High Commissioner's address at the Institute of Manufacturing (IfM), Cambridge- 27 October 2014

'Make in India: A New Paradigm for Manufacturing in India'

It is with some hesitation that I take up the opportunity to speak at this illustrious institute. I am deeply conscious of being a generalist layman in a professional institution where outstanding economists and engineers and highly specialized captains of industry have spoken. Your Institute has organised as recently as last April a well-attended UK-India Round Table. I do not wish to go over the same ground of industrial strategies, manufacturing futures, and innovation and manufacturing. My words may betray ignorance or make me sound like a publicist for an investment campaign. I can only hope to avoid such pitfalls in speaking to you about the historical background to our current status as a manufacturing nation, and our plans for the future, particularly as we have a new government and a new vision. Hopefully the new vision will link with existing plans for engineering driven supply networks – for all industries including aerospace, automotive, pharma and food processing industries which have been researched in this Institute.

Ours is an ancient civilisation which had a strong material base. The Indus Valley civilisation (2500-1900 CE) spread over a vast area of North West India has left behind evidence of at least 1000 cities and settlements. It was pre-dated by a farming culture, but from the peak of its era of achievement archaeologists have found evidence of urban planning, sophisticated and technically advanced urban culture with construction, artisanal industry and mineral extraction, metallurgy and production of metal tools. It also had trading links with other civilizations in Western Asia. Some of the construction remains in the archaeological sites in Gujarat withstood the earthquake of 2001 rather better than modern buildings!

Vedas: The Vedas among the world's most ancient works of human insight are the fount of India's spiritual heritage. Derived from them are the Upavedas – which include texts on medicine (Ayurveda) and science, music and arts. There is also the Sthapatyaveda for architecture and engineering.

The Arthashastra, the ancient Indian text of statecraft, was originally written by Kautilya, the counsellor to the Emperor Chandragupta Maurya in the 4th century BCE as a guide to governance. The Arthashastra speaks of a developed commercial and industrial base. It deals with rules on registration, preparation of royal documents, taxes on trade and so on. There is a chapter devoted to the Navy and merchant marine, as D.D. Kosambi writes in his work (Introduction to the Study of Indian History). He says the Arthashastra society with its relatively high commodity production, system of contracts and state enterprises was unique. Clearly this was not industry as we know it now, but commodity production and artisanal industry, but on a scale which supported taxation, maritime trade etc.

Interestingly, the development of the economy at the time of the Arthashastra had a strong metallurgical basis. During the time of Kautilya metals, from ores to finished articles, were a state monopoly under a Ministry of Mines which controlled minerals, coinage and circulation of money. To quote Kautilya, "From mining comes the treasury, from the treasury the army has its origin; from the treasury the army has its origin; through the treasury may the earth, full of treasures, be conquered." The writer knew the value of heavy industry as few in India had grasped it before the last century, according to Kosambi who also noted that for Kautilya "Even foreign policy had this sort of profit for its aim. Penetration of another king's territory by treaty and mutual agreement, for the exploitation of waste-lands, mines, and natural resources, precedes any discussion of war in the book." As the author goes on we are told of the advantages of maritime trade connecting many trading port towns along the shore. Likewise, river navigation is better than transport by land as it is uninterrupted with avoidable or endurable dangers. Of land routes, those leading to the South are better because they traverse a large number of mines and have routes with plenty of merchandise. Cart-tracks are better than paths for shoulder loads as they afford facilities for transport on a larger scale. (Arth. 7.12)

Kosambi also draws attention to the existence of chariots and other forms of transportation used to deploy armies with their weapons of war. Plutarch said Alexander's army was wary of proceeding beyond the fringes of India because they faced armies which included 2000 chariots. Archers in the army that fought Alexander, almost to a standstill, had equipment of high quality and an arrow is said to have injured Alexander after it penetrated his shield. Given the scale of combat and the numbers deployed, certainly equipping an armed force would require a significant manufacturing base.

Medieval period: In the medieval era Indian achievements in the fields of engineering (development of irrigation system etc.) and metallurgy continued. The Iron Pillar of Delhi – remains rust free for over 1500 years, and the development of zinc, copper, lead and tin is chronicled in Mughal era writings. Water management technologies, cotton textiles and food preservation techniques were among the factors that gave India economic weight. Hyder Ali and Tippu Sultan used rockets to considerable effect in wars against the British at the end of the 18th century. The rockets certainly impressed William Congreve enough to study them and adapt the "Mysore Rocket" for British military use.

Less is known about the history of science and civilisation in India than that in China. Partly because of paucity of historical records. But the gap persists perhaps because this and other great Universities and institutions of advanced study did not have an equivalent of Joseph Needham spending a lifetime chronicling the scientific and industrial capabilities achieved by ancient Indian civilization.

We do owe a deal, however, to Angus Maddison also from Cambridge whose great contribution puts the development of India and indeed China in a historical context. So, if I may be permitted, a slide showing data taken from Maddison's work; you will note that throughout the medieval and pre-industrial era of the West, India and China contributed half of world GDP. They also dominated world trade. There were occasions China's figures were larger than India's in these statistics, but there are also periods when India was ahead. (Annexure 1)

The 19th century was a period of imposed decline of Indian manufacturing industry which thrust ever larger numbers of people back to depend on subsistence agriculture. This created a vicious cycle of low capital formation and investment and perpetuation of poverty and declining productivity. The development of rail networks which required maintenance, and later efforts by farsighted Indians in the late 19th century saw a revival of the textile industry (1854) and jute, shipbuilding, sugar, consumer goods etc. We are familiar with the first iron and steel mill built by the Tatas early in the 20th century. This was an era, however, in which India worked under rules designed around imperial preference, and Shirokov among other scholars noted the lack of inward investment into India from outside the empire, even though manufacturers in the US and elsewhere had shown interest. The end result, as shown in the slide, was that the economy as a whole continued to grow but import dependence for manufactures persisted and per capita incomes fell when population began to expand in the 20th century.

