

MONTHLY POLICY NOTE



INSIDE: DECEMBER 2022 EDITION



The calendar year 2022's last edition of Monthly Policy Note makes for an interesting reading. Sector agnostic digitization, digitalization and sustainability measures are the most important themes that will be carried forward into 2023. The write ups in this edition for Infrastructure, Impact, Financial Services, Healthcare as well as Geopolitics are woven around these themes.

Free Trade Agreements are an important discussion point today and should include the most critical requirements for strategic independence like raw material sourcing. India as an outsourcing destination still continues to have a huge ecosystem on that front. A utopian idea intended towards having a strong and effective aerospace and defence ecosystem is also put forth for deliberation in another write up.

In the Expert Section, we have Dr Subba Rao Pavuluri - Founder, Chairman and MD of Ananth Technologies share his inputs on the galloping space economy in India.

Hope the year gone by was productive and with good health. Here is wishing you, our readers, a more productive year ahead! Keep reading and keep sharing your inputs and suggestions!

"The future depends on what we do in the present"

- Mahatma Gandhi

CLICK ON THE TOPIC BELOW

- 1 [Policy Square](#)
- 2 [Economy Update](#)
- 3 [Geopolitics](#)
- 4 [Infrastructure](#)
- 5 [Technology](#)
- 6 [Aerospace and Defence](#)
- 7 [Financial Services](#)
- 8 [Healthcare](#)
- 9 [Impact](#)
- 10 [Expert Speak](#)



Policy Square:

Upcoming episode: Nitin A Gokhale - media entrepreneur, strategic affairs analyst and author



Economy update:

How effective are Indian FTAs? – Sovereign and strategic requirements should hold priority



Geo-politics:

Climate change – politics vs economics!– No ifs, no buts, this is for real!



Infrastructure:

Sustainable Infrastructure – If not now, then when?



Technology:

India – The preferred outsourcing destination – “Do what you do best and outsource the rest” – Peter Drucker



Aerospace and Defence:

Akin to One Product One Company – a Utopian idea? – May have merit but requires **comprehensive** deliberations and unanimous agreement to be successful



Healthcare:

Digital front door in healthcare – Turning the tables on conventional healthcare delivery



Financial Services:

Emergence of e₹ – Bright destination requiring a focused journey



Impact:

Empowering states with stronger SPACCs – United we stand, Divided we may falter!



Expert Speak:

Dr Subba Rao Pavuluri – Founder, Chairman and MD of Ananth Technologies

Policy Square | A Primus Partners initiative to understand the more fundamental questions in policy making

Primus Partners on 28th December 2021, launched **Policy Square**, in association with Businessworld.

Policy Square, an initiative by Primus Partners, is a monthly expert interview series wherein key constituents of the public policy ecosystem – senior policy-makers, civil society members, business executives etc. – are interviewed on critical issues and policies of national importance to explore their impact on the country and industry at-large.



With this initiative, we have attempted to engage with experts at various levels within the country's ecosystem. Each expert has brought in a new perspective – all towards enabling India's growth both in absolute and relative terms.



Last episode...



In our last episode, we were joined by Hon'ble Member of Parliament Dr. Sasmit Patra. Dr. Sasmit Patra is a Member of the Parliament for the second consecutive time from Odisha. He represents the Biju Janata Dal Party and is the National Spokesperson of the party. Dr. Patra is also on the panel of Vice Chairmen of Rajya Sabha.

He handles the responsibility of the media coordinator of the BJD. Dr. Patra has also managed the IT and digital platforms for his party. Recently, he has been appointed as a member of the Consultative Committee for the Ministry of Coal and Mines.

[Policy Square with Dr Sasmit Patra](#)

In the conversation on Policy Square, Hon'ble Parliamentarian dived into the nuances of women empowerment, including the social, economic, and political dimensions of women's roles in the private and public spheres, as well as significant legislative efforts pertaining to women's empowerment.

Upcoming episode...

Nitin A. Gokhale is a media entrepreneur, strategic affairs analyst and author of more than half a dozen books on military history, insurgencies and wars. One of South Asia's leading strategic analysts, Mr Gokhale has led teams of journalists across print, broadcast and web platforms. A specialist in conflict coverage, he has lived and reported from India's northeast for 23 years. An alumni of the Asia-Pacific Centre for Security Studies in Hawaii, he now writes, lectures and analyses security and strategic matters in Indo-Pacific. He owns and runs two important portals, [bharatshakti.in](#) and [StratNewsGlobal.com](#).



In the conversation, Mr Gokhale shares his perspective on the evolving global geopolitical situation and what according to him are the 2-3 most important areas that India needs to act upon definitively and fast. With indigenization being a core objective and target, the discussions with Mr Gokhale also revolve around the past, present and future from both a strategy and on-the-ground execution perspective.



How effective are Indian FTAs?

– Sovereign and strategic requirements will hold priority

International trade is an important factor for keeping a competitive global economy by raising living standards, providing employment, and enabling consumers to enjoy a greater variety of goods by encouraging markets to become specialised. The world is witnessing a plethora of challenges including high inflation, tightening of monetary policies, high interest rates, affected global supply chains, after-effects of the COVID-19 pandemic and the Russia-Ukraine war.

