

Telecom Equipment & Services Export Promotion Council

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Inputs/ Comments on Consultation Paper of TRAI Dated February 11, 2022 Titled ‘Promoting Networking & Telecom Equipment Manufacturing’.

Brief Background, General Observations and Recommendations:

Government has given highest priority and launched various initiative/ incentive schemes for Make in India for domestic manufacturing. TRAI has also issued recommendations during 2011 and 2018, yet India is still dependent largely on imports of telecom equipment. Nevertheless, when government took a courageous step and believed in the capabilities of domestic telecom equipment manufacturing industry, a success is seen in the form of indigenously designed, developed and manufactured 4G system for BSNL. On the other hand, for the first time India developed 5Gi standard which is proposed to be merged with 3GPP and already secured approval of ITU Geneva. TRAI paper of NATEM, at such a juncture, is a step further for deciding the future course of actions.

For 5,000 years India was Golden bird known globally for its education, steel, spice, cotton-textile, food, culture, medicine, astrology and substantial GDP contribution. In developing phase most of the Countries promoted & established their Champions, incentivised, protected market access¹, Combined Defence with private market², made them Global companies and forced them to world market whereas on the contrary, India, during above phase, introduced its market access freely and hardly protected/ promoted most of the technologies developed by C-DOT and other Indian companies in the field of wireless technologies, electronic components, IP network etc. However, presently for the first time Government of India supported 4G of C-DOT/ Tejas and also made the announcements regarding the indigenous 5G technology.

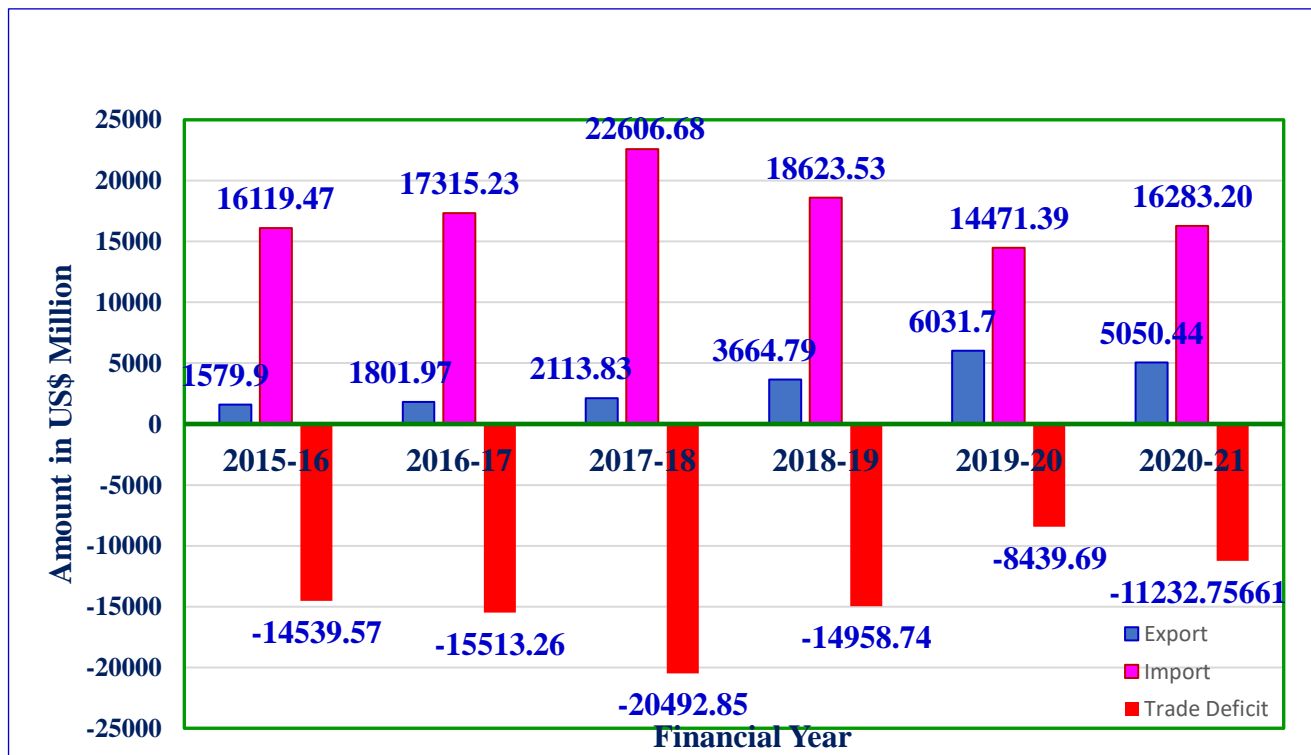
The Indian Telecom Service Providers are attracted to import the telecom equipment due to the reasons, mainly, cheaper import financing of equipment by global manufacturers (Virtual interest free or 1-2 or ½ % interest loans without any securities by foreign manufacturers), continuous hype and change of technology by foreign Multi-National Companies (MNCs), which are designed, developed and manufactured abroad, as a result there is huge outflow of foreign exchange. The local manufacturers are unable to compete with the MNCs without proper support.

As a result, during past years, the telecom sector has faced trade deficit as shown in the chart. The country needs not only to reduce the trade deficit to zero but also achieve trade surplus in the telecom sector.

The major reason that India could not become hub for telecom/ mobile manufacturing is not limited to the incentives, concessions etc. rather the real issues are as under:

¹ Japan-Sony, Sanyo; Korea-Samsung, LG; USA AT&T, CISCO, Goggle, Qualcomm, Intel etc; China-Huawei, ZTE, Hikvision, Datang etc.

² USA/China



- a. The telecom equipment market is B2B which is limited to telecom/ Internet Service licensed operators and not the consumers i.e. B2C. This market Distinction is to be clearly appreciated for policy nurturing of Telecom equipment success for policy in letter & spirit. While is B2C is for mass public consumption, B2B market for Telecom equipment is limited to set of few operators who have their boundary limits defined by Licensing framework, regulatory framework of laws of State Govt., local bodies, investment decisions, hyper competitive conditions, business risks, credit agencies granting loan & time to launch services etc. Thus, their investment considerations are entirely different. The case of defence procurement³ is appreciable which takes care of its distinct nature. The approach for defence procurement in respect of local manufacturing of Indian Designed, Developed & Manufactured products (IDDP) differentiate between Buy Global/ Buy Indian and Buy and Make Indian/ Buy & Make Global, where upto 90% of research is also funded.
- b. The technical wing of Department of Telecommunications, i.e. Telecommunications Engineering Centre, formulates the technical specifications (GR, IR, Standards etc.) after due deliberations with the domestic as well as MNC telecom equipment manufacturers. The domestic manufacturers design,

³ i. As per Lok Sabha Parliament Question No 2221 dated 29.7.2016, “The Defence Procurement Procedure (DPP) focuses on giving boost to the ‘Make in India’ initiative of the Government through indigenous design, development and manufacturing of defence equipment, platforms and systems. A new category viz. ‘Buy (Indian- IDDM)’ [Indigenously Designed, Developed and Manufactured] has been introduced as the most preferred category of Procurement. The ‘Make’ procedure has been simplified to ensure increased participation of Indian Industry. There is provision for Government funding of upto 90% in cases involving design and development systems/ equipment which necessitate harnessing of critical technologies and which may involve large infrastructure investment. Provisions for involving private industry as Production Agencies and Technology Transfer Partners have been incorporated.”

ii. As per Lok Sabha Parliament Question No. 940 dated 21.7.2017, “Defence capital acquisitions are carried out as per Defence Procurement Procedure (DPP) wherein emphasis has been given to procurement from domestic defence industry by according preference to ‘Buy [Indigenously Designed, Developed and Manufactured (IDDM)]’, ‘Buy (Indian)’, ‘Buy & Make (Indian)’ and ‘Make’ categories of capital acquisition over ‘Buy (Global)’ category”

develop and manufacture their products based on the TEC specifications. In case the equipment are procured by setting aside the TEC specifications and the specifications are tailor-made for some specific make products, the stipulations of the tender becomes restrictive and the domestic manufacturers are deprived to participate in the procurement process as the same are unable to develop the products as per stipulated specification in a short span of time. Therefore, it is recommended that specifications formulated and issued by Telecom Engineering Centre, DOT, shall be utilised for all equipment procurement by private/ public sector/ State Governments etc.

- c.** Onslaught of foreign Companies in advertisement, marketing and lobbying expenses for their so called latest new technologies. The local manufacturers are able to spend, very little, on advertisement and publicity.
- d.** Indian Telecom Operators have been traditionally depending upon imports, due to purported zero duty import under ITA 1 as well as availability of cheap credit from foreign lines of credits. The Unified Licence Agreement stipulates applicability of the Preferential Market Access in case of all the licensees irrespective of whether private or public; however, the stipulation has not yet been invoked by the licensor.
- e.** Onslaught of IPR case by foreign companies: IPRs have become a real issue. Several Court cases have been filed due to which there is need for an agency may be Government department, a company or an autonomous society, who can apprise the domestic manufacturers regarding the number of IPR & patents' licenses involved and royalties, their respective royalties payable on the relevant component/ chip rather than the entire cost of product. Methodologies needs to be evolved, i.e. out of box thinking, for protection of Indian manufacturing companies from legal onslaught of IPR cases from all across the globe.

The Indian manufactures procure components from across the globe and subsequently assemble the product. If there is any IPR violation, then it is with the manufacturers of components/ chips and not their user companies. There is need for an appropriate policy for asking royalty on IPR on the component manufacturers rather than the product assemblers/ manufacturers.

- f.** The new local manufacturers and start-ups do not qualify for supply to PSUs/ private Companies in the absence of experience and minimum work execution criteria. Previously, educational orders were awarded to the domestic manufacturers for development of local manufacturing; the case was taken-up with the appropriate authorities. Though, the Department of Telecommunications has informed that the practice of educational orders is still in place in the procurement policies of their public sector enterprises, however, practically the policy is not practised presently. The Expression of Interest may be sought by the PSEs for the same from time to time.
- g.** The telecom technologies are very fast developing resulting into outdated of the locally developed technologies which entails lot of emphasis on timely and consistent efforts and support to the research and development of telecom technologies.
- h.** The Country needs low power, low-cost equipment suited to rural areas of India, which are quite spread and thinly populated with lack of electricity, roads infrastructure etc. Yet the operators always would like to prefer the available imported equipment which may be of higher powered or high costs.

For making India a self-reliant nation in respect of telecom technologies and equipment manufacturing, lot of support in the form of supportive policies as well as financial incentives and funding is required for R&D as well manufacturing the same. The important measures, inter-alia, to be taken for blooming the telecom manufacturing in the country are as under:

- i. Production Linked Incentives (PLI):** Though PLI scheme has been implemented by Department of Telecommunications, however, the scheme needs to be amended so as to enable design led manufacturing in the country rather than assembly led manufacturing.
- ii. Enforcement of PPP-MII policy:** The PPP-MII policy shall be enforced for all telecom networks (public as well as private) as per the Universal Service Licence Agreement so as to enable the domestic manufacturers to achieve economies of scale. The recommendations submitted to the Department of Telecommunications is enclosed as Annexure-1.
- iii. Implementation of the Mandatory Testing & Certification of Telecom Equipment (MTCTE):** Mandatory Testing & Certification of Telecom Equipment shall be scrupulously implemented so as to restrict the import of non-standard telecom products at a predatory price.
- iv. Imposition of Stipulated Basic Custom Duty (BCD):** BCD has been levied on certain products, such as VoIP equipment, which are imported by circumventing the same due to which the domestic manufacturing is adversely affected.
- v. Rationalisation of Custom Duty:** The inverted duty structure exists in many cases wherein the BCD is levied on the part whereas if the same is imported as a built-in part of finished product, the BCD is zero; such anomalies make the local products costlier.
- vi. Over-due Payments from Government & Centre/ State Public Sector Enterprises:** Over 3,600 crores of the payment, to be paid by the Central CPSEs to the domestic telecom equipment manufacturers, are long pending which increases cost of financing the working capital and makes the local products non-competitive.
- vii. Public Sector/ Private Enterprises for Execution of High-Level Projects in Foreign Countries may be incentivised for using the indigenous telecom equipment in their executed projects.**
- viii. Implementation of PPP-MII Policy in Projects under Line of Credit (LoC)/ Grant-in Aid from Government of India:** Apart from strengthening the diplomatic relations, one of the main objectives of extending Line of Credit to the friendly countries is to enhance the exports. Therefore, PPP-MII policy shall be applicable in LoC projects.
- ix. Production of Electronic Components:** The non-availability of the indigenously manufactured electronic components becomes a compulsion for their import and is one of the major sources of trade deficit. Government has laid proper emphasis for indigenous manufacturing of the electronic component which shall be expedited.
- x. Institutional Mechanism for Monitoring Telecom Equipment Manufacturing:** The telecom equipment manufacturing shall be monitored in DoT headquarter at appropriate level, i.e. at Member, Telecom Commission level, heading a separate production unit as recommended by TRAI in their previous consultation paper.
- xi. Creation of Telecom Finance Corporation:** Creation of Telecom Finance Corporation for incentivizing buying of indigenous products
- xii. Action Regarding Non-Tariff / Tariff Barriers:** Non-Tariff / Tariff Barriers are faced by the domestic telecom manufacturers in exporting their products to various countries. The Government shall take-up the issue with the concerned Government for removal of such barriers.
- xiii. Stricter Enforcement of Anti-Dumping and Anti-Circumvention Rules.**

- xiv. Support for Research & Development of Telecom Products:** Government has already announced for supporting the R&D using the funds from USOF and is under process of finalising the Modus-operandi. TEPC has submitted the recommendations on the subject (enclosed at Annexure-2). Further, following is also required:
- Revamping the C-DoT.
 - Setting-up More Research & Development Institutions.
 - Setting up the Institution under Public-Private-Partnership (PPP) Model.
- xv. Institutional Mechanism for Effective Disbursal & Utilisation of R & D Funds/ Corpus:** Support for Research & Development of Telecom Products Creating a Fund for R&D in new technologies for start-ups and entrepreneurs as per National Digital Communication Policy 2018.
- xvi. Financial Support to Export Oriented Telecom Equipment Manufacturers:** Financing options such as Venture capital in the form of equity and soft loans, Project finance, Contract financing options, Credit default insurance.
- xvii. Rationalisation of Electricity & Water Supply Rates:** Rationalisation of Electricity & Water Supply Rates, which are presently very high for the industries, is needed.
- xviii. Compensation for Higher Cost of Capital & Labour:** In the country, the cost of Capital, Power, and Infrastructure etc is higher by 13-15% in comparison with the developed countries.

The question-wise inputs/ comments are enclosed as Annexure-3.

No.: TEPC/Cor.111/2022

Dated: January 12, 2022

To

Shri K. Rajaraman
Chairman Digital Communications Commission & Secretary
Department of Telecommunications,
Ministry of Communications, Sanchar Bhavan,
20, Ashoka Road, New Delhi-110 001

Subject: Incentivising Telecom Service Providers for Purchasing Indigenously Designed, Developed & Manufactured Equipment - Regarding.

Sir,

Hon'ble Prime Minister announced his vision of 'Local for Global' and has laid lot of emphasis on export of various commodities/ products from India. Consequently, an ambitious export target of US\$ 400 billion has been fixed for the current financial year 2021-22. However, the price of any commodity plays an important role in any market place be it international or domestic; the competitive price depends on the economies of scale, as a result, the export of telecom products cannot be seen in isolation as economies of scale cannot be achieved without the domestic consumption of the products.

2. The major share of wireless subscribers, i.e. 89.99% of the total number of subscribers, are served by the private telecom service providers leaving only 10.01% of subscribers who are served by PSU telecom service providers. The PSU service providers, with the market share of 54.93%, dominate the wire-line subscriber market but their wire-line subscriber base has depleting trend; therefore, the expansion of their fixed line network is not envisaged except for the broadband connections. Therefore, the domestic market for telecom products is dominated by the purchasers who are private service providers.
3. The 'Unified Service License' conditions stipulate mandating all the Telecom Service Providers, public as well private, to use indigenous telecom equipment. We would like to bring to your kind notice that the Clause-24.3, Chapter-4, Unified Service License Agreement⁴ stipulates as under:

"24.3 The licensee shall adhere to the prevailing directions/ instructions and shall also abide by further directions / instructions as may be issued by LICENSOR from time to time in respect of

(a) Preferential Market Access for procurement of indigenous manufactured products,

(b) Mandatory testing of equipment and

(c) Requirements on IPv6 implementation."

