa Uchida

11:00 **Parallel Talks:**
Thursday 1 - detectors Alice Hamer
Thursday 2 - precision measurement... Mada Sawicki
Thursday 3 - neutrinos Daria Santone
Thursday 4 - detectors Alessandro Struelens
Thursday 5 - astroparticle Dr Paolo Francini

12:00 **Lunch**

13:00 John McIntyre Conference Centre 12:00 - 13:15

13:00 **Plenary: Thursday afternoon plenary** Jonathan Butterworth
ECR session

14:00 John McIntyre Conference Centre 13:15 - 14:45

Coffee

15:00 **STFC Town Meeting: Early afternoon** Peter Millington
Town hall

16:00 John McIntyre Conference Centre 15:05 - 16:05

Comfort break

STFC Town Meeting: Late afternoon Peter Millington

17:00 John McIntyre Conference Centre 16:20 - 17:55

18:00

19:00 **Dinner & Ceilidh**

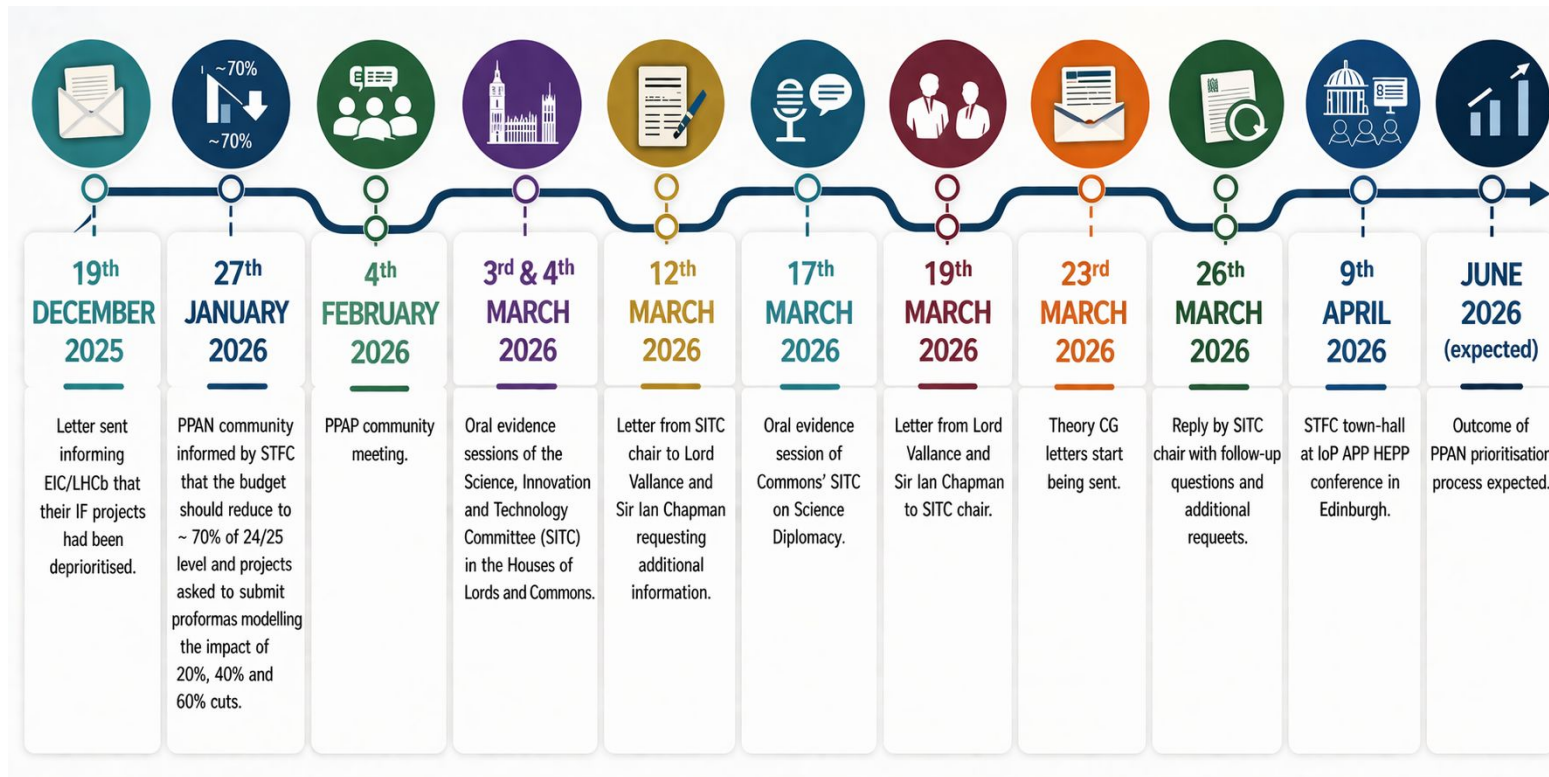
Overview of the situation

- The UK particle physics, astronomy and nuclear physics (PPAN) community is currently facing a series of enacted and potential cuts.
- These have impacted recent consolidated grants and more cuts are expected: there is a prioritisation exercise going on in STFC to understand the impact of cuts to PPAN projects.
- Some projects (EIC and LHCb upgrade) have already been deprioritised through the UKRI infrastructure funds, and the QTFP programme was not taken forward for a second round.

Obvious questions you may have:

1. How does/will this impact me?
2. Who are the “particle action group”?
3. Where can I find out more?

(Incomplete) timeline of recent events



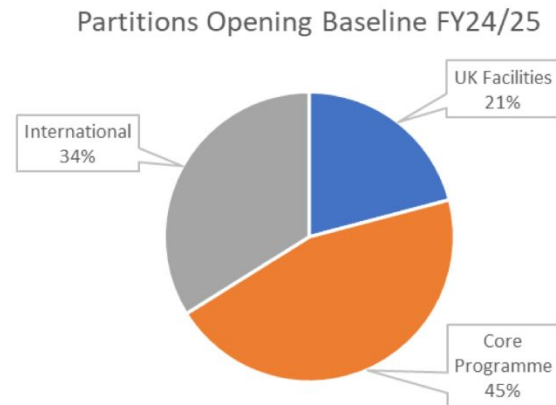
Media coverage



- ... has been extensive, and has increased the visibility and scrutiny of the challenges the PPAN community are facing.
- If you have questions/ideas- please get in touch with us.

What we know

- Our current estimate of the number of (UKRI/STFC-funded) **FTE lost/year is ~ 220-260** (calculated from PP theory/ex CG, accelerator physics, IF cuts, ATLAS/CMS upgrade projects, astro small + large awards, QTFP non-renewal and gravitational waves) which **counteracts statements that there haven't yet been any cuts.**