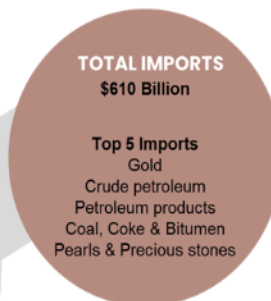
Despite the various headwinds, India's long-term growth looks resilient, and the country's foreign trade has shown steady growth. India's trade and external sector had a significant impact on the GDP growth and expansion in per capita income.

India's overall exports (Merchandise and Services combined) in April-March 2021-22 are estimated to be \$ 669.7bn, witnessing a growth of 34.5% over the same period in the previous year and an increase of 27.2% over April to March 2019-20. This year the country also recorded its highest ever exports in June 2022 at ~\$ 37.9 bn.

While addressing the Consumer Electronics and Appliances Manufacturers Association (CEAMA) in 43rd Annual Function ACE Dialogues 2022, the Hon'ble Minister of Commerce and Industry announced the keenness of developed countries of the world to do free trade agreements with India.

Over the years, India has entered into various bilateral and regional trading agreements. So far, the country has signed 13 Free Trade Agreements (FTAs) with its trading partners, including the 3 agreements, namely India-Mauritius Comprehensive Economic Cooperation and Partnership Agreement (CECPA), India-UAE Comprehensive Partnership Agreement (CEPA) and India-Australia Economic Cooperation and Trade Agreement (IndAus ECTA) signed during the last five years. In addition, the country is in talks with various countries and regions like the UK, Russia, Israel, Canada, Southern African Customs Union etc for trade agreements.

Glance on India's Trade (FY 2021-22)



India's continuous efforts to explore and strengthen its geopolitical ties has led to significant enhancement in trade with countries.

As India envisions achieving \$500 billion merchandise exports by 2022-23 with a \$2 trillion trade target by 2030, the country should step forward in taking certain measures which can facilitate trade and make India an attractive investment destination.



Firstly, the country should **announce the long due 'New Foreign Trade Policy'**. The earlier policy emphasised on certain Government of India initiatives such as 'Make in India', Skill India etc which have been seen in a positive light and have shown results. It's now **time to shift towards Atmanirbharta with new and progressive policies such as 'One District One Product' to make each district an export hub of the nation.**



Secondly, the policy should also consider the **role ecommerce and digitalisation** can play in this journey of attaining the \$2 trillion trade target by 2030.



Thirdly, it is seen that as we move up the value chain, access to raw materials is very important. Therefore, **future FTAs should enable access to raw materials** from countries rich in resources such as USA, Australia, Africa etc.

Even though many economists have long debated how FTAs can threaten domestic jobs or growth of micro industries, endangering the economic situation of the country, it has been established that the FTAs will continue the momentum of economic trade in the country.



Climate change – politics vs economics! **– No ifs, no buts, this is for real!**

The world economy shrunk by 3.5% as an ill effect of the pandemic in the last two years. The losses ran to irrecoverable extents, supply chains have still not been restored and economies are heading towards a free fall. While the pandemic is being keyed to be a one off event in decades, imagine the scale of devastation if this impact was to be felt on a more periodic basis.

Rising sea levels – Receding level of glaciers – Increasing concentration of harmful substances in the atmosphere – Decreasing tolerance of the earth are just some of the non-traditional security challenges staring 21st century in the eye. When extrapolated on a global scale, the impact of these challenges is now leaving humanity in shock.

As per the 5th Assessment Report of the Intergovernmental Panel on Climate Change (IPCC), the average global temperature has risen by 0.85 Degree Celsius. Growth of population, changing pattern of lifestyle, over-exploitation of resources and ever-increasing emission of greenhouse gases is disrupting the global ecological balance. Incessant burning of fossil fuels and use of oil is leading to a more rapid rise in average global temperatures.

along with the deployment of new crop intensive farming methods thus leading to greater stress on the existing natural resources. All these factors put together will make the world more prone to disasters.

The threat is graver for island nations. It is estimated that every metre of rise in the normal sea level will lead to the displacement of almost 200 million people. On a global scale, this will lead to one of the largest mass exodus in human history. As per the latest estimate from NASA, the global average sea level is rising by 3.3 mm per year. As per an estimate, the Indian financial capital of Mumbai is expected to get submerged by 2050 if global temperature rise is not curbed.

The challenges faced due to climate change now feel more real with global leaders renewing their commitment towards better resource management. The bandwagon of the countries committing to carbon neutral societies is growing. The leadership in Australia has recognised the need for the country to become a renewable energy superpower to become a power of the Pacific; Joe Biden on the other hand has unveiled his vision for an Equitable Clean Energy Future, an ambitious plan with the outlay of 2 trillion USD to fund transition to a net zero carbon emission economy by 2050.

While the Dutch are building cities on the water surface as an extension to the inland cities, Indonesian President Joko Widodo on the other hand announced his plans to relocate the capital city from Jakarta to a lesser populated island of Borneo. The recently concluded COP27 in Egypt also was a testimony to the seriousness with which climate change is being dealt with by the global community.

The Conference was able to overcome the decade long resistance and get the rich countries/nations to set up a pay-out fund for developing countries that have suffered damage

from climate driven storms, floods and other such hazards. While finer details such as eligibility of countries and accountability might take a few more years to be worked out, a move has been made in that direction.

