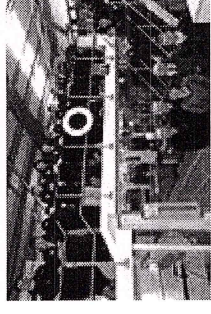
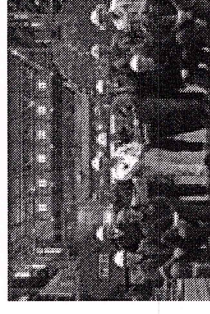
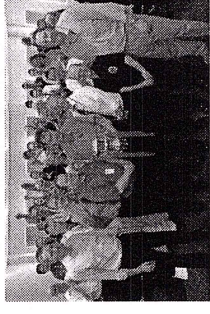
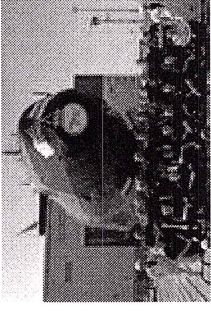


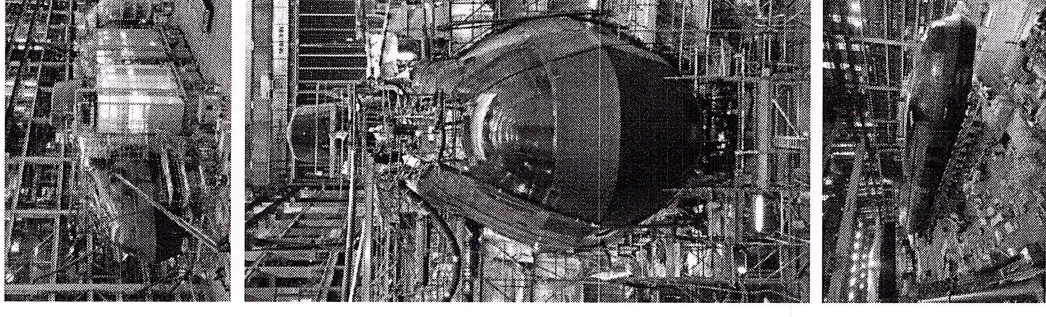
Successor - Resource Build Up

- Currently about 100 people from across the industry working on the project, centred on Barrow. This includes professional engineers, project, supply chain and commercial.
 - Approx:
 - 60 BAE Systems
 - 25 Rolls Royce/Babcock
 - 15 Sub Contractors
 - New Office in Barrow
 - IT - secure collaborative network across the enterprise
 - Links to Abbey wood, Derby, Barrow, Faslane, Devonport
 - Secure Video Conferencing - UK-US



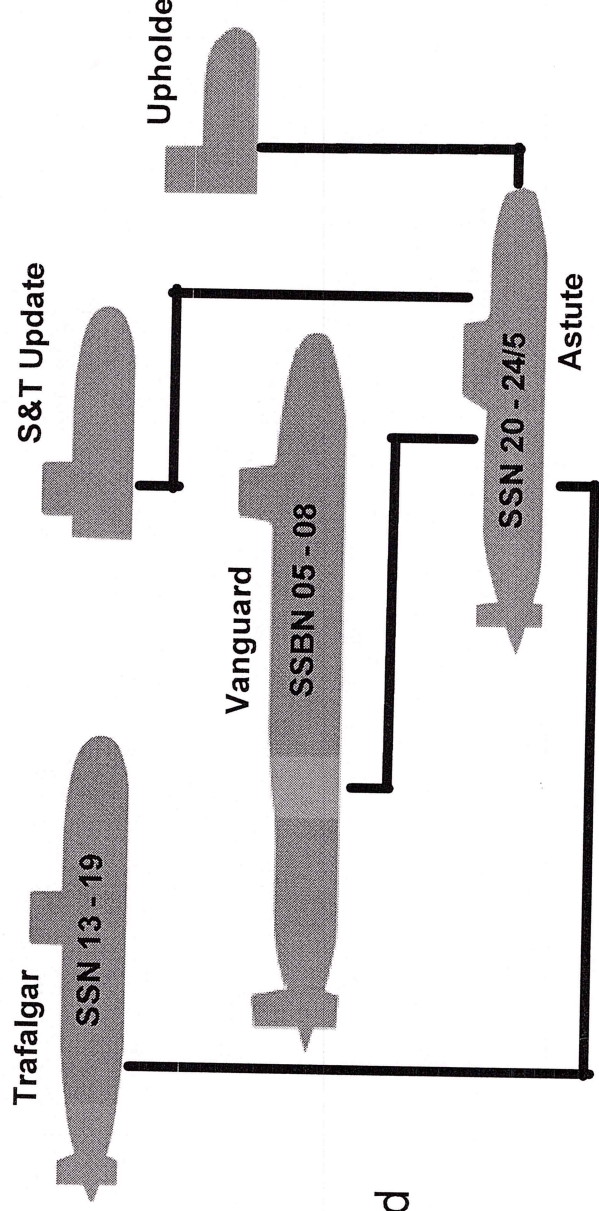
Implementation on Successor Deterrent Programme

