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Fostering Entrepreneurship, Innovation and Inclusiveness: Start-up and Stand-up

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Abstract: The article focuses on new directions and strategies of entrepreneurship, innovation and inclusiveness through two programmes launched by various Centres. Start-up India programme as outlined in the Action Plan refers to promotion of innovative enterprises with considerable amount of research and development work carried out in collaboration with higher educational and scientific research institutions. Technology Business Incubators promoted for this purpose are normally established in collaboration with a host leading higher educational and scientific research institution. Linking industry with academia to focus on new areas that have potential for development is the direction planned to be pursued for encouraging Start-up entities in various sectors. The entities are sector and scale neutral. To facilitate the youth to take up innovative ventures, creating a favourable and liberal eco-system is a pre-requisite. Easier entry and faster exit are emphasised for the success of these enterprises which involve high risk. Opportunities and challenges are presented in the article along with strategies. Stand-up India programme refers to promotion of micro, small and medium enterprises (MSMEs) by women and SC/ST entrepreneurs across the country with focus on rural and semi-urban areas, and remote and less developed regions. This speaks of inclusiveness. Entrepreneurs promoting MSMEs can pursue these high potential directions which are prone to high risk and yield high reward.

Key words Start-up, Stand-up, Innovation, Entrepreneurship, Incubator

1.Introduction

"I see start-ups, technology and innovation as exciting and effective instruments for India's Transformation".

Shri Narendra Modi, Prime Minister of India

India has been progressively moving towards an economy driven by knowledge and innovation. The Global Competitiveness Report (GCR), released annually by the World Economic Forum (WEF), Davos (Switzerland) classifies national economies into three broad categories: (a) factor–driven, (b) efficiency–driven, and (c) innovation–driven. Many economies

are considered to be in the transitional phase between any two given broad groups. These categories are seen as indicators of a development ladder. In factordriven economies, economic development is primarily driven by basic requirements of various sectors. In efficiency-driven economies, government's focus is on ensuring the smooth functioning of mechanisms such as markets and technological progress. In the innovation-driven economies, entrepreneurial framework conditions become more important as levers of economic development than basic requirements and efficiency enhancers. The outcome of the model is national econom-

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ic growth through, for example, job creation and technical innovation.

In the Global Competitiveness Index (GCI) 2016 as published in GCR 2016, India has scored 16 points, to the 39 th position from 55 by rising rapidly among all countries. In GCR 2015 also it was stated that, India has scored 16 points, and moved up from its earlier ranking of 71 to 55, out of a total of 144 countries. Among the emerging and developing Asian nations, India ranks sixth after Malaysia (18), China (28), Thailand (32), Indonesia (37), and the Philippines (47). India has the potential to move ahead of these countries. Despite moving 15 places up to 66th rank from 81 in the Global Innovation Index (GII) as published in GCR 2015, India has a long way to go in promoting innovation, and scientific and industrial research. In the World Bank's Ease of doing Business Ranking 2015, India is placed at 142 out of a total of 189 economies. But on the start-up front, India ranks third position globally with 4200 start-up entities, next only to USA and UK. The new initiatives in promoting Start-ups would enable India to progress fast.

The Global Entrepreneurship Monitor (GEM) released annually from USA has focused on Entrepreneurship as a process comprising different phases, namely, from intending to start, to just starting, to operating new or established enterprises, and even discontinuing the business. GEM 2014 describes India as an emerging entrepreneurial country, giving details as follows: In India, 4.1 per cent of adults are 'nascent entrepreneurs' (actively involved in setting up a business) while 2.5 per cent are 'new business owners' (in operation for more than 3 but less than 42 months). Combining these two stages, gives us the Total early stage Entrepreneurial Activity (TEA) rate, meaning that close to 7 per cent of the Indian adult population, or 1 in every 15 adults, are engaged in some form of early stage entrepreneurial activity. In India, adults are generally positive about entrepreneurship. GEM 2014 showed that 58 per cent of Indian adults (aged between 18 and 64 years) consider entrepreneurship as a desirable career choice; and around 66 per cent of adults think that entrepreneurs receive a high level of status and respect in the society. (India MSME Report 2015: 72)

2. Start-up India: An Initiative for Innovation and Inclusiveness

Among the turnaround initiatives introduced in the recent two years by the NDA Government, special mention may be made of Start-up India and Stand-up India to promote entrepreneurship, innovation and inclusive development at all levels of economic growth and social development process. Start-up India is a flagship initiative of the GoI, intended to build a strong eco-system for nurturing innovation. This will drive sustainable economic growth and generate large scale employment opportunities. This is the platform where creative and innovative youth will get a forum to translate their dream into a reality. The youth of India today have the confidence to venture out on their businesses and enterprises through innovative approaches. Therefore, a favourable and liberal eco-system is a pre-requisite to help them succeed. Start-up India details are discussed first; and Stand-up India is covered in the second half of the article.