Shift in energy use pattern away from conventional sources of energy towards renewable and non-conventional sources of energy, developing clean technology solutions for modern day challenges, and green financing to ensure the availability of capital in order to develop the world sustainably are some of the attempts being made by policy makers to nudge decision making in the right direction.



Large scale urbanisation too is contributing to the problem. The urban population of the world grew from 51.1% in 2009 to 55.7% in 2019. High population density clusters being built across metropolitan centres to support the swelling population are posing challenges of their own. Owing to its origin in the changing spending pattern, lifestyle and socio-economic conditions, the demand for food is expected to increase by 50-70% by 2050.

This makes food security another non-traditional security threat looming on the world. In order to meet this demand, supply chains will have to be revamped

Climate change is for real and is not going anywhere. The faster a cohesive effort is efficiently executed, the better it would be for the population.



Sustainable Infrastructure

- If not now, then when?

The infrastructure requirement of India is considerably high, pushed continuously by the fast-growing population. In order to meet India's aim of reaching a \$5 trillion economy by 2025, infrastructure development is a key factor.

The Indian government has given a massive push to the infrastructure sector, by launching the national infrastructure pipeline (NIP) in FY20, which adds 9000 projects valued at INR109 lakh cr. Infrastructure is thus placed at the center of efforts which span across industries. This coupled with sustainability as a key theme, Sustainable Development Goals (SDGs) are also a key theme.

Sustainable infrastructure has overlapping benefits from physical, environmental, economic and social perspectives.



It is also about a step-change in public policy and private investment decisions so that climate resilience is an automatic and critical investment consideration for all sectors of the physical economy.

All levels of Government are increasingly focusing on sustainable development. This is also critical as the cities will be the major drivers of investments. By 2050, more than half of the world's population is expected to live in urban areas, bringing huge challenges - and opportunities - for investment in sustainable infrastructure across all sectors of the economy. There is a compelling need for enhanced and improved delivery across the whole infrastructure spectrum, from housing provision to water and sanitation services to digital and transportation demands, which will assure economic growth, increase quality of life, and boost sectoral competitiveness.

In India, infrastructure is primarily associated with the 'grey'—engineered features. Nevertheless, green infrastructure is rapidly making inroads in modern urban planning at the national, regional, and municipal levels.

Developing green business lines and growing them stronger would lead to financial as well as environmental sustainability for infrastructure players. Initiatives like green buildings, solar power parks and electric charging stations are required to be further developed. India has been making marked investments in sustainable infrastructure. The recent budget in 2022 focused on clean and sustainable urban development through three major sectors - transport, energy, and agriculture.

Notifying the Green Hydrogen policy is a step in the direction to reduce dependence on fossil fuels and promote an alternate clean fuel economy. Similarly, many policy measures were announced like the National Action Plan on Climate Change (NAPCC) which provides an overarching policy framework for all climate actions; National Clean Air Program, National Cyclone Risk Mitigation Project (NCRMP) etc.

The Government announced the plan to issue green bonds and other 'climate action' measures as a further step in this direction. These moves not only give a big boost to India's commitment at COP26 of reaching net zero by 2070, but also contribute towards achieving ambitious targets like 175 gigawatt of renewable energy capacity by this year.

Technological Innovations will play a large role in helping India achieve its targets. In industrial and construction sectors, the deployment of IT and IoT infrastructure will play a major role in ensuring sustainability and ensuring resource-efficiency. Connected machines and equipment will ensure that there is optimization of energy and other resource consumption.

The requirement for durable and sustainable infrastructure is critical in the face of growing threats to communities and their ecosystems. India is only taking the first few steps in this direction. **A long-term sustainable investment planning by policy makers is required which will target interventions all the way to the level of urban local bodies which are the key implementation entities of government policies when it comes to sustainability in infrastructure.**

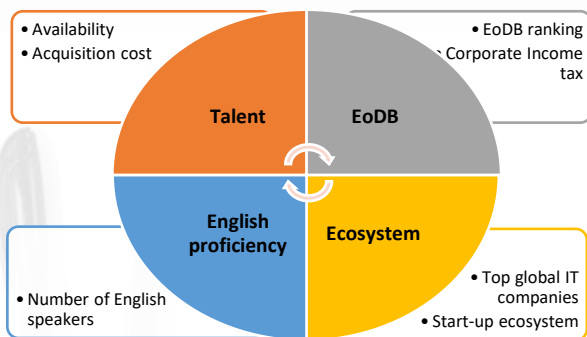


India – The preferred outsourcing destination

“Do what you do best and outsource the rest” – Peter Drucker

The concept of outsourcing started way back in the 18th century when manufacturers started shifting the manufacture of goods to countries with cheaper labor during the Industrial Revolution. Fast forward to 1989 when Eastman Kodak's decision to outsource its IT systems was considered disruptive by the industry, but it was simply the result of going back to basics and rethinking what their core business was about. This was quickly followed by several other major organizations realizing that it was not necessary to own the technology to get access to the decision-making insights they needed.

