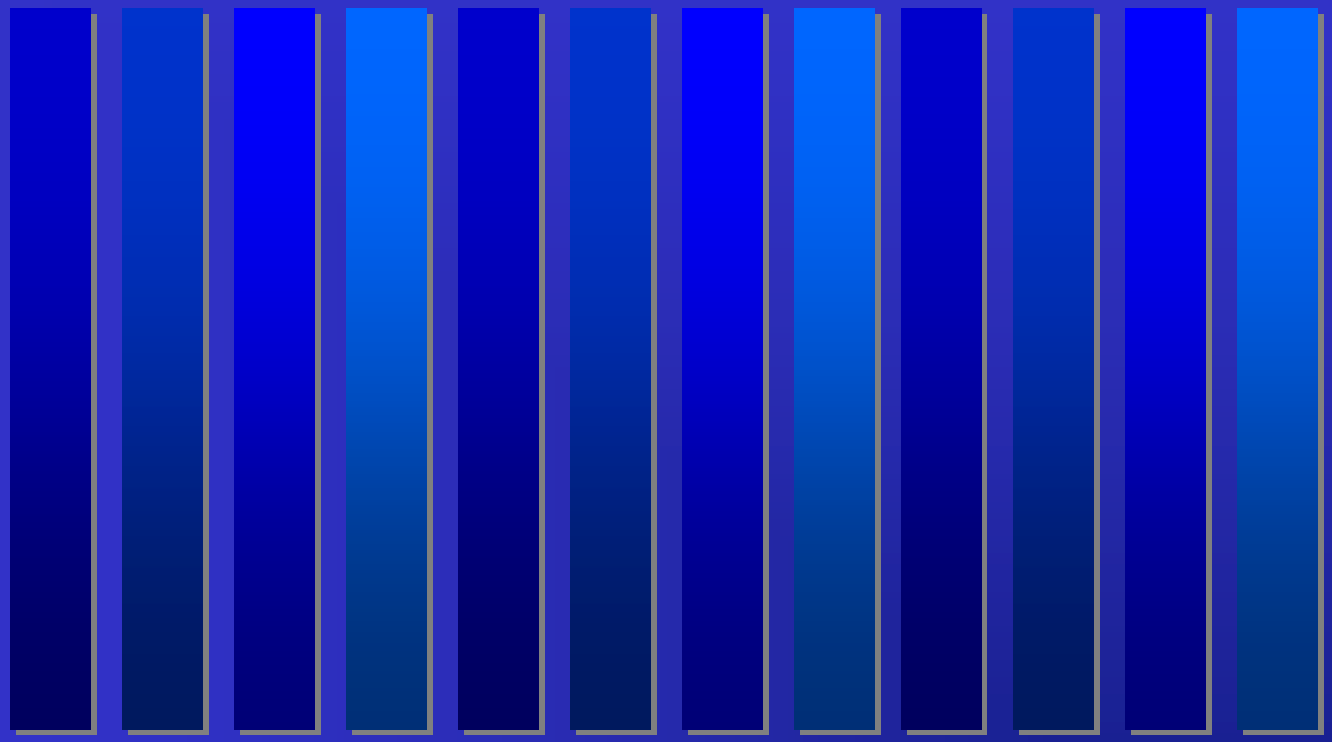
Blue Poles!



The art and science of project governance

Brad Grey, Senior Director, ICT
Investment Portfolio, ATO

Blue Poles – Jackson Pollock, 1952

Chaos Theory

Project Governance

What is project management?

Art

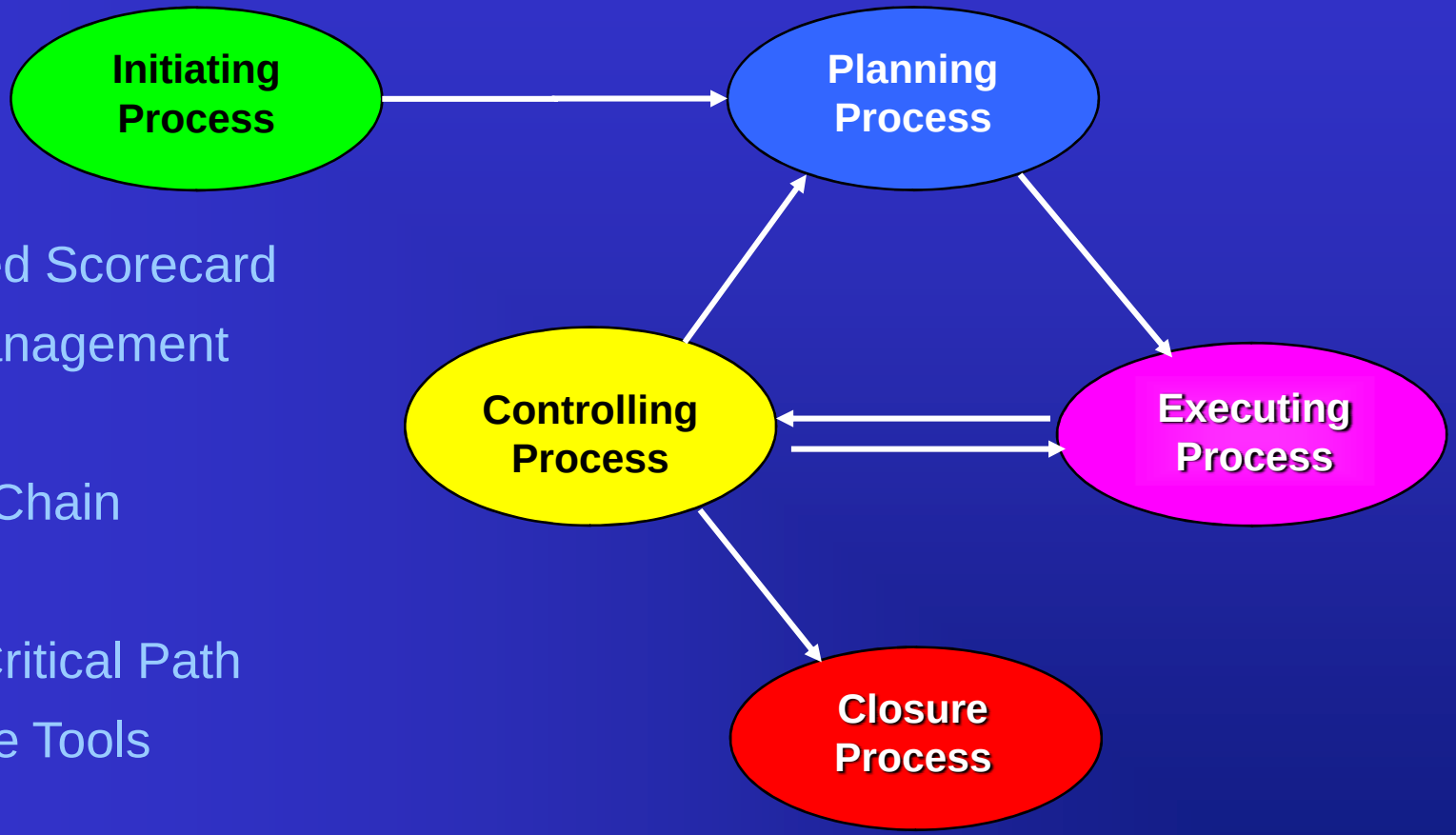
‘Project management is the art of creating the illusion that any outcome is the result of a series of predetermined, deliberate acts when, in fact, it was dumb luck.’

Science

‘Project management is the planning, organising, directing and controlling of company resources for a relatively short-term objective that has been established to complete specific goals and objectives.’

