FICCI
Federation of Indian Chambers of Commerce and Industry

India and Europe 29: Partnering for Transforming Economic Relations

A Knowledge Report

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Foreword

The rather extended spell of global economic slowdown has visibly altered the course of global trade and investment flows, placing emerging economies at the vortex of the evolving global economic order.

Today, emerging economies like India are geared to achieve sustained high single digit GDP growth. The Central and East European countries, due to their sustained and successful efforts to restructure their economic edifice, are ideally primed to partner with India to collectively reap the economic benefits. These economies, grouped as Europe 29 (E29), have evinced unprecedented interest to deepen the bilateral trade, investment and business ties with India. Government of India, on its part, is taking multi-layered efforts to reach out to the E29 countries to transform our long-standing business and economic relations in the years to come.

The **3rd India-Europe 29 Business Forum**, one of its kind institutionalised platform that Federation of Indian Chambers of Commerce and Industry (FICCI) in partnership with Ministry of External Affairs, Government of India is organising in New Delhi during December 8-9, 2016, is a singular opportunity for decision makers and thought leaders from both the regions to discuss new partnership opportunities as well as address the underlying issues for unshackling hitherto unexplored business opportunities. Keeping in view the particular needs and aspirations of the Indian and E29 economies, the business forum shall focus on areas like manufacturing competitiveness, food processing and promotion of renewable energy, development of clean technologies, adoption of ICTs for better living and good governance, smart city solutions, and collaborations for major physical infrastructure development.

This FICCI report titled **"India and Europe 29: Partnering for Transforming Economic Relations"**, being released at the 3rd India-Europe 29 Business Forum, is an attempt to encapsulate emerging trends in the India-Europe 29 bilateral economic engagements.

We hope that this report will enable the concerned stakeholders to build fresh perspectives on India-Europe 29 economic and business partnerships. FICCI remains committed to assisting all stakeholders in realising the intended goals and is confident that the government, private sector and citizens will benefit greatly from this report.

Dr A Didar Singh
Secretary General
FICCI



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Executive Summary

India's economic and business ties with Europe 29 countries may be assessed against the backdrop of the current global economic scenario. The opening chapter of this report entitled **"India and Europe 29: Partnering for Transforming Economic Relations"** brings forth the changing dynamics of the evolving economic order. The chapter on **"Global Economic Scenario - The Dynamics Have Changed"** presents the contrasting outlooks of the advanced economies and emerging economies.

The IMF in its 'World Economic Outlook' (October 2016) has cautioned that persistent stagnation in the advanced economies could fuel anti-trade sentiments in different regions, thereby limiting the global economic growth prospects, although the emerging markets and developing economies are projected to grow at 4.2% this year and 4.6% in the coming year.

Against this backdrop, India and the E29 countries are taking strident steps to intensify and deepen bilateral trade and investment relations. However, the India-E29 bilateral relations are nowhere near their true potential. The chapter titled **"Bilateral Trade Relations - Primed For Growth"** presents an analytical overview of the India-E29 bilateral trade flows, and the emerging opportunities for broadbasing the trade ties.

As such, the current bilateral trade flows are relatively limited in relation to the potentials. India's total trade with the E29 countries stood at $38,481 million in 2015-16 (down from $44,276.76 million in 2014-15), which was only 5.98% (5.83% in 2014-15) of India's total trade with all countries totalling $643,296.75 million in 2015-16 (down from $758,371.89 million in 2014-15). The 3rd India-Europe 29 Business Forum will provide an institutionalised platform for policy makers and business leaders from both regions to identify new steps to boost the bilateral trade flows.

In the midst of the general global economic slowdown, India continues to be among the top ten countries in terms of FDI inflows and the fourth in developing Asia, as per UNCTAD'S World Investment Report 2016. India's FDI inflows increased to $44 billion in 2015 as compared to $35 billion in 2014, and the growth has been across the board. The chapter entitled **"Bilateral Investment Flows - New Avenues Opening Up"** correlates with the view that as Indian and E29 economies enter a phase of sustained economic development, new avenues will open up for deeper and broader bilateral

investment flows. Today, as India directs focussed attention on manufacturing growth, supported by the promising 'Make in India' Mission launched by the Government of India, many attractive investment opportunities are coming up in the country for global companies.

Government of India has also brought about "radical liberalisation" of the FDI regime by easing the norms for a host of important sectors including defence, civil aviation and pharmaceuticals, opening them up for complete foreign ownership. These developments would be of key interest to investors and companies in the E29 region.

Cyprus, the Partner Country at the 3rd India-Europe 29 Business Forum, is expeditiously deepening the ties with India. In August this year India and Cyprus revised the Double Taxation Avoidance Agreement (DTTA), ending a period of uncertainty that marked the bilateral economic ties since 2013. According to the new DTTA, Indian Government will have the right to tax capital gains on investments routed through Cyprus prospectively from April 1, 2017. The agreement also includes a provision for assistance in collection of taxes and exchange of information. The chapter entitled **"India-Cyprus Economic Ties - Building On The Gains"** captures the highlights of India-Cyprus economic and business partnerships and the emerging partnership opportunities thereof.

The 3rd India-Europe 29 Business Forum also has the Nordic countries as the Partner Region. The Chapter on **"Partnering With The Nordic Economies"** throws light on the new opportunities for strengthening India's economic and business partnerships with the Nordic countries.

Science and technology form the backbone of business today. The chapter on **"Cooperation At The Intersection of Technology & Business"** provides fresh insights on the technological progress of India and the E29 countries, and areas where mutually rewarding partnerships could be forged. It is evident that IT/ITeS, healthcare, clean technologies and renewable energy are four areas where India and the E29 governments and industry could pro-actively explore and establish long-term partnerships.

Skills development has assumed critical importance for economies that are gearing up for accelerated growth. Government of India has unveiled a massive 'Skill India' Mission with the ambitious aim of training 402 million (40.2 crore) by the year 2022. In this context, there is ample scope for India-E29 bilateral cooperation for skills development and training, particularly in areas like manufacturing, physical infrastructure, food processing, smart solutions for cities. The chapter entitled **"Skills For The Future"** trains focus on the potential areas of cooperation.

This report is an attempt at setting the tone for intense deliberations on all key dimensions of India-E29 economic and business relations that will take place at the 3rd India-Europe 29 Business Forum.

1 GLOBAL ECONOMIC SCENARIO – THE DYNAMICS HAVE CHANGED



GLOBAL ECONOMIC SCENARIO – THE DYNAMICS HAVE CHANGED

Advanced Economies – In A Tailspin

Global economic growth will remain subdued this year and the next (3.1% in 2016 and 3.4% in 2017) owing to an economic slowdown in the US and Britain's decision to exit the European Union (EU). Advanced economies will expand just 1.6% in 2016, less than last year's 2.1% pace and down from the July forecast of 1.8%. The euro area will expand by 1.7% this year and 1.5% next year, compared with 2% growth in 2015. Growth in Japan is expected to remain subdued at 0.5% this year and 0.6% in 2017[1].