- Despite the erosion of Drayson partitions (noted in [STFC council minutes](#) on 23/10/25) recent correspondences from UKRI (i.e. [here](#)) have emphasised that PPAN science shouldn't be tensioned against multidisciplinary facilities.



Taken from STFC [slides](#) at rECFA visit to UK (September 2024). Note that “core programme= PPAN grants +projects and national labs and estates”. (Further breakdown available on slide 21)

Outstanding questions

- **Future process:** Project proformas have been submitted, and we have heard from STFC that Science Board expect to come to a decision in ~June
 - Expect consultation with Science Board
 - We should push for strong community involvement in prioritisation process
- **Tracing the numbers:** Many of us still don't fully understand where cost pressure is coming from
 - Reasons given by UKRI: inflation, foreign exchange rates, and overambition
 - We are ambitious in our research programme, but that shouldn't lead to a budget cut
 - Sir Ian Chapman stated at the IOP town hall (26th March) that UKRI is still working to understand where the cost pressures are coming from, but agreed in principle that cost pressures should be applied in the area they arose (also stating that PPAN research should be tensioned against e.g. CERN subscription costs- see previous slide)

Understanding cost pressures

- Recent [communication](#) from UKRI gave the following information:
 - Over the last 5 years, inflationary pressures have increased STFC's total costs by an estimated £136m p.a. Compared to FY 21/22
 - £50m p.a. from increased costs for access to international infrastructures, split roughly 50/50 between foreign exchange rates and increased subscription costs (see backup for our understanding of the numbers).
 - Remaining £86m comes from:
 - Staff costs (£34m)
 - Grants (£16m)
 - Utilities (£7m)
 - Net operational costs (£6m)
 - Inflation on capital (£23m)