Post-Independence Era

The leaders of our freedom movement clearly aimed at rebuilding a powerful Indian economy with a strong industrial base. They believed India missed out on the first wave of the industrial revolution because we were a colony. This was an era of planned development, when the heavy industries and capital goods industries were built in India often with foreign assistance to our public sector. It is easy with hindsight to criticize the decision to have the commanding heights of the industrial economy dominated by the public sector. There was a policy calculation in this decision, but the hang over from the pre-Independence era had left the Indian private sector without the capability to invest on large scale for long gestation projects. The results were mixed over time; but in the first 3 Plan periods (1951-65) the annual growth rate of industrial production was 5.7% in the 1st Plan, 7.2% in the 2nd Plan, and 9.0% in the 3rd Plan. The era from the late 60's to the 1980s was one of marked slowdown. With growth rates between 2.8% and 5% - there were effectively two lost decades for manufacturing growth (though we had the Green Revolution in agriculture and significant scientific achievements). There are a number of reasons for these lost decades: 3 wars, 4 disastrous droughts between 1962 and 1972, followed by the oil crisis of 1973; infrastructure bottlenecks – excessive licensing and bureaucracy, slowdown in investments and slow export growth. Perhaps if the era of centralised planning which delivered the initial growth was

changed in the 1970s, the history of India would have been different! Whatever the inefficiencies built into the process, by 1991 India had established a sizeable industrial base and substantial indigenous capacity for R&D and innovation. And, I believe, crucially, a substantial capacity for education of engineers, technologists and economic analysts. A critical mass similar to what we see in this room today.

The post 1991 era has seen the Indian economy grow at a rapid pace. The most striking development has been spectacular growth by our services sector. This has resulted in manufacturing industry providing less than 20% of India's GDP – with some analysts suggesting that manufacturing may contribute as little as 12% of the GDP.

You are all familiar with studies of Kondratieff style waves of industrial revolution, first on this island with steam power and textiles; then in the US with autos, rail and telecom. And then in Japan with electronics and automation. And now IT and biotech worldwide. We missed the first and second, and played a minor role in the third. We have tried to leapfrog into the fourth.

However, large scale manufacturing stands out as the only opportunity to modernize the economy on a scale large enough to absorb the hundreds of millions of young Indians, coming into the age of employment, or already there. With a median age below 30 and with 500 million below the age of 25 India has a gigantic task ahead of it in creating employment opportunities. This will require the manufacturing sector to grow significantly. This is the backdrop to our ambition for rapid industrial growth and the current PM's call to "Make in India".

The Vision for Technology and Manufacturing

Most of the change in trajectory of India in 1991 is attributed to the magic of the market place and the unleashing of creativity of a billion individuals. But I believe we should not neglect the ideas and vision generated by the technological and managerial leaders created by the critical mass I referred to earlier.

Let me link with your own vision statement at the IFM. Your homepage says the IFM brings together expertise in management, technology and policy to address the full spectrum of issues which can help industry and governments create sustainable economic growth. And, also that it is "an international centre of excellence for road mapping, a powerful technique for aligning business and technology objectives." A variation of the exercises you are engaged in, was carried out in India by our scientific institutions and departments created around them particularly space, materials science, life sciences and bio-technology, electronics and communications, chemical processing industries and strategic industries. In 1988, many individuals in these fields were brought together in a novel organisation, the Technology Information Forecasting and Assessment

Council (TIFAC). Most prominent was Dr. Abdul Kalam a giant among our space scientists and engineers.

TIFAC networked various stakeholders: the government, industries, users, scientific and technological institutions, the financial institutions and intellectuals. It initially produced reports on specialised areas like sugar, leather, steel, bio-technology and manufacturing, and managed to launch a few serious government supported technology missions with strong industry participation were an outcome.

This did not go far enough, and when the TIFAC Governing Council met in 1993 against the backdrop of the new economic policies reshaping India, it was decided a comprehensive vision to accelerate processes. The conclusion was that technology had to be the vision for the future and technology had to be deployed for education and training, agriculture and food processing, strategic industries and infrastructure. A Vision 2020 was drawn up. As far as industry was concerned there was emphasis on need to couple the new possibilities of information technology and the manufacturing processes India had to try and capture a share of the market in newly emerging processes of reliable software for manufacturing, healthcare and other applications.

TIFAC was conscious that the Indian economy is built around a very large number of small and even tiny manufacturing unit in the organised and socalled informal sector. They range from the level of artisanal craft to those with obsolete equipment surviving because of low wage costs. There were some islands of excellence with innovative capabilities and basic skills. The auto components sector was an example. Similarly plastics, textiles, leather and electrical goods were often marked by a very large number of small companies. To survive they would have to upgrade. They were capable of dramatic technological capacity management. The space programme, which Kalam knew thoroughly, taps hundreds of small scale industrial suppliers who have learnt to produce to the extraordinarily exacting standards required to survive a launch into and travel in space. The TIFAC, therefore, came up with a vision for engineering industries, textile machinery, electrical machinery, transport equipment etc.

