

Broadband India Forum Comments/Response to the Draft National Policy on Electronics 2018

The Ministry of Electronics and Information Technology has released the Draft National Policy on Electronics 2018 (NPE 2018). NPE 2018 envisions to position India as a global hub for Electronics System Design and Manufacturing (ESDM). In order to achieve this vision, NPE 2018 intends “*to position India as a global hub for Electronics System Design and Manufacturing (ESDM) by creating an enabling environment for the industry to compete globally*”.

We at Broadband India Forum welcome and fully support the vision, mission and the strategy put forth by the Ministry. This is especially pertinent when India is battling a balance of payments situation. India’s Q1 current account deficit (CAD) stood at 2.4% of the GDP.¹ The Indian rupee has been on a slippery slope too. The INR slid from levels of 63 against the USD in the beginning of the year to as low as levels of 74.5 against the USD. The forex situation is exacerbated by the trade deficit of India. Electronic items are weighing heavily on India’s trade deficit. The annualized electronic goods deficit touched USD 50 billion for April-December.² India’s net electronic imports increased 12% compared to a year ago.

There is a great opportunity in this challenging situation. Electronics is a sunrise sector where India can assume global leadership. This is consistent with Prime Minister Shri Narendra Modi’s vision of Make in India for the world. Shri Modi recently spoke of India’s manufacturing capabilities in the field of electronics where India is rapidly moving towards being no. 1 in mobile manufacturing.³ As far back as National Policy on Electronics of 2012 had recognized that India should promote exports of electronics. The policy document had set targets of USD 80 billion worth of exports by 2020. However, India is far from achieving those export targets. Shri Ajay Prakash Sawhney, Secretary, MeitY, recently again emphasized the need for export orientation in electronics. He stated that while the demand for electronics in India is growing, it will soon plateau out. He stressed that in order for India to become a manufacturing hub, the focus would have to be on manufacturing for India & global markets. The aspirations of the Hon’ble Prime Minister, and the country supported by statements of Secretary, MeitY, however, need to be complimented with supportive policy interventions in the form of incentives and a long-term plan that focuses on making India a global hub for manufacturing across the entire value chain, including electronics, components and sub-assemblies.

CONTEXT

As Broadband India Forum represents various segments of the Electronics & Digital industry which inter alia includes the handsets, the active equipment manufacturing industry notably network equipment and the passive equipment viz. Optical Fiber cables, the narrative below captures all

¹ India’s Q1 current account deficit (CAD) at 2.4% of GDP: RBI data. Business Standard. September 8, 2018. Read [here](#)

² The curious case of rising electronic imports. Livemint. March 14, 2018. Read [here](#)

³ India becoming global hub for electronics, auto manufacturing, says PM Modi in Japan. Hindustan Times. October 29, 2018. Read [here](#)

segments of the electronics manufacturing industry and the suggested balanced all rounded approach towards each of the segments. We would like to state at the outset that it requires a 'horses for courses' approach rather than one single approach for all segments of the industry. We are hopeful that the distinction between the handset manufacturing, active telecom equipment manufacturing and passive infrastructure, notably OFC will be recognized and the subtle nuances in policy w.r.t each segment would be taken, as mentioned.

We are also hopeful that any recommendations on policy measures will be based on this distinction between the verticals and will be aimed at pushing local manufacturers to add value to the production process by enabling investments in R&D.

Today, even in the larger electronic goods manufacturing sector, the emphasis should be to make domestic manufacturing internationally competitive (in price and quality terms), even if they are today catering mainly to the domestic sector. This will mean a significant move up in the production value chain. To bring local manufacturers to a point where they can compete with international entities in export markets, to create skilled employment at home and to set the stage as an investment destination, the focus of policy initiatives will have to be on value addition. This arguably seems to be the only way in which huge import bills for the electronics & telecom sector, referred to in the Draft Policy Paper, can be curbed and managed.

1. There is a substantial discussion on the cost of technology and its linkages to the low levels of telecom equipment manufacturing in India. It is our assertion that lower intensity of manufacturing in the country is not connected to the affordability of technology by the local manufacturers. As will be demonstrated in the responses below, the lack of manufacturing in this sector has more to do with the lack of sufficient fiscal incentives, like those successfully created in countries like Brazil, China, Vietnam and Indonesia. Technology on the other hand has been available as low costs in India. This has been the single largest driver of the exponential growth of mobile telephony and data connectivity.
2. One of the key reasons this technology has been affordable and accessible can be traced back to the role played by self-regulating organizations involved in technological standard setting (**SSOs**). These SSOs have been critical in advancing and disseminating technological standards throughout the world including in India. The SSOs have created an ecosystem within which small innovators are able to compete with the larger more established players, all accompanied with the rigor of rule of law and democratic decision making. This process has in turn prevented monopolies and has allowed for the sector to grow to the benefit of customers. In trying to impose ad hoc regulatory controls over aspects of how SSOs operate (by regulating SEP licensing or pushing for licensing at the smallest saleable component level, for example), irreparable damage will be done to the ecosystem. If SEP licensing is treated as a means of price control under the guise of FRAND principles, there will be a disincentive for R&D and the innovators will no longer be interested in licensing at unviable returns. Startups will no longer have a platform for their technological contributions, removing incentive for them to invest in R&D which will ultimately lead to them losing any leverage they may have had against their global counterparts. With low quality investment and poor leverage, India will not be able to enhance the much-

needed local value addition or create high-quality employment. Needless to say, with diminished economic activity the “Make in India” initiative will stall and ultimately it is the consumer interest that will be harmed.