Start-up is an expression generally used in the micro, small and medium enterprise (MSME) sector to refer to entrepreneurs who have promoted enter-

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prises recently or prospective entrepreneurs about to launch the enterprises. In this sector, technocrat entrepreneurs who have expertise in certain product lines, keen on promoting new enterprises are given encouragement and handholding support through a number of incentives and facilities. This category is given special recognition through science and technology oriented entrepreneurship development programmes. One of the attributes of this group is to take up enterprises for which processes have been developed but have not yet been commercially proved successful, i.e., those product lines / processes with high risk and high reward. Special institutional infrastructure and programme content has been developed for this group of entrepreneurs. Science and Technology Entrepreneurs Parks (STEPs), Software Technology Parks (STPs), and Technology Business Incubators (TBIs) have been developed in different regions to meet their needs. In the newly announced Start-up India initiative launched on 16th January 2016 by the Prime Minister through a Start-up Action Plan, the term is given special connotation, as presented in this section, specifically applicable for innovative enterprises where innovativeness is identified and certified by a government recognised organisation such as an Incubator. The entity is sector and scale neutral. The entity can be in any of the sectors such as agriculture, manufacturing, healthcare, education and other sectors. bio-technology, social mation technology, IT-linked activities, consumer electronics, etc. Emphasis is on IT and IT-related services to begin with, with the intention of promoting scale neutral entities, and encourage not only youth from within the country, but also attract non-resident Indians and experienced persons from other countries to

participate in the 'Make in India' campaign. Two other criteria to be fulfilled are: (a) the enterprise registered not prior to five years from 2016, and (b) annual turnover in the recent five years not to exceed ₹ 25 crore. The nodal agency for the Start-up Policy is Department of Industrial Policy and Promotion (DIPP) of the Union Ministry of Commerce and Industry. In terms of scale of operation, entrepreneurs in the MSME sector can also participate, provided they are able to fulfill various conditions and attributes that go with the definition of a start-up entity in the present Start-up India initiative. For MSME entrepreneurs, not able to come up to the criteria laid down for the newly announced start-up programme in the Start-up Action Plan formulated by the DIPP, MSME promotion package relevant to their needs can be considered by them for establishing enterprises of their choice.

3. Definition of a Start-up India Initiative

"Start-up means an entity, incorporated or registered in India not prior to five years, with an annual turnover not exceeding ₹ 25 crore in any preceding financial year, working towards innovation, development, deployment or commercialisation of new products, processes or services driven by technology or intellectual property.

- a. Provided that such entity is not formed by splitting up or reconstruction of a business already in existence;
- b. Provided also that an entity shall cease to be a start-up if its turnover for the previous financial years has exceeded ₹ 25 crore or it has completed 5 years from the date of incorporation or registration;

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- c. A start-up shall be eligible for tax benefits only after it is certified by an inter-ministerial board. For this purpose, the start-up should be supported by a recommendation, with regard to innovative nature of business from a government recognised incubator.
- d. The mere act of developing products or services that do not have the potential for commercialisation or undifferentiated products or services or processes or have no or limited incremental value for customers would not be a start-up. Smaller ventures would seek funding on their own, and without official sops, but the government must not lose sight of the need to fix India's overall business climate." -- DIPP (2016), Start-up Action Plan, New Delhi.

4. Process of Setting up a Start-up Entity

Start-ups can be identified as enterprises with innovative ideas, often in the areas of emerging technologies, launched by technically qualified entrepreneurs. The start-up entrepreneurs are qualified in their respective areas of specialisation. The enterprises are launched to develop business models based on innovative ideas of the entrepreneurs. While the growth rate of the successful start-ups is very high, many of which reach the corporate status within a couple of years, the failure rate of the starters has also been observed to be very high, even at the global level.

Many of such enterprises start at the 'micro' level with a number of them either in the area of Information and Communication Technologies or predominantly based on IT based tools in their business. Again the global experience reveals that the start-ups are located in and around premier technical institutions to avail of the expertise of the mother institution while developing the business model. The 'Silicon Valley' experience is the global benchmark for promoting and supporting the start-ups. Another direction for identifying innovative ideas for start-ups is to collaborate with the network of national laboratories of the Council of Scientific and Industrial Research (CSIR) to take up unproven technologies or processes or those which have been tried out only in a few locations in the country. These refer to high risk and high reward technologies. A third direction is linkage with the major industrial enterprises such as medium, large and mega projects in the country for identifying the project ideas. Yet another direction is tie up with projects in other countries in areas of interest to the entrepreneurs. These approaches do not rule out the scope for micro and small enterprises to experiment with innovative ideas. The entrepreneurs need to explore the scope for these enterprises to exploit the latent potential. Towards protecting the intellectual properties (IP) generated by the start-up, Government assists in filing of patents or alternative IP protection mechanisms. The IP facilitation centres set up under IPR component of the National Manufacturing Competitiveness programme (NMCP) may be the nodal points in guiding, handholding, and subsidising the start-up entrepreneurs in protecting their IPRs.

5. Recent Policy Initiatives and setting up of Specific Funds for Innovative Start-up

Entities

To simplify the regulatory framework, the government introduced the Ease of Doing Business wherein an MSME unit has to fill in a single one page self – declaration online form called

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Udyog Aadhaar. Under the Apprentice Protsahan Yojana, 50 per cent of stipend payable to the apprentices would be reimbursed by the Government for the first two years which is an incentive for MSME units to take more apprentices.