The extract of the aforesaid clause of 'Unified Service License Agreement' is enclosed, as Appendix-1, for your ready reference. Department of Telecommunications as Licensor, as per powers conferred from the above clause of the Unified Service License Agreement, can very well mandate all the TSPs,

⁴ https://dot.gov.in/sites/default/files/Unified%20Licence_0.pdf?download=1

including private service providers, for Preferential Market Access for procurement of indigenously manufactured products; Consequently, we find no reason for DoT not able to invoke the above said clause of the License Agreement as a Licensor.

4. A separate Preferential Market Access Policy, for procurement of indigenously manufactured products, applicable to the TSP needs to be formulated as the Public Procurement (Preference to Make in India) orders issued by Department for Promotion of Industry & Internal Trade (issued under Rule-153(iii) under General Financial Rules 2017) are applicable for the procurement by various Departments/ Ministries of Government of India and Central Public Sector Enterprises.
5. However, if for some binding reason DoT finds itself unable to enforce powers conferred from the Unified Service License Agreement, a proposal, on the subject, has been prepared and is enclosed herewith as Apendix-2. It may also be mentioned that National Digital Communications Policy 2018 (NDCP-2018) also stipulates incentivising the telecom service providers for procurement of domestically manufactured telecom equipment.
6. TEPC is very confident that either by invoking the aforesaid Unified Service License Agreement condition or incentivising the Telecom Service Providers for purchase of indigenously designed, developed & manufactured equipment will pave the way for आत्म-निर्भर भारत in telecom sector.
7. The issue, of incentivising Telecom Service Providers for purchasing indigenously designed, developed & manufactured equipment' was also taken-up with the Department of Telecommunications, vide this office letter, No. TEPC/Cor.111/2020 dated September 15, 2020 (copy enclosed as Annexure-3 for ready reference); however, no action, on the subject, is yet visible.
8. In view of above, it is requested that the enclosed proposal may kindly be considered and implemented which will act as enabler, to the indigenously designed, developed & manufactured telecom products/ equipment, in achieving the economies of scale and in turn strengthen the domestic telecom equipment manufacturing industry and will ultimately work as a catalyst in increasing the export of telecom equipment/ products.

Yours sincerely
Sd/-
(Arun Gupta)
Director General

Copy to:

1. Shri Anurag Jain, Secretary, Department for Promotion of Industry & Internal Trade, Udyog Bhavan, New Delhi-110 001.
2. Shri B.V.R Subrahmanyam, Secretary, Department of Commerce, Udyog Bhavan, New Delhi-110 001.

Extract of Clause--24.3, Chapter-4, Unified Service License Agreement

- 24.2** The Licensee shall adopt Renewable Energy Technologies (RETs) for powering the Telecom Network, deploy energy efficient equipment and reduce the carbon footprint as per prevailing directions/ instructions and shall abide by further directions / instructions as may be issued in this regard by Licensor/ TRAI from time to time.
- 24.3** The licensee shall adhere to the prevailing directions/ instructions and shall also abide by further directions / instructions as may be issued by LICENSOR from time to time in respect of
- (a) Preferential Market Access for procurement of indigenous manufactured products,
 - (b) Mandatory testing of equipment and
 - (c) Requirements on IPv6 implementation.
- 25.** The Applicable System:
- 25.1** In the process of operating the Services, the Licensee shall be responsible for: -
- (i) The installation of the systems excluding the installation of the equipment at the subscriber's premises which will be left at the option of the subscriber;
 - (ii) the proper upkeep and maintenance of the equipment;
 - (iii) maintaining the criteria of performance;
 - (iv) maintaining the Quality of Service as per clause 29.
- 26.** Engineering Details:
- (a) The Licensee shall furnish to the Licensor or its authorized representative(s), in such manner and at such times as may be required, complete technical details with all calculations for engineering, planning and dimensioning of the system/network, concerned relevant literature, drawings, and installation materials regarding the applicable system.
 - (b) Licensee shall supply all tools, test instruments and other accessories to the testing party of Licensor and /or TEC for conducting tests at any time during the currency of the License.
- 27.** Network Interconnection:
- 27.1** Interconnection amongst the networks of Licensees shall take place where specifically provided for in the Service Authorization Chapter in PART-II of the Schedule to the License. In such cases the conditions of interconnections as specified below shall be applicable.
- 27.2** Transmission links for interconnection shall meet relevant standards or Interface Requirements (IR) issued by TEC from time to time.
- 27.3** Interconnection between the networks of different Licensees for carrying circuit switched traffic shall be as per national standards of CCS No.7 as amended from time to time by Telecom Engineering Centre (TEC) and also subject to technical feasibility and technical integrity of the Networks and shall be within the overall framework of interconnection regulations/ directions/ orders issued by the TRAI/ Licensor from time to time. For inter-networking between circuit switched and IP based network, the Licensee shall install Media Gateway Switch. Further, the Licensor may direct the LICENSEE to adopt any other technical standards issued by TEC on interconnection related issues.

Proposal for Incentivising Telecom Service Providers for Purchasing Indigenously Designed, Developed & Manufactured Equipment

1. Brief Background: Honourable Prime Minister has launched drive of आत्म-निर्भर भारत and ‘Vocal for Local’ for making India a self-reliant nation. The telecom sector is growing at a very fast rate and is an enabler for the economic growth. Further, it is also a technology and capital-intensive sector.

In Indian telecom sector, the major share of wireless subscribers, i.e. 89.99% of the total number of subscribers, are served by the private telecom service providers leaving only 10.01% of subscribers who are served by PSU telecom service providers. The PSU service providers, with the market share of 54.93%, dominate the wire-line subscriber market but their wire-line subscriber base has depleting trend; therefore, the expansion of their fixed line network is not envisaged except for the broadband connections. Therefore, the domestic market for telecom products is dominated by the purchasers who are private service providers. Consequently, to be self-reliant in respect of telecom equipment & products, the buying power of the domestic telecom sector dominated by the private service providers needs to be tapped.

Though the Indigenous products get preference in public purchases under PPP-MII orders of DPIIT, Govt. of India, there is no such policy which supports to either incentivize or mandate private telecom service providers to buy indigenous products. Consequently, due to lack of business, the Indian manufacturers are unable to achieve economies of scale and become globally competitive, due to lack of volumes.

In spite of availability of the Indigenous products, the private telecom service providers are reluctant to buy the same mainly due to the following reasons:

- a. Predatory price offered by the MNCs in general and Chinese companies in specific.
- b. Vendor’s credit at low interest rates along with a moratorium period of 4-5 years.
- c. Further, the cost of Capital, Power, and Infrastructure etc is higher by 13-15%⁵ in comparison with the developed countries; the same also results in the lower prices of telecom equipment/ products manufactured by the MNC.

Therefore, to be competitive in the domestic as well as international market places, the above handicaps faced by indigenous manufacturers needs to be compensated through sector specific financial incentives.

2. It is also to submit that the license fee regime coupled with other levies is possibly one of the highest in the world. To recapitulate while the license fee is only 3%, the Universal Service Obligation Fund contribution is 5% and the spectrum usage charge varies from 1% to 6% depending on the bandwidth being utilised by the service provider. To the best of our knowledge, where spectrum is auctioned, there is no separate spectrum usage charge. In fact, the basic criteria used by most regulatory regime is related to the cost of administration of the relevant regulations. The usage charge was being levied when we migrated in 1999 to the revenue sharing regime where instead of auctioning spectrum, need based additional spectrum was being given based on the number of subscribers being serviced by a service provider. Therefore, there is a strong case for reducing and rationalising the license fee particularly when we are now auctioning the spectrum. Consequently, there is hardly any justification

⁵ [https://www.ey.com/Publication/vwLUAssets/ey-cost-of-capital-india-survey2017/\\$FILE/ey-cost-of-capital-india-survey-2017.pdf](https://www.ey.com/Publication/vwLUAssets/ey-cost-of-capital-india-survey2017/$FILE/ey-cost-of-capital-india-survey-2017.pdf)

for imposing spectrum usage charge. This dispensation could be linked to the service provider agreeing to follow the Make in India policy so far as procurement of telecom equipment are concerned.

3. Measures for आत्म-निर्भर भारत in respect of Telecom Equipment & Products: To encourage the Indian telecom operators for using the indigenously designed, developed & manufactured products, and to promote and strengthen the domestic R&D and manufacturing of telecom products, TRAI has also recommended that specific actions need to be taken to promote the growth of the high-value indigenous telecom products. We, therefore, recommend the following specific actions be taken:

a. Incentive to all telecom services providers to buy PPP-MII Compliant Telecom Equipment:

The telecom service provider who buys indigenous products of value X during a given financial year, may be given a credit of 50% of X, to be used against their AGR based levies (3% as annual license fee and 5% towards USOF) that are payable to Government of India. This as an option (not a mandate) that may be made available to the service providers. Given such incentives to buyers will also promote meritocracy, since they will only buy products that meet the technology, quality and price competitiveness benchmarks. The payment of such AGR levies should be deferred by a twenty-four months period, so that they get a buyer's credit of 24 months, which foreign vendors are normally offering. The combination of the above recommendations will address both the critical issues - leveraging our domestic market demand and providing long-term financing

b. Universal Service Obligation Fund (USOF) Projects:

As per existing policy, projects funded by USOF have to mandatorily follow the Preference to Make in India policy of DPIIT as well concerned DoT notifications (PMI & LC w.r.t. all the telecom equipment/ products). This is also applicable where projects are being implemented by the private sector and tender specifications are required to stipulate this condition. All USOF funded projects, must be mandatorily require to use 100% of their demand in the form of indigenous equipment that are available within the country. Even when such projects are executed by telecom services providers (operators) or system integrators or a state government agency, the requirement to procure only domestic products must be mandated.

Funding Indian R&D using 5% of Annual collection of USOF

1. Brief Background: The telecom industry primarily comprises of Telecom Service Providers, Telecom Equipment manufacturers and suppliers, passive infrastructure providers and System Integrators. Telecom Equipment manufacturers and suppliers can further be classified into Consumer End equipment, i.e. Handset, Customer Premises Equipment (CPE) etc., and Network equipment manufacturers & suppliers. Growth of the telecom industry is summation of the growth of each subset of the telecom industry.

During the last two decades, the telecom services and passive infra sectors have shown a robust growth which can be ascertained from growth in number of subscribers, revenues of service providers and coverage of telecom services whereas on the other hand telecom equipment manufacturing has not grown on similar pace. In fact, most of the demand for telecom equipment has been met through imports. Further, Government of India has an ambitious target to provide broadband connectivity to all the villages of the country.

The Government, over the years, have taken several measures to promote manufacturing of local electronic items, boost self-reliance and create jobs. Some of the schemes provided by the Government to promote manufacturing of local electronic items are tabulated below:

Sl. No.	Scheme	Salient Point
1.	Modified Special Incentive Package Scheme (MSIPS)	Provides capital expenditure subsidy of 20-25%.
2.	Duty Differentials- Tax and Tariff concessions	To provide protection against imported products, special differential excise duty regime for mobile handsets, customer premise equipment, tablets etc.
3.	Preferential Market Access (PMA)	Applicable to central government and ministries, under this scheme, 9 generic products and 23 Telecom products have been identified for PMA.
4.	Merchandise Exports from India Scheme (MEIS) & Service Exports from India Scheme (SEIS)	Export benefit of 2% under MEIS and SEIS has been provided to certain IT goods in the Foreign Trade Policy, 2015-19.
5.	Electronic Manufacturing Cluster Scheme	Provides 50% of the cost of upgrading infrastructure and logistics as grant in aid from Government.

However, R&D has not been a focus as the schemes and policies announced in recent past have been focused towards manufacturing and assembly in India. Indian local telecom manufacturing industry over the past has not been growing at a pace required to support the service providers as well as the consumers in spite of several initiatives taken by both the government and the industry. There have been considerable developments in the technology and exponential growth

in the subscriber base. India is poised to be the world leader in the adoption of Artificial Intelligence (AI), Internet of Things (IoT), 4G, 5G, and Big Data Analytics. Most of the future technologies would also ride on the telecom networks hence rapid adoption and deployment of these technologies would require a robust local telecom manufacturing support to reap the benefits of early mover.

As per Union Budget 2022-23 announcement, 5% of annual collections from the Universal Service Obligation Fund are to be allocated towards promotion of R&D and commercialisation of technologies & solutions to enable affordable broadband & mobile service proliferation in rural & remote areas.

- 2. R&D & Commercialisation of Technologies & Solutions Policy:** The R&D effort of using the proposed fund should have emphasis on technology development which shall ultimately lead to commercialisation. It should follow an industry-lead approach rather than emphasis on only academia. This process will help to respond to local design and intellectual property (IP) creation and lead to more design-led manufacturing in the country in the areas of broadband, 4G, 5G, 5G advanced & 6G etc. in addition to advanced optical communications.

The objective of USOF has always been to support only domestic design and development of products; therefore, following needs to be ensured for the purpose:

- a. Only Ministry of Corporate Affairs (MCA) registered companies whose global headquarters are in India and are under Indian control shall be eligible to apply for this R&D fund.
 - b. Like PLI scheme, share holding pattern is also important; the applicant must have more than 50% share-holding with an Indian entity.
 - c. Startups, who can bring out the best innovations in specific technology areas and whose products can be successfully commercialised, also need to be encouraged and supported.
 - d. The applicant can form a consortium with other Indian companies or with HEIs (Higher Educational Institutions) or any other Indian Govt. entities (PSU, Govt Labs etc.) depending on their requirements.
 - e. The due emphasis needs to be given on commercialisation of the product/ equipment rather than a purely academic exercise.
- 3. Telecom Product Focus Areas:** The USOF R&D should support indigenous product development in latest telecom technology areas that have high strategic/ security implications, and have the highest commercial impact, with the aim of achieving larger trade surplus, and will support enable affordable broadband & mobile service proliferation in rural & remote areas. It is recommended to have a focused approach, rather than spread the resources across too many areas. The following may be the focus area for USOF R&D fund:
- a. Optical Transmission
 - i. Dense Wavelength Division Multiplexing (DWDM), Optical Transport Network (OTN)
 - ii. Packet Transport

- b. Fibre Access FTTX - (GPON, XGS-PON, NG-PON2)
 - i. OLT
 - ii. ONT
- c. 4G/5G- LTE
 - i. 4G and 5G Radio Access Network (RAN)
 - ii. 4G and 5G Core
- d. Ethernet Switches
- e. Routers
- f. High-capacity radios (Millimeter wave)

However, the utilisation of the fund shall be as ‘inclusive’ as possible because each telecom product category directly or indirectly helps in meeting the objectives of extending affordable telecom services in rural India.

4. Mode of Operation of the R&D Fund:

USOF R&D Fund shall seek to leverage and amplify private sector investments by adopting a 1:1 Matching Grant model. Therefore, USOF R&D Fund shall reimburse up to 50% of the approved project expenses incurred by the awardee which will include expenditure related to manpower salaries, purchase of test equipment and software tools, prototype creation, testing and certification, production of demonstration units for field trials and copyrights, IPRs & Patents costs.

5. Disbursement & Monitoring of the R&D Fund:

USOF R&D Fund should be ideally run in a ‘mission mode’ with an independently empowered Board.

a. Constitution of Board: The Board for USOF R&D Fund may have two tiers as under:

- i. **Tier-I USOF R&D Fund Board:** Tier-1 Board may be chaired by Secretary (Telecom) and may comprise members of HAG/ Additional Secretary level officers from Telecom Engineering Centre, Department of Telecommunications (DoT), National Security Advisor, Ministry of Electronics & Information Technology, Department of Science & Technology, NITI Ayog and Financial Institutions. The Tier-1 Board shall have following functions:
 - To consider and approve the R&D proposals of value of ₹ 25 Crores and above.
 - To ratify the approvals accorded by the Tier-2 Board.
 - To monitor the progress of the R&D grants approved by Tier-1 Board and oversee the progress of the proposals approved by the Tier-2 R&D Board.
 - The Board shall also devise various methods and extent of funding in telecom R&D.

The Secretary to the Tier-1 Board shall be Chairperson of the Tier-2 Board

- ii. **Tier-2 USOF R&D Fund Board:** Tier-2 Board may be chaired by Advisor (Technology), Telecom Commission, and may comprise members of Additional Secretary/ SAG level

officers from Telecom Engineering Centre, Department of Telecommunications (DoT), National Security Advisor, Ministry of Electronics & Information Technology, Department of Science & Technology, NITI Ayog and Financial Institutions.