The other issue to consider is the distinction between telecom handset manufacturing and electronic manufacturing. While telecom handset manufacturing is a subset of wider electronic manufacturing, it is anomalous to it. The growth story of handset manufacturing has taken on a completely different trajectory in India as compared to the growth of electronic manufacturing primarily because the markets for the two types of products are entirely different. This has been detailed in our responses below. So, it is very important to keep the distinction in mind when developing policy reactions and mechanisms to stimulate manufacturing

It is perhaps pertinent to state that the Govt. initiatives to promote electronics manufacturing in other sectors like LED, consumer electronics, mobile handsets, automotive electronics etc., which are often cited as successful cases of local manufacturing are primarily in the ‘ low technology, mass market ‘ dominated B2C sectors, whereas the Telecom Equipment manufacturing is essentially in a ‘ high & complex technology associated with low volumes ‘ B2B market with a limited set of consumers . Telecom equipment on the other hand is quite different. Government procurement of handsets is negligible, and of network equipment is low and insufficient for the manufacturers to depend on it. Hence, handset manufactures have to rely on fiscal incentive (just like Brazil, China, Vietnam, Indonesia etc.) and the electronic manufactures have to depend on exports.

For the handset manufacturer, India has represented a captive local market. With strong domestic demand of 300 million smartphone subscribers, there is ample reason to enhance local manufacturing. This has explained the significant increase in the number of local handset manufacturers in India. The challenge to this sector has not been that of stimulating local manufacturing, but rather it has been one of not having sufficient incentive to move up the manufacturing value chain.

The reality of handset manufacturing in India is that there is not enough domestic investment occurring and the manufacturing consists mostly of producing knocked down sets; there is little value addition occurring (6%) locally. Total investment till early 2017 was just under \$ 500 million USD (less than 4 % of the total turnover). In recognition of this challenge, the Government has already (in April 2017) notified a *Phased Manufacturing Plan to promote indigenous manufacturing of cellular mobile handsets, its subassemblies and parts/subparts/inputs of the subassemblies thereof (PMP)*. The primary objectives of the PMP are that of promoting depth in the domestic manufacturing of cellphones and their components over a period of time, and that of substantially increasing local value addition in such manufacturing activities. If this roadmap is successfully rolled out, there will be a distinct upwards movement of India’s domestic handset manufacturing. It is expected that the PMP will result in the value addition or share of indigenously procured components in feature phones to go up from around 15% to 37%; and in smart phones, this share is likely to increase from around 10% to 26%. The Financial Action Task Force, set up by the Ministry

of Electronics and Information Technology is also currently in the process of formulating a second phase of the PMP, which is expected to enhance local value in feature phones and smart phones to 58.3% and 39.6%, respectively. However, there is a risk here too. The foundation of PMP rests on increasing customs duties for imported components. However, India's ability to raise customs duty is limited. Therefore, a preferred approach would be to give direct fiscal incentives to the manufacturers. BIF & EY in a recent study has proposed to refund the GST paid to the manufactures as a fiscal incentive (attached as annexure). This will motivate the Indian manufacturers to add more value (GST directly measures the value added by the manufacturers).

However, the situation with network equipment manufacturing is very different.

The manufacturing location strategy for Enterprise Network Telecom products is hinged upon:

- Operating cost in balance with operating capabilities – industry maturity; technical talent; new product introduction capabilities; etc.
- Proximity to key suppliers & key customers – esp. for smooth product launches and transitions

Due to high complexity in enterprise telecom manufacturing, it is imperative for companies to establish manufacturing at global locations that can cater to as large a market as possible to achieve economies of scale by maximising volumes as the local market in India is a small market marred by low volumes. So, the growth of the sector has been sluggish and local manufacturers will have to rely on exports.

The need for large market and scale directly translates into the necessity for increased focus on an **India for the World strategy** for telecom manufacturing instead of relying only on an India for India strategy. However, to be able to compete in the export market, there must be an ecosystem in India that reduces transaction cost including export transaction cost, allows the manufacturer better margins, and thus make their equipment more attractive. The incentive programs for electronic equipment, such as the M-SIPS and support to set up chip manufacturing facilities, have been plagued with implementation issues. After inter-ministerial delays, a cap to the subsidy for capital expenditure has been placed which may not support the aim of Net Zero Imports. These schemes also do not address the challenges to raising capital in India.