To give boost to the Make in India programme, the MSME Ministry has launched the ASPIRE scheme in March 2015. ASPIRE is the abbreviation of the scheme for promotion of Innovation, Entrepreneurship, and Agro-industry. AS-PIRE has the objectives of creating new jobs to reduce unemployment, promoting entrepreneurship culture across regions in the country, achieving rural industrialisation in less developed regions as well, and promoting innovative business solutions, and thus, strengthening the competitiveness of enterprises. The scheme provides a framework for promotion of start-up enterprises in agro and rural industries through forward and backward linkages. Setting up of business incubators and technology business centres, and guiding entrepreneurs from selection of project ideas to the implementation of the project are all covered at different stages under this scheme. Small Industries Development Bank of India (SIDBI) manages the Fund created by the Ministry of MSME under this scheme for investing in Venture Capital Funds (VCFs) with focus on start-ups and early stage enterprises in the areas of rural and agro-industries.

Atal Innovation Mission (AIM): AIM and Atal Incubation Centre (AIC) operated from NITI Aayog are about Innovation Promotion Platform involving academics, entrepreneurs and researchers, and draw upon national and international experiences to foster a culture of innovation, R & D, and scientific research in India. The platform will promote a network of world class innovation hubs and grand chal-

lenges for India. SETU (Self Employment and Talent Utilisation) is a Technofinancial, Incubation and Facilitation programme to support all aspects of start-up businesses and other self-employment activities. Objectives of AIM and SETU are to serve as a platform for promotion of innovation hubs, start-up businesses, and self-employment activities particularly in technology-driven areas. The overall purpose of the AIM is to promote a culture of entrepreneurship and innovation in the country. The key objectives of the AIM include the following:

- To create an umbrella structure to oversee innovation eco-system of the country;
- To provide a platform and collaboration opportunities for different stakeholders;
- To develop new programmes and policies for fostering innovation in different sectors of the economy; and
- To create awareness, and provide knowledge inputs in creating innovation challenges, and funding mechanism to the government.

Already applications have been invited to establish laboratories and incubation centres for this purpose. Under the scheme, each AIC will be eligible to a grant– in–aid of ₹ 10 crore per annum for a maximum of 5 years, towards the capital and operational expenditure in running the centre. To qualify for the support, the applicant has to provide a built-up space of at least 10,000 sq.ft.

Electronics Development Fund (EDF): The Ministry of Communications and Information Technology (C&IT) has created the Electronics Development Fund to promote innovation, research and de-

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velopment, and product development in the field of semi-conductors, nano-electronics, IT and associated sectors by bringing in established companies and start-ups on board. For accelerating research, design and development of electronic products within the country, start-up units would be provided supportive financial assistance from the EDF. A few other ministries of GoI have created similar funds for the benefit of start-ups in product lines coming under their purview. These include Departments of Biotechnology, and Electronics and Information Technology.

India Aspiration Fund (IAF) and SMILE of SIDBI: ₹ 2,000 crore India Aspiration Fund (IAF) was launched by SIDBI in August 2015 to boost start-ups fund-offunds eco-system. This fund would invest in various venture capital funds for meeting the equity requirement of MSME start-ups. Investments in MSMEs will be to the extent of twice the commitment of SIDBI or 50 per cent of the corpus of VCF, whichever is higher. A SIDBI Make in India Loan for Small Enterprises (SMILE) scheme of ₹ 10,000 crore has also been launched to catalyse tens of thousands of crore of equity investment in start-ups and MSMEs, creating employment opportunities mostly for educated youth over the next few years. The objective of SMILE is to provide loans in the nature of quasi-equity and term loans on relatively soft terms to MSMEs to meet the required debt-equity ratio norm. The facility will be applicable for new as well as existing MSMEs. The 25 sectors under the 'Make in India' programme would be the focus with emphasis on financing of smaller enterprises in the MSME sector. Concessional terms will be applicable for enterprises promoted by women, SC/ST persons, and persons with

disabilities. Credit quarantee fund of ₹ 2,000 crore has been created by Government of India for the benefit of start-ups. The guarantee covers up to 80 per cent risk for collateral free credit given by banks and financial institutions for startup enterprises. SIDBI prepared an online platform, www.sidbistartupmitra.in to promote the start-up eco-system which enables entrepreneurs to get connected with various stakeholders, namely, incubators, mentors, angel networks, VCFs, etc. Start-up programme is supported by the Union Department of Science and Technology. SIDBI also created a new website, www.venturefund.sidbi.in for providing direct risk capital assistance to MSMEs in the form of sub-debt and equity assistance through VCFs.

SIDBI's role would be more effective through innovative products, processes, and delivery to address various financial and developmental gaps in the MSME eco-system. Greater thrust on start-ups, knowledge-based new age companies, infrastructure, sustainable finance, cluster-centric interventions for finance, development, etc. would act as guideposts of SIDBI's efforts to make the MSME sector stronger, sustainable, more inclusive, and highly competitive in the coming years. (Source: SIDBI Annual Report 2015-16, Lucknow)

Till date start-ups have been successful in e-commerce and other IT based applications of the services sector. The start-ups in the manufacturing sector are yet to take off in a big way.