‘Project Management’, Kerzner, 2003, p4

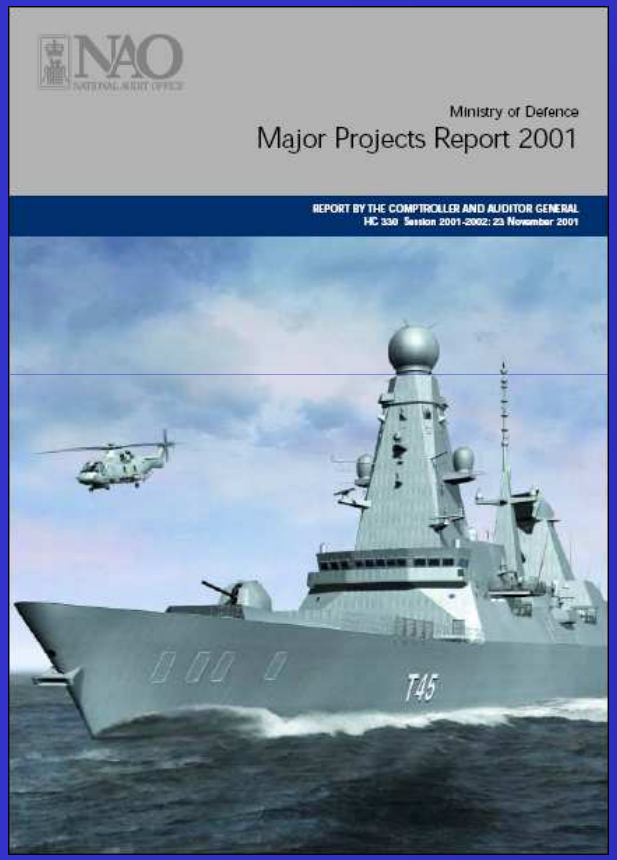
Project Management Cycle

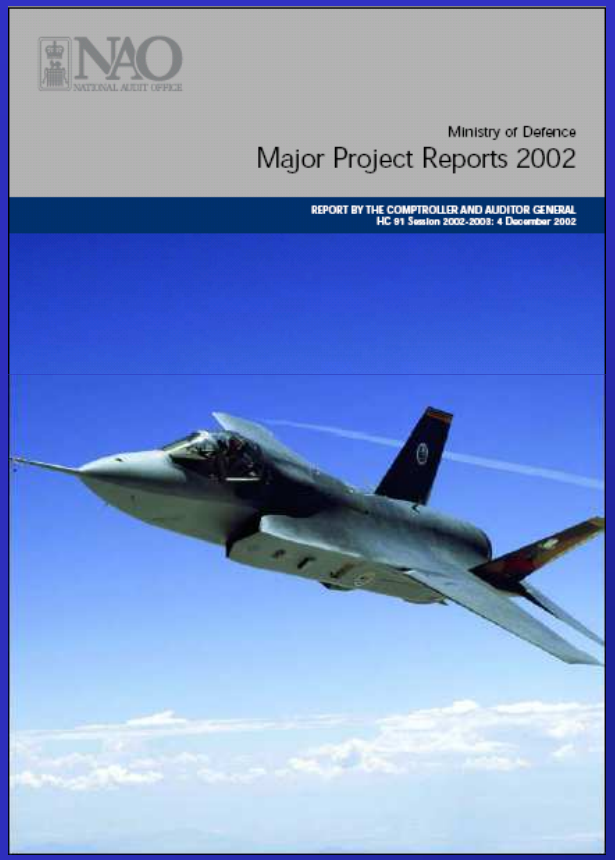


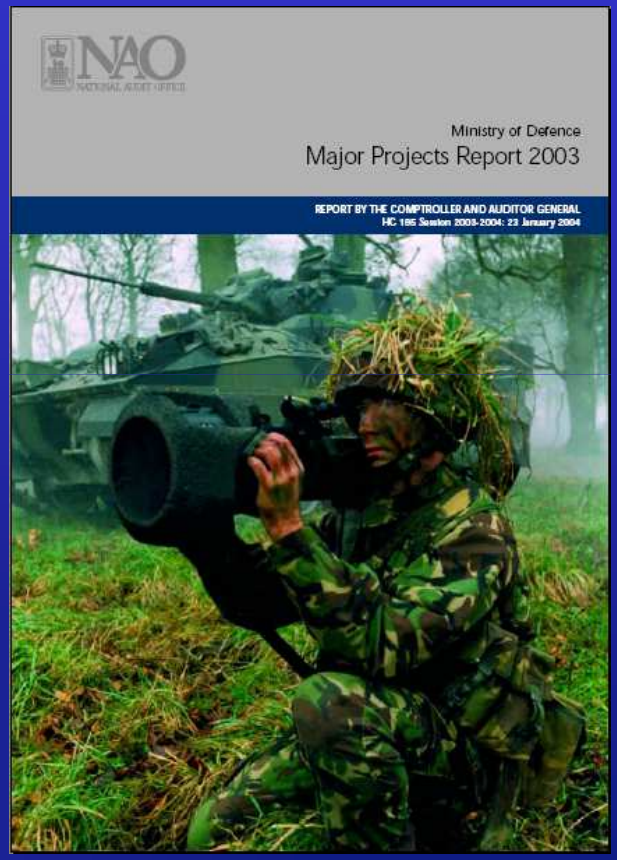
- Balanced Scorecard
- Risk Management
- EVM
- Critical Chain
- PSM
- PERT/Critical Path
- Software Tools
- CMMI
- PM^3

Source: A Guide to the Project Management Body of Knowledge™, published by Project Management Institute

UK NAO ANNUAL REPORTS







http://www.nao.gov.uk/publications/index.htm

Welcome to the Astute Class Website - Microsoft Internet Explorer

File Edit View Favorites Tools Help | Address C:\Governance\Welcome to the Astute Class Website.htm | Go

Back Search Favorites Media

:: Locations :: Future roles :: New Class :: The Need for Astute :: Background Information ::

- History of Submarines
- Technical Specifications
- Suppliers
- Contacts
- News Area
- Astute Image Bank
- Home

BAE SYSTEMS

DPA

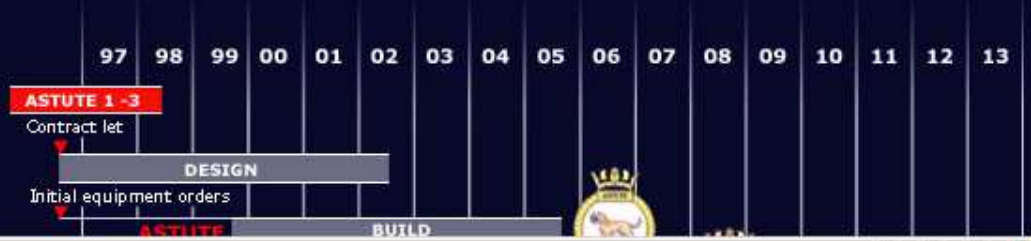
Astute - New Class of Submarine

ASTUTE IS THE FIRST IN A NEW CLASS OF SUBMARINES AND IS DUE TO ENTER SEVICE IN 2005

Under a £2 billion Prime Contract, BAE SYSTEMS is responsible for the design, build and initial in service support of three Astute Class submarines, with the potential for a 'second-buy'.

The Prime Contract is the first for the build and initial in-service support of three vessels, for a nuclear submarine where industry has taken responsibility for the delivery and initial support. This total systems approach has made the incentives to industry much stronger and gives BAE SYSTEMS much broader boundaries for their innovative design. For the first time there is also a real focus on through life support. Many of these initiatives, and the way the processes are managed are in line with the Smart Acquisition concept now being employed by the UK's **Defence Procurement Agency**.