To provide all round impetus to manufacturing for both handsets and network equipment, the importance of the 'Make in India' program launched by the Hon'ble PM must be borne in mind and all existing and new initiatives made by global majors/OEMs to start/shift their manufacturing hubs to India should be welcomed in the same spirit. Also existing units manufacturing equipments out of India must also be subsumed under the 'Make in India' and be deemed to have contributed towards the overall effort to boost local manufacturing

Recognition of such initiatives undertaken by a few Global OEMs, much before India had a policy around local manufacturing, will provide a great boost and impetus to other global OEMs waiting to invest in India to set up manufacturing hubs to meet the needs of not just the domestic/local telecom market but also for overseas markets with a focus on exports out of India. Such a move is likely to provide great impetus to make manufacturing viable and 'Make in India' doable. The

manufacturing policy should therefore be inclusive in nature and should facilitate and incentivize the efforts of these Global OEMs already in India while encouraging pure local players concurrently

For Local Telecom Equipment Manufacturing to prosper, the Govt needs to overcome some of the key infrastructural challenges being faced by a majority of the manufacturers viz.

- Cost disparity in exports from India
- Inadequate Power availability
- Infrastructural support
- Lack of ready availability of components and sub-assemblies at globally competitive prices
- Disincentive to do genuine local value addition as compared to SKD assembly due to duty arbitrage
- Removal of barriers to set up R & D hubs in India
- Creation of Intellectual Property (IPR) and protection of Patents/IPRs etc.

Besides encouraging investments in R & D for 5G, what is also required is reliability and predictability when it comes to the IPR Regime. This will enable us to keep pace with the advent of new technologies viz. 5G, AI, M2M, Cloud etc. With the declaration of intent by India to become an early adopter of 5G technology and with the data explosion already happening, it is absolutely essential to build investor confidence by strengthening our IPR regime to make it more reliable and predictable

The Policy must have special place for incentivizing local R & D. As the telecom industry is a fast paced and fast changing industry , we need to ensure that we provide all support to step up the R & D capability to keep pace with the rapid change of technology Procedures & processes for import of Capital equipment to set up R & D labs out of India need to be simplified and facilitated as lack of which is likely to be detrimental to the growth of telecom infrastructure and deny India the opportunity to possibly become the global R & D hub and in particular may lead to loss of a big opportunity in wake of development work on 5G. (A short note to this effect is also attached herewith)

Policy measures to increase investment in R&D, especially risky R&D are required in India today. These will need to include a wide range of initiatives – availability of capital for investment in state of the art machinery for production, a robust IPR framework to protect technology and innovations and development of skilled manpower.

An investment in high value production, skilled labour, access to cutting edge technology, will all contribute to increasing innovations in the telecom manufacturing sector. None of these objectives can be truly achieved in the short term and so the focus of the Government should be to work towards these broader goals in the medium to long term.

India is required to initiate a slew of measures to boost Innovation & Productivity of Local Telecom Manufacturing.

In the short and medium term, India has to take the following measures:

- remove the infrastructure roadblocks
- provide thrust to Make in India
- remove cost disparity in exports from India
- assured IPR regime

- respect for protection of patents (SEPs)
- removal of barriers for setting up Global R & D hub
- facilitation and simplification of processes for setting up Pilots/Trials for New Technologies

The Long term approach should perhaps be :

- to encourage and incentivise creation of Global R & D hubs in areas of New Technologies,
- creation of world class Global Manufacturing hubs
- setting up of world class semiconductor fabrication units
- Incentivize faster transition from development of new technologies/products to go-to-market
- Streamline the IPR creation and filing regime to make India a global leader in this area.

Another important aspect of local manufacturing is to review the current state of Passive Infrastructure and what needs to be done to create a Global Manufacturing hub.

This is about how to place Indian Manufacturing on the World Map by encouraging specific industry that has reached scale in capacity & capability viz. India to become global hub for Optical Fiber.

Data intensive fiber is fundamental to all new technologies and wireless infrastructure especially with the coming of 5G, IoT, M2M and increased need for low latency and high bandwidth of data. Also India needs to connect 100% of cell sites with Optical fiber from its present level of mere 20%; Hence given the huge local market and the global need for optical fiber , the industry must be given the right platform to scale up . India can feature in the manufacturing map of the world by promoting quality manufacturing of Optical fiber. Manufacturing of fiber is a successful case study of Make in India. The optical fiber manufacturers have contributed significantly to design-based manufacturing with co located R&D, 160 plus patents, significant capacity and exports to 100 plus countries. The manufacturers operate using global standards and contribute to the growth of global standards. Also, efforts are made to create skilling through home grown academies. Hence, enabling policies supporting and incentivizing fiber manufacturing could bring economies of scale and huge efficiencies to kick in, thereby benefiting the nation as a whole. Given the confidence of the industry and a vibrant expansive market, it is at this juncture that a special incentive package should be given to this industry to make India as the fibre manufacturing capital of the world.

Increasing the value addition in fibre manufacturing will carve out India's ability to cater to domestic and the world market. At this critical juncture the significant investments in manufacturing capacity and capability bear fruit in building consensus of India's strength in manufacturing. A detailed Note on the Optical Fiber Industry including specific Recommendations for the same is attached herewith.