The Centre is committed towards providing an environment for start-ups to thrive in as India is at the forefront of an entrepreneurial revolution, the Union Commerce and Industry Minister, Nirma-

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la Sitharaman stated, speaking at the start-up India states' conference at New Delhi on 23 July 2016. Highlighting government's efforts to improve ease of doing business, she said, a start-up would now require only a certificate of recognition from the Department of Industrial Policy and Promotion (DIPP) for IPR (intellectual Property Rights) related benefits. A panel of facilitators has also been constituted to provide assistance in the process, where in DIPP would bear the facilitation cost. The government is working on further softening the existing regulations for start-ups.

"In order to avail IPR-related benefits - rebate in fee up to 80 percent, and free of cost facilitation in filing IPR applications - a start-up will now be required to obtain only a certificate of recognition from DIPP, and will not be required to be examined by the Inter-Ministerial Board, as was being done till recently", the minister stated. DIPP has also written to top 50 companies requesting them to support Start-up India Initiative under CSR (Corporate Social Responsibility) activities by setting up new incubators in collaboration with educational institutions. Reacting to the success of Start-ups, the Minister observed, Start-up rate of success, world over is not very high. But that is the nature of business. What the government can do is to give a chance for every idea to reach some stage which otherwise would not have materialised. Given the tax breaks, it becomes easier for Start-ups to get funds. The market will determine which ideas go commercial. India has been pegged at the third place behind US & UK in terms of number of Start-ups. 4,200 technology Start-ups exist in India at present, and the number is expected to reach over

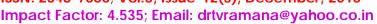
12,000 by 2020. (**Source**: *The Hindu*, Vijayawada edition, July24, 2016).

The response to the start-up policy has been lukewarm till date up to June end 2016, The Department of Industrial Policy and Promotion (DIPP), the nodal government body for the start-up policy, received 571 applications. Of these, 106 had the required documents. DIPP said only 12 applicants could be considered for tax benefits as these start-ups were started after April 1, 2016. Among them, seven applicants had furnished all the required documents. The remaining applicants would be given guidance and support by the Start-up India Hub.

6. Funding Pattern for Start-ups

For financing start-up enterprises, conventional banking facilities can be of help at a later stage of development of the enterprise, after it settles down as a moderately successful enterprise. In the early stage, beginning from conceiving innovative ideas, and trying them on an experimental basis, world over angel funds and subsequently venture capitalists provide capital support. When the business model reaches the stage of commercial success, the growth rate of the start-ups becomes phenomenal, and the enterprises shift to full-fledged industrial premises\offices\laboratories for scaling up the activities with the conventional sources of finance like bank credit. Venture capital funds of Small Industries Development Bank of India (SIDBI), and a number of other venture capital companies in the public and private sectors participate in the funding and management of the enterprises. Initial Pattern of funding is through equity participation and development loan, and contribution from the government through incentives and tax concessions offered for enterpris-

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es fulfilling certain criteria. White the angel and venture capital funds finance a project on the basis of their own risk analysis and valuation, the Government can extend support towards reducing the risk. This could be in the form of a guarantee or co-investment through a government promoted venture fund, in addition to providing a wide range of concessions and incentives.

7. Institutional Infrastructure for Start-

Regarding infrastructure needed for promoting start-ups, the initial effort at encouraging, mentoring and handholding of start-ups can be through incubators promoted at a host educational institution or a research and scientific body. The incubator hub can provide the necessary facilities in collaboration with the host institution. As the enterprises need to move to their regular industrial premises a few years later, it is important to develop modular industrial estates \ laboratories suited to the nature of enterprises to be promoted in that area, with the required plug and play facilities. Linking the enterprises with technical institutions / research bodies on one side and funding agencies on the other is an important direction to be pursued by the incubator hub with the good offices of the key organisations associated with the development of a cluster of enterprises in each location. In the manufacturing activities, the organisational network available in the country beginning from Development Commissioner (MSME), Small Industries Development Bank of India ii. (SIDBI), and Export-Import Bank of India (EXIM Bank) can provide the necessary institutional support. Infrastructure can be planned by the state level Infrastructure Development Corporation. As the needs of different groups of start-ups

are likely to be different, the requirements of different entities need to be carefully examined for planning the facilities. For coordinating and monitoring the implementation of key areas of the programmes, a Start-up cell has been created in the office of Development Commissioner (MSME). The focus is on ensuring the functioning of a single window for the start-ups at various levels. Similarly in various Ministries / Departments, where clusters of enterprises are being promoted in the disciplines falling under their purview, guardianship is to be ensured through a core team associated with the start-ups programme to provide sustained support at various stages of development of enterprises.

Tax Incentives for Start-ups announced in the Union Budget 2016-17

Tax incentives announced for Startups in the Union Budget 2016-17, and approved by the Parliament are presented here.

- A deduction of one hundred per cent of profits and gains derived by an eligible start-up from a business involving innovation, development, deployment or commercialisation of new products, processes or services driven by technology or intellectual property. This benefit shall be available to an eligible start-up which is set up after 1st April, 2016 up to end April, 2019. Income tax exemption is for three years in a block of five years,
- A new section 54 EE will be inserted to provide exemption from capital gains tax if the long term capital gains proceeds are invested by an assessee in units of such specified fund, as may be notified by the Central Government in this behalf, subject to

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the condition that the amount re- v. mains invested for three years failing which the exemption shall be withdrawn. The investment in the units of the specified fund shall be allowed up to ₹50 lakh.

