

Should all the Blame be Laid at MoD's Door?

by Colonel Neil Polley

Neil Polley is Senior Military Advisor (Land & SP) at the UK Defence Science and Technology Laboratory and previously was Requirements Manager, first on the collaborative (with USA) TRACER/Future Scout project and latterly with the FRES IPT. Here he asks whether it is fair to lay the blame solely on MoD, and picks out three areas where he says MoD has raised its game.

I had the good fortune to work with Peter Flach on the collaborative TRACER/Future Scout programme from 1999 to 2002 (I was Requirements Manager when he was IPTL) and recognise many of the frustrations and issues that he identifies in his paper. TRACER/FSCS was a considerable success at the tactical level, and shows that with both the will and the means, and the correct application of systems engineering processes, international collaboration in AFV development can work.

I highlight TRACER/FSCS because at the time, the project was in some respects ahead of its day in how to run a complex AFV programme. In particular, the Joint Project Office (JPO) set out at the outset to work in close partnership with industry, to apply Systems Engineering principles (particularly Integrated Product and Process Development) across the entire programme, and to innovate – for example in the deployment of military SMEs within industry to advise and assist, particularly on making the key trade-off decisions necessary to deliver an affordable and achievable programme. This enabled the JPO to hit all performance, cost and time (P/C/T) deadlines during the 42 months of the programme.

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As Requirements Manager, I had to rein in an ever ambitious US 'customer' at Ft Knox whose key ambition was to escalate the joint requirement to a level that provided a glide path from the US current force to the Objective Force, FCS, with little consideration for the resultant impact on cost and time. The belief in 'user supremacy' over the efforts of the materiel developers was striking and a number of difficult negotiations were held before a solution to one side's ambitions, tempered by the other's pragmatism, was found by means of threshold and objective requirements. This was a frustration, and was one of the reasons behind UK's unwillingness to continue with the programme, even on a national basis.

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Peter raises some key points that have certainly not helped in our recent history of AFV procurement. But can the ills which he describes be fairly and solely laid at MoD's door? I think not – shortfalls exist on both sides. And has UK's record been so much worse than anybody else's (though this is not to imply a lack of blemish)? The US has cancelled FCS (a military 'techno-fest' if ever there was one) after pouring huge amounts of money into the programme, all to little apparent avail. Boxer and Puma have slipped, the French have yet to decide a way forward for EBRC, and Sweden's SEP programme has been shelved. Moreover, as we have seen from the TRACER/FSCS example above, the US can be just as bad at taking cost into account, and making significant requirement trades; while other nations cited have little or no native AFV industry and largely rely on COTS purchasing.

We can look back on the procurement of the Challenger 2 (CR2) tank with some satisfaction: not just because a good product was delivered, but because the MoD team involved with the programme had a sufficient balance of experience, technical expertise (complemented in depth by the Defence

Science and Technology Laboratory (Dstl)), commercial skills and a willingness to work in concert with Vickers Defence Systems (VDS) to deliver a tank that met the Army's key needs. I think we can also be optimistic about the prospects for the Warrior Capability Sustainment Programme (WCSP) whose progress was announced shortly before Easter.

I would also like to highlight the efforts of the DE&S/Dstl team in recovering the Specialist Vehicle programme (whose progress was announced in parallel with WCSP) from the complexity and uncertainty in which it found itself in the years following the demise of TRACER/FSCS where, for some of the reasons identified in Peter's paper, stasis appeared to have set in.

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In response, I would like to pick out a couple of areas that illustrate the extent to which MoD's approach to equipment acquisition has shifted for the better. I hope that in doing so my thoughts, which are framed from a science and technology (S&T) perspective reflecting my most recent acquisition experience, will balance the necessarily frustrated perspective offered by Peter. But as I am still 'in the tent' of the MoD acquisition community I must be circumspect in what I say! And of course my comments reflect personal opinion rather than any endorsed MoD position.

Through Life Capability Management

The first area where we have seen a major shift in approach since TRACER/FSCS days is the adoption of a whole systems and through-life approach to capability acquisition and management. This extends not just to considering the equipment Line of Development but also to:

- A pan-DLoD approach.
- The introduction of Through Life Capability Management (TLCM) to introduce greater coherence and long-term capability planning across the acquisition environment.
- Programme Boards where DLoD stakeholders from across the defence enterprise are brought together to translate high-level programme goals into more detailed requirements for delivery by constituent projects within a capability area, and to make decisions whose impact can be considered on all projects.

- An altogether different approach to the management of risk (both programme and technical).
- A much closer relationship with the science and technology (S&T) community in advising on technology development, integration, exploitation and risk reduction.

