



Department for  
Business, Energy  
& Industrial Strategy

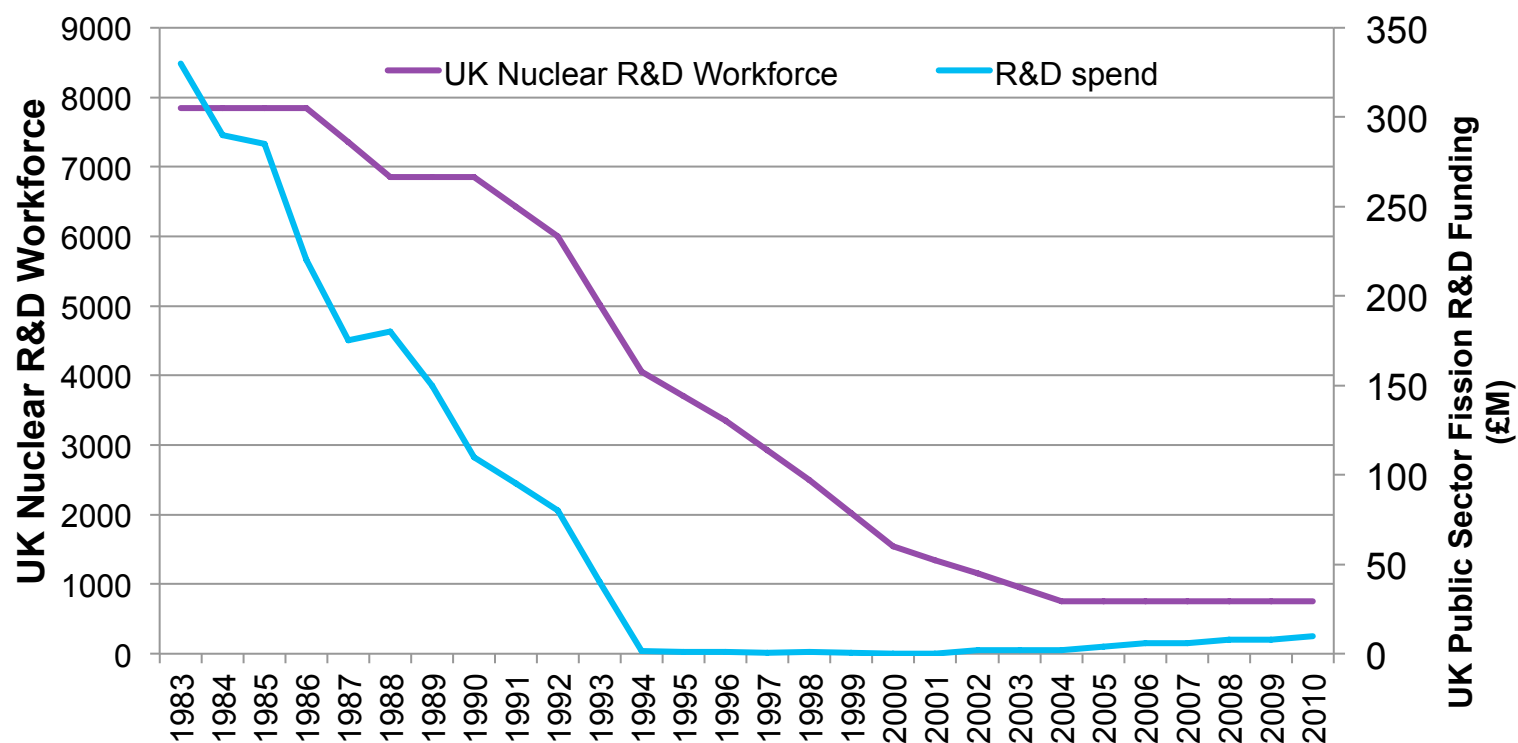
# UK Nuclear R&D programme

**Si Dilks & Rob Arnold**

UK Department of Business Energy and Industrial Strategy



## Historic decline in nuclear R&D capability and funding



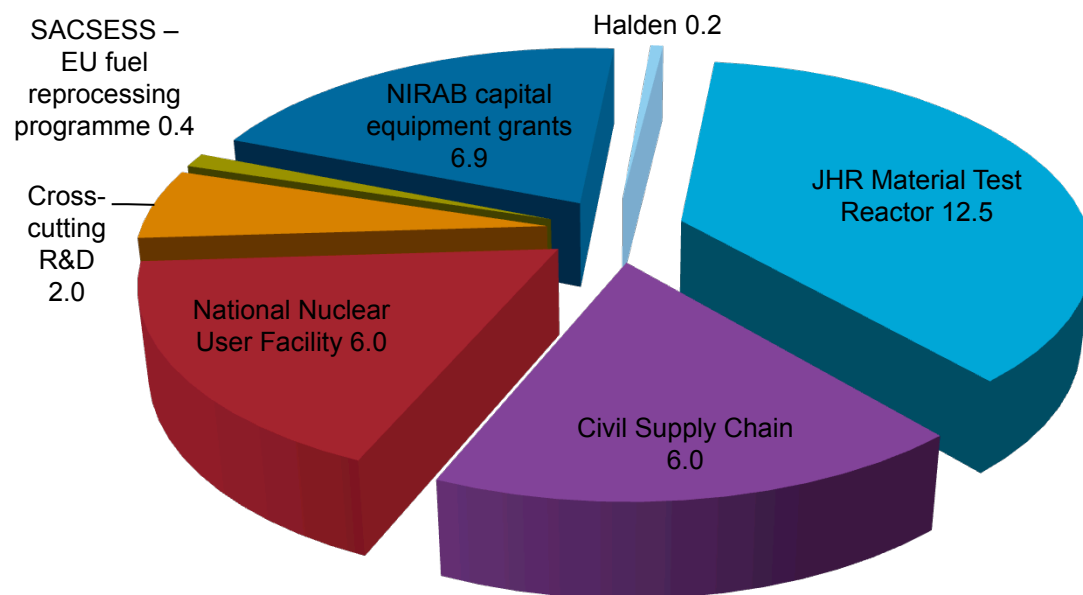


