



# Karnataka Electronics System Design & Manufacturing Policy 2017-2022

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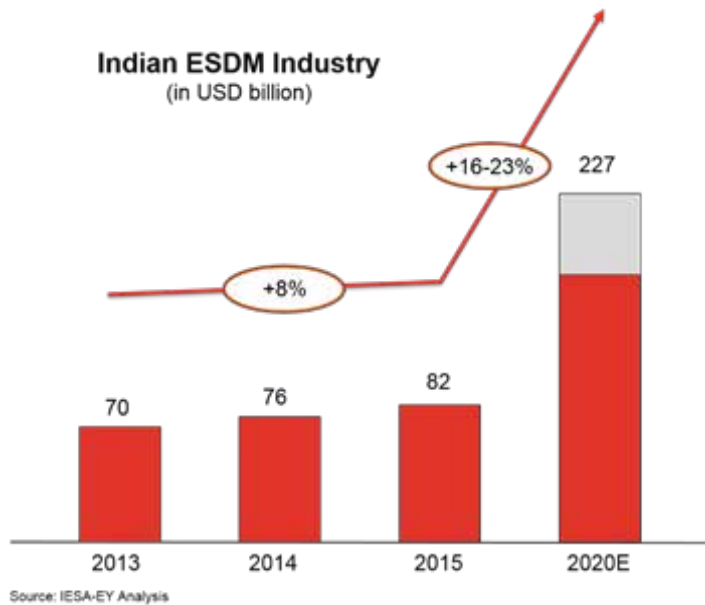
# 1. INTRODUCTION

## 1.1 ESDM Sector - Overview

Amongst all emerging economies, India has been one of the frontrunners from growth and economic development perspective. The Indian electronics system design and manufacturing (ESDM) industry is one of the fastest growing sectors in the country. Changing global landscapes in electronics design and manufacturing capabilities, and cost structures have turned the attention of global companies towards India. Companies from around the world are looking to build local capabilities in India not just to serve the resident market but also to cater to overseas markets. This has resulted in the development of indigenous capabilities across the ESDM value chain in India. ESDM industry in India comprises of four key components: Electronics Products; Electronics Manufacturing Services, Electronic Components and Design Services which are at varying stages of development. Similarly, various electronics applications markets such as telecom electronics, automotive electronics, consumer electronics and industrial electronics, are at different stages of ecosystem development. The focus is currently on providing the necessary impetus to take advantage of the dormant capabilities across the various electronics markets and developing the missing links so as to make the local ESDM sector globally competitive.

India's GDP is expected to grow at 7.5% in 2017, as it is likely to benefit from reduced commodity prices. India's economy is powered by sustained growth in consumer spending, fostered by moderate inflation, favorable demographics and strengthening FDI. Investor confidence in Indian economy was evident in 2015 when India emerged as most favored destination for FDI leaving behind China and US and ensuring over \$19 billion of cumulative FDI inflows till June 2015 and is expected to increase further. Per capita income is expected to expand at a CAGR of 6.6% during 2013 - 2019 to ~USD 2,200 in 2019, thereby driving local electronics demand. The robust growth of India's electronics industry is primarily driven by huge domestic demand for products that can be attributed to a multitude of factors, including growing middle class, rising disposable incomes, favorable duty structures and large scale public procurement needs driven by Government projects such as Digital India, broadband connectivity to villages, rural electrification and e-governance programs. Demand for electronic products in India is poised for significant growth in the next few years, driven by strong economic outlook.





In 2015, India's ESDM industry was sized at US\$82 billion growing at a CAGR of 8% from 2013. By 2016-17 (estimated) the sector will become a \$100+ billion opportunity and is forecasted to grow further at a CAGR of 16- 23% to reach US\$171-228 billion by 2020. Apart from sector specific drivers, the forecasts are based upon several parameters such as overall GDP growth of India, currency movement, inflation, existing trade agreements (and changes expected, if any), consumer sentiments, potential government consumption, existing government policies (and changes expected, if any), investments (foreign and domestic), manufacturing entities (existing Indian players, foreign players, Indian conglomerates, start-ups) and type of value addition in India. In the base case, the drivers are assumed to stay at existing levels or move as per foreseeable forecasts. However, in optimistic case all drivers are expected to stay positive leading to a significant growth.

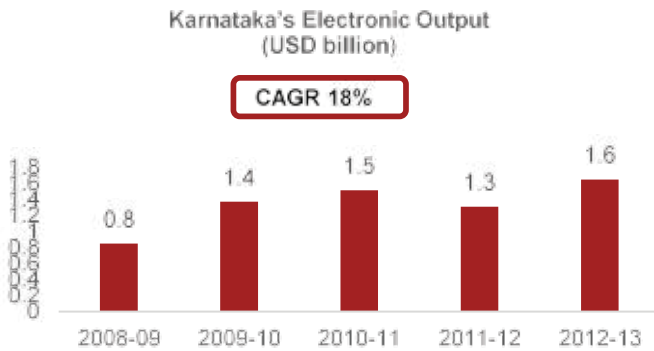
However, given the local manufacturing state, the dependence on imports is likely to remain similar. Hence, the focus on growing India's electronics manufacturing capability is increasing due to widening demand-supply gap. Realizing the need, the Govt. of India is increasing its focus on this sector and aims to transform it from a predominantly consumption-driven market to one with manufacturing capability to cater to local and overseas demand while focusing on producing high-value add electronics products.

Favorable ESDM policy and initiatives such as M-SIPS, Preferential Market Access (PMA), Electronics Development Fund (EDF) and duty arrangements along with rising interest of MNCs and Indian enterprises in the sector have created immense positive impact on Indian ESDM value chain. With a target of 'Net Zero Imports' by 2020, the Govt. through MeITY has instituted a number of forward-looking policies to foster the growth of the Indian electronics ecosystem and to boost domestic manufacturing. These policies are aimed at holistic development of the ESDM industry by offering specific incentives for the development of each element in the value chain. Further, the "Make in India" campaign has given a strong impetus to the Indian electronics sector. India has already started witnessing initial movement with increased assembly activities across products such as mobile phones and other consumer electronics. (Source: IESA-EY Analysis)



## 1.2 Karnataka ESDM Industry

Karnataka is known to be a centre of hi-tech industry, contributing significantly to the country's revenues from information technology, biotechnology, ESDM, aerospace and other technology sectors. Karnataka's GDP stands at USD 120 billion and is growing at a healthy 7 percent per annum. It has an industrial output of USD 61.5 billion and a cumulative FDI of USD 18.30 billion since April 2000 to September 2015. Karnataka contributes to more than a third of IT, ITeS and electronics exports in the country. The value of total exports of the state is USD 52 billion which contributes to 13 percent of India's exports to the world.



