



# The future for applied nuclear R&D

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- Why do it at all
  - A short history lesson
  - A moment of revelation
  - What's driving the future
  - What this means for you
-

## Grand Challenges

- Decommissioning and clean up
- Geological disposal
- Current and new build reactors
- Spent Fuel Management
- Plutonium Management
- Safeguards and Security
- Future energy systems



# A short history lesson

- The rise and fall of BNFL
- The NDA model
- The NNL model





# A moment of revelation

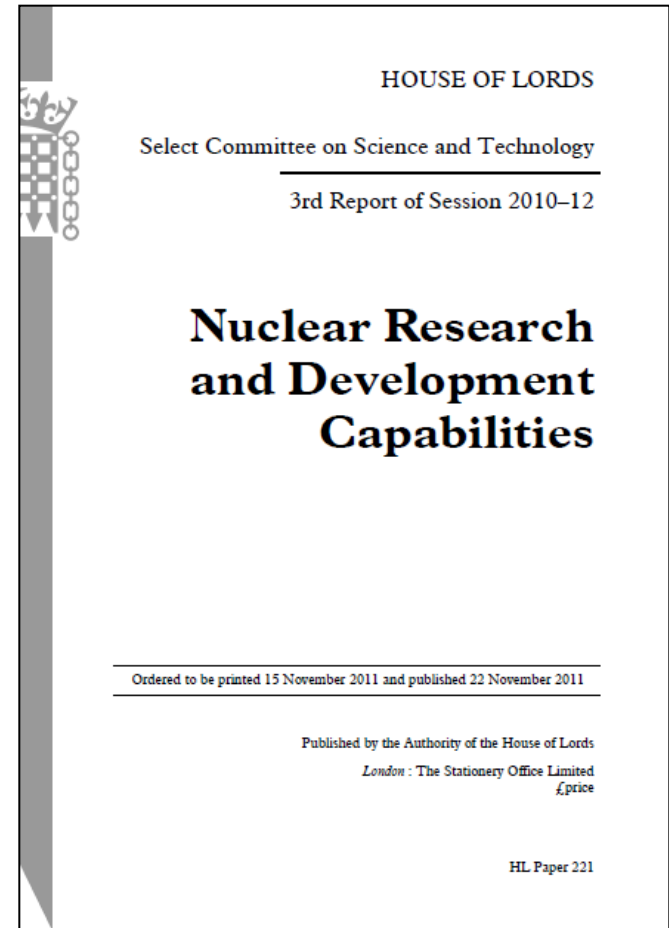
- A few hard sums
- OND
- Their Lordships



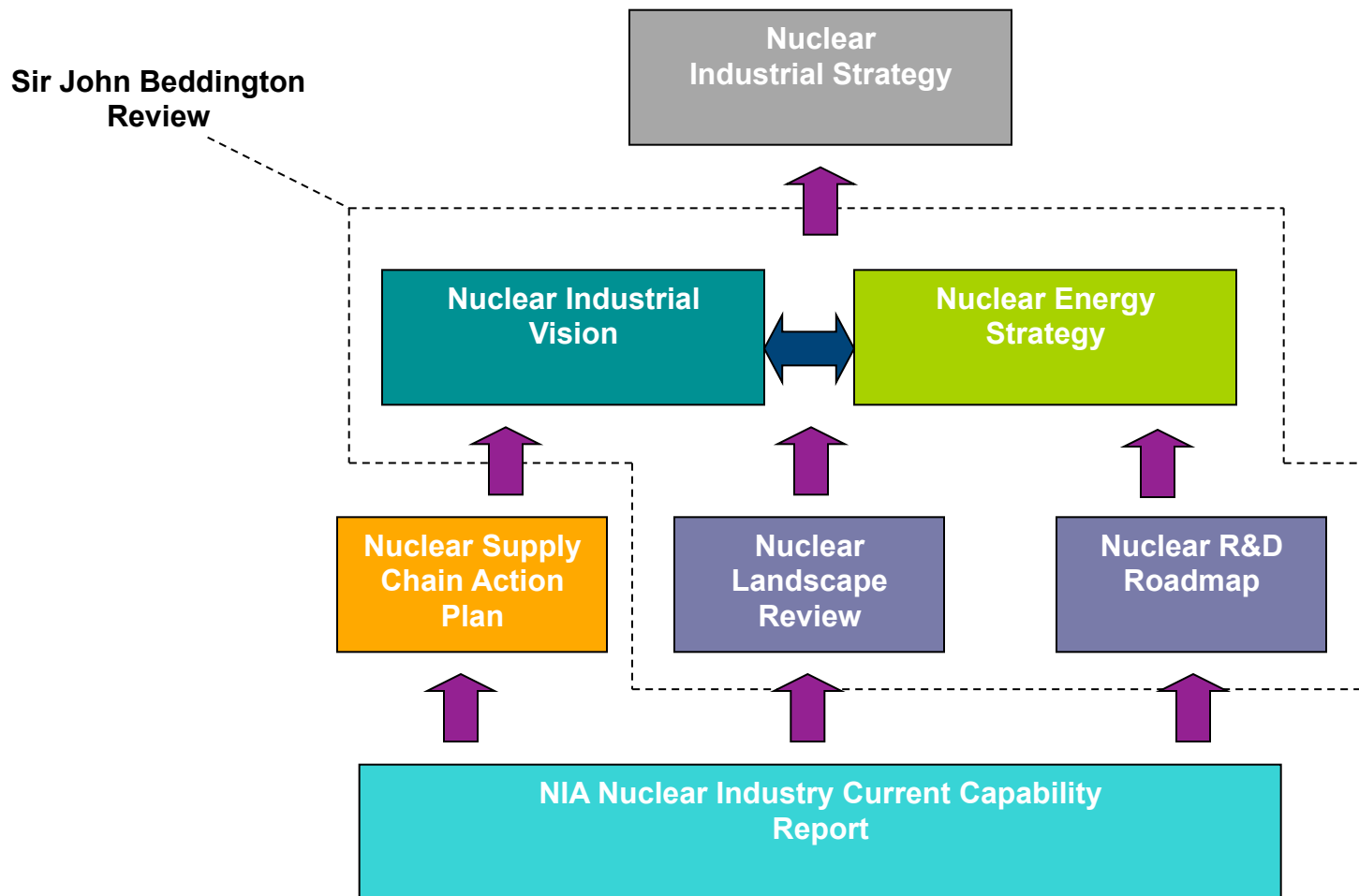
# Nuclear R&D Roadmap: Context (1)

