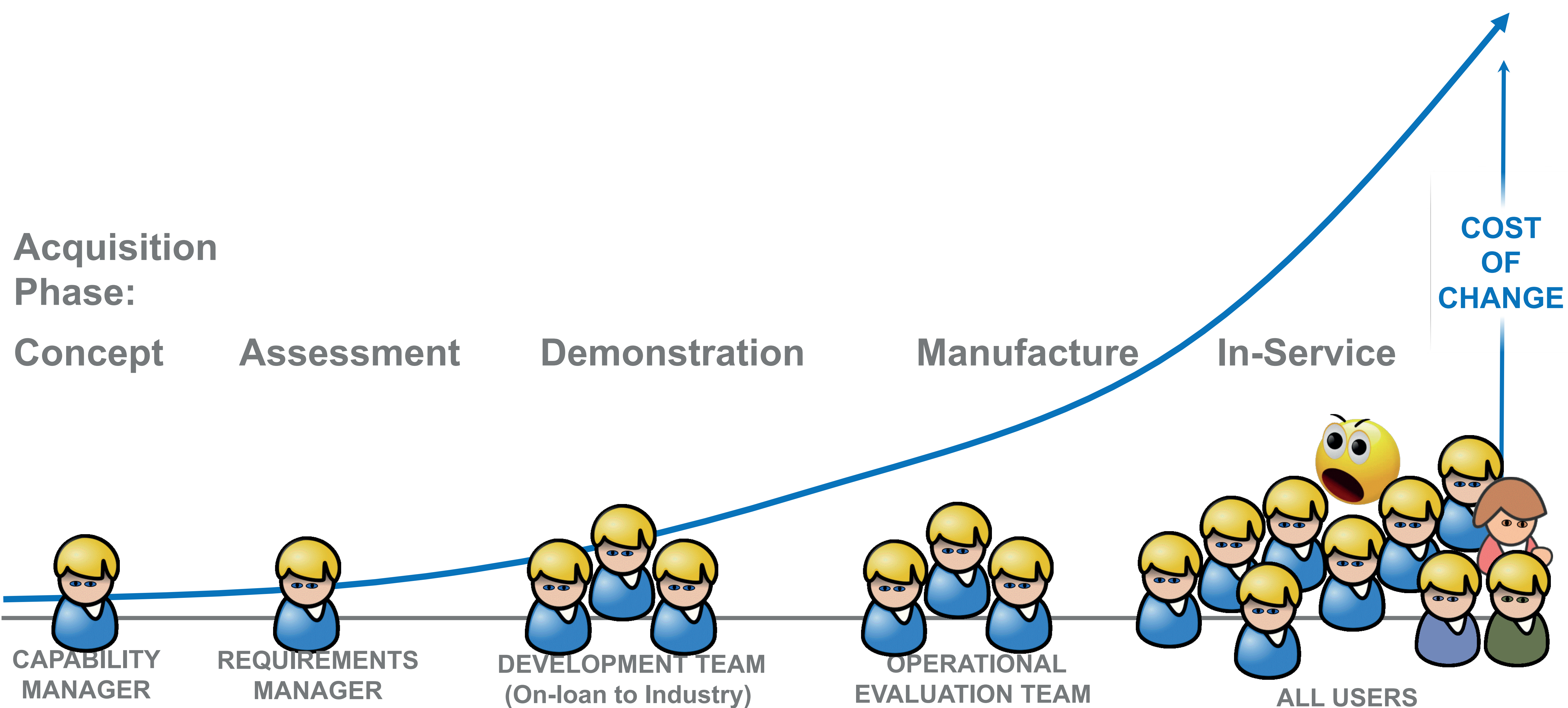




Crowdsourcing with Serious Games for Defence Procurement:

Reducing 'In-Service' modifications through early mass-user engagement



How to involve Users earlier in the Procurement Process?
 (overcoming Geographic and Time Zone differences, Deployment cycles, Training courses, increased use of Reservists)

How to get the best design for Defence Equipment Human-Computer Interface?

- Get it right:**
- .Effective
 - .Efficient
 - .User Satisfaction

- Get it wrong:**
- .Reduced capability
 - .Lower moral component
 - .Expensive to correct

Research Method:

- ① Build a web browser Serious Game around a Studies Assumptions Group vignette.
- ② Crowdsource the design of the human-computer interface using feedback from MOD personnel.
- ③ Develop the Serious Game and the interface using Open Source coding techniques.
- ④ Conduct remote un-moderated Usability Testing on the human-computer interface.

The game interface becomes part of the System Requirements Document passed to industry

What worked:

A practical demonstrator was built for an Electronic Warfare System in the maritime air domain.

The game successfully runs on DII in Internet Explorer 8. The Crowdsourced volunteer players proposed five novel functions and displays, some coming from other EW systems, others coming from Acoustic systems.

Participatory Design is a realistic possibility using Crowdsourced Serious Games.

Remote Usability Testing is on-going using data captured from the game log files.

Quantitative data on the effectiveness and efficiency of the proposed design is available for analysis early in the procurement process.

Qualitative data is available from on-line questionnaires and Blogs on DII and Defence Gateway capturing user perspectives.

What didn't work:

No progress was made with Open Source coding. It appears that there are insufficient people remaining within MOD with computer programming skills.

BUT the National Curriculum now includes computer programming at Key Stage One. The new Coding Cohort is on its way.

Publicity across the MOD is essential to rapidly engage with a Crowd of volunteers. Difficulty in accessing volunteers is compounded by:

- MOD lacks a Crowdsourcing Web Site
- DII Blogs are controlled at 1* level which is too high for research students to gain access.

Reward mechanism not available or standardised across all MOD personnel. Difficulty in recognising or incentivising the crowd.

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