Written evidence submitted Jag Patel

*It is called the private sector for a reason – so that it can use private sector funds, not public sector subsidy to innovate, grow, create jobs and make a profit.*

INTRODUCTION

1. Thirty-six years after the then Secretary of State for Defence, Michael Heseltine was persuaded to call-in the National Audit Office to examine the delivery performance of major defence equipment projects, the government has still not tackled the deep-seated problems that have caused the severe financial crisis at the Ministry of Defence, in particular, the unbridgeable funding gap in its forward Equipment Plan.

2. This submission focuses on the government’s policy on defence procurement, why it has consistently failed to deliver value for money and proposes a new competition policy which, if implemented, will deal with the scourge of persistent delays and cost overruns that have plagued military equipment programmes for as long as anyone can remember.

3. Specifically, it shows how competition can be used to elicit input of private sector investment capital into each phase of MoD equipment procurement programmes, so relieving the burden on the public purse and freeing up much needed taxpayer funds that can be diverted onto fulfilling the wants, needs and expectations of ordinary citizens and the left-behind.

4. The ultimate objective is to gradually cut the government’s contribution of funds down to zero, commensurate with achievement of levels of competitiveness in the defence industry comparable with that exhibited by world-beating, export-orientated, advanced technology non-defence companies in the UK – which happen to pose a *nil* cost burden on the taxpayer.

5. The submission does this by defining lower-level policy detail underneath high-level policy determined by Ministers, special advisers and mandarins – which should be done by senior civil servants, but isn’t – to a level of granularity which makes it relatively straightforward to put into practise by those charged with implementing policy.

BACKGROUND

6. The purpose of defence procurement policy is to conduct and orchestrate the performance of for-profit organisations in the defence industry – by rewarding success, not subsidising failure which is what the existing procurement process does. Accordingly, every aspect of procurement policy should be relevant to the interests of the market and because conditions in the marketplace are changing constantly, so procurement policy needs to evolve with it – indeed, it ought to be the *catalyst* for perpetual change for the better!

7. The reason why procurement policy is exclusively dependent upon acquiring equipment from defence contractors is because people at the highest levels of government (including Her Majesty’s Loyal Opposition) have come round to accepting the view that *only* the private sector can deliver goods and services to the State within strict cost, performance and time boundaries.

8. Not least, because the means of defence production, distribution and exchange is now *exclusively* in the hands of private interests, that is to say, the State is entirely dependent on for-profit organisations for the design, development, manufacture and delivery of new military equipment to the Armed Forces. Consequently, the government has become reliant on the private sector for all its military equipment needs, including its subsequent upkeep, when in-service with the user. The harsh reality is that, no department of state in Whitehall is as dependent on the private sector, as is MoD. Likewise, these private interests are completely hooked on a steady flow of taxpayer funds for their very *existence.*
9. Accordingly, MoD’s policy is to select the preferred Prime Contractor from a choice of industry teams by running a multiple-phase, winner-takes-all competition on the basis of a level playing field, genuinely open to all-comers including non-domiciled suppliers – to ensure it gets the very best value for money.

10. In the final reckoning, the efficacy of this policy will be measured by the quality of outputs produced by defence contractors. Over the last 70 years or so, they have consistently failed to deliver equipment to the Armed Forces which is fit for purpose, adequately sustained in-service and constitutes value for money through-life.

11. As an indication of how important this issue has become for this government, the Prime Minister’s chief adviser, Dominic Cummings, has made it known that his priority is to tackle waste in public spending by bringing new thinking to the farcical defence procurement process which, he says, has squandered billions of pounds, enriched some of the worst corporate looters and corrupted public life via the revolving door of officials/lobbyists.¹

12. He can start by looking at how the instrument of competition is applied by MoD.

FAIR AND OPEN COMPETITION

13. Competition is the essence of enterprise and free market capitalism. For an economic model that relies on casual interactions between buyers and sellers and seeks to deliver goods and services to everyone at a price they are willing to pay, vigorous competition among vendors on the basis of a level playing field is absolutely essential. However, people (especially those in the pay of the State) need to understand and accept that as an inevitable consequence of this drive to sharpen competition, there will be winners and losers in the marketplace.

14. To this end, the government’s default policy is to procure military equipment for the Armed Forces through fair and open competition – the only exceptions being off-the-shelf purchases and uncontested single-source development contracts, the latter to be handed out on a preferential basis (to the Select Few).

15. Indeed, in its most recent policy statement on defence procurement expressed in the Defence Industrial Policy,² the government says:

> We strive to provide our Armed Forces with the capabilities they need at the best value for money, obtaining this through open competition in the global market, wherever possible. Competitive tension is the greatest driver for innovation, productivity and earning power in any economy.

16. Yet, in the very next sentence, the government acknowledges that 42% of new MoD contracts by value were placed via open competition in 2016/17, down from 64% in 2010/11 – which leads one to conclude that the trend is towards more of the same.

17. So, it seems that less and less use is being made of the market-based instrument of fair and open competition – notwithstanding its role at the very heart of the government’s policy on defence procurement. There is a suspicion that senior executives seconded from the defence industry and embedded within the Ministry of Defence, who remain in the pay of their employers, may have exercised their maligned influence to interfere with implementation of policy to serve their narrow commercial interests. Or is this a clear-cut case of the senior civil servants subverting the will of the party of government, and policy set by Ministers? What Trump calls the “deep state” which is out to frustrate his administration. One thing is for certain – there is reluctance on the part of some people in the pay of the State in leadership roles to


use the instrument of competition as a tool, because it creates winners and losers – reflecting their deep-seated socialist tendencies.

**Maximising Competition in Defence Procurement**

18. Either way, this government has now accepted that the existing competition policy used to procure defence equipment is *not* working as effectively as it would like, which is why it has made known its intention to publish a strategy on maximising competition in defence procurement, confirmed by the answer to a written question in the last Parliament, shown in Figure 1.

