

National Nuclear User Facility Management Group update June 2023

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National Nuclear User Facility



NNUF Phase 1

Established to support the Government Nuclear Industrial Strategy launched in March 2013

NNUF Phase 2

- Funded by BEIS in 2019; delivery partner is EPSRC
- £81m in total: project running until early 2024
- £60m capital, £12m support, £6.5m to fund researchers from HEIs and national labs to use NNUF facilities
- 15 facility projects funded in round 1 (2019)
- 10 facility projects funded in round 2 ("Call 2a": 2021)

Management Group

- PI Prof Chris Grovenor (Oxford), Co-I Prof Malcolm Joyce (Lancaster), Co-I Prof Francis Livens (Manchester)
- NNUF Administrators: Francesca McGowan (Oxford), Mary English (Lancaster)

NNUF user access scheme:

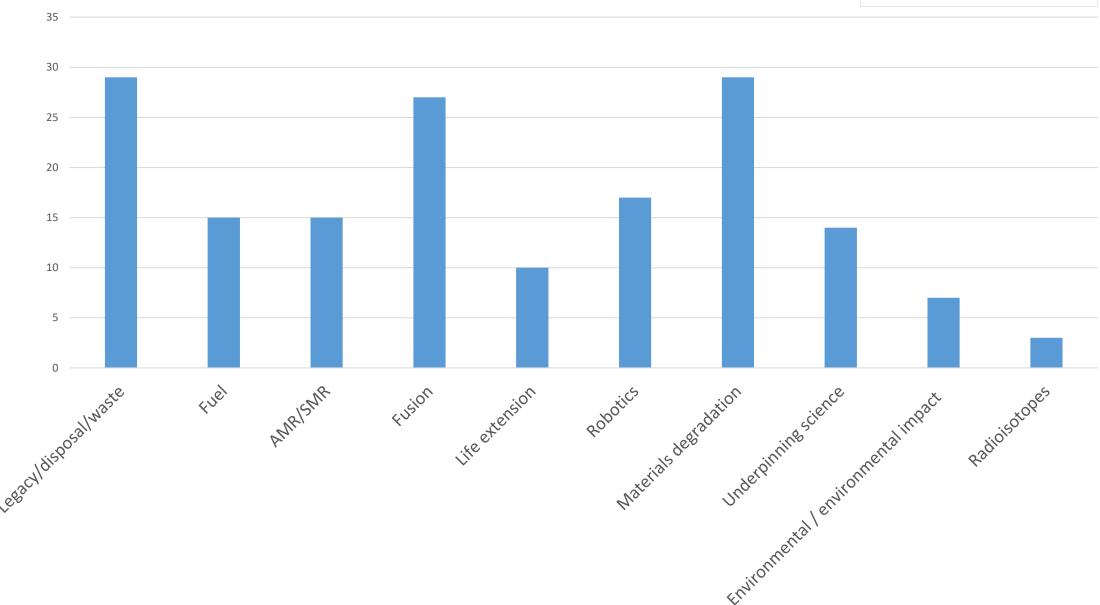


nnuf.ac.uk/how-gain-access

- £7.5m available (includes new £1m for new Larger Projects Competition)
- 144 access applications granted (and many completed). Nearly £4m committed.
- Access awarded to users from 31 different UK HEIs and national research institutes, plus a small number of international institutions
- 223 unique users, including 66 PhD students and 46 PDRAs
- Call 12 now closed panel meeting tomorrow



(some projects fit into more than one area)



Research outputs acknowledging support from NNUF (so far)

• # of papers identified in Scopus (24.06.23) 106

of citations to these papers

• H index of NNUF funding 15

"In February and April 2022, the Lyra robot, carried out a survey of the 140m-long underfloor duct which runs under the central corridor between the laboratories.

The technology was developed by teams at Dounreay, the Robotics and Artificial Intelligence in Nuclear (RAIN) Hub and FIS360, and was made available for the survey through the **National Nuclear User Facility's Hot Robotics programme**.

Now the characterisation survey is complete, a comprehensive picture of the duct will help make informed decisions on how the duct should be decommissioned."