For India, the journey to becoming the global outsourcing capital started in the 1980s when American Express established its base in India for servicing its entire Asia Pacific region operations. General Electric (GE) as well as some global airlines started outsourcing their back office to India. Other early entrants in the Indian outsourcing market were Texas Instruments, British Airways, and Swissair. Post liberalization, the ITES and BPO services industry started growing rapidly and outsourcing of business processes like billing, data processing and customer support became mainstream towards the late 90s. The focus today is less on ownership and more on developing strategic partnerships to drive better results. Looking back, there have been 4 main factors instrumental in driving the growth of the outsourcing industry in India over the past 2 decades –



Talent – Talent can be viewed from the lens of availability and the cost for acquiring this talent. According to a study by the UNESCO Institute of Statistics, India produces over 2.6 million STEM graduates every year, which is the second highest globally after China. Moreover, the population demographic is rather young with nearly 65% of the population below the age of 35. From a cost perspective, India has always been a cost-effective outsourcing destination with average hourly developer rates in the range of \$20-25.

However, Mexico, Philippines, and China have recently emerged as competent threats to India from a cost perspective.

EoDB – India ranked 63 in the last EoDB rankings. This was India's best performance over the years, jumping 14 places in just a year. India stood at rank 142 in 2014, which makes this achievement all the more inspiring. Moreover, India has witnessed the sharpest rise amongst Asian economies to rank 37 in the World Competitiveness Index 2022 released by the Institute for Management Development (IMD). Another deciding factor for setting up offshore units are the Corporate Income Tax (CIT) rates. In 2019, India slashed CIT rates from 30% to 22% for existing companies, and from 25% to 15% for new manufacturing companies, making it competitive with other developed countries. Also, India is expected to hold a healthy GDP growth rate of around 7% in the short to medium term.

Ecosystem – India boasts a thriving IT ecosystem, having an abundance of talented IT professionals that create and deliver impact globally. 4 of the top 10 global IT services companies (by revenue) hail from India. TCS, Infosys, HCL and Wipro have together made the world sit up and take notice of the breakthrough technology and innovation-driven R&D developments being pioneered from India. This, in turn, has made India an investment hotbed for Private Equity and Venture Capital funds. According to Startup ranking, India houses the second largest number of registered start-ups after the US.

English proficiency – Access to English-speaking IT talent is a huge plus for clients. India reportedly has over 128 million English speakers, just behind the United States. This gives it an undeniable advantage over competing emerging outsourcing markets like Philippines, Mexico, Poland, Ukraine, etc.

All these factors have helped India maintain a competitive advantage over others and position itself as a global leader in the IT and BPO industries. Nevertheless, there are challenges that India must address to maintain its position as a go-to offshore destination. With a highly educated population and exceptional levels of English fluency, the Philippines has emerged as a leader for voice-related outsourcing services. Some Indian IT companies have already responded and mitigated this threat by setting up service delivery centres in the Philippines, employing over 100,000 Filipinos.



Akin to One Product One Company – a Utopian idea?

– May have merit but requires **comprehensive** deliberations and unanimous agreement to be successful

India's aerospace and defence industry is evolving at an exponential pace. The private industry which was in the shadows till a decade or so back is today roaring ahead. Capabilities and capacities are being added and plans are afoot to multiply the same. While working towards further strengthening their legacy product profile, the intent is to also grow with the evolving technologies to try and stay ahead of the curve. What the industry today requires is further significant investments in research and development efforts. While positive initiatives across policies and regulations continue to further support the growth of the Indian industry, it is imperative that the R&D focus is further strengthened.

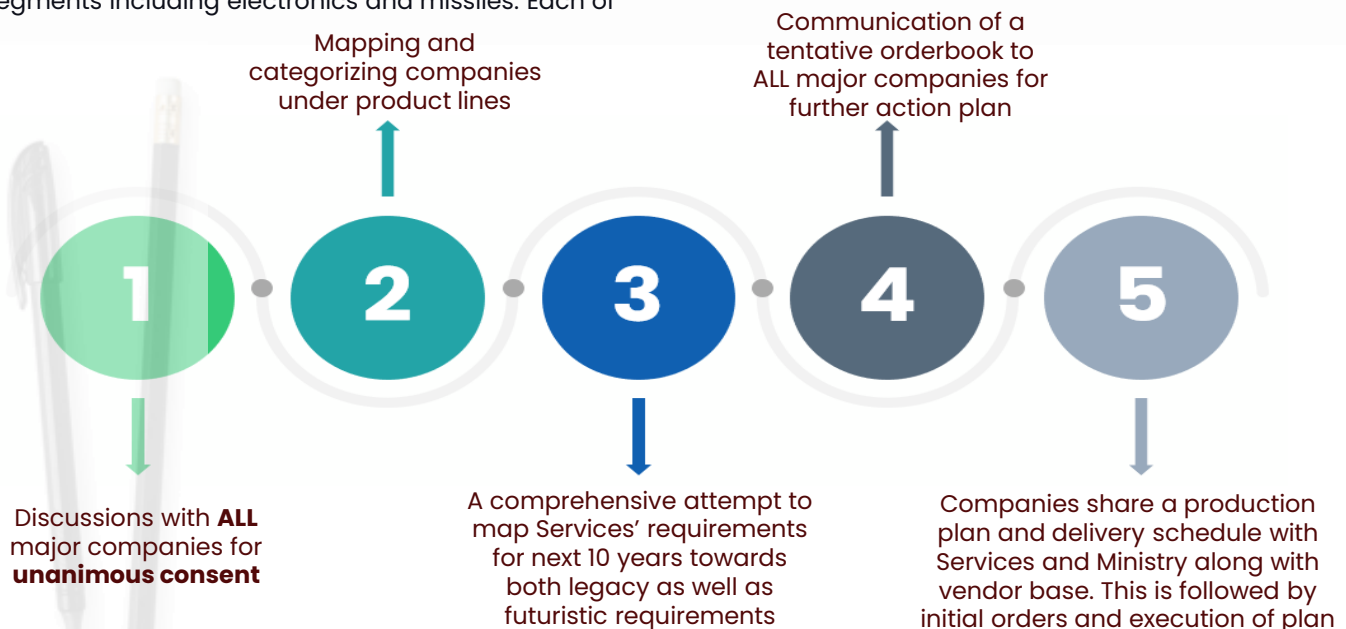
Within a limited budgetary framework especially when it comes to R&D, it is important that funds are optimally utilized. While the government is constrained to some extent with a heavy portion of revenue component in the defence budget, the private industry's investment in R&D is constrained due to lack of visibility in the order book as well as the long gestation period for orders, deliveries and payment cycles.