19. In formulating this new policy, the government should be honest with itself and acknowledge that the presently applied ‘sudden death’ competition (see Figure 3 below), which abruptly reduces the field of bidders from six to one, following a one-off release of the invitation to tender (thereby removing the incentive for the single Contractor to perform, or keep prices down) has been an abject failure.³

**The Multiple-Phase, Winner-Takes-All Competition**

20. Instead, the government should select the winning Contractor from a choice of industry teams by running a multiple-phase, winner-takes-all competition on the basis of a level playing field genuinely open to all-comers, including non-domiciled suppliers, with the rules of the contest declared at the outset – that is to say, exposing bidders to the full rigours of the free market, not shielding them from ‘feeling the heat’ of competitive market forces. The build-up of pressure within bidders’ organisations starts the moment the government enters the market with taxpayer funds to procure defence goods or services, and only ends when a single bidder is chosen as the preferred Contractor to receive the main contract.

21. Using the market-based instrument of fair and open competition to select a single Contractor has the added benefit of incentivising all bidders to get serious about identifying, quantifying and controlling the prime equipment and its associated Support Assets costs – a process that begins at the time of preparing the response to the ITT for the first contract performance phase. Bidders who fail to do so run the risk of being excluded from the next phase of the competition.

22. Normal commercial pressures and market forces inherent within the context of a multiple-phase winner-takes-all competition will, in themselves, compel bidders to produce and deliver competitively priced, fully compliant ITT responses – not because the government says so, as some people in the pay of the State with inflated egos seem to think, but because of the omnipresent threat from the Competition!

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**The Policy of Progressive Elimination**

23. The policy of Progressive Elimination – removing bidders *one-by-one* during the winner-takes-all competition requires that a bidder who scores worst against the selection criteria should be eliminated immediately after Abbey Wood Team Leader has taken receipt of ITT responses and another, who has performed least well, at the end of each contract performance phase, as illustrated in Figure 2.

24. That is to say:
   a. From seven bidders to five, immediately after taking receipt of responses to the ITT for the first contract performance phase.
   b. From five to four, at the end of the first contract performance phase.
   c. From four to three, immediately after taking receipt of responses to the revised ITT for the second contract performance phase.
   d. From three to two, at the end of the second contract performance phase.
   e. And finally, from two to one, after taking receipt of responses to the revised ITT for the final, manufacture and in-service sustainment phase.

25. The ultimate result is one winner and six losers at the end of the multiple-phase winner-takes-all competition.

**Interim Target**

26. To this end, MoD Abbey Wood Team Leader should frame and *tailor* the Requirement appropriate to the nature of the equipment to be procured and goals set for the *first contract performance phase* of the procurement programme – expressed as the end-of-phase *Interim Target* to be met (see Figure 4 below). This Interim Target will be different for each procurement programme. Upon completion of the first phase, the ITT should be revised to specify the Interim Target for the subsequent phase and released only to those bidders who have been down-selected on the basis of their performance measured during the previous phase. Bearing in mind that bidders are required to produce responses against each revision of the ITT at their own expense and that some will fail to make it into the next phase, they should...
not be asked to spend money on doing work which falls outside the scope of the next, follow-on phase.

Furthermore, direct Contractors (in the ITT) to initiate and conclude work with attendant higher risks as early in the procurement programme, as is practicable – leaving only unfinished, low-risk work for completion by the single main Contractor until after Main Gate to increase the likelihood of the project being brought-in within strict performance, schedule and Through Life Budget constraints set at the time of taking the main investment decision. This approach to tackling risks enables Abbey Wood Team Leader to introduce amendments into the technical specification requirement in a pre-planned way in the revised ITT, at the start of each phase – not foist changes onto unsuspecting bidders during the contract performance phase thereby incurring additional costs, as is currently the case. Additionally, get Contractors into the habit of using up their own money first to complete this early risk reduction work, before MoD’s tranche of funding is released, in the second half of each contract performance phase.

To mitigate against the risk that one of the bidders might submit a ‘no bid’ thereby denying Abbey Wood Team Leader the opportunity to remove a bidder upon receipt of responses to the ITT for the first contract performance phase, it may be prudent to release the ITT to seven bidders. In the event this risk does not materialise, then it becomes a simple matter of removing two bidders instead of one, to get back to the down-selection routine.

In addition, to stop eliminated bidders from re-entering the contest through the ‘back door’ and making a mockery of MoD’s competition policy, not to mention destroying the level playing field, they (and their supply chain partners) should be prohibited from taking-up the role of Subcontractors to any of the remaining bidders. Otherwise, there exists the worrying prospect of secret, collaborative deals being struck among potential Competitors prior to the start of the competition, to make sure that nobody loses out.

IT IS A WINNER-TAKES-ALL COMPETITION

It is a winner-takes-all competition, not a contest in which everyone’s a winner!

Likewise, new bidders wanting to enter the race after the competition has got under way should be barred from joining the fray, on the grounds that it is not fair to existing players if latecomers are admitted into a ‘knock out’ competition without having first gone through previous qualifying rounds.

An independent, fair-minded observer who has not got a stake in the game but is concerned about the proper functioning of free markets and has the national interest at heart, will be assured that this winner-takes-all competition treats all bidders, large and small, on an equitable basis – with not even a hint of favouritism or cronyism, which has become common place under the ‘sudden death’ competition.

It is this ‘knock out’ nature of the competition and the fear that it will lead directly to a slump in the company’s Share Price (not to mention attracting adverse publicity and comment in the press & media) that incentivises all bidders to get serious about becoming fully compliant with the Requirement, as well as, raising standards of workmanship. The first, second and final contract performance phases need not be years long – they can be some months or even just several weeks in duration, to dramatically cut down the acquisition cycle time.

PERFECTLY ALIGNED WITH INDUSTRY’S PRODUCT DEVELOPMENT CYCLE

What’s more, this winner-takes-all competition has been carefully designed to perfectly align the down-selection process with industry’s product development cycle, whilst ensuring that the right incentives are built-in – in a way not achieved before, during clumsy attempts at realignment.

But the single most important benefit to be derived from adopting the winner-takes-all competition is that, unlike the ‘sudden death’ competition, it is not susceptible to manipulation and distortion by the Select Few who swing the decision on down-selection in their favour, by deploying their vast armies of parliamentary lobbyists to surreptitiously apply political pressure timed to coincide with the electoral cycle, on strategically important programmes – not least, because it is dependent upon the assessed ability of the bidder to deliver an equipment that is
fit for purpose, adequately sustained in-service and constitutes value for money through-life, not one who ‘shouts loudest in the corridors of power’.