Source: ASI 2012-13

Karnataka is the fourth largest contributor to electronic industrial output in the country and contributes to 10% of the country's electronic industrial output with a recorded growth rate of 18% CAGR during 2008-2013. It has the second fastest growing start-up ecosystem in the world and is home to billion-dollar Indian start-ups.

The best and the largest global companies across sectors have their R&D and innovation centres here. Karnataka is the second largest chip design hub in the country with a presence of 85 chip designing companies and was the first state to rollout initiatives for innovation centres, skilling centres and dedicated ESDM clusters. Around 3000 personnel are trained annually in the KESDM sector.





### 1.3 Achievements of Karnataka ESDM Policies

The Govt. of Karnataka was a pioneer in announcing the first Semiconductor policy in 2010 and following it up with the ESDM policy in 2013. Some of the notable achievements of Govt. of Karnataka's ESDM initiatives are as follows:

- Karnataka continues to be one of the foremost states in the country with the highest number of chip design companies in the country. It is home to major R&D and innovation centres of multinationals and attracts top talent from across the globe.
- More than 2 Lac people are employed in the sector in the state, with close to 70% of India's chip designers based out of Karnataka. This is supplemented by ready availability of fresh graduates from the state's many colleges, with some specialising in ESDM related courses from top institutes like IIIT-Bengaluru.
- A Brownfield EMC has been approved at Mysuru and is currently being operationalized in the Hebbal industrial area in Mysuru. This brownfield cluster will have state-of-the-art facilities for the local ESDM industry to enable them to move higher up the product value chain. Another brownfield cluster is proposed to be setup in Hubballi, which has been approved by the Government and is currently under operationalization.
- Govt. of Karnataka, in association with NASSCOM initiated a Centre of Excellence on IoT in 2016. The centre is operational with 15 companies incubated within the CoE and focus on harnessing the potential of IoT technologies and products.
- The Government has also initiated setting up of a VLSI Incubation Center to provide an incubation facility to VLSI and Design startups. The Center will also provide plug-and-play tools and software such as design tools for startups to focus on IP creation and/or access to IPs. Simultaneously, the center will also promote VLSI and design through skill development programmes.



- KBITS, under the Dept. of IT, BT and S&T facilitated the policy's incentives under the guidance of a Screening Committee that included prominent industry members. Since the launch of the previous policy, incentives worth approximately INR 5 Crores were disbursed to multiple companies in the state.

- The Govt. of Karnataka launched the KARSEMVEN fund during FY 2014-15 to provide funding to Karnataka's ESDM companies, with a total corpus of INR 100 Crores and Govt. of Karnataka contribution of INR 25 Crores. The fund has raised INR 93.4 Crores, with more than INR 21 Crores disbursed to various companies during the last 2 years.



## 1.4 Karnataka ESDM Policy 2017-2022

### Vision

Develop Karnataka into a global ESDM hub and a hotbed of innovation through focused interventions and encouragement to local companies in the sector.

### Goals

The policy aims to foster high growth for the ESDM industry, which can be achieved by attaining the following goals:

- Stimulate the growth of 2000 ESDM startups during the policy period.
- Enhance value addition done in Karnataka by 50%.
- Create 20 Lacs new jobs in the ESDM industry by 2025, both direct and indirect, thereby increasing the total workforce in the sector to ten times the present number.
- Effect a quantum jump in the overall revenues of Karnataka's ESDM companies to USD 40 billion by 2025.

## Strategies

- **Skill Development:** Continue the focus on skill development and nurturing of the talent pool by refining and strengthening the existing initiatives; introduce new, strategic interventions for focus sectors.
- **Quality Infrastructure:** Create common infrastructure facilities and center of excellences (CoEs) in specific areas, to provide an impetus to local industry; encourage new investments and growth in tier-2 cities across the state.
- **Ecosystem Support:** Operationalise PMA policy to encourage domestic procurement; accelerate next generation technologies through pilot projects and encouragement to grass-roots entrepreneurship and IP creation.
- **Encouragement to Start-ups and MSMEs:** Strengthen the existing Semiconductor venture fund for accelerated investments; promote expansion and growth of KESDM industry through market development activities and support to local companies.
- **Enhancing Ease-of-doing Business:** Simplify and streamline policies and procedures to enhance overall experience of doing business in the state; put in place mechanisms for faster facilitation of incentives and other policy benefits to attract investments from global companies in the sector.





## 2. FOCUS SECTORS

To ensure that the state develops as a hub for innovation and R&D, the Government will lay a special focus on some of the emerging sectors. Through this prioritization, the Government believes there will be more innovation and multiple world-class companies will come out of Karnataka.

In order to incubate and scale up these sectors, the Government would focus on setting up Centers of Excellence with specialized facilities for training and skilling, research and development, and product development and validation. Also, required Common Instrumentation Facilities will be setup to supplement the ecosystem.

### 2.1 Medical Electronics

Medical devices have gained a lot of prominence over the years owing to the emphasis on healthcare delivery across the country. India is amongst the top-20 markets that has been growing significantly over the past few years. The industry is currently importing most of its requirements, which if encouraged, could be reduced over the years. Also, as a country India requires medical devices that are developed at lower costs with same or higher quality as their global counterparts. Karnataka Government will promote this fledgling sector and ensure companies in the state benefit from the focus.

### 2.2 Industrial Automation / Robotics

With the advent of technologies such as Artificial Intelligence and Machine Learning, industrial automation and robotics is taking off in the world. There are multiple companies exploring and researching, and converting their ideas to concepts. Also, with the Internet of Things (IoT) ecosystem exploding, many of its uses will be geared towards automation of machines and industrial tools and the use of robotics to improve productivity and quality. Local companies working on such products will be promoted by the Government to boost exports in this sector and to future-proof the domestic market from over-reliance on imported products and technologies.



## 2.3 Automotive Electronics

Karnataka is already a hub for automotive with some of the major automobile and automotive parts manufacturers present in the state. This sector is now increasingly adopting technology – be it within the vehicle for passenger comfort and facilities, or under the hood to improve efficiency and performance like micro-controller units (MCUs). State Government will have a specific focus on automotive electronics and boost the sector by emphasising innovation and use of technology that is driving changes in the automobile sector.