- The Concept Design for the Successor Deterrent submarine is being developed by a Collaborative Team drawn from across MoD and industry
- Individuals are appointed on a 'Best Athlete' principle
- It is delivering effective engagement on capability and requirements – the ability to trade to deliver the right capability in an affordable manner
- There is a Whole Life Cost focus from the beginning
- The challenges:
 - Integration and management of a large and complex programme
 - Technology insertion to deliver cost reduction
 - The continued development of positive collaborative behaviours



Theory versus Practice

- Astute - original intent - minimum change Trafalgar
- However over 70% of Astute components are new or re-qualified.
- Safety Case has had major upgrade.
- Essential we learn lessons for the future.

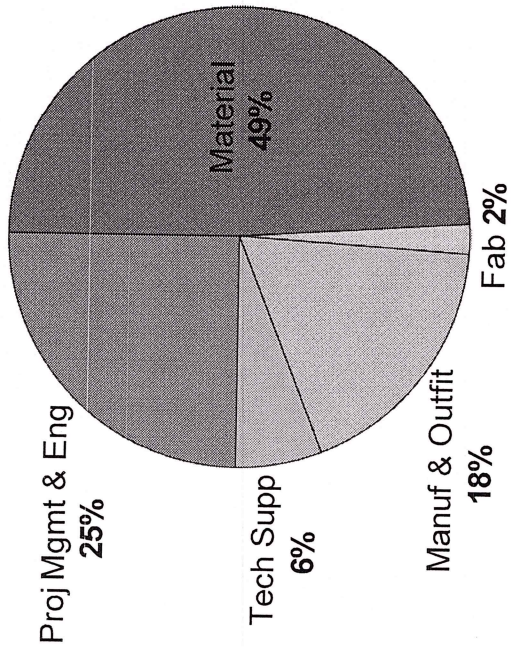


- Need change -
 - Design for Production
 - Design for Operation
 - Design for Through-life
- Significant change required for affordable product.

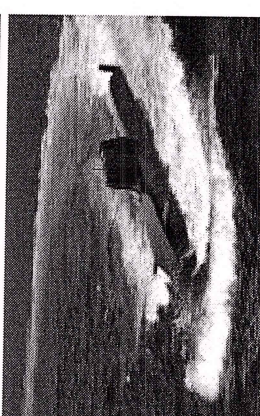
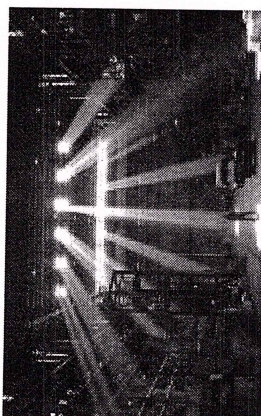
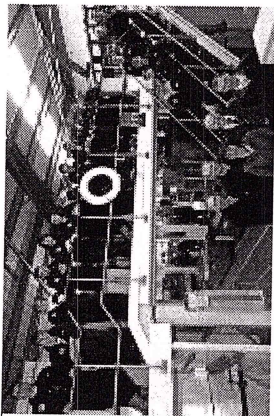
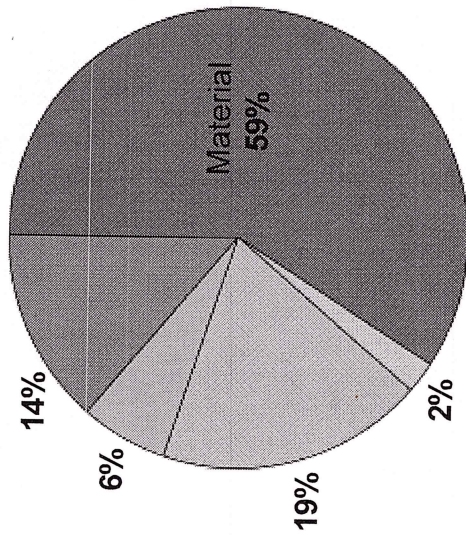
Overheads