The Tier-2 Board shall have following functions:

- To examine and recommend the R&D proposals of value ₹ 25 Crores and above to Tier-1 USOF R&D Fund Board.
- To consider and approve the R&D proposals of value up to ₹ 25 Crores.
- To monitor the progress of the R&D grants approved by Tier-2 R&D Board and Tier-1 R&D Board and submit the periodic reports to the Tier-1 R&D Board.
- To submit the periodic progress of the R&D projects to Tier-1 Board for which approval was accorded by the Tier-2 Board.

The Secretary to the Tier-2 Board shall be the SAG level officer who shall head the USOF R&D Fund secretariate.

- iii. R&D Fund Secretariate:** The USOF R&D Fund secretariate shall be headed by a DDG/ JS level officer who shall be assisted by Directors. The individual Director/ JAG level officer shall be In-charge of concerned R&D projects.
- b. Expert Panel:** A panel of suitable technical and finance experts from Indian industry, TEPC, financial institutions and academia may assist the Tier-2 USOF R&D Fund Board for evaluation of USOF R&D Fund proposals for both the R&D Fund Boards i.e. Tier-1 &2 Boards.
- c. Project Monitoring Mechanism:** An independent Project Monitoring Agency (PMA) may also be appointed, for each project, which will have one representative of the Board and other technical and financial experts from industry, technical departments etc.
- d. Other Terms of Operation of R&D Fund:** USOF R&D Fund shall address limitations of existing government R&D funding schemes to maximise effectiveness and impact of fund deployment. Therefore,
 - i.** The funds shall cover manpower costs (salary, travel etc.) since these contribute to a majority of costs in today's commercialisation efforts in the telecom sector. The R&D expenses shall be capitalised as per Indian Accounting Standards.
 - ii.** Go/ No-Go decisions shall be communicated to applicants in a reasonable period of time (say 30 days, since telecom sector is a fast-developing field and new product development cycles are continuously shrinking and are often less than twelve months).
 - iii.** Fund for the approved product/ project shall be disbursed in a time-bound manner and shall be linked to specific project milestones such as conceptualisation, prototype development,

simulation testing, interoperability testing, field testing, registering copyrights, IPRs & Patents and finally the commercialisation.

6. Protection of Intellectual Property Rights and Participation in Global Standardisation bodies:

All IPR created as part of the USOF R&D Fund project has to be registered at the Indian Patent Office and should be owned by the awardee.

- a.** All R&D funded by USOF R&D Fund shall be done in India enable significant job creation in the field of Telecom R&D.
- b.** Since any new telecom product development may require access to background IPR, Government of India must support to secure such background IPR for the Indian industry on Fair, Reasonable and Non-Discriminatory (FRAND) license terms.
- c.** Indian government may also provide patents and licenses for new products and services to private firms, assuring them the substantial profits for the development of their own products. Increasing such funding is likely to yield more expeditious results through faster productivity, growth, and innovation.
- d.** Adequate resources shall also be dedicated for India's participation in global standards bodies such as ITU, 3GPP, IEEE etc. so that country is able to drive future standards that have relevance for India, rather than being a follower.

7. Accelerating Market Adoption in India (Preference to Make in India):

The industry led by homegrown telecom equipment makers have been seeking incentives to facilitate local R&D to undertake design-led manufacturing, enabling them to become competitive worldwide. The new initiatives taken by Govt are great steps towards creating indigenous products, however, the important aspect of the value chain is market access. The USOF R&D fund may be used to develop certain customised products in commensurate to requirements and needs of Indian rural environment. These commercialised products may be implemented in Block/ Gram Panchayat/ Village connectivity under Public Private Partnership (PPP) or any other future USOF projects to provide broadband connectivity in line with USOF mission.

In addition to R&D Fund, a portion of the USOF R&D Fund may also be allocated for 'anchor' or pilot deployments to overcome the entry barrier faced by Indian telecom product companies developing innovative products. Hence, the products that are created from the USOF R&D Fund may be given preference for procurement for Defense, Railways, Power and all other Public Procurement Preference to Make-in-India programmes. Restrictive tender eligibility conditions such as multiple bidder requirements may not be applied for procuring telecom products commercialised using USOF R&D Fund. Private telecom operators buying USOF R&D funded products may be given buyers incentives, as recommended by TEPC and also by Telecom Regulatory Authority of India (TRAI).

8. Export Promotion for the Awardees of R&D Fund:

Government of India shall actively promote export of USOF R&D funded products as part of its G2G grant-in-aid and line-of-credit schemes. A dedicated export promotion effort should be set up to support USOF R&D FUND awardees in their international branding and market development activities such as participating in global trade shows (both physical and virtual), market research and business development.

The question-wise inputs/ comments on Consultation Paper Titled ‘Promoting Networking & Telecom Equipment Manufacturing’

Question No.	Question Description	Input/ Comments
Q1.	Is the PLI scheme in its current form effective enough to address the needs of promoting NATEM in India? Are any amendments or extensions required to the current PLI scheme to make it more effective? Please provide details.	<p>a. The existing production linked incentives scheme, with an outlay of Rs. 12,195 crore (US\$ 1.65 billion) for a period of five years until FY2026, envisages a financial incentive to boost domestic manufacturing and attract investments in the target segments of telecom and networking products in order to encourage ‘Make in India’ and expected to boost export of made in India telecom and networking products. It aims to form global champions in the Indian telecom sector that can potentially scale up by leveraging cutting-edge technologies and penetrate the global value chain.</p> <p>b. PLI stipulates incentive to foreign designed products for manufacturing in India may upset the applecart, especially if the incentives are given in sectors where domestic products are available as big companies who already enjoy economies of scale and price advantage may become even more price economic eradicating the domestic players. It will act as double-edged sword that needs careful handling. It is also to be mentioned that export of the respective products is also not a pre-requisite for disbursement of incentive. Global players have global supply chains and experience has shown that they have not shifted the supply chains to India at all.</p> <p>c. Further, the focus of PLI Scheme is on the manufacturing based on assembly, as its qualifying threshold parameters are investment and net sales, rather than on design-based manufacturing. For telecom sector manufacturing, for any scheme to contribute to the school of thought of ‘Make-in-India’, ‘Made-in-India’ and ‘Local-for-Global’, it is to be considered that assembly or Electronics Manufacturing Services (EMS) is not ‘make in India’ rather a tool to camouflage the Govt. plans for local manufacturing, traders, importers, Global Consultants represented by pseudo-Indians always give recommendations to counter local manufacturing. The telecom networks, whether owned privately or by Government, are matter of National security and strategic importance and local equipment needs to be mandated for all, Adoption of policies suggested by importers lobby has resulted in closing of several local manufacturing units in India in the past, the indigenous technology developed by C-DOT/ IITs/Local companies failed due to absence of market access within India (it is evident as before entry of private operators, there were several Indian companies manufacturing landline equipment which had to close their plants/ operation later.</p>

Question No.	Question Description	Input/ Comments
		<p>d. The existing PLI scheme for telecom and networking products may be strengthened through the following amendments:</p> <ul style="list-style-type: none"> i. The Government of India is now focused on ‘Design led manufacturing’, there shall be additional benefits for the companies involved in design led manufacturing, who are engaged in design & development of target products in their DSIR/ DoT recognised R&D centre. In order to be more focused on creation of domestic designs, it is important that Capital expenditure on R&D Manpower shall be dealt in accordance with Indian Accounting standards. Non-tangible capital expenditure should be considered as part of R&D expenditure. ii. Further, no capping on R&D expenditure shall be imposed. There shall be no distinction or cap between capital investments in R&D versus that in plant and machinery as design led manufacturing needs more research & development and the expenditure on manpower will be much higher compared to mere assembly-based manufacturing. iii. The PLI scheme is expected to reduce large import of telecom equipment and substitute it with made-in-India products. However, the scheme is silent on local content value addition. Technically, the beneficiary can import 100% of the contents, assemble the same and qualify for PLI. It is suggested that condition about the local content shall be appropriately stipulated in the PLI Scheme. iv. Therefore, additional incentives 1%, 2%, 3% & 4% may be given to the companies who achieve higher local content of more than 40%, 50%, 55% and 60% respectively which shall be paid from R&D cess proposed in answer to Q 12 (@ 5% of AGR). The scheme shall provide higher incentives of 9% if the entire design as well as manufacturing, for that product, is being done in India and the IPR is owned by the Indian company. The stipulation will ensure gradual reduction in import burden and reduce the trade deficit. v. The initiative recommended by TRAI, vide Para-2.13 of the Consultation Paper, will certainly pave the way for indigenously designed, developed and manufactured telecom equipment. vi. There is need for MSME financing without linkage to production which shall be included in the proposed design led PLI or R&D incentives scheme. Further, the policy needs to be designed to take care of the needs of small start-ups looking for seed funding, companies who are in the expansion stage and also companies in R&D space. vii. As mentioned in Para-2.15 of Consultation Paper of TRAI, software is an integral part of any telecom equipment and cannot be ignored. The gazette notification, dated August 29,

Question No.	Question Description	Input/ Comments
		2018 issued by Department of Telecommunications also stipulate that the Intellectual Property Right (IPR) resides in India for Hardware Design and the Copyright is in India for the software Design & Development. Therefore, PLI for design led manufacturing shall stipulate the IPR and copyright, of hardware and software respectively, shall reside in India
Q2.	Whether going beyond PLI scheme, a range of financial and fiscal incentives needs to be put in place to promote NATEM in India? Please elaborate your response.	<p>a. The impact of the PLI scheme in promoting NATEM in India may further be enhanced by introducing the following financial incentives:</p> <ul style="list-style-type: none"> i. Product Design Incentive: A dedicated R&D corpus may be established in order to accelerate R&D investments in developing indigenous products with Indian R&D, know-how, know-why and IPR. As announced in current year budget, ‘Product Design Incentives’ may be granted on a 1:1 matching basis for R&D investments made by Indian companies for developing any of the core telecom products such as those needed for 5G networks. ii. IPR Incentives: Indian NATEM companies shall be provided special financial support for filing domestic and international patents in the form of reimbursement up to 50% of the costs on filing and maintaining patents. Adequate funds shall be made available for participation in global standards bodies such as ETSI, ITU, 3GPP, IEEE etc. so that India drive future standards. Travel grants may also be given to cover such costs. iii. Prior to 2015, all DSIR certified R&D organisations were given a 200% weighted R&D deduction for tax purposes. Considering the strategic importance of domestic R&D in the telecom sector, the incentive should be reinstated for the next 5 years. iv. The existing indigenous production companies who had invested hefty amount in R&D over the past three-four decades will not get any benefit under new PLI scheme as the basic framework of PLI scheme envisages only incremental investment & incremental Sales. In order to encourage existing domestic companies registered with DSIR and continue investments in R&D, the R&D investment already made for developing the products, i.e. audited R&D investments as declared to DSIR, may be considered as the investment threshold. Only incremental sales portion may be the criteria for those companies, e.g. the investment in R&D of 4G/LTE which are part of R&D projects declared to DSIR, may be considered as PLI investment for 4G/LTE and only incremental sales requirements need to be complied by such companies. v. PLI scheme shall be coupled with the motivation to build domestic downstream industry, which can be triggered by stringent implementation of Public Procurement (Preference to

Question No.	Question Description	Input/ Comments
		<p>Make In India) policy (PPP-MII policy) to give boost to purchase from domestic manufacturers meeting $\geq 50\%$ domestic value addition. The policy must be strictly enforced and required percentage of domestic value addition for availing preference in public procurement shall increase every year at a steady pace. The same coupled with PLI scheme, that motivates large scale manufacture, will do the requisite correction. While PLI will motivate more and more manufacturing but to get the requisite market pull from PPP-MII order, manufacturers will be forced to consistently increase Domestic Value Addition (DVA) which in turn will ensure down-stream industry development. The aforesaid two policies running concurrently have both ingredients that will act as a carrot and stick.</p>
<p>Q3.</p>	<p>Does the Electronic Development Fund (EDF) meet the requirements of promoting NATEM in India? What are the limitations in EDF for the NATEM sector and how can its scope be enhanced?</p>	<p>TRAI has rightly observed and comprehended the following:</p> <ul style="list-style-type: none"> a. The Electronic Development Fund (EDF) does not have exclusive focus for the Telecom Sector and is not sufficient to take care of the need of venture funding required for promoting NATEM in India. b. As 5G and futuristic technology infrastructure is going to be largely software driven, a separate fund for development of telecom related software shall be conceptualised for the overall growth of the telecom & networking product ecosystem. c. Startups, for NATEM, require favourable policies to meet their cost disabilities. An important impediment encountered, by Startups, is commercialisation of the products i.e. getting orders and access to market. It may be appreciated that marketing is an issue even for various technologies developed by C-DoT. d. difficulty of ‘Access to Trial’ is faced by the Startups. This issue is faced not only by Startups but also by all local manufacturers. Non-availability of spectrum for trials worsens the situation. Telecom operators expect carrier grade products for their operational network and thus Startups are unable to get opportunity for their unproven products. BSNL also feels threatened and objects to conducting trials. It is suggested that the scheme be made, which envisages certain incentive/ grants coupled with mandate to TSP for accepting trials of the products. BSNL/ TSPs can also be asked to identify and earmark some low usages networks for trials. e. Grand challenge scheme of Ministry of Electronics and Information Technology (MeitY) may include some grant or incentive, but as discussed above, the issue is access to trial and access to marketing.

Question No.	Question Description	Input/ Comments
		<p>It is pertinent to mention that MeitY initiated a challenge for Video Surveillance and company won the prize. Yet for procurement by NIC (A body of MeitY), a Notification was issued that Make in India does not apply for VSS/ CCTV products. Thus, a situation exists, where MeitY awarded a prize to domestic Company on one hand but the concerned product was denied access to procurement by its own body NIC. Likewise, DOT's own USOF follows the route of telecom operators/ CSC for procurement, both of which don't follow PPP-MII orders in letter and spirit, even though a clause is included in the tender document. In addition, DoT's own technical wing (TEC) issued specifications are also not followed in letter and spirit and non-TEC specifications are notified, which denies access to market to TEC approved domestic manufacturers.</p> <p>Most of the domestic companies are afraid of entering into basic research & development of new technologies because of lack of framework for successful commercialisation of the outcome product. In order to build confidence to these companies, a portion of all procurements in Government funded projects, shall be reserved for those companies/ products, which are involved in DSIR/ DoT recognised R&D of such products.</p> <p>In view of above, following is recommended:</p> <ul style="list-style-type: none"> i. In addition to the 5% of annual collections from the Universal Service Obligation Fund to be allocated towards promotion of R&D and commercialisation of technologies & solutions to enable affordable broadband & mobile service proliferation in rural & remote areas, a specialised telecom R&D corpus may be carved out of EDF to promote NATEM in India. ii. Besides supporting R&D activities, there shall also be a Sovereign Patent Fund (SPF) similar to countries like South Korea, France, Japan and China which shall be used to negotiate licenses for essential/ background patents/ IPRs from global players for 5G and 6G technologies on FRANDS terms. SPF can also be used to reimburse 50% of patent filing costs by Indian NATEM companies. iii. In case the sufficient competition and capacity, of Local suppliers doesn't exists, Education orders shall be placed on local suppliers, to the extent of 20% of the total value of the tender. Placement of such educational orders will develop the local vendors and will help in curtailing the imports. It is pertinent to mention that earlier the Government was placing Educational Orders to develop local capacity & capability in manufacturing of the telecom products. However, the present trend is placing EPC orders; almost in all the EPC orders, the value of bought-out products is less than 50% of the project cost e.g. in telecom cable