36. The best way to get value for money for taxpayer funds and spread prosperity around is by applying the instrument of fair and open competition, not only at Prime Contractor level, but right down the extended supply chain so that first and lower-tier Contractors are also exposed to the full rigours of the free market – because hitherto, they have been shielded from 'feeling the heat' of competitive market forces by ITT recipients.

REMOVING LONG-STANDING DISTRORTIONS AND INEFFICIENCIES

37. Another beneficial side-effect of applying this fully inclusive, winner-takes-all competition policy is that it will remove long-standing distortions and inefficiencies in the supply chain – by identifying and rooting out those Subcontractors who have positioned themselves in the extended supply chain but are not actually adding any value, that is to say, people who are acting as middlemen by simply raising invoices against the value of goods and services produced by lower-level, small and medium-sized enterprises suitably marked-up to reflect their cut of the action!

38. It is these distortions and inefficiencies that are a distinguishing feature of the defence industry, which sets it apart from the rest of the UK’s world-class manufacturing economy. It is also the reason why engineered products manufactured by defence contractors cost substantially more than equivalent items in the non-defence sector – which would explain why they are seriously uncompetitive both, in the domestic market and in export markets.

PROCUREMENT OFFICIALS UNABLE TO SEPARATE THE GOOD FROM THE BAD

39. The thing about using competition as a tool is that it is supposed to weed-out inefficient, poorly managed businesses offering over-priced products from the fray, leaving only those which are highly competitive and on top of their game. Not so in the market for defence equipment which has seen precisely this sort of players not only survive, but also dominate it for years, even decades.

40. Consider this simple fact – over 42% of MoD’s expenditure on defence procurement for 2017-2018, amounting to over £15bn was spent on just ten suppliers. What’s more, this market share has remained pretty much the same over the last decade.4

41. Even the then Comptroller and Auditor General came around to the view that there is unhealthy market concentration in the defence industry. In an oral evidence taking session at a select committee hearing in the last Parliament, Sir Amyas Morse, whose previous appointment was as Commercial Director at the Ministry of Defence, offered this opinion:

“I do think there has been an unhappy and unhealthy tendency for market concentration to happen, and I do not think the Government have done very much to prevent it.”

42. He went on to say:

“Up until quite recently, you would see very considerable contractor concentration. The most extreme example, if you look for a long-term historical example, is what has happened in defence, where we used to have quite a lot of British defence companies, and now there are very few. Whenever an outsider won a contract, they would be taken over …..”

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Market Concentration

43. Market concentration occurs when a small number of firms capture a significant portion of the market in a particular line of goods or services. It is the manifestation of a lack of competition in that particular sector and because these firms are confident that no one can take their market share, they see no reason to invest in innovation, product research and development, create intellectual property or up-skill employees.

44. The government has a duty of care here. Not only has it presided over market concentration in defence, but it has also failed to maintain a sufficiently wide range of genuinely independent players for each product line, by allowing a Contractor to be taken over by one of the Select Few, immediately after unexpectedly winning a MoD contract.

45. The question is, how did this level of market concentration come about?

46. One of the reasons for this is that the presently applied ‘sudden death’ competition (see Figure 3) has made it impossible for MoD procurement officials to separate the good from the bad – not least, because it has been interfered with and manipulated by the Select Few, to serve their own business purposes. Instead of down-selecting bidders for the follow-on contract performance phase on the basis of price competitiveness, procurement officials have been manoeuvred into relying on warm soothing words and hollow statements of intend, as a way of discriminating between bidders. Additionally, it is highly prescriptive and stifles innovation.

Figure 3

Defence Contractors have developed an Aversion to Competition

47. What is not in doubt is that defence contractors have developed an aversion to competition and open markets, not least, because they have for far too long been protected by the government from being exposed to the full rigours of the free market, that is to say, shielded from ‘feeling the heat’ of competitive market forces. Consequently, they have become

notoriously uncompetitive – on the quality of products offered, timely delivery and most
important of all, on price.

48. To avoid being tested on the bottom-line Selling Price, Contractors have through intensive
lobbying, made certain that the ‘sudden death’ competition requires bidders to submit a plethora
of Management Plans (in the form of Microsoft Word documents) as a response to the invitation
tender, which has in turn, allowed them to stuff these plans full of:

a. Pretty pictures and diagrams.
b. Grossly exaggerated claims regarding the maturity of the starting-point for the technical
   solution.
c. Warm soothing words, false promises and hollow statements of intent skilfully crafted in
   such a way as to allow Contractors to rescind on work commitments later on, during the
   contract performance phase.
d. Organisational charts with names of self-important people on overheads who will not be
   getting hands-on with the work to be done in the next phase.
e. An asking price quoted in the ITT response which bears no correlation to the work
   intended to be performed by the Contractor during the follow-on phase.
f. A non-existent or useless schedule.

49. Instead of relying on warm soothing words and hollow statements of intent offered in
Management Plans, the decision on which Contractors to down-select for the next, follow-on
phase should be based upon their performance measured during the previous phase. This
approach requires MoD to assess ITT responses on an even-handed basis.

MARKING SCHEME FOR ITT RESPONSES

50. The purpose of assessing ITT responses is to establish the ranking of bidders (from 1st to
7th) based upon price competitiveness and the degree to which they have complied with the
technical specification requirements expressed in the ITT.

51. It is this ranking that enables Abbey Wood Team Leader to select the bidder(s) who will be
removed from the multiple phase, winner-takes-all competition – one at the start, and another at
the end of each contract performance phase, as shown in Figure 2 above. Equally, the same
ranking will also inform his choice of the single, preferred Contractor at the end of the
competition.

52. To be able to rank bidders in order, it is necessary to employ a Marking Scheme (not a
weighting scheme) which assesses each ITT response against previously declared selection
criteria. This Marking Scheme should be designed (in Microsoft Excel) in such a way that, it
rewards desirable conduct with positive scores and penalises bad behaviour with negative
scores. To this end, Abbey Wood Team Leader should be given the flexibility to award scores
(using a drop-down menu) anywhere between minus ten (−10) and plus ten (+10) points against
each attribute, to cater for the vast range of behaviours exhibited by bidders at the time of
preparing the ITT response.

