



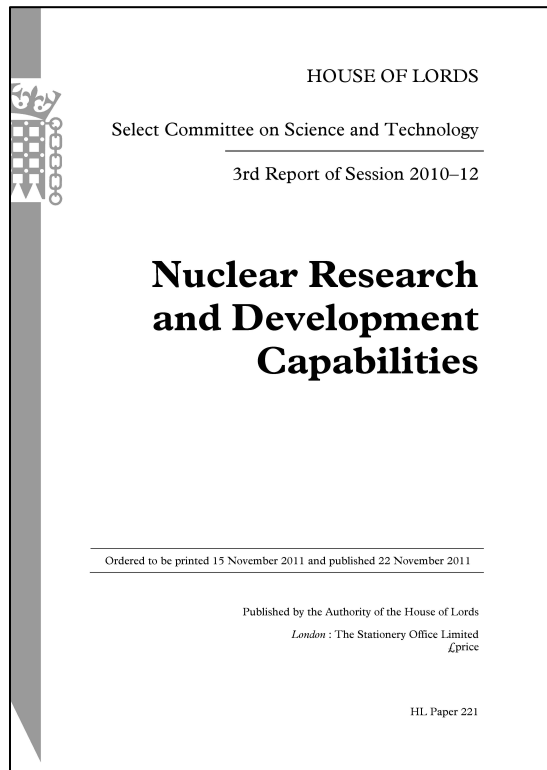
NIRAB update

Dame Sue Ion, FREng

Chairman, Nuclear Innovation and Research Advisory Board (NIRAB)



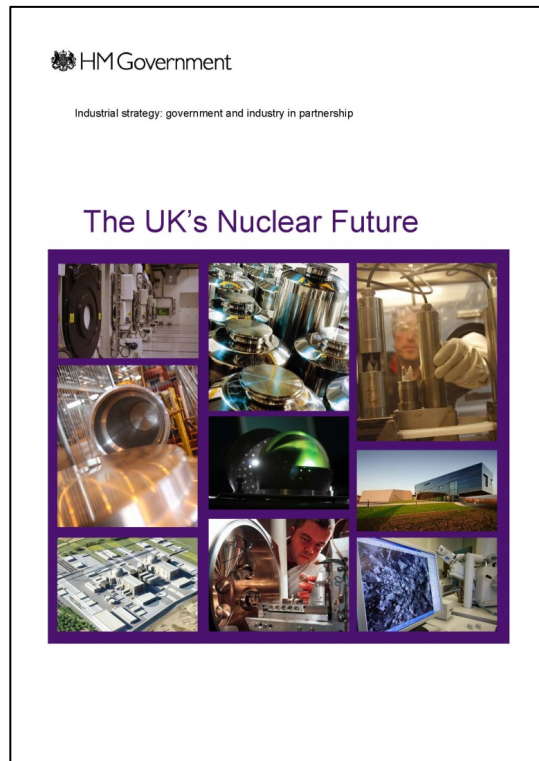
Background



A series of 13 recommendations on
nuclear R&D, its governance and funding



Background



A response by Government and industry setting out a positive vision for the nuclear industry

“a vibrant UK nuclear industry that is an area of economic and strategic national strength, providing the UK with a safe reliable and affordable supply of low-carbon electricity”



Objectives

- *To be a 'top table' nuclear nation, working in international partnerships leading the direction of future technology advances across the fuel cycle.*
- *To be a key partner of choice in commercialising Generation III+, IV and SMR technologies worldwide.*
- *To have a joined up approach to nuclear R&D ...*
- *For the research base to be underpinned by world-leading facilities ...*
- *To be a respected partner contributing to appropriate international research programmes ...*
- *To have the right level of nuclear innovation and R&D to ensure near-term commercial success in domestic and global markets.*
- *For industry to be supported by a workforce with the skills, capability and capacity required to successfully deliver current and future UK nuclear programmes ...*



Role of NIRAB

- To advise Ministers, Government Departments and Agencies on priorities for UK nuclear R&D and innovation
- To support the development of new R&D and innovation programmes to underpin policy (e.g. energy and industrial policies) and the associated business cases
- To foster greater cooperation and coordination across the UK research and innovation landscape
- To oversee the development of a coordinated international engagement strategy

NIRAB is unfunded and does not commission or carry out research



Composition of NIRAB members

25 members including:

- Academics
- Senior technologists from industry
- Facilities operators
- Chief Scientific Advisors for Government and Government Departments
- Representatives of public funding bodies