Question No.	Question Description	Input/ Comments
		<p>project the technology and the value lies majorly in the installation. Therefore, it is recommended that the educational orders, to the domestic telecom companies, shall now be placed for execution of the EPC projects.</p> <p>iv. There are several schemes by other departments, however, it is required to focus on telecom need, even different than electronics and IT. This is due to the fact the other schemes/ departments have open market for the products dealt, whereas in telecom sector, the market is limited to licensed operators. It is recommended that a scheme on the pattern of Ignition grant with committed access to market may be launched.</p> <p>v. An appropriate policy framework is required to not only award the ‘challenge’ but also allow them and other domestic manufacturers access to market, as was done in the case of BSNL 4G.</p>
Q4.	<p>Is there a need for creation of separate funds on lines of EDF or those earlier recommended by T RAI (like TEPF and TMPF) for promoting NATEM in India? What institutional mechanisms should be put in place to govern the fund(s)? Give justification and elaborate on its possible impact on the sector.</p>	<p>The recommendations of TRAI, on 12.4.2011, rightly comprehended and recommended as under:</p> <p>a. The Recommendations strongly focused on creation of funds to cater to the requirement of local players and upcoming entrepreneurs. TRAI stated that ‘TRDC should set up Telecom Research and Development Fund (TRDF) with a corpus of Rs 10,000 crore which should be invested in secure deposits and bonds and the interest accruals should be used for financing R&D projects.’ The Recommendations cited the need to create a formation of a Telecom Research and Development Corporation (TRDC) and Telecom Manufacturing Fund (TMF) for providing venture capital to indigenous manufacturing.</p> <p>b. The Authority has also recommended identification of ten telecom manufacturing clusters to promote the TEM and stated that ‘A Telecom Research and Development Park should be established with the purpose of facilitating research, innovation, IPR creation and commercialisation for fast and sustainable growth of the telecom industry.</p> <p>c. Recommended the Telecom Entrepreneurial Promotion Fund (TEPF) and Telecom Manufacturing Promotion Fund (TMPF) so that issues relating to private sector participation in the manufacturing and market access for indigenous telecom equipment can be addressed effectively.</p> <p>As envisaged by TRAI, for promoting research, innovation, standardisation, design, testing, certification and manufacturing of indigenous NATE for 5G and subsequent generation technologies like 6G, broadcasting sector equipment in light of convergence, setting of dedicated funds either similar to EDF or in line with the ones earlier recommended by Authority (Telecom Entrepreneurial Promotion Fund and Telecom Manufacturing Promotion Fund) may be required.</p>

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		<p>In view of above following is recommended:</p> <ul style="list-style-type: none"> i. In order to maximumise return from Government investments, a 1:1 matching grant model shall be adopted. For implementation of the same, the telecom R&D fund may be established which ensures that up to 50% of eligible project expenses are borne by the awardee. ii. Eligible R&D expenses shall include expenditure related to manpower salaries, test equipment and software tools, prototype creation, testing & certification and demo units for field trials which are capitalised as per Indian accounting standards. iii. All Go/ No-Go decisions shall be communicated to applicants in a reasonable period of time (30-60 days). iv. The fund, for approved product/ project, shall be disbursed in a time-bound manner and shall be linked to specific project milestones. v. As Government of India's leading telecom organisation, Telecommunications Engineering Centre (TEC) shall be the nodal agency managing such telecom R&D fund.
Q5.	<p>What additional measures are suggested for promoting and supporting the Startups ecosystem in the telecom sector in India.</p>	<p>In telecom sector, there are three types of products as under:</p> <ul style="list-style-type: none"> a. Software based applications: The investment needed for such products ranges from one lakh to few crores. b. Software based products using COTS IT equipment like 4G & 5 G core: The investment needed for such items is in the range of tens of crores and the development time is 2-3 years. c. Hardware based products like eNodeB for 4G & NR for 5G: The investment needed ranges from Hundreds of crores and the minimum development period is 4-5 Years. <p>As far as start-up companies are constrained in respect of initial investment for product development, especially those incubations in the IITs & IIMs. Only after successful commercialisation of products, the investors are attracted towards the same. Therefore, the financial support is needed, for the Startups, to proceed in the field of R&D in telecom sector. The major issue, in the development of the telecom products, is commercialisation of the products even after successful development. The year 2007 onwards, TSP were supposed to promote products, applications of Indian Startups & for the purpose each TSP got associated with one of the premier IIT of India. Seven Telecom Centro of Excellence (TCOEs) were established each comprising of one IIT & one TSP. It is pertinent to mention that aforesaid TCOEs developed about thirty products, however, none of the product was inducted by any TSP in their network. Therefore, mechanism for commercialisation of the developed telecom products needs to be in place else the same will result in wastage of efforts and national resources.</p>

Question No.	Question Description	Input/ Comments
		<p>Startups have two challenges i.e. Startups have ideas but need funding and secondly, once the product is designed & developed, market pull is needed. To resolve the aforesaid issues and taking other measures, following is recommended:</p> <ul style="list-style-type: none"> <li data-bbox="800 321 2045 651">i. Presently, there are several funding agencies such as DOT, MietY, DST approving similar projects concurrently and very often to the same institutions. Funds are largely allocated to Academia and more often to the same group by multiple funding agencies. Involvement of Startups and Industry will ensure automatic correction. Only commercially viable projects will be approved and there would be interest in product commercialisation. This will ensure that funds are released only to such academia who deliver the milestones and commitments to Industry. Academia shall get promotions and growth based on commercial success of product deliverables (except for earmarked blue sky or strategic sector research programmes). Therefore, for resolving the first issue, all grants (except for blue sky research) shall be disbursed through industry out of which 30% shall be earmarked for Startups. Presently, most of the grants are given only to academic institutions or Government laboratories. Industry/ Startups shall, in-turn shall disburse funds to academic institutions based on who will deliver as per the milestones and deliverables. Industry may be mandated to invest 25% of the project cost. As a result, Startups will get 100% fiscal support out of which their risk will be limited to only 25%. Using the approach, the Startups will get technology and manpower support from the academia. <li data-bbox="800 943 2045 1344">ii. The second problem of market pull for the products which can be addressed by strong focus on implementation of PPP-MII order in the desired spirit. To site an example, ‘Video Conferencing solutions’ were developed in India. C-Dot has developed excellent product, MietY had launched a hackathon and award of ₹ 1 Crore was given to Startup who delivered the products and received award. Many other companies developed such solutions yet Government largely uses foreign Video conferencing solutions. MeitY, the ministry who gave the awards to winners of Video Conferencing equipment has on the other side asked DPIIT to allow purchase of imported Video conference solutions which is contrary to the objective of promoting domestic manufactured products of Startups and new entrepreneurs. Such erratic response from different arms of the government will kill the spirit of all Startups so sensitivity towards implementation of PPP-MII is key to the success of Startups. <li data-bbox="800 1349 2045 1414">iii. To create exclusive Space for development & nurture the domestic solutions, where infrastructure or resources are extended only to domestic designs e.g.

Question No.	Question Description	Input/ Comments
		<p>earmarking separate chunk of GSM band spectrum for deployment of private networks based on domestic technologies, will create an exclusive space for domestic players. Similarly, exclusive space for domestic players for Drone technologies needs to be created. Such steps may look marginal but will provide an elbow space for domestic companies to flourish without the threat of being torpedoed by large MNC giants who have global muscle.</p>
<p>Q6a.</p>	<p>Which of the financial instruments related to project financing, contract financing and credit default insurance currently available in India are being used by the stakeholders and to what extent?</p>	<p>TRAI, vide recommendations during the year 2011 & 2018, nicely comprehended and recommended as under:</p> <p>a. DoT should coordinate with Ministry of Finance for making available the following financing options, in line with the practices followed by other export-oriented economies, to indigenous telecom equipment manufacturers: (i) Venture capital in the form of equity and soft loans. (ii) Project finance. (iii) Contract financing options and (iv) Credit default insurance.’</p> <p>b. In 2011 Recommendations, TRAI mentioned various financing options to equipment manufacturers such as:</p> <ul style="list-style-type: none"> • All domestic telecom equipment manufacturers producing Indian Products or Indian manufactured products and having an annual turnover of less than Rs 1000 crore, should get access to debt finance for capital and working capital for a period of 5 years on subsidized terms. The extent of subsidy will be 6% for the Indian Product Manufacturers and 3% for producers of Indian Manufactured Products. The Government should formulate a subsidy scheme for the purpose and the subsidy grants can be channelised for disbursement directly to the lending banks. • To create a Telecom Manufacturing Fund (TMF) for providing venture capital to indigenous manufacturing in the form of equity and soft loans for supporting pre and post commercialisation of product development and brand creation. The TMF would be managed by a corporate body and headed by a person of eminence in the field of banking/venture capital finance. <p>c. Further in 2018 recommendations, the TRAI stated for creation of Telecom Research and Development Fund (TRDF) with initial corpus of Rs. 1000 Crore. Subsequently, setting up of Telecom Entrepreneurial Promotion Fund and Telecom Manufacturing Promotion Fund was also suggested.</p> <p>Apart from above, following is recommended in the matter:</p> <p>i. The foreign manufacturers get credit facility in their own country, which is in-turn extended to Indian TSPs i.e. foreign manufactures offers equipment to Indian TSPs on credit basis</p>

Question No.	Question Description	Input/ Comments
		<p>wherein Indian TSP need not to approach the concerned foreign credit agency, whereas in the absence of such facility in India the Indian manufacturers expect TSPs to either pay the requisite amounts or has to arrange credit at their level. Therefore, it is imperative to extend such banking credit facility to Telecom manufacturers to enable them to supply equipment on credit basis to Telecom operators.</p> <p>ii. The new policies and insurance schemes have their own limitations and associated costs. Commercial Banks could introduce such mechanisms to extend 5 to 6% of interest subvention in select sectors. It is recommended to promote EXIM bank to finance some of the mission critical projects of national importance at same LoC terms & conditions including the interest rates. It is also recommended to categorise some of such important projects as deemed export as well to provide incentives to support NATEM.</p>
Q6b.	Are these financing instruments able to cater to the needs of NATEM in India?	Same as inputs/ comments against Q6a.
Q6c.	Are there any suggestions to further improve these financial instruments or are there any new proposed financial instruments that can cater to the needs of NATEM in India? Please provide full details along with justification.	<p>Following are recommended to further improve these financial instruments:</p> <p>i. New policies and insurance schemes have their own limitations and associated costs. Organisations like Small Industrial Development Bank of India (SIDBI) doesn't fund capital required for purchase of technology, software or services since these are non-tangible assets but are very critical for NATEM. Further, SIDBI funds only 50% of the CAPEX on Dies and Tools which is bare essential to start manufacturing products in India. SIDBI policies are very conservative in many other ways. Commercial banks have the right mix of ingredients and cover their risks by taking collaterals from promoters which genuine entrepreneurs can always arrange for their needs. Ideal and simple mechanisms is if these banks could be extended 5 to 6% of interest subvention in telecom sector.</p>
Q7.	Whether the existing schemes relating on CAPEX and interest subvention are meeting the requirement of finance for NATEM in India.? Suggest modifications/ new schemes needed if any with details.	Same as the inputs/ comments against Q6.

Question No.	Question Description	Input/ Comments
Q8.	Whether the existing financial assistance for MSMEs that are into NATEM are sufficiently catering to their requirement or a separate dedicated scheme is required for the sector? Please provide a detailed response along with suggested schemes, if any.	<p>Present MSME support requires modifications. Over enthusiasm in extending support to MSME may end up allocating Indian resources that may help promote interest of MNCs while resources under the scheme were intended to help domestic manufacturing MSME units in India. Some of the schemes are counterproductive the way the same are presently implemented. Schemes extend concessional credit to MSME, Exemption from payment of EMD, Bank guarantees and price preference to MSME, unmindful of the fact that MSME may be promoting an MNC product thereby Indian resources may be utilised for supporting business of MNC products indirectly. It is common knowledge that CISCO, DELL, HP don't take projects in their own name and most of large MNC companies sell products through Indian distributors or System Integrators (SIs) who are technically MSME. All Chinese products like cameras, phones, switches are sold by MSME traders or SI. As a result, the Government budget, meant to support domestic MSME manufacturers, ends up helping MNCs in marketing their product in India. Since bulk of NATEM products are imported and sold through distributors of MNCs, at a macro-economic level, country spends more of our resources in helping our competitors. These policies need deep diving and course correction rather than making new policies.</p> <p>Most of the mentioned schemes are general and meant for all the sectors. Telecom needs are specific as procurement is generally by licensed operators and products needs certification and approvals as well as MSME are required to compete with foreign large MNCs as also have to get support of System Integrators. Therefore, following is recommended:</p> <ul style="list-style-type: none"> i. Special provisions are needed for telecom sector, as already explained, whereby procurement officer/ TSPs asks SI to give committed preference to MSME products. ii. In the Emergency Credit Line Guarantee Scheme 2.0 & 3.0 (ECLGS-2.0 & 3.0), announced for twenty-six sectors, the telecom sector has not been included. There is need to ensure that telecom sector is included in ECLGS 2.0 & 3.0 & various other relief schemes announced by Govt as also in above scheme. iii. For MSME, biggest problem is market access hence most important is to create demand for their products wherein strict implementation of PPP-MII order in the desired spirit is the key. Each violation of PPP-MII order must be taken to a logical conclusion and not closed by merely forwarding the grievances to the buyer organisation responsible for policy circumvention. In the process, the seller (domestic industry) is victimised by the buyer organisation and buyer department invariably closes the complaint giving some fuzzy logic

Question No.	Question Description	Input/ Comments
		or by making some commitments regarding setting up a committee that never happens. Innumerable such cases are brought to the notice of DPIIT.
Q9.	Whether any cost disadvantage is experienced by domestic NATE manufacturers as compared to global counterparts due to various limitations discussed above? If yes, what is percentage cost disadvantage to domestic NATE manufacturers vis-a-vis other country? The details of calculations and methodology adopted for the same may be provided.	The disadvantages have been adequately covered in the TRAI consultation paper. Indian industry suffers cost disadvantage on account of various factors stated in the paper, largest of which is interest cost. In India, the interest cost is higher by about 5% compared to international standards. Total Indian handicap is around 7% which needs to be compensated especially for exports. Independent studies by E&Y have clearly established that Indian companies making generic NATE equipment face up to 26% fiscal disability compared to their global peers in high value-added telecom manufacturing. Further, the disability rises to 29% for those product categories where buyer's credit is available on imports for a long- time period.
Q10.	Whether schemes allowing tax holidays/ deferment of tax are available for NATE manufacturers? If yes, are they meeting the requirement? If no, what modifications are required? justify and provide details.	<p>Following are recommended:</p> <ul style="list-style-type: none"> i. Prior to 2015, all DSIR certified R&D organizations were given a 200% weighted R&D deduction for tax purposes. Considering the strategic importance of domestic R&D in the telecom sector, the incentive shall be reinstated for the next 5 years. ii. The deferred tax is not much useful. iii. For promotion of domestic manufacturing, one of successful example is Automobile sector, where almost every known global Company has established their plant in India for manufacturing and localisation is about 70%. The key reason for the same is that even today import of automobiles attracts Custom duty of 100% for cars costing above Rs 30.00 lacs and 60% for less than that. Localisation policy can be ensured by Custom duty. It is felt that there is need to appreciate the same and also implement for telecom sector.
Q11.	Is the PMA/PMI scheme in its current form comprehensive for promoting NATEM? Are there any suggestions for modifications? How can the challenges associated with implementation of PMA/PMI be addressed? Please elaborate.	<p>Following are the observations and recommendations:</p> <ul style="list-style-type: none"> a. Comprehensive PPP-MII policy, designed to extend preference to domestic manufacturers in public procurement can revive domestic manufacturing. Notwithstanding that, most of the time there is policy evasion by big buyers like NBCC, CPWD, Railways, Dedicated Freight corridors, ONGC, Defence, Purchases by NIC NIXI STPI under Ministry of Electronics and in the projects funded under USOF. Large projects, like Central Vista Project (Central Secretariat redevelopment project), have been circumventing the policy on the ground that policy is not implementable in Turnkey