Useful links

- Many useful links and a collection of public statements have been collected on [this website](#) (thanks to Davide Costanzo)
- Won't repeat the links here because the website will be kept more up to date, but you can find sections on:
 - Letters and official communications (between the House of Commons Select Committee and the Science Minister/UKRI, evidence provided to the Select Committee, open letters from UKRI and STFC, and IOP)
 - Initiatives (including open letters from various members of the community that are collecting signatures)
 - News articles
 - ...and more

(Big) thanks- and please reach out

- Everyone contributing to this effort (through advocacy, data collection/generation, organisation etc) is doing so on top of their “day” jobs.
- We are trying to help/support but let us know if there are facts/figures that would be helpful, and we are open to ideas of how we can (further) improve efficiency.
- Aim of this group is not to do the advocacy, but to support community advocacy efforts - please do follow your own ideas! We are happy to help and would like to be in the loop but do not need to sign off (or even be informed every time)

Pause for questions

— We'll be changing topic after —
with discussion planned at the end!

What comes next- protecting PPAN in bucket 1

We want to continue discussions on three key points to secure a (sustainable) future for PPAN (this paraphrases points discussed in previous Q+A)

1. **Protect ECR/talent pipeline:** we need **transitional support** to sustain existing programmes and avoid loss of ECR talent and skilled engineers.
2. **(Drayson) partitions:** Ensure **people-led research is protected** from volatility in facility and subscription costs.
3. **STFC governance:** we need to work with STFC to resolve structural issues and ensure such issues don't recur in the future.

What comes next- protecting PPAN in bucket 1

- We must keep pushing to ensure good community engagement in decision-making after review of project proformas
 - AP chairs have been invited to attend meetings with Science Board on subject of prioritisation
- Work constructively with DSIT, UKRI, and STFC to protect PPAN science
 - UKRI have committed to a number of town halls and opportunities for dialogue with the community - please engage
 - AP chairs have proposed a cross-PPAN town hall meeting - TBC
- Other ideas? Open for discussion!

What comes next- opportunities in bucket 2

In parallel: we must work with STFC to set up a framework to support PPAN contributions to the opportunities and associated economic growth/societal benefits in bucket 2 (strategic government and societal priorities)

- Big focus in this bucket on AI and Quantum Technologies
- Our research has a lot to offer here!
 - AI use in our experiments and theory groups
 - Big data -> GridPP and other large computing infrastructures
 - Experiment and theory overlaps with quantum
 - QTFP
 - Semiconductors -> silicon detectors
- A framework to access some bucket 2 funding can help relieve the pressure on the bucket 1 portion of the programme
- We must ensure PPAN community representation on STFC and UKRI strategic and decision-making panels around bucket 2 funding allocations

Let's use some time for brainstorming: **what kind of framework would help PPAN take advantage of bucket 2 funding streams?**

Conclusions/outlook

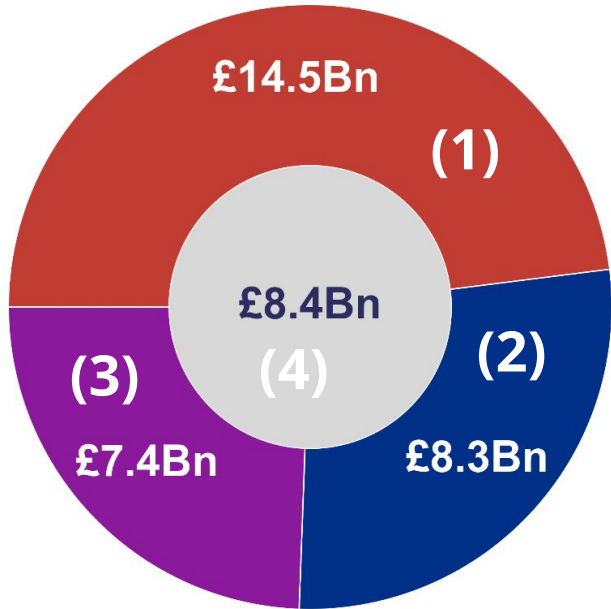
- We now want to open the floor to questions/comments and in-particular ideas on the route forwards.
- Reminder: there are more opportunities to discuss this later today in the ECR session and the STFC town-hall (lets not pre-empt discussions that will take place there now).
- Thanks for listening and your ongoing engagement!
- [Google doc](#) for questions/comments in case we can't get to them all now

For ECRs - please answer the survey and submit your questions for this afternoon's session