## 2.4 Nano Electronics

As electronics become more complex and scientists and researchers discover new ways to take advantage of materials and apply them to the field of ESDM, Nano Electronics is bound to become an important area for research and invention/creation of new products. Karnataka is home to one of the few Nano Sciences and Engineering centers around the world, with the Center for Nano Science and Engineering (CeNSE) operating out of Indian Institute of Science since 2010. This would be leveraged upon to encourage new research in the fields of medical diagnostics, computing devices, displays, opto-electronics etc. and create a focused approach towards building new products that use these technologies.

## 2.5 Consumer Electronics

Consumer Electronics is a huge field with devices ranging from those used for entertainment to communication to office/personal computing devices. India is already one of the biggest consumers of such devices and it is only prudent that local companies develop the required capabilities to manufacture these devices and their components locally than import them. Also, under the Digital India mission of achieving net-zero imports, this sector is of special focus to the Government to ensure Indian companies manufacturing/designing consumer electronics products scale up and achieve world-class capabilities in the next few years.



## 2.6 Focused Working Groups

Apart from the mentioned focus areas, the Government will setup Focused Working Groups in association with the industry for other products/technology areas. These groups will evangelize and promote product lines / technologies such as Defense Systems, Energy Meters, LED and Solar, etc. These groups will also be tasked with assisting the Govt. on specific policy formulation and promotion for the technology/product line. It will assist the Govt. in being agile to come up with timely policies, standards for such new growth areas and encourage industry participation and assistance for promoting indigenous design and manufacturing of such products.



## 3. SKILL DEVELOPMENT

The ESDM industry in Karnataka has always benefitted from the large number of institutes and colleges present across the state in all the major cities. Students graduating from these institutes have been finding employment in various companies in the ESDM sector and enhancing the industry's presence through entrepreneurial projects and businesses across tier-2 locations in Karnataka. To further improve the state's chances of continuing to be a leader in the sector, various initiatives around skill development are being proposed as part of this policy.

### 3.1 Yuva Yuga Program for Skilling

ESDM is a highly technical sector and requires specifically skilled people in various disciplines for maintaining its cutting edge. However, the industry feedback suggests that there are gaps in the training received by students during their studies and the specific skills required for the job. To bridge this gap, the Government would initiate the Yuva Yuga program for skilling of people.

This program is being developed in association with the industry to meet their plug-and-play talent needs. It will be operationalised through industry collaboration around development and design of the curriculum, training methodology, training and certification. Students from far-flung areas of the state will be provided a chance to become employable through the programs on offer, whereby the cost of the program would be shared between the Government, industry, and the candidate.

This initiative will be in line with the Skill India Mission and ensure that the curriculum adopted aligns with universal standards. Inputs from the NSDC, NSDA and SSC will be incorporated to create skill qualification frameworks at all levels. Also, on-going programs under Telecom Sector Skill Council (TSSC) and Electronics Sector Skill Council of India (ESSCI) will be subsumed under this initiative.

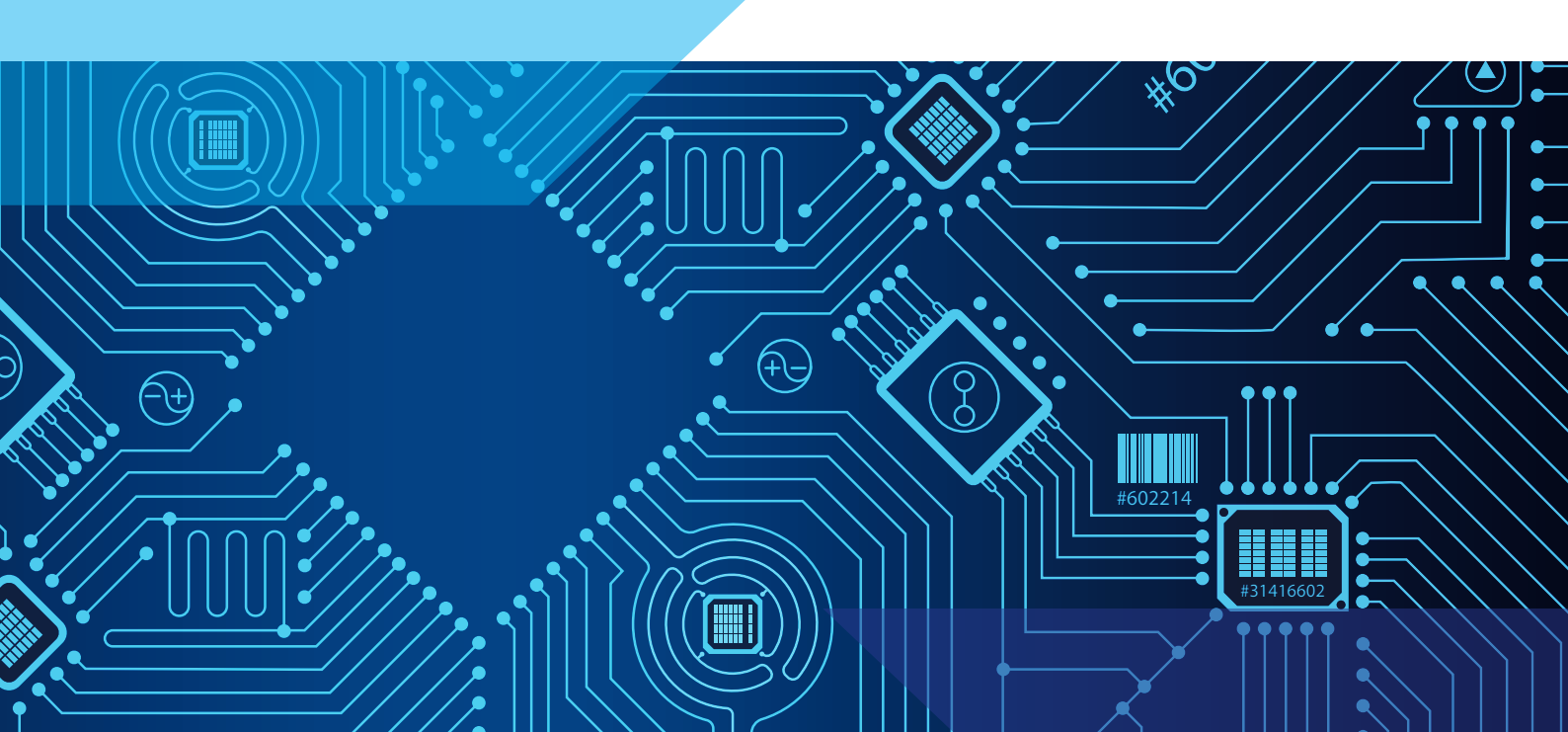
### 3.2 IOT Developers Skilling

Internet of Things (IOT) is fast evolving and new use cases are being discovered on how IOT can be leveraged upon to make things smarter across various industries and sectors. To support this growth, there is a critical requirement of skilled people having an understanding of how to develop such systems.