The IMF's World Economic Outlook (October 2016) cautions that persistent stagnation in the advanced economies could spur anti-trade sentiments in different countries. IMF Chief Economist Maurice Obstfeld has therefore stated emphatically that "it is vitally important to defend the prospects for increasing trade integration.'' The IMF report asserts that governments across regions should look to spend more on education, technology, and infrastructure to expand the productive capacity while taking steps to alleviate inequality[2].

The IMF's October report predicts that fiscal policies of the developed economies would tighten even further in 2017, despite calls for increased government spending to drive growth[3]. That is, the contractions experienced by some of these major emerging economies in 2016 suggests that 2017 will be yet another challenging year for the world economy. Hence, the IMF underscores the urgent need for a comprehensive, consistent, and coordinated policy approach to reinvigorate global growth and ensure that it is distributed more evenly.

Global trade scenario is also none too promising. In September the World Trade Organisation (WTO) slashed its forecast for growth in trade of goods from 2.8% in 2016 to just 1.7%, implicitly predicting that for the first time in 15 years trade would grow more slowly than GDP[4].

[1] http://www.imf.org/en/News/Articles/2016/10/03/AM2016-NA100416-WEO

[2] http://www.imf.org/en/News/Articles/2016/10/03/AM2016-NA100416-WEO

[3] http://nationalinterest.org/feature/the-5-biggest-challenges-the-global-economy-faces-2017-18144?page=2

[4] http://www.economist.com/blogs/economist-explains/2016/10/economist-explains-5

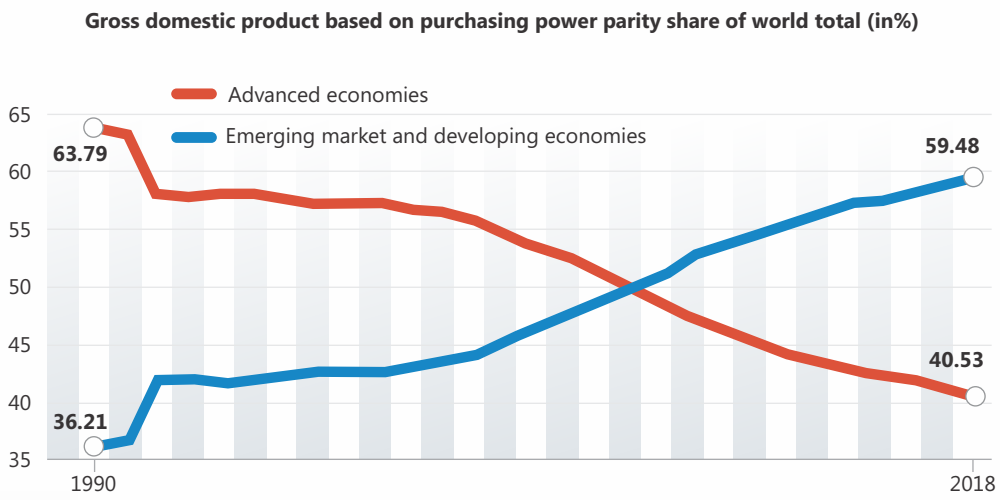
Trade depends on a mix of demand and supply in different countries. As a case in point, China's spectacular economic growth over the 2000s was driven by huge increases in investment, which gobbled up oil and iron imports. As China switches to a more consumption-led approach to economic growth, the growth in trade volumes is expected to slow down.

An article in The Economist states that GDP growth and trade tend to feed off one another, and so pepped-up trade could start a virtuous cycle. One way would be to ratify and implement international agreements to lower trade barriers, such as the Trans-Pacific Partnership between America and 11 other countries around the Pacific Rim, or the Regional Comprehensive Economic Partnership, a trade deal under discussion that includes India and China. But passing these deals calls for a strong political will at a time when anti-globalisation rhetoric is thick in the air[5].

Emerging Economies – Ready To Accelerate

In contrast to the economic scenario in the developed countries, emerging markets and developing economies **(See Fig 1)** appear to be gearing up for accelerated growth (IMF forecasts 4.2% growth). Next year, emerging economies are expected to grow at 4.6%. However, the IMF report asserts that the growth prospects differ sharply across countries and regions[6].

Fig 1: Emerging economies now account for almost three-fifth of world GDP



International Monetary Fund, World Economic Outlook Database, October 2016

[5] http://www.economist.com/blogs/economist-explains/2016/10/economist-explains-5

[6] http://www.imf.org/en/News/Articles/2016/10/03/AM2016-NA100416-WEO

In China, policymakers will continue to shift the economy away from the reliance on investment and industry toward consumption and services, a policy that is expected to slow growth in the short term while building the foundations for a more sustainable long-term expansion.

China's economy, the world's second largest, is forecast to expand 6.6% this year and 6.2% in 2017, down from growth of 6.9% last year. Growth in emerging Asia, and especially India, continues to be resilient. India's GDP is projected to expand at 7.6% this year and next, the fastest pace among the world's major economies. However, countries in the Middle East are confronting challenging conditions arising from subdued oil prices and civil conflicts.

Fig 2: IMF Global Growth Projections

Latest growth projections
Growth in 2016 is projected to remain modest, with a pick-up in 2017, primarily driven by emerging markets
(Percent change)

	Projections		
	2015	**2016**	**2017**
World Output	**3.2**	**3.1**	**3.4**
Advanced Economies	**2.1**	**1.6**	**1.8**
United States	2.6	1.6	2.2
Euro Area	2.0	1.7	1.5
Germany	1.5	1.7	1.4
France	1.3	1.3	1.3
Italy	0.8	0.8	0.9
Spain	3.2	3.1	2.2
Japan	0.5	0.5	0.6
United Kingdom	2.2	1.8	1.1
Canada	1.1	1.2	1.9
Other Advanced Economies 1/	2.0	2.0	2.3
Emerging Market and Developing Economies	**4.0**	**4.2**	**4.6**
Commonwealth of Independent States	-2.8	-0.3	1.4
Russia	-3.7	-0.8	1.1
Excluding Russia	-0.5	0.9	2.3
Emerging and Developing Asia	6.6	6.5	6.3
China	6.9	6.6	6.2
India 2/	7.6	7.6	7.6
ASEAN-5 3/	4.8	4.8	5.1
Emerging and Developing Europe	3.6	3.3	3.1
Latin America and the Caribbean	0.0	-0.6	1.6
Brazil	-3.8	-3.3	0.5
Mexico	2.5	2.1	2.3
Middle East, North Africa, Afghanistan, and Pakistan	2.3	3.4	3.4
Saudi Arabia	3.5	1.2	2.0
Sub-Saharan Africa	3.4	1.4	2.9
Nigeria	2.7	-1.7	0.6
South Africa	1.3	0.1	0.8
Low-Income Developing Countries	4.6	3.7	4.9