53. The result is that bidder(s) with the lowest overall score(s) automatically become favourites
for removal from the competition and receive a ‘Dear John’ letter. Under the principles of
natural justice, Abbey Wood Team Leader is duty bound to reveal this Marking Scheme to
bidders in the ITT.

A FULLY COSTED AND PRICED PROGRAMME OF WORK

54. To this end, MoD should discontinue the practice of simply asking for a plethora of
Management Plans and instead, require defence contractors to scope a fully costed and priced
Programme of Work to advance the developmental status of their starting-points for their
technical solutions from their existing condition, to a point where they will satisfy the qualitative
and quantitative requirements expressed in the technical specification.
Accordingly, bidders should be invited to respond to the ITT by submitting a comprehensive Programme of Work which is:

a. Intended to be performed by the bidder during the follow-on contract performance phase to advance the developmental status of his starting-point for the technical solution (described in the PQQ response) from its existing condition, to a point where it meets the end-of-phase Interim Target specified in the ITT – focusing, in the first instance, on those maintenance significant items which fall into the development items category, as identified on the Logistic Breakdown Structure, because they carry inherent technical risks and are therefore high cost drivers. Refer to Figure 4.

b. Suitably tailored to a level commensurate with the scope for design freedom and relevant to the selected starting-point for the technical solution, with clearly identified deliverables as outputs linked to a pre-programmed Master Programme Schedule.

c. Identifies clearly the scope of work to be undertaken and deliverables produced by each Cost Centre within the bidder’s organisation such as Software Engineering, Electrical/Electronic Engineering, Mechanical/Hydraulic Engineering, Supportability Engineering, Systems Integration, Test & Evaluation, Safety, Supply Chain etc.

d. Detailed to a level of granularity which identifies the totality of work to be done, right down to individual Tasks with clearly identified start and finish dates for each Task, its assignment to a named Task Performer (a doer in common parlance), step-by-step narrative describing how each Task is to be executed and its relationship with other associated predecessor and successor Tasks, dependencies (including Government Furnished Assets) and deliverables. The allegiance of each Task Performer should also be declared – identified as, either belonging to the bidder’s payroll or some other Profit Centre to which work has been outsourced.

e. Planned in such a way as to carefully group together related Tasks with the budget set aside for their performance allocated a Booking/Cost Code against which the assigned Task Performer then charges his time on the job, during the contract performance phase – which then appears on his/her weekly timesheet. Likewise, any funds required for travel and subsistence in the performance of each Task should also be identified and costed.
f. Deliberately scoped and timed in such a way as to initiate and conclude work with attendant higher risks early in the follow-on contract performance phase.

g. Incorporates lower-level Programmes of Work, as they relate to each component workshare part of the technical solution outsourced to first-tier Subcontractors (as well as their Suppliers, right down the extended industrial supply chain).

h. Unambiguously expressed in such a way as to provide clear visibility of work that has already been completed, and the remaining scope of work to be carried out by the bidder and his supply chain partners, during the follow-on contract performance phase.

i. Corresponds to a single continuous Programme of Work, from start to finish, devoid of any stoppages or disruptions. The routine of initiating Tasks and producing deliverables should not be reliant upon intervention by procurement officials for their continuance.

j. Takes fully into account and addresses the shortcomings in the operation, maintenance and support of the existing equipment in service, as reported by the User in the form of lessons learnt.

k. Has sufficient slack built into the schedule to cater for inevitable disruptions such as statutory (and discretionary) holidays, continuation training, sickness, paternity leave and resignation of Task Performers.

56. This Programme of Work covering the activities of the full spectrum of labour types to be utilised should be scoped within a single planning, resourcing, scheduling and costing tool, preferably Microsoft Project.

57. It is only proper that if a bidder has voluntarily scoped the Programme of Work in response to an ITT, then he fulfils his commitments during the follow-on contract performance phase, instead of constantly trying to rescind on this pledge.

**BUILDING-IN CHECKS AND CONTROLS IN THE PROCUREMENT PROCESS**

58. Upon contract award for the follow-on phase, it becomes the contractually-binding Programme of Work (not the ITT as some people seem to think) against which the down-selected Contractor should be tested periodically, during the term of the Contract – to track and measure his performance, task-by-task, for the purpose of deciding whether or not to release individually linked milestone payments (to selected contract phase deliverables).

59. The added benefit of having these sort of checks and controls built into the procurement process is that:

a. Contractors will be automatically incentivised to perform the planned work within strict performance, schedule and Through Life Budget constraints set at the time of contract award (due to the very presence of and threat from Competitors) whilst Abbey Wood Team Leader will have the confidence of knowing that he will be provided with progressive assurance.

b. The likelihood that Contractors will get away with rescinding on work commitments made in their ITT responses (yet collect milestone payments) during the follow-on contract performance phase is reduced dramatically.

60. Additionally, this Programme of Work will compel Contractors to get into a disciplined routine of commencing and finishing individual Tasks sequentially, in accordance with the progressive timetable approach set-out in the pre-programmed Master Programme Schedule – to produce deliverables using assigned Task Performers, as planned. Not degenerate into practising ‘crisis management’ as is currently the case – switching people from one panic job to another, at the eleventh hour, in response to an impending deadline for a milestone payment! Now, it is much more likely that the programme will remain on track notwithstanding it being subjected to disruptions such as resignation of Task Performers.

61. What's more, Scrutineers should be assured that Abbey Wood Team Leader's nomination for the single, preferred Contractor status will be based upon sound selection criteria namely, measured performance during previous contract performance phases.
62. Only after this Programme of Work has been scoped right down to individual Task level and set-out in writing can bidders determine accurately, the full extent of manpower that will be needed to be deployed to execute the planned work. Manpower costs expressed in man-days (including that of supply chain partners), which typically comprises of Indirect and Direct labour costs, relate to the performance of the following activities:

a. Technical, management and administrative activities associated with designing, developing, integrating, building, testing and submitting pre-production engineering prototype(s) of the proposed technical solution for Independent Equipment Assessment Trials and User validation.

b. Performing design-influence tasks (as stated in the ILS Programme of Work) concurrently with progress of the design, development & systems integration activity to identify, rationalise and acquire Support Assets for each level of repair.

c. Manufacturing or producing the full complement of the prime equipment and its Support Assets.

d. Delivering and commissioning the same into service with the User.

e. Providing additional Support Assets throughout the service life of the prime equipment.