Government of Karnataka, in association with the industry and with the Center of Excellence on IOT (setup in Bengaluru in 2016), will facilitate skilling programmes to encourage students and professionals to take up certified courses in this area. For this purpose, training agencies will be empanelled and relevant courses will be identified and suggested through the Government's association with the COE on IoT and the industry.







### 3.3 Internship Platform for Talent Development

The Government of Karnataka, in association with the industry, will create an internship program for the benefit of students with a diploma/degree in Electronics, especially for those from rural and semi-urban areas. Through the proposed program, empanelled companies will be provided a digital platform to offer internship opportunities to eligible students for a time period ranging from 3 months to a year. Each year, up to 1000 students will be selected and offered an internship opportunity with the Government subsidizing the stipend paid by the company by up to 50% or a maximum of INR 15,000 per student.

## 4. QUALITY INFRASTRUCTURE

Bengaluru has been a hub for the IT industry and has therefore attracted multiple companies in the ESDM sector from across the globe. The Govt. of Karnataka is committed to the continued success of Bengaluru but at the same time wishes to accelerate the development of tier-2 cities in the state. To ensure this inclusive growth, the focus of this policy will be to provision for facilities and infrastructure as per the requirements of the industry.

### 4.1 Common Instrumentation Facilities

The Government of Karnataka has initiated setting up of a network of Common Instrumentation Facilities (CIF) across the state, for the benefit of companies in the ESDM sector. Three such facilities have already been identified at Jalahalli (Bengaluru), Mangaluru, and Shivamogga and are in the process of being operationalized. Other such facilities will be identified and set up during the policy period.

These centres will offer entrepreneurs and companies space to work on their product concept and implement a working prototype. The CIF will have all the requisite tools as well as prototype development facilities, testing facilities, characterization labs, compliance and certifications labs along with requisite manpower and component stocks.

To emphasize high quality of products and to develop facilities for high-end manufacturing, the Govt. will also setup a Common Facility with focus on Product Engineering. This facility will house moulds, 3D printers, etc. to help local companies to improve the quality and build of their products and make them appeal to the international market.

All these facilities will be setup in partnership with the industry / organizations in a hub-and-spoke fashion. They will be available to the industry on a pay-per-use basis to ensure they become sustainable.



## **4.2 Centres of Excellence**

The Govt. of Karnataka, in association with industry bodies has initiated setting up of various Innovation / Incubation Centre / Centres of Excellence across the state. In partnership with NASSCOM, a Centre of Excellence for Internet of Things (IoT) was established in 2016, which is focused on IoT technologies. Similarly, the Government has proposed to set up CoEs for Medical Electronics and Robotics in the state.

This program will be expanded to establish Centres of Excellence (CoE) for specific focus areas like Automotive Electronics, Industrial Electronics / Robotics etc. These upcoming CoEs will be mandated with research and development, evangelisation and promotion of the industry, capacity building for required skillsets within the industry, and incubation of startups / projects. They will also house specific facilities required for the sector.

## **4.3 Electronics Manufacturing Clusters**

Govt. of Karnataka will accelerate the process of setting up greenfield and brownfield clusters, in line with the policy of the Govt. of India. These clusters will be developed to provide world-class manufacturing facilities to ESDM companies, alongside dedicated corridors for connectivity and transportation and uninterrupted access to power, water and other utilities.

# 5. DEVELOPMENT OF LOCAL ECOSYSTEM

Karnataka has been at the forefront of enabling sector specific policies through an investor friendly climate. The Govt. of Karnataka released the first state policy on semiconductors in 2010 and the state's ESDM sector has seen a quantum jump over the past decade. To remain in the lead and take progressive steps towards a bigger local ecosystem in the state, this policy proposes the following initiatives.

## 5.1 Preferential Market Access

In line with the Govt. of India's Preferential Market Access (PMA) policy, the Govt. of Karnataka envisages to benefit companies and entrepreneurs that are based out of the state. To this end, the government would bring in the required changes to its procurement policy to mandate all its departments and PSUs to procure locally from Karnataka based ESDM companies by making suitable changes in the state procurement policy, in line with the Govt. of India policy. Additionally, all procurement done by state departments and PSUs would incorporate relaxed norms, such that MSMEs and startups would be able to participate in them.

The PMA policy will be applicable to all departments and their agencies for electronic products purchased for Government's purposes. All ESDM companies that are engaged in manufacture of electronic products in Karnataka will be eligible for consideration under this initiative.

A suitable self-certification system will be devised to declare domestic value addition by the company. The system will also provide for checks by Standardization, Testing and Quality Certification (STQC) and other testing laboratories accredited by the Department of Information Technology. In cases of incorrect declarations, suitable penalties will be imposed by the STQC.





