



SECTOR IN FOCUS

Aerospace and Defence



Primus Partners India



@partners_primus

R&D is important > R&D is imperative > R&D is critical

- Govt is now walking the talk but a lot more can be done

Current defence R&D budget

- Under Demand No 21, the current budget for **capital R&D stands at Rs 11,981 crore (~2% of total defence budget)** – much lower than what China or US spend on R&D (high single digit or low double digit %). The capital component with respect to R&D is 7.9% of the capital component of the Ministry of Defence's budget.
- The revised budget for 2021-22 was less than the allocations for the year** possibly due to under-utilization of the budgeted amount.

How to make R&D a win-win

- Leveraging the private sector**, the recent announcement of reserving 25% of the defence R&D budget for industry, startups and academia is a positive step in that direction
- Actively pursuing buying of IP rights** for few technologies that transcend sectors
- Having a **result-oriented, time-bound approach** towards investing in R&D
- An **open mind towards failures** in R&D, provided it was a considered and thought through investment decision
- Identifying the right talent** for each R&D project currently being pursued or still in the planning stage
- Incentives for private sector** to invest in R&D

Case for more R&D investments

- The Russia-Ukraine crisis has reiterated the importance of having indigenous capabilities thereby ensuring a **cushion to supply chain shocks** and **reducing dependence on foreign nations** for strategic requirements.
- Self reliance and more effective indigenous R&D will **also enable defence exports** which while adding to forex, also helps in geopolitical relations.

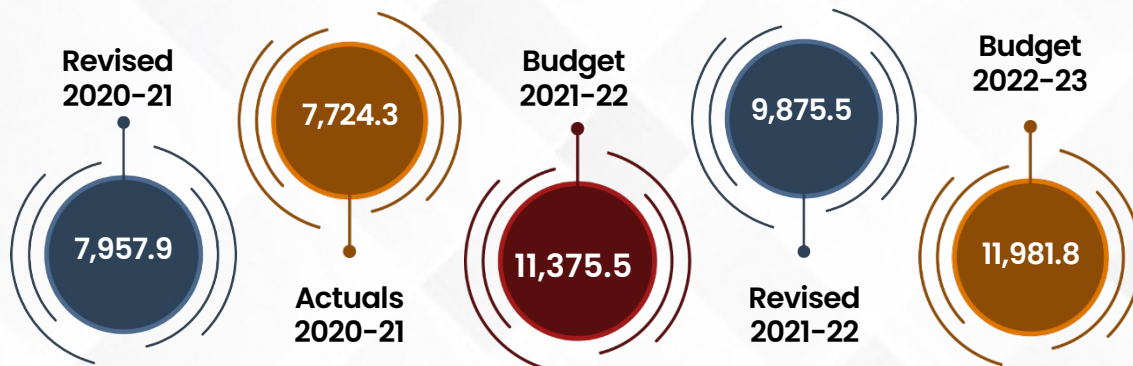
Execution challenges

- The **challenges of meeting immediate short-term requirements** tends to take the long term R&D plans to the backfoot
- Skilled workforce and the know-how** especially when it comes to **critical technology**
- Ability of industry to absorb and scale in the short term.**

Steps being taken

- There are a lot of activities happening both on the policy as well as the execution front. However, the results would possibly be reflected over a 5-10-year timeline as some of these initiatives start playing out.

India defence R&D budget under capital outlay in numbers (in Rs crore)



The R&D budgets indicate an under-utilization of budget allocations which is not ideal given the R&D allocations are already below global levels

The case for indigenous self sufficiency in defence is building up globally

– Investments in R&D were never more important for India as they are today

The global military expenditure in 2020, according to SIPRI, stood at almost \$2tn with the US, China, India, Russia and the UK being the top 5 spenders and together accounting for almost 60% of the total outlay. It was a 2.6% YoY rise in global defence budgets during a year when GDPs of many countries shrank and / or when GDP growth assumptions witnessed a significant downgrade, and trade faced much insecurity with broken supply chains largely due to the impact of COVID-19.