- Driven down overheads by 31%
- Generating a cost-conscious culture - not enough on its own
- Need to address built in issues associated with affordability -
 - Pricing
 - Spend to save at time contract awarded (Virginia Class)
 - Starting point - minimum change Trafalgar

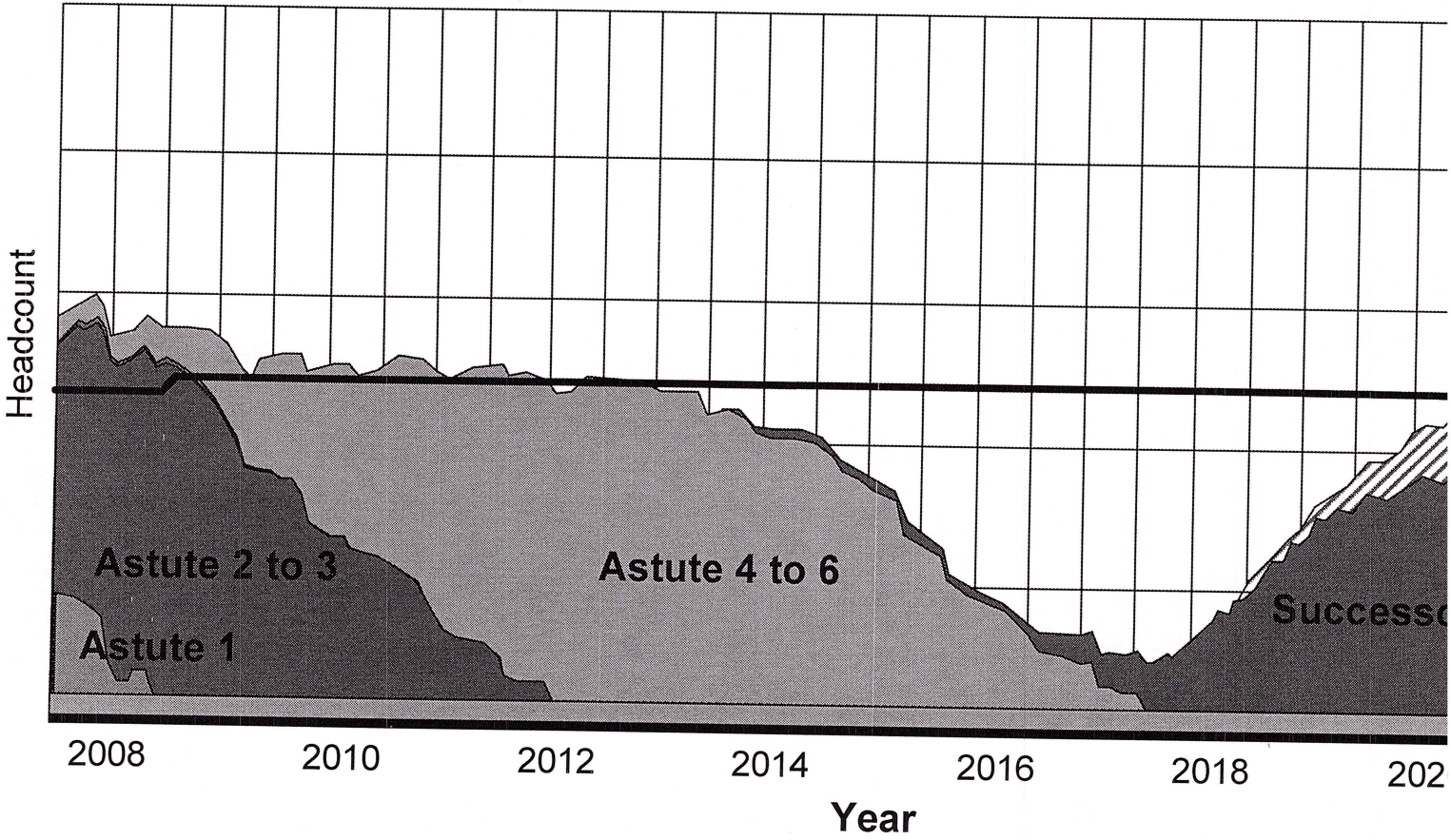
Astute Boat 1 to 3



Astute Boat 4

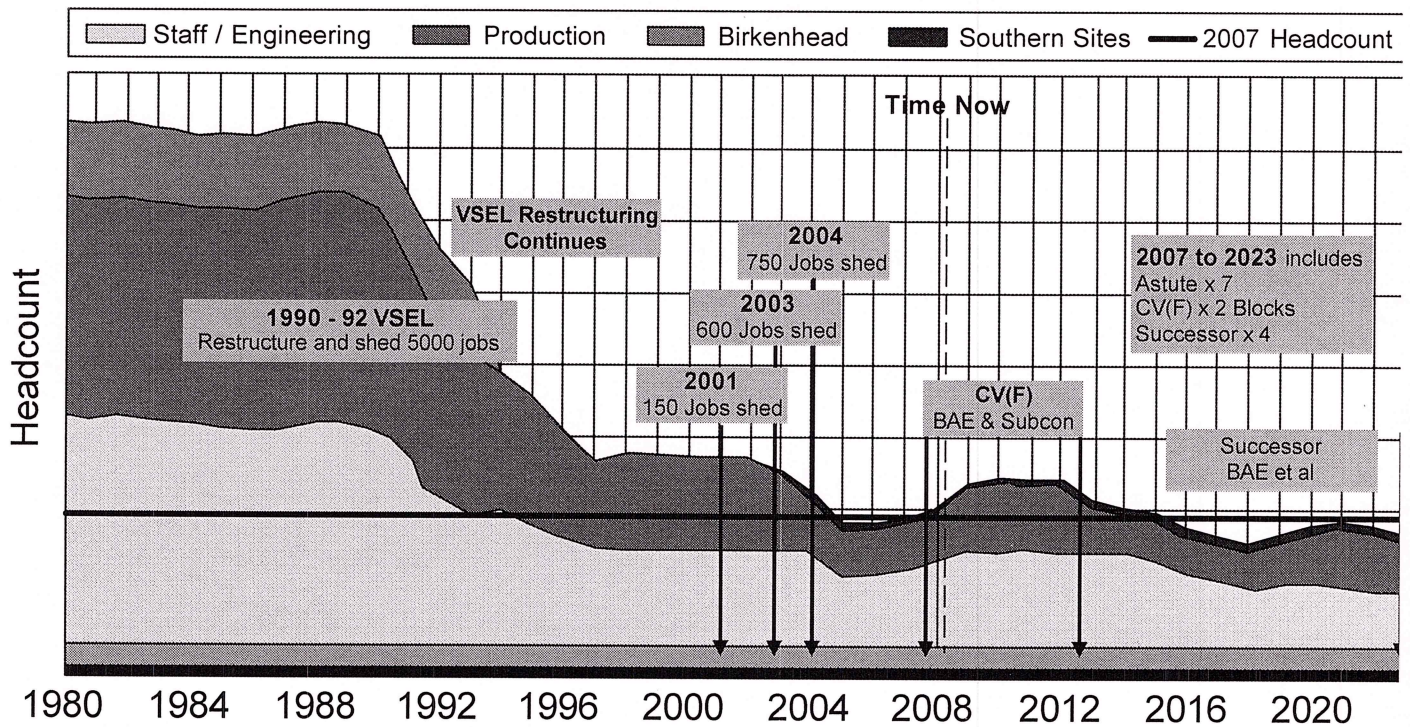


Mind the gap - Boat 7 cancelled



Resource History

AE SYSTEMS (VSEL) - Employment (includes Birkenhead)



Submarines has reduced its headcount by an overall **29%** since 2003.