## 5.2 Pilots for Next Generation Technologies

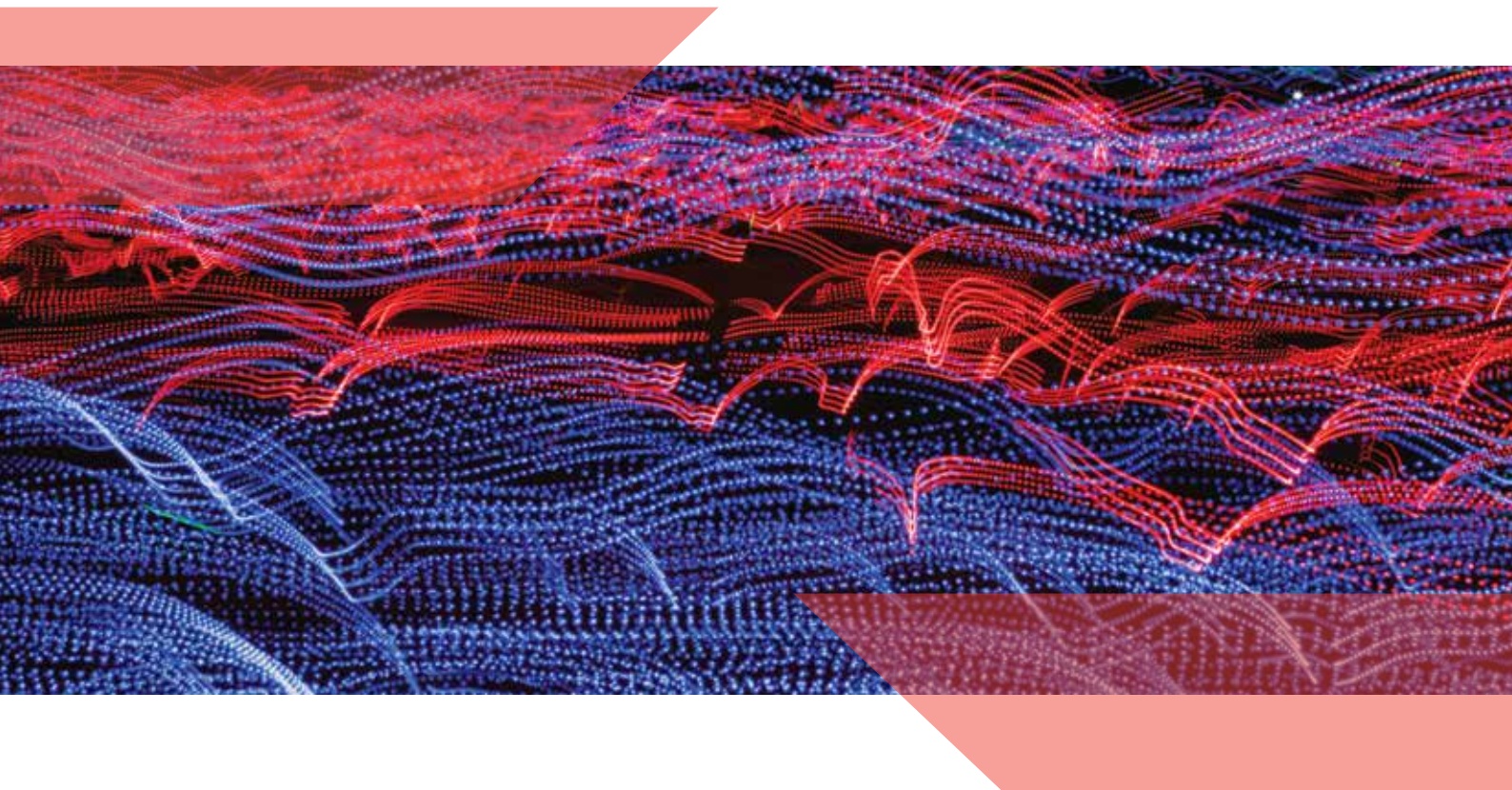
To leverage on the presence of high-tech companies in the region, the Govt. of Karnataka will encourage pilot projects for next generation technologies in the ESDM sector, such as Internet of Things (IoT), Medical Electronics etc.

These pilot projects would be undertaken in the form of test beds developed in association with the industry. This will be done in specific demarcated areas. The Govt. of Karnataka will enable collaboration between the on-going urban development missions, such as the Smart City projects being executed in different cities of the state.

Startups and MSMEs will be given opportunities to executed projects in the fields of Smart Parking, Smart Lighting, Citizen Safety, Waste and Water Management etc. by demonstrating their technology platform / solution / service. Based on the outcome of these pilots, these technologies / solutions / services would be adopted for large-scale projects. Procurement from domestic companies would be encouraged for these projects through pre-defined clauses and norms.

Specific tier-2 cities would be identified and local companies would be roped in to train students in these next generation technologies. The pilot project would then be replicated across the state providing further opportunities in these tier-2 cities. This would inherently provide multiple opportunities to startups/MSMEs to do R&D, sell domestically and build their business.

Young professionals across the state will be incentivised to solve local problems and build successful ESDM product companies under the Karnataka Startup policy 2015-2020. Govt. of Karnataka funded programmes, such as Grand Challenges, will be initiated specifically to solve problems using ESDM technologies. This will provide the state's startups and MSMEs with a domestic market and an initial impetus.



### 5.3 Encouragement to Commercialization of R&D

R&D at universities and colleges is an important aspect of creating a thriving ecosystem. To encourage R&D, the Govt. of Karnataka will support selective R&D projects and provide funding to develop products as an outcome. The Govt. will also encourage academic and research institutes to offer the resources and technologies developed in their campuses to the Industry at very nominal cost.

Alongside, the Government will also encourage R&D in multi-disciplinary fields such as Medical Electronics, Robotics etc. This will be initiated at the higher education level through inter-disciplinary R&D centers and CoEs for identified focus areas.

Through its linkages and MoUs with other cities and associations / organizations, the Government will also invite talent from top-most technical universities in the world to guide and mentor such student projects and help them commercialize their products. This will automatically feed into the industry and ecosystem.

### 5.4 Market Development Activities

The Govt. of Karnataka will make all endeavors to host world class events, conferences and exhibitions in the state to put Karnataka on the global ESDM map and attract international business. The policy will continue to offer support to ESDM companies, associations and SMEs by providing financial grants to attend top global ESDM events, exhibitions, conferences and festivals. This will help KESDM companies, especially SMEs, to access global markets, learn global business insights and also to sell and market their products and services.

The Government will also endeavor to create a state-level digital platform for all ESDM companies to register themselves and showcase their products and services. This will be modeled on similar initiatives taken up by other Governments, like Israel, Taiwan etc. Karnataka's ESDM companies will be grouped under different sectors/sub-sectors and showcased to potential investors/customers, who could obtain relevant information and details.

The Government will institute awards, which will be given out to recognize achievements and contributions of companies and individuals within the sector. These award and recognition programs will be extended to all types of companies – established as well as startups, to be given out at flagship events of the State Government, like BengaluruITE.biz.





## 6. ENHANCING EASE-OF-DOING BUSINESS

The ESDM industry has been declared as an essential service under The Karnataka Essential Services Maintenance Act, to be treated at par with public utilities to exempt them from the disruptive effects of general strikes and bandhs. To further make it easy for companies to setup and run their business, the Government of Karnataka proposes the following initiatives / measures.

### 6.1 Self-Certification

KESDM companies will be exempt from inspections barring inspections made for verification of specific complaints and will be permitted to file self-certifications, in the prescribed formats under the Acts and Rules as under:

**a.** The Factories Act 1948

**b.** The Maternity Benefit Act 1961

**c.** The Karnataka Shops & Commercial Establishments Act 1961

**d.** The Contract Labor (Regulations & Abolition) Act 1970

**e.** The Payment of Wages Act, 1936

**f.** The Minimum Wages Act 1948

**g.** The Employment Exchanges (Compulsory Notification of Vacancies) Act 1959

**h.** General permission will be available for 3-shift operations with women working in the night for ESDM companies, subject to such units taking the prescribed precautions in respect of safety and security of employees in addition to providing the required welfare and health amenities as prescribed under applicable labor laws and obtaining the necessary approvals from the competent authority of the Government under the Karnataka shops and commercial establishments act and rules or the Factories Act 1948 and rules, there under as the case may be.