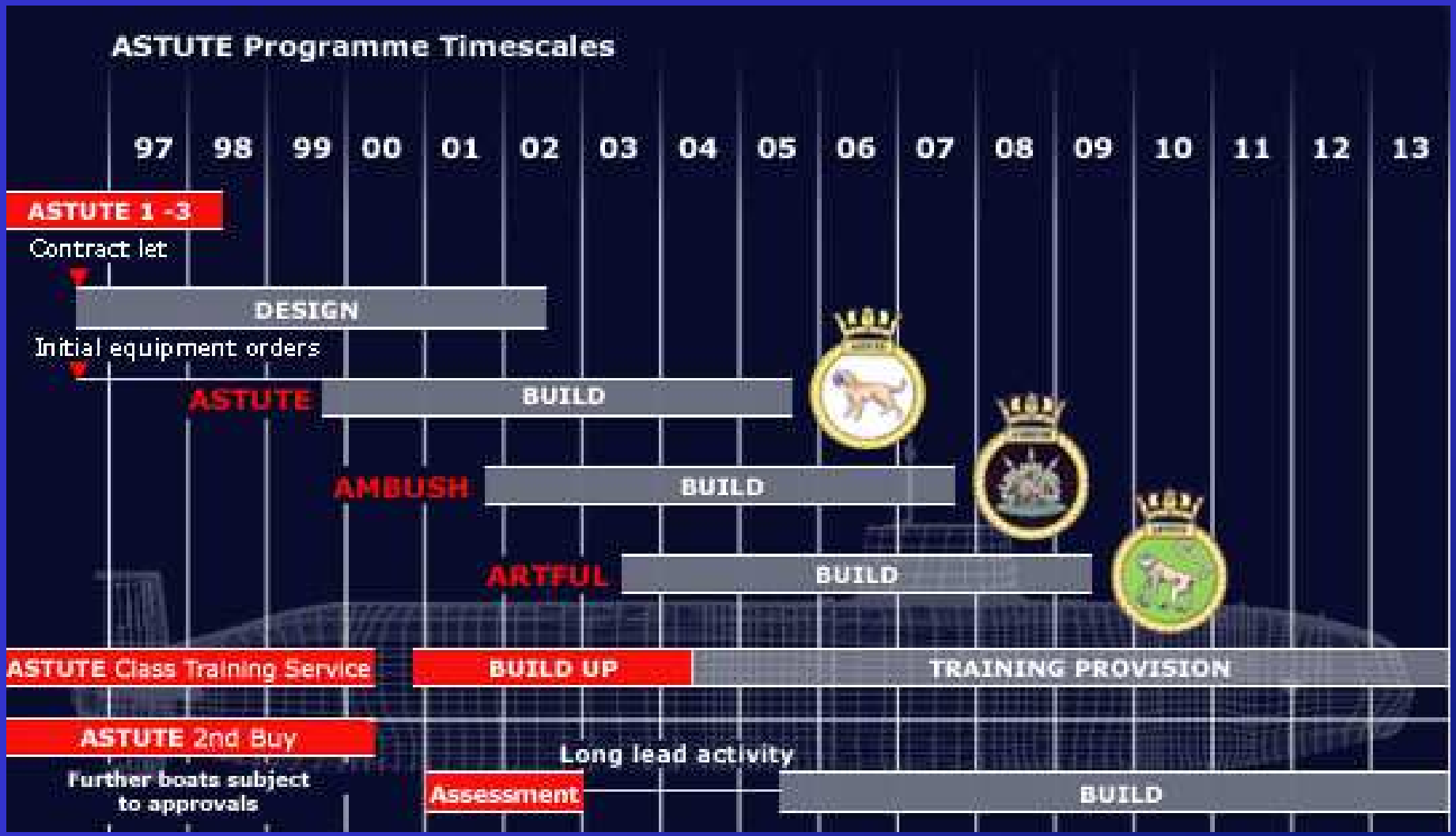
ASTUTE Programme Timescales



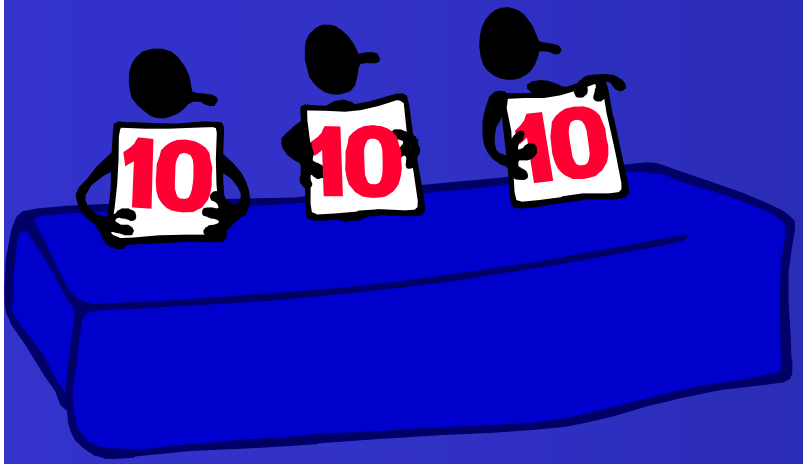
Internet

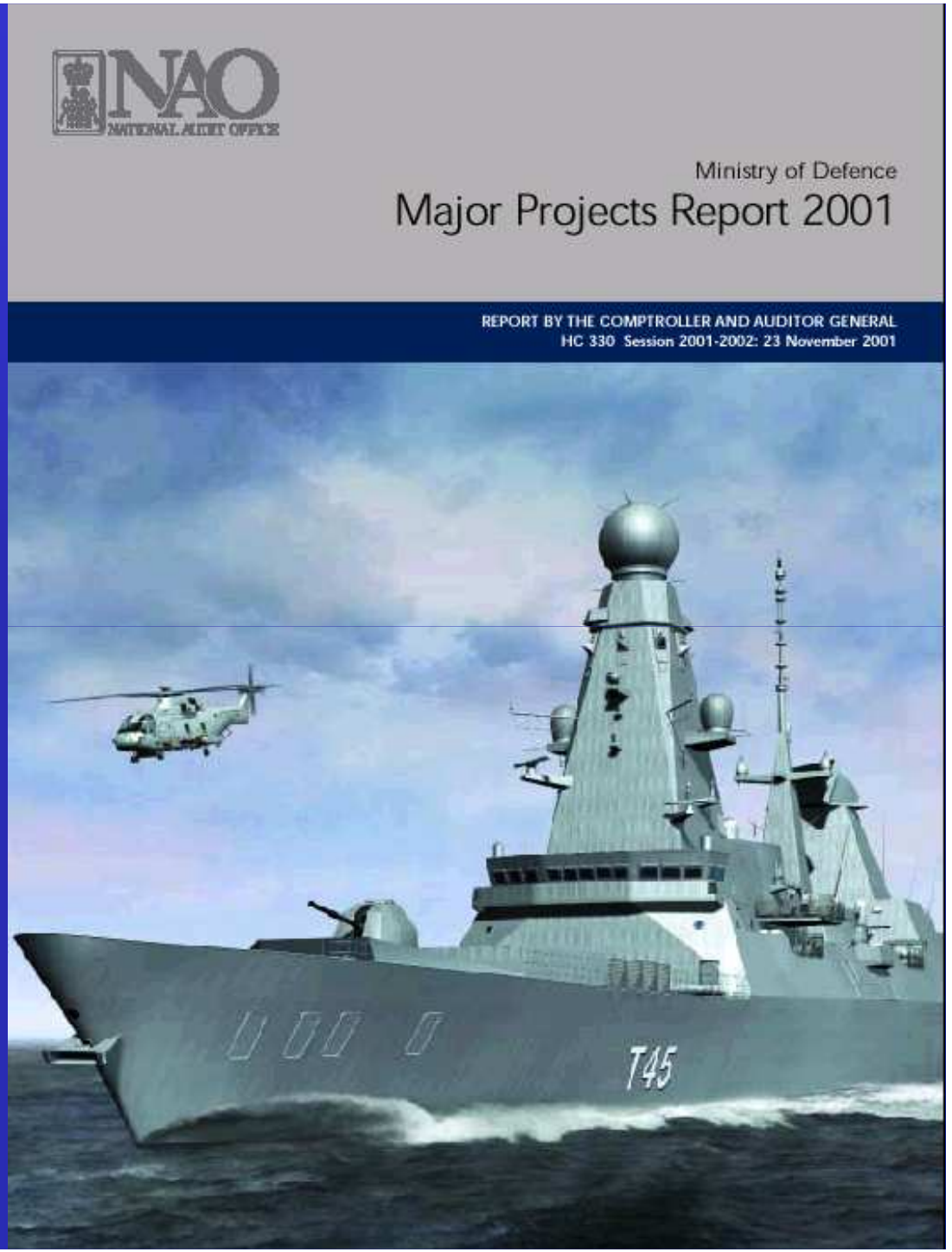
Start | Gove... | DMO ... | Inbo... | Gove... | Welc... | 10:33 AM

In Service Date – June 05

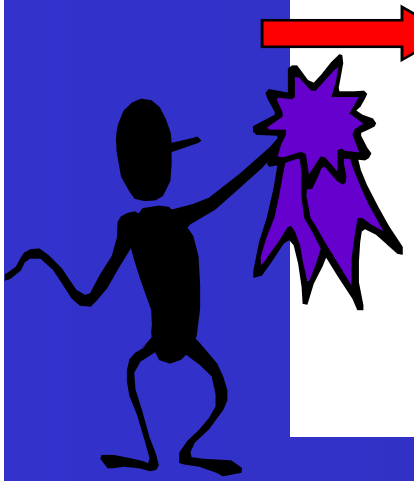


Astute Submarine

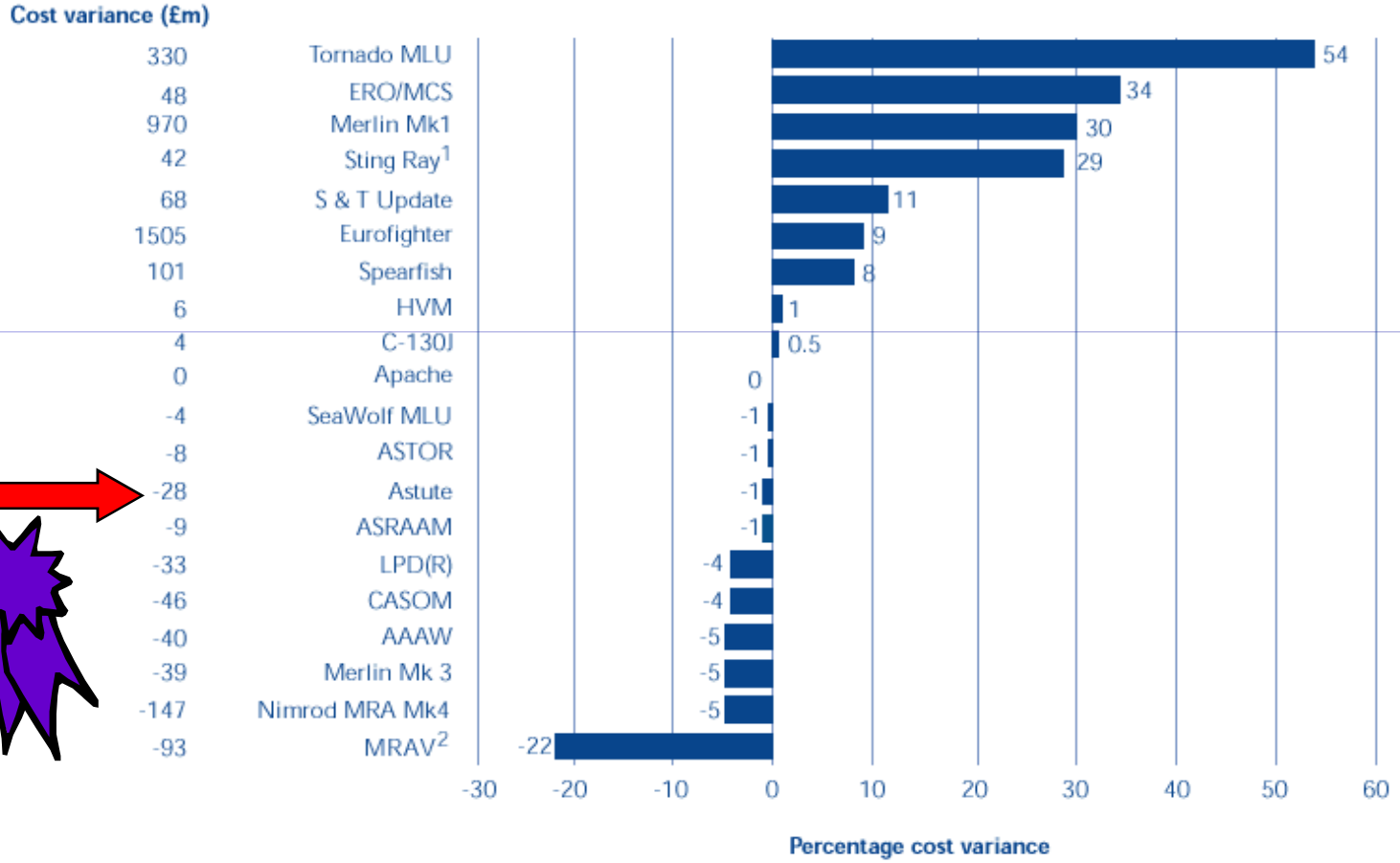




Cost Variance



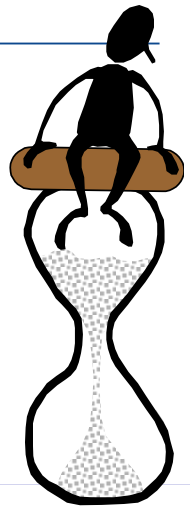
Fourteen projects are forecast to be delivered within ten percent of the cost approved at Main Gate



Schedule Variance (Time)

7 **In-service date variation since Main Gate approval**

Three projects are expected to enter service early or on time



August 2002

An Article from...