Question No.	Question Description	Input/ Comments
		<p>projects. There is a need to bring about clarity on methodology of policy implementation in turnkey projects.</p> <p>b. Multiple grievances have been submitted by the telecom manufacturers to DPIIT as well as DoT, yet issues remain largely unaddressed. In tenders floated by the USOF during last five years, though applicability of PMI policy has been mentioned, however, not implemented for all the items e.g., clause-9 of PMI notification, dated August 29, 2018 stipulates that each of the products shall comply with the latest TEC GR /IR if such GR/IR have been issued. Notwithstanding that in any of such projects, except for tower which is a passive element, no active equipment was stipulated to comply with TEC GRs. Therefore, PPP-MII framework, notified by DPIIT and in-turn notified by the DoT for the telecom products, will be effective only if the same is implemented in the letter and spirit.</p> <p>c. Department should declare appropriate telecom products as ‘security sensitive’ and their purchase shall be governed as specified in the cybersecurity policy of MeitY, i.e., such security sensitive products shall be procured only from Indian technology owners where IPR, Technology, Design shall reside in India.</p> <p>d. Only creation of a domestic manufacturing industry in India is not sufficient, the manufacturers need not only a sustainable but also consistent market to remain relevant.</p> <p>e. Hon’ble Prime Minister announced his vision of ‘Local for Global’ and has laid lot of emphasis on export of various commodities/ products from India. Consequently, an ambitious export target of US\$ 400 billion was fixed for the financial year 2021-22 which has now been increased further to US\$ 476.5 billion for the current financial year 2022-23. However, the price of any commodity plays an important role in any market place be it international or domestic; the competitiveness of price depends on the economies of scale, as a result, the export of telecom products cannot be seen in isolation as economies of scale cannot be achieved without the domestic consumption of the products.</p> <p>The major share of wireless subscribers, i.e., 89.99% of the total number of subscribers, are served by the private telecom service providers leaving only 10.01% of subscribers who are served by PSU telecom service providers. The PSU service providers, with the market share of 54.93%, dominate the wire-line subscriber market but their wire-line subscriber base has depleting trend; therefore, the expansion of their fixed line network is not envisaged except</p>

Question No.	Question Description	Input/ Comments
		<p>for the broadband connections. Therefore, the domestic market for telecom products is dominated by the purchasers who are private service providers.</p> <p>Provisions related to Preferential Market Access, in various policies, licence agreements etc. are as under:</p> <ul style="list-style-type: none"> <li data-bbox="842 370 2045 558">i. Vide Para-2.5b i & ii, National Digital Communications Policy (NDCP) 2018 envisages ‘Ensuring strict compliance to Preferential Market Access requirements by Preferring domestic products and services with domestically owned IPR in the procurement by government agencies, especially for the procurement of security related products and incentivising private operators to buy domestic telecom products. <li data-bbox="842 565 2045 711">ii. Further, the ‘Unified Service License’ conditions stipulate mandating all the Telecom Service Providers, public as well private, to use indigenous telecom equipment. It is mention that the Clause-24.3, Chapter-4, Unified Service License Agreement⁶ stipulates as under: <ul style="list-style-type: none"> <li data-bbox="898 737 2045 850"><i>“24.3 The licensee shall adhere to the prevailing directions/ instructions and shall also abide by further directions / instructions as may be issued by LICENSOR from time to time in respect of</i> <li data-bbox="898 876 2045 915"><i>(a) Preferential Market Access for procurement of indigenous manufactured products,</i> <li data-bbox="898 935 2045 974"><i>(b) Mandatory testing of equipment and</i> <li data-bbox="898 993 2045 1032"><i>(c) Requirements on IPv6 implementation.”</i> <li data-bbox="842 1052 2045 1318">iii. In addition, through recommendations of TRAI issued during the year 2011, it was emphasised that: “Preferential market access should be provided to the domestic manufactured products (comprising both Indian Manufactured Products and Indian Products) in procurement by the Government and Government Licensees (service providers both public and private) subject to the value additions proposed for the corresponding years and Government or Government licensee (service providers- both public and private) were made to be responsible for meeting the market access criterion.”

⁶ https://dot.gov.in/sites/default/files/Unified%20Licence_0.pdf?download=1

Question No.	Question Description	Input/ Comments
		<p>A proposal, dated September 15, 2020 and January 12, 2022, for incentivising the Telecom Service Providers, has been submitted to DoT on the subject (copy enclosed as Annexure-2). However, till now, neither the PPP-MII policy has been mandated for private telecom service providers nor any scheme has been launched for incentivising the telecom service providers for purchasing the indigenous telecom products.</p> <p>f. Now-a-days, many of the GoI projects are implemented through State Governments, therefore, the scope of policy needs to be enlarged to include State Government/ State Public Sector Enterprises (SPSEs) projects and also world bank funded projects / Lines of Credit projects/ Grant-in-Aid projects. Further, as the telecom networks may pose security threat to the country, even if the project is funded by State Governments or using the funds from any of the aforesaid funding organisations, the PPP-MII orders needs to be applicable.</p> <p>g. The Preferential Market Access notification regarding Telecom Products, Services or Works, dated August 29, 2018, issued by Department of Telecommunications stipulates that each identified products, services or works as mentioned therein shall comply with the latest TEC GR/IR, if such GR/IR have been issued. However, PPP-MII/ PMA orders are circumvented by either mentioning specifications other than issued by TEC or by not mentioning that the equipment shall comply to TEC GR/IR.</p> <p>h. Large number of circumventions of PPP-MII orders have been encountered and have been reported to DPIIT, who in-turns refers the case to procurement agency; the procurement agency tries to justify their action on one or other pretext such as urgency or need of a particular predetermined specification etc. The ultimate remedy leads to cancellation of tender, which delays the complete process of procurement and does not serve purpose of Make in India. In the process of the fresh tender, alternatives are adopted to avoid PPP-MII. Therefore, it is needed to punish concerned erring officials & officers whenever the circumvention of PPP-MII orders is established.</p> <p>i. The local product needs to be procured for items notified under Clause 3a; the administrative ministry issues such notification subject to ‘Sufficient local capacity and local competition’. Occasionally, the administrative ministry or procurement officers asks for minimum three to four manufacturers to satisfy the above condition.</p> <p>However, in respect of telecom products, such condition is not in line with the global scenario e.g. barring two Chinese telecom equipment manufacturers namely Huawei & ZTE, globally, there are only two telecom equipment manufacturers Ericsson and Nokia. Only TCS is the 4G</p>

Question No.	Question Description	Input/ Comments
		<p>equipment manufacture in India. For 5G, 6G equipment, India plans to manufacture locally, however, it may be difficult to envisage 3-4 manufacturers for the same. As a result, in respect of telecom sector, such condition needs to be relooked into and needs to be modified/ removed and applied even if there is one local manufacturer.</p> <p>j. Large projects like Central Vista Project (Central Secretariat redevelopment project) have been circumventing the policy on the ground that policy is not implantable in Turnkey projects. There is a need to bring about clarity on methodology of policy implementation in turnkey projects whereas, now-a-days, the telecom items are mostly procured and installed under turnkey contracts/ Engineering, Procurement and Construction (EPC) contracts. The turnkey contracts/ EPC contracts have line items from various sectors out of which the value of the telecom equipment may be normally 10-15% or even less. The notification dated August 29, 2018, issued by Department of Telecommunications stipulates that <i>“It is hereby notified that the procuring entities will procure a minimum percentage as indicated under Preference to Make in India (PMI) of their telecom products, services or works requirements fulfilling Local Content (LC) criterion prescribed against each item”</i>. Therefore, it is required that the procuring agency must specify in its tender and ensure that each item/ equipment being procured for the turnkey/ EPC project, individually meets the respective amount of local content and products must be sourced only from class-1 or class-2 local supplier, as the case may be, based on their availability else the local equipment manufacturer will never get an opportunity to participate in such turnkey projects because the EPC contractor can easily meet the overall domestic content under the contract by showing other expenses while import all the telecom equipment and not using domestic products. In addition, since foreign OEM may give predatory prices to keep out domestic manufacturers, the responsibility to ensure policy compliance shall rest with the procuring agency as well as the System Integrator (SI) or the Consultant.</p> <p>k. Rule-144 (Fundamental principles of public buying (for all procurements including procurement of works) of ‘The General Financial Rules (GFR) 2017’, inter-alia, stipulates as under: The procedure to be followed in making public procurement must conform to the following yardsticks:</p>

Question No.	Question Description	Input/ Comments
		<p>i. The description of the subject matter of procurement to the extent practicable should be objective, functional, generic and measurable and specify technical, qualitative and performance characteristics.</p> <p>ii. not indicate a requirement for a particular trade mark, trade name or brand.</p> <p>Further, the clause-10e of PPP-MII order stipulates that <i>“Specifying foreign certifications/ unreasonable technical specifications/ brands/ models in the bid document is restrictive and discriminatory practice against local suppliers.”</i></p> <p>Notwithstanding that in many of the tender issued by the Public Procurement agencies, the brand/ make, foreign certifications/ unreasonable technical specifications are mentioned which becomes restrictive for the domestic manufactures and results in the circumvention of the GFR and PPP-MII orders.</p> <p>Strict exemplary punishment, in such cases, to the erring official and officers, is needed to avoid consistent circumvention of PPP-MII orders by prescribing foreign certification or specifications.</p> <p>l. It is recommended to enforce fiercely, fearlessly and forcefully the definition of ‘Domestically Manufactured Products’ under PMI/ PMA as per TRAI recommendations on Telecom Equipment Manufacturing Policy that the products have been designed, developed and manufactured in India by an entity duly incorporated in India, IPRs for the products reside in India, commercial value of the IPRs accrue to India and the product meets the minimum value addition criterion prescribed in the policy.</p> <p>m. The argument of Large global players, who are locally manufacturing in India that <i>“the high threshold of value addition criteria adopted in some of the PMA based Request for Proposals (RFPs), acts as a barrier for them. There may be issues and challenges around calculation of local value addition norms and till the time India develops local component manufacturing ecosystem, realization of high value addition may be difficult.”</i>, is not factually correct and tenable. The global players encounter such problem as their IPRs and patents reside outside India due to which lot of amount ciphers out of India reflecting as low local content. On the contrary, Indian manufacturing is design led due which domestic manufacturers don’t confront with any such problem. The basic aim of PPP-MII is to promote localisation.</p> <p>n. There is need to showcase some best practice examples by the administrative departments for their own purchases and purchases by their CPSEs else such circumvention by the nodal</p>

Question No.	Question Description	Input/ Comments
		<p>department/ their CPSEs becomes precedent for other departments to conveniently circumvent PPP-MII orders in their procurement cases.</p> <p>o. The gazette notification on PMI, dated August, 2018 issued by DoT, stipulates that “The local supplier has to manufacture equipment from component level in India and also develop local vendors for procurement of raw materials, components and parts for increasing local content. The Department has identified conditions for the inputs to be qualified as Local Content and maximum ceiling for design as LC out of total LC which are in Table-B and Table-C respectively. The aforesaid stipulation was not included in the DOT order dated August 31, 2021, which has been kept in abeyance. It is recommended that the earlier stipulation shall continue further.</p> <p>p. It is recommended that for the purpose of providing any type of incentive or preferential market access, as recommended by TRAI, the classification of telecom products shall be in the categories of fully finished imported products (This category of products are manufactured by foreign registered companies using hardware designs and software technologies developed outside India and have high level of value addition outside India) and Indigenous products (This category of products are designed and/or manufactured in India by the companies registered in India). Since the ambit of Indigenous products would be large, there would be a need to create more granularities in this classification as Made in India Products i.e. Using designs of foreign registered companies, this category of products is manufactured in India by companies registered in India. Such products have imported sub-systems, which use H/W and S/W technology developed outside India and have very low level of value addition in India and designed in India Products i.e., Products designed by India registered companies but manufactured outside India., Designed and Made in India Products – Products designed and manufactured by the India registered companies in India.</p> <p>q. GeM is an excellent tool for consolidation of domestic market demand and this digital platform can be used to ensure/ monitor proper implementation of policies designed to promote domestic manufactured goods. Large scale policy circumvention is observed but GeM insists on its limitations in ensuring correct declarations made by buyers as well as sellers. Incorrect and unsubstantiated certificates of domestic value addition are put by suppliers and remain unchecked. Similarly, large buyers buy foreign products on GeM by issuing ‘Proprietary certificate’ that defeats the purpose. Grievances are flagged but remain</p>

Question No.	Question Description	Input/ Comments
		<p>unaddressed for various reasons. Our marketplace GeM continues to place imported products on its shelves, in the name of neutral market and under the garb of ‘best price discovery’ unmindful of the larger objective of the Government to promote domestic products. Buyers continue to flout and Department of Expenditure supports circumvention of PPP MII order because they only focus on fast delivery of projects without being concerned about larger objective of building ‘आत्म-निर्भर भारत’. Policy shall be implemented in its right perspective rather than making new or more policies.</p> <ul style="list-style-type: none"> r. Circumvention of PPP MII policy is largely because large buyers tend to interpret various clauses of the policy differently, therefore, for simplification in understanding and ease of implementation, Frequently Asked Questions (FAQs), based on decisions taken by the Standing Committee and various circulars issued by Government/ CAG/ CVC/ PMO/ DPIIT/ administrative ministries, needs to be issued. s. Several escape routes have been devised by Public Procurement agencies to circumvent the PPP-MII orders which needs to be plugged-in e.g., under USOF funding, tenders are issued to the Service providers (such as Telecom Operators), who in turn do not comply PPP-MII orders. There is need for explicit provisions in PPP-MII orders that item-by-item compliance is mandated either in case of turn key contracts or in case the implementation is stipulated through some operator or any other agency. In some cases, tender conditions stipulate all products from single OEM. In several cases domestic manufacturers have only one/ two or few own products, therefore, are deprived from participating in the tender. It is recommended that such restrictive conditions shall not be utilised to deprive the domestic manufacturers in participating in the procurement process. t. Now-a-days, contract manufacturing or EMS is accepted, who handles assembly work. In case EMS services, the assembly infrastructure is set up by someone and used by several manufacturers, who are entitled to be called Make in India without any investment in fixed assets or employment. In such cases, at given time the OEM can stop any order to EMS without any responsibilities or liabilities. In the case of EMS, the investment in fixed assets is done by one Company and on that basis manufacturing incentives/ facilities are claimed by several number of Companies. <p>The assembly of telecom equipment does not give real value to the Country. <i>A study during the year 2009 found that China was assembling iPhones and contributed sale revenue of about</i></p>

Question No.	Question Description	Input/ Comments
		<p>US\$2 Bn. China hardly got US \$ 6.50 out of each iPhone of US \$ 600. Further, Times Magazine dated May 16, 2011 printed an article on manufacturing of I Phones. This clarifies that out of 500 USD cost of iPhone, only 7 USD goes to China for manufacturing. USA gets profit of 321 US \$ and balance cost of components/parts etc. is US \$ 179. So, assembly contribution is little above 1% only in both studies quoted above.</p>
<p>Q12.</p>	<p>Whether the incentives to Telecom Service Providers to deploy indigenous manufactured products in their network will be helpful in promoting NATEM in India? Please justify with reasons. What incentivization model is suggested?</p>	<p>Market-pull or demand for products manufactured by industry is the single most important factor to resurrect industry. Ensuring that TSPs adopt domestic products will be a great boost in that direction. All efforts shall be put-in to ensure that PPP MII order is implemented by as many agencies as possible including purchases made by State Government/ SPSEs and projects under PPP mode since they are all funded by Indian public at large. Government of India shall leverage India’s large home market demand to help domestic NATEM companies to achieve economies-of-scale. Besides strengthening the implementation and compliance to the Preference to Make in India (PMI) policy in all Public Procurements and turnkey projects (on a line-item basis), it is also important to motivate private sector TSPs with incentives in the form of license fee/USOF rebates, for procuring PMI-compliant equipment. Success of existing manufacturers will also motivate new Startups and new upcoming design houses.</p> <p>The detailed recommendations, on the subject, are available in Para-c, under column ‘Input/ Comments’, against Q11.</p>
<p>Q13.</p>	<p>What should be the incentive structure (fiscal and infrastructural) for Telecom Product Development Clusters (TPDC) set up within the EMCs or separately?</p>	<p>TRAI has nicely comprehended their observations and recommendations as under:</p> <ul style="list-style-type: none"> a. During the year 2011, TRAI recommended that “Ten telecom clusters be identified immediately. The Central/ State Governments should make all efforts to develop infrastructural facilities in a time bound manner so that the infrastructure related disabilities are removed for the units that are located in the clusters.” b. During the year 2018, TRAI further recommended that “Telecom Product Development Clusters (TPDC) within the Electronic Manufacturing Clusters (EMC) should be established. The Government should extend suitable incentives to the TPDCs so as to attract talent and investments into these clusters.” c. The incentives, as proposed vide Para-2.66 will boost-up the telecom product development. <p>Further, an important component that can vastly enhance the utility of TPDCs is the creation of common testing infrastructure and testbeds (e.g., IITM testbed for 5G, 6G) within these clusters. GoI should provide access to this shared infrastructure at a reasonable cost to</p>