## 6.2 Time-bound Approvals

Procedural reforms will be undertaken with an aim to provide approvals to the industry/investors within 3 (three) calendar months of filing requests acceptable to the government. Red flagging and escalation of delayed issues at various levels and regular monitoring of the same will be made.

Within the first year of the policy, a portal will be commissioned to serve as a single point for incentive/subsidy/grant applications for all KESDM companies. It will have provisions for uploading of documents as well as tracking of the application process within defined timelines.

## 6.3 Enablement through ESDM Cell

To further improve ease-of-doing business, a dedicated ESDM Cell will be provisioned to be housed within KBITS for promoting and facilitating the Karnataka ESDM policy initiatives and to act as a one-stop-shop that enables easy flow of information and assistance to KESDM companies.



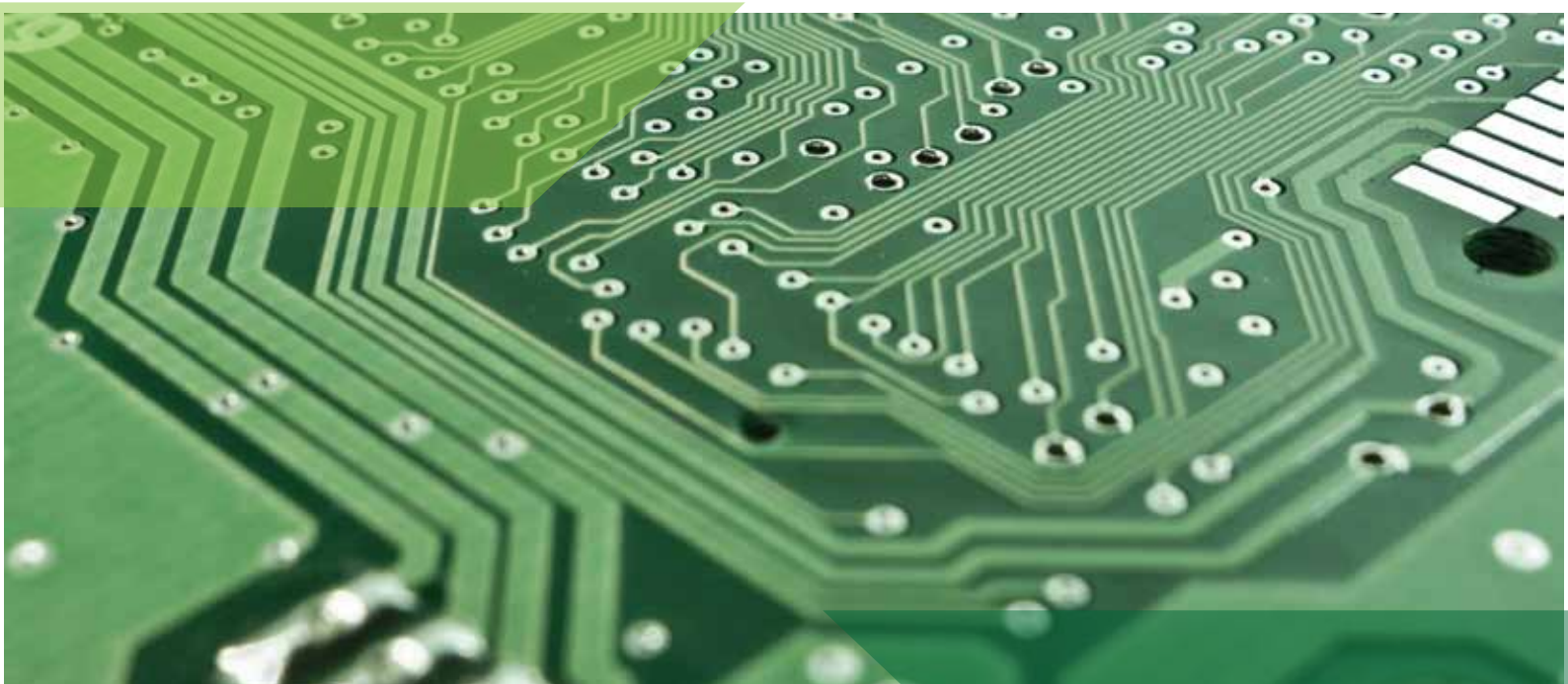
## 7. VENTURE FUNDS

The Govt. of Karnataka launched the KARSEMVEN fund for funding of ESDM companies in FY 2014-15. It is a SEBI registered venture fund, modeled on the likes of the highly successful KITVEN 1 and 2. The fund has till date mobilized INR 93.4 Crores and has funded multiple companies, with the total funding amount in excess of INR 21 Crores.

To continue this momentum, the government will accelerate the disbursement process for the fund and ensure more early-stage companies can be funded. At the same time, to ensure that the Government funds the right companies/ideas, the industry, startup community, and academia will be engaged with to identify and select potential ideas/products/services for funding, in line with other policies of the state.

The fund's ambit will also be expanded to cover all types of ESDM companies and not just Semiconductor/Design firms. This will enable more startups in the upcoming sectors to benefit from this initiative. Also, as the fund gets disbursed, the Govt. of Karnataka will provision for a second venture fund, based on the uptake of this initiative.

Alongside, as part of the multi-sector Startup Policy 2015-2020, the Govt. of Karnataka has announced a Fund of Funds, which will invest in multiple venture funds focused on various sectors. This is currently being operationalized and will be available for all ESDM startups in the state.



## 8. FINANCIAL SUPPORT

Govt. of Karnataka aims to foster the ESDM industry to innovate and build scale. To facilitate the various objectives of the policy, a host of incentives and concessions will be applicable for the industry throughout the policy period.

## 8.1 Eligibility for Availing Financial Support

To avail these incentives and concessions, an ESDM company must be registered with KBITS as a KESDM company, details of which will be published as operational guidelines to this policy.