Today within the Indian private defence industry, the few major Groups present in India today have investments and capabilities or orderbooks across the spectrum from aerospace to land systems to naval platforms while also being significant players in other segments including electronics and missiles. Each of

them competes against the other across the spectrum as well. The already lengthy procurement process tends to get further lengthier when there is more than required competition which requires extensive trials and evaluations for all bidders. Procurements tend to get more delayed.

What if the system is so designed that the tenders are addressed as direct RFPs to the one entity which is given the mandate to design and work towards that particular product category. Leveraging the DcPP model of DRDO, this could also possibly save a couple of months (or more) of time in procurement cycle.

With that background, an idea that can be explored is having one company for each product category. For a product category, say armoured vehicles, one company can be mandated to be the lead integrator / bidder for all such vehicles. While the sourcing is open and can be done from 'n' number of companies, the tenders be directly issued to this one company for armoured vehicles. And a company which is a lead bidder in armoured vehicles then cannot be a lead bidder for aerospace platforms but can surely be in the supply chain for the same. What this will gradually ensure is that there is one exclusive focus area for the companies while the existing and planned future investments in other segments do not go waste and at the same time, the procurement process possibly benefits on timelines.



The technologically advanced Indian behemoths in the aerospace and defence industry can only emerge if there is visibility and at least a certain level of confidence in the order book and procurement strategies. This can be achieved in various ways and this utopian idea is possibly one such way!

When one entire district can focus on one product (ODOP), one company can possibly also be considered to focus on specific categories within a product profile.



Emergence of ₹

- Bright destination requiring a focused journey

The digital rupee or E-Rupee is planned as a virtual currency to serve as an alternative to Indian Currency Notes of Fiat Money - issued by RBI and serving as a Central Bank Digital Currency (CBDC), with the idea being to incorporate distributed ledger technology into the currency. The distribution of the currency will take place through intermediary banks.

History and Development

Plans for a centrally regulated form of a digital currency have been around since the emergence of cryptocurrencies into the mainstream. However, unlike cryptocurrencies, CBDC is not intended to serve as a commodity holding any inherent value apart from serving the function of a digital currency. To that end, RBI has been developing and testing new technologies to support the eco-system required for such an endeavor since December 2020. This includes testing and collecting field data on cross-border payments via the system, a facility touted as one of the defining characteristics of the currency.

In January 2021, the GoI proposed 'The Cryptocurrency and Regulation of Official Digital Currency Bill.' The objective was to create a facilitative framework for creation of the official digital currency to be issued by RBI using the knowledge and experience gained from the successful implementation of UPI, IMPS and RTGS. Initial stage trials were originally planned for December 2021. However, these were delayed into FY23 with phased roll-out planned for 2023. In October 2022, Fintech Department of the RBI released a concept note to create awareness around the currency and concept. The bank classified the currency into E-Rupee Wholesale (₹-W) which will be traded between RBI, Public and Private sector banks for currency distribution purpose and E-Rupee Retail (₹-R) to serve personal financial needs on an individual level. Phase-1 of the pilot project for both soon followed.

The Pilot Project

The first pilot for the wholesale segment (₹-W) went live on 1st November 2022. As per the circular released announcing the commencement of the pilot, "The use case for this pilot is settlement of secondary market transactions in government securities. Use of ₹-W is expected to make the inter-bank market more efficient. Settlement in central bank money would reduce transaction costs by pre-empting the need for settlement guarantee infrastructure or for collateral to mitigate settlement risk." State Bank of India, Bank of Baroda, Union Bank of India, HDFC Bank, ICICI Bank, Kotak Mahindra Bank, Yes Bank, IDFC First Bank and

HSBC Bank were identified as the 9 banks participating in the pilot for the wholesale segment.

The first pilot for the Retail segment (₹-R) went live on 1st December 2022. The initial phase of the pilot will see 4 banks, namely State Bank of India, ICICI Bank, YES Bank and IDFC First Bank, take part in the launch across 4 cities (Mumbai, New Delhi, Bengaluru and Bhubaneswar). Bank of Baroda, Union Bank of India, HDFC Bank and Kotak Mahindra Bank will subsequently join the pilot as it expands to new geographies including Ahmedabad, Gangtok, Guwahati, Hyderabad, Indore, Kochi, Lucknow, Patna, and Shimla in Phase 2.