Question No.	Question Description	Input/ Comments																								
		industry with replication at multiple locations and enabling remote access. As we move into the next-generation technologies for 5G advanced and 6G, the Testbed can be extended to enable maturation, testing, PoCs, pilots of research ideas to enable development of SEPs based on Indian IPR. A platform, to foster collaboration, joint development and joint research between Indian Academia, Indian Startups & Companies, is needed. The testbed should also provide a pre-trial platform for Indian NATEM vendors and service providers.																								
Q14.	Whether NATEM is facing any limitation affecting competitiveness of Local manufacturers due to misdeclaration of HS codes, inverted duty structures, landed cost differential etc.? Please provide specific details. What are the suggestions for improvement? Please elaborate.	<p>a. The ITC (HS) classification, for telecom products, was done some time back. It is pertinent to mention that telecom is a very fast developing technology sector; therefore, there are large number of telecom products which have no ITC(HS) code allocated. As a result, such items are imported under the category ‘Others’.</p> <p>Further, misdeclaration of description of the product and putting them in ‘others’ category is also a cause of concern e.g., VoIP gateway has no specific HS code but invariably it is put under router, giving the description as router with FXS (VoIP extensions) ports to circumvent the Basic Custom Duty (BCD) as router is exempted from customs duty whereas VoIP switches attract duty. Similarly, there are number of telecom equipment on which BCD was levied which is circumvented by importing those products under the ‘Others’ category. Therefore, in most of the cases ‘Others’ category is used for circumventing the BCD.</p> <p>The data of import of telecom equipment, since the year 2017-18 to October 31, 2021, is given in table below, indicates that that the import under category ‘others’ has been increasing year by year and has reached to the level of approximately 88% during 2019-20 whereas during the financial year 2021-22 the same has been 86.1% (till October 31, 2021).</p> <p style="text-align: center;">Year-wise Import (₹ Crores)</p> <table border="1" data-bbox="793 1052 2037 1393"> <thead> <tr> <th data-bbox="793 1052 1226 1198">Description</th> <th data-bbox="1226 1052 1409 1198">2017-18</th> <th data-bbox="1409 1052 1587 1198">2018-19</th> <th data-bbox="1587 1052 1728 1198">2019-20</th> <th data-bbox="1728 1052 1866 1198">2020-21</th> <th data-bbox="1866 1052 2037 1198">2021-22 (Till October 31, 2021)</th> </tr> </thead> <tbody> <tr> <td data-bbox="793 1198 1226 1243">Import Under Category 'Others'</td> <td data-bbox="1226 1198 1409 1243">1,02,727.85</td> <td data-bbox="1409 1198 1587 1243">1,08,710.39</td> <td data-bbox="1587 1198 1728 1243">93,690</td> <td data-bbox="1728 1198 1866 1243">95,460</td> <td data-bbox="1866 1198 2037 1243">62,430</td> </tr> <tr> <td data-bbox="793 1243 1226 1282">Total Import</td> <td data-bbox="1226 1243 1409 1282">1,49,569.28</td> <td data-bbox="1409 1243 1587 1282">1,33,704.28</td> <td data-bbox="1587 1243 1728 1282">1,06,337</td> <td data-bbox="1728 1243 1866 1282">1,20,456</td> <td data-bbox="1866 1243 2037 1282">72,507</td> </tr> <tr> <td data-bbox="793 1282 1226 1393">Percentage of Import Under Category 'Others' to the Total Import of Telecom Equipment</td> <td data-bbox="1226 1282 1409 1393">68.68%</td> <td data-bbox="1409 1282 1587 1393">81.31%</td> <td data-bbox="1587 1282 1728 1393">88.11%</td> <td data-bbox="1728 1282 1866 1393">79.24%</td> <td data-bbox="1866 1282 2037 1393">86.10%</td> </tr> </tbody> </table>	Description	2017-18	2018-19	2019-20	2020-21	2021-22 (Till October 31, 2021)	Import Under Category 'Others'	1,02,727.85	1,08,710.39	93,690	95,460	62,430	Total Import	1,49,569.28	1,33,704.28	1,06,337	1,20,456	72,507	Percentage of Import Under Category 'Others' to the Total Import of Telecom Equipment	68.68%	81.31%	88.11%	79.24%	86.10%
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		<p>Considering the quantum of import under ‘Others category’, the subject matter was also discussed in the meeting chaired by Hon’ble Commerce & Industry Minister wherein concerns were expressed about the same.</p> <p>In view of analysis of import data under the category ‘others’, there is an urgent need to reclassify the telecom & IT equipment and allot ITC (HS). It will not only eliminate the possibility circumvention of the BCD but will also strengthen the domestic telecom equipment manufacturing. Further, it is also recommended that ITC(HS) classification may be reviewed periodically, may be once in a year, specifically for telecom & IT equipment. Considering the above situation, Telecom Equipment & Services Export Promotion Council (TEPC) has submitted the proposals for the following telecom equipment/ products to the Joint Secretary (Customs for creation of the New Tariff Lines:</p> <table border="1" data-bbox="863 610 1969 1398"> <thead> <tr> <th data-bbox="863 610 995 651">Sl. No.</th> <th data-bbox="995 610 1969 651">Description of the Telecom Product</th> </tr> </thead> <tbody> <tr> <td data-bbox="863 651 995 686">1.</td> <td data-bbox="995 651 1969 686">Optical Line Terminal (OLT)</td> </tr> <tr> <td data-bbox="863 686 995 722">2.</td> <td data-bbox="995 686 1969 722">Optical Network Terminal (ONT)</td> </tr> <tr> <td data-bbox="863 722 995 758">3.</td> <td data-bbox="995 722 1969 758">Optical Transport Network Equipment (OTN)</td> </tr> <tr> <td data-bbox="863 758 995 794">4.</td> <td data-bbox="995 758 1969 794">Wi-Fi Access Point Equipment</td> </tr> <tr> <td data-bbox="863 794 995 873">5.</td> <td data-bbox="995 794 1969 873">Packet Transport Network (PTN)/ Multiprotocol Label Switching-IP/Transport Profile (MPLS-TP) Equipment</td> </tr> <tr> <td data-bbox="863 873 995 953">6.</td> <td data-bbox="995 873 1969 953">IP-MPLS: IP/MPLS Router (with VoIP Functionality/ with FXS, FXO, SIP Protocols)</td> </tr> <tr> <td data-bbox="863 953 995 1032">7.</td> <td data-bbox="995 953 1969 1032">IP-MPLS: IP/MPLS Router (without VoIP Functionality/ without FXS, FXO, SIP Protocols) equipment</td> </tr> <tr> <td data-bbox="863 1032 995 1068">8.</td> <td data-bbox="995 1032 1969 1068">Ethernet Switch (LAN/WAN Switching) Equipment</td> </tr> <tr> <td data-bbox="863 1068 995 1148">9.</td> <td data-bbox="995 1068 1969 1148">Dense Wavelength Division Multiplexing (DWDM) Equipment and Coarse Wavelength Division Multiplexing (CWDM) Equipment</td> </tr> <tr> <td data-bbox="863 1148 995 1183">10.</td> <td data-bbox="995 1148 1969 1183">Fibre Optical Amplifiers</td> </tr> <tr> <td data-bbox="863 1183 995 1219">11.</td> <td data-bbox="995 1183 1969 1219">Carrier Ethernet Switch (CES) Equipment</td> </tr> <tr> <td data-bbox="863 1219 995 1255">12.</td> <td data-bbox="995 1219 1969 1255">Managed Leased Line Network (MLLN)</td> </tr> <tr> <td data-bbox="863 1255 995 1291">13.</td> <td data-bbox="995 1255 1969 1291">Long Term Evolution (LTE/LTER) Equipment</td> </tr> <tr> <td data-bbox="863 1291 995 1370">14.</td> <td data-bbox="995 1291 1969 1370">Land Mobile Radio (LMR)/ Professional Mobile Radio (PMR)/ Walkie-Talkie/ PTT (Push to Talk) Radio</td> </tr> <tr> <td data-bbox="863 1370 995 1398">15.</td> <td data-bbox="995 1370 1969 1398">Wireless Backhaul Radio (IP/ Hybrid) in any frequency</td> </tr> </tbody> </table>	Sl. No.	Description of the Telecom Product	1.	Optical Line Terminal (OLT)	2.	Optical Network Terminal (ONT)	3.	Optical Transport Network Equipment (OTN)	4.	Wi-Fi Access Point Equipment	5.	Packet Transport Network (PTN)/ Multiprotocol Label Switching-IP/Transport Profile (MPLS-TP) Equipment	6.	IP-MPLS: IP/MPLS Router (with VoIP Functionality/ with FXS, FXO, SIP Protocols)	7.	IP-MPLS: IP/MPLS Router (without VoIP Functionality/ without FXS, FXO, SIP Protocols) equipment	8.	Ethernet Switch (LAN/WAN Switching) Equipment	9.	Dense Wavelength Division Multiplexing (DWDM) Equipment and Coarse Wavelength Division Multiplexing (CWDM) Equipment	10.	Fibre Optical Amplifiers	11.	Carrier Ethernet Switch (CES) Equipment	12.	Managed Leased Line Network (MLLN)	13.	Long Term Evolution (LTE/LTER) Equipment	14.	Land Mobile Radio (LMR)/ Professional Mobile Radio (PMR)/ Walkie-Talkie/ PTT (Push to Talk) Radio	15.	Wireless Backhaul Radio (IP/ Hybrid) in any frequency
Sl. No.	Description of the Telecom Product																																	
1.	Optical Line Terminal (OLT)																																	
2.	Optical Network Terminal (ONT)																																	
3.	Optical Transport Network Equipment (OTN)																																	
4.	Wi-Fi Access Point Equipment																																	
5.	Packet Transport Network (PTN)/ Multiprotocol Label Switching-IP/Transport Profile (MPLS-TP) Equipment																																	
6.	IP-MPLS: IP/MPLS Router (with VoIP Functionality/ with FXS, FXO, SIP Protocols)																																	
7.	IP-MPLS: IP/MPLS Router (without VoIP Functionality/ without FXS, FXO, SIP Protocols) equipment																																	
8.	Ethernet Switch (LAN/WAN Switching) Equipment																																	
9.	Dense Wavelength Division Multiplexing (DWDM) Equipment and Coarse Wavelength Division Multiplexing (CWDM) Equipment																																	
10.	Fibre Optical Amplifiers																																	
11.	Carrier Ethernet Switch (CES) Equipment																																	
12.	Managed Leased Line Network (MLLN)																																	
13.	Long Term Evolution (LTE/LTER) Equipment																																	
14.	Land Mobile Radio (LMR)/ Professional Mobile Radio (PMR)/ Walkie-Talkie/ PTT (Push to Talk) Radio																																	
15.	Wireless Backhaul Radio (IP/ Hybrid) in any frequency																																	

Question No.	Question Description	Input/ Comments	
		1.	Internet Protocol Private Branch Exchange (IP PBX) including their Completely Knocked Down (CKD)/ Semi-Knocked Down (SKD) form.
		2.	Internet Protocol Phone (IP Phone) including their Completely Knocked Down (CKD)/ Semi-Knocked Down (SKD) form.
		3.	Repeaters (RF/RF-over-Optical), IBS, and Distributed Antenna system (Indoor/ Outdoor) including Active and Passive Accessories (2G/3G/4G/5G and onwards) and including their Completely Knocked Down (CKD)/ Semi-Knocked Down (SKD) form.
		4.	Security and Surveillance Communication System including their Completely Knocked Down (CKD)/ Semi-Knocked Down (SKD) form.
		5.	NIB (Network in a Box) including their Completely Knocked Down (CKD)/ Semi-Knocked Down (SKD) form.
		6.	4G/ 5G & Beyond Cellular Core Network including their Completely Knocked Down (CKD)/ Semi-Knocked Down (SKD) form.
		<p>It is important that the not only finished products are imported under the respective HS code but the products in Semi Knock Down (SKD) and Completely Knock Down form are imported under the same HS Code else it will open the flood gate increasing the import of products in SKD/ CKD form and local value addition will be only assembling the same.</p> <p>In case the new tariff lines are created for the above products, circumvention of BCD due to misdeclaration of HS will be resolved for the same. Further, the same enable collection of statistical data about he export/ import of the respective products.</p>	
		<p>b. Mis-declaration of HS codes to circumvent imposition of customs duty: Mis-declaration of HS codes to circumvent imposition of customs duty is very rampant and must be nipped. The DoT sought imposition of customs duty on functional parameters of product. The issue is regarding non-implementation of the 2014 notification, wherein all items under HS classification 8517xxx were exempted from payment of duty with an exception from exempting VoIP, Optical, RF and Carrier Ethernet products from payment of duty which effectively meant that import of these products were to be subjected to customs duty from the applicable date. This custom duty was initially 10% and subsequently as per notification dated 11Oct 2018 (attached) increased to 20%. Objective of the notification was to promote</p>	

Question No.	Question Description	Input/ Comments
		<p>domestic manufacture of these new technology telecom products that were based on technologies that did not exist when ITA 1 agreement was signed by India.</p> <p>c. Inverted Duty Structure - Basic Custom Duty on ‘Inputs or raw material for use in manufacture of all goods falling under tariff item 85176100, 85176290 and 85176990’: Basic Custom Duty (BCD), of 10%, was levied on certain non-ITA finished telecom equipment/ products (under HSN Codes 85176290 & 85176990) vide Department of Revenue notification, No. 75/2018-Customs dated October 11, 2018 which acted as a step towards strengthening the domestic telecom product/ equipment manufacturing industry in the country. Further, BCD on parts, components and accessories except populated printed circuit boards for use in manufacture of, inter-alia, broadband modem, routers, set-top boxes (for gaining access to Internet) falling under tariff item 8517 62 30, 85176930 and 85176960 respectively and their Sub -parts for use in manufacture of aforesaid mentioned items was made ‘Nil’ vide Department of Revenue, Ministry of Finance notification, No. 50/2017-Customs dated June 30, 2017, if the importer followed the procedure set out in the Customs (Import of Goods at Concessional Rate of Duty) Rules, 2017. The relevant extract of the notification, No. 50/2017-Customs dated June 30, 2017 enunciating ‘Nil’ BCD on the aforesaid items and the ‘Condition-9’ therein.</p> <p>In addition, the BCD on ‘Inputs or raw material for use in manufacture of all goods falling under tariff items, inter-alia, 85176100, 85176290 and 85176990’ was made as ‘Nil’ as per Department of Revenue, Ministry of Finance notification, No. 57/2017-Customs dated June 30, 2017 (refer Sl. No. 8(v), 8(vi) & 8(vii) in the table of the aforesaid notification).</p> <p>The BCD of 10% on certain finished telecom products under tariff items 85176290 & 85176990 (Para-1 above), ‘Nil’ BCD on ‘parts, components & accessories’ under tariff items 85176230, 85176930 & 85176960 (Para-2 above) and ‘inputs or raw material for use in manufacture of all goods falling under tariff item 85176100, 85176290 and 85176990’ (Para-3 above), which are utilised for manufacture of domestically designed & telecom products/ equipment such as Optical Transport Equipment, OTN products, POTP or POTS products, PTN products etc., extended support to the domestic telecom equipment/ product manufacturers in being competitive vis-à-vis the products of Multi-National Companies (MNCs) who enjoy the economies of scale due to their presence across the globe. The same was in consonance with the national objective of ‘आत्म-निर्भर भारत’ & ‘Vocal for Local’.</p> <p>Subsequently, BCD of 10% was levied on the Printed Circuit Board Assembly (PCBA) for many Non-ITA Telecom equipment products tariff item 85177010 vide Department of</p>

