

# DRD Collaborations UK Steering Board & Coordinators Meeting 30<sup>th</sup> October 2023

- News
- STFC Discussions
- Plan to move forwards – for discussion



DRD: 1-gas; 2-liquid;3-solid state;4-PID; 5-quantum; 6-calo; 7-elect/data;8-systems + training, industry

# News

## Reminder – Lab survey

<https://www.surveio.com/survey/d/S6X/ECFA-LDG-infra-LabsSurvey>

All Steering board members will have received this.

Reminder – completion deadline tomorrow 31<sup>st</sup> October

## Towards forming DRD-8

Positive outcome from the survey

Community meeting to be planned for early December

# DRD Funding status

but Never

Jam Today.

- Submitted briefing document to STFC at end of September

– Thanks for your input

- Daniela and I have had extensive follow-up discussions and email exchanges

(Our version of) STFC view: **“No Jam today” version**

STFC consider that DRD-UK community has only recently directly engaged them on setting up funding streams and this will take time.

There is no headroom in current programme for a dedicated DRD line. SOI to science board is not encouraged.

Likelihood of dedicated new positions in CG is low

# DRD-UK Funding level

## Aim for ~3M /annum

Sarah Verth: “The Strategic Review of Particle Physics said that *“there should be an increase in resources available for generic R&D for detectors and accelerators. An indicative goal would be to approach a minimum of 5% of the core programme”*. If the core particle physics programme is ~£55m per annum then 5% is £2.75m. One could argue that there is some R&D in the CG, we support R&D for specific projects and there is are the R&D schemes from which PP can benefit, so we are some way towards 5% already but at least that’s a number to consider ramping up to. The collaboration might want to think about scenarios plus/minus around that.”

Not clear how this maps onto the calls I will discuss on next pages

# STFC messages

- **Want to see an overall plan from us**
- Encouragement to be **innovative** with DRD. Ask where the UK can make the largest difference. Ask how the UK programme should evolve over the next 10 years and how we might position ourselves. Tend to keep doing the things we are good at but is this an opportunity to take a risk?
- Encouragement to actively **coordinate with international partners**.
- CG to include M&O style **coordination activities** (travel, training, workshops, sustainability, EDI)
- **small fractions on CG of posts** (mostly core, though possibly some responsive), effectively business as usual of generic R&D fractions but now with cross-uk coordination (though Daniela and I think this is only effectively possible with the promise of dedicated funds to follow also and the presentation of the actual projects for funding on the CG timescales). DRD will be on the form x.
- Large fractions of CG posts (>50%) would be considered project posts. Strong cases can certainly be made but without an approved project we would assess chances here are slim. Essentially this means that the other funding mechanism needs to be identified already now. CG does support early R&D, this has been eroded with flat cash, but with the uplift there is an opportunity to look at the balance of R&D/M&O/exploitation, still need to be CG style cases though.

These come mostly verbatim from emails where we attempted to agree messages for this meeting.

(Our version of) STFC view: **“Jam tomorrow” version**

- Consolidated Grant
- Early-stage R&D scheme
- Other opportunistic calls
- Seedcorn/bridging funding

Will go through each.

For the moment we have to fit into existing STFC calls.

We have strongly made the point that with DRD being a major international process with full UK community support this is the wrong way around but have not made progress with this currently (we still try).

# Consolidated Grant

Our advice:

- Put small fractions of posts (academics, applied physicists, engineers, technicians) on DRD
  - Stating DRD-UK activity that are contributing to (see later)

STFC will use these to gauge the interest of the UK community wishing to participate in DRD
- Apply for small funds under M&O (£200k /yr ?)
  - STFC: Travel, training, workshops, sustainability, EDI
  - Us/STFC: “consumables” e.g. fabrication runs
- Can we agree a small number of additional CG requests ?
  - Project studentships discussed with STFC

# early-stage research and development scheme

<https://www.ukri.org/opportunity/early-stage-research-and-development-scheme-2023/>

Opportunity status:	Closed
Funders:	<a href="#">Science and Technology Facilities Council (STFC)</a>
Funding type:	Grant
Maximum award:	£600,000
Publication date:	10 May 2023
Opening date:	11 May 2023 9:00am UK time
Closing date:	1 June 2023 5:00pm UK time

max. 200k/yr for 3 yrs

We are encouraged to apply as DRD-UK

STFC will increase funds for this to ~ £4M/annum (all areas)

Our advice:

We prepare ~ **five coordinated bids** for these funds

i.e. £3M level, this is thus £1M/yr in first year, though 3M/yr in steady state if this did become our funding model

We have requested: move timescale earlier in 2024, explicitly mention DRD - not clear they will happen. Utilise DRD-UK steering board in awarding funds - rejected.