Each participating bank will test the currency across a user base of 10,000-50,000 people. Both Peer-to-Peer and Peer-to-Merchant payments will be supported through the method as customers will be able to create a wallet having digital tokens of ₹-R and use it for various transactions or use cases with selected banks. The pilot aims to test the integrity of the end-to-end process starting from issuance and distribution to retail usage by consumers in the real-time market.

Outlook and Road Ahead

The potential of the ₹ is extremely promising, with several sources hailing it as the future of money in the Indian market. Benefits include seamless cross-border transactions along with a host of other advantages including ease of regulation due to centralization, convenience, transparency and conservation of operational costs that come with printing currency to name a few.

Primus' opinion is that RBI's experiment to launch the e-rupee in a controlled environment is a good move as it will iron out the operational challenges in a closed ecosystem and help define the governance model that may be required for launching it on a larger scale given the learnings from the steady growth of digital payments during the pandemic. What also possibly works in favor of the ₹ is that Indian customers will be able to pay directly, saving transaction costs and enabling real-time account settlements. Furthermore, the ₹ will always be portable, unlike cash notes thus maximizing accessibility. While the overview around E-Rupee is rightfully optimistic, there are challenges that the currency needs to overcome.

Wide-scale implementation on a national level remains a hurdle given the increasing saturation of digital payments market. Implementation at infrastructure level is likely to take few years at least. At the consumer level, while it offers advantages, there is a lack of exclusive benefits which incentivize the user to use the digital currency over other methods of payment. With the already dominating UPI, the shift and / or parallel usage of this currency is another challenge.

Going forward, the approach must be to capitalize on the unique aspects of the CBDC while also building on learnings gained from the pilot programs and developing plans to tackle the possible hurdles of the future.

[Home Page](#)



Digital front door in healthcare

– Turning the tables on conventional healthcare delivery

In his 2014 book, “The Patient Will See You Now: The Future of Medicine is in Your Hands”, Dr. Eric Topol proposes the concept of democratization of healthcare, making the patient in-charge of their information and unlocking the unimaginable potential of smartphones in implementing this idea.

Fast forward to 2022. The world has gone through two grueling years of fighting a global pandemic, isolation, shortage of supplies and manpower. Words of Dr. Topol almost sound like a prophecy coming true. India developed a platform called **Aarogya Setu** and was able to record and track the at-risk population, affected population, vaccination statuses and take action based on the real time data generated and owned by the public.

The availability and access to remote healthcare services through the use of technology, ownership of the data by the patient and the data generation at every touchpoint of the patient’s journey were the key reasons why a densely populated country like India was able to achieve high numbers in vaccination and recovery.

Aarogya Setu is the most recent and relevant case study of what Digital Front Door in Healthcare entails. However, the applications and implications of the technology are not limited to public health emergency management. As we move towards a time with a more educated and informed patient base and increased digital literacy amongst providers and users alike, Digital Front Door gives the industry an opportunity to shape itself to be patient-centric. A trend largely seen in the private health industry is tracking patient experience at every touchpoint of the service delivery and identifying scope for improvement for a fast and seamless consumer journey. Benefits of the use of this technology include–

- 1. Increased revenue:** Revenue can be increased by at least 10% by reducing network leakage and cross-selling services.
- 2. Reduced No-shows/cancellations:** Potential to decrease cancellations and no shows by 10% through utilizing digital portals for managing appointments.
- 3. Patient Acquisition:** Potential to increase patients through digital onboarding.
- 4. Health Records:** Effective treatment achieved though referral of a patient’s medical history.
- 5. Reduced calls to customer care:** Can be reduced up to 20% by increasing online appointment booking.

Common Elements of a Digital Front Door Branded to a Healthcare Organization



Taking a page out of the consumer industry, Mobile Applications have become the modalities of choice for enhancement of patient experience right from the time they decide to seek medical treatment to follow ups and management of health henceforth.

Some of the features that the technology provides to the patients to make their journey smoother and more independent are as follows–

- 1. Seamless sign up:** Assisted sign-up procedure across multiple applications on multiple devices
- 2. Unified view:** Patients have a unified view of their appointment history and health records.
- 3. Service scheduling:** Patients can schedule and manage in-person, at home or virtual appointments.
- 4. Billing:** Multiple modes of payment available for paperless and quick transactions, along with easy access to transaction records.
- 5. Secure messaging:** Users can contact healthcare professionals and customer care.

Increasing potential in India

India shows immense potential in the field of digital front doors with introduction of Ayushman Bharat Digital Mission.

India has a substantial number of individuals who require medical care every year, digital front doors can help Indian doctors to manage the considerable number of patients through providing online consultation where in-person appointments are not required to control overcrowded hospitals. Doctors will also be able to provide services effectively and efficiently as they would have one-tap-access to a patient’s medical records.



Empowering states with stronger SAPCCs **- United we stand, Divided we may falter!**

The COP27 of the UN Framework Convention on Climate Change will be remembered for India's path breaking announcement of a Long-Term Low Emissions Growth Development Strategy (LT-LEDS) outlining the low carbon transition pathways in key economic sectors. India has called out strategic interventions across Transport, Power, Urban, Industry, Forests and Carbon dioxide removal. The two themes of "climate justice" and "sustainable lifestyles", alongside the principles of Equity and Common-but-Differentiated-Responsibilities and Respective Capabilities (CBDR-RC) are once again the pillars of India's strategy.