This spending was almost 2.4% of the global GDP in 2020, reportedly the highest military spending to GDP ratio since the global financial crisis (GFC) in 2008-09. **Globally, especially between NATO countries, a standard feature has been to maintain a defence budget of 1-2% of GDP, and very few countries surpass the norm.**

It appears that when trade gets impacted, insecurities potentially result in more vigorous defence preparedness. It was apparent during the 2008-09 GFC timeline and is also evident now during the pandemic. Off course there are other strategic reasons for increasing defence budgets – Ukraine's invasion by Russia (just when COVID-19 seemed to wane off) has also again brought defence budgets to the fore.

Germany, with its current defence spending of around \$55bn, has announced a policy shift and plans to increase its defence spending beyond 2% of economic output. While more clarity is awaited on the modalities, close to \$112bn of the 2022 budget has been committed for armed forces, largely to enhance investments and armament projects. France has also suggested increasing defence spending with

President Macron saying that Europe as a continent must accept the "price for peace, freedom and democracy" and must "invest more to depend less on other continents." In both cases, **the objective has been to invest significantly more in the security of one's own country and resources, and not as a group.**

India is also working on the Atmanirbhar Bharat initiative with respect to policy progressions.

Some of the key elements include the negative list, Indigenous content, earmarking procurement from industry, industry-friendly revisions in the DAP 2020 etc, and in the latest budget, an industry-specific scoping from within the R&D budget, formally providing for SPV-based partnerships between industry and DRDO.

The policy is in place and the next steps include providing funding and infrastructure push to implementation. Further, the move towards Atmanirbhar Bharat would be half-baked if it were just based on FOEMs setting up manufacturing facilities in India individually or jointly with Indian partners. It must grow further **to become organic growth in design and development activities, especially in the high technology areas.**

R&D is, therefore, a more crucial element for the Indian defence industry. China's investments in defence R&D estimated to be anywhere between 10% and 20% range of the defence budget, is an important benchmark for India. **A gradual and staggered approach to those levels should be planned in the coming 5 years by both public and private industries in India.**

How R&D can be increased while making it economically feasible to incentivize participation from the private sector

- Encourage collaborations between academia and industry to enable fresh ideas and support in preparing a skilled workforce
- Leveraging the existing R&D and / or CoE setups by foreign companies
- Tax incentives for R&D investments to small, mid and large companies
- Tax holidays for startups working on critical and high-end technological innovations
- Part government funding for R&D projects with a clause to also support the private industry in case of an unsuccessful R&D effort
- Buying out a few global IPs which potentially have overlaps across sectors and segments

Analyzing performance of listed DPSUs in the Indian aerospace and defence ecosystem

Many of the listed public defence companies have seen a significant increase in shareholder value creation since the beginning of this decade with the likes of HAL, BEML and BEL witnessing more than 50% increase.

What the prices indicate are a mix of fundamentals as well as the expected growth that investors believe makes the company a good buy at its current valuation.

Name	Last closing price (14 Mar 2022)	Price as on 01 Jan 2022	YTD change	Price as on 01 Jan 2021	Change vis-a-vis 01 Jan 2021
Hindustan Aeronautics Limited	1380.5	1233.7	11.9%	856.8	61.1%
Bharat Dynamics Limited	503	391.45	28.5%	348.1	44.5%
BEML Limited	1529.55	1635.85	-6.5%	975.45	56.8%
Mishra Dhatu Nigam Limited	169.5	181.4	-6.6%	199.45	-15.0%
Garden Reach Shipbuilders and Engineers Ltd	226.7	223.75	1.3%	201.85	12.3%
Bharat Electronics Limited	209.5	211.25	-0.8%	126.4	65.7%
Mazagon Dock Shipbuilders Ltd	246.7	283.65	-13.0%	227.65	8.4%

With indigenization further coming to the fore in the backdrop of the Ukraine crisis, HAL and BDL are two of the key companies that stand to gain the most due to their niche areas of work - HAL being the integrator for military aircraft (including LCA Tejas aircraft and attack and utility helicopters) and BDL being a key company in the missiles segment.