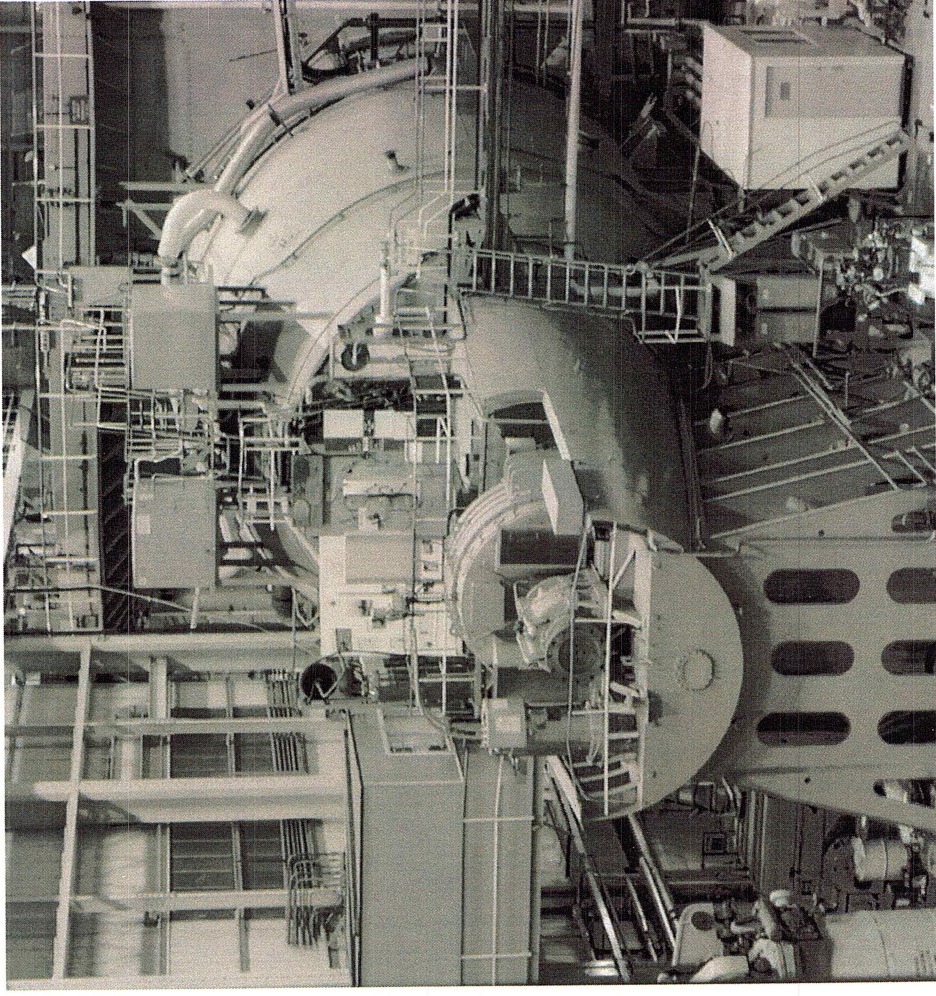
This headcount reduction has been key in achieving our affordability challenges.

Loss of Production employees totalling **42%** of production labour.

Loss of Technical and Professional Staff totalling **17%** of Staff labour.

Next Generation Nuclear Propulsion Plant

- Cheaper
 - TLC
 - Reduced Shore Support
- Better
 - More Efficient
 - Quieter
 - Fewer components
- Safer
 - Passive safety systems
 - Benign
 - Increased propulsion reliability
 - Reduced maintenance dose burden
 - Civil standard