NAVY INTERNATIONAL

send this page to a colleague

14 August 2002

Astute submarine programme hit by design delay

By Richard Scott

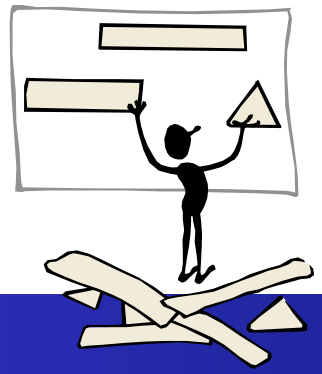
Delivery of the UK Royal Navy's (RN's) first Astute-class nuclear-powered attack submarine has slipped by up to 18 months as a result of design, engineering and programme management difficulties encountered by prime contractor BAE Systems.

HMS Astute, originally due to join the fleet in June 2005, is now not scheduled to enter service until late 2006. In an associated move, BAE Systems is to reorganise its Astute-class management structure to improve performance on the contract.

The delay has forced the RN to consider running on an ageing Swiftsure-class boat to maintain force levels ahead of HMS Astute's entry to service.

HMS Astute, originally due to join the fleet in June 2005, is now not scheduled to enter service until late 2006.
(Graphic: BAE Systems)

"Slipped by up to 18 months"



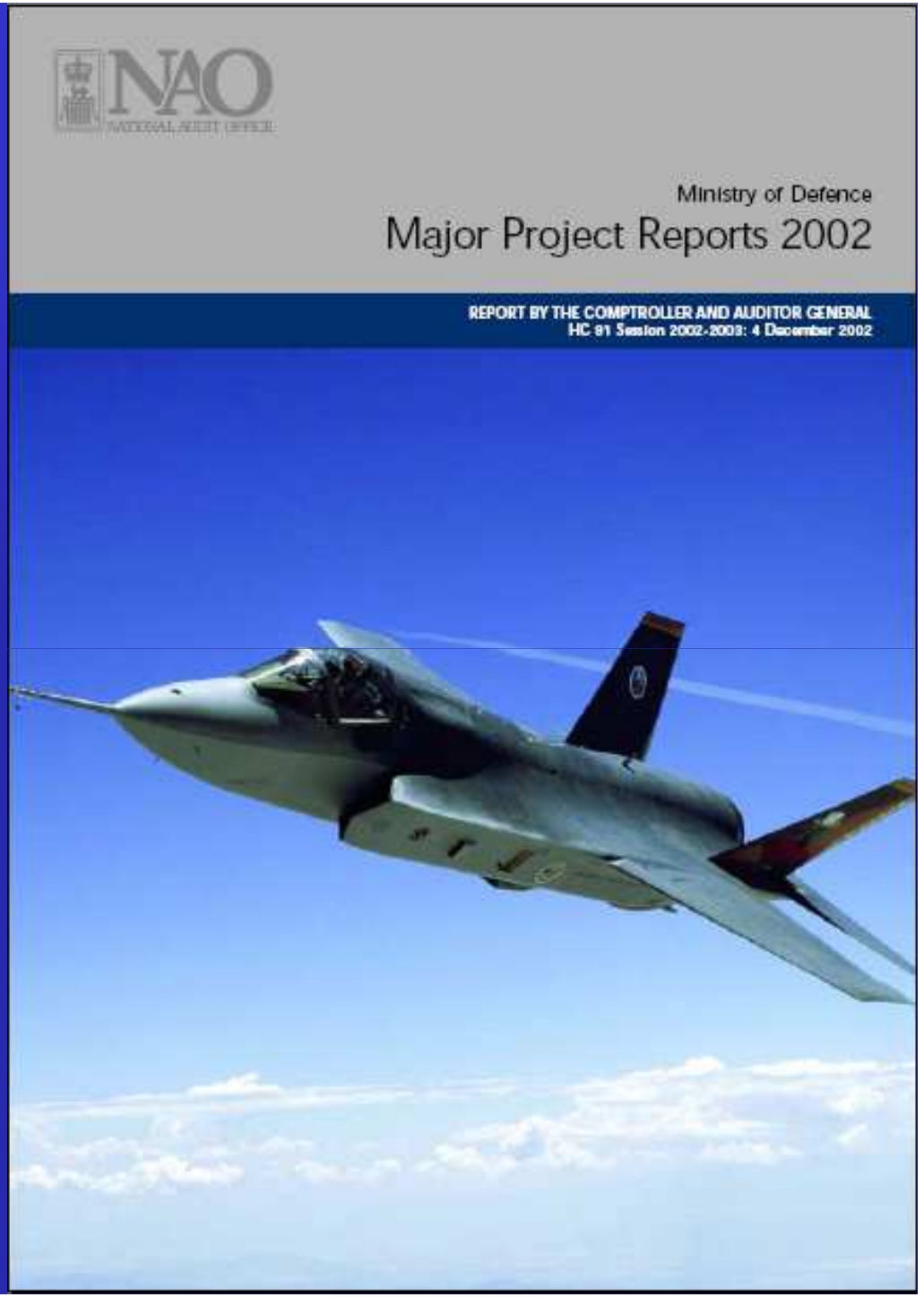
December 2002

There have been further developments within the Major Projects Report 2002 projects **outside the reporting period:**

Astute Class Submarine Delay

1.38 The definition of in-service for the Astute Class Submarine is acceptance of safe operation and the start of operational work-up of the first of class HMS ASTUTE from the contractor. This was due to be achieved in June 2005. In July 2002, the Department announced that the in-service date had slipped **to late 2006 at the earliest**, subject to confirmation by the contractor. BAE Systems had made slower than expected progress in the detailed design and build-up of production.

1.39 The contractor is taking a range of actions to minimise programme slippage but firm launch dates are not yet available. Actions being undertaken include reassessing the best time to perform the launch during the build sequence as well as programmes to recover time during the trial period, after its initial entry into service.



February 2003

Virtual News Room

In The News - Archives

19 February 2003

BAE SYSTEMS ANNOUNCES AGREEMENT WITH THE MOD TO RE-STRUCTURE NIMROD AND ASTUTE CONTRACTS

BAE SYSTEMS and the UK Ministry of Defence (MoD) have today agreed changes to the contract structure for both the Nimrod MRA4 maritime patrol aircraft programme and the Astute attack submarine programme.

In December 2002, the company announced that additional issues had arisen in relation to these programmes and that it had become apparent that there were substantial schedule and cost implications.

