## Special Address Air Vice Marshal M. Bahadur, VM, ACIDS (WSOI), Integrated Defence Staff HQs High-Tech Defence Innovation Forum, IDSA 14 July 2011

Shri Sisodia, DG IDSA, AVM Matheswaran, Distinguished panelists, ladies and gentlemen

1. It is indeed a privilege to be standing here and speaking about a subject that is a burning topic, literally! I say literally, because our nation's hard earned money, and that too, billions of dollars worth, is on the line—if I can use this term - with so many defence contracts coming up.

2. I do not think it is fortuitous that this innovation- Forum has been organized on the sidelines of the three day Defence Acquisition Seminar that is happening next door. The flyer for our forum says that our defence purchases would cost us US \$50 Bn. It says two more things :-

i) One that our trade deficit, when we consider other sectors, would be unsustainable, and ,

ii) Two, we have to launch a 'revolution' if we are to benefit from the expected offsets, by reforming our national innovation system.

3. If it is unsustainable, then lets act by taking the required decisions. We have the 'potential' but we are hearing about this for the past so many decades! So where is the hitch ? Lets take a clue for our technology development plan with what happened in the session on Offsets yesterday. In yesterday's session in the Defence Acquisition Seminar, what came out crystal clear is that offsets are meant to fill a critical technology gap in our industry & hence, we the BUYERS, need to say 'India wants this and that as part of offsets & not what is it that you can give as offset and that we compare it with our list of 'authorised offsets'. The Malaysian delegate brought out that for their Su-30 contract, the offset asked for were the build up of identified aerospace learning modules in their institutions of learning and funding for a Malaysian Cosmonant for the international space station !

4. So, lets take a lead from here, and I will quote from the Malaysian Under Secy, who has very impressive credentials, who said:

a) Do offsets work? The answer is there is no clear answer.

b) It is a cost that a country has to pay and not get, to obtain a capability & finally

c) Look at your strengths & link offsets to that. Notice, what has been stated is 'look at your strengths' & our strength is the quantum of orders on the table. We need to leverage this to demand the technology to fill our capability gaps.

5. So the starting point is identification of our capability gaps, after truthfully analyzing where our indigenous projects are. So DRDO along with the Services step in here.

6. I, on behalf of HQ IDS, want to assure that the services are all in it together, to leverage our defence requirements for modernization of our industry.

7. Our capability building plans are through the long term Integrated Perspective Plan. The industry is allowed to make its pitch for the bidding by presenting its capabilities at the SCAPCC. As, for example, last year IDS held a seminar along with CII to hear the views of the industry for modifications to be done in the DPP--- around 250 delegates participated; their recommendations have been sent to DG Acquisition. Similarly, in a small but significant way, Technology Boards are being set up in the Services – the Army has taken the lead and it funds R&D in institutions of learning for grassroots requirements. The FICCI, CII & ASSOCHAM were called & briefed on the 56 Avro replacement programme & how they could step in.

8. In "Make" projects our seriousness is indicated by two large projects of the Army – the FICV and the TCS. More projects are being studied from the LTIPP for the next phase of 'MAKE' projects

9. <u>Lessons from inadequacies of Ongoing Projects</u>. The attempt at indigenization is not new. We have been seeking ToT and Buy & Make option since many years. Similarly, DRDO has been working on development projects since many years. The long delays in development projects, shipbuilding and aircraft projects, and any other issues causing voids in capability building of the services affect our preparedness. We need to 'truthfully' analyse them.

10. Why do we need 'World Class' Defence Eqpt. Unfortunately, the reason or necessity of Indian Armed Forces to be quipped with the best eqpt is not understood at times. The logic that 'This is the best we can make' can not work. The days of BBC – Best of Brochure claims – for making JSQRs has gone. The tendency to water down the QRs to fit into what we can develop indigenously should be guarded against. The reason why the Services seek and need high end weapon systems should be understood. The reqmt stems from the toughest terrain in the world that our services fight in, the combined threat of our adversaries, the continued import of high end weapon systems by any means by our adversaries, necessitate that our Services have equal, if not better eqpt. The reqmt is further enhanced because we do not have a policy to join any alliances and neither do we follow policies of preventing our adversaries from developing capabilities.

11. <u>The experience with Offsets/ ToT till now</u>. There is an impression that Offsets and ToT will be the panacea for developing indigenous defence industrial base. However, our experience with ToT which has been bought at heavy cost over the last so many decades, has not been a happy one. The DPSUs and Ord Factories have failed to capitalize on the ToT. Far from developing upgrades utilizing the ToT, even systems/ amn assembled under license is causing serious issues of accidents, inaccuracies, quality control and short falls in production capacities. CAG has commented on them. There is an urgent need to stream line the procedures and management of these agencies to pin point accountability to ensure quality is ensured and targets are met in time. An audit mechanism needs to be put in place to cover all DRDO Labs/ DPSUs/ Dockyards.

12. <u>Mapping of voids</u>. Specific sectors of technologies not available in the country should be regularly mapped and updated. Decisions on acquisition of technology should be taken based on the gaps in the technology available in the country.

13. <u>Technologies to focus on.</u> It is not always necessary to go only for the big ticket items there is big money in the components & sub-assemblies. The industry would do good to focus on technologies which are critical, like fuses, metallurgy for gan barrels, propellant charge, miniaturization, sensors, engines etc.

14. <u>Is there an option to privatize selected DPSUs/ Ord Factories/ DRDO Labs as PPP model.</u> This option can be attempted as a means of giving a jump start to private industry into the defence area. This will also improve the efficiency of these govt agencies as a PPP model.

15. <u>Production Capacity Enhancement</u>. DPSUs like HAL, Naval Shipyards and Ord Factories like Avadi and Amn factories are suffering from very serious shortfalls in production capacities. This issue can be addressed by allowing private industry to invest in new production lines. Division of work can be resorted to if sensitive eqpt like amn and explosives are still desired to be retained by the govt agencies. The expertise and capacity of private industry can also be utilized to enhance the infrastructure for maintenance and overhauling of eqpt for the Services as also in sectors such as:

a) Space based capabilities for mapping, svl, communication.

b) Communication industry can help services establish commn network in remote regions along borders.

- c) Ship building industry
- d) IT & Cyber Security.
- 16. <u>PPP Model</u>. The PPP model can be fruitfully implemented in areas such as :-

a) <u>Logistic Supports</u>. In terms of movement of units, mobilization of fmns, supply of rations and provision of medical services.

b) <u>Programme Management</u>. The lessons of industrial corporate in project management could be used to refine development projects of the Services.

c) <u>Inventory Management.</u> The services maintain a vast inventory of stores & spare. The skill of industry can be utilized to help in inventory management.

## Conclusion.

17. Given the demand for high quality and timely support to military operations, the Armed Forces need to utilize the capabilities from both the public and private sectors to take advantage of what each does best. Both, the public and private sector industrial base, are essential over the long-term to ensure the Armed Forces' ability to achieve operational objectives. Each possesses complementary capabilities that must be integrated in efficient and effective ways to ensure best value life cycle support. The iron is hot; if we don't strike now, in a coordinated manner, we would still be in the clutches of the foreign vendors, courtesy our Nation's money.