On **MEIS**:

Export Market specific incentive will ensure Indian fiber reaches critical mass in the world and establishes India as a manufacturing success. Export market incentives must be raised to 5% from current 2% - recognized for Optical Fibre and Optical Fibre Cables (HSN Code 90011000) to ensure Indian Optical Fibre (OF) & Optical Fibre Cable (OFC) industry competes successfully in Global Market and there by achieving the core objectives of the scheme and the India brand. This will

enable the Indian manufacturers to increase the significant market share and give serious impetus to exports and earn more foreign exchange for the country.

It is indeed a fact that we live in a world which is profoundly reliant on standard products which embed good regulatory principles into their functioning. It is indeed a fact that reliable and responsible OEMs /Vendors which comprise the majority of equipment providers to the Telecom networks have products that are in conformance to globally accepted standards of manufacturing, testing and usage and are used in over 150 countries all across the world after meeting all the relevant legal & regulatory requirements. These products undergo various testing and certification process at globally reputed international labs for environment, safety, security & conformity assessments. Also the Licensed Service Providers who use these equipments in their networks require mandatory compliances and standards which are contractually binding as well as based on the prevailing statutory /regulatory requirements of the country

Given so many checks and balances that already exist, this proposed directive to have an additional requirement of conformity assessment (testing, inspection & certification) for products intended for use in the Indian market is likely to create potential supply-chain disruptions , restrict market access, lead to increase of technical and regulatory barriers and increase in cost of telecom services thereby hurting the consumers . In view of the hugely adverse impact this will have on the Ease of Doing overall Business and on the cost and time to provide services, this proposed TEC Mandatory Testing & Certification for all telecom & Enterprise products should be withdrawn and status quo restored.

However, as a regulatory mechanism, we urge adoption of a system of self-certification. This will reduce administrative costs for the Government and will move the onus of certification to those who may be better trained to verify safety and efficacy.

As regards standards, some of the leading Global OEMs who are manufacturing telecom equipment in India, are compliant to global standards of ETSI, 3GPP, etc. and are using state-of-the-art-technology, the best quality standards and are producing equipment which are tested against the relevant international standards with appropriate certification. To re-invent the standards, certification & testing mechanisms for such equipments and products would perhaps not be desirable.

With specific reference to the TSDSI, we believe it can be the ideal mechanism by which India can contribute to the global standard setting process and also ensure that Indian specificities become part of global standards and to continue its momentum and work through tabling of local requirements at global platforms and for contribution to the global harmonization of standards is welcome. We also note that the composition of the TSDSI will lend to stability with membership cutting across the Government and the private sector. This will ensure that all members have a vested stake in the collaborative standard setting process.

It is felt that a well-rounded approach is perhaps required to promote local telecom manufacturing which includes fiscal and financial incentives.

Some of the areas where local manufacturing is lagging is in the area of local value addition and also the value of the equipment sold overseas which may be termed as ‘deemed export’. These need to be incentivized.

There is an urgent need to correct the Cost disparity of about 5% for exports for an India for the World manufacturing strategy to succeed through relevant interventions.

Outlining the reasons for the disparity below –

	Landed cost element	India vs. China / Malaysia / Thailand
a)	Bill of Material (BoM)	↔ India comparable • Global pricing list Global pricing for components
b)	Inbound freight for shipping components into India factory	↓ 3% unfavorable (Sized as <u>2%</u> of Bill of Material cost) Compared to global/regional benchmarks, India is farther away from component factories and the shipping rates are more expensive due to lower volume flowing into India specific transportation lanes vs. the ones going to “mega factories” in Malaysia, Thailand, Mexico,
c)	Transformation cost / Conversion (raw material into finished goods)	↔ India comparable India factory lack scale compared to China factories; Advantageous labor rates in India are offset by fully burdened cost of facilities & electricity
d)	Outbound freight for shipping out finished goods	↓ 2% unfavorable (Sized as <u>2%</u> of Bill of Material cost) Due to low export volumes compared to global benchmarks, the logistics rates are slightly higher. Higher exports volume is needed to offset.

Export Incentives of 5% would help exports from India become competitive. Such as through the MEIS scheme of the government.

While Local Value Addition in handsets/Smartphones is of the order of 10-15 %, the same in the area of Telecom Infra is of the order of a few percentage points. In a study/Report jointly conducted by BIF along with E&Y, it was established as to how to increase local VA for handsets manufactured in India under the GST Regime. **(Copy of Note attached)**

BIF & EY Joint Study Report on Refund of GST to promote handset manufacturing is a prudent way to incentivise local manufacturing than the present regime for mobile handset manufacturing which lacks fiscal incentives, but only duty of components is being increased which run the potential risk of being reversed due to reciprocal action by others on account of WTO violation and hence may not be sustainable in the long run

The objective of the Export Promotion Capital Goods (EPCG) scheme is to facilitate exports by allowing the import of capital goods for producing quality goods and services to enhance India’s export competitiveness.

Export Promotion Capital Goods (EPCG) scheme allows import of capital goods including spares for pre-production, production and post production at zero duty subject to an export obligation of 6 times of duty saved on capital goods imported under EPCG scheme, to be fulfilled in 6 years reckoned from Authorization issue date.