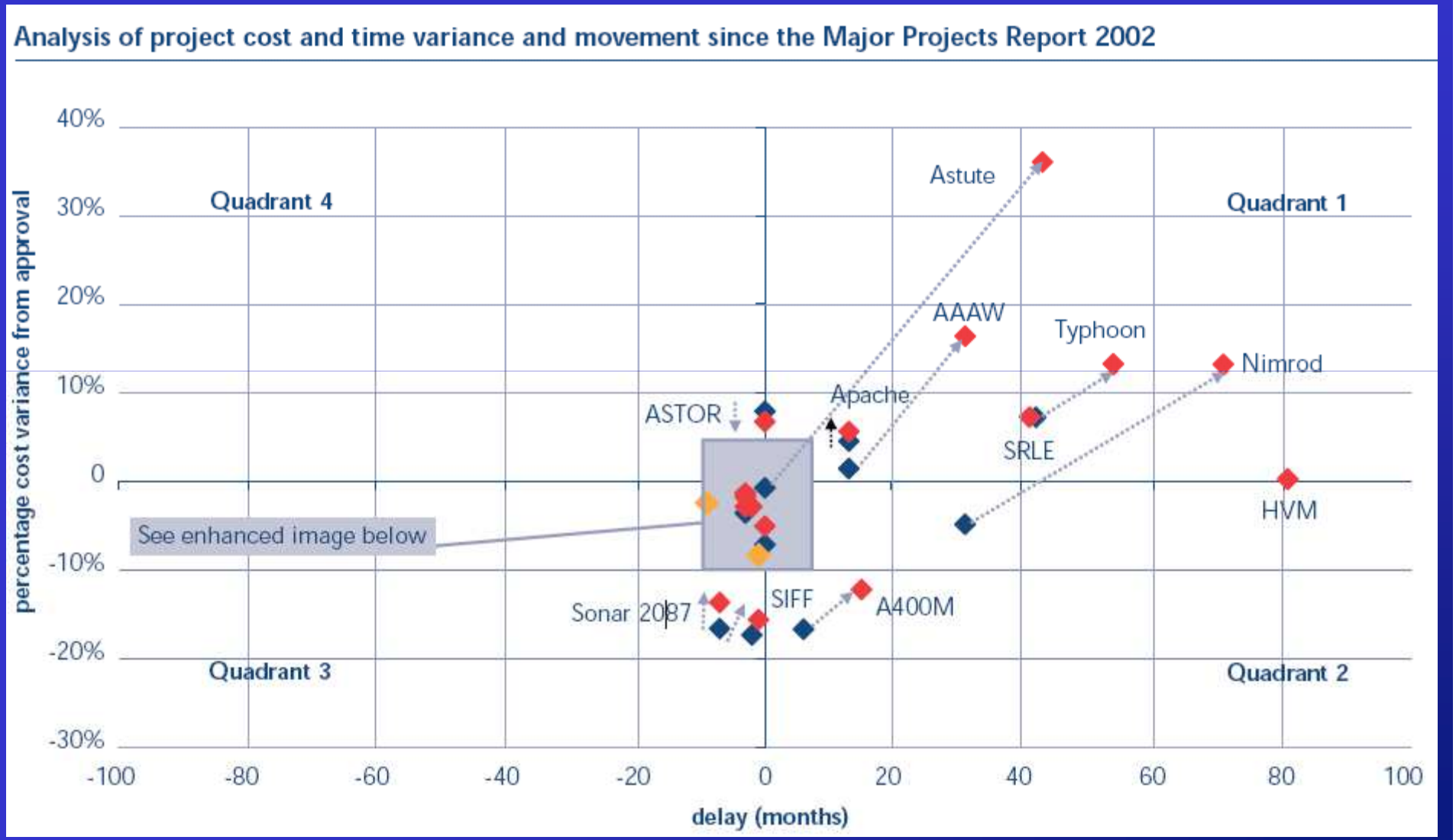
FINANCIAL

Today's agreement enables the company to recognise the cost to complete these programmes under the new contract terms. As a consequence, exceptional costs of £750m (£572m after tax) will be charged to the 2002 accounts comprising £500m for Nimrod and £250m for Astute. These charges cover in full the company's residual exposure to higher development costs up to maximum level established for the company by this agreement.

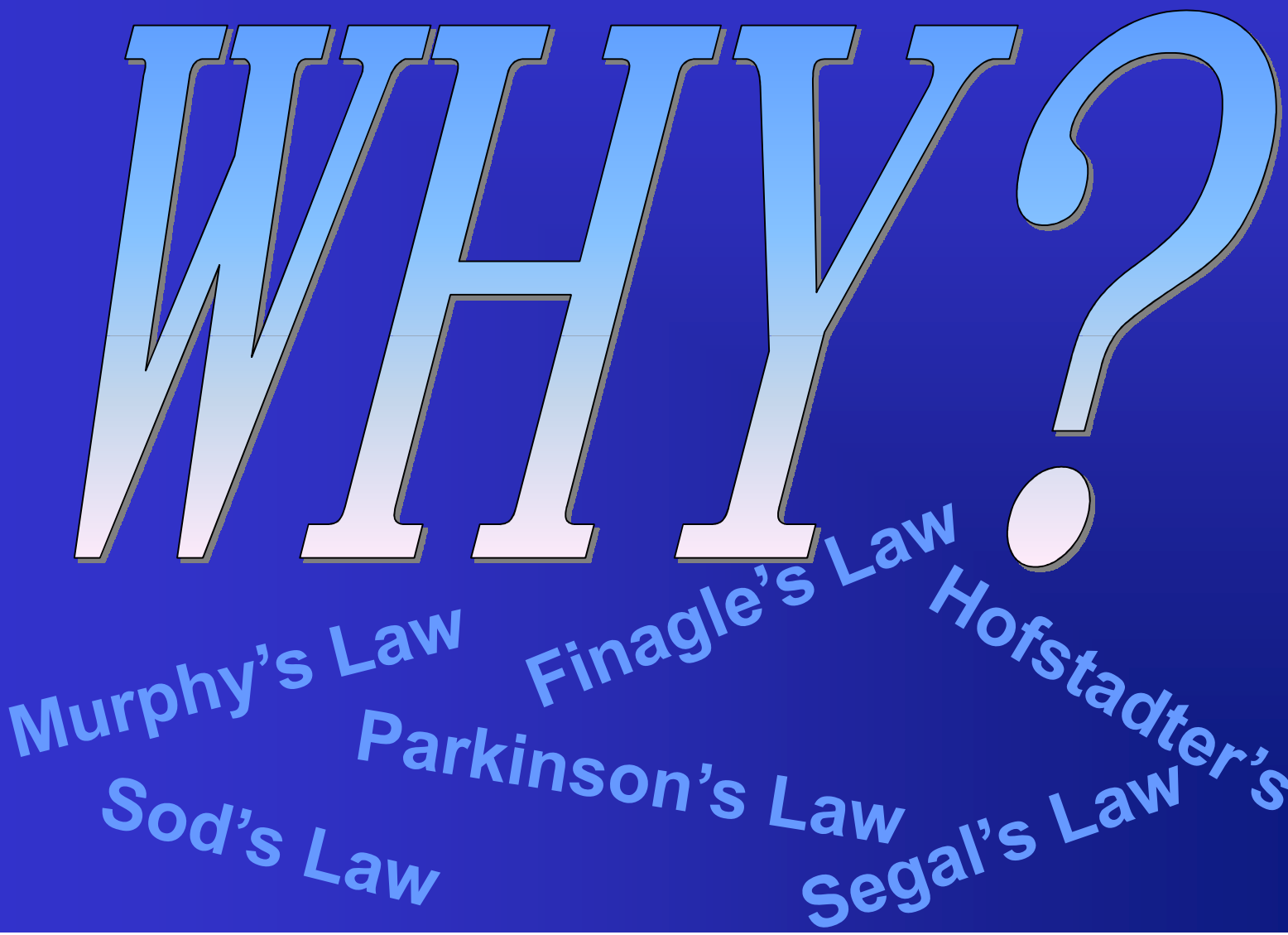
Source: www.baesystems.com

January 2004

Major Projects Report 2003



It is easy to fail!



Why things go wrong

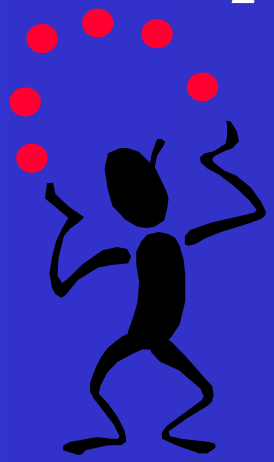
$$\Delta S \equiv q/T$$

where

- ΔS is the change in entropy
- q is heat and
- T is absolute temp.

Why things go wrong

Energy spontaneously tends to flow only from being concentrated in one place to becoming diffused or dispersed and spread out



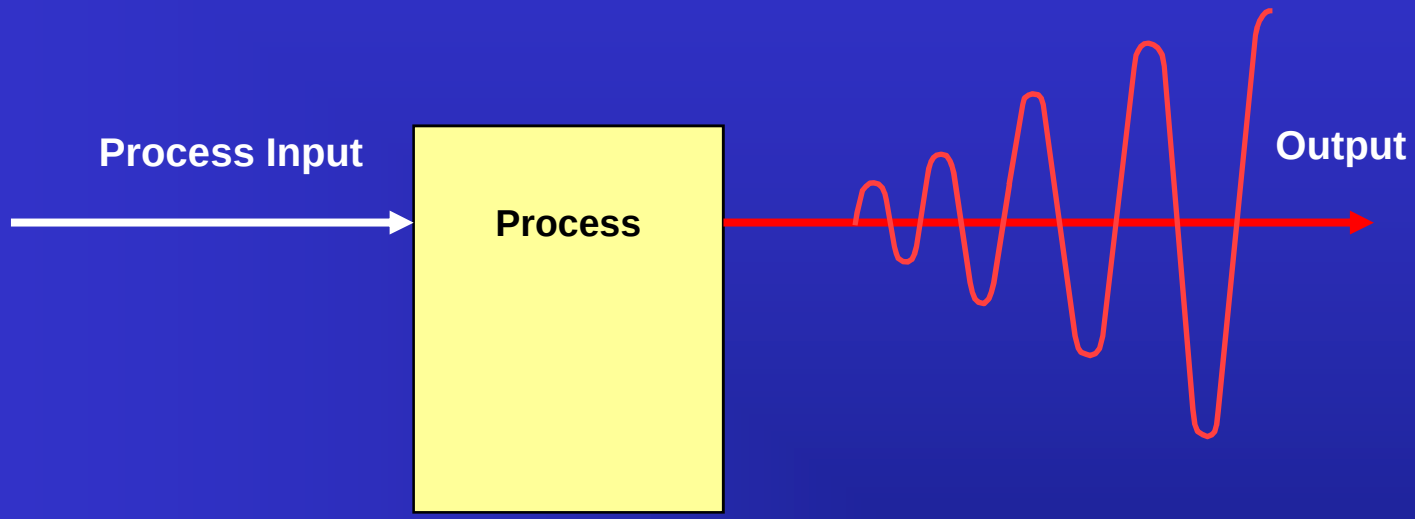
Hot → Cold

Why things go wrong

'All Systems Tend To Maximum Disorder Unless Worked Upon'