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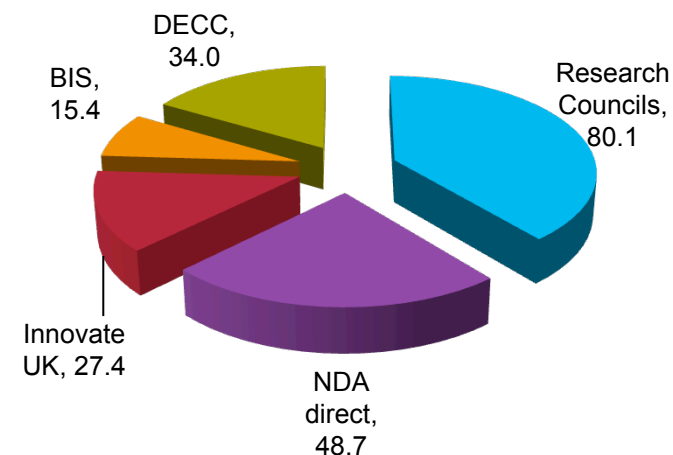
## Previous SR - Funding

- Nuclear innovation and R&D had no allocated budget and no central coordination;
- HoL Science & technology committee called for more investment and coordinated nuclear R&D;
- £34m of DECC funding secured for nuclear landscape:

### DECC funding (£m)

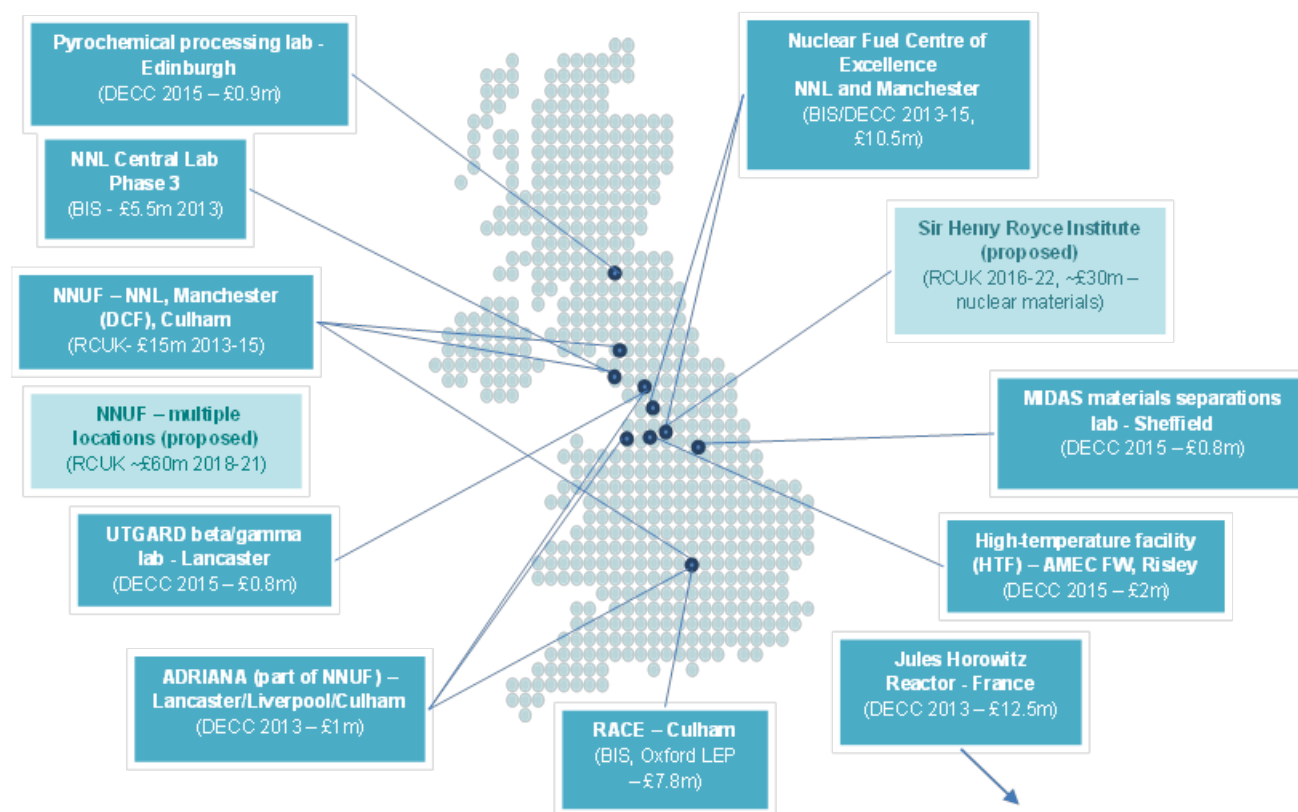


### Gov Funding (£m)





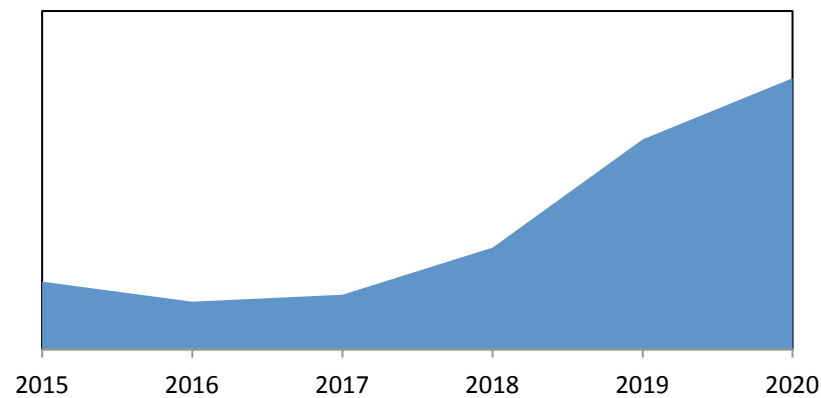
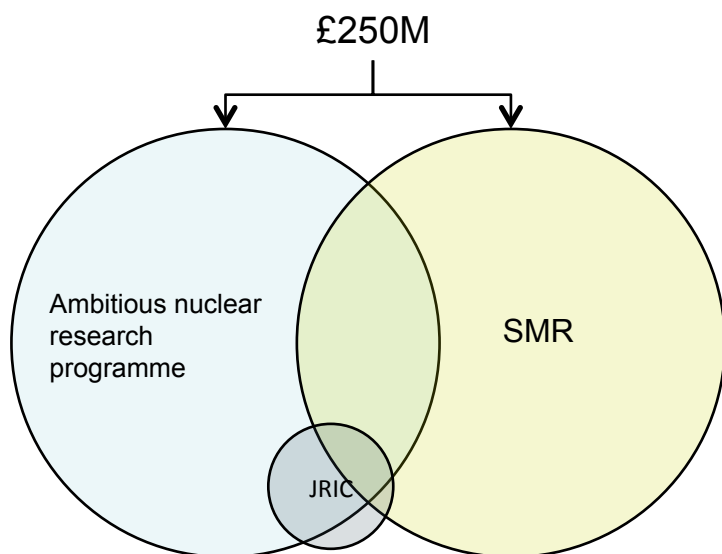
# Government funded facilities since 2013