63. The man-days total is then converted into the bottom-line Selling Price using labour rates appropriate to the skill types to be utilised – which is, in turn, quoted to MoD (on DEFFORM 47) suitably marked-up to include the profit margin. What level of profit to add on is a business decision and a matter entirely for bidders – it should be of no concern to people in the pay of the State!

64. This bottom-line Selling Price is a direct measure of the maturity of the starting-point for the technical solution – the lower this figure, the closer the developmental status of the starting-point to the Requirement. Figure 5 provides an illustrative example.

![Figure 5](image-url)

It is this Selling Price (quoted by the winning Contractor) that should be used as a basis for setting the single, all-in Through Life Budget for each procurement programme listed in the Equipment Plan – not the cost estimate conjured up by people in the pay of State cloistered in
their ivory towers who haven’t got a clue what the prevailing value of goods, services and labour is in the free market shaped by competitive market forces and the profit motive.

**Establishing a clear, Auditable Link**

66. What’s more, for the first time ever, MoD will succeed in establishing a clear, auditable link between the Programme of Work intended to be performed by the Contractor during the follow-on contract performance phase and the bottom-line Selling Price.

67. As a direct consequence, bidders will be denied the opportunity to:

a. Engage in anti-competitive practices such as predatory pricing because it will be immediately apparent to Abbey Wood Team Leader that the man-days total does not tally with the asking price quoted on DEFFORM 47. Hitherto, bidders (most notably the Select Few) have resorted to this aggressive behaviour to stifle competition – by undercutting new entrants and less dominant players in the UK’s defence industrial base to deliberately put them out of business! These small and medium-sized enterprises are the only source of innovation in the defence industry and it is definitely not in MoD’s strategic interests to see them being snuffed out. Indeed, it is the certainty that they can rely on Contract Amendments and Post Design Services contracts that gives the Select Few the confidence to quote an artificially low bottom-line Selling Price, because they know they will be able to recover the shortfall later on.

b. Arbitrarily slash the budget set aside to fund this Programme of Work upon entering the contract performance phase for the purpose of increasing their profit margin.

68. What’s more, the risk that intellectual property owned by first and lower-tier subcontractors will be misappropriated by ITT recipients is eliminated because the Programmes of Work they submit to those same ITT recipients are no longer a full description of the composition and functioning of their Sub System Technical Solutions (as previously required by Management Plans), but simply a series of tasks to be performed during the follow-on contract performance phase.

**Curtailing the Incidence of Bribery and Corruption**

69. Another beneficial side-effect of establishing a clear, auditable link between the bottom-line Selling Price and the Programme of Work is that it takes away the opportunity for bribe-givers, namely senior members of the management team to use company funds (because only they can), to compromise the integrity of procurement officials or other government employees by offering them corrupt payments, gifts, favours or any such inducements via middlemen on export contracts.

70. Likewise, it will also deny first and lower-tier Contractors the opportunity to offer bribes to the ITT recipient’s senior executives in return for favourable treatment in relation to outsourced workshare parts of the bidder’s proposed technical solution.

**Adding Value not Cost**

71. Incidentally, a key output from this Programme of Work in Microsoft Project is a list of people specially selected to match the nature of work to be done. These people should now be organised into an efficient, streamlined project performance team within which each individual is made responsible for ‘making it happen’ – take ownership of and execute a series of tasks (and associated risks), that is, add value not cost.

72. To achieve this, Indirect labour should be kept to a bare minimum in favour of Direct labour because it is the latter that produces the deliverables which attract payment from MoD – as well as being cheaper.

73. Conversely, those people on the Contractor’s payroll whose names do not appear on this Programme of Work are, by definition, surplus to requirement – because they cannot be adding any value to the Contractor’s business operations, only costs, which are ultimately passed onto MoD in the form of overheads.
GETTING CONTRACTORS TO QUANTIFY WHOLE LIFE COST

74. One of the reasons why there is a mismatch between available funding and the list of equipment buys in the Equipment Plan is because MoD has never bothered to consider the cost of new equipment procurement programmes on a through-life sustainment basis, preferring instead to bear down on initial acquisition costs.

75. This situation has come about because, for as long as anyone can remember, MoD has rigorously applied a policy of buying Support Assets for its military equipment separately, on a piece-meal basis, via a steady stream of short-term, renewable Post Design Services contracts let during the in-service phase, as and when the need arises rather than upfront, at the time of acquiring the prime equipment.

76. When priced and submitted as a quotation by bidders, the magnitude of this Whole Life Cost always comes as a shock to people at MoD. It need not be that way, bearing in mind that the cost of acquiring and re-provisioning Support Assets required to sustain military equipment over the whole life cycle can be in the order of four to five times the prime equipment costs. In this context, Support Assets costs typically include the costs associated with repair and replenishment Spares, Technical Publications, Training, Training Equipment, Support & Test Equipment, Packaging, Transportation, Maintenance & Storage Facilities and Manpower.