A key development here is that Dstl now plays a much closer role in providing impartial, expert S&T advice to DE&S project teams through its Science Gateways and the 'Technology Core' concept, whereby Dstl experts are deployed to DE&S floor plates as integrated members of project teams. Gateways apply their technical expertise at project level, investigate and evaluate proposals, and advise on the technical 'art of the possible', system and integration risk and emerging technology opportunities. They also provide visibility of and reachback to the MoD research programme and wider R&D community.

In this way, technology management is now seen as an integral part of project and programme management, notably to reduce project technical risk. This helps MoD further to develop the technical competence of its personnel, complementing industry and enabling a closer, more balanced relationship between MoD and industry in capability delivery. Such a relationship also extends to secondments between MoD and industry, so building mutual understanding and empathy. This recognition of Dstl's core role to provide independent, objective and high-quality scientific and technical advice to Defence, as laid out in Dstl's Framework Document, is a major advance in the way that the technical quality and risk of projects is now managed.

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Partnering

My second point concerns partnering. Here the evidence points to major improvement, stimulated in large part by the imperative to deliver rapid and high-quality support to deployed forces. This is not rocket science; it is about having both the will and inclination to work closely with industry to deliver quickly for the front line. It is about developing mutual trust and a willingness to share information.

It is about building relationships across the acquisition community: MoD, industry, academia, research councils. It is about a willingness to innovate.

This sort of approach has been seen in the Specialist Vehicle programme that recently passed Main Gate approval. In some respects the S&T world has been leading the way, with initiatives such as PARSIFAL (a surge armour/force protection programme within MoD's Support to Operations domain), the web-based Defence Technology Plan, the Centre for Defence Enterprise and the evolving Defence Technology Centres already demonstrating the value and benefit of working closely with potential suppliers across the defence enterprise. This sort of approach is fundamental to Dstl's way of working – it's in the DNA, so to speak – so it is not surprising that the S&T community has played a prominent role in driving changes in attitude and behaviour, helping as a catalyst in translating ideas into demonstrators and through into front-line operational service.

The new, enhanced role for Dstl to be MoD's central focus for S&T support across the board should make it easier for both new entrants and established players in the defence marketplace to gain access to MoD's requirements, approach MoD with their ideas and potential solutions, and receive help, advice and funding to develop those ideas from drawing board to exploitation.

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In this way, MoD and its suppliers can transform the potentially fractious monopoly-monopsony relationship into one of mutual benefit. For MoD this means saving lives and enhancing operational effectiveness; for suppliers, generating business opportunities that create value both intrinsically and for the wider economy – this is especially the case for niche or small-scale suppliers. The challenge for MoD now is to take these examples of best practice and embed them more widely across the whole acquisition business: this is recognised in a dedicated chapter in MoD's recently published Defence Strategy for Acquisition Reform, and remains work in progress.

Upskilling

Turning finally to my third area: the skills of MoD acquisition staff. Here I agree that MoD has lacked

specialist skills in key areas such as systems engineering, programme and project management, and finance and cost estimating. This was a key finding of the Gray report and the need to improve the skills base features prominently in the Defence Strategy for Acquisition Reform. In TRACER/FSCS, the IPT got round this problem by buying in the required expertise from outside MoD; in this way building a genuinely integrated and multi-disciplinary project team.

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But I do not wholly share Peter's view that civilian staff in the acquisition business are rotated through appointments too frequently to pick up the necessary depth of experience and competence to be effective. There is a clear difference here between civilian and military acquisition staff. Below Team Leader level, it is the norm for civil servants to spend considerably longer in each appointment than their military counterparts, whose tour lengths are dictated by the military posting cycle.¹ For example, the lead for Finance and Secretariat in both TRACER/FSCS and FRES IPTs held the posts for many years, and in the process developed an encyclopaedic knowledge and understanding of both programmes. As a result, his written briefs for senior MoD decision makers and Ministers were models of clarity, balance and economy.

In contrast, churn certainly is an issue for the military, where the problem lies in balancing the need for depth of acquisition experience so as to build competence and be competitive for senior acquisition or other appointments, against the need for regular front-line and operational experience which can then be brought to bear in the acquisition environment. Included in the drive to raise standards and improve qualifications for MoD acquisition staff are initiatives to work with industry/private sector partners, secondments to industry, and ensuring that personnel holding particular appointments have appropriate professional qualifications or accreditation. ■

NOTES

¹ My remarks here do not take account of the fact that many posts across MoD's acquisition community have changed as teams have merged or been abolished as part of the Acquisition Organisation Review