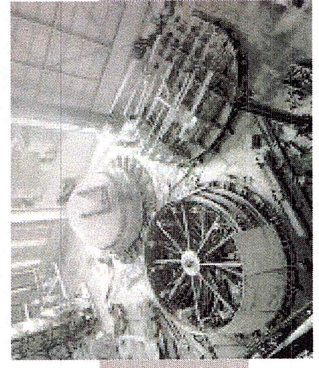
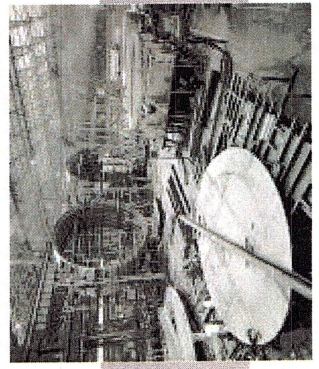
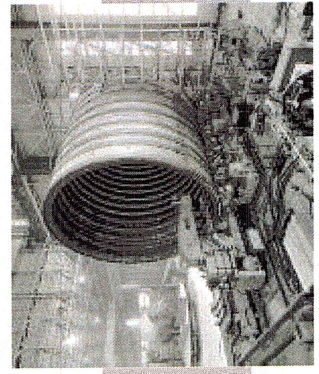
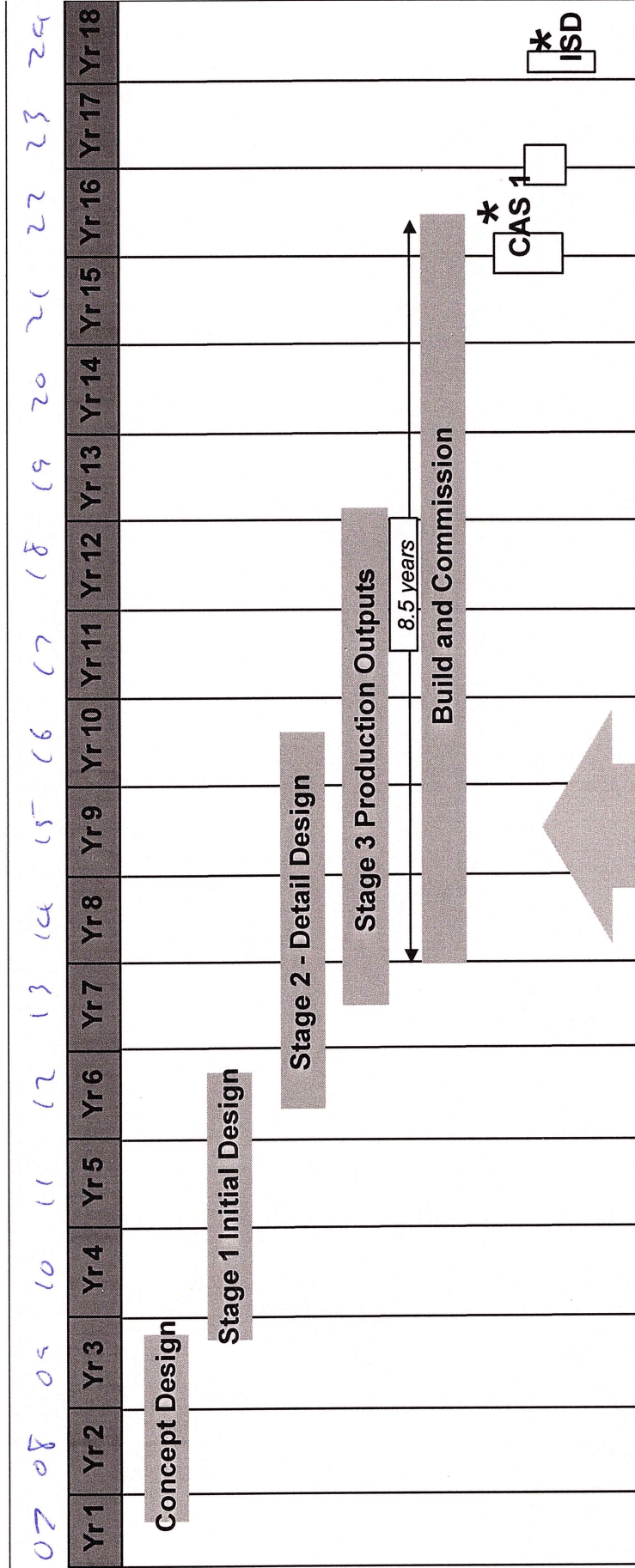
17/01/2008

Presentation Footer

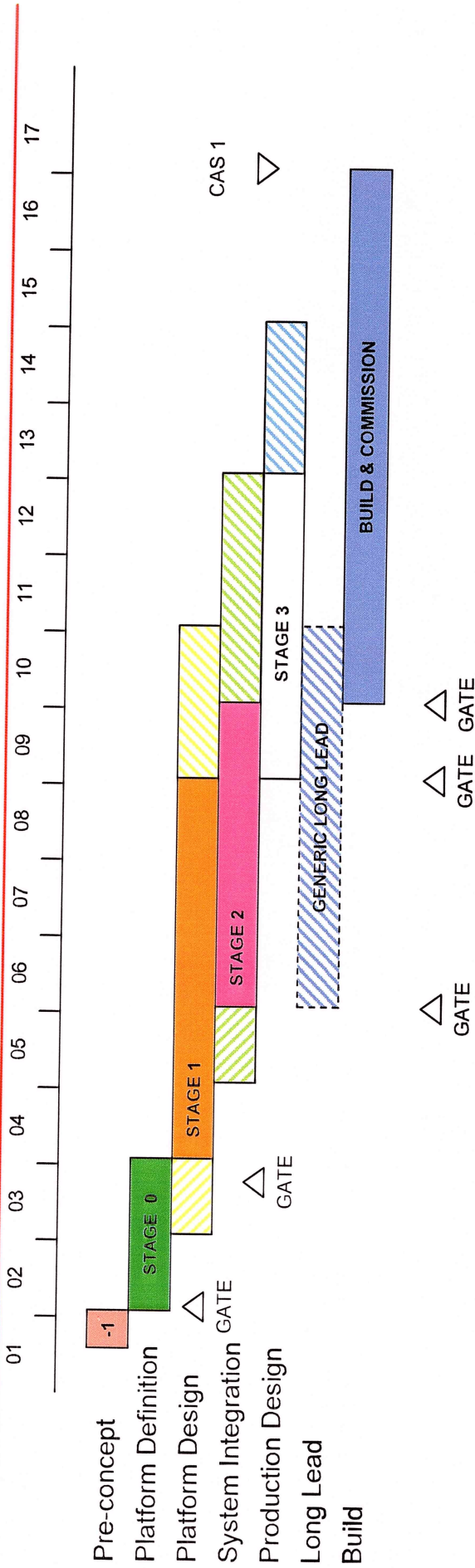
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Successor - Outline Future Programme