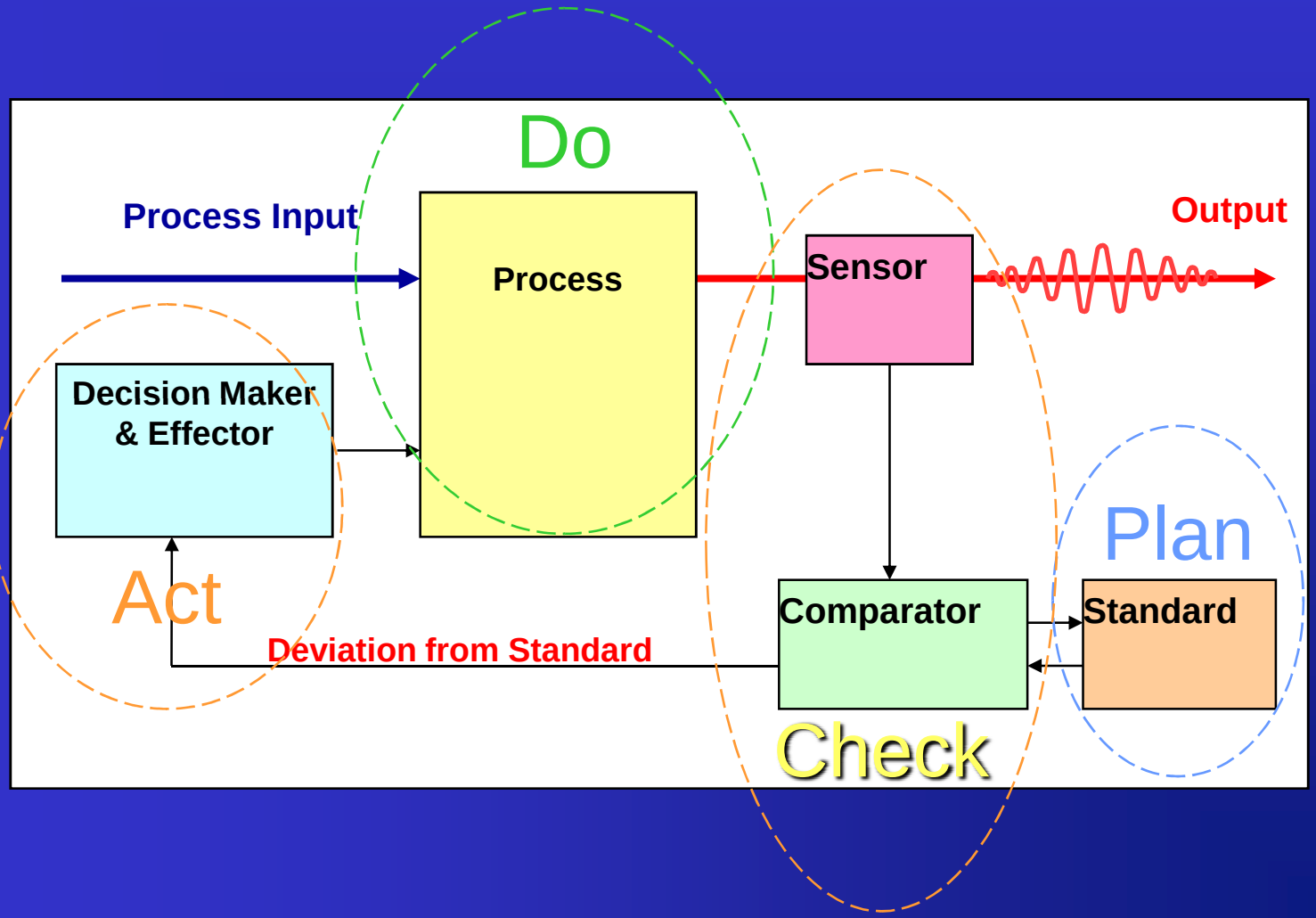
All systems tend to instability

Work processes



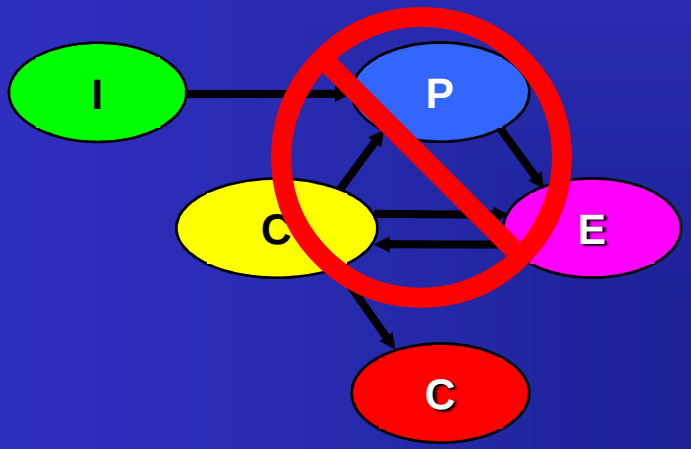
If left alone (ie; not worked on) all systems become unstable

Controlling processes



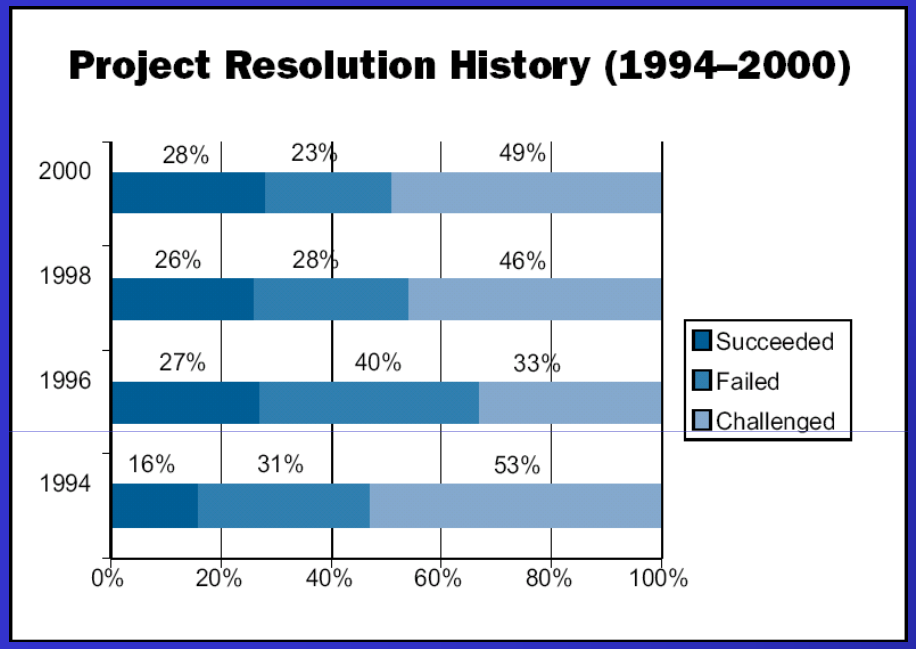
It is easy to fail!

80% of metrics or measurement programs fail (Rubin et al)



Rubin, Howard. "Measuring 'Rigor' and Putting Measurement into Action," *American Programmer*, vol. 4, no. 9 (September 1991), pp. 9-23.

It is easy to fail!



This chart depicts the resolution of the 30,000 applications projects in large, medium and small cross industry US companies tested by the Standish Group since 1994.

Source: Standish Group – Extreme Choas Report 2001

RESOLUTION

	2002	2004	2006	2008	2010
Successful	34%	29%	35%	32%	37%
Challenged	51%	53%	46%	44%	42%
Failed	15%	18%	19%	24%	21%

Project resolution results from CHAOS research for years 2002 to 2010.

Why projects fail

- Lack of clear links between the project and the organisation's key strategic priorities, including agreed measures of success.
- Lack of clear senior management and Ministerial ownership and leadership.
- Lack of effective engagement with stakeholders.
- Lack of skills and proven approach to project management and risk management.
- Too little attention to breaking development and implementation into manageable steps.
- Evaluation of proposals driven by initial price rather than long-term value for money (especially securing delivery of business benefits).
- Lack of understanding of, and contact with the supply industry at senior levels in the organisation.
- Lack of effective project team integration between clients, the supplier team and the supply chain.

Common Causes of Project Failure, *Office of Government Commerce Best Practice, 2005* www.ogc.gov.uk

Why projects fail

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Common Causes of Project Failure, *Office of Government Commerce Best Practice, 2005* www.ogc.gov.uk

Project Success Influences

The CHAOS Ten

Executive Support	18
User Involvement	16
Experienced Project Manager	14
Clear Business Objectives	12
Minimized Scope	10
Standard Software Infrastructure	8
Firm Basic Requirements	6
Formal Methodology	6
Reliable Estimates	5
Other	5

Each factor has been weighted according to its influence on a project's success. The more points, the lower the project risk.