# Spending Review 2015

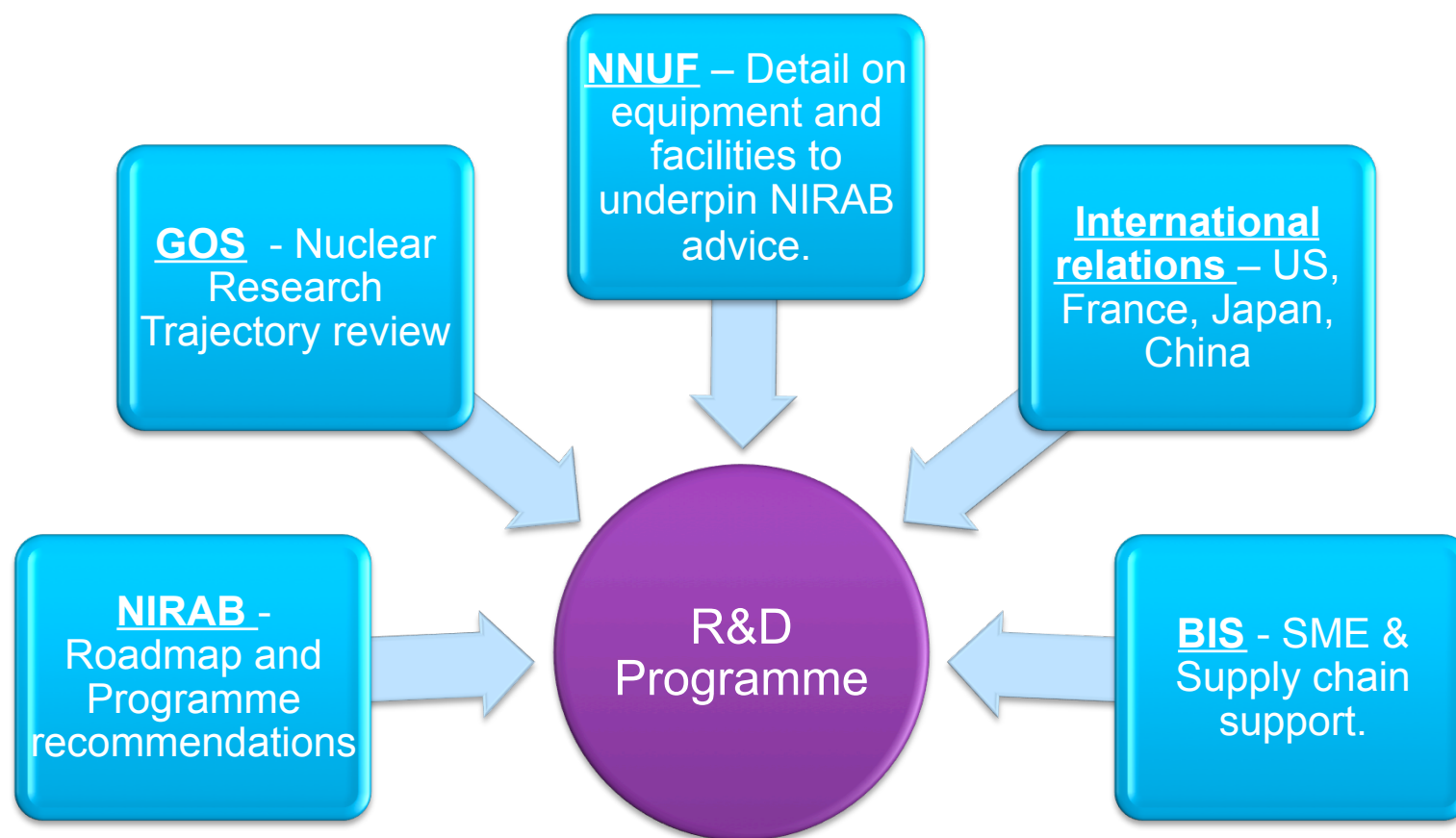
“at least £250 million over the next 5 years in an ambitious nuclear research and development programme that will revive the UK’s nuclear expertise and position the UK as a global leader in innovative nuclear technologies. This will include a competition to identify the best value small modular reactor design for the UK.”