- iii. The existing provisions of section 54 GB provide exemption from tax on long term capital gains in respect of the gains arising on account of transfer of a residential property, if such capital gains are invested in subscription of shares of a company which viqualifies to be a small or medium enterprise under MSME Development Act 2006, subject to other conditions specified there in.
- iv. With a view to provide relief to an individual or HUF willing to set up a start-up company by selling a residential property to invest in the shares of such company, it is proposed to amend section 54 GB so as to provide that long term capital gains arising on account of transfer of residential property shall not be charged to tax if such capital gains are invested in subscription of shares of a company which qualifies to be an eligible start-up subject to the condition that the individual or HUF holds more than fifty per cent shares of the company, and such company utilises the amount invested in shares to purchase new asset before due date of filing of return by the investor. The existing provision of section 54 GB requires that the company should invest the proceeds in the purchase of new asset being new plant and machinery but does not include, inter *alia*, computers or computer software.

It is proposed to amend section 54 GB so as to provide that the expression 'new asset' includes computers or computer software in case of technology-driven start-ups so certified by the Inter-Ministerial Board of Certification notified by the Central Government. These amendments will take effect from 1st April 2017, and will, accordingly, apply in relation to the assessment year 2017-18, and subsequent assessment years.

The Budget has also indicated that it is envisaged to establish a Fund-of-Funds which

intends to raise ₹ 2,500 crore annually for four years to finance start-ups – the corpus is

of ₹ 10,000 crore over four years. This will promote creation of start-up ecosystem in the

country.

9. Start-up Opportunities

9.1 ISRO looks to Space Start-ups

Opportunities for start-ups can be identified in a number of directions, where the use of innovation-driven technologies is of high priority. One area is opened by Indian Space Research Organisation (ISRO). Biennial Space Conference and Expo was organised by ISRO, in collaboration with Antrix Corporation, ISRO's commercial company, and other related oraganisations at Bengaluru during September 1-3, 2016. In the Space sector, the role of manufacturers in satellite-based programmes is being strengthened by inviting a number of space startups or entrepreneurs to develop space technologies, applications and products even building small space craft and rocket systems. As the new face of an other-

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wise government–driven sector, start-ups hope to get a platform for themselves in this field. (**Source**: *The Hindu*, Vijayawada edition, August 24, 2016).

S. Rakesh, Chairman and Managing Director of Antrix Corporation outlined the scope for start-ups in the Space field as follows: In future, Space will have an increasingly large role to play in many areas in our lives. Space commerce is going to increase phenomenally, and India has all ingredients required to become a major Space player. But ISRO cannot do it alone; it is basically an R & D organisation. Industry should be able to play a major part in future, on the lines of the US or European space sectors. Some of the common satellite based technologies are DTH television, telecommunication, earth imaging disaster management, and farm advisory.

ISRO, he said, is looking at improving the role of established players who are already supplying systems and components to it, as also new entrants or start-ups that can get into a few activities that ISRO does at present Technologies are available with ISRO, and are ready to be transferred to industry. New entrants need to discuss with ISRO personnel. He also mentioned a few areas where collaboration can be fruitful. Solar panels used to generate power on satellites will be needed in large numbers as small satellites are booming. Makers of commercial solar panel will need to step up to space grade. For start-ups, sensors can be a low cost entry point. On the larger side, ISRO has larger launch vehicles and high throughput satellites in the offing which need industry support. Start-ups should be ideally prepared to invest in all related areas.

9.2 Public Procurement Policy (PPP) 2012

Availability of sub-contracting option under public procurement policy can be used by Central Public Sector Units (CPSUs) to encourage procurement from micro and small enterprises (MSEs), even if they continue to purchase from large suppliers. Availing opportunities available from CPSUs for sub-contracting will ensure greater thrust on capacity building of the MSE sector. This direction encourages innovation and self sufficiency by participating in the programmes of the futuristic core sectors like Defence, Space, Railways, Mining, Automobiles, Renewable Energy, Nuclear Energy, etc. In Defence, large scale efforts are being made to indigenise manufacture of components. Creation of MSME (micro, small and medium enterprise) vender base for the Defence Sector is being pursued by organising MSME-DEF-EXPO events and through B 2 B meetings. Ordevelopment ganising vender grammes (VDPs) and special VDPs for specific sectors or CPSUs for facilitating MSEs in becoming part of the supply chain is being done regularly in different parts of the country by the National Small Industries Corporation (NSIC) and the MSME - Development Institutes under the Development Commissioner (MSME). NSIC offers single point registration system (SPRS) for increasing the supplier base through online registration.

www.nsicsprsonline.com. E-procurement initiative of public procurement Cell of Department of Expenditure, Ministry of Finance, Gol has helped in greater transparency, and standardisation of the tendering process, all across the country. The vendors can access the opportunity through E-procurement process. It also helps procurement agencies in procuring

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items of their requirements at competitive prices. http://eprocure.gov.in/cppp. Offset Policy of the Government in case of procurement of the establishments of Defence, Space, Railways, and other CPSUs should give priority to MSMEs to act as vendors.