This step taken by India is also revolutionary in its fight against climate change because it acknowledges that, though the adverse effects of climate change are looked as a whole, affecting the entire planet, it has several microunits such as individual states, cities, sectors, etc. **Like the narrative of Developing Country Vs Developed Countries, the fight against climate change does not put all, States, Cities, Sectors, Areas at a common pedestal within India either. It, in real sense is, 'Common But Differentiated Responsibilities'. It, therefore, must cascade down to, Center vs State, State vs State, Public vs Private, Sector vs Sector, Institutional vs Individual, conversations, assessments, goal setting, remedial interventions and monitoring.**

India's strategy has also brought into focus, the long standing conversation of Adaptation v/s Mitigation. As the world is spending its energy and resources more on Climate Mitigation measures, the recent extreme weather events have made climate adaptation more significant and necessary than ever for India. These have to be focused on vulnerable sectors such as healthcare, agriculture, water, among others. This now forms a key component of India's Long-Term Low Emissions Growth Development Strategy. India has seen an increase in weather extremities including heat waves, drought, floods, etc. calling for an urgent need to **operationalize State Climate Action Plans and secure funds for Climate Adaptation Projects.**

State Action Plans on Climate Change (SAPCC), serve as the primary policy document at the sub-national level to address vulnerabilities and increase resilience. SAPCCs are therefore, a very important tool to complement efforts and planning of the Union Government. In view of India's LT-LEDS strategy, there is an opportunity to make certain amendments to the SAPCC to make them more robust and fool proof so that they can effectively contribute to India's

Panchamrit strategy. Some measures that can be taken to make SAPCCs stronger and more relevant include the following:

Integrating SAPCC with States' Annual Development plans: With limited inter-ministerial collaboration, the SAPCCs need to be designed and implemented in a collaborative manner. The states should undertake an activity to call out sector wise emission targets as per the National plan and also look at integrating those in all planning level documents of states. After this, various adaptation and mitigation activities of the line departments can be linked to SAPCCs, ensuring that climate change becomes a key pillar of planning in the state. Steps should also be taken to further cascade SAPCC goals to districts and panchayats. This will provide a clear blueprint of integration of India's climate strategy, all the way to its Gram Panchayats.

Increased emphasis on institutional and human capacities: Strengthening human and institutional capacities would be the critical driver for upscaling of climate actions. This usually involves institutionalising a steering committee as the highest level of decision-making. States such as Tamil Nadu and Madhya Pradesh, which have relatively stronger institutional structures have been able to deliver their SAPCCs and National Adaptation Fund for Climate Change (NAFCC) projects more effectively compared to others.

Providing financial access and developing a framework for its mobilisation: The interventions to combat climate change range across policy interventions, assessment and goal setting for building sustainable businesses and climate friendly affordable technology - all involving innovative climate financing. The central government, state governments, corporate sector, and civil society players all play key roles in low emission and climate resilient development, but the climate finance landscape in India as a whole is highly fragmented. Therefore, **a critical aspect in the collaboration is the allocation of finances from the development budget aimed at climate-proofing development programmes.** The SAPCCs once integrated with Annual Development Plans should have a dedicated budget component providing them a formal financing mechanism.

Although strategies for combatting climate change are formed at the National level, it is the states which actually implement the programmes, schemes and plans of the Union Government.



The private space sector is no more limited to component manufacturers but is involved in end-to-end system design integration and launch.



Dr Subba Rao Pavuluri is the Founder, Chairman and MD of Ananth Technologies. A visionary spaceman, as called by many, Dr Subba Rao founded the company in 1992 and since then the company has become a strong player in both critical aerospace systems as well as high value geospatial services. Ananth Technologies' offerings extend from mission computers to control systems to sensors as well as subsystems for the Indian space program

The space segment in India is currently going through an evolutionary phase at exponential pace. What according to you has been the one most significant breakthrough till date and what is an important breakthrough that is currently required to further propel the segment in India?

Globally the emergence of the private sector in the space economy has been game changing. India is also going through this change and the government is supportive of that. One of the most significant reforms has been the Govt's decision to unlock the potential of the Space Sector for private players to be co-travellers in the country's space journey; almost after 5 decades of national space programs.

ISRO itself is playing a very constructive role through this transformation and the creation of IN-SPaCe as the facilitator and regulator plays a significant role in this journey. The advent of private players in the country to advance space technology in building rockets and satellites alongside launch and application capabilities are all huge milestones in India's space journey.

The world is seeing India as an inspirational place in the space sector. The firm resolve of the government to make India a globally competitive and innovation-driven market will be supplemented with the upcoming space policy. The Space Bill will be a significant enabler to structure the regulatory landscape for a conducive growth of the nation's space economy with contributions from private sector, public sector and government institutions.

Combining both the upstream and downstream markets, space today is reported to be a billion-dollar run rate industry in India and expected to grow at a healthy CAGR in coming years. According to you, what further regulatory changes are required to fast track the growth of the industry in India.

Space as a sector transcends borders and hence needs a regulatory treatment that while being aligned to the global space regulations also aligns with the global best practices to further the national interest in developing the national space capabilities.

The reforms required in the sector are on many fronts and include among others (1) removing barriers, (2)

promoting national and global commerce, and (3) catalysing sector growth through innovative procurement models. In essence the reforms need to reflect the government's intentions for the space sector's growth.