It is a fact that the introduction of GST “Goods and Services Tax” in India created great impact on EPCG scheme. Exporters are worried, after implementation of GST, since an importer under EPCG has to pay GST and gets only import exemption on basic customs duty at the time of import where such GST is adjusted or refunded at later stage by blocking the money for good time duration. Under post GST implementation in India, if an importer under EPCG scheme has to pay GST initially and gets refunded or adjusted later stage, and only gets exemption of basic custom duty, that would be a blockage of money for the importer. In other words, expenses for import against EPCG scheme will be expensive after introduction of GST in India.

To support make in India initiatives and increase India’s exports - allow to import machinery which has high export intensity, employment potential and thereby enhancing India’s export competitiveness

Investments in Capital Goods will increase production capacities which in turn will support telecom products to be used in Government of India initiative for Digital Infrastructure & rural broadband.

It is very important to restore the present form of EPCG. As it is stated that the payment of IGST will lead to accumulation of credit and working capital blockage in the form of "Loans and Advances "in the balance sheet. The liquidation will take a longer time, since the projects will take normally longer time for exports (additional outputs as per enhanced capacities) in the range of 4 to 6 years at least. This will lead to deferrment of investment or Capex plans and also defeat the very purpose of Make in India and Digital India.

India become party to the ITA 1 (later modified in 2005), to help its nascent electronics industry grow, at a time when its economy was still liberalising. The ITA 1 required states to eliminate customs duties and other charges on the import of certain telecom equipment. In compliance with these obligations, India has been imposing 0% import duty to IT products across 217 tariff lines. The products covered by the ITA 1 include telephone sets (including cellphone headsets), apparatus for the transmission or reception of voice, images or data, wire lines, and wireless equipment. The list of equipment to which such treatment was to be given, was sought to be extended by the ITA 2 in 2015, to include consumer electronic items, base stations, and other telecom equipment that have a security impact. India is not a signatory to ITA 2, and therefore it is not obliged to offer a favourable tariff for the import of such products as are covered by the ITA 2. Therefore, the impact of our international obligations will stay limited. India has since imposed a 10% import duty on soft switches, VoIP phones, media gateways, gateway controllers and session border controllers, optical transport equipment and IP radios, carrier ethernet switches, multi-protocol label switching-transport profile products and multiple input/output and long-term evolution (LTE) products.

Further, the Government of India has launched project of 'smart city'. The objective of the mission is to promote cities that provide core infrastructure and give a decent quality of life to its citizens, a clean and sustainable environment and application of 'Smart' Solutions. One of the core elements of 'smart city' is robust IT connectivity and digitization.

Strong internet connectivity and Wi-Fi facility across the cities/ country is the essential requirement to implement the project of 'digital India' or 'smart cities'. In order to fulfill the said basic requirement, the tax rate should be kept as low as possible.

It must be however mentioned that risk of increased Customs Duties under ITA and its dilution due to FTA agreements to which we are a signatory are a major risk. Hence it is important to have fiscal incentives viz. Return of GST as proposed by BIF in the past through the joint study report with EY.

An export-oriented approach will need to be adopted for the electronic equipment manufacturing sector, The approach should be incentivized towards meeting not only domestic demand but also to become a regional if not a global export hub. This would enable attaining the twin objectives of becoming globally competitive in both price and quality. Steps should be taken to provide suitable incentives and also provide amiable ecosystem which will attract foreign investors to set up global manufacturing hubs in India.

This would result in technology transfer, creation of local design hubs, local ecosystem of manufacturing of components, job creation, skill developments, etc. and will give a huge boost to the overall economy.

As explained above, the lack of domestic demand for electronic equipment manufacturing will have to be made up by placing reliance on the export markets if local manufacturers are to grow.

The handset manufacturing sector has seen inflows of FDI of up to USD 4.2 billion in FY 14-16 as compared to the paltry FDI inflows of USD 208 million for electronic manufacturing.

There is a Unique value-addition of advanced global telecom manufacturing coming into the country. The co-location of R&D and high-tech manufacturing leads to a fly-wheel effect, resulting in faster product development and accelerated time-to-market. This builds the eco-system and achieves self-sustainable continuous growth.

An essential element of attracting foreign investment in India is ensuring predictability in the regulatory and socio-economic frameworks (such as having a predictive tax regime) and also having an enabling legal framework (such as enabling foreign investment, easy debt resolution processes, a strong IPR framework and honoring contractual obligations). The Government has already taken several steps towards ensuring ease of doing business. In tandem, the Government must also attempt to reduce transaction costs and eliminate cost-disparity for exports from India for local manufacturers to enable them to compete in the export market. A significant aspect of this is to create capacity for skilled labour.