## Recommendations (14 in total)

- Establish long-term nuclear energy strategy
- DECC - long term R&D roadmap
- Establish Nuclear R&D Board
- Strategic role for NNL
- National strategic R&D programmes on Gen IV and advanced fuel cycles
- **Ad-hoc Nuclear R&D Advisory Board led by Government Chief Scientific Advisor Sir John Beddington**



# Nuclear R&D Roadmap: Context (2)

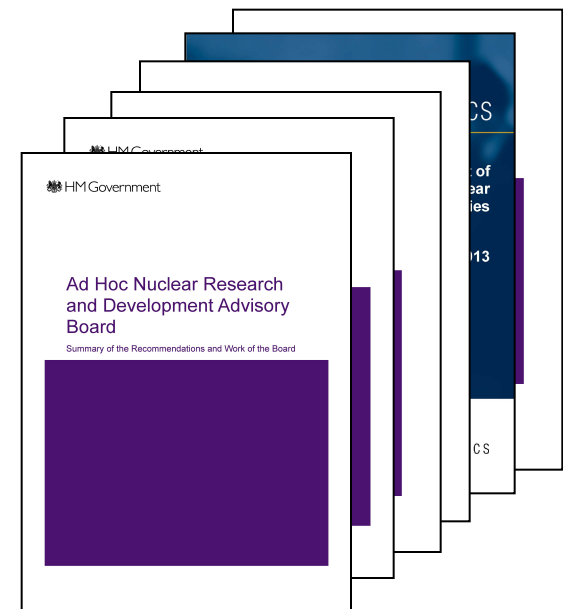
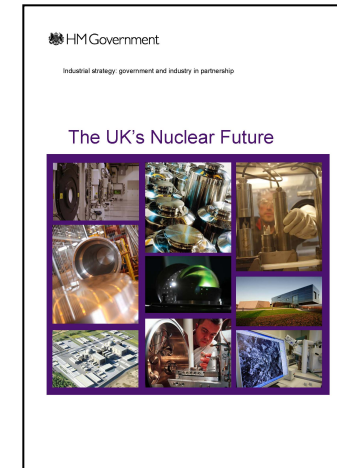




# Nuclear R&D Roadmap: Context (3)

- Nuclear Industry Strategy supported by 6 other documents:
- Summary of the recommendations of the NRDAB
- A review of the civil R&D landscape
- A nuclear industrial vision statement
- **A nuclear energy R&D roadmap**
- The economic benefits of improving the nuclear supply chain capabilities
- The role of nuclear power in the UK energy mix and the role of the nuclear sector in the global economy

<https://www.gov.uk/government/organisations/department-for-business-innovation-skills/series/nuclear-industrial-strategy>



# Future Strategy Drivers

- DECC
- BIS



# What this means for you

- NIRO