One of the barriers in the growth in the sector is government's overemphasis on terrestrial connectivity. The inordinate delays, cost escalations and underachieved targets in laying fibre has deprived one generation of Indians from the benefits that accrue through connecting the villages. This could have easily been connected through satellites.

This is compounded by the ambiguous stand of the government on spectrum allocation for satellite services that has stalled prospective investments in the sector. Now there are sufficient best practices that have evolved over the years at International Telecommunication Union (ITU) and one could easily pick up some of those best practices that are arrived at by consensus among the 193 ITU member administrations instead of trying to evolve something different that may or may not be a better option.

Similarly, the Space Bill will give real teeth and thrust to the space economy but has been stuck between many deliberations for quite some time. Meanwhile the technology has moved on. The combination of reforms in the (1) Space Bill, (2) related policies and regulations, (3) taxations tailored for deep tech industries like space, (4) FDI policies that bring in investments and also (5) technology and (6) global market access through JV with local entities – all of the above shall act as catalysts for the space economy.

Public Private Partnerships are an important avenue for infrastructure projects. How important, according to you, are PPP projects going to be in the space segment in the coming years.

Most certainly yes! Satellites are a potential game-changer (1) to close the digital divide gaps in the country, (2) to provide ubiquity of coverage across unserved and under-served geographical areas where terrestrial networks may not be available or



even feasible. Such communication connectivity and participation in digital economy can be achieved through Public Private Partnership (PPP) model as is the case in other developmental sectors.

The space segment today is a prime example of Make in India today. However, going forward given the fast-paced technology evolution, what are the key challenges that you see with respect to skill development in India? How should they be addressed?

Skill and manpower requirements are highly essential to keep pace with the quickly evolving technological advancements. **The whole issue of academia-industry disconnect is glaring and there is an urgent need to enhance capacity building initiatives to bridge this gap.** India despite having ample human resources available and millions of engineers graduating every year, faced a challenge that only a handful of them are generally employable. This industry-academia gap between the engineering education system and the industries' expectation from entry level engineers needs to be bridged.

There are very few engineering colleges that deal with space sciences/aeronautics. Some of these engineering colleges compete with the best in the world, however many of them have redundant courses and skill sets.

For meeting the goals of Space Industry 4.0 the government agencies and industry must create sufficient avenues for academic institutions to focus on fundamental research. By engaging with users, government can identify the needs and ascertain the areas that need training programs. For instance, Remote Sensing or disaster management and many such verticals can be identified.

Capacity building initiatives can be effective with the help of incubation centres and training workshops and awareness programs. The government needs to focus on capacity building and skill development to achieve a higher absorption rate. Industry has to take part actively too as part of its CSR responsibility.

Industry collaboration is beneficial both ways. Industry gets quality employable students and the students get to learn what the market requires out of them. Hence, integration between academia and industry is critical. **Further, skill is not just about academic qualifications or technological expertise, but about developing a creative and innovative space.** The focus should be to beat the advanced nations and march ahead.

Ananth Technologies being one of the earliest in the private segment, you have seen the industry evolve from ground up. What according to you are the 2-3 important learnings that can be further leveraged.

India's space sector liberalization is adding strategic depth to not only space but also defence capabilities globally. We are witnessing a lot of action happening every day and India is seen as a serious competitor in the global space race.

We have seen many national government initiatives that have transformed a few sectors to gallop and develop cutting edge capabilities. The development of Covid vaccines helped by the initiatives of the department of Bio Technology, Infrastructure development of Roads, Airports etc. in Public Private Partnership, massive capacity creation in mobile handset production for national consumption and exports through PLI schemes, lead us to believe that if these learnings are translated to the space sector, the nation will be able to achieve a much larger share of the global space economy, increasing the nation's GDP, advancing its scientific edge and creating employment opportunities.

Space sector in India is seeing a massive investment by the private sector to build capabilities that were hitherto only sourced from the other space faring nations. The industrial capabilities from the MSME segment have matured with their participation and contribution to the various space missions. Ananth Technologies has contributed in the 71 Launch Vehicle missions and 91 Satellite programs.

There is also an interesting growth in the space start-ups in the country who in their own way are trying to bring in some disruptive innovations in upstream and downstream activities. This is adding a significant heft towards space self-sufficiency and creating a technology-enabled innovative ecosystem for indigenous manufacturing.

Private space sector is no more limited to component manufacturers but is involved in end-to-end system design integration and launch. We have one of the most economical development / launch costs of small satellites. India is known for its cost-effective missions to Moon and Mars and the upcoming Human Spaceflight 'Gaganyaan' in 2023 will be testament to the nation's space prowess.

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

				
CHANDIGARH	BENGALURU	DELHI	KOLKATA	MUMBAI
2nd Floor, Netsmartz, Plot No. 10 Rajiv Gandhi Chandigarh Technology Park, Chandigarh – 160019	91 Springboard Business Hub 175 & 176, Bannerghatta Rd, Dollars Colony, Bengaluru – 560076	Rear Block, Upper Ground Floor, ALPS Building, 56 Janpath, New Delhi – 110001	Siddhartha Apartments 4th Floor 188/2, Block J, New Alipore Kolkata - 700053	601, 6th floor, Raheja Centre, Nariman Point, Mumbai – 400021

Write to us at: feedback@primuspartners.in

 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.