Another important aspect of local manufacturing is to review the current state of Passive Infrastructure and what needs to be done to create a Global Manufacturing hub. This is about how to place Indian Manufacturing on the World Map by encouraging specific industry that has reached scale in capacity & capability viz. India to become global hub for Optical Fiber. (A separate Note to this effect is attached herewith)

Data intensive fiber is fundamental to all new technologies and wireless infrastructure especially with the coming of 5G, IoT, M2M and increased need for low latency and high bandwidth of data. Also India needs to connect 100% of cell sites with Optical fiber from its present level of mere 20%; Hence given the huge local market and the global need for optical fiber, the industry must be given the right platform to scale up . India can feature in the manufacturing map of the world by promoting quality manufacturing of Optical fiber. Manufacturing of fiber is a successful case study of Make in India. The optical fiber manufacturers have contributed significantly to design-based manufacturing with co located R&D, 160 plus patents, significant capacity and exports to 100 plus countries. The manufacturers operate using global standards and contribute to the growth of global standards. Also, efforts are made to create skilling through home grown academies. Hence, enabling policies supporting and incentivizing fiber manufacturing could bring economies of scale and huge efficiencies to kick in, thereby benefiting the nation as a whole. Given the confidence of the industry and a vibrant expansive market, it is at this juncture that a special incentive package should be given to this industry to make India as the fibre manufacturing capital of the world.

It is unwise to leave the telecom equipment manufacturing sector entirely dependent on government protectionism. As discussed earlier, equipment manufacturing is already faced with low demands which Government procurement will not be able to replace without creating artificial demand. This will create massive systemic challenges and the PMA will end up pandering to inefficient players. It also limits the choice of government procurers and buyers while purchasing equipment and promotes a misconception that locally manufactured equipment will be more secure against cyber security threats. Therefore, we recommend modifying the PMA policy, and supplementing it with procurement processes that recognize value addition, innovation and that provide state of the art products. A detailed note on Current Challenges in Growth of Telecom Equipment Manufacturing including suggested changes in the PMA Policy to help boost local manufacturing with special emphasis on exports is attached herewith. National Policy on Electronics 2012 (NPE 2012) laid the foundation for the current draft of NPE 2018. NPE 2012 had recognized that the demand for the ESDM sector is going to increase to USD 400 billion by 2020, of which only USD 100 billion will be domestic production, leaving a gap of nearly USD 300 billion. NPE 2012 recognized that this would lead to a situation of imbalance of electronics imports. An additional concern raised by NPE 2012 centered around the low value addition by domestic companies ranging from 5-10 percent.

It was pursuant to recognition of these challenges that NPE 2012 laid emphasis on building the domestic capacity of the ESDM sector in the country as well promote exports of electronics. The policy set an objective of achieving a turnover of USD 400 billion by 2020. The policy also envisaged that India would have a globally competitive ESDM sector. In addition, the government planned to build the export capacity of the ESDM sector to the tune of USD 80 billion.⁴

Current challenges

1) Low turnover

⁴ Clause 4 of Part III of National Policy on Electronics 2012

The global handsets market is worth approximately USD 467 billion. This demand is being met almost entirely by China, Vietnam and Taiwan. India does not play any meaningful role, owing to severe limitations on its manufacturing capacity. The size of the ESDM sector of India was pegged at USD 61.8 billion in 2015. The sector is expected to grow at a CAGR of 15-19 percent to reach USD 123-150 billion by 2020. Mobile devices are the largest segment, which constitute 27 percent of the ESDM sector in India. Mobile devices will continue to dominate the sector contributing 30 percent to the total ESDM market.⁵ India produced 225 million handsets in 2017.

2) *Low exports*

The exports from India are insignificant in the ESDM sector. As a result, India has been incurring net loss in trade balance due to high imports of electronics. In 2017-18 alone, India imported electronic goods worth \$53 billion. This has repercussions on the trade balance of the country. In comparison to its imports of components and sub-assemblies, India exported 2 million handsets i.e. handsets worth USD 172 million in 2017. This amounts to 0.2% of the export targets set by the NPE 2012. As an approximate for the entire ESDM sector, the exports are not more than 0.3% of the total production. In comparison to India's exports of USD 172 million, China exported handsets worth USD 127 billion. Even Vietnam exported more handsets, worth USD 27.2 billion in the year 2017.

3) *Lack of a manufacturing ecosystem*

The component manufacturing ecosystem of the country is lacking. In the past, the government tried to support the ESDM sector with the Phased Manufacturing Program (PMP). The aim of PMP is to impose duties and give tax relief and incentives on select products involved in domestic manufacturing of cellular handsets. While PMP has been able to help India develop some manufacturing capacity in component manufacturing such as chargers and adaptors, success eludes the country in other components like mechanical parts, die cut parts, microphones and receivers, keypads and USB cables. Even though, India managed to reduce its import bill on account of smart phones being assembled in India, the import bill ran up on account of the import of components and sub-assemblies. This is a severe limitation of the PMP that needs to be acknowledged and remedied.

4) *Low value addition*

Indian manufacturers suffer from severe cost disabilities across the value chain as compared to China and Vietnam – a fact recognized at both NPE 2012 and Draft NPE 2018. These are primarily attributable to a limited component ecosystem and other manufacturing disabilities such as - high inventory carrying cost due to long lead time for supply of components, high operating costs due to high electricity tariffs and high cost of capital. These and several other disabilities render India uncompetitive. As an example: India manages to make a value addition of 15 percent while China makes a value addition of almost 70 percent. This due to the fact that China's entire manufacturing policy is based on incentives (carrots) and India's is primarily led by imposing tariffs (sticks).