77. The simple fact of the matter is that the Whole Life Cost of any new equipment programme comprises of two significant elements – prime equipment costs and its associated Support Assets costs. The latter, itself, comprises of three discrete parts, which should be required to be identified, as separate line items in the ITT response for the first contract performance phase, namely:

   a. Not-to-exceed price for the cost of performing the Integrated Logistic Support tasks and activities, as detailed in the ILS Programme. This is a one-off, non-recurring cost to MoD. Because this cost is a direct indicator of the extent to which each starting-point for the technical solution has already been ILSed, comparing these figures from bidders on a like-for-like basis will quickly reveal which starting-point will require the least amount work to be performed upon it, to make it meet the ILS Requirement.

   b. Not-to-exceed price for the cost of acquiring Support Assets for each level of repair to be delivered together with the fielded quote of prime equipment (some well ahead of IOC) to cover a specified initial support period – including the cost of holding the required stock of piece-part spares and/or maintenance significant items at 4th Line, to fulfil the specified Turn Around Time i.e. a fully primed Repair Loop. Clearly, this cost is a measure of the inherent reliability i.e. overall MTBF of the proposed technical solution (a design characteristic wholly within the control of the Contractor) – the lower the cost, the higher the reliability. The initial support period (which will be different for each procurement programme) should be deliberately set to commence the day after the last copy of the prime equipment is delivered and satisfactorily commissioned into service with the User – to incentivise the Prime Contractor to make sure that the manufacturing phase of the programme is completed to schedule, without any delays. The higher the percentage of non-Development items in the technical solution, the longer this period ought to be – perhaps 10 to 15 years.

   c. Fixed price for the cost of supplying additional Support Assets during the remaining service life of the prime equipment. This cost should be at a progressively decreasing burden upon MoD, reflecting the steady-state reliability the equipment will achieve beyond the early-life failures exhibited during the initial support period – that is to say, a cost of ownership profile mirroring the classic ‘bath tub’ curve.

78. The only Whole Life Cost figures that matter are the ones submitted by competing Contractors – because they are the only figures that bear any correlation to the prevailing value of goods, services and labour in the free market shaped by competitive market forces. Only the priming and performance of an ILS Programme of work can result in the full spectrum of Support Assets costs to be identified, quantified and priced.
MEASURING THE PERFORMANCE OF CONTRACTORS THROUGH CONTINUOUS SCRUTINY

79. The reason behind the requirement for Contractors to attend regular Progress Review meetings during the contract performance phase is to provide them with an opportunity to report progress, problems and achievements against the Programme of Work, and for Abbey Wood Team Leader to determine if MoD funds are being spent, as they ought to be. However, the presently selected periodicity of three months (which is typical between review meetings) is long enough for much to go wrong, whilst the spotlight is not on the Contractor. Nor does the prevailing culture of secrecy in the defence industry encourage Contractors to be frank and open with MoD about the true facts on the ground.

80. To counter this, MoD has adopted the policy of concentrating its effort onto examining the ITT responses intensively, by adding significantly to the team of Assessors. However, this approach has done nothing to incentivise bidders to produce fully compliant submissions in the first place. Instead, it has only resulted in a dramatic increase in the number of Clarification Questions being raised (via the bureaucratic route of the Commercial Branch) with an equivalent increase in workload for bidders, and delay in the evaluation process.

81. So, instead of leaving it on ‘auto pilot’ during the contract performance phase, a much more cost-effective way of eliciting truly competitive technical solutions is through Continuous Scrutiny – require Contractors to deliver informal work-in-progress deliverables, together with monthly (or even fortnightly) reports by email, in-between the regular face-to-face meetings coupled with a much more proactive stance taken by procurement officials through the use of Clarification Questions, at a time when there exists greatest opportunity to exert maximum pressure on Contractors to become fully compliant with the Requirement.

A MUCH MORE EFFICIENT PROCUREMENT PROCESS DEVOID OF STOP/START DISRUPTIONS

82. And because such a systematic approach enables the performance of Contractors to be assessed continuously and Abbey Wood Team Leader to carefully revise the ITT for the next phase (ready to be released upon conclusion of the current phase), the decision on down-selection of bidders for the next phase can be taken almost instantly – sparing Contractors the frustrations of a prolonged wait which is a feature of the existing flawed procurement process, not to mention having to endure phenomenal pressure to dismantle their project performance teams, because charging to ‘waiting time’ cannot be justified commercially.

83. Potentially, a contract performance phase could come to an end on a Friday and the revised ITT for the next phase could be delivered to down-selected bidders in time for the following Monday. Because there is no gap, the risk that a different set of people will be assigned to prepare the response to the revised ITT is eliminated. What’s more, it will also help dispel the damaging perception put about by some people that procurement officials have gone AWOL at taxpayers’ expense during the contract performance phase, at a time when their counterparts in industry are under considerable pressure to deliver against a tight schedule.

JUST ‘ONE-MAN’ DEEP

84. This oversight activity should extend to making sure that the full complement of Contractors’ people is assigned to the programme at all times. Given that the make-up of today’s for-profit organisation is invariably just ‘one-man’ deep in many of the specialists functions with virtually no slack, strict vigilance should be maintained to make sure that ‘holes’ do not appear in manpower resourcing, which will have an immediate impact upon the ability of the Contractor to meet scheduled deadlines for deliverables. The onus is on procurement officials to ask at the time of periodic reviews, if there have been any losses in project personnel and what action the Contractor intends to take to remedy the shortfall – because the instinctive reaction on the part of Contractors is to conceal these matters from MoD. It is this failure to unceasingly bear down on Contractors that has resulted in them drifting away from the course set.

85. The success of the policy of Continuous Scrutiny is conditional upon procurement officials remaining ‘on-station’ at all times, actively monitoring and scrutinising the performance of Contractors. However, if they are constantly attending training courses during prosecution of
the Contract, then they can’t be fulfilling this vital function – which would explain why Contractors have been delivering appallingly poor project performance to date. In no other field of human endeavour are such ill-equipped people allowed to ply their trade as in defence procurement – which would explain why the government has been getting appallingly poor value for money these last several decades.

86. Needless to say, Continuous Scrutiny will create and deliver a ‘no surprises’ environment, but only if it is applied assiduously.

NO EVIDENCE OF PRIVATE SECTOR FUNDS INVESTED

87. It is called the private sector for a reason – so that it can use private sector funds, not public sector subsidy to innovate, grow, create jobs and make a profit.

88. Notwithstanding this statement to be self-evidently true, there is no evidence that MoD’s long-standing policy of securing input of private sector investment capital into defence equipment programmes is being applied, which means that they continue to be funded exclusively by the taxpayer – yet, the Intellectual Property Rights for the resultant fully engineered equipment, which rightly belong to the Exchequer, is simply handed over to the main Contractor for nothing in return!