### Nature of Business:

The company or entity should be engaged in one of the following businesses –

- Manufacturing and or design of electronics products such as telecom systems / mobiles / IT systems and hardware / consumer electronics / medical electronics / avionics / industrial electronics / defence and strategic electronics / automotive electronics / information and broadcasting equipment / etc.
- Manufacturing of intermediates such as PCBs / semiconductors / chip components / ICs / components / parts etc.
- Electronics Manufacturing Services (EMS)
- Design / IP / Software services for electronics products
- Any other electronics verticals / products covered by the National Policy on Electronics (NPE) / National Manufacturing Policy (NPM) and related notifications, as issued by the Govt. of India from time to time.

### Location:

The company or entity should be registered in Karnataka under the Karnataka Shops and Commercial Establishment Act, 1961.

### Employment:

Company employs at least 50 percent of its total workforce in Karnataka, which should not include contract employees.

### Value Addition:

Company should do value addition within the state, in-line with this formulae –

Year	Minimum Percentage of Value Addition
Year 1	25%
Year 2	30%
Year 3	35%
Year 4	40%
Year 5	45%

Product Price (Ex-factory)	A
Cost of Bill of Material (BOM) in 'A'	B (including software design, IP)
BOM sourced from domestic manufacturers	C (including software design and IP design)
Value addition in terms of BOM	$(C/B) * 100$

## 8.2 Applicability of Incentives

Following table provides an overview of the applicability of incentives and concessions to different categories of KESDM companies:

S. No.	Incentive / Concession	Startups & MSMEs	Large and Mega Enterprises
1	Patent Registration Incentive	✓	✓
2	International Marketing Incentive	✓	✓
3	R&D Grant	✓	✓
4	Capital Subsidy	✗	✓
5	Quality Certification	✓	✗
6	Reimbursement of Prototyping Cost	✓	✗
7	Interest Subsidy	✓	✗
8	PF / ESI Incentive	✓	✗
9	Exemption from Stamp Duty	✓	✓
10	Reimbursement of Land Conversion Fee	✓	✓
11	Concessional Registration Charges	✓	✓
12	Power Tariff Concession	✓	✓
13	Subsidy for setting-up ETP	✓	✓

*The maximum amount reimbursed to a single company under various incentives, excluding Capital Subsidy, would be capped at INR 3 Crores for a single year and INR 10 Crores during the policy period.*

All the incentives, except for Patent Registration Incentive, will be applicable from the date of KESDM registration for the company. Only for Patent Registration Incentive, patent applications filed during the policy period will be considered.

For the purpose of incentives, companies have been categorized into different classifications of Startups and MSMEs, Large Enterprises, and Mega Enterprises. The categorization of companies is as mentioned below:

Category	Investments on Fixed Assets
Startups and MSMEs	Less than INR 10 Cr
Large Enterprises	Between INR 10 Cr up to INR 250 Cr
Mega Enterprises	More than INR 250 Cr



Additionally, KESDM companies are also eligible to avail incentives and concessions as per the norms of Karnataka Industrial Policy 2014-19 and Karnataka Start-up Policy 2015-2020. However, those incentives which are common in these policies, can only be claimed from any one source. Any irregularity/misrepresentation in this regard will disqualify the company from availing any incentives in any of the policies of Govt. of Karnataka.

Schemes like ASIDE, Credit Guarantee Fund Trust Scheme, Cluster Development Programme for MSMEs, Credit Linked Capital Subsidy Scheme, Technology Upgradation Scheme being operated by Govt. of India and various other promotional schemes of different Ministries of Govt. of India are proposed to be suitably dovetailed for the benefit of KESDM companies. Efforts will also be made to suitably complement these schemes, enabling the state's entrepreneurs to avail maximum advantage of these schemes.

### **8.3 Patent Registration Incentive**

Registered KESDM companies will be reimbursed the actual costs, up to a maximum of INR 2 Lac for filing a domestic patent; and up to a maximum of INR 10 Lacs for filing an international patent, provided such patent is filed or granted within the policy period.

Eligible expenses for a patent filing include filing fees paid to the patent office, attorney fees, search fees, and maintenance fees. Up to 75% of the eligible expense amount or 75% of the upper limit (INR 2 Lacs for domestic patent; INR 10 Lacs for international patent), will be reimbursed once the patent is filed. The balance 25% will be paid after the patent has been granted. However, the full reimbursement can also be claimed after the grant of the patent, in which case 100% of the eligible costs will be reimbursed post the application, subject to the maximum grant amount.

A single company will be eligible for a maximum of five reimbursements (inclusive of domestic or international patents) during the policy period. These patent filing incentives provided by the Govt. of Karnataka will be in addition to any existing scheme of the Government of India.



## 8.4 International Marketing Incentive

For export promotion of ESDM products and building brand equity of KESDM companies as credible players internationally, Govt. of Karnataka will provide reimbursements of 50% of the actual cost incurred in -

- Registration, travel, boarding and lodging expenses for international marketing, events, and conferences
- Trade show participation and exhibition stall rentals

A single KESDM company will be eligible to claim the reimbursement for up to a maximum Of INR 5 Lacs per year. They can apply for the same on a half-yearly basis, within six months of the expense incurred.

## 8.5 R&D Grant

The Karnataka Government will give R&D grants in the form of reimbursement to registered KESDM companies for the expenses incurred on R&D for products (and not services) as per the following classification.

The R&D grant will be available to only those companies that are less than 7 years old (from the date of incorporation). This grant is subject to a maximum of INR 2 Crores per company per year and will be in addition to any similar benefits announced by the Government of India.

A single company will be able to claim this incentive only twice during the entire policy period.

Category	Available Grant (as percentage of expenses)
Startups & MSME	25%
Large and Mega Enterprises	10%

## 8.6 Capital Subsidy

The Govt. of Karnataka will provide up to 10% capital subsidy, up to a maximum of INR 10 Crores to registered KESDM companies, which will be applicable to the first two anchor units in each greenfield cluster.

## 8.7 Reimbursement of Quality Certification Costs

Registered KESDM Startups and MSMEs will be eligible for reimbursement of up to 50% of testing/certification charges incurred for getting the products tested/certified from any lab domestic/abroad (Conformity European (CE), China Compulsory Certificate (CCC), UL Certification, ISO, CMM Certification, SA, RU, FDA, CFDA etc.), subject to a maximum of INR 10 Lacs per year.

## 8.8 Reimbursement of Prototyping Cost

Registered KESDM Startups and MSMEs will be eligible for reimbursement of 50% of the cost incurred for developing a prototype of a product. This will be subject to an upper limit of INR 10 Lacs per year, with an allowance of a maximum of 2 sanctions per year per company.