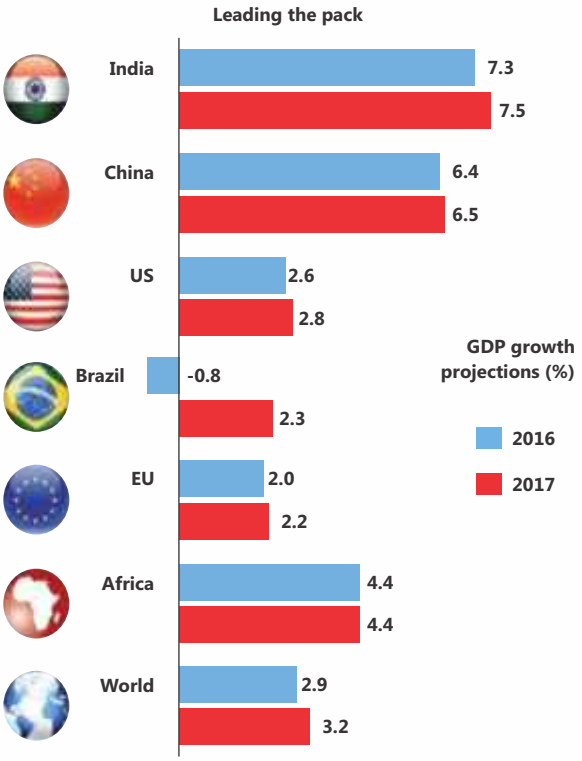
Source: IMF, October 2016 *World Economies Outlook,*
1/ Excludes the G7 (Canada, France, Germany, Italy, Japan, United Kingdom, United States) and euro area countries.
2/ For India, data and forecasts are presented on a fiscal year basis and GDP from 2011 onward is based on GDP at market prices with FY2011/12 as a base year.
3/ Indonesia, Malaysia, Phillippines, Thailand, Vietnam.

In the midst of these developments, global commodity prices will see only a modest recovery in 2017, according to the IMF's October report. Softer commodity prices have disproportionately hurt the emerging economies. The IMF fears that sub-Saharan Africa, South America, the CIS region and the Middle East will not fare so well, particularly if OPEC fails to reach an agreement on oil production cuts[7].

Indian Economy - Core Strengths To The Fore

The Indian economy will continue to provide significant support to the global economy. The country's GDP growth (See Fig 3) will be spurred by a rebound in agriculture production, civil service pay reforms that will drive up consumption, increasingly positive contributions from exports and a recovery of private investment in the medium term, says a World Bank report on South Asia Economic Focus[8].

Fig 3: India's Economic Resurgence



Source: World Economic Situation and Prospects Report, 2016

Likewise, the IMF's World Economic Outlook (WEO) report observes that "India's economy continued to recover strongly, benefiting from a large improvement in the terms of trade, effective policy actions, and stronger external buffers."[9] The multilateral lending agency observes policy steps like the implementation of the Goods and Services Tax (GST) in the coming year would have a positive impact on the country's investment and growth scenario. The IMF also advocates additional measures like enhancing the efficiency of the domestic mining sector, increasing electricity generation to boost the overall productive capacity and execution of labour market reforms.

[7] http://nationalinterest.org/feature/the-5-biggest-challenges-the-global-economy-faces-2017-18144?page=2

[8] http://economictimes.indiatimes.com/articleshow/54667642.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst

[9] http://www.livemint.com/Politics/UIDlyxwzncrZFdBiChFrwL/IMF-revises-Indias-GDP-forecast-to-76-on-robust-growth-mo.html

India & E29 Economies - Building New Partnerships

India is acutely conscious of Europe's dominant position in India's international economic relations as the country's largest trading partner and biggest foreign investor. India is also aware of Europe as a repository of scientific knowledge and advanced technologies. Hence, Government of India is focused on mobilising stronger European participation in major domestic initiatives like the 'Make in India', 'Clean India', 'Digital India' and 'Skill India' missions.

Strong India-Europe economic partnerships will also have a major bearing on India's economic and business engagements with the E29 economies, most of which have significant commonalities with the Indian economy. Although historically India's links with the E29 countries - mostly Eastern and Central European countries - were limited in comparison with the country's links with Western Europe, in recent years India and the E29 countries have taken big steps to build long-term cross-border economic and business partnerships.

India-E29 bilateral trade and investment volumes constitute only a small part of the total external trade and FDI volumes of both regions, but there is immense scope for multi-pronged bilateral trade and investment flows, as also collaborations for R&D, technology transfer, skills development, and indeed joint ventures in the agriculture, manufacturing and services sectors.



2 BILATERAL TRADE RELATIONS – PRIMED FOR GROWTH



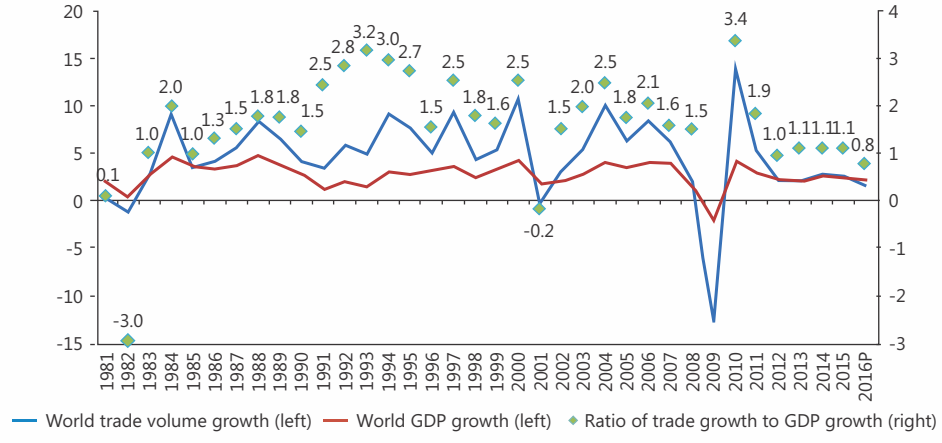
BILATERAL TRADE RELATIONS – PRIMED FOR GROWTH

Global Outlook

The India-E29 trade relations may be viewed in the context of the general slowdown in global trade flows (1.7% growth in 2016, well below the WTO forecast of 2.8% growth in April 2016). The forecast for 2017 has also been revised in the region of 1.8% and 3.1%, down from 3.6% previously. With expected global GDP growth of 2.2% in 2016, this year would mark the slowest pace of trade and output growth since the financial crisis of 2009.[10]

The contraction **(See Fig 1)** was the result of slowing global GDP growth. Commenting on the current trade scenario, WTO Director-General Roberto Azevêdo, said: "The dramatic slowing of trade growth is serious and should serve as a wake-up call. It is particularly concerning in the context of growing anti-globalisation sentiment. We need to make sure that this does not translate into misguided policies that could make the situation much worse, not only from the perspective of trade but also for job creation and economic growth and development which are so closely linked to an open trading system."[11]

Fig 1: Ratio of world merchandise trade volume growth to world real GDP growth, 1981-2016 (% change and ratio)



Sources: WTO Secretariat for trade, concensus estimates for GDP.