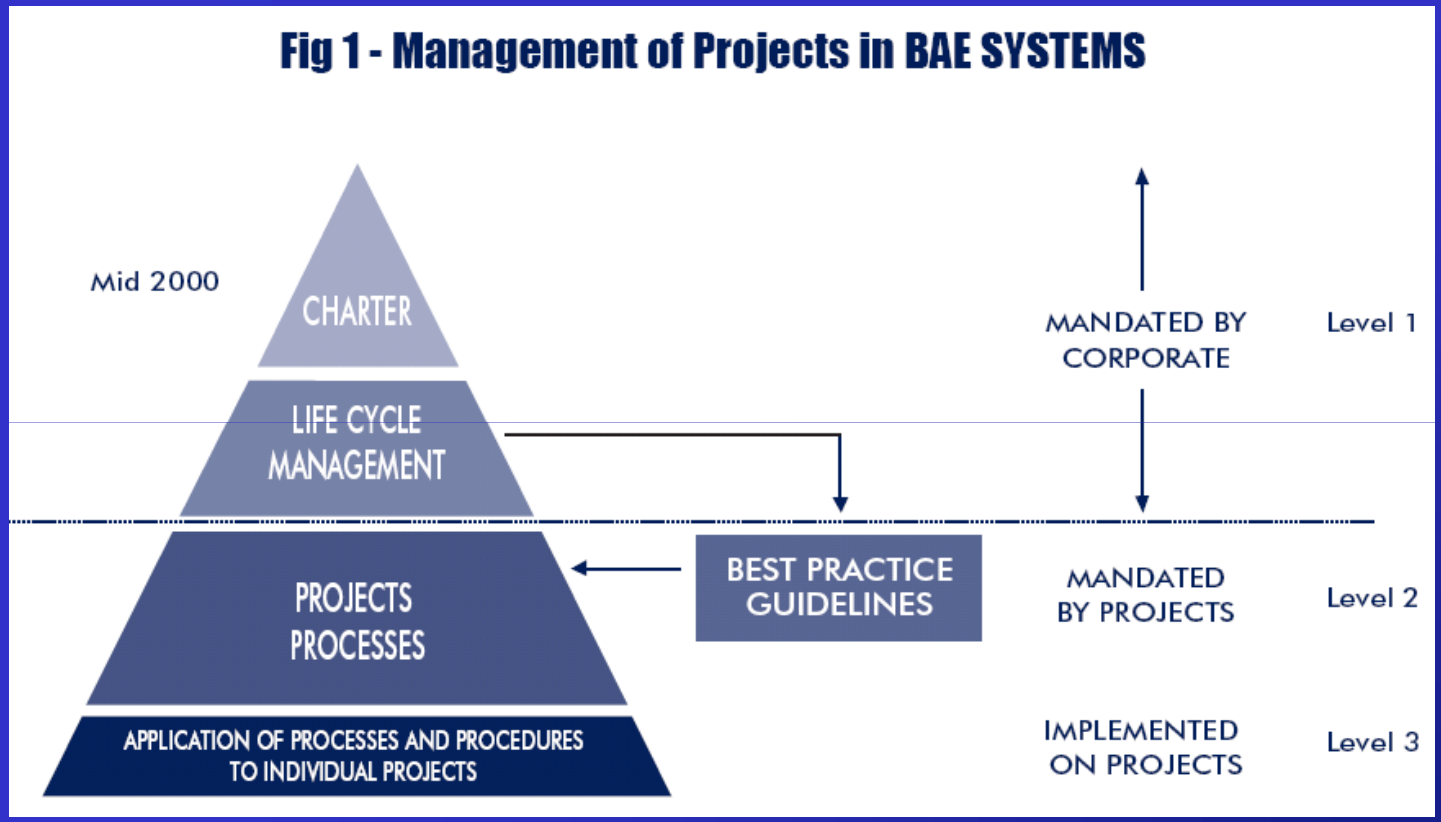
Source: Standish Group – Extreme Chaos Report 2001

FACTORS OF SUCCESS	POINTS
Executive Management Support	19
User Involvement	18
Clear Business Objectives	15
Emotional Maturity	12
Optimization	11
Agile Process	9
Project Management Expertise	6
Skilled Resources	5
Execution	4
Tools and Infrastructure	1

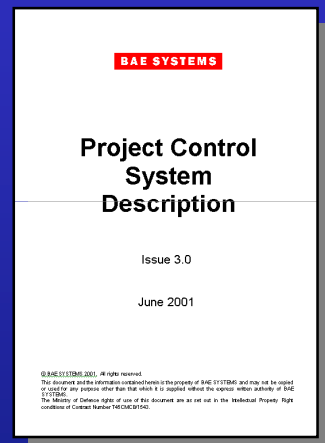
Source: Standish Group Chaos Manifesto Report 2012