Technology

Dr. Kalam was acutely aware of the dimension of time as a fourth dimension in linking peoples growing aspirations, the global context and strategic interests. Kalam firmly believes the progress of technology lies at the heart of human history and his publication “India 2020” includes a graph with an adaptation of what he found in the work Spyros G. Makrindakis showing dramatic reduction in the time for introduction of new technologies on a large scale. What Dr. Kalam takes away from this scenario is the need to compress time frames in adaption to new technology.

The Vision 2020 was launched by the Prime Minister of India in August 1996. I will not go into details, but show one graphic from Kalam showing linkages between a set of 25 documents covering 17 areas identified as targets. There was a clear sense that the consensus on accelerating growth rates was feasible. Dr. Kalam went on to become the President of India. However, the TIFAC document while used in our planning process, was not really translated into governmental policies in individual departments. It nevertheless underpinned many joint government-industry initiatives. All this started before the famous BRICS report which projected India's growth moving ahead till we became the world's 3rd largest economy in 2-3 decades from now. (Annexure 2 and 3)

As I said earlier, the 1991 reform and opening of the economy has changed our fortunes. Till 2003 the process of industrial growth saw ups and downs, with manufacturing growing at slower pace than the overall GDP. Services powered much of the growth rate. Within the manufacturing sector there was a dichotomy between well networked, technologically advanced firms and the relatively large number of small firms which found survival difficult in a globalised world.

We have all seen the results of unforeseen developments in both the world economy and in the trajectories of major nations particularly since 2008. We did particularly well from 2003 to 2010, but assumptions of long term accelerated growth rates in India came into question as growth slid dramatically between 2010 and 2014. These were precisely the years in which Kalam expected the start of double digit growth to propel India into the ranks of the first four in the world. The slow down has affected manufacturing and infrastructure in particular.

A combination of domestic factors added to the woes caused by global slowing; including political instability and the weakening of political institutions. Slow decision making and infrastructure weakness, have cost us nearly half a decade. We are, however, hopeful that the decisive elections of 2014 will give India the opportunity to once again re-emerge as one of the fastest growing major economies of the world. The confidence emerges from the clear policy intention of the new government to accelerate industrial development and the decisions based thereon. The message has gone out to both industry and government in India, and to our partners abroad: -

Make in India

What was in our PM's mind when he made the Independence Day speech from the ramparts of Delhi's Red Fort to call people to "Make in India". Let me summarize:

- What is envisaged is a major new national programme, designed to facilitate investment into India, foster innovation, enhance skill development, protect intellectual property and build best-in-class manufacturing infrastructure.

We have identified 25 specific sectors with high potential. (**Annexure 4**)

In an Op-ed piece titled "An Invitation to 'Make in India'" published in The Wall Street Journal on September 25, 2014, the PM noted that

- There is a high tide of hope for change in India. A young nation with 800 million people under age 35, India is brimming with optimism and confidence.

- The Government of India will eliminate unnecessary laws and regulations, make bureaucratic processes easier and shorter, and ensure that the government is more transparent, responsive and accountable.

- The Government of India will create world-class infrastructure that India badly needs to accelerate growth and meet people's basic needs. It will make the cities and towns habitable, sustainable and smart; make the villages the new engines of economic transformation.

- There is in the article a reaffirmation of the belief in the possibilities of technology and innovation to transform governance, empower people, provide affordable solutions for societal challenges and reach people in ways that were unimaginable not so long ago. Again the PM reminded his audience of the growth in computing power and storage capacity and its miniaturization over the past two decades. He expressed confidence that this can be replicated in renewable energy.

Launch of Make in India

- Prime Minister then launched the Make in India initiative at a major interaction with business leaders in Delhi on September 25.

The web portal www.makeinindia.gov.in gives a brief summary and statistics on each of the 25 identified sectors, also highlighting the reasons to invest, growth drivers, FDI and Sector Policy, various investment opportunities and tax and R&D incentives provided by the Central and State Governments of India.

PM's address on Make in India: 25 September

During his speech on the occasion the PM said there had been a diminution of business confidence in India. People in industry had lost self-confidence; and felt that they will not be able to face competition. Secondly, trust was broken – "you never know what policy will the Government bring, never know when what policy will change".

"It is a must, that there should be rule of law. There should be an atmosphere of corporate government responsibility on the lines of corporate

social responsibility. But at the same time there are responsibilities of government." The PM identified trust in governmental regulation, tax administration, and security of investment. "Investor first wants security of his investment. Growth and profit come later. Government's effort is, we have taken continuous measures; we want to reassure you that your money will not sink."

Turning to the world ranking on "Ease of doing business" PM said, " If we have to rise to 50 from 135 then Government alone can do this. If Government brings transparency in its decisions and rules, pushes works with simplicity we can occupy number 50 from 135 in ease of doing business. He asserted Government would seek to achieve this. He then noted that "If industries are to be established then skilled manpower will be needed." This skilled manpower should be as per the requirements of each industrial sector, and would need "synchronisation between the thinking of government, academic world, industry and the thinking of job seeking youngsters?"

The Academic world should study that what kind of industry is possible in coming 20 years. If the entire world is focussed on eco-friendly environment technology, global warming, then it follows that the solar energy field has opened. If the solar energy field develops, then engineering colleges will get into training for solar equipment. There will be a requirement for skilled labour in the field; for that training had to begin now. Solar related entrepreneurs should be informed of these arrangements, and Government needs to facilitate this networking exercise including through public-private-partnerships in this area.