More on organising this bid later



# Other existing / potential funds

- Late-stage commercialisation scheme
  - <https://www.ukri.org/opportunity/late-stage-commercialisation-scheme/>  
Call write-up sounds more relevant than name suggests. 600k projects, 300k/yr.
- Boulby related funds relevant to DRD2
- Quantum Technologies for Fundamental Physics
  
- EPSRC calls ?
- Sustainability ? Thanks for input after last meeting – inserted DRD into document for STFC (low GWP gases for detectors; low GWP/ non-PFAS liquid coolants; lower energy data centres)
  
- Seedcorn/bridging – by discussion with STFC

STFC offered to help guide on calls and would be willing to attend a forthcoming meeting

# Quo Vadis ? Ad Jam



## Our Next Steps

Proposal on next pages, very open to suggestions

# Consolidated Grant submission

- Guidance document is not available yet
  - PIs have been promised this by STFC in early November
  - Once we have this we can suggest sections & page lengths for our DRD submission

Still, lets start on discussing items we will need, and see soon on level of detail.

From last time:

10 pages if STFC approved; RAL budget holder; work done (A – previous R&D) & future plans (B); equipment, travel & TD effort; SOIs for science board in next four years; Appendix: list commitments to M&O; excel workbook funds.

# Our Plan: CG-1

**ACTION:** DRD-UK coordinators to:

Prepare list of DRD activities in which UK wishes to participate (without costs).

*Suggested Format:*

*DRD-9.1: Short descriptions (one paragraph).*

*Beneficiaries. [UK industry links if appropriate]*

*You only want a handful of these per DRD - clearly some DRDs have larger community than others*

**DEADLINE:** Need these lists uploaded for our end-November meeting.

CG cases in institute bids should then cross-reference DRD activities in which they wish to participate. (ACTION: SB members talk to group PIs)

Prepare for DRD1-8+Training (+ Industry?)

# Our Plan: CG-2

**ACTION:** DRD-UK coordinators to:

Write short textual description of aims of their DRD areas. I will advise on length (not same for each DRD).

**DEADLINE:** 7th January (i.e. do drafts before xmas, we review text in new year)

# Our Plan: CG-2

DRD-UK coordinators to:

Suggest items for inclusion in M&O funds that support the DRD project lists.

DRD-UK steering board to:

Suggest items for inclusion in M&O funds that support the DRD project lists.

Suggest cross-experiment projects already running related to DRD aims where studentship could benefit DRD aims

DRD common fund contributions ?

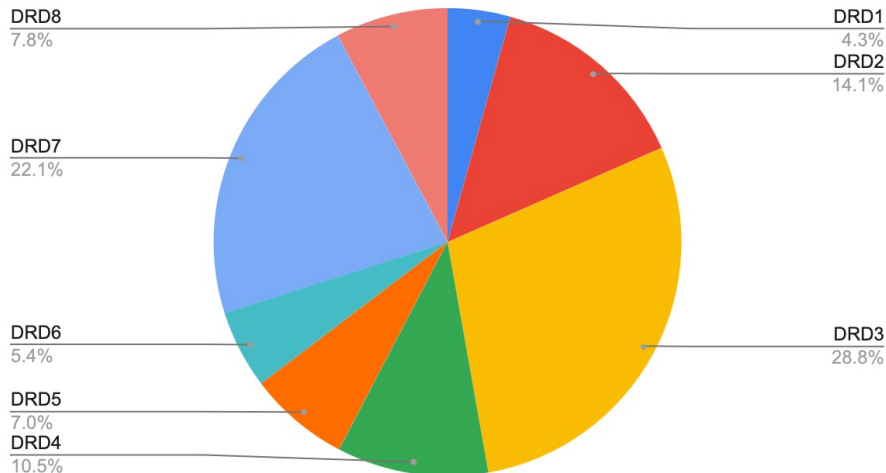
# Early (and late?) stage R&D scheme(s)

Deciding on and writing the first ~5 projects

Expect to somewhat follow community interest areas

Steering board role to prioritise and assist in preparing these

DRD-UK interests



Would expect:

DRD3 proposal

DRD7 proposal

Probably a DRD2 proposal  
(discuss with STFC for other funds)

[we have examples for these in the briefing document]

+2/3 others following best ideas  
we have (more if we can use late  
stage + other fund schemes)

1-gas; 2-liquid;3-solid state;4-PID; 5-quantum; 6-calo; 7-elect/data;8-systems.

Concentrate first on the projects, not on the institutes or we will not make progress  
All can contribute through CG – and new posts should follow CG investments  
Take a broad view – this is first tranche

# R&D scheme project ideas

- Project concepts for early January DRD meeting  
1/2 page concept.

Expect many will follow from DRD CG activities list

– Steering board decides at that meeting which to pursue initially

- Would like more than five, given possibility of other funds
- Projects make use of CG personnel (outside funds)
- Each project will have own PI, with DRD-UK steering board acting as a project management oversight board



# Steering Board & UK coordinators

- 18 member steering board + Daniela + Chris
- 10 areas – DRD1-8+training/industry.
- Allocate ~two members (in areas where they are not convenors / major contributors) to be advocates/critical friends to help steer the production of CG lists and project plans.
  - Interact with international partners

Daniela and I taking overview.

- Do allocation of members offline
- Projects can be pan-DRDs – transparent boundaries.

# Summary – focus on positives

- Appreciable funding stream anticipated in future
- Submission of CG bid
  - Coordination activities
  - Smaller fractions of posts
- Encouraged to apply for early (late?) stage R&D grants – with total award values increased

- CG: existing post fractions; activity lists; M&O components
- Bids: brief project proposals – select first tranche