Both are important segments for India while also reportedly being significantly indigenized. Hence a good percentage of the supply chain rests in India.

With almost 60% indigenization content in the LCA Tejas for example, currently the more important parts or components being imported like the IFF probe, radome, radar and engine are also being worked upon to find an indigenous equivalent.

When it comes to missiles, courtesy the IGMPD program and various other missiles systems development including that of the BrahMos (with 70% IC) have enabled the growth of a significant vendor base to ensure self reliance.

An industry which is expected to grow leaps and bounds in this decade is surely a focus area for both the government and the private sector

Contributors



Davinder Sandhu
Co-founder & Chairman



Nilaya Varma
Co-founder & CEO



CDR Rajesh Nair
Advisor



Amit Dugar
Vice President

Adith Charlie
Vice President

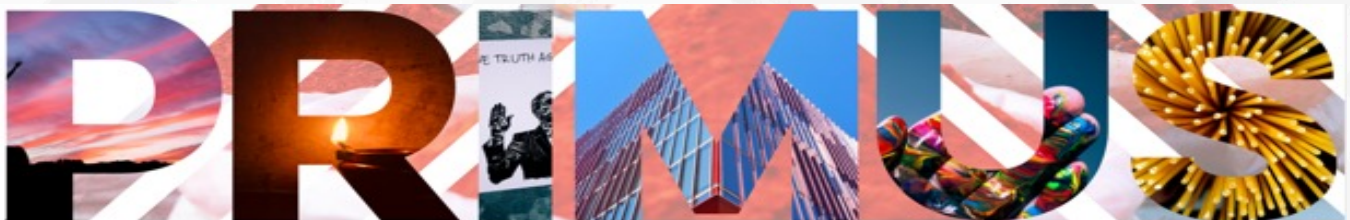
Ayushi Gupta
Consultant

Ankush Sharma
Consultant

About Primus Partners

Primus Partners has been set up to partner with clients in 'navigating' India, by experts with decades of experience in doing so for large global firms. Set up on the principle of 'Idea Realization', it brings to bear 'experience in action'. 'Idea Realization'— a unique approach to examine futuristic ideas required for the growth of an organization or a sector or geography, from the perspective of assured on ground implementability.

Our core strength comes from our founding partners, who are goal-oriented, with extensive hands-on experience and subject-matter expertise, which is well recognized in the industry. Our core founders form a diverse cohort of leaders from both genders with experience across industries (Public Sector, Healthcare, Transport, Education, etc), and with varied specialization (engineers, lawyers, tax professionals, management, etc).



PASSION

for providing solutions to help clients achieve their goals

RESPECT

For all and alternate viewpoints

INTEGRITY

of thoughts and actions

MASTERY

of our chosen subject to drive innovative and insightful solutions

US

Representing the Primus collective, where each individual matters

STEWARDSHIP

for building a better tomorrow

Bengaluru

91 Springboard Business Hub 175 & 176, Bannerghatta Main Rd, Dollars Colony, Bengaluru, Karnataka 560076

Chandigarh

2nd Floor, Netsmartz, Rajiv Gandhi Chandigarh Technology Park, Chandigarh – 160019

Delhi

Rear Block, Upper Ground Floor, ALPS Building, 56 Janpath, New Delhi – 110001

Jaipur

86/SP. 63, Behind Yes Bank, Pratap Nagar, Jaipur, 302033

Mumbai

601, 6th floor, Raheja Centre, Nariman point, Mumbai – 400021

Primus Partners India @partners_primus

Disclaimer

The report is prepared using information of a general nature and is not intended to address the circumstances of any particular individual or entity. The report has been prepared from various public sources and the information received from these sources is believed to be reliable. The information available in the report is selective and subject to updation, revision and amendment. While the information provided herein is believed to be accurate and reliable, Primus Partners Pvt. Ltd. does not make any representations or warranties, expressed or implied, as to the accuracy or completeness of such information and data available in the public domain. While due care has been taken while preparing the report, Primus Partners Pvt. Ltd. does not accept any liability whatsoever, for any direct or consequential loss arising from this document or its contents.