[10] https://www.wto.org/english/news_e/pres16_e/pr779_e.htm

[11] https://www.wto.org/english/news_e/pres16_e/pr779_e.htm

The stagnation of world merchandise trade is also triggered by strong shifts at the regional level. The most striking aspect is the steep decline in imports of resource-exporting regions over the last two years, driven by falling commodity prices and declining export revenues.

Moreover, the outlook for the remainder of this year and next year is affected by a number of uncertainties, including financial volatility stemming from changes in monetary policy in developed countries, the possibility that growing anti-trade rhetoric will increasingly be reflected in trade policy, and the potential effects of the Brexit vote in the UK, which has increased uncertainty about future trading arrangements in Europe, a region where trade growth has been relatively strong.[12]

India's Foreign Trade

Keeping in view the slowdown in global trade flows, the Ministry of Commerce, Government of India decided upon a series of course corrections. In April 2015, the Government unveiled its first five-year Foreign Trade Policy (FTP) aiming to nearly double exports of goods and services to $900 billion by 2020.

In the FTP (2015-20), the Government replaced multiple schemes with Merchandise Exports from India Scheme (MEIS) and Services Exports from India Scheme (SEIS). Yet, since December 2014, exports fell for 18 months in a row until May 2016 due to weak global demand. Shipments witnessed growth only in June 2016, thereafter again it entered the negative zone in July and August. Recovering from a two-month decline, exports went up by 4.62% to $22.9 billion in September.[13]

Bilateral Trade With E29 Economies

Over the last 10 years India has progressively attached greater significance to its bilateral trade relations with the E29 economies. However, the India-E29 bilateral trade flows have not scaled the levels expected of economic engagements between the two dynamic regions.

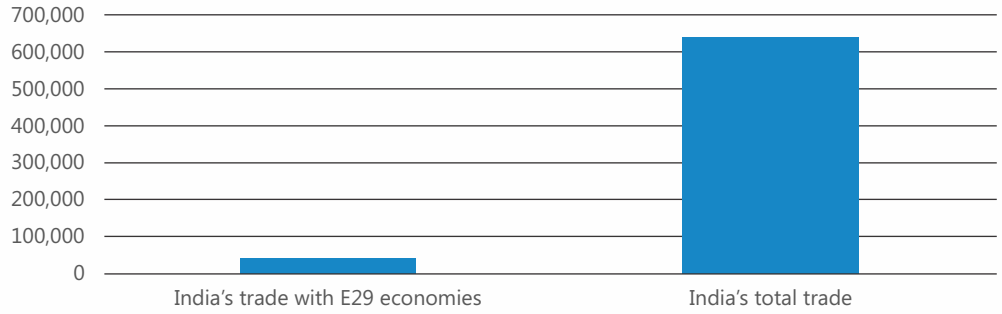
As per trade data released by the Ministry of Commerce & Industry, Government of India, India's total trade with the E29 countries **(See Figs 2 & 3)** stood at $38,481 million in 2015-16 (down from $44,276.76 million in 2015-16), which was only 5.98% (5.83% in

[12] https://www.wto.org/english/news_e/pres16_e/pr779_e.htm

[13] http://www.moneycontrol.com/news/economy/commerce-ministry-begins-reviewforeign-trade-policy_7869841.html

2014-15) of India's total trade with all countries totalling $643,296.75 million in 2015-16 (down from $758,371.89 million in 2014-15).[14]

Fig 2: India's trade with E29 economies vs total external trade (in $ mn)



Source: Ministry of Commerce & Industry, Government of India

Fig 3: India's total trade with E29 countries (in $mn) in 2015-16

Country	Indian exports	Indian imports	Total trade	%Growth in Bilateral Trade (YoY)
Albania	24.04	17.20	41.24	(-) 41.24
Austria	339.83	827.11	1,166.93	(-) 1.03
Bosnia & Herzegovina	19.70	4.40	24.11	9.92
Bulgaria	145.53	93.72	239.26	(-) 35.36
Croatia	112.44	36.00	148.44	(-) 27.60
Cyprus	59.80	48.18	107.98	46.04a
Czech Republic	488.53	507.89	996.42	11.15
Denmark	688.79	428.54	1,117.33	(-) 5.49
Estonia	63.68	142.04	205.72	10.52
Finland	248.48	1,002.37	1,250.85	0.25
Greece	335.68	111.03	446.71	(-) 8.57
Hungary	345.13	242.64	587.77	(-) 0.18
Iceland	18.55	4.25	22.79	(-) 7.41
Latvia	79.50	61.57	141.07	5.01

[14] http://www.commerce.nic.in/eidb/

Country	Indian exports	Indian imports	Total trade	%Growth in Bilateral Trade (YoY)
Liechtenstein	0.82	1.18	2.00	46.37
Lithuania	88.09	214.35	302.44	40.57
Macedonia	12.87	7.08	19.95	(-) 15.32
Malta	325.03	26.43	351.46	(-)-1.28
Moldova	7.81	4.89	12.70	24.29
Montenegro	26.19	0.05	26.24	(-) 39.64
Norway	541.63	585.37	1,127.00	(-) 10.88
Poland	1,025.30	569.66	1,594.96	(-) 5.42
Romania	255.74	309.30	565.03	(-) 20.78
Serbia	43.34	22.34	65.68	(-) 0.63
Slovak Republic	137.51	64.64	202.16	(-) 26.20
Slovenia	264.98	88.60	353.58	0.93
Sweden	683.64	1,484.85	2,168.49	(-) 12.87
Switzerland	977.17	19,299.49	20,276.66	(-) 12.61
Turkey	4,140.00	776.94	4,916.94	(-) 27.93

Source: Ministry of Commerce & Industry, Government of India

The overall Balance of Trade was significantly tipped in favour of the E29 region, with India's total exports to the region adding up to $11,499.80 million in 2015-16 ($13,044.19 million in 2014-15), less than half of India's total imports from the region totalling $26,982.11 million in 2015-16 ($30,155.90 million in 2014-15) in the same fiscal year.[15]

To a great extent, the skewed Balance of Trade may be attributed to the composition of the bilateral trade. Broadly, India's exports to the E29 region include electric machines, transport vehicles, agricultural products, tea, coffee, pharmaceuticals, garments, computer software, jewellery, leather products, etc., whereas the imports mainly constitute iron & steel, metal scrap, nuclear reactors, mineral fuels & products, fertilisers, Swiss watches, glass and crystal products.[16]

[15] http://www.commerce.nic.in/eidb/

[16] http://mea.gov.in/in-focus-article.htm?21946/India+and+Central+Europe+a+road+less+travelled

In tandem with the current global trade scenario, India's annual bilateral trade volumes with all the major E29 economies had fallen sharply YoY, with the exception of the trade with Czech Republic grew by 11.15%[17]. Accelerated growth in bilateral trade volumes were evident only in the case of India's trade with the smaller E29 economies like Cyprus (46.04%), Estonia (10.52%), Liechtenstein (46.37%), Lithuania (40.57%) and Moldova (24.29%)[18].