Speaking as he did shortly after the success of India's Mars Mission, he said, "Our greatest strength is that 65% of the population is below 35. I don't believe that after yesterday's event, anybody will question our talent. No one can question the talent of Indian youth after yesterday's Mars achievement. Everything was indigenous. We should bring out photographs of the factories where these small parts were manufactured. In these seemingly small factories, every particle was manufactured that made the Mars Mission successful. There is no dearth of talent. The Mars success should be made an opportunity to make the world aware of Indian talent. It is not just that 65 % of the population is below 35, it is the fact that we have talented and capable manpower."

A Second point is Digital India. The corporate world, industrial world and private life are all moving fast into the digital world. The mission of Digital India aims to bridge the chasm between capabilities in society and those in government. Governance should go towards mobile governance. Most speak the same language. Digital language of future.

I will proceed quickly now using slides to highlight the ambition, practical sense, and business experience that has gone into the Make in India message.

The Aim – Mandate (**Annexure 5**)

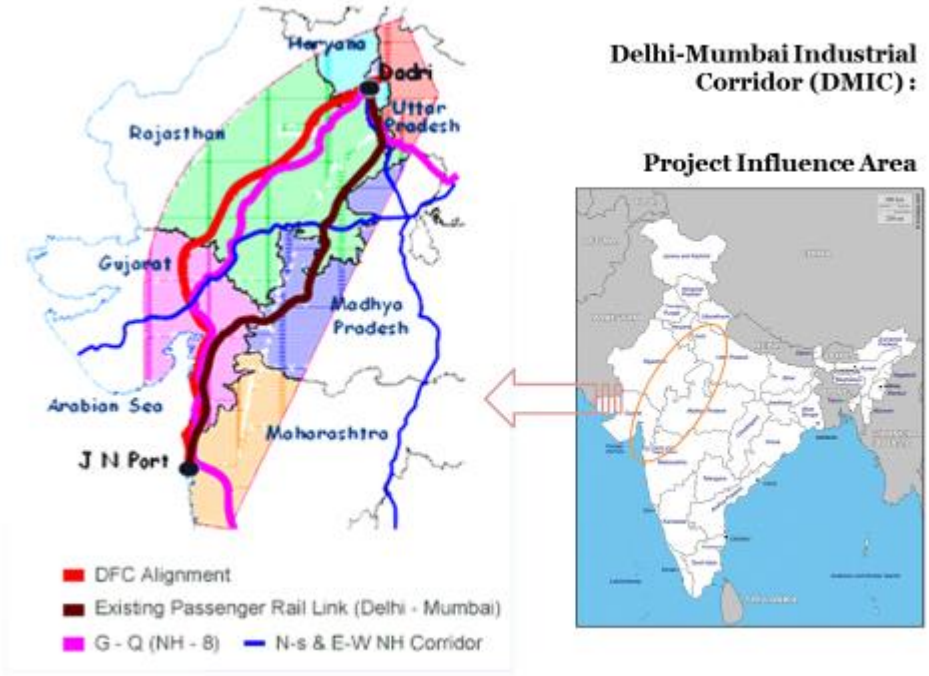
3 pillars of policy and government facilitation (**Annexure 6**)

Improving Business Environment: Some specifics (and these are clearly based on feedback from both industry and policy makers). (**Annexure 7**)

Improving Business Environment:- dealing with perceived difficulties in the licensing and regulatory process. Also measures to reduce possibility of graft. (**Annexure 8**)

The Industrial corridors: These are an ambitious programme, building on work already being done, with plans for future linkage.