89. Defence contractors have long claimed that they are investing their own funds in defence equipment programmes, but no one has been able to provide any evidence to prove this assertion, including the Secretary of State for Defence.

90. In recognising this deficiency, the government has called on the defence industry to play its part too, in this joint effort. Indeed, it makes this appeal (on page 32) of its Defence Industrial Policy:

“We want to encourage more private venture capital into the defence sector, including from non-traditional defence suppliers. Co-investment (where both industry and Government jointly invest) is commonplace in the civil aerospace and automotive sectors, and we want to see more of this in defence.”

91. After decades of propping up the defence industry with unquestioning support, the government is realistic in its aims and recognises that the private sector will not willingly put forward, or risk its own money. Nevertheless, it has concluded that industry’s appetite for self-funding will be boosted only when the instrument of competition is applied more rigorously. The advent of the multiple-phase, winner-takes-all competition allows the government to do exactly that – namely, it is now possible for competition to be used as a tool to elicit input of private sector capital into each phase of MoD equipment procurement programmes.

92. It is very well having an agreed policy on private sector investment in place, but the problem is how to go about implementing this policy.

HOW TO ELICIT PRIVATE SECTOR INVESTMENT CAPITAL

93. At a time when this government is having to wrestle with unprecedented levels of public debt and borrowing forced upon it by the Covid-19 pandemic induced lockdown, it cannot afford to be profligate with taxpayers’ money by continuing to subsidise failure in the defence industry.

94. Whereas the foremost priority is to constrain the defence budget within HM Treasury specified affordability limits, there is an alternative to de-scoping, deferring or deleting projects – eliciting private sector investment capital into each equipment procurement programme. Not only will this new source of funding relieve the burden on MoD’s finances, but it will also preserve the integrity of the Equipment Plan.

95. Accordingly, each bidder should be invited to declare that part of the bottom-line Selling Price for the overall programme which is to be paid for, from his own (or third party) funds to advance the developmental status of his starting-point for the technical solution – as a separate line item on DEFFORM 47 to enable Abbey Wood Team Leader to make a like-for-like comparison. Figure 6 below depicts a composite view which only the Team Leader has visibility of.
The more money bidders put in, the less MoD will have to contribute and the lower the risk that Abbey Wood Team Leader will be censured for exceeding the sanctioned budget.

Whereas MoD’s focus on up-skilling its existing workforce to a level comparable with counterparts in the defence industry will yield results only in the long term, the policy of eliciting private sector funds into defence equipment procurement programmes will have an immediate impact upon HM Treasury’s objective of securing underspend in MoD’s budget this fiscal year, and for the rest of the Parliament.

Only bidders who put forward off-the-shelf equipment are exempted from having to make a contribution from their own funds, because an off-the-shelf equipment is a fully engineered and supported technical solution which satisfies the key user requirements at no additional cost or risk to the Exchequer, that is to say, it does not require any UK-specific modifications or related development work laden with risk to be performed upon it.

Harnessing Commercial Pressures and Market Forces

Normal commercial pressures and market forces inherent within the context of a multiple-phase winner-takes-all competition will, in themselves, compel defence contractors to take a business decision to voluntarily make a contribution from their own funds – not, because the government says so, as some people in the pay of the State with inflated egos seem to think, but because of the omnipresent threat from the Competition! It will not even require expenditure of procurement officials’ time, in trying to persuade bidders to put forward their own money – saving MoD an enormous amount in overhead costs.

Such a feat has not been achieved on any previous equipment procurement programme for the UK’s Armed Forces, not least, because no one (including the Secretary of State for Defence) has being able to provide convincing evidence of any private sector capital invested – instead, this issue has been dominated by lies, disinformation and spin.

In staking their own funds, bidders implicitly acknowledge and accept a proportionate share of programme risks, so relieving the strain on the public finances and with it, ensuring that MoD gets more for its money than it would otherwise do. Additionally, the long-standing practice of bidders concealing technical risks from MoD will cease immediately.
A further benefit to be derived from compelling bidders to borrow funds from third parties such as Finance Houses or Private Equity partners to pay for the cost of developing their technical solutions is that, the monitoring and scrutinising function will be automatically transferred from MoD to the lending institutions, who are likely to be much more rigorous and demanding regarding day-to-day performance than disengaged, here-today-gone-tomorrow procurement officials – yet another good reason why the headcount at MoD Abbey Wood should be reduced even further.

It is one thing for elite politicians to make ambitious statements in public and quite another to get front-line procurement officials to implement this policy so that it delivers the outputs, as promised. The acid test will be the actual figure in pounds sterling quoted by bidders on DEFFORM 47 – any number greater than zero will be clear indication that effective implementation of this policy is under way. The legislative branch has a role to play here. To enable Parliament to hold the government to account and scrutinise the ongoing effectiveness of this policy, it should insist that data on private sector investment capital committed during each phase of equipment procurement programmes be made available on a regular basis.

**Getting Ahead of the Schedule**

What’s more, there is absolutely no reason whatsoever why a bidder who has pledged his own money to a programme (and has subsequently been down-selected for the next phase) should not begin to spend that money immediately, by commencing work on producing the contract phase deliverables, prior to the contractual documents being signed – awaiting MoD funding for the project to be authorised and processed.

In making such a head-start, both the Contractor and MoD will gain by getting ahead of the schedule, which can then be off-set against any unforeseen delays that might occur later. The Contractor’s response to such a suggestion made by Abbey Wood Team Leader will give a clear indication of his true commitment to partner with MoD. It will also flush-out those Contractors who have bluffed their way into the next phase by making false promises, instead of genuinely committing their own money.

Additionally, in requiring Contractors to spend their own money first, MoD will succeed in putting an end to the incessant and intolerable pressure that is put on its procurement officials, immediately after the main investment decision has been taken, to release Exchequer funding for the final manufacture, in-service & disposal phase.

The ultimate objective is to gradually cut the government’s contribution of funds down to zero, commensurate with achievement of levels of competitiveness in the defence industry comparable with that exhibited by world-beating, export-orientated, advanced technology non-defence companies in the UK – which happen to pose a nil cost burden on the taxpayer.

Potentially, all of the equipment development costs chargeable to the £15bn a year spent on defence procurement can be saved if this policy of eliciting private sector investment capital is implemented aggressively.