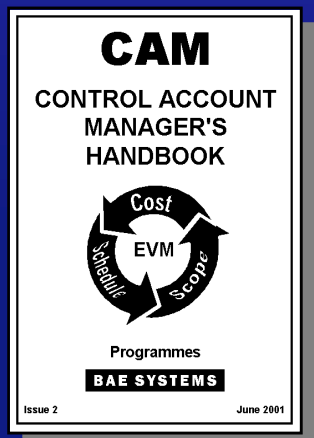

Hawk
LEAD-IN FIGHTER
EVA IN THE UK
LONDON - JUN99

Success relies on more than Process

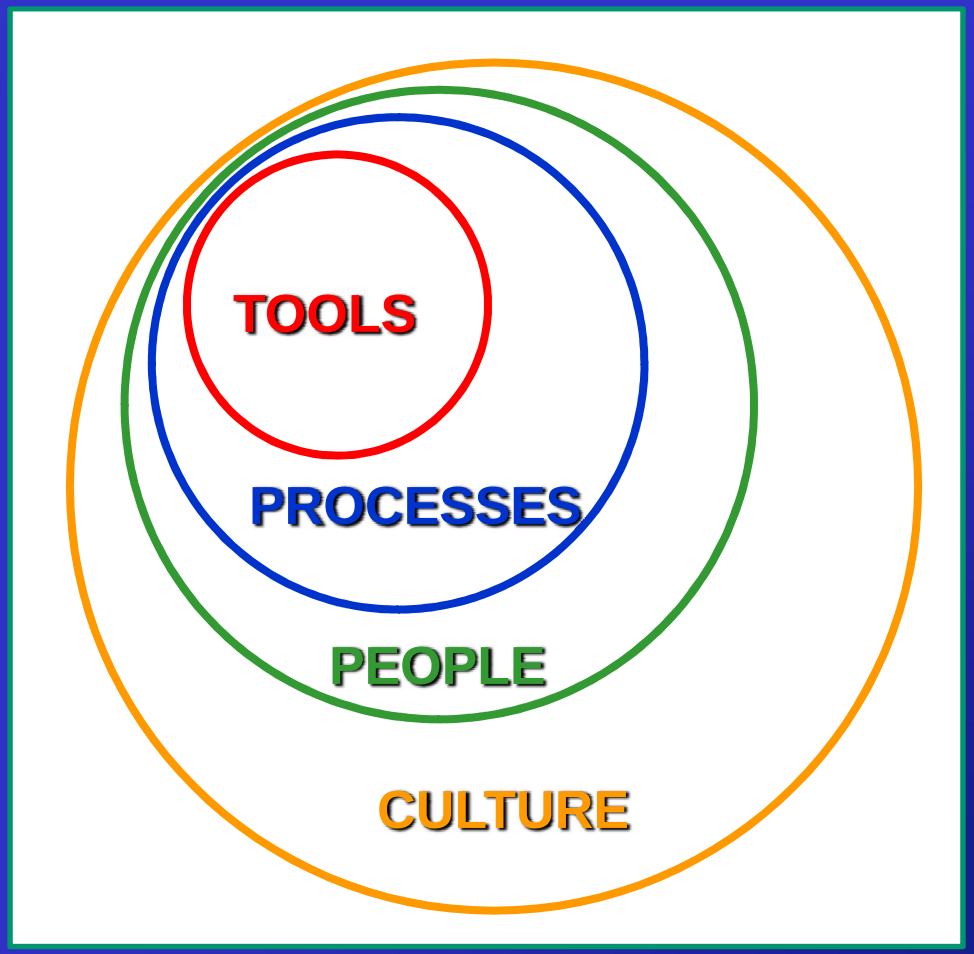


Source: BAE Systems – Management of Projects Charter





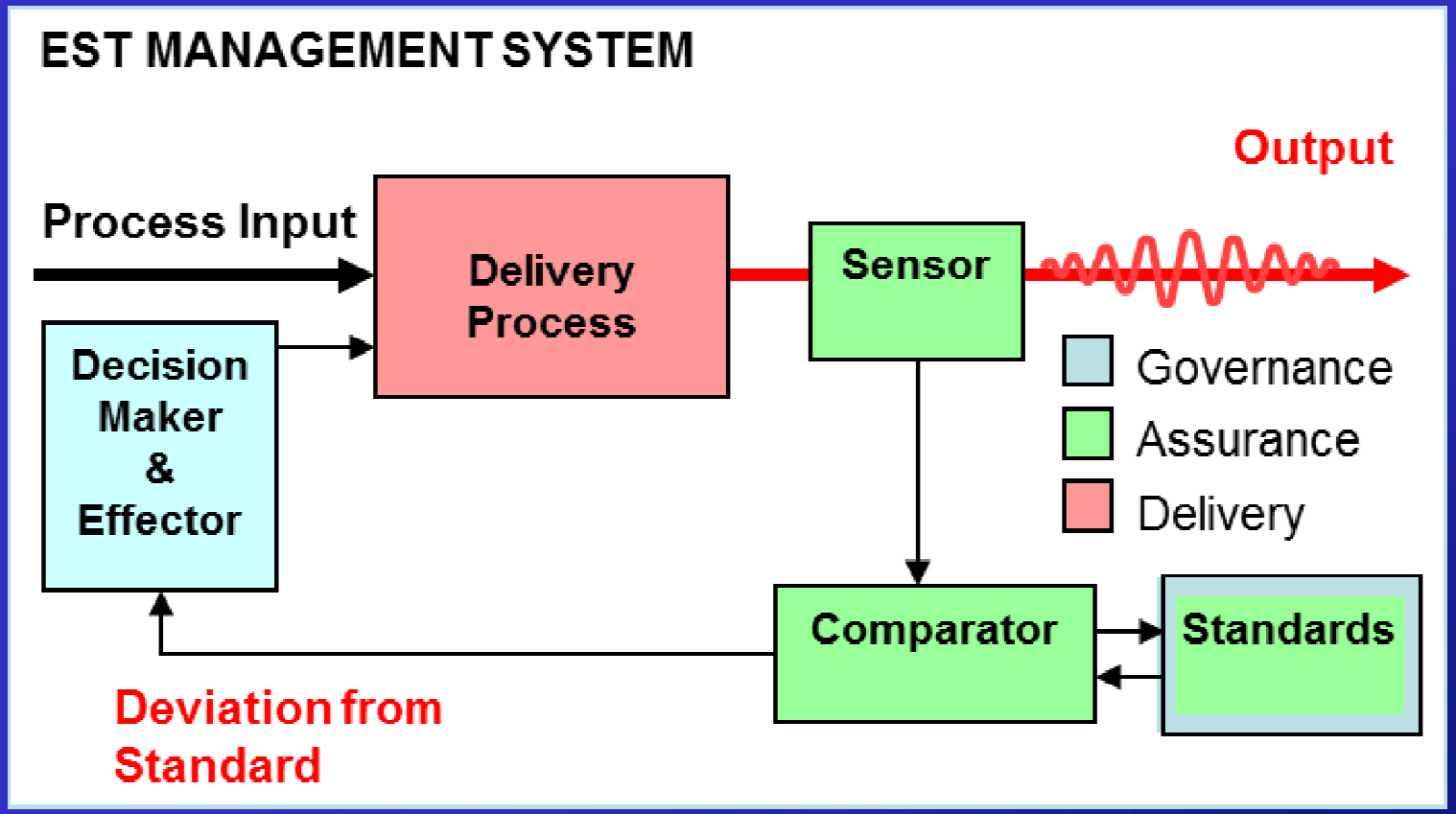
Project Control Sub Systems



Project Selection and Initiate

Why are we doing this work (change/project)?
What business outcomes are we looking for?
How will we know if we are successful?
Who is responsible?

Governance Theory



Governance Theory

PEOPLE MANAGE PROJECTS – **NOT** TOOLS or PROCESSES

- Self interested
- Greedy
- Optimistic
- Reward driven
- Resent measurement

Governance and Control Needs

Control Environment	Risk Assessment	Control Activities	Information & Communication	Monitoring & Review
Through the creation of a Governance regime, a positive atmosphere for the implementation and the maintenance of an effective control structure is established	Uncontrolled risks can lead to adverse exposure or loss and prevent the achievement of goals and objectives efficiently and effectively. Governance bodies ensure projects perform more effectively through identifying, assessing and mitigating unacceptable risks.	Effective policies and procedures that establish the relationship between the governance body and performing organisation.	Timely and relevant information communicated between the governance body and performing organisation is key to effective control.	To measure performance and the effectiveness of control, a governance body needs to monitor and review operations, activities and the control structure itself. Monitoring performance and control enables the governance body to gauge progress against objectives and respond effectively.

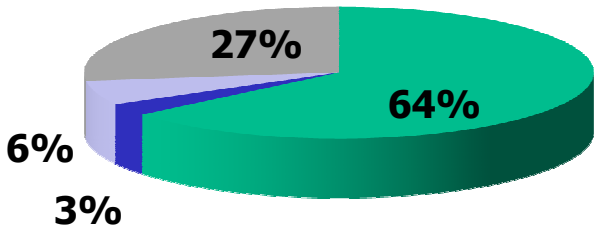
Adapted from Australian National Audit Office – Controlling Performance and Outcomes: Better Practice Guide to Effective Control

Recognise the Problem

Exercising Governance and implementing control systems is not a technical problem - it is a political/marketing/cultural problem

Success Factors

What is the most important factor in promoting organisational project management buy-in?



- Executive Champions
- Established Success Stories
- Consistent Tailored Methods
- Business Alignment / Strategic Synergy

SOURCE: PM Network, May 2003, Results of March 2003 on-line survey

Governance Obstacles

- The incestuous business case
- Strategic misrepresentation
- Optimism bias
- No mechanisms for choosing/prioritising projects
- Embarrassment factors – how much has it cost rather than how much value will the next dollar release
- Focus on securing budget (getting started) rather than outcomes and value (benefits) realisation

Governance Obstacles (2)

- People (projects/support areas) do not want to supply data (it is a pain and an extra overhead) – measurement allows blame to be apportioned
- Project teams will not beat a path to your door, even for your very best mousetrap
- The people who receive the data (the management) don’t necessarily know what to do with it
- Most senior managers don’t want any bad news – watermelon projects

Trap #1: Lack of Management Commitment - BOX TICKING

- Most obvious symptom that commitment is lacking is when your management actively opposes measurement.
- More frequently, management claims to support measurement, and effort is devoted to designing a program, but practitioners do not collect data because management hasn't explicitly required it of them.
- Another clue that managers aren't fully committed is that they charter a measurements program and planning team, but then do not assist with deploying the program into practice.
- Managers who are not committed to measurement will not use the available data to help them do a better job, and they won't share the data trends.

Source: Adapted from **Software Metrics: Ten Traps to Avoid** - Karl E. Wiegers *Software Development*, October 1997

How can you distinguish true commitment from lip service?

- First, look for allocation of resources, including capable people (not just whoever happens to be free at the moment) and money for tools.
- A committed manager will also issue a policy to the organisation, clearly stating the objectives of the measurement program, emphasising his personal interest in the program, and stating his expectations of participation.
- A committed manager will help the program succeed by overcoming the resistance that mid-managers and project leaders may exhibit to the measurement initiative. This is virtually impossible to accomplish from the bottom up, so the drive to succeed must come from senior management.

Source: Adapted **fromSoftware Metrics: Ten Traps to Avoid** - Karl E. Wiegers *Software Development*, October 1997

Ten Guiding Principles	
1	Collect non-threatening data and use it in non-threatening ways.
2	Encourage the use of data for provoking discussion and developing insight.
3	Stress the cooperative and complimentary roles of team members. Performance is a team goal, not a contest between individuals.
4	Avoid any use of data that encourages the distortion of reality or the pushing of private agendas.
5	Gather personal data anonymously. Never use individuals' output as a measure of their worth.
6	Never use measurement to apportion blame.
7	Involve the gathers and the users in establishing the metrics to be used and gain agreement that the measurements are meaningful.
8	Use different metrics for different audiences if necessary.
9	Choose metrics that can be measured with sufficient consistency and accuracy.
10	Ensure you are measuring what you want to improve. What you measure is what you get – it will be maximised whether that adds value or not.


Jackson Pollock
'Lavender Mist'

The First Law of Project Control (according to Brad Grey)

Despite the theory, it's easy to fail

The Second Law of Project Control (according to Brad Grey)

Hot air is compressible, schedules are not!

'Men are so simple and so much inclined to obey immediate needs that a deceiver will never lack victims for his deception'

Niccolo Machiavelli

The Third Law of Project Control (according to Brad Grey)

Governance <> Process

Success = Leadership + Culture + Process + Tools

National Audit Office

Report
by the Comptroller
and Auditor General

Ministry of Defence

The Major Projects Report 2013

HC 817-I SESSION 2013-14 13 FEBRUARY 2014

A.3 Project History

For Astute Class Programme historical data please refer to previous MPRs.

Approvals
On 20th July 2011 Her Majesty's Treasury approved revised time and costs for Boats 1 to 4 and approved Main Build for boat 5, Initial Build for boat 6 and Long Lead Items for boat 7. At this time the Investment Approvals Committee also approved In-Service Dates for Boats 5, 6 and 7.

Boat 1 HMS ASTUTE
In June 2011 HMS ASTUTE successfully completed the UK phase of Contractor Sea Trials. While on a comprehensive sea trials programme in US waters the submarine successfully completed the first of class British Tomahawk Land Attack Missiles Firing Trials, final Spearfish deep discharge trials and underwater Magnetic Silencing; returning to Her Majesty's Naval Base Clyde in March 2012 to commence Base Maintenance Period number 6, As a further element of the First of Class sea trials programme HMS ASTUTE has been fitted with a Payload Bay and will prove and demonstrate this additional capability during the next phase of sea trails.

Boat 2 AMBUSH
Boat 2 AMBUSH was launched and lowered in to the basin outside of the Devonshire Dock Hall on 6 January 2011. Fitting out of the submarine has been completed and the vessel is now undergoing a rigorous period of trials and testing prior to exiting the shipyard. The submarine successfully completed her first test dive in the shipyard's basin in early October 2011. This is a critical milestone ahead of the Boat's planned exit from Barrow.

Renaissance Thinking

'there is nothing more difficult to take in hand, more perilous to conduct, or more uncertain in its success, than to take the lead in the introduction of a new order of things. Because the innovator has for enemies all those who have done well under the old conditions, and lukewarm (indifferent, uninterested) defenders in those who may do well under the new'

Niccolo Machiavelli