

**EPSRC**

Engineering and Physical Sciences  
Research Council

**NGNCDT**

# Next Generation Nuclear Centre for Doctoral Training



The mission of the EPSRC Centre for Doctoral Training in Nuclear Fission - Next Generation Nuclear, is to develop future research leaders to support the UK's strategic nuclear programmes including nuclear legacy clean-up, new build power stations and, defence and security.

2014-2022: target of 80 PhD students  
**£5.7M from EPSRC, £4.8M from Industry, £5.7M from HEIs**

## 8 Industry partners

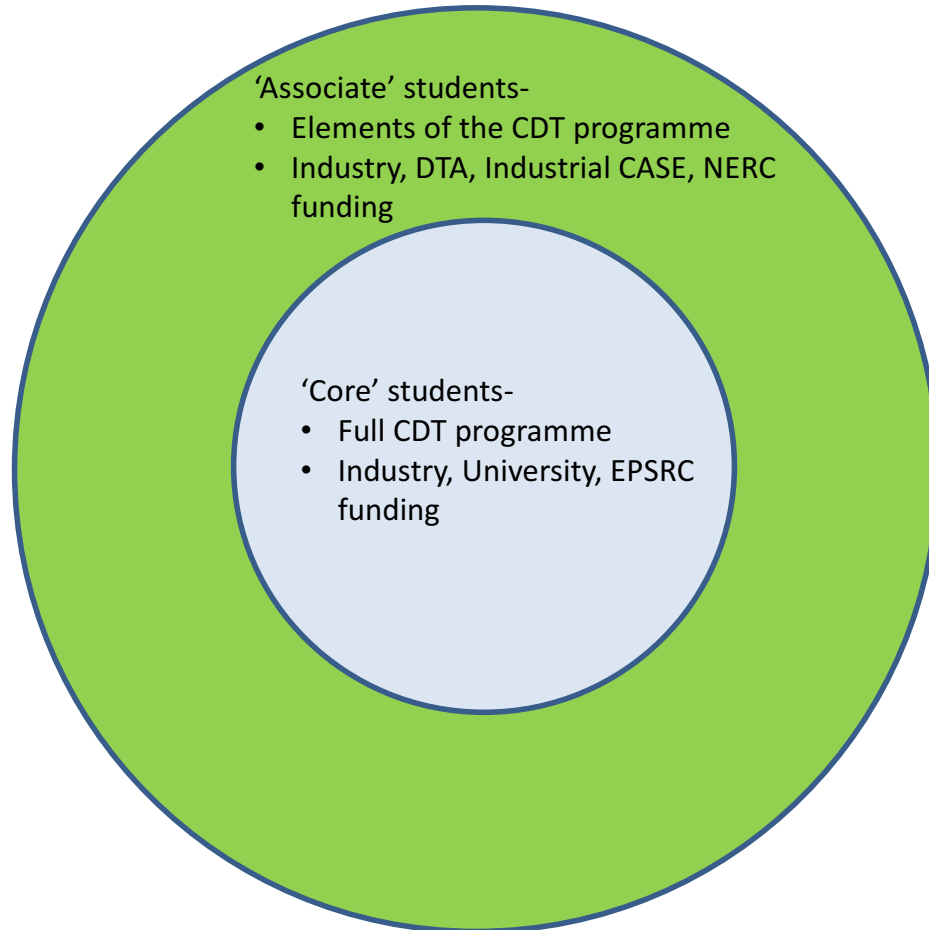


## Three submission rounds for project proposals

- Industry partners suggest projects attached to half studentships; University partners provide match if of interest / have expertise
- University partners suggest projects attached to half studentships; Industry partners provide match if of interest / relevance (**TO BE OMITTED FOR COHORT 5**)
- University partners submit whole studentship projects
- **Resulting in leverage of 4:1 with respect to EPSRC funded studentships**

## Management structure

- Joint IAB with ICO CDT
- NGN Strategy: Meetings of all HEI & non-HEI partners as required and annually at Winter School
- NGN Management: Meetings of 5 HEIs every 6 weeks by conference call and face-to-face every quarter
- Oversight of NGN student experience: panel of 3 externals (B'Ham, Strathclyde, NNL)



## Bespoke taught programme

- No specific nuclear background required
- 12 weeks 'Introduction to Nuclear Energy'
- Business Games, Exercises, Case Studies
- Strong 'real life' contribution
- 6 months project specific training
- 36 months PhD research
- Steps towards SQEP status
- Co-supervision

- Total across Cohorts 1-5 – nearly 100 students. Cohort 1 (Oct 2014 intake) - 16 students; Cohort 2 (Oct 2015 intake) - 19 students; Cohort 3 (Oct 2016 intake) - 22 students; Cohort 4 (Oct 2017 intake) - 20 students; Cohort 5 (Oct 2018 intake) - ~20 students, project decisions in autumn
- **Distribution:** Lancaster, Leeds, Liverpool, Sheffield ~17% each; Manchester 33%

Theme	Number of Projects
New Nuclear Build	4
Plant Life Extension	7
The Fuel Cycle	3
Advanced Reactor Technology	5
Decommissioning & Cleanup	10
Waste Management	18
Geological Disposal	2
Safety & Regulation	1
Safeguards & Security	5
Public Acceptability	

## Working with other nuclear CDTs

- Joint Winter Schools with ICO: Jan 2015, Jan 2016, Jan 2017 (4-6 Jan in Birmingham)
- Joint International Advisory Board providing oversight across NGN & ICO
- Joint student 1-day meeting July 2015, July 2016 (convened by ICO at Imperial)
- Joint fission/fusion event with the fusion CDT, December 2015

## Commended during the Fission/Fusion review

- “The panel recognized the success of the (CDTs) in creating a pipeline of people with a breadth and mix of skills and capabilities that are clearly widely valued both inside & outside academia. It will be important in the future to ensure that CDTs need to be balanced with a strong & vibrant research programme aligned with national research priorities, and that well-defined career paths emerge in a rejuvenated nuclear industry to provide rewarding careers for this new cadre of talented individuals.

## Passed mid-term review

For further information please see our website <http://www.nextgennuclear.manchester.ac.uk/> or contact us [ngn@manchester.ac.uk](mailto:ngn@manchester.ac.uk) /Tel.0161 275 1887