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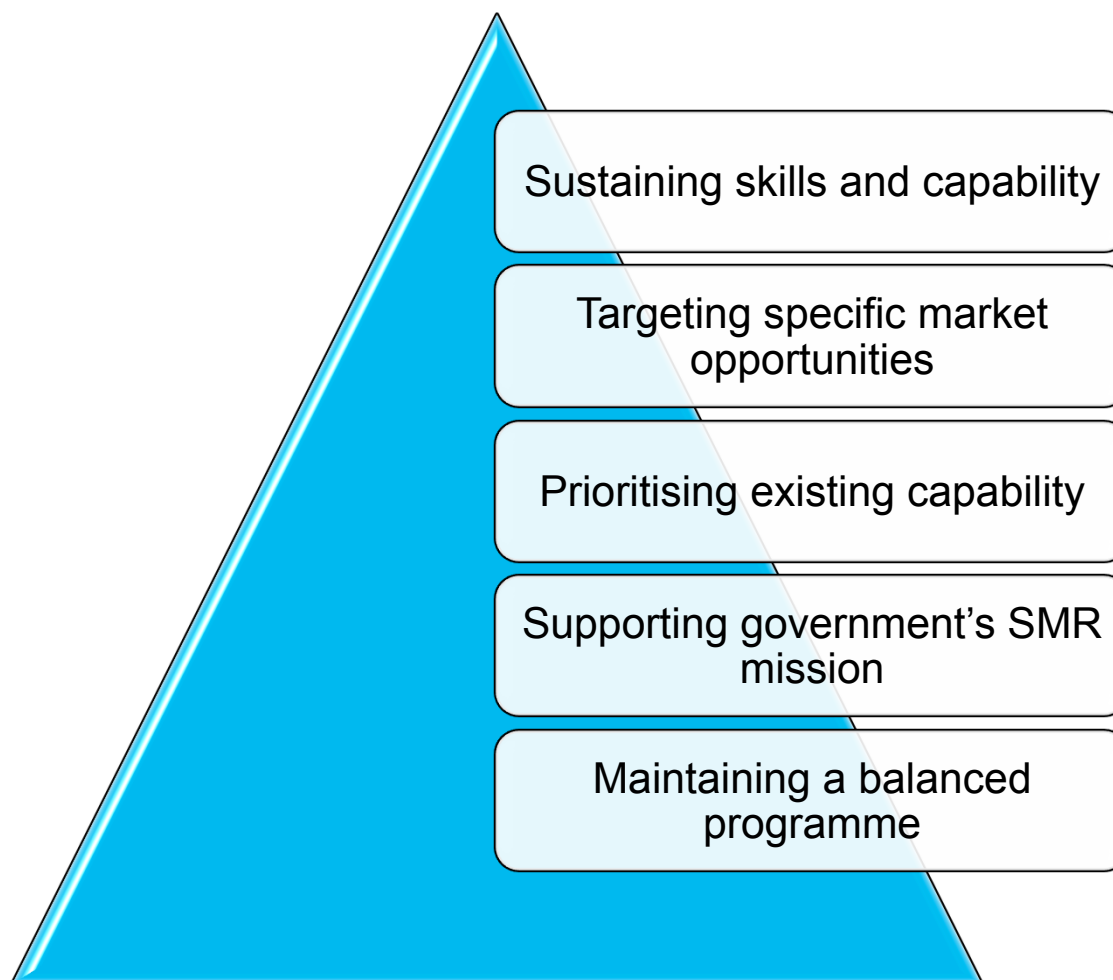
## Key inputs to non-SMR programme definition





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# Criteria hierarchy for funding





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## Potential programme themes

Future Fuels	<ul style="list-style-type: none"><li>• Keeping UK at the forefront of developing more efficient and tolerant fuels for current and future reactors.</li></ul>
21 <sup>st</sup> Century Manufacturing	<ul style="list-style-type: none"><li>• Developing UK capability in advanced manufacturing and modular build for the factories of the future.</li></ul>
Advanced reactors	<ul style="list-style-type: none"><li>• Developing areas where UK strengths can contribute to SMRs and Gen IV fast reactors of the future. Covers Safety, Digital modelling &amp; In-service support</li></ul>
Recycle and Reprocess	<ul style="list-style-type: none"><li>• Ensuring that UK maintains a global lead in technologies that could provide for a more secure and sustainable fuel supply.</li></ul>
Strategic Toolkit	<ul style="list-style-type: none"><li>• Ensuring that we have the tools and capability to underpin future planning on nuclear R&amp;D &amp; enable better public engagement.</li></ul>
Nuclear Facilities and Data	<ul style="list-style-type: none"><li>• Coordination and optimisation of our portfolio of existing and future facilities.</li></ul>