⁵ Indian ESDM Industry Update. IESA-EY Report. February 2017. Access [here](#)

In light of these challenges, it is important that the National Policy on Electronics 2018 focuses on addressing the issues listed above.

Our Recommendations

There is a need to ensure that India increases the domestic turnover of electronics, components and sub-assemblies and capture larger value from the electronics global value chain. The goal of the future policy should be to promote high tech and high value exports. India must take the opportunity and aspire to be a global leader in context of the declining competitiveness of China. India would not have to suffer foreign exchange imbalance if policies enabled it to export higher value of electronic goods. The government must take measures to promote a large ecosystem for domestic manufacturing, lay special emphasis on exports and capture greater value through the value chain.

1) Make India an attractive destination for manufacturing

The future policy needs to focus on making India an attractive destination for manufacturing electronics. India will be an attractive destination only if becomes the base that satiates a large-scale demand. It is expected that India's demand for ESDM would reach USD 400 billion by 2023-24. These numbers would not justify the investments and capacities that companies would bring in. On the other hand, the global production for ESDM is expected to be approximately USD 2,450 billion. Therefore, markets beyond India would have to be explored. This means India needs to serve as a base where manufacturing is carried out not only for India but also for the world. Taking example of mobile phones, if India were to produce only for domestic markets then the country would manufacture only 450 million handsets by 2025. On the other hand, if India manufactured for global markets besides its own, it could manufacture 3 times the handsets i.e. 1250 million handsets. Beyond just numbers of handsets, India needs to rapidly capture the markets for the manufacture of high-end smartphones.

2) Generate large-scale employment by encouraging electronics manufacturing for exports

The increase in manufacturing of handsets is bound to have positive effect on employment too. Manufacturing only for India would generate jobs for 18 lakh people, while it is expected that APTP operations alone will create 47 lakh jobs if India pursued a strategy to address global demand.⁶ In order to make India an attractive manufacturing hub the Government of India must off-set the cost disabilities across the ESDM sector. This can be done either by availing low cost capital to the industry, or by helping the industry lower their operational costs or lower input costs. For example, China provided incentives including cash grants, direct subsidies and VAT refunds to make domestic manufacturing competitive. Vietnam also provided for land rent reductions, import duty exemptions, corporate income tax breaks for the high-tech sector to promote manufacturing capabilities.

3) Increase exports by enhancing incentives to replace the current tariff regime

⁶ Making India the global manufacturing powerhouse for mobile handsets and components. McKinsey & Company. ICA. 2018.

India needs to decrease its import dependency for the ESDM sector. The strategy to reduce dependence on imports does not lie in imposing tariffs on imports alone. PMP sought to increase the cost of imports starting from 20% on mobile phones, 10% BCD on key components like PCBA and 15% on other components. These measures have shown limited success. They have not built India's capabilities beyond the first phase of smart phone manufacturing. In order to establish India as the next global manufacturing hub for electronics, a substantive change in the current thinking and policy making is required.

It is important to recognize that while PMP was successful in boosting domestic manufacturing, there is a need for a new policy which will enable India to host major manufacturing ecosystems. To make India a preferred manufacturing hub for hi-tech electronic products and critical network components, India must transition into an incentive-based structure creating a conducive environment for large ecosystems. For example, China provided export incentives such as 50% tax exemption on exports of 70% of production. Similarly, India can adopt an export incentivizing regime wherein companies will be exempt from all import duties on components and sub-assemblies where it is not available in India, provided they achieve a certain percentage of total sales in exports annually. This would encourage companies in a large ecosystem to build their capacities for exports.

4) *Develop a manufacturing eco-system*

In order to create a manufacturing ecosystem, a strategic approach needs to be adopted. Typically, countries create a conducive policy environment for large MNCs to invest in the country. These big MNCs are accompanied by their suppliers and vendors. For example, mobile ecosystems are largely organized around a few motherships. These motherships are a combination of a big brands such as Samsung, Apple, Huawei, Oppo etc. and their unique supply chains. It is because of the presence of such motherships, that China now has a well-developed ecosystem of mobile component suppliers with thousands of such companies. More than 30 suppliers earn more than USD 1 billion of revenues annually. This is similar to the Maruti automobile ecosystem that was built during the 80s and early 90s in India. It was pursuant to Maruti, several other successful automobile ecosystems followed suit and India became an auto component manufacturing hub. India needs to create a favorable policy and investment climate for electronic majors to invest in India. This will fire up large scale manufacturing, create employment and lead to knowledge transfer.

Manufacturing eco-system can also be developed by providing ease in doing business, which is pivotal for better planning and deployment of network. To increase efficiency and healthy competition in Govt deployments, more needs to be done to ensure operational efficiency by

- Easing the process of MSIPS with on-time payments till the time M-SIPS are not phased out.
- There should be provision for Onetime approval of company and proposed expansion plans. SLA timeline of not more than 60 days and approval on intimation for subsequent phases provide ease.
- Reimbursement process should be basis self-certification and on statutory audit of Fixed assets register. Payments should happen based on above and within 60 days. The process should be more flexible and less prescriptive.