Question No.	Question Description	Input/ Comments
		<p>Revenue, Ministry of Finance notification, No. 02/2020 dated February 2, 2020. Nevertheless, the exemption on other components provided as per notifications, No. 50/2017 & 57/2017 (Para-2 & 3 above) continued subject to following procedure set out in the Customs (Import of Goods at Concessional Rate of Duty) Rules, 2017.</p> <p>However, the provisions of ‘Nil’ custom duty as per Sl. No 8 (v), (vi) and (vii) under notification, No. 57/2017-Customs dated June 30, 2017 were omitted vide Department of Revenue, Ministry of Finance notification, No. 03/2021 dated February 1, 2021, resulting into levying up to 20% on importing ‘Inputs or raw material for use in manufacture of all goods falling under tariff item 85176100, 85176290 and 85176990’. Though, ‘Nil’ BCD continued on ‘all goods other than the parts of cellular mobile phones and inputs or sub-parts for use in manufacture of parts thereof’ under tariff item 85177090 (refer Sl. No. 5 of Department of Revenue, Ministry of Finance notification, No. 57/2017 dated June 30, 2017), however, the clause doesn’t cover all the telecom items as the same covers only a specific tariff line i.e. 85177090. As a result, the items which are classifiable under tariff line 85176100, 85176290 and 85176990, when imported for manufacture of non-ITA products such as POTP equipment etc., attract BCD and are deprived from the benefit as per previous provisions under notification No. 57/2017.</p> <p>The aforesaid omission of provision of ‘Nil’ custom duty on ‘Inputs or raw material for use in manufacture of all goods falling under tariff item 85176100, 85176290 and 85176990’ has resulted a big setback to the domestic telecom equipment manufacturing industry.</p> <p>On one hand Government of India has a vision of promoting domestic manufacturing and also promoting foreign Original Equipment Manufacturers (OEMs) to bring their manufacturing lines in India under various incentive schemes such as Production Linked Incentive (PLI) Scheme, whereas on the other hand such imposition of BCD up to 20% on import of ‘Inputs or raw material for use in manufacture of all goods falling under tariff item 85176100, 85176290 and 85176990’ will be detrimental to such efforts.</p> <p>In view of the above, it is recommended that till the time electronic component manufacturing industry is set-up in India, no duty shall be levied on ‘Inputs or raw material for use in manufacture of all goods falling under tariff item 85176100, 85176290 and 85176990’ and the earlier provisions, as per Sl. No 8 (v), (vi) and (vii) under notification, No. 57/2017-Customs dated June 30, 2017 may be revived and the case for the same may be taken-up with Department of Revenue, Ministry of Finance for issue of notification.</p> <p>There is need for an institutional mechanism to address the issue within 15-20 days at the most.</p>

Question No.	Question Description	Input/ Comments
		<p>d. As regards Under invoicing/ dumping of cheaper goods, it is submitted that at present the burden of proving anti-dumping duty lies with the Indian challenger manufacturers. It is very lengthy and cumbersome procedure to prove antidumping duty and to secure the order. It is recommended that appropriate mechanism may be evolved, wherein after filing the complaint by domestic manufactures with limited proof, the department examines the matter within shortest possible time and imposes the antidumping duty. In such case, the burden of proving shall rest with foreign exporter.</p> <p>It is recommended that an institutional mechanism to address the issue within 15-20 days at the most shall be in-place.</p> <p>e. As regard FTA, it is a serious issue as FTA route is openly used to export equipment from other Countries by masking as made in FTA Country. There is always a local content condition in FTA, but that is also openly floated, as it depends on declaration by the exporter and there is no verification at the time of imports into India. Though, the Customs (Administration of Rules of Origin under Trade Agreements) Rules, 2020, addresses the issue, however, proper implementation is needed. It is recommended that a committee of concerned officers and industry may be constitute to resolve the issue.</p> <p>f. As regards WTO, as an observer to the WTO's Agreement on Government Procurement (GPA), India is not legally bound to comply with GPA provisions. Parties to the agreement are mostly developed countries with mature industries and domestic manufacturing.</p> <p>The Agreement on Government Procurement (GPA) is a plurilateral agreement under the auspices of the World Trade Organisation (WTO) that entered into force in 1996. It regulates government procurement of goods and services by public authorities of the parties to the agreement, based on the principles of openness, transparency and non-discrimination. The GPA was negotiated in parallel with the Uruguay Round in 1994 and entered into force on January 1, 1996. However, as a signatory to the WTO, India can extend the policy to the private sector for core security interests.</p> <p>g. As regards WTO's ITA 1, earlier there was an impression that India has committed zero duty imports under ITA1 for all telecom products including mobile handsets and wireless equipment. However, this is not found to be correct. On March 25, 1997, when the ITA-1 agreement was signed, total 217 lines (including expositions) were part of the schedule. As per the schedule, the tariffs were to be reduced to zero duty level proportionately over a period from 1997 to 2005. It was made applicable to the equipment existed at that point in time e.g. wireless/ mobile, 5G, 4G, 3G etc. were not even known at that time. Most of the wireless</p>

Question No.	Question Description	Input/ Comments
		<p>telecom products like GSM BTS, Switches etc. did not even existed and were not a part of HS classification 8517, in which most of the telecom items were covered, therefore, the aforesaid products cannot be covered in ITA 1. When India signed WTO's ITA 1, the HS codes 85.17 and 85.25 were described in a particular way. Subsequently, due to various reasons the descriptions of the codes have been changed, that allowed imposition of BCD on import of several equipment, which were not originally envisaged.</p> <p>It is recommended to impose highest duties on the products not covered in ITA1/WTO whereas for the items covered in WTO, the duties may be as per our original commitment made therein. At the moment, custom duties on mobile phones/ 4G equipment are only 20%, which needs to be enhanced; as per WTO India can impose custom duties upto 40%.</p>
<p>Q15.</p>	<p>Whether the current schemes/ measures or policy support for exporters of Indian manufactured equipment are sufficiently meeting the requirement to promote the global competitiveness of Indian NATE exporters? Are the Schemes/ instruments in India consistent with the international schemes for e xporters in leading manufacturing countries? Please suggest measures to bridge the gap if any.</p>	<p>a. The price of any commodity plays an important role in any market place be it international or domestic; the competitive price depends on the economies of scale, as a result, the export of telecom products cannot be seen in isolation as economies of scale cannot be achieved without the domestic consumption of the product. The large domestic demand can be leveraged by domestic companies to create innovative, high-quality products and solutions that not only meet the needs of the highly competitive Indian market, but also address the global market. Considering the security of the nation and safety & security of persons, the deployment of indigenous telecom products in Indian telecom networks is indispensable.</p> <p>In view of above, as recommended against Q11, such as applicability of PMA/ PMI w.r.t. procurements by all Telecom Service Providers (public as well private), State Governments and their Public Sector Enterprises, projects funded by World Bank and other international lending organisation, projects in foreign country under Line of Credit and Grant-in-Aid, projects funded under USOF (irrespective of the executing organisation) etc., ensuring stricter implementation of PMA/ PMI policy and strengthening the monitoring and complaint redressal mechanism shall be ensured.</p> <p>b. In order to promote NATE exports, Government of India should create National Champions in the telecom sector by identifying companies that have the potential to reach global size/ scale and help nurture the domestic telecom product eco-system. Due to the CAPEX intensive nature of the ESDM sector and the need for economies of scale, there are typically only one or two global sized companies in every country such as Huawei & ZTE in China, Cisco & Ciena in USA, Nokia & Ericsson in whole Europe, Samsung & LG in Korea; hence India too</p>

Question No.	Question Description	Input/ Comments
		<p>should aspire to create such global leaders in the telecom sector. National Champions shall be selected through a transparent process and shall be supported in multiple ways such as:</p> <ul style="list-style-type: none"> i. Matching grants/ soft loans for R&D and new product development. ii. Commercialisation support in the form of assured business in all government telecom projects. iii. In government tenders, even if there is only one ‘Indian Product’, the same shall be procured, rather than being imported. iv. National Champions shall be given an opportunity to supply at ‘fair’ price, based on already discovered global prices (or imports) and/ or based on their cost structure. v. Active export promotion through a \$10B G2G lines of credit in bilateral trade so that global volumes can be generated <p>c. Promotion of Export Through Line of Credit (LoC)/ Grant in Aid (GiA): Apart from strengthening the diplomatic relations, the LoC/ GiA are extended to the friendly countries for promoting the exports to the respective country. The LoC/ GiA projects are implemented under the Indian Development and Economic Assistance Scheme (IDEAS) Guidelines. The IDEAS guidelines were issued by Department of Economic Affairs on December 7, 2015. At that point in time, the Public Procurement (Preference to Make in India) policy (PPP-MII) was not in existence though certain departments, including Department of Telecommunications, had notified Preferential Market Access (PMA) policy for their sector. Subsequently, Department for Promotion of Industry and Internal Trade has issued comprehensive PPP-MII order during 2017 wherein concerned nodal departments/ ministries were authorised to notify, inter-alia, local content etc. The clause-5 of The IDEAS Guidelines stipulates as under:</p> <p><i>“5. Requirement of import of goods and services from India:</i></p> <p><i>Goods and services for minimum 75% value of the contracts covered under these loans must be sourced from India. A relaxation not exceeding 10% may be considered on a case-to-case basis for projects involving significant civil construction work. Further, this exemption should be sought before the project is tendered. LoCs may finance up to 100% value of contract on FOB/CFR/CIF/CIP’ basis.”</i></p> <p>Line of Credit (LoC)/ Grant-in-Aid contracts pertaining to the telecom sector, generally, have goods & services related to civil construction and other items which may constitute the bulk of the project in value terms. The equipment/ materials, other than telecom equipment, may</p>

Question No.	Question Description	Input/ Comments
		<p>constitute 75% of the value of the contract. Consequently, EPC contractors, instead of sourcing telecom equipment manufactured and designed in India, tend to supply imported telecom equipment purchased in India in Indian currency which need to be corrected. Thus, telecom products manufactured in India are deprived under LoC/ GiA contracts. The implementation of PPP-MII Order, issued by Department for Promotion of Industry & Internal Trade, in Line of Credit projects will result in increasing the export of the telecom equipment/ products and in-turn will help to achieve export targets.</p> <p>d. It is pertinent to mention that a Champion service sector scheme (CSSS) was announced on March 24, 2021 by the Ministry of Commerce and Industry with total amount of ₹ 3369.75 Crore for 3-5 years based on the proposals submitted by the concerned Ministry/ Department. Under the scheme, in 2020-2021, DoT was allocated Rs.15 Crore for their sectoral scheme ‘Brand building of India as Telecom Manufacturing and Services Destination’. Another ₹ 44.5 Crore was allocated to DoT for Setting up of Digital Communications Innovation Square (DCIS). Under DCIS, maximum support to a Startups /MSMEs is given upto ₹ 40 Lakhs for the project duration. Startups (Scaling Stage)/ MSMEs who have already tested their prototypes (hardware/ software innovations) are eligible to receive the support.</p> <p>e. World-wide, the own technology is promoted and the same is exported using certain steps which include, inter-alia creation of a technology, making big hype, in home country orders without bothering about rates/ proven past experience/ technology proof in real working conditions and then global marketing. It may be noted that the funding for technology R&D is often extended by the Government, which might be coupled with defence or other requirements. A mission mode project is needed to announce certain technology for championship in India and then making it India pride. The announced plans of Government for 6G is a step in the same direction. The need is to formally take a decision to procure 6G only locally and announce high custom duties on imports of the same and invest graciously in R&D and patents.</p>

Question No.	Question Description	Input/ Comments
Q16.	Whether the existing incentives/policies issued by DoT and MeitY do meet the requirements for the growth of telecom software products? What additional policy initiatives and enabling regulatory measures are suggested to facilitate integration of telecom equipment and software products that are made in India? What measures are required to enhance exports of such products? Please justify your response.	<p>a. For branding of India as a ‘Technology Product Nation’, it is recommended to create an export promotion fund with a corpus of ₹ 1000 crores for telecom equipment and software products which may be utilised for India brand building, hosting events, conferences and international ‘buyer-seller’ meets that will showcase domestic companies to national and international customers.</p> <p>b. As referred in para 2.76, it is recommended that a 100% software-based incentive scheme, for telecom sector, which needs to be different than the existing PLI, as software development involves mainly manpower costs. The same may be covered in the design led, R&D schemes.</p>
Q17.	Stakeholders are also requested to comment on other relevant issues, if any.	<p>a. At the cost of repetition, it is recommended that effective implementation of PMI, in letter & spirit, requires:</p> <ul style="list-style-type: none"> i. Strict enforcement of PMI in all Govt tenders- establish a nodal grievance cell in DoT for timely redressal. ii. Use of restrictive tender conditions must be avoided. iii. Unnecessary technical and proven-ness requirements shall not be included to eliminate Indian products. iv. Enable single domestic bidders if the same meet competitive reference price, quality and technical specifications. v. DoT shall take prompt action against the defaulters. There is a committee set-up by DoT to evaluate the Local Value Addition based on complaints raised by the domestic manufacturers. DoT must set a process to execute the recommendations made by the committee in time bound manner. vi. Majority of the projects, in non-telecom sectors, such as civil, power, railways or even USOF projects has small portion of active telecom equipment. The PMI policy shall state the Local Value Addition in such projects must be counted for only Active Telecom products without including value addition made in Civil, services or other passive

Question No.	Question Description	Input/ Comments
		<p>infrastructure (USOF LWE projects, Central Vista, many LOC projects, Power and Railway projects are typical example)</p> <ul style="list-style-type: none"> vii. Incentivising private telecom operators to buy Indian products through a rebate in their annual license fees in proportion to quantum of domestic telecom equipment procurements. viii. Private telecom operators account for nearly 75% of the total spending, hence shall be incentivised to buy domestic products. The same was also recommended by TRAI and also in NDCP 2018. ix. Need to plug loopholes where Chinese products are being assembled/ imported. x. Strict action for mis-classifying imports to avoid paying customs duties. xi. Strict enforcement of MTCTE and Trusted Source policies. <p>b. There are some exemplary cases resulted in success of ‘Make in India’ due to import restrictions and firm Govt commitment, the details are as under:</p> <ul style="list-style-type: none"> ▪ Automobile Sector: <ul style="list-style-type: none"> i. In automobile sector, all global manufacturers have established their manufacturing plants in India for manufacturing as even today import duty on Cars CBUs whose CIF value is more than \$ 40,000 or Petrol Engine > 3000 CC or Diesel engine > 2500 CC is 100% whereas import duty on Cars CBUs whose CIF value is less than \$ 40,000 and Petrol Engine < 3000 CC and Diesel engine < 2500 CC is 60%. ii. As regards import duty on auto parts/ components (HSS 87.08) is 15% (BCD) + 28% (IGST) + 10% (Social welfare surcharge) i.e. 53%. The Union Budget for 2021-22 has proposed 15% increase in import duty on automotive components such as drive transmissions, chassis, brakes and steering to curb imports from China and boost local manufacturing. Hon’ble Finance Minister explained that these parts are not critical for an automobile and are also available locally. iii. The above supportive steps taken by the government resulted into achievement of 70% localisation in automobile sector and government is now targeting for 100%⁷.