**How to decide on the size of MoD’s contribution to Costs**

In the interests of maintaining a level playing field and treating all bidders equitably (to counter the accusation that Abbey Wood Team Leader is favouring a particular bidder over others), MoD is obliged to fund each bidder by the same amount, to produce the contract phase deliverables for the upcoming phase. However, the magnitude of this funding should be arrived at not by negotiating with bidders (a bad idea), but by choosing the most competitively priced bid and deducting that element, which is to be paid for by that bidder. Refer to Figure 7 below.

It follows that the difference between bottom-line Selling Prices quoted on DEFFORM 47s and MoD’s equitable contribution, should be paid for by bidders from their own funds. Because the overall cost of completing the Programmes of Work will be different for each bidder, the magnitude of private sector capital will also be different – some having to pay-in more than others, corresponding directly to the maturity of their starting-points for the technical solution. Bidders could potentially claim tax credits for this expenditure.
111. The consequence of enforcing this policy is that Abbey Wood Team Leader will need to be extremely vigilant because there is a tendency on the part of Contractors to take ‘short cuts’ with the work to be done – to avoid spending their own money!

Figure 7

112. In the long run, it is only proper that the Intellectual Property Rights for the resultant fully engineered equipment is vested with the single, main Contractor, consistent with a substantial percentage of input funds coming from his own resources, compared with that contributed by the Exchequer. Consequently, the extent to which Intellectual Property Rights are handed over to third parties under any technology transfer or off-set obligations is a business decision for the main Contractor and his supply chain partners to make, as owners of individual maintenance significant items, based upon the level of profit likely to be earned from export contracts. This is not a matter for people in the pay of the State to get involved in.

**Singling out Bidders who Make a Contribution for Favourable Treatment**

113. If a bidder decides to invest his own (or third party) funds into a programme, then it indicates two things:

   a. One, that he is sufficiently assured about the quality of his proposed technical solution and his team of people (as well as that of his supply chain partners) to risk his stake up-front.

   b. And second, that he is confident of containing all undeclared programme risks to the extent that they are unlikely to jeopardise his commercial interests.

114. The more money he puts in, the greater his confidence. Conversely, bidders who offer no input of private sector capital betray their intent of bidding on the basis that, risking the Exchequer’s money is the only risk they are willing to take (not to mention a lack of confidence in their own capability) – which amounts to business-as-usual.

115. Another beneficial side-effect of getting Contractors to put in their own money is that they will be inclined to take greater responsibility for the way they go about designing, developing,
integrating, prototyping, manufacturing and supporting their equipment instead of constantly plotting to contrive situations which will entice procurement officials into partaking in detailed design decisions relating to the evolving technical solution – as has been the case hitherto, on equipment procurement programmes wholly funded by MoD. Additionally, Contractors will also be more willing to speak-up if they feel they are being misdirected by procurement officials down a path, which is divergent from the key issues and deliverables that will be examined at Main Gate.

116. Given a straight choice, MoD should favour bidders who commit their own money. Why? Because they will be inclined to spend this money wisely and cost-effectively, coming as it does, off their own ‘bottom line’. If none of the bidders offer any input of funds (which is highly likely given their past record) then, either improper collusion is taking place in the marketplace (first started at the Industry Engagement Day) or there is a serious lack of competitiveness in the defence industry. In any case, the magnitude of funding contributed by MoD still remains the same, as shown in Figure 8.

Figure 8

![Bar chart showing none of the bidders offer contributions from their own funds]

PAYING FOR THE COST OF BIDDING

117. The indisputable fact of the matter is that bidders choose to enter MoD-run competitions voluntarily – entirely of their own free will. Consequently, the cost of producing the bid phase deliverables for inclusion in the response to the ITT should be paid for, wholly from their own resources.

118. However, in years past, a commonly established practice was for bidders to surreptitiously slip this cost of bidding into the bottom-line Selling Price quoted on DEFFORM 47 – instead of identifying it as a separate line item, to declare the level of their seriousness. Abbey Wood Team Leader should therefore be alert to the continuance of this underhand practice which has had the effect of eating into his budget set aside to fund follow-on contract performance phases – monies which could otherwise be usefully spent on assembling and retaining multi-skilled, highly experienced, well-paid professionals on his own team or hiring top quality expertise from the private sector.
CONCLUSIONS AND RECOMMENDATIONS

119. The government has finally accepted that the presently applied ‘sudden death’ competition policy is deeply flawed and has failed to deliver because it subsidises failure instead of rewarding success. It should have reached this point many years ago. In the meantime, a lot of public money has been wasted.

120. It should be replaced by the multiple-phase, winner-takes-all competition.

121. Defence contractors (more precisely, people who were previously in the pay of the State that they employ) have developed an aversion to competition and open markets.

122. Instead of asking for a plethora of Management Plans as a response to the ITT, bidders should be required to scope a fully costed and priced Programme of Work within a single planning, resourcing, scheduling and costing tool.

123. The bottom-line Selling Price is derived from this Programme of Work. What level of profit is added on by the bidder is of no concern to people in the pay of the State.

124. The decision on which Contractors to down-select for the next, follow-on phase should be based upon their performance measured during the previous phase – using a Marking Scheme that rewards desirable conduct with positive scores and penalises bad behaviour with negative scores.

125. The multiple-phase, winner-takes-all competition now enables the government to elicit input of private sector investment capital into each phase of MoD procurement programmes. Not only will this new source of funding relieve the pressure on MoD’s finances, but it will also preserve the integrity of the Equipment Plan.

126. The practice of disclosing the total budgeted expenditure figure or associated year-on-year financial funding profile in the ITT should be discontinued to stop defence contractors from using this information to quote identical bottom-line Selling Prices.

127. The proposals advanced herein should be adopted by the government and published in a Defence Competitiveness Strategy.

128. In the modern world, the first duty of government is to protect the financial security of the country. This submission shows how to go about doing exactly that.

May 2020

ABOUT THE AUTHOR

Jag Patel is an independent Defence Procurement Adviser with over 30 years experience of researching, analysing and solving a wide range of entrenched procurement problems and making them available for adoption.