Progress to date

Initial focus on identifying gaps in accountability and funding and drafting recommendations to fill those gaps:

- Biggest gaps relate to research into advanced systems / fuel cycles
- Research needed to address all parts of the fuel cycle
 - Fuel fabrication and performance
 - Reactor design
 - Recycle technologies
 - Cross-cutting themes / strategic analysis

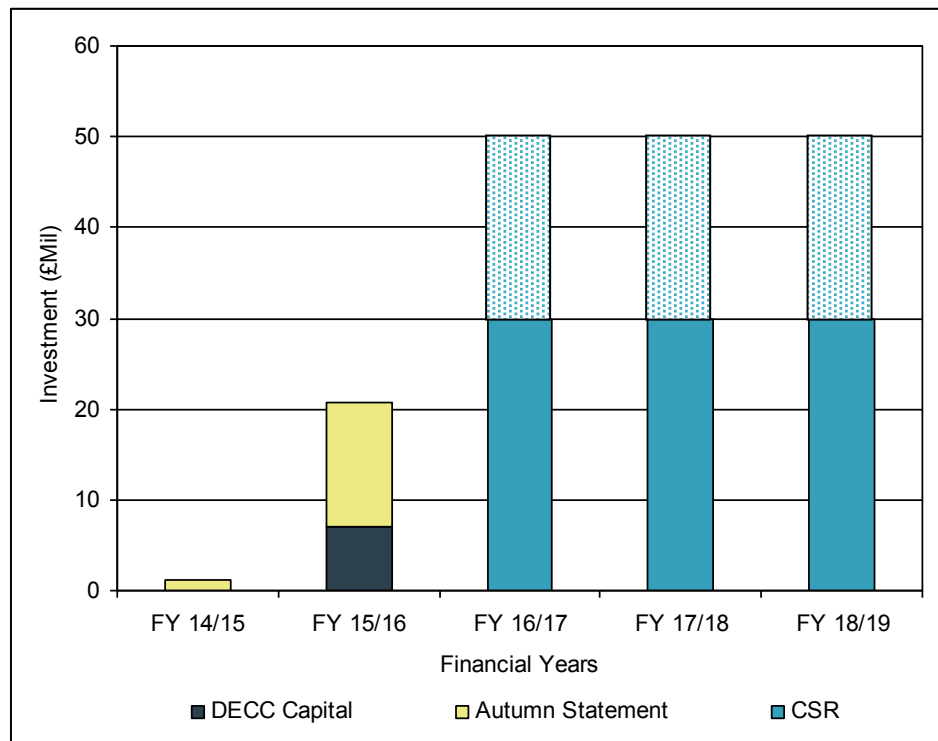


Where next?

- Currently working with officials from DECC and BIS to prepare the business cases required to secure funding for an initial R&D programme (up to 31/3/16).
- During 2015 NIRAB will work with officials to make a case for funding through the period of the next Comprehensive Spending Review (5 years from 1/4/14).
- Nuclear Industrial Strategy Objectives will not be met without additional funding for R&D programmes (capital funding is not sufficient).
- It is important that there is continuity of funding for programmes.