Question No.	Question Description	Input/ Comments
		<p>iv. To push local manufacturing in the EV segment, the government has increased customs duty on imported Completely Built Units (CBUs) of commercial EVs to 40% with effect from April 1, 2020, from 25%⁸.</p> <p>v. The import of new vehicles is permitted only through the Indian Customs Port at Nhava Sheva (Mumbai), Calcutta and Chennai.</p> <p>vi. The Government of India has allowed the entry of second-hand vehicles into the country only through the Mumbai port and the import duty is 125%. It is also pertinent to note that after import it is necessary to submit the imported vehicle to Vehicle Research and Development Establishment (VRDE), Ahmednagar, of the Ministry of Defence or the Automotive Research Association of India, Pune or the Central Farm and Machinery Training and Testing Institute, Budni, Madhya Pradesh, or other notified testing agency authorised by the Indian Government.</p> <p>▪ Procurement of BSNL 4G network equipment:</p> <p>i. In spite of all odds and presumptions procurement of domestic equipment was insisted upon.</p> <p>ii. The domestically designed, developed and manufactured 4G equipment i.e. C-DoT made core, Tejas make RAN is at the verge of completing Proof of Concept. The Tata Consultancy Services is the system integrator for the aforesaid 4G equipment.</p> <p>▪ 5GI Indian Standard developed by India: The 5GI Indian Standard developed by India was opposed by every manufacturer/ organisation except ITU on cost/ interoperability/ scale. However, due to Government commitment, all objections were dropped and 3GPP/All vendors agreed adopt the same.</p> <p>Considering above, it is evident that with the government clear vision, firm commitment and support to the telecom sector manufacturers can lead to indigenously designed, developed and manufactured state-of-the-art telecom technologies/ equipment at par with or may be ahead of any country across the globe.</p> <p>c. The issue of IPR and SEP</p> <p>As enunciated in Para-1.34 of the Consultation Paper, DoT, inter-alia, has sought further details on TRAI recommendations for creation of a portal for Standard Essential Patents (SEP). It may be noted that the NCDP 2018 stipulates ensuring the availability of essential</p>

⁸ <https://economictimes.indiatimes.com/industry/auto/auto-news/fm-nirmala-sitharaman-proposes-to-hike-customs-duty-on-imported-electric-vehicles/articleshow/73841041.cms>

Question No.	Question Description	Input/ Comments
		<p>background IPR in Fair, Reasonable and Non-Discriminatory (FRAND) terms required for promoting local manufacturing. Further, Para-1.33 of the Consultation Paper of TRAI issued during 2018, outlined the need of IPR creation in India and concerted efforts in the research and innovation domain. To that effect TRAI specified that “for promoting new age tech Startups in telecom and network equipment design and manufacturing sector, Government should incentivize setting-up of incubation centres.” To ensure speedy dissolution of IPR related disputes and filing of patents, TRAI recommended, “A common portal should be developed for self-declaration of Standard Essential Patents (SEP) by the patent holders in the telecom products.”</p> <p>A huge focus of the 2018 Recommendations was on Standardisation and Testing. It has been notified by DoT that most of these recommendations are currently under implementation. Alternate Dispute Resolution Framework for time bound resolution of patent licensing disputes shall be institutionalised in the country. A common portal should be developed for self-declaration of Standard Essential Patents (SEP) by the patent holders in the telecom products. The portal should have the facility for listing of registered telecom product design, manufacturing, marketing and System Integration (SI) companies along with their designs/ products so that development of the complete ecosystem in the Country can be facilitated. To expand understanding about patent filing policies and procedures, the patent information cells should be created in leading Universities/ technical institutions to be identified for promoting research, innovation, and development of telecom technology and systems designs.</p> <p>It is pertinent to mention that the existing patent laws have worked against the local manufacturing Companies in Telecom/ Mobile Handset industry. In fact, IPR royalties are biggest hurdles and bottleneck for local manufacturing. Once local manufacturer achieves some level, several IPR patent holders start asking royalties and manufacturer does not know how to respond. The fundamental issues are as under:</p> <ol style="list-style-type: none"> <li data-bbox="842 1127 2045 1344">i. Intellectual property (IP) and Standard Essential Patents (SEPs) have potential to serve as considerable barriers to diversification as technology suppliers staunchly protect their investment and designs. While these practices and their commercial drivers are not unique to the telecom sector, the Government shall consider appropriate measures given the significant role IP plays in the development of telecom equipment. This issue is complex and has to be set within legal frameworks and international agreements. <li data-bbox="842 1344 2045 1414">ii. There are tens of thousands of SEPs that have been declared to standard setting organisations (SSOs) as being essential to standards, such as 3G, 4G, 5G and Wi-Fi.

Question No.	Question Description	Input/ Comments
		<p>Whilst most of the patents when tested in court are likely to be invalid or not infringed, many will relate to the provision of the network by the network operator, as well as products, such as handsets, that communicate with the operator networks.</p> <ul style="list-style-type: none"> <li data-bbox="842 321 2045 574">iii. A challenge for CPs (TSPs) is that there are so many patents declared essential to standards, such as 4G and 5G, that it will not be possible for operators to assess which of the patents are essential, valid and infringed. Complicating the matters further, many standards relevant to networking technology, such as 3G, 4G, 5G, Zigbee and Wi-Fi, target aspects of data security and privacy in these networking systems, for example encryption, keys, base-stations and device recognition etc., for which there are many claimed SEPs. <li data-bbox="842 574 2045 688">iv. Few companies dominating the world market, result in Intellectual Property costs for several products far exceeding their Bill of material (BOM) cost due to closely held technology as well as Controlling prices, Driving standards and their enforcement. <li data-bbox="842 688 2045 899">v. PR is important to be respected and paid. Once reasonable level in domestic manufacturing is achieved, IPR cases increase exponentially. Recently, Dolvi filed against Reliance for US\$ 20 Million for smartphone manufacturing, Interdigital sued two Mobile manufacturers for US\$ 20 Million each. Earlier, cases against Micromax, Lava etc. are also the examples. Non-clarity regarding IPR, will lead to suits in respect of 5G and 6G etc. <li data-bbox="842 899 2045 1378">vi. There is no authority, whatsoever, in India or abroad, who disseminate the information about the number of patents and the quantum of royalty applicable for any telecom/ mobile handset products. As a result, the royalties, payable, are not known at the beginning of any project. Once project achieves critical stage, the royalty claims start bumping leading to liabilities not known to the manufacturers. Compulsory licensing by Government, wherein all patents' holders are mandated to approach the Government for licensing, may be the solution to the problem faced by the manufacturers. TRAI, vide Consultation paper of 2018, has correctly observed that there is no single window like structure in place for the purpose as well as the concept of SEPs does not have any statutory recognition in the Patents Act, 1970 leading to a situation where various Courts, industries, forums, bodies take their own interpretation and understanding and there is no unanimity across globe or even within the Country. To add, the Standard Setting Organisations like European Telecommunications Standards Institute (ETSI)

Question No.	Question Description	Input/ Comments
		<p>and Institute for Electrical and Electronics Engineers (IEEE) etc. do not declare any patent as SEP.</p> <p>vii. No authority in Government or abroad, exists who confirms that so and so patent is SEP (Standard Essential Patent). Consequently, any patent holder starts claiming it to be SEP and starts demanding royalty. Majority of legal battles on authenticity of SEP ends up in negotiations, hence the patent is SEP or not remains not known.</p> <p>viii. None in Government or foreign body tells what are the royalty rates on the IPR. As a result, the matter goes on negotiations and taking shelter of confidential clause, the patent holder does not disclose the rate of royalties decided in the past. This creates unknown liability and the rates depend on the bargaining/ financial powers of the concerned manufacturer. Rate of royalty differs substantially from licensee to licensee which may end paying higher costs by the local manufacturers and therefore, higher purchase costs for the consumers.</p> <p>ix. Logically royalty should be on the cost of concerned component/ part on which patent holder have IPR. Mostly, royalties are claimed on the entire cost/ sale price of the product. Legal battle in this behalf remains unresolved and is decide by negotiations leading to unknown liability. The same argument also applies to occasions when readymade product, called CBU Complete Built Unit is imported.</p> <p>x. On various occasions the Government prescribes the technology to be adopted to meet the given licence conditions/ specifications, but no disclosure as to what are royalties on IPRs resulting into one more unknown liability.</p> <p>xi. The manufacturer contests the legal battle alone. Any new manufacturer's capability and financial capacity are limited as compared to IPR holders, who contest cases worldwide with high legal professionals. In some countries like China, the IPR cases are handled by a government agency.</p> <p>xii. Globally, there is fierce competition and contest in Courts on various IPR cases on daily basis. Same Company files against one other in several Countries. Most of times, the cases are not decided and negotiations arrived and, on several occasions, contrary judgments may be delivered. The Indian judicial system is hardly able to keep track of latest judgments/ happening worldwide due to being overloaded with several cases and also lack of training available in India by Government. Most of the lectures/ articles are written by interested lobbyists, depriving the opposite view.</p>

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		<p>xiii. The fact is that the mobile/telecom manufacturers import basic chip/ semiconductor and other components from abroad. Violation of any IPR shall be limited to respective component/ chip/ semiconductor. Indian manufacturers just assemble the same.</p> <p>xiv. A large number of Companies are ‘holding out’ and refusing to license their SEPs to all Companies in the supply chain that want a licence, preferring to seek licences from end customers, such as network operators.</p> <p>In view of the above issues, following are recommended:</p> <p>i. Compulsory licensing by Government, wherein all patents’ holders are mandated to approach the Government for licensing, to facilitate the manufacturers.</p> <p>ii. The Government of India may pursue the international Standardising Organisations like European Telecommunications Standards Institute (ETSI), Institute for Electrical and Electronics Engineers (IEEE), International Telecommunication Union (ITU), 3rd Generation Partnership Project (3GPP) etc. to declare concerned patents as SEP for each of their standards and transparently mention the range of royalties to be paid in percentages wherever feasible.</p> <p>iii. The Government shall consider appropriate measures, given the significant role IP plays in the development of telecom equipment within legal frameworks and international agreements.</p> <p>iv. There is need that Government decides some agency, in India, to handle, guide and contest legal IPR cases on behalf of manufacturers.</p> <p>v. To address the issues regarding judicial system, special Courts may be established in India for dealing with cases on IPR and SEP matters. Training for judicial persons, from Government level with balanced speakers of all the sides, may also be organised to develop common interpretation and understanding,</p> <p>vi. Any violation of IPR patent shall limited to the respective component/ chip manufacturing. In case, Indian company also manufactures component/ chip, then only shall be liable to pay IPR royalties, else not.</p> <p>vii. A committee consisting of academia, DoT and domestic industry shall vet and approve all SEP patents and any licensing charges to be paid. Government of India organisation may be set up to examine validity and negotiate on behalf of all Indian equipment manufacturers to get ‘reasonable’ patent pricing for SEPs claimed by any patent holder.</p> <p>The IPRs are de-facto monopolies. There is need for interface and right balance between competition and IPR. Most of nations have made IPR policies considering their development</p>

Question No.	Question Description	Input/ Comments
		<p>level, Nation needs and priorities. This achieves more significance in present era where globalisation is facing a backlash across several economies. Competition is an important policy to promote and protect public interests. Therefore, appropriate policy formulation, implementation and enforcement to promote both innovation and consumer welfare are simultaneously required.</p> <p>d. Security Aspects: In present days, telecom equipment/ service is capable of routing or redirecting user data traffic or permitting visibility into user data or packets, causing network traffic to be disrupted remotely, or otherwise poses an ‘unacceptable risk’ to national security or the security and safety of the citizens. In view of above, it has become indispensable to recognise the threats to our telecom networks & the risks involved thereof and take necessary steps to achieve self-reliance in respect of development of technologies as well as design, development and manufacturing of telecom products.</p> <p>As referred in Para-3.4 of Consultation Paper, Lawmakers in the US are actively pushing for 100% local content in telecom products amidst the risk of data security breaches, it is recommended that Government may take up with WTO to declare telecom products as Security Products.</p> <p>e. Technology Plan for the Country: Technology plan may be formulated to ensure market for developed products. Following is recommended:</p> <ul style="list-style-type: none"> i. Government may identify technologies required for India and can allocate market once product is made in India. Focus on products where the country can create success stories rather than chase futuristic technologies and blue-sky research programmes; the process has already been commenced with interventions by Government for 5G and 6G. ii. The Government may negotiate & acquire the technology and pass on the same for domestic manufacturing else DoT may create a fund & promotes development of technology in India with support of identified companies. Most important requirement is access to market. iii. After innovation/ R&D, the manufactures shall be supported for domestic as well as international market access. <p>f. Issue of Spectrum for Domestic Manufacturers: Spectrum Allocation Policy provisions of NFAP 2011 clearly envisage the need for de-licensing of certain frequency bands for specific usages and to encourage Indian Innovations in Telecom & lead the Global Market. Later on, the NFAP 2018 did not contain any such provisions inspite of the fact that National Digital</p>

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		<p>Communications Policy 2018 stipulated ‘Facilitating allocation of spectrum for R&D and experimentation at affordable prices. To facilitate the innovations, there is urgent need to implement the above referred provisions of NDCP 2018 in the frequency allocation plan NFAP 2018 by suitable amendment.</p> <p>g. Setting-up Telecom Finance Corporation: In spite of availability of the Indigenous products, the private telecom service providers are reluctant to buy the same. One of the main reasons is vendor’s credit at low interest rates along with a moratorium period of 4-5 years. National Telecom Policy 2012 also stipulated creation of telecom finance corporation. Therefore, on the lines of Indian Railway Finance Corporation and NHAI, Infrastructure Investment Trusts (InvIT), a Telecom Finance Corporation/ InvIT may be established, by the Government of India, for telecom sector for providing long term soft loans with certain moratorium period to the telecom service providers who buy the indigenous telecom equipment.</p> <p>As per answer to Lok Sabha Question No 1231 dated 23.11.2016, on July 2, 2013, the Telecom Commission directed to set up Telecom Finance Corporation. Tender dated December 9, 2013/ July 14, 2011, was floated inviting consultant for preparation of DPE. The report was also submitted on October 28, 2016 and since then a ‘Consultancy Monitoring Committee’ of Department of Telecommunications is examining the aforesaid report. The aims and objectives of TFC (Telecom Finance Corporation) as given in reply to Lok Sabha Parliament Question No 3624 dated March 18, 2015 are as under:</p> <ol style="list-style-type: none"> i. To make available schemes of funding such as line of credit, bridge loans, corporate loans, debt refinancing, venture capital financing and other related financial/funding solutions for borrowers in telecom sector. ii. To mobilise various sources from domestic & international sources at competitive rates. iii. To support manufactures of telecom equipment especially in small & medium scale sectors by providing financing at competitive rates. iv. To provide non-fund-based service like-Guarantees, Letter of Credit, Letter of Comfort, Indemnification, Financial advisory and consultancy services and other relates activities. v. To work as a catalyst to streamline the functions of its borrowers in financial, technical and managerial areas to ensure optimum utilisation of available resources. vi. Financing of all such activities that contribute towards overall development of Information & Communications Technology (ICT) in the country.

Question No.	Question Description	Input/ Comments
		<p>vii. To expand into other financial services like Merchant Banking etc. to provide a complete bouquet of financial services to prospective clients.</p> <p>viii. To participate by way of equity contribution in other infrastructure related funds.</p> <p>ix. To adopt best practices in financing infrastructure and develop core competencies in facilitating infrastructure development.</p> <p>x. To provide inputs for policy framework and regulation from the financial angle.</p> <p>xi. To promote development of green and energy efficient equipment taking into account economic viability</p> <p>In view of above, it is recommended to expedite the setting-up of Telecom Finance Corporation.</p> <p>h. Lack of clarity for Administrative Ministry for Mobile Handset: The wireless and mobile, as per allocation of business rules, lies with Department of Telecom (DoT), which is specialised department for such products. DoT has mandated IMEI, SAR tests, Standard Operating Procedure for verification of fake IMEI numbers on mobile, CEIR, ICDR, Indian Languages, Panic Button, GPS, Mandatory testing for National Security Issues. In addition, Ministry of Electronics and IT has prescribed Compulsory registration/ BIS testing for consumer safety parameters such as electric shock, current leakage etc. and Mobile handset Surveillance. There is need that the appropriate department i.e. DoT shall look after all the mobile, wireless related issues. Including telecom/ mobile in the MeitY incentive schemes of MSIP etc. is not an issue. These schemes are owned, operated by MeitY and can be administered by MeitY.</p> <p>i. Issue of Private Consultants working in Telecom Arena: It is pertinent to note that a specific consultancy Company submits a report, very often, encompassing recommendations for local manufacturing which becomes basis for subsequent discussions in Government. Most of these reports are funded and sponsored by vested interests/ importers lobby. There is hardly any requirement of disclosures by them as whom they are representing. Further, no qualifications are prescribed for the consultants. As a result, any person appointed by the company becomes an expert. It is well known fact that most of the smart city project reports are tailor made by some consultants to serve interest of someone. Recommendations of Bidder Company to qualify in Gartner’s quadrant are proof of such situations. Therefore, it is recommended to adopt policy on the lines of SEBI registration of Consultants/ Research</p>

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		<p>Analyst “Securities and Exchange Board of India (Research Analysts) Regulations, 2014” dated September 1, 2014.</p> <p>j. Data collection for Production-Information: There is always need of statistical data of actual manufacturers, their capacities, production details etc. In the absence of a central place where all telecom manufacturers are registered, such data collection becomes difficult. The manufacturers are also not required to give production data to Government or any other private/ statutory body. Such data becomes indispensable for formulation of various policies. Therefore, it is recommended that an administrative mechanism, mandating all manufacturers to supply data either to Government or an industry council or association, may be evolved.</p> <p>k. International Practices for Support Telecom Equipment Design, Development & Manufacturing of Telecom Equipment: The Countries have been protecting and promoting their home technologies toothlessly and forcefully. Major global brands emerged and R&D created well-known brands, as their Countries supported them by a policy directive on new technologies and time to time course corrections leading to creation of viable Ecosystem. Under Chaptor-3 of the Consultation Paper, TRAI has nicely comprehended the protection/ support extended by Governments of various countries be it USA, China, Germany, United Kingdom, South Korea and Taiwan. It is recommended that the Government of India may also analyse the protection/ support provided by the Governments of various countries and may also evolve similar framework for supporting the telecom industry for design led manufacturing and lead the country to achieve self-reliance.</p>