Backup

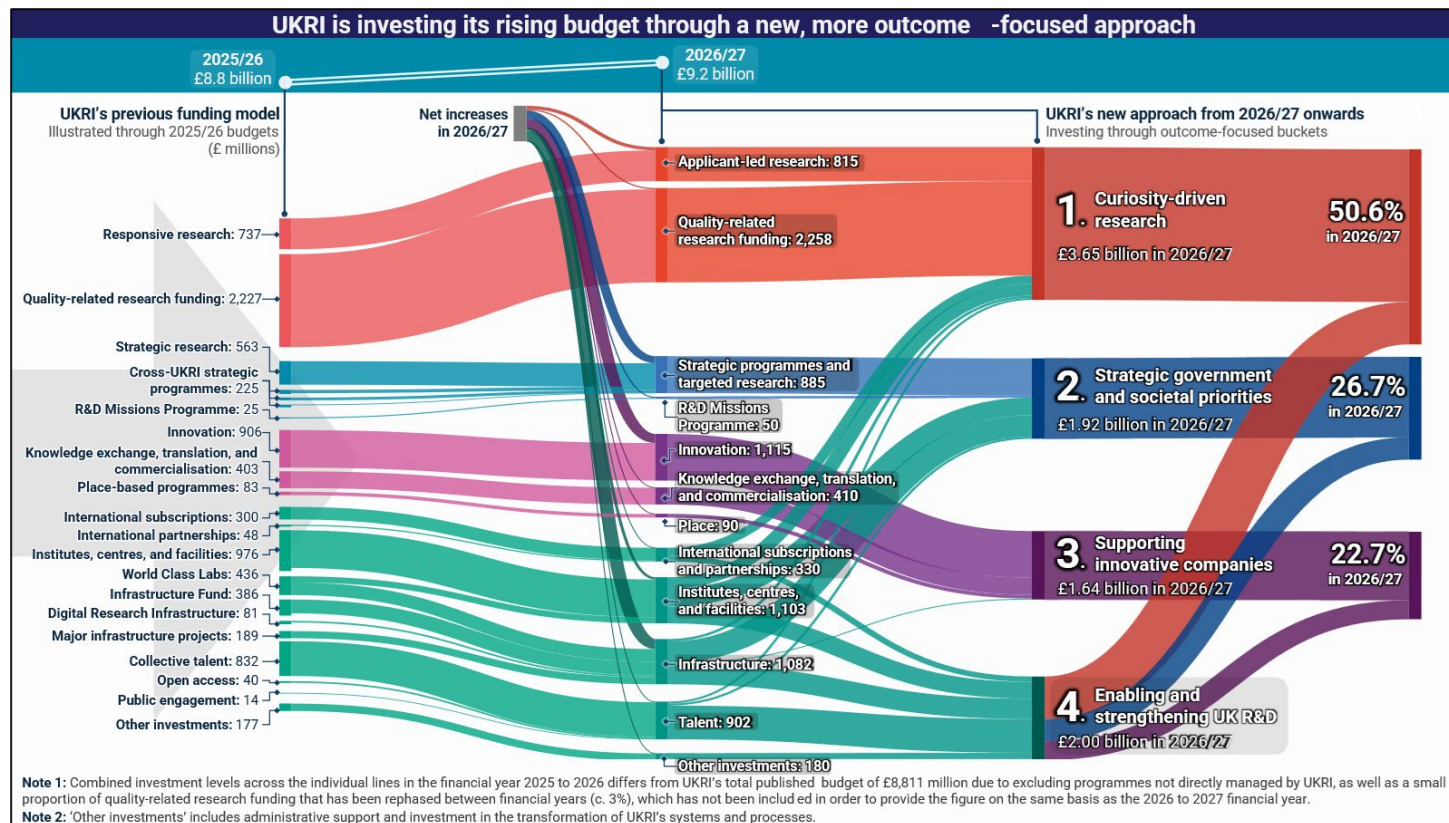
The UKRI “bucket” system



- Curiosity-driven research
- Strategic government and societal priorities
- Supporting innovative companies
- Enabling and strengthening UK R&D

Research councils get their allocations (which for STFC are only in bucket 1 and 4) and may be able to bid for additional opportunities in bucket 2!