NIRAB Recommendations for a National Nuclear Research Programme

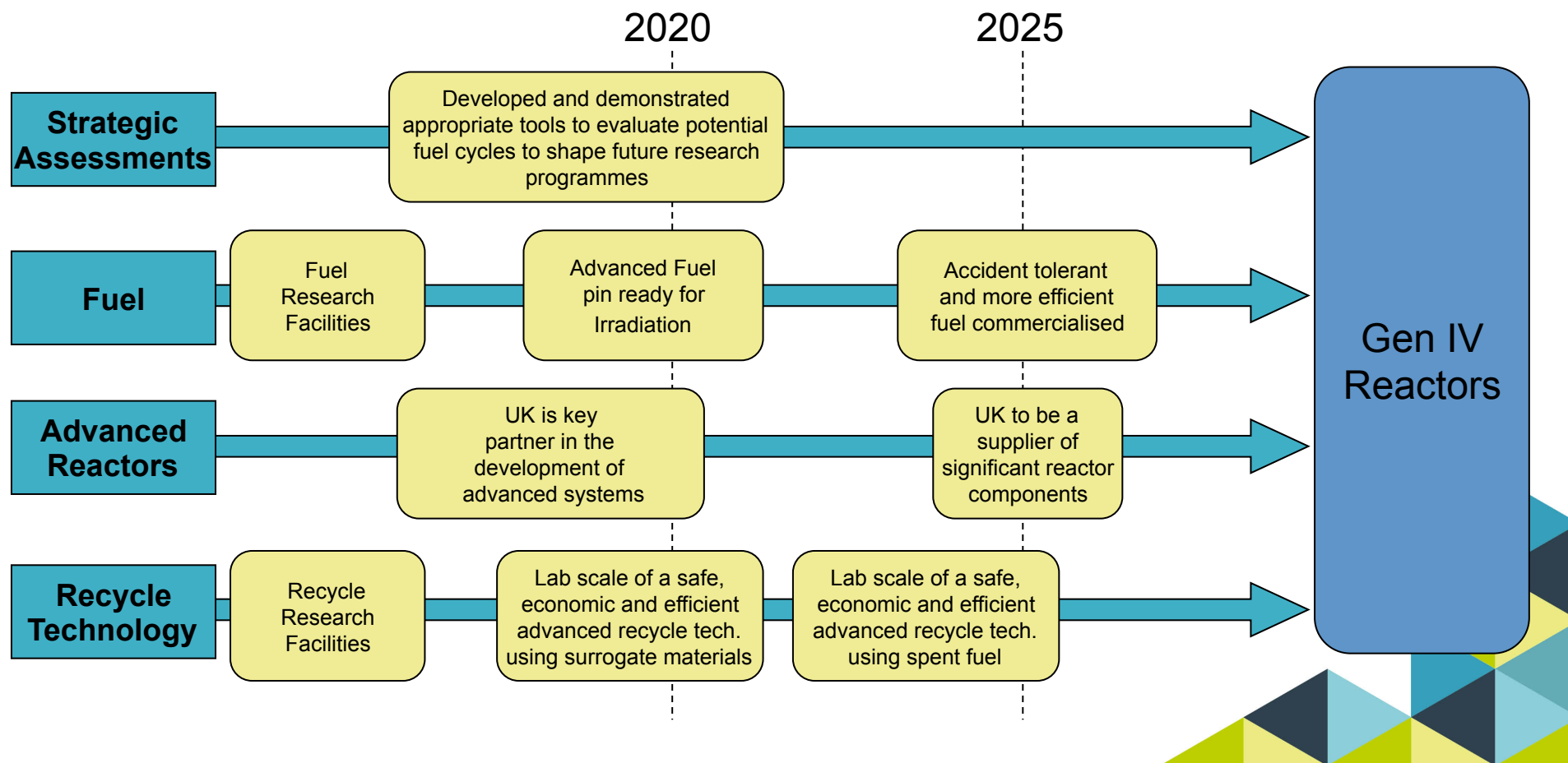


Proposed Research Areas Include:

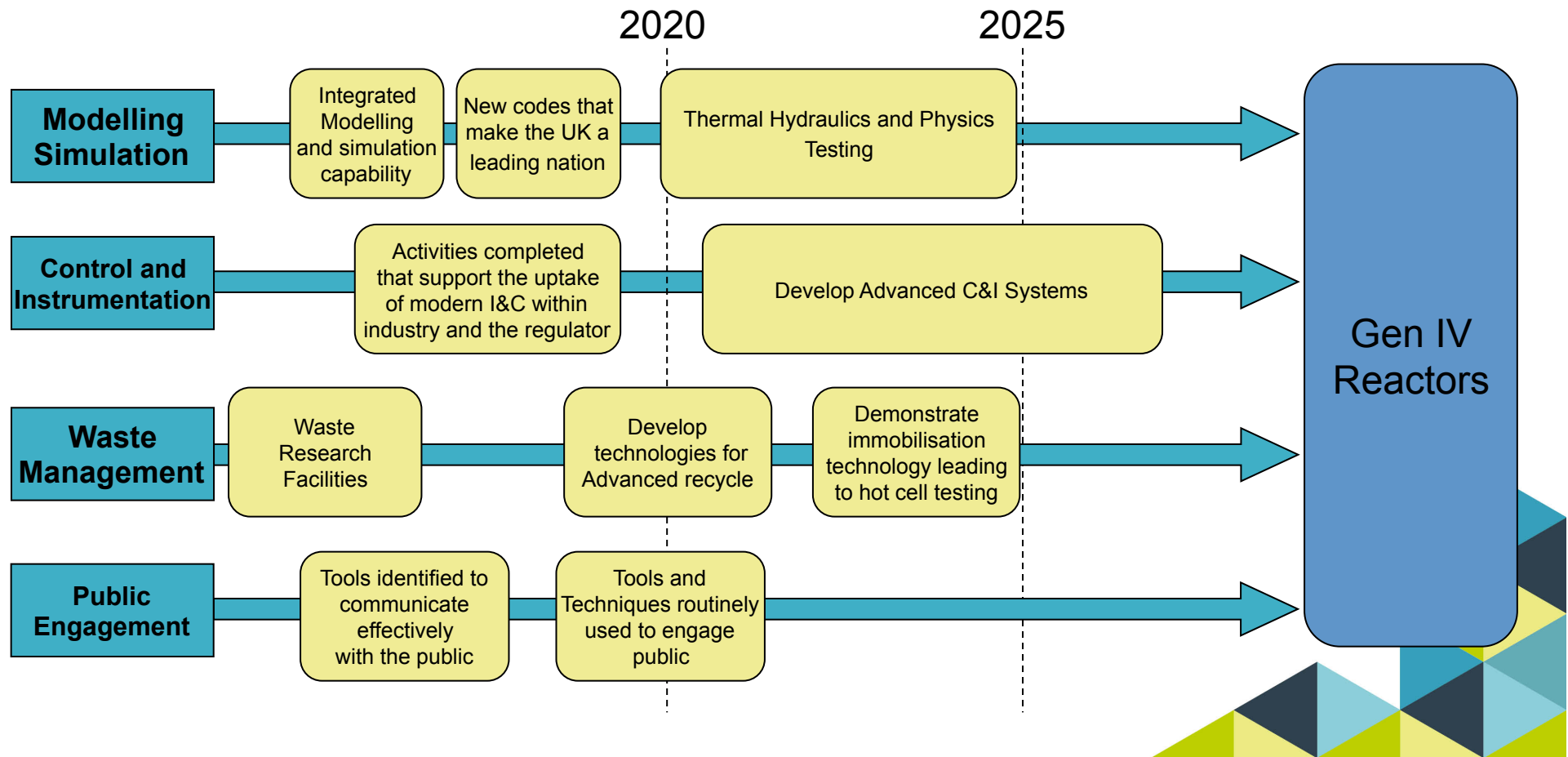
- Strategic Assessments
- Advanced Fuel
- Advanced Reactor Systems
- Control & Instrumentation
- Emerging Nuclear Technology
- Knowledge Management
- Modelling & Simulation
- Public Engagement
- Recycle technologies
- Robotics & Remote Handling
- Validation & Verification
- Waste Management



National Nuclear R&D Programme



National Nuclear R&D Programme



Opportunity for suggestions

If you have an idea for innovation or research that would support the realisation of the long term nuclear industrial policy you will soon be able to submit a suggestion through the NIRAB website:

www.NIRAB.org.uk



Members

Academia

Andrew Sherry	Reactor Technology	Manchester / NAMRC
Tim Abram	Fuels, Advanced Systems and Fuel Cycles	Manchester
Bill Lee	Waste management and Disposal	Imperial College
Neil Hyatt	Waste management	Sheffield
Malcolm Joyce	Engineering and Decommissioning	Lancaster

Industry

Neil Thomson	Reactor Operations	EdF Energy
Paul Stein	Supply Chain	Rolls-Royce
John Lillington	Supply Chain	AMEC
Peter Wylie	Recycling, Waste Management and Decommissioning	Sellafield Ltd
Mick Gornall	Fuel Manufacture	Springfields Ltd
Andrew Carlick	Small and Medium Enterprises	DBD Ltd
Paul Harding	Enrichment	Urenco



Members and observers

Research Facilities

Graham Fairhall	Fission	NNL
Steve Cowley	Fusion	CCFE
Mike Tynan	Manufacturing	NAMRC

Other

Richard Clegg	Professional Services	Lloyds Register
Laurence Williams	Geological Disposal	CORWM

Public Sector (Observers)

Sir Mark Walport	The Government CSA	GOScience
John Perkins	BIS CSA	BIS
David Mackay	DECC CSA	DECC
Robin Grimes	FCO CSA	FCO
Melanie Brownridge	NDA Estate	NDA
John Jenkins	Nuclear Regulators	ONR
Derek Allen	Technology Strategy Board	TSB
Jason Green	Research Councils	EPSRC