Indicative Schedule



Design and Engineering



SWS/SWSS



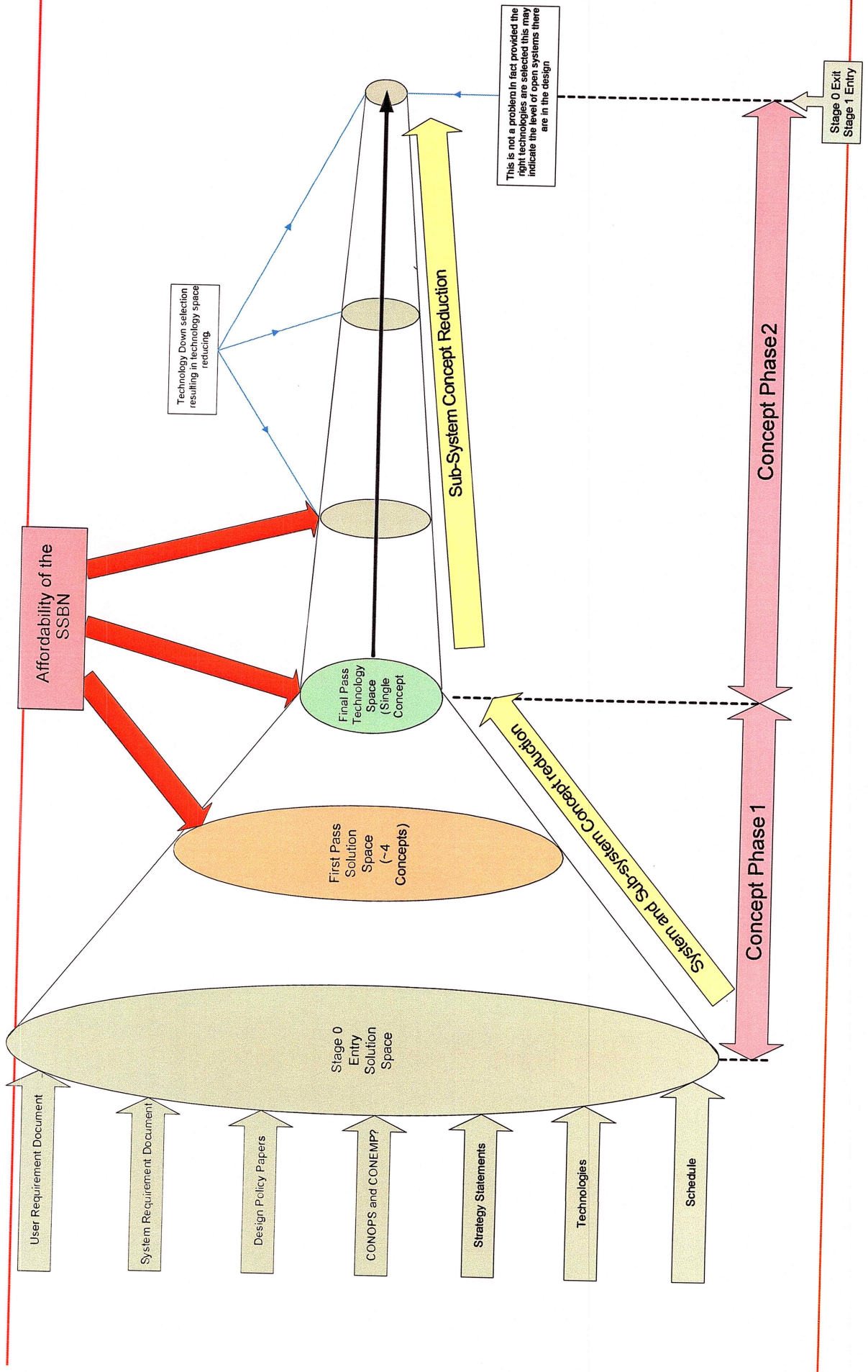
Supply Base



Supply Chain Work Stream

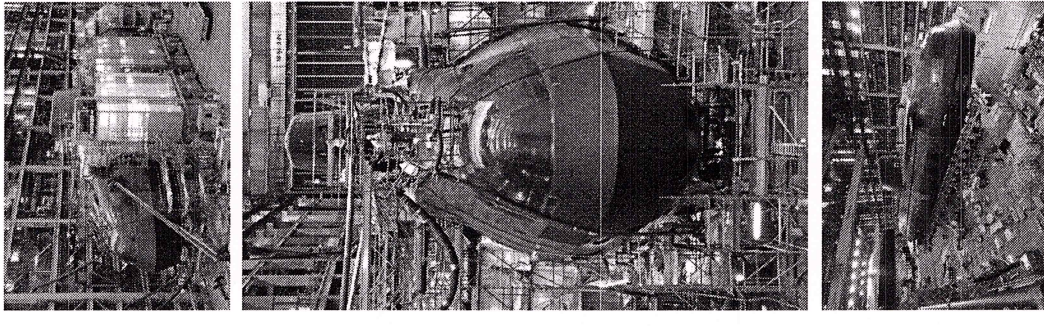
- Statement Of Requirement Covering Stage 0 Work
 - SWS / SWSS
 - Missile Tubes
 - Support To UK / US Negotiations
 - Engineering Support & Sub Contract Management
 - Technical Requirements
 - Supplier Engagement
 - Long Lead Procurement
 - Supply Chain Strategy Development
 - Design For Supply Chain
 - Through Life Obsolescence & Technology Management
 - Submarines Supply Chain Council
-

Stage 0 Process

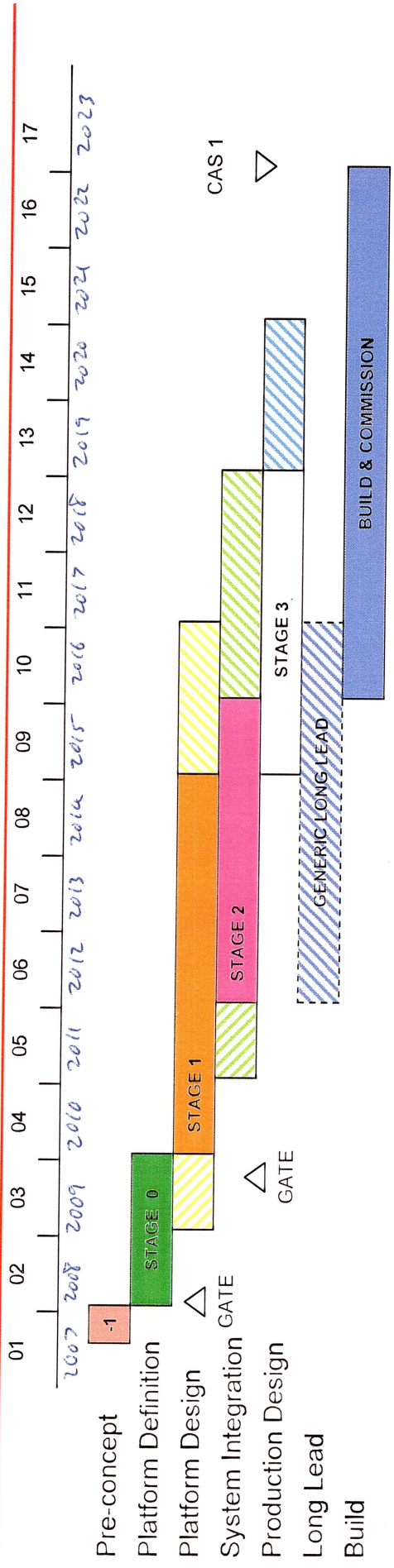


Successor - Key Issues and Ways of Working

- As with all major programmes the two major key issues will be:
 - Programme - Must achieve the In-service date.
 - Affordability - Both UPC and Through Life.
 - Supply Chain fragility
- We intend to make sure that we learn lessons from the Astute Programme.
- The project must be **collaborative, coordinated and coherent.**
- We are keen to work with the US in all appropriate areas.



Indicative Schedule



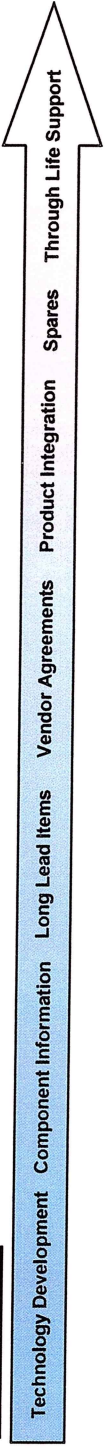
Design and Engineering



SWS/SWSS



Supply Base



CIPS Revised 02/26/2024

Successor - Outline Future Programme