## 8.9 PF / ESI Incentive

Registered KESDM Startups & MSMEs will be reimbursed Provident Fund (PF) or Employee's State Insurance (ESI) of INR 2,000 per employee per month for two years subject to total reimbursement of up to INR 12 Lacs. This is only applicable for all new employment created during the policy period, provided the employment is for a continuous period of two years.

This subsidy will only be applicable to a new company, registered within the last two years, as on the date of application. Companies who have started a new subsidiary or branch office in Karnataka will also be eligible, provided the new setup has been established within the last two years as on the date of application.

In case the employer's contribution is less than INR 2000, the actual amount of employer's contribution will be reimbursed. Reimbursement will be made only once per company during the policy period. Employee data will be verified through PF/ESI departments.

## 8.10 Interest Subsidy

Interest subsidy of up to 6% per annum on term loans will be provided to registered KESDM Startups and MSMEs for a period of five years for loans of up to INR 50 Lacs. The term loan must have been taken from a scheduled bank or a state-level financial institution such as KSFC. This interest subsidy will be payable to financial institutions on behalf of the enterprise only if the enterprise has not defaulted in payment of either principle or interest instalments. The amount of interest subsidy will be effective rate of interest (after deducting interest subsidy receivable by any institution(s) under any Government of India scheme) or 6% per annum whichever is lesser.



## 8.11 Exemption from Stamp Duty

Registered KESDM companies will be exempted from stamp duty paid in respect of:

- Loan agreements, credit deeds, mortgage and hypothecation deeds executed for availing loans from State Government including VAT loan from C&I Department and / or State Financial Corporation, National Level Financial Institutions, Commercial Banks, RRBs, Co-operative Banks, KVIB / KVIC, Karnataka State SC/ST Development Corporation, and other institutions which may be notified by the Government from time to time for the initial period of five years only.
- Lease deeds, lease-cum-sale and absolute sale deeds executed by industrial enterprises in respect of industrial plots, sheds, industrial tenements by KIADB, KSSIDC, KEONICS, Industrial Co-operatives and approved private industrial estates.

Category	Available Exemption (as percentage of expenses)
Startups & MSMEs	100%
Large and Mega Enterprises	75%

## 8.12 Reimbursement of Land Conversion Fee

The payment of land conversion fee for converting the land from agriculture use to industrial use will be reimbursed to registered KESDM companies.

Category	Upper Limit (INR)
Startups & MSMEs	75%
Large and Mega Enterprises	50%

## 8.13 Concessional Registration Charges

Registered KESDM companies will be eligible for a concessional rate of INR 1 per INR 1000 on registration charges for all loan documents, lease deeds and sale deeds.

The exemption of stamp duty and concessional registration charges are also applicable to lands purchased under Section 109 of the KLR Act, 1961 and also for direct purchase of industrially converted lands for the projects approved by SLSWCC/DLSWCC. This incentive will also be applicable for the land transferred by KIADB to land owners as compensation for the acquired land.

The exemption of stamp duty and concessional registration charges are also available for registration of final sale deed in respect of lands, sheds, plots, industrial tenements after the expiry of lease period at the rate as specified in the Karnataka Industrial Policy 2014-19 which was in vogue at the time of execution of lease-cum-sale deed.

## 8.14 Power Tariff Concession

Industrial Power Tariff (instead of commercial power tariff) will be applicable to registered KESDM companies to set up in Karnataka and other associated industry within the state. This will be subject to KERC regulations.

## 8.15 Subsidy for setting-up ETP

Registered KESDM companies will be eligible for subsidy grant for setting up of effluent treatment plant (ETP). One time capital subsidy to the tune of up to 50% of the cost of ETP, subject to below mentioned limits, will be provided.

Category	Upper Limit (INR)
Startups & MSMEs	50 Lacs
Large and Mega Enterprises	1 Cr

## 8.16 Incentives for Mega Enterprises

Big projects and mega investments will be treated on priority under existing provisions and tailor-made benefits and incentives over and above this policy will be extended to them on a case-to-case basis as discussed and decided by the State High Level Clearance Committee (SHLCC).

## 9. DEFINITIONS

ASIDE	Assistance to States for Development of Export Infrastructure and Allied Activities
BOM	Bill of Materials
C&I	Commercial and Industrial
CAGR	Compound Annual Growth Rate
CFC	Common Facility Centre
CIF	Common Instrumentation Facilities
DLSWCC	District Level Single Window Clearance Committee
EDF	Electronics Development Fund
EMC	Electronic Manufacturing Cluster
EMS	Electronic Manufacturing Services
ESDM	Electronic System Design & Manufacturing
ESI	Employees State Insurance
ETP	Effluent Treatment Plant
FDI	Foreign Direct Investment
FOF	Fund of Funds
FY	Financial Year
GDP	Gross Domestic Product
GOI	Government of India
GOK	Government of Karnataka
IIIT	International Institute of Information Technology
INR	Indian Rupee
IoT	Internet of Things
IP	Intellectual Property
IT	Information Technology
ITeS	Information Technology Enabled Services
KARSEMVEN	Karnataka Semiconductor Venture Capital Fund
KBITS	Karnataka Biotechnology & Information Technology Services
KEONICS	Karnataka State Electronics Development Corporation
KERC	Karnataka Electricity Regulatory Commission
KESDM	Karnataka ESDM
KIADB	Karnataka Industrial Areas Development Board
KITVEN	Karnataka Information Technology Venture Capital Fund
KLR	Karnataka Land Reforms
KSFC	Karnataka State Finance Corporation



KSSIDC	Karnataka State Small Industries Development Corporation
KVIB	Khadi & Village Industries Board
KVIC	Khadi and Village Industries Commission
MeITY	Ministry of Electronics and Information Technology
MSIPS	Modified Special Incentive Package Scheme
MSME	Micro, Small and Medium Enterprise
NAIN	New Age Incubation Network
NMP	National Manufacturing Policy
NPE	National Policy on Electronics
NSDA	National Skill Development Agency
NSDC	National Skill Development Corporation
PF	Provident Fund
PMA	Preferential Market Access
PPP	Public-Private Partnership
PSU	Public Sector Undertaking
R&D	Research & Development
RRB	Regional Rural Bank
SC	Scheduled Castes
SHLCC	State High Level Clearance Committee
SLSWCC	State Level Single Window Clearance Committee
SSC	Sector Skill Councils
ST	Scheduled Tribes
VAT	Value-Added Tax
VFA	Value of Fixed Assets
VLSI	Very-Large-Scale Integration
VPN	Virtual Private Network
YOY	Year Over Year

For information and assistance, please contact:



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