LTU benefits also helps in “ease of doing business”. Single window clearance point for large taxpayer in relation to all matters of relating to Indirect tax, Income tax/Corporate tax. Ease of compliance requirement.

5) *Devise a host of incentives to make India’s exports competitive*

India will have to proactively think of ways to reduce its import dependency on electronics. Levying tariffs is a regressive way. The following measures on the other hand will improve the export capability and therefore may be considered:

- Extend the M-SIPs program to allow a mega-ecosystem to be established in India;
- Declare a standard rate of support, linked to production and manufacturing with a view to attract investments in the components and sub-assemblies while generating employment in a high-tech area where India currently lacks competitiveness;
- Provide interest subsidy of 6 percent on fixed and working capital for 10 years;
- Exempt import duties on components and sub-assemblies for additional production capacity which would include exports and domestic production against a target to achieve net positive exports;
- Provide special support in the form of incentives for promotion of certain critical sub-sectors of electronics manufacturing such as semiconductor wafer fabrication and display fabrication units;
- Any attempts to localize manufacturing by levying duties on sub-assemblies should be delayed until India’s domestic ecosystem has matured;
- Put in place Service Export Incentives (SEIs) of 5 percent for mobile application development, testing and advertising service to capture the full impact of app economy in India;
- Extend the list of capital goods eligible for zero-duty import;
- Provide a 10-year tax holiday on a block of 15-20 years on all export related profits and gains till such time that the corporate tax is reviewed;
- Extend the SEZ sunset clause by an additional 10 years and review policies of sale from SEZs into the domestic markets where duties are concerned;
- Review the Phased Manufacturing Program. Recognize its successes, alter sections that could cause harm to India’s objectives of becoming a global export hub and replace it with a new policy that is incentive-linked with a view to the global markets;
- Expand the scope of Reimbursement of State Levies (RoSL) to include incentives for manufacturing disabilities such as infrastructure, transport, logistics and power tariffs etc.
- **Advance Authorization**-It implies duty free import of inputs incorporated for the export product. For the intended product, importing of the materials within 12 months and the exporting of the finished product within 18 months.
- **EPCG-Export Promotion Capital Goods**-Scheme for zero duty import of capital goods for export production with an implied condition to export 6 times the duty saved value within 6 years.
- **Interest Equalization Scheme**-Interest subsidy to be increased to 6% for export product from existing 3%.

- **Transport Subsidy-** The freight from foreign import sources to domestic production points in India and then to the export destination is the real cost by 2-3%. Hence it is recommended that the actual inward freight cost be reimbursed by DGFT through actual cost claims by exporters which are duly whetted by recognised trader's association.
- **GSP Benefit-**It allows duty free import of goods. Benefit involves inclusion in the export market of US, EU and others.
- **PMI (Preferential Make in India) Benefit-** 100% preference to Indian companies for domestically manufactured electronic products.

6) *Entering into FTAs-*

FTA/PTA often benefits the other country and gets framed to benefit the international exporting countries into India with large domestic capacities. Eg: Japan and Korea have CEPA and Preferential rate of Import duties at lower rate are applicable that is hurting the growth of manufacturing in the country.

India should enter into FTAs with other countries where it's a market for India manufactured products and not where India is used as a market. Strong Anti-Dumping measures and Safeguards will help India become a 'Global Manufacturing hub' and protect the manufacturing industry. Creating barriers for imports from China and other countries, to help manufacturing to flourish and grow. Chinese products dumped into Indian markets in large capacity. Chinese suppliers are holding the strings of supply chain by holding back manufacturing components. Dumping of cheap products from countries like China will topple the nascent manufacturing sector in India. Hence, strong Anti-Dumping measures are required.

7) *Industry led R & D and Innovation-*

Incentivize R&D relating to India-specific fibre and cables through special grants. Domestic fibre industry including Sterlite is addressing some of these India-specific issues by developing innovative technologies such as A2 fibre that can withstand more bends without loss of speed compared to a standard fibre. These India-specific issues can become a testimony to the world. Moreover, domestic industry has limited access to foreign markets due to patent enforcement by multinational companies in those markets. Therefore, domestic industry needs Government support to innovate, protect innovation and access foreign markets.

Also, to render financial support for foreign patent filings to protect domestic innovation worldwide and access foreign markets. Any patents that get the financial support can be used by entire domestic industry to access foreign markets. Also, Fast-track evaluation of patent applications to 1 year from current 4-5 years would be helpful.

The incentive provisions for setting up of R&D Centers and FAB units within India under Mega Projects and other relevant areas should also be clearly articulated in the policy. Also, the provisions should be introduced to offer benefits for global companies setting up and/or expanding R&D facilities in India under Mega Projects incentives.

R&D is critical part of any manufacturing industry. R&D promotion is a great step. In addition to this, tax benefit on **R&D expenditure of 200%** should be extended for next 5 years in **R&D and IPR, design based E2E complex manufacturing to be encouraged.**