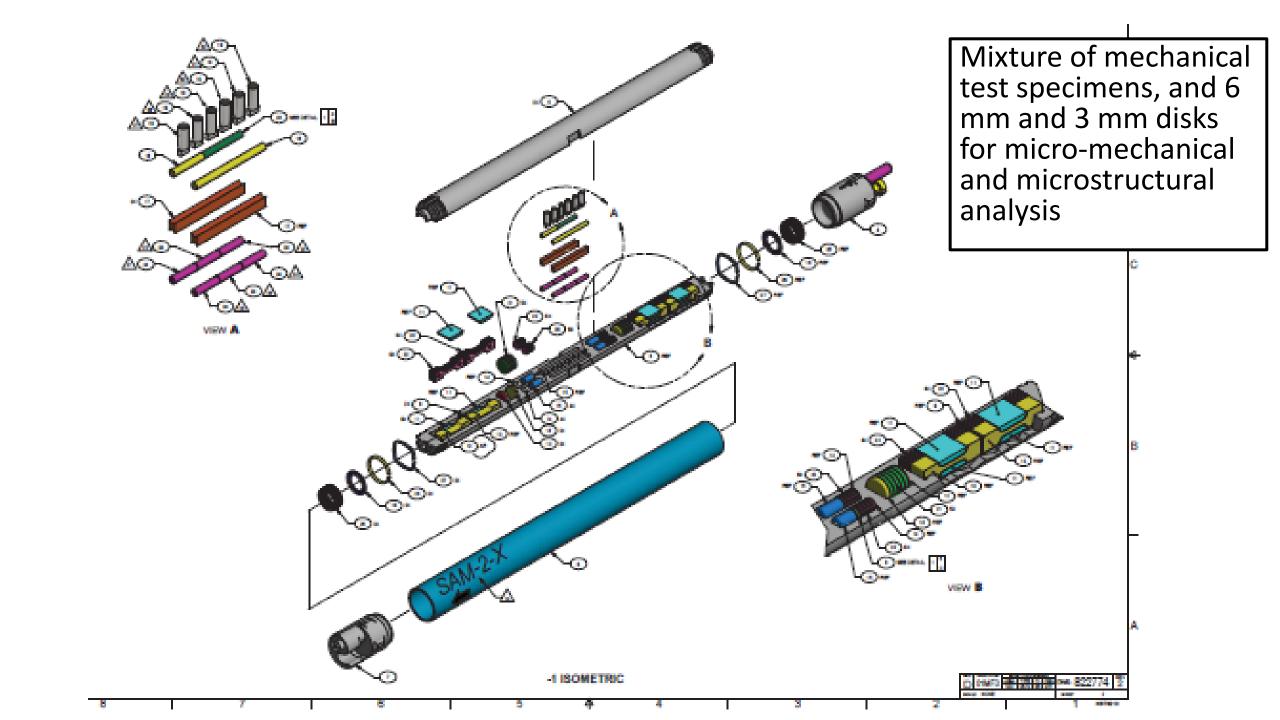
Nuclear Decommissioning Authority: Annual Report and Accounts 2021 to 2022 - GOV.UK (www.gov.uk)

https://content.govdelivery.com/landing_pages/36508/8a7bb336883d49d5f9e3f278a5700839

NSUF/NNUF irradiation campaign — update

- Active planning for irradiation campaign starting in 2024 in US MTR
- Capsule and sample manufacture in UK
- 3 groups of materials chosen by US/UK working groups (~25 people)
 - alumina-forming steels, graphite for HTRs, ['exotics': HEAs, multilayer materials]
- 4 UK members on the project planning team (from NNL and R-R)
- Complete planning stage by late summer 2023
- Preliminary target to insert first capsules in cycles 175 A or B

ATR Position B-8		Cycle 171A (Jan23)	Cycle 171B (Apr23)	Cycle 173A (Sep23)	Cycle 173B (Dec23)	Cycle 175A (Aug24)	Cycle 175B (Oct24)	Cycle 175C (Feb25)	Cycle 177A (July25)	Cycle 177B (Oct25)	Cycle 177C (Jan26)	Cycle 179A (Aug26)	Cycle 179B (Nov26)	Height Relative to Core CL [in]
CAPSULE POSITION	С	AVAILABLE	AVAILABLE	AVAILABLE	AVAILABLE	AVAILABLE	24							
	D	SAM-2	AVAILABLE	GENIE-AH	AVAILABLE	AVAILABLE	AVAILABLE	AVAILABLE	AVAILABLE	AVAILABLE	AVAILABLE	AVAILABLE	AVAILABLE	19.325
	Е	SAM-2	SAM-2	SAM-2	SAM-2	SAM-2	AVAILABLE	AVAILABLE	AVAILABLE	AVAILABLE	AVAILABLE	AVAILABLE	AVAILABLE	11.625
	F	SAM-2	SAM-2	SAM-2	SAM-2	AVAILABLE	3.875							
	G	SAM-2	SAM-2	SAM-2	AVAILABLE	AVAILABLE	AVAILABLE	AVAILABLE	AVAILABLE	AVAILABLE	AVAILABLE	AVAILABLE	AVAILABLE	-3.875
	Н	SAM-2	SAM-2	GENIE-AH	GENIE-AH	GENIE-AH	GENIE-AH	AVAILABLE	AVAILABLE	AVAILABLE	AVAILABLE	AVAILABLE	AVAILABLE	-11.625





New: Larger Projects Competition

- Projects c. £150-250k (facility access fees, consumables, T&S, sample transport, some staff time if carefully justified)
- Endorsement required from UK industry partner or UK end user.
- Applications must include an estimate of facility access charges.
- End July 2023: Application deadline (using the current NNUF proposal form). Early applications welcomed.
- End August 2023: Decisions
- Start Date: No later than 1 Oct 2023
- End Date: No later than 15 March 2024