Comparisons with previous funding model



CERN subscription costs

CERN (2026) subscription: £174M approx 60% (25%) of total UKRI (DSIT) subscription spend*

- Average annual increment in CERN subscription is ~ 1% in CHF (2.3M CHF) but due to FX this has averaged £4.3M in past 3 increments
- In real terms (i.e. accounting for UK inflation), CERN subscription in £ is flat due to UK inflation matching FX increases
- Other countries also affected by FX since € has also dropped 9% (vs 7% for £) over 3 years vs CHF.

Subscriptions to SKA, EMBL, ESO, ILL are each £20-25M; ESS is in-kind, XFEL ~ £5M, ESRF ~ £8M.

These are also subject to €/£ fluctuations.

*ESA subscription paid direct by DSIT (not part of UKRI budget) averages £467M over last 3 years and UKSA allocation outside of UKRI is ~ £650M i.e. very similar to STFC.

Drayson partitions

- First introduced in 2008 to protect PPAN science from cost increases in facilities/subscriptions.
- Play a key role in maintaining balance in field.
- Taken from [slides](#) at 2024 rECFA visit: STFC annual budget of O(£1 billion) has its core R+D budget partitioned between international facilities (including CERN subscription), UK facilities (ISIS, diamond, central laser facility) and the core R+D programme, with the core R+D programme (45% for FY 24/25) roughly 50:50 between “PPAN” grants and projects programme, and national laboratories and estates.
- Whether these are/were “soft” or “hard” partitions has been discussed/questioned in SITC sessions:
 - Lord Vallance (3rd March) stated “no hard partition” between facilities and PPAN.
 - Lord Vallance and Sir Ian Chapman’s [letter](#) on 19th March: “The Drayson partitions are not and have never been formal ring-fences of money, and do not provide recourse to additional funds when cost pressures arise.”
 - Partitions are included in [STFC delivery plan 2016-2020](#) and [STFC slides](#) from 2024 rECFA visit

Drayson partitions

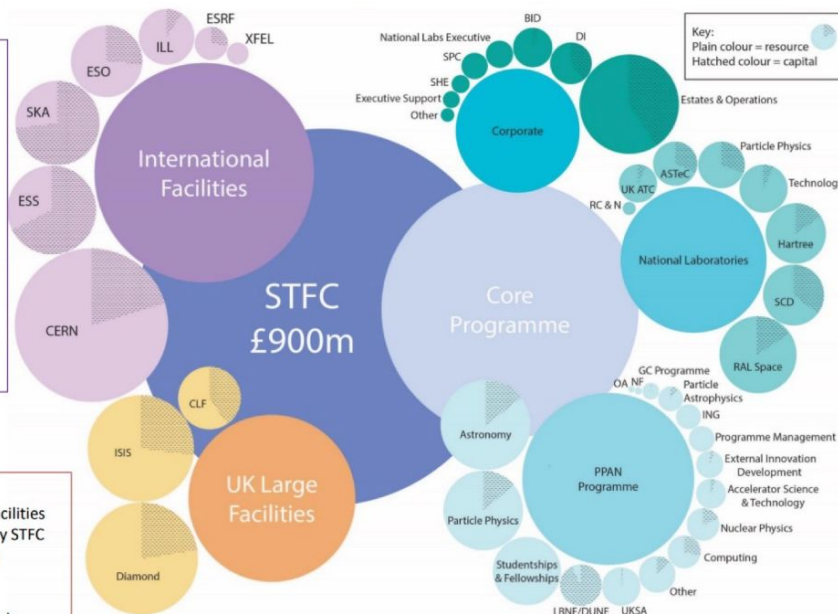
Taken from STFC [slides](#) at rECFA visit to UK (September 2024)

International Subscriptions

- UK membership of international facilities agreed under intergovernmental treaties
- Funds cost of:
 - Provision and Operation of the facility
 - Some development, depending on stage of lifecycle
 - Not the experiments or the research programmes of the UK research teams

UK National Facilities

- Three Multidisciplinary facilities at Harwell, under majority STFC ownership and operation
- Funds cost of:
 - Operation
 - Some development
 - Not the research programmes of the users



Core Programme

- Funds the UK research community to collaborate in the development and exploitation of a wide range of facilities and experiments across the globe and in space, including the international facilities
- All of the above are achieved through funding STFC staff and university teams, including Fellows, PhD and postdoctoral students via our programmes in:
 - National Laboratories and Campuses
 - Frontier Science