The relatively limited size of India's external trade with E29 economies **(See Fig 4)** is evidenced by the fact that only three countries – Switzerland (ranked 5th), Turkey (35th) and Sweden (49th) – figured among India's top 50 trade partners in 2015-16. The other E29 economies that figured in India's Top 100 external trade partners were Poland, Norway, Finland, Austria, Norway, Denmark, Czech Republic, Hungary, Romania, Greece, Slovenia, and Malta.

Fig 4: India's top trade partners in the E29 region

Country	India's trade partners in the E29 region that figure among India's top 200 trade partners in 2015-16 (ranking in 2014-15)
Switzerland	5th (5th)
Turkey	35th (32nd)
Sweden	49th (48th)
Poland	55th (57th)
Finland	59th (66th)
Austria	60th (68th)
Norway	61st (64th)
Denmark	62nd (67th)
Czech Republic	66th (75th)
Hungary	85th (91st)
Romania	87th (85th)
Greece	91st (92nd)

[17] http://www.commerce.nic.in/eidb/

[18] http://www.commerce.nic.in/eidb/

Country	India's trade partners in the E29 region that figure among India's top 200 trade partners in 2015-16 (ranking in 2014-15)
Slovenia	97th (100th)
Malta	98th (99th)
Bulgaria	108th (98th)
Estonia	115th (128th)
Slovak Republic	116th (104th)
Croatia	130th (126th)
Latvia	132nd (128th)
Cyprus	137th (148th)
Serbia	152nd (153rd)
Albania	160th (151st)
Montenegro	169th (161st)
Bosnia & Herzegovina	170th (174th)
Iceland	171st (172nd)
Macedonia	172nd (173rd)
Liechtenstein	198th

The comparatively low levels of India-E29 bilateral trade flows are in contrast to the complementarity that exists between the two regions – in all three sectors: agriculture, manufacturing and services. The depth and scope of the India-E29 bilateral trade relations may be better assessed by examining India's trade with E29 economies that figure among India's to 100 trade partners in 2015-16.

Switzerland: Switzerland is India's biggest trade partner among E29 economies and indeed the 5th largest trade partner globally. Bilateral trade volumes have steadily increased in the last two decades. Total trade increased from $10.37 billion in 2007-08 to $35.85 billion in 2011-12, but dipped to $22.30 billion in 2014-15 and further down to $20.27 billion in 2015-16.

The balance of trade has been significantly in favour of Switzerland whereby India's exports stood at $977.17 million in 2015-16, whereas India imported $19.29 billion in the same fiscal. Items of Indian exports to Switzerland largely constitute textiles and garments, organic chemicals, precious stones and jewellery, dyestuffs, machinery and parts, leather products, shoes and shoe uppers, cotton, plastics, coffee, tea, and hand-knotted carpets, whereas Swiss exports to India mainly consist of machinery and

equipment (electrical and mechanical), precision instruments, pharmaceutical products dyes and chemicals, fertilizers, watches, etc.[19]

Almost 90% of items of Indian imports from Switzerland constitute gold, precious stones and other jewellery items. Commerzbank has cited signs of improving physical gold demand in India, including increased shipments to India from Switzerland and a premium in Indian gold prices.[20]

Switzerland has also supplied to India parts for nuclear reactors for the purpose of power generation. Given that nuclear power generation is poised for accelerated growth in India, Swiss suppliers of nuclear reactor equipment and parts have a good opportunity to do big business with India.[21] Also, Switzerland continues to support India's membership to the Nuclear Suppliers Group (NSG) – a 49 nation group that regulates nuclear exports.[22]

India was the 4th main importer of goods from Switzerland with 7.4% share of overall imports ($21.6 billion from the central western European economy). India increased its imports from Switzerland at the fastest rate, up 541.3% in value from 2011 to 2015.[23]

Turkey: Turkey is India's second largest trade partner among E29 economies and the 35th largest trade partner globally. The economic dynamism of both countries had greatly contributed to the accelerated growth in bilateral trade flows. In 2014-15 alone total trade between the two countries grew by 31.35%, fuelled by growing Indian exports to Turkey, but 2015-16 saw the bilateral trade volume plummet by 27.93%.

"I expect the trade between India and Turkey to rise three-fold from $7.49 billion in 2014 to over $22 billion in the next 5-7 years, supported by favourable business climate in both countries," Turkey Deputy Minister of Economy Adnan Yildirim had said at the Turkey-India Business Forum in 2015.[24]

As is evident from the data released by the Ministry of Commerce & Industry, Government of India, Indian exports to Turkey totalled $4.14 billion in 2015-16 ($5.35 billion in 2014-15) whereas the total imports from Turkey were a mere $776.94 million ($1.46 billion in 2014-15).

Main items of India's exports to Turkey include petroleum products, vaccines, cotton yarn, synthetic yarn, organic dyes, organic chemicals, denim, steel, granite, antibiotics,

[19] http://www.ficci.com/international/75131/Project_docs/FICCI-Switzerland.pdf

[20] http://news.metal.com/newscontent/100704542/switzerland-september-gold-exports-to-india-hit-best-since-january

[21] http://www.ficci.com/international/75131/Project_docs/FICCI-Switzerland.pdf

[22] http://www.swissinfo.ch/eng/nuclear-suppliers-group_switzerland-backs-india-for-nuclear-exporting-club/42257746

[23] http://www.worldstopexports.com/switzerlands-top-import-partners/

[24] http://articles.economictimes.indiatimes.com/2015-04-10/news/61018005_1_bilateral-trade-volume-commerce-ministry-three-fold-rise

carpets, tobacco, cars, sesame seed, TV CRTs, mobile handsets, clothing and apparel, whereas items of Turkey's exports to India include poppy seeds, auto components, marble, textile machinery, denim, carpets, cumin seeds, copper ores and concentrates, flat rolled iron and steel and gold.[25]

Turkey is keen that bilateral talks with India for a proposed FTA should begin soon. Turkey's Development Minister Lütfi Elvan told an Indian daily some time ago: "We are ready to start FTA negotiations." He said that Turkish companies see India a gateway to South Asia. Indian companies could also use Turkey as a hub to expand their operations in the EU region (with which Turkey has a Customs Union), the Middle East and Africa.[26]

Sweden: Sweden is India's third largest trade partner among the E29 economies and 49th largest trade partner globally. Indian exports to Sweden have reduced from a peak of $825 million in 2011-12 to $740.47 million in 2014-15 and $683.64 million in 2015-16. Likewise, India's imports from Sweden also reduced from $1.94 billion in 2011-12 to $1.48 billion in 2015-16[27].