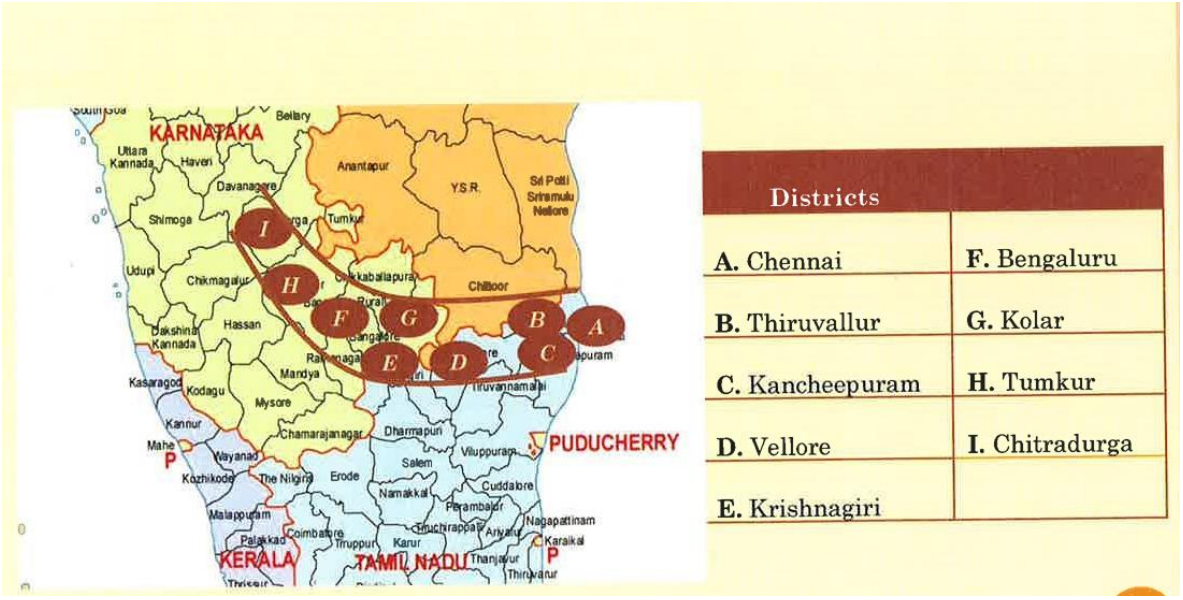
(A) The DMIC & DFC



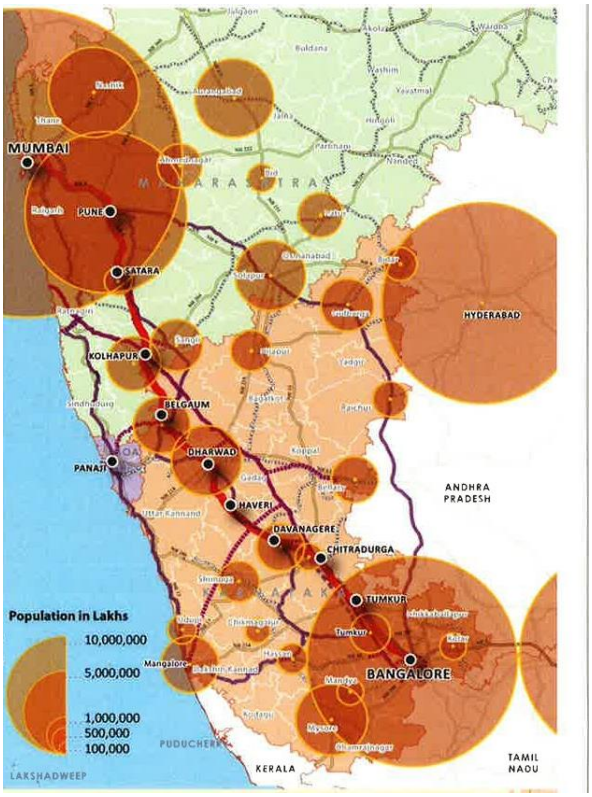
DEDICATED FREIGHT CORRIDOR

(B) Other Corridors:

Chennai-Bengaluru



Bengaluru- Mumbai Economic Corridor (BMEC)


MUMBAI
PUNE
SATARA
KOLHAPUR
BELGAUM
DHARWAD
PANAJI
HAVERI
DAVANAGERE
CHITRADURGA
TUMKUR
BANGALORE
HYDERABAD
ANDHRA PRADESH
TAMIL NADU
KERALA
PUDUCHERRY
LAKSHADWEEP
Mangalore
Tumkur
Population in Lakhs
10,000,000
5,000,000
1,000,000
500,000
100,000

Chennai-Vizag-Kolkata-Imphal-Myanmar

Following experience of other countries, industrial clusters are to be promoted (**Annexure 9**). I am sure your work on Catapults could have relevance here. Please note that due emphasis is being given to environmental impact. The PM's Message to new industries is Zero Defect and Zero Effect.

Nurturing Innovation (Annexure 10): This addresses both the need for keeping our IPR in line with international requirements, including by hiring additional qualified staff.

Skilling youth (Annexure 11): One of the most decisive steps being taken is to create a new Ministry focussed on Skill Development. The PM spoke about skill sets for solar energy. This slide gives an illustrative example of how the emphasis on vocational skills will be linked to specific industries, in this case leather. (This one sector in which everybody agrees we need to build on, for its huge employment potential).

Opening FDI (Annexure 12): This is the first in a series of steps to make investment in the Indian economy easier.

Mr. Director, Ladies and Gentlemen: Some positive results have already begun to emerge. GDP growth rate has improved to 5.7% in Q1 of the

current financial year. Industrial growth and investments are looking up. FDI flows have begun to increase.

Before concluding let me say I am aware of how much you have already invested in aerospace, autos, pharma etc. So one last slide. Let me show you a list of some of the success stories of Indo-UK industrial collaboration. (**Annexure 13**)

Thank you and please send out a message from the IFM to businesses worldwide: to come and Make in India.

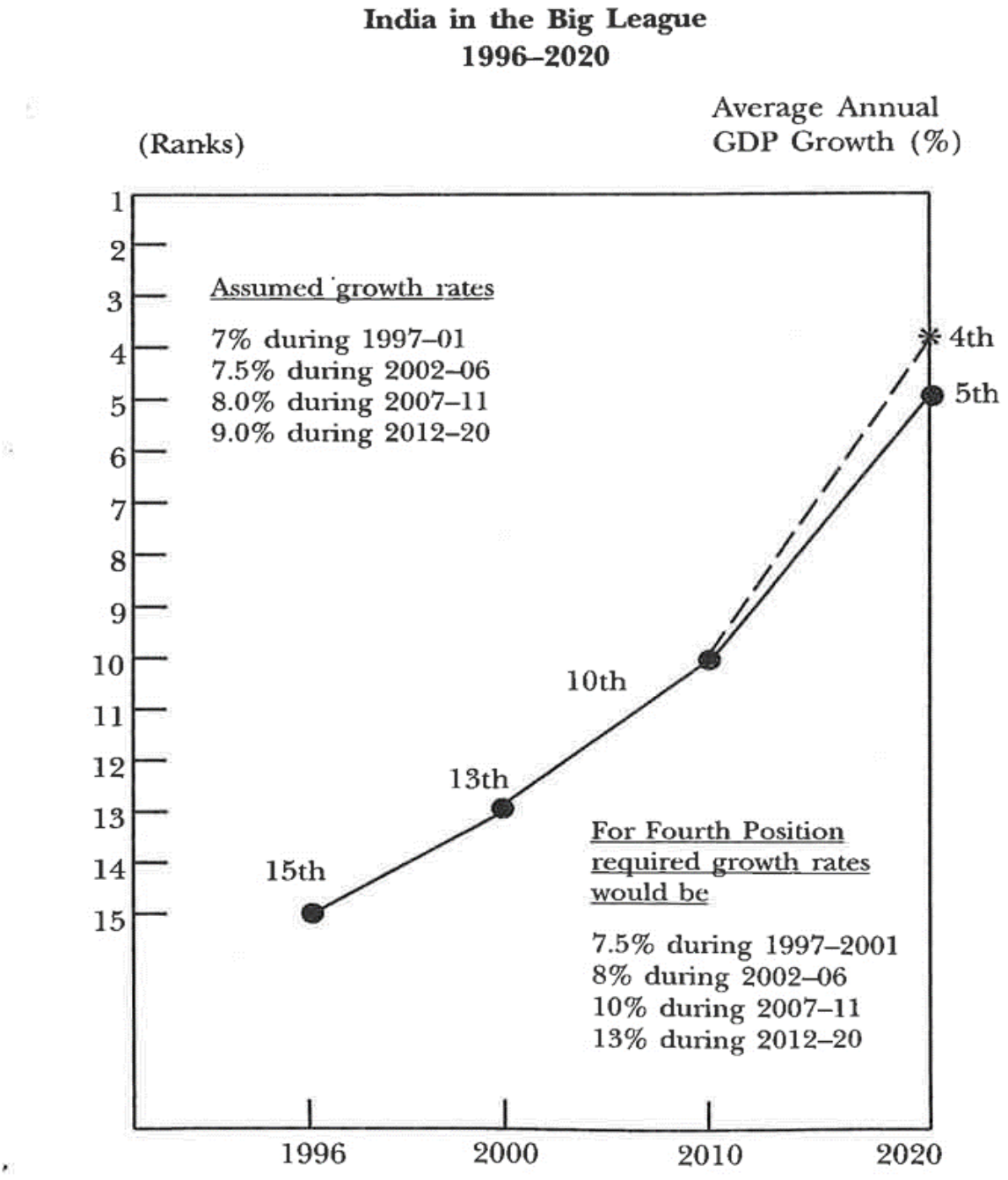
ANNEXURE-1

Table B–18. **World GDP, 20 Countries and Regional Totals, 0–1998 A.D.**
(million 1990 international $)

Year	*0*	*1000*	*1500*	*1600*	*1700*	*1820*	*1870*	*1913*	*1950*	*1973*	*1998*
Austria			1 414	2 093	2 483	4 104	8 419	23 451	25 702	85 227	152 712
Belgium			1 225	1 561	2 288	4 529	13 746	32 347	47 190	118 516	198 249
Denmark			443	569	727	1 471	3 782	11 670	29 654	70 032	117 319
Finland			136	215	255	913	1 999	6 389	17 051	51 724	94 421
France			10 912	15 559	21 180	38 434	72 100	144 489	220 492	683 965	1 150 080
Germany			8 112	12 432	13 410	26 349	71 429	237 332	265 354	944 755	1 460 069
Italy			11 550	14 410	14 630	22 535	41 814	95 487	164 957	582 713	1 022 776
Netherlands			716	2 052	4 009	4 288	9 952	24 955	60 642	175 791	317 517
Norway			192	304	450	1 071	2 485	6 119	17 838	44 544	104 860
Sweden			382	626	1 231	3 098	6 927	17 403	47 269	109 794	165 385
Switzerland			482	880	1 253	2 342	5 867	16 483	42 545	117 251	152 345
United Kingdom			2 815	6 007	10 709	36 232	100 179	224 618	347 850	675 941	1 108 568
12 Countries Total			***38 379***	***56 708***	***72 625***	***145 366***	***338 699***	***840 743***	***1 286 544***	***3 660 253***	***6 044 301***
Portugal			632	850	1 708	3 175	4 338	7 467	17 615	63 397	128 877
Spain			4 744	7 416	7 893	12 975	22 295	45 686	66 792	304 220	560 138
Other			590	981	1 169	2 206	4 891	12 478	30 600	105 910	227 300
Total Western Europe	**11 115**	**10 165**	**44 345**	**65 955**	**83 395**	**163 722**	**370 223**	**906 374**	**1 401 551**	**4 133 780**	**6 960 616**
Eastern Europe	**1 900**	**2 600**	**6 237**	**8 743**	**10 647**	**23 149**	**45 448**	**121 559**	**185 023**	**550 757**	**660 861**
Former USSR	**1 560**	**2 840**	**8 475**	**11 447**	**16 222**	**37 710**	**83 646**	**232 351**	**510 243**	**1 513 070**	**1 132 434**
United States			800	600	527	12 548	98 374	517 383	1 455 916	3 536 622	7 394 598
Other Western Offshoots			320	320	300	941	13 781	68 249	179 574	521 667	1 061 537
Total Western Offshoots	**468**	**784**	**1 120**	**920**	**827**	**13 489**	**112 155**	**585 632**	**1 635 490**	**4 058 289**	**8 456 135**
Mexico			3 188	1 134	2 558	5 000	6 214	25 921	67 368	279 302	655 910
Other Latin America			4 100	2 623	3 813	9 120	21 683	95 760	356 188	1 118 398	2 285 700
Total Latin America	**2 240**	**4 560**	**7 288**	**3 757**	**6 371**	**14 120**	**27 897**	**121 681**	**423 556**	**1 397 700**	**2 941 610**
Japan	**1 200**	**3 188**	**7 700**	**9 620**	**15 390**	**20 739**	**25 393**	**71 653**	**160 966**	**1 242 932**	**2 581 576**
China	26 820	26 550	61 800	96 000	82 800	228 600	189 740	241 344	239 903	740 048	3 873 352
India	33 750	33 750	60 500	74 250	90 750	111 417	134 882	204 241	222 222	494 832	1 702 712
Other Asia	16 470	18 630	31 301	36 725	40 567	50 486	72 173	146 999	362 578	1 398 587	4 376 931
Total Asia (excluding Japan)	**77 040**	**78 930**	**153 601**	**206 975**	**214 117**	**390 503**	**396 795**	**592 584**	**824 703**	**2 633 467**	**9 952 995**
Africa	**7 013**	**13 723**	**18 400**	**22 000**	**24 400**	**31 010**	**40 172**	**72 948**	**194 569**	**529 185**	**1 039 408**
World	102 536	116 790	247 116	329 417	371 369	694 442	1 101 369	2 704 782	5 336 101	16 059 180	33 725 635

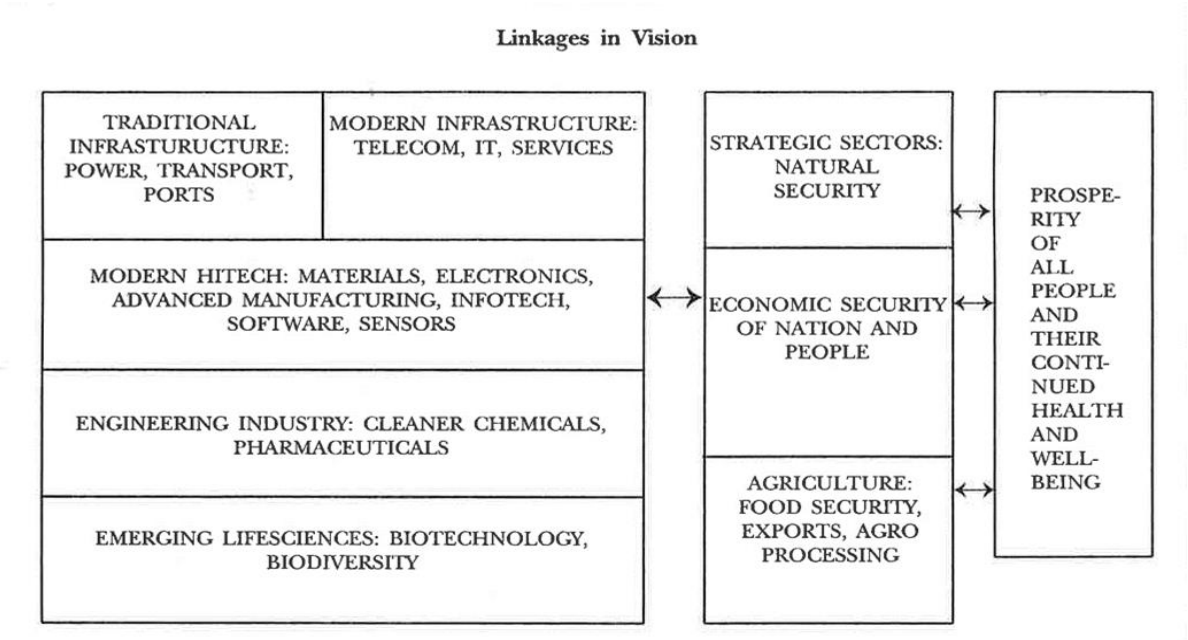
http://dx.doi.org/10.1787/675115301353

ANNEXURE-2



Source: INDIA 2020- A Vision for the New Millenium by A.P.J Abdul Kalam

ANNEXURE-3



Source: INDIA 2020- A Vision for the New Millenium by A.P.J Abdul Kalam

ANNEXURE-4

Make In India: Focus Sectors

1. Automobile
2. Automobile components
3. Defence manufacturing
4. Aviation
5. Electrical machinery
6. Electronic systems
7. Space
8. Biotechnology
9. Ports
10. Railways
11. Roads and highways
12. Mining
13. Oil & gas
14. Thermal power
15. Renewable energy
16. Chemicals
17. Pharmaceuticals
18. Food processing
19. IT & BPM
20. Construction
21. Textile and garments
22. Leather
23. Media and entertainment
24. Tourism and hospitality
25. Wellness

ANNEXURE-5

Our mandate is to put India on a world map as a Manufacturing hub

- Promoting growth of manufacturing industry & facilitating investment
- Framing Foreign Direct Investment (FDI) Policy, facilitating foreign investment & bilateral/multilateral engagements for industry and investment
- Administering intellectual property regime consistent with international commitments
- Facilitating development of industries through up-gradation of industrial infrastructure
- Responsibility as Administrative Ministry for specific industries allocated to the Department, viz cement, paper, boiler, leather, rubber, light engineering, salt and consumer industries

ANNEXURE-6

Three pillars for bringing out transformation in manufacturing have been defined

Improving Business Environment

- Ease of Doing Business
- De-licensing & Deregulation

Enabling Manufacturing

- Industrial Corridors
- Industrial Clusters
- Smart Cities
- Nurturing Innovation
- Skill Development

Opening up Foreign Direct Investment in key sectors

- Opening of critical sectors like Defense, construction and Railways for FDI

ANNEXURE-7

Improving Business Environment

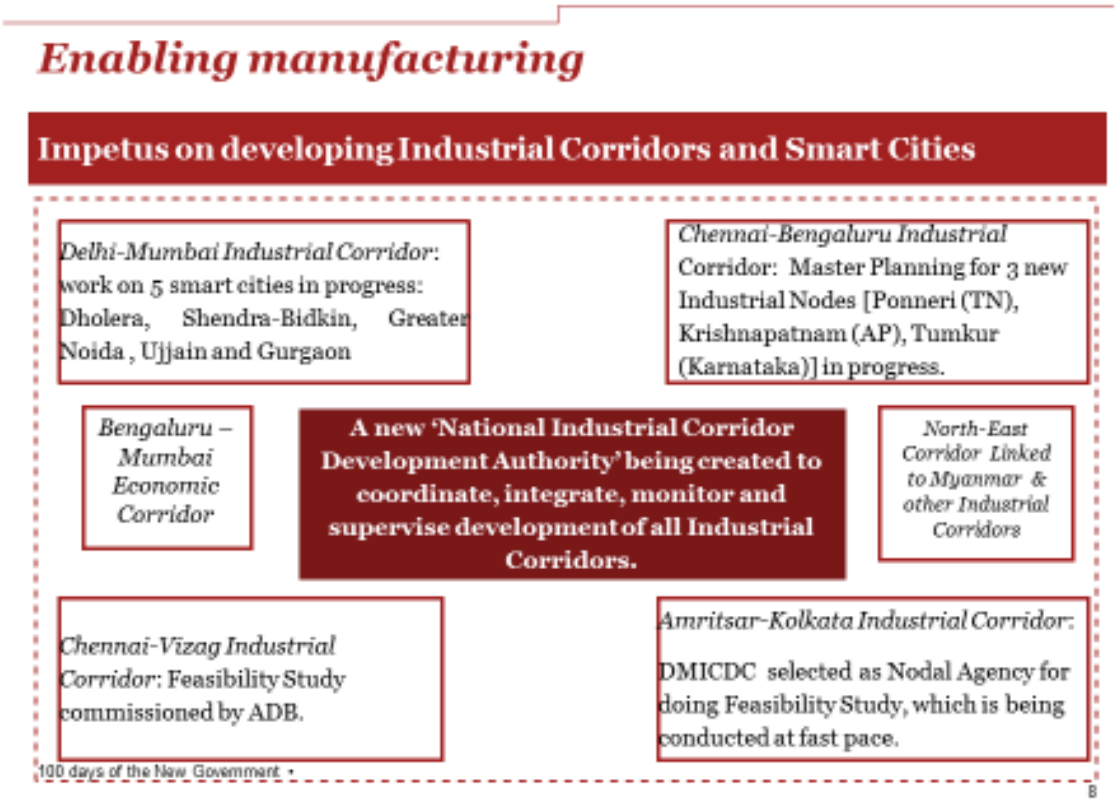
Process of applying for Industrial License & Industrial Entrepreneur Memorandum made online on 24X7 basis through eBiz portal
Validity of Industrial license extended to three years
States asked to introduce self-certification and 3rd Party certification under Boilers Act
Major components of Defence products' list excluded from industrial licensing
Dual use items having military as well as civilian applications deregulated
Services of all Central Govt. Departments & Ministries will be integrated with the E-Biz - a single window IT platform for services- by 31 Dec. 2014

ANNEXURE-8

Improving Business Environment

Advisory sent to all Departments / State Governments to simplify and rationalize regulatory environment:	All returns should be filed on-line through a unified form;
	A check-list of required compliances should be placed on Ministry's/Department's web portal;
	All registers required to be maintained by the business should be replaced with a single electronic register;
	No inspection should be undertaken without the approval of the Head of the Department; and
	For all non-risk, non-hazardous businesses a system of self-certification should be introduced

ANNEXURE-9

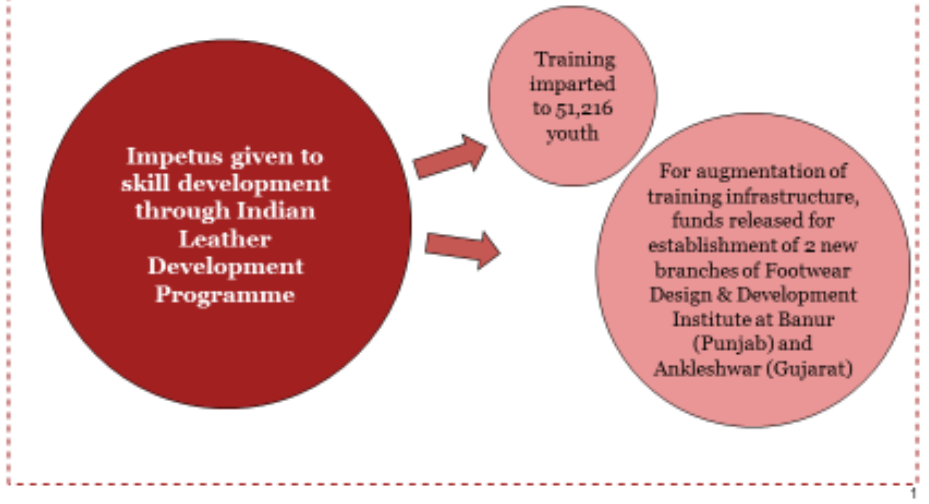


ANNEXURE-10

ANNEXURE-11

Enabling manufacturing

Skilling the youth



ANNEXURE-12

Opening up Foreign Direct Investment in key sectors

Policy in Defence sector liberalised and FDI cap raised from 26% to 49%.	100% FDI under automatic route permitted in construction, operation and maintenance in specified Rail Infrastructure projects	Easing of norms underway for FDI in the Construction Development sector

ANNEXURE-13

Manufacturing Sector: Existing India-UK Partnerships

- JLR
- JCB
- Rolls- Royce
- GKN Driveline
- BAE Systems
- Renishaw
- Cipla
- Mahindra
- Tata Steel
- Ashok Leyland