Gol has notified Public Procurement Policy (PPP) for MSEs 2012 under MSMED Act 2006, which is effective from 1st April 2012. It is available on the webof Development Commissioner www.dcmsme.gov.in. (MSME) Every Central Ministry / Department / PSU shall set an annual goal for procurement from the MSE sector at the beginning of the year, with the objective of achieving an overall procurement goal of minimum of 20 per cent of total annual purchases of products or services produced or rendered by MSEs from the latter in a period of three years. At the end of 3 years, the overall procurement goal of minimum 20% has become mandatory from 1st April 2015. Another provision in the policy is that 4% procurement (20% of 20%) is to be made from MSEs owned by SC / ST entrepreneurs. Non-conforming departments will be required to provide reasons for the same to the Review Committee set up under the Policy.

10. Harnessing Private Sector Expertise for Incubators to guide and handhold Start-ups

To ensure professional management of government sponsored / funded incubators to provide necessary facilities for start-ups, Government will create a policy and framework for setting up of incubators across the country in public private partnership mode. The facilities to be provided in an incubator through industry – academia tie ups for nurturing innovations in academic institutions in-

clude physical infrastructure involving large capital investment for equipment, testing facilities and necessary buildings, provision of mentor support, access to networks, access to market, etc. Required skills for operating the incubator need to be developed by the private sector in collaboration with the host academic institution. As part of Atal Innovation Mission, funding of incubators will be planned by NITI Aayog. Government of India Ministries / Departments associated with the establishment of incubators include Departments of Science and Technology, Bio-technology, Electronics and Information Technology, Higher Education, Industrial Policy and Promotion (DIPP), and Ministry of Micro, Small and Medium Enterprises (MSME). The Ministry of MSME has promoted incubators at prestigious educational institutions as part of the National Manufacturing Competitiveness Programme (NMCP) in recent years.

Initial thinking was to establish incubators in collaboration with premier educational institutions in the country. These include IITs, IIMs, NITs, and other renowned specialised scientific and technological institutions. In earlier years, science and technology parks and a few incubators were set up under the sponsorship of Departments of Science and Technology and Bio-technology, and development banks such as Small Industries Development Bank of India (SIDBI). Experiences in these locations will be taken into account while promoting new incubators. There are a number of States and Union Territories not having these institutions. There is also a possibility and demand for locating more than one incubator in a State. The incubators can also be industry supported apart from academic institutions supported. The

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DIPP is of the opinion that experienced industry-linked Universities, engineering colleges and other specialised institutions can also be considered for locating the proposed incubators to spread the network to a number of states, and to a few prominent locations in as many states as possible. Faculty involvement of these institutions with appropriate expertise constitutes the base for selecting the thrust area for the incubator. Incubators need to co-opt experts in various areas of specialisation from nearby areas to cope up with the demand from prospective entrepreneurs.

Compliance regime based on self certification in respect of nine labour and environment laws will be adopted, and there will be no inspection during the first three years of the launch of the venture. Also a liberalised patent regime is being brought to help start-up businesses to register patents, for which the fee will be slashed by 80 per cent. Start-up India Hub facilitates creation of a single point of contact for the entire start-up ecosystem, and enables knowledge exchange and access to funding. The Start-up India Hub will be a key stakeholder in this vibrant eco-system. It will work in a hub and spoke model, and collaborate with the central and state governments, Indian and foreign venture capitalists, angel networks, banks, incubators, legal partners, consultants, universities, and R & D institutions.

Start-ups will be supported for bagging government procurement contracts by waiving the criteria of experience and turnover. Notification has already been issued for this purpose. The Corporate Affairs Department promised that the Department is working on a software in which registration of new ventures would be made possible within

24 hours. On March 31, 2016, DIPP unveiled a start-up India portal, a start-up India Hub, and a mobile app, besides setting up a panel to verify the eligibility of start-ups to avail of benefits.

The incubation centres in India have not only grown in numbers and geographic spread, but also in terms of creating a dynamic support system to foster entrepreneurship, enhanced levels of innovation, and employment generation. Requisite skills for operating an incubator and enterprise development need to be developed in higher educational institutions, Innovation and Entrepreneurship Development Centres, and other centres dealing with technology, and research and development. Prominent Technology Business Incubators established in the last decade and a half are: Technology Business Incubator at Delhi, SIDBI Innovation and Incubation Centre in IIT Kanpur, and Society for Innovation and Development at Indian Institute of Science at Bengaluru, which is one of the oldest institutions in the country associated with entrepreneurship promotion. Most of the top Business Schools and technical schools offer entrepreneurship education in the form of short and long duration programmes. The IIT Madras Incubation Cell, called iCreate, consists of alumni dedicated to providing funding along with technical and business mentoring needed for a start-up to succeed, iCreate is an autonomous centre to facilitate a wide range of Next Generation entrepreneurs along with a vibrant eco-system.

11. Building Innovation Centres at National Institutions: To propel successful innovation through augmentation of incubation and R&D efforts, the Government plans

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- a. to set up / scale up 31 innovation and entrepreneurship centres (to provide facilities for over 1200 new start-ups) at national institutes.
- b. Setting up 13 start-up centres with annual funding of ₹ 50 lakh (shared by DST and MHRD Ministry of Human resource Development on 50:50 basis) for encouraging students-driven start-ups from the host institute.
- c. Setting up / scaling up 18 technology business incubators (TBIs) at leading educational institutes.
- 12. Setting up of New Research Parks: Seven new Research Parks planned are modeled on the lines of the Research Park at IIT Madras with an initial investment of ₹ 100 crore each. These will be in IITs located at Guwahati, Hyderabad, Kanpur, Kharagpur, Gandhinagar, and Delhi, and Indian Institute of Science at Bengaluru. These will create a collaborative environment between industry and academia through joint research projects and consulting assignments.
- 13. Promoting start-ups in the Biotechnology sector: The Department of Bio-technology endeavours to scale up a number of start-ups in the sector by nurturing 300-500 new start-ups each year to have around 2000 start-ups by 2020. The programme is being implemented by the Department along with its public sector undertaking, Bio-technology Research Assistance Council (BIRAC). 5 new Bioclusters, 50 new Bio-incubators, 150 technology transfer offices, and 20 Bioconnect offices will be set up in research institutes and universities across the country.
- 14. Launching of Innovation Focussed Programmes for Students: To foster a

culture of innovation in the field of science and technology amongst students, a number of initiatives will be taken: (a) Innovation care to target school kids, (b) National initiative for developing and harnessing innovations (NIDHI) shall be implemented through Innovation and Entrepreneurship Development Centres. (c) Uchhattar Avishkar Yojana for fostering very high quality research among IIT students.

15. Annual Incubator Grand Challenge: To support creation of successful world class incubators in the country, and make them as role models for other incubators.

16. Stand-up India Scheme

Under Stand-up India Scheme, greater emphasis will be on promoting entrepreneurship among women and SC/STs. The scheme's motive is to make youth job creators and not job seekers. Implementation of the scheme will lead to greater degree of inclusive growth. It is targeted that each bank branch in the country, particularly in rural and semiurban areas, provides loan for at least two such projects in a year, one for each category of entrepreneurs. Provision of ₹ 500 crore has been made in the Union Budget for 2016-17. The scheme will benefit at least 2.5 lakh entrepreneurs during 2016-17. The entrepreneurs can avail of the facilities offered under various schemes being implemented for skill development and entrepreneurship. While celebrating the 125th Birth Anniversary of Dr. B. R. Ambedkar, Government of India has declared 2016-17 as the year of Empowerment of SC/ST entrepreneurs. A National Scheduled Caste and Scheduled Tribe Hub has been created in the Office of Developement Commissioner (MSME) in partnership with industry associations. This Hub will provide professional sup-

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port to SC/ST entrepreneurs in a number of directions to adopt global best practices

Under MUDRA Yojana, loans up to ₹ 10 lakh will be granted to SC/ST and women entrepreneurs to set-up their businesses on hassle free terms. The overall intent of the scheme for underserved sections of the population is for facilitating bank loans repayable up to seven years, and between ₹ 10 lakh to ₹ 100 lakh for green-field enterprises in the non-farm sector by such SC/ST and women borrowers. MUDRA Bank (Micro Units Development and Refinance Agency Bank) started in April 2015 offers loans under three categories – shishu for loans up to ₹ 50,000 for start-ups; Kishor with above ₹ 50,000 and up to ₹ 5 lakh for mid-stage needs; and Tarun – with above ₹ 5 lakh up to ₹ 10 lakh for growth seekers.

The Bank gives priority to sanctioning loans in the shishu category, as it primarily deals with new micro enterprises. The other schemes are oriented towards expansion of projects and in a limited way for bigger new projects. The bank is visualised as a boon to small business enthusiasts, particularly in rural and interior parts of the country. MU-DRA card and credit enhancement are on the anvil for inclusion later. The Bank has been created with a corpus of ₹ 20,000 crore, and a credit guarantee fund of ₹ 3,000 crore. It functions as a subsidiary of SIDBI (Small Industries Development Bank of India).

In order to foster smooth implementation of Stand-up India scheme, SIDBI developed a web portal, www.standupmitra.in which is designed to obtain application forms, provide information, enable registrations, provide

links for handholding, tracking, and monitoring. This will enable the entire banking system to fulfil the intended objective of providing bank loans between ₹ 10 lakh and ₹ 1 crore to at least one SC or ST borrower and at least one woman borrower per bank branch in a year for setting up a green-field enterprise. This portal acts as a loan market place for application filing and tracking as well as providing the facility for choice of branches/banks for credit assistance. (Source: SIDBI Annual report 2015-16, Lucknow)

17. Progress of Incubators in Andhra Pradesh

The vision of the new Innovation and Start-up Policy of Government of Andhra Pradesh for 2014-20 reads as follows:

"To create 'a world class technology Start-up eco-system' by fostering entrepreneurship and a culture of innovation' which contributes to increased knowledge, wealth and employment in our society." In line with the decision at the national level declaring 2010-20 as a Decade of innovation, Andhra Pradesh Government has set up an Innovation and Capacity Building Mission for implementing the policy of Re-imagining Andhra Pradesh - role of e-governance, Flectronics and IT(available www.ap.gov.in). The government aims to make at least one person e-literate in each household. Through this policy; the state intends to create an ecosystem that produces entrepreneurial culture in every family developing the following facilities to produce the desired results by June 2019.

> 100 incubators/accelerators to be established

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- 5,000 companies/ Start-ups to be incubated
- one million sq feet of incubation space is to be developed
- Venture capital of ₹ 1,000 crore (₹ 10 billion) to be mobilised for innovation
- Foster innovation culture
- Create at least one home grown billion dollar technology Start-up.

The niche Themes being considered as focus areas are as follows:

- Internet of Things (IoT)
- 'IT for X' in the areas of pharma, oil & gas, and urban management
- Social media, mobility, analytics, and cloud computing (SMAC)
- Fables Semi-conductors
- Animation & gaming
- Entertainment
- Visual effects
- Health and fitness
- Automotive

The new policy of innovation would base itself on five pillars, *viz.*, shared infrastructure, accelerators / incubators, human capital, funding, and above all, a system of governance (state support). The government shall establish at least one world class Accelerator/Incubator by inviting global accelerators / incubators to introduce their programmes in the state. It will also support the establishment of small accelerators/incubators in multiple locations in the state. Through industry - academia collaboration, these institutions will develop trained manpower in emerging

technologies to promote innovators and techno-preneurs among the youth.

The government shall develop physical incubation infrastructure through Public-Private-Partnerships. A new incubation infrastructure fund will be set up under the innovation Mission as a revolving fund that provides conditional grant for special purpose vehicle (SPV), promoted by the host institute of Technology Business Incubator, and approved by National Science and Technology Entrepreneurship Development Board (NSTEDB), Department of Science and Technology, Government of India. Innovation and Transformation Academy will be set up for fostering innovation in the state. Through leadership and entrepreneurship training programmes, entrepreneurship culture will be institutionalised in different parts of the state. An initial innovation fund of ₹ 100 crore (₹ one billion) will be created for entrepreneurs and businesses. The fund will be in the nature of fund of funds. It does not invest directly into start-up companies. It shall participate in the capital of Securities and Exchange Board of India (SEBI) approved venture capital (VC) funds, up to 15% as a limited partner. The VC fund in turn is free to invest in start-ups located in different parts of the state, based on their appraisal criteria. The fund will also support a number of activities in this programme including establishment of pilot incubators.

The other important contribution of the state government is to offer non-fiscal and fiscal incentives to start-up entities. A highly empowered single window clearance unit will be created and operationalised for granting approvals and clearances to primarily first time and young entrepreneurs. Andhra Pradesh Innovation Council would be formed.

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Apart from incentives normally available for micro, small and medium enterprises, special incentives will be made available for IT and other specialised categories of enterprises, taking into account their needs. Women and SC / ST entrepreneurs will be given additional incentives. IT units in rural areas will derive special advantages. For various product groups, based on the nature of activity, tailor made facilities and incentives will be offered.

The mandate of the empanelled incubators is to promote the culture of innovation among the start-up units while the state is looking at creating a world class eco-system, and lay strong foundation to make a mark in IT product development. Recently, Intel and C-Dac organised training programes for the start-ups in Visakhapatnam working on ideas and products related to their domain expertise. The government has also been extending some financial assistance to the pilot incubator on behalf of each start-up unit for organising training praogrammes, and promoting the products and ideas once they reach a certain stage of development to attract venture capitalists and angel investors. The Rushikonda facility is known as Technology, Research and Innovation Park. In Visakhapatnam, another five-floor tower, named as Millennium Tower of three lakh sq. ft. space will come up on a fouracre land adjacent to the Rushikonda Incubation Tower. The first two floors will be for start-up units, and the other three floors will be allotted for companies.

18. Conclusion

The article presents the directions to be pursued for two innovative programmes in entrepreneurship development, *viz.*,Start-up India and Stand-up

India, as complementary to the Make in India campaign. The first refers to innovative entrepreneurship based on research and development, and experiments carried out in technology business incubators, with the support of a host institution. The second refers to inclusiveness of promoting entrepreneurship among women, and SC/ST candidates, in particular, in rural and semi-urban areas, and remote and less developed regions. In the context of Start-up entities as per the definition specifically spelt out for availing fiscal, financial, and other incentives and benefits, entrepreneurs should develop the products and processes, experiment on a smaller or laboratory scale, and be prepared to face high risk, before launching a product on commercial scale. In view of the high risk involved, angel investors and venture capitalists support such ventures, and government extends support in various ways. Conventional loans from development and commercial banks can be utilised after the enterprise is reasonably well established. Apart from supporting research and development, and early entry and early exit, and creation of liberal eco-system, establishment of fund-of-funds for providing equity, quasi-equity and development loans on relatively soft terms are important roles of the government. Fund-of-funds created for different product groups is utilised for extending loans to venture capital companies to enable them to meet the equity and developmental loan requirements of Start-up entities. Opportunities available from sectors such as Space, Defence, Railways, Renewable energy, and Nuclear Energy need to be utilised by the youth to promote risky Start-up entities. Public Procurement Policy is another direction for registering themselves as vendors to Central Public Sector Units for availing the benefits. Strategies outlined are es-

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sentially through technology business incubators and research parks promoted in collaboration with leading educational and scientific research institutions. Joint efforts of Industry and Academia, with

the appropriate eco-system and support created by the government can pave the way for more enlightened entrepreneurship to ensure the success of start-ups.

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