Main items of Swedish exports to India are pharmaceuticals, paper & pulp products, chemicals, engineering products and telecom equipment. Main items of Indian exports to Sweden are chemical products, food products, and semi-manufactured and manufactured goods.[28]

"India's economic development and rise as a global power have created new opportunities to further deepen and extend this partnership to foster economic growth and inclusive development in both countries as well as to meet global challenges," said Prime Minister of India, Mr Narendra Modi and Prime Minister of Sweden, Mr Stefan Lofven, in a joint statement. Both leaders welcomed the prospect of resumption of talks for the India-EU Broad-based Trade and Investment Agreement (BTIA).[29]

Earlier, during President of India, Mr Pranab Mukherjee's state visit to Sweden in June 2015, India and Sweden had signed six agreements, including in the field of polar research. Among the agreements inked, both sides had signed an MoU for cooperation in MSME development aimed at promoting partnership projects, institution to institution and enterprise to enterprise cooperation relating to MSMEs, exchange of information and experiences in policy setting and research on the development of MSMEs, feasibility studies to identify thrust areas and opportunities for development of MSMEs and facilitating exchange of business mission.[30]

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[25] http://www.ficci.com/international/75130/Project_docs/FICCI-Turkey.pdf

[26] http://www.thehindu.com/news/national/turkey-wants-india-to-start-fta-talks-soon/article9306162.ece

[27] http://www.commerce.nic.in/eidb/iecnt.asp

[28] http://www.mea.gov.in/Portal/ForeignRelation/Sweden_2015_08_04.pdf

[29] http://economictimes.indiatimes.com/news/economy/for eign-trade/make-in-india-week-india-sweden-decide-to-step-up-ties/articleshow/50977439.cms

[30] http://www.business-standard.com/article/news-ians/india-sweden-ink-six-agreements-on-pranab-visit-115060101688_1.html

Likewise, an MoI was signed between India`s Central Drugs Standard Control Organisation (CDSCO) and the Swedish Medical Products Agency (MPA). This agreement was for increasing bilateral cooperation in the fields of pharma-covigilance, electronic submissions in related matter, clinical trials, drugs, medical devices and diagnostic kits, cosmetic and hygiene products and for exchange of information and experiences regarding good manufacturing practice.[31]

Mr Marcus Wallenberg, Chairman, SEB Group, said in a recent interview to Indian media that several Swedish manufacturing companies have already established their Indian presence and had been contributing to the 'Make in India' effort.[32]

Poland: Poland is India's fourth largest trade partner in the E29 region and 55th largest trade partner globally. India and Poland signed a new Economic Agreement in May 2006. Following the agreement, the first meeting of the Joint Commission was held in India in May 2008, the second session in Poland in May 2011 and the third session in October 2013 in New Delhi. The fourth session was held in Warsaw in June 2015 wherein both sides elhi. The fourth session was held in Warsaw in June 2015 wherein both sides discussed possible ways to boost the bilateral economic ties and double the bilateral trade to $5 billion by 2018.[33]

Currently, India's major exports to Poland include items like cotton, textiles, chemical products, electro-mechanical appliances, vehicles, airships and vessels, and major import items from Poland are electro-mechanical appliances, mineral products, and chemical products.[34]

Poland expects its trade volume with India to grow to $4 billion by 2020 and wants its companies to expand collaboration with local companies in a host of sectors. Polish Ambassador to India, Mr Tomasz Lukaszuk has stated that Polish companies are keen to collaborate with Indian firms in sectors like IT, coal, food processing, power, petrochemicals, defence, science and technology. “We have identified sectors like IT/ICT, coal, food processing, power and energy, petrochemicals, chemicals, defence, science and technology, which have high potential for cooperation," Mr Lukaszuk told Indian media.[35]

Finland: Trade is the cornerstone of India-Finland relations. Over the last one decade, India emerged as Finland's 4th largest trade partner in Asia. However, Finnish exports to

[31] http://www.business-standard.com/article/news-ians/india-sweden-ink-six-agreements-on-pranab-visit-115060101688_1.html

[32] http://www.moneycontrol.com/news/business/see-trade-activities-between-india-sweden-rising-seb-grp_5488241.html

[33] http://www.dnaindia.com/money/report-india-poland-set-trade-target-of-5-billion-by-2018-2096140

[34] http://www.mea.gov.in/Portal/ForeignRelation/Poland_2015_07_16.pdf

[35] http://economictimes.indiatimes.com/news/economy/foreign-trade/poland-sees-trade-with-india-reaching-4-bn-by-2020/articleshow/49601880.cms

India and investments in India have remained at a modest level.[36] Main export items from India to Finland are electronic goods, mineral fuels and mineral oils, readymade garments, cotton including accessories, pharmaceuticals & fine chemicals, articles of iron and steel, machinery and instrument, coffee, rubber, iron and steel, organic chemicals and nuclear reactors, boilers, machinery and mechanical appliances and parts thereof.

Major import items include electrical machinery and equipment, nuclear reactor equipment and parts, boilers, machinery and mechanical appliances, paper and paper board, iron and steel, pulp of wood or of other fibrous cellulosic material, pulp and waste paper, vehicles and transport equipment, etc.[37]

Austria: India's exports to Austria have tapered in the last 4-5 years, standing at $341.82 million in 2011-12 and $339.83 million in 2015-16. Austrian Ambassador to India, Mr Bernhard Wrabetz said in 2014 that the potential to strengthen economic ties between India and Austria is "endless". He said: "We see a lot of opportunities here, especially in public infrastructure, transport, energy, and waste management, where Austria has developed technologies for specific situations that are fully applicable in India."[38]

Currently, items of Indian exports to Austria include footwear, textiles, leather products, apparel and clothing accessories, vehicles, rolling stock (and parts and accessories thereof), machinery and mechanical appliances (and parts thereof), electrical machinery and equipment, organic chemicals and pharmaceutical products,[39] and the imports constitute different types of machinery, iron and steel, chemicals, machinery and equipment.

Norway: Norway is India's 7th largest trade partner among E29 economies. Exports from Norway to India include electronic goods, general industrial machinery, scientific control equipment, artificial resins, plastic materials, non-ferrous metals, whereas the main import items include transport equipment, apparels, cotton yarn and fabrics, miscellaneous manufactured articles, metals, non-metal mineral items, paper products, cashew, furniture, travel goods, leather items, coffee, tea, spices and footwear.[40]

The bilateral engagements have grown significantly in areas like oil and gas, shipping and maritime industries, renewable energy, offshore projects and service sectors. Norway is the second largest seafood exporting country, whereas India is the second largest aquaculture producer in the world. "We would be happy if we are able to double the export of seafood to India over next few years. Hence, we have asked for import duty

[36] http://www.finland.org.in/public/default.aspx?nodeid=34795&contentlan=2&culture=en-US

[37] https://www.google.co.in/?gws_rd=ssl#q=india+finland+trade+relations+2015

[38] http://www.thehindubusinessline.com/economy/big-potential-for-increased-trade-with-india-says-austrian-envoy/article6481922.ece

[39] http://mea.gov.in/Portal/ForeignRelation/Austria_Dec_2014_eng_.pdf

[40] http://www.mea.gov.in/Portal/ForeignRelation/Norway_July_2014-1.pdf

of 30% on seafood to be removed by the Indian government," said Mr Terje E Martinussen, Managing Director of Norge, in a media interview. Norge is 100% owned by the Norwegian Government's Ministry of Trade and Fisheries, which promotes its seafood exports across the globe.[41] The Norwegian Seafood Council has set its sights on the Indian market. Norwegian seafood exports are currently hitting new highs, but much of the trade still remains with Europe.

Denmark: Trade in goods between India and Denmark had more than doubled reaching $1.34 billion in 2013-14 and $1.18 billion in 2014-15 but fell to $1.12 billion in 2015-16. Indian exports to Denmark fell from $757.5 million in 2011-12 to $688.79 million in 2015-16.[42] Danish exports to India stood at $457.95 in 2014-15 and $428.54 million in 2015-16.

Denmark is a key cooperation partner for India in the EU. The country has espoused a liberal trading system and is open to service trade liberalisation. All this augurs well for the future of India-Denmark bilateral trade.

Czech Republic: India is one of Czech Republic's most important trade partners in Asia. India figures among the top 12 priority countries for Czech exports. Czech-Indian trade relations have a tradition dating back to pre-war Czechoslovakia, when the main export products were machine-tools. During the last fifty years, Czech companies have made approximately a hundred capital equipment deliveries to India which, in many cases, have led to the emergence of new Indian industries, such as the manufacture of tractors, steam turbines, industrial boilers and motorcycles, and the establishment of engineering metallurgy plants. Traditionally, Czech companies have also supplied India with diesel generators, machine-tools, textile machinery, printing machinery, and food-processing technology.[43] Czech Republic's auto major Škoda has made its mark in the Indian market.

Since 2012, India and Czech Republic have made continued efforts to strengthen the bilateral economic relations through frequent exchange of trade and business delegations. In 2015-16, Indian exports to Czech Republic stood at $488.53 million, 29.05% higher than the previous year, and imports from the country totalled $507.89 million, about 2% lower than the previous year. The bilateral trade volumes are seen to be considerably lower in relation to the high potentials of India-Czech Republic bilateral economic cooperation and partnerships.

The Czech Republic is reportedly trying its best to clinch a nuclear power agreement with India even as the bilateral trade between the two nations is poised to hit $3 billion in the

[41] http://articles.economictimes.indiatimes.com/2015-11-03/news/67987433_1_seafood-exports-import-duty-norway-government

[42] http://www.commerce.nic.in/eidb/iecnt.asp

[43] https://www.vlada.cz/en/media-centrum/aktualne/india-open-for-business-with-czech-companies-100536/

next two years, said Czech Ambassador to India, Mr Milan Hovorka, at a conference in New Delhi in 2015.[44] "Since India has also been trying to build new capacities in the nuclear sector and Czech has abundant thorium at its possession, it is imperative that India and Czech begin to cooperate on this front," he said.

Hungary: India and Hungary have resolved to boost the bilateral trade across multiple sectors, including automobile industry, IT and pharmaceuticals. The two countries have discussed the prospects of BTIA in the wake of Britain's exit from the European Union (EU).[45]

Prior to 1990, India was a major trade partner of Hungary in Asia. Over 25 joint ventures were established by Hungarian companies in India. However, the bilateral engagements failed to gather momentum after Hungary experienced major economic shifts in the 1990s.[46]

India's exports to Hungary totalled $345.13 million in 2015-16, and imports stood at $242.64 million, which are still seemingly below potential. Currently, major items of Indian exports to Hungary include machinery and mechanical appliances, electrical equipment, products of the chemical or allied industries, vehicles and associated transport equipment, footwear, headgear and accessories of fashion, textiles and textile articles, prepared foodstuffs, beverages, and tobacco products. Major imports items from Hungary are machinery and mechanical appliances, electrical equipment, vegetable products, products of the chemical or allied industries, base metals, materials and products of paper industry, optical, medical instruments, etc.[47]

Romania: In 2011 India and Romania set a target of achieving $2 billion annual bilateral trade by the year 2016.[48] However, five years down the line India-Romania total bilateral trade stood at just $565.03 million[49].

Currently, principal Indian export items to Romania include electric machines, devices & equipment, common metals, chemical and allied industries products, plastic and rubber materials, textiles, food products, beverages and tobacco, vegetal products, wood paste, paper and cardboard and its scrap, articles made of stone, cement, ceramics, glass and optical photographic, cinematographic, medical instruments and devices. Main items of import from Romania are common metals, sound and image displayers & recorders, chemical and connected industrial products, plastic, rubber materials, textiles, vegetal products, transport vehicles and mineral products.[50]

[44] http://www.ndtv.com/india-news/czech-republic-makes-a-dash-for-nuclear-power-deal-with-india-1231866

[45] http://www.business-standard.com/article/news-ians/india-hungary-to-boost-bilateral-trade-116070501356_1.html

[46] http://www.mea.gov.in/Portal/ForeignRelation/Hungary_December_2014.pdf

[47] http://www.indianembassy.hu/?page_id=195

[48] http://archive.financialexpress.com/news/Romania-eyes-2bn-trade-bond-with-India/745272

[49] http://www.commerce.nic.in/eidb/iecnt.asp

[50] http://www.mea.gov.in/Portal/ForeignRelation/Romania_Jan_2015.pdf

Greece: India's total trade with Greece dipped from $947.92 million in 2008-09[51] to $461.97 million in 2011-12 and $446.71 million in 2015-16. The trade balance has been predominantly in favour of India, with main items of India's exports to Greece being machinery, automobiles and auto parts, iron and steel, aluminium, copper, dyes and chemicals, and textiles and garments. Main items of Greece's exports to India are machinery, rubber and plastic products, cotton, copper products, iron and steel products and chemicals.

Recent reports indicate that Greece is also opening up to pharma imports from India. Indian Government is drafting a new set of plans to offer Greece affordable 'Made in India' generics.

India has inked a preliminary pact with Greece for bilateral Air Services Agreement that proposes to allow unlimited points of call for domestic airlines in the European nation. Seeking to improve international air connectivity for Indian carriers, the Indian Government has been entering into air services pacts with many countries besides making efforts to re-negotiate the existing agreements. Once inked, it would be the first such ASA with Greece, which is known for its tourist spots and scenic beauty.[52]

Slovenia: With eased visa norms, Slovenia is looking for deepening trade ties with India to increase the bilateral trade between the two countries. Slovenia is looking for cooperation with Indian companies in sectors like logistics and transport, automobiles, green technology and renewable energy, pharmaceuticals, ICT and nanotechnology etc. Mr Jozef Drofenik, Ambassador of Slovenia to India, said recently: "India has emerged a key strategic market. Energy, automotive, electronics and tourism are some of the focus sectors that offer scope for enhancing business relations between the two countries."[53]

Mr Samo Hribar Milič, President, Chamber of Commerce and Industry of Slovenia (CCIS), stated that India and Slovenia should set a bilateral trade target of $500 million to be achieved by 2015. But by 2015-16, the total bilateral trade reached only the level of $353.58 million.

Malta: Bilateral trade between India and Malta witnessed a healthy growth of 75.93% from $202 million in 2013-14 to $ 356 million in 2014-15, but tapered off at $351.46 million in 2015-16. India's exports to Malta stood at $325.03 million in 2015-16 whereas imports from Malta were just $26.43 million.[54]

Main items of India's exports to Malta are marine products, drugs, pharmaceutical & fine chemicals, inorganic/organic/agro chemicals, manufactures of metals, transport

[51] http://www.mea.gov.in/Portal/ForeignRelation/Greece-July-2012.pdf

[52] http://www.hindustantimes.com/business-news/india-greece-sign-mou-for-air-services-agreement/story-xgbwI8jlw5lGaOjsNqJo1H.html

[53] http://www.tribuneindia.com/news/business/slovenia-for-boosting-trade-ties-with-india/258979.html

[54] http://www.commerce.nic.in/eidb/iecnt.asp

equipment, and other commodities, whereas the main items of India's imports from Malta are pulp and waste paper, metal scraps, organic chemicals, medicinal & pharmaceutical products, electronic goods.

Looking Ahead

India's trade ties with the E29 economies have not realised their true potentials, evidenced by the bilateral trade flows in recent years. While the global economic slowdown has partly reined in accelerated bilateral trade growth, deeper bilateral economic cooperation and investment flows could provide the necessary impetus for expanded bilateral trade flows.

The bilateral trade flows may be bolstered through:

- Enhanced trade-related information flows between the two regions
- Participation of Indian firms in key trade shows and exhibitions in E29 countries, and participation of companies from E29 economies in Indian trade shows and exhibitions
- Diversification of the bilateral trade baskets
- Improved transport connectivity and logistics support between the two regions
- Systematic reduction of trade barriers by all governments concerned
- Conclusion of the India-EFTA
- Deep economic engagement between India and the CEFTA (Central European Free Trade Agreement) member countries

3 BILATERAL INVESTMENT FLOWS – NEW AVENUES OPENING UP



BILATERAL INVESTMENT FLOWS – NEW AVENUES OPENING UP

Global Investment Outlook

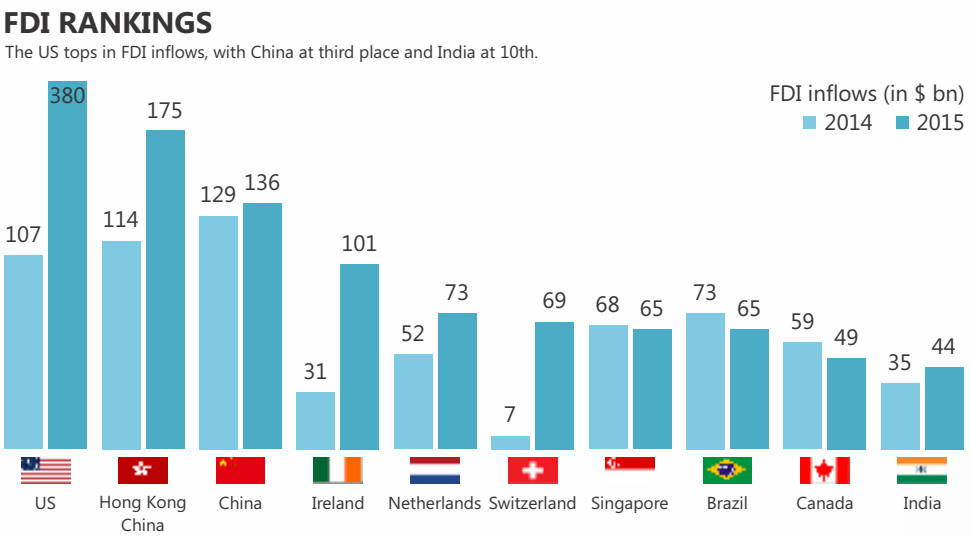
Global FDI flows were expected to decline by 10-15% in 2016 due to weak economic prospects. The World Investment Report 2016 released by the United Nations Conference for Trade and Development (UNCTAD) states: "The expected decline of FDI flows in 2016 reflects the fragility of the global economy, persistent weakness of aggregate demand, effective policy measures to curb tax inversion deals and slump in multinational enterprises."

The world economy will likely encounter major headwinds but FDI flows may pick up in 2017. "Over the medium term, FDI flows are projected to resume growth at 5-10% in 2017 and surpass $1.8 trillion in 2018, reflecting the projected increase in global growth," the report states.

India – Key Investment Destination

In the midst of the general global economic slowdown, India continues to be among the top ten countries in terms of FDI inflows **(See Fig 1)** and the fourth in developing Asia, as per UNCTAD'S World Investment Report 2016. India's FDI inflows increased to $44 billion in 2015 as compared to $35 billion in 2014, and the growth has been across the board.

Fig 1: Top recipients of FDI inflows



Source: UNCTAD / Mint

A further surge in investments in India in the first four months of 2016 was mainly on account of the 'Make in India' initiative, alongside liberalisation measures and reforms initiated by Government of India.

A UN economist has stated that India's FDI inflows are likely to cross $60 billion in 2016 even as FDI flows globally are set to witness a decline. "India witnessed a rise of about 28% in FDI to $44.20 billion in 2015. We expect FDI to cross $60 billion in 2016," said Nagesh Kumar, Economist & Head, UNESCAP's South and South-West Asia Office, at the release of an UNCTAD report. In India, the large increase of announced greenfield investments in manufacturing industries may provide further impetus to FDI this year.

In India several key sectors have been opened up in a major way for FDI inflows. The sectors that benefited from the relaxation include defence, real estate, construction, private banking, civil aviation, single brand retail and news broadcasting. While surge in e-commerce/start-ups helped software to be the top FDI equity recipient in CY2015, flows in the infrastructure sector have improved and the sustained trend could partly fill for lack of domestic capex appetite.

In a similar vein, a Kotak Institutional Equities report states: "Within manufacturing, India is yet to move beyond assembling units in the FDI value chain; however, we are seeing encouraging early signs with some foreign investments directed towards establishing full-fledged manufacturing facilities."[55]

In recent times, some of the major FDI announcements include Foxconn's investment in projects valued at $5 billion over the next 2-3 years, while GE and Alstom signed a $5.9-billion joint venture with Indian Railways, which will boost railway infrastructure.

In terms of outflows, there has been a decline in most developing and transition regions.

[55] http://profit.ndtv.com/news/economy/article-indias-net-fdi-flows-to-hit-38-billion-in-2016-17-report-1408814

Fig 2: Top Sources of FDIs in India – By Country (in USD) in the period April 2000 – March 2016

Rank	Country	Cumulative FDI (April 2000 - March 2016)
1	Mauritius	95,910
2	Singapore	45,880
3	UK	23,108
4	Japan	20,966
5	USA	17,943
6	Netherlands	17,314
7	Germany	8,629
8	Cyprus	8,552
9	France	5,111
10	UAE	4,030
	Total FDI inflows from all countries	288,634

Source: DIPP, Government of India

Fig 3: Top 10 Sectors attracting highest FDI inflows

Sector	Cumulative inflows (April 2000 - March 2016) in USD; % age to total Inflows (In terms of $)
Services sector (includes financial, banking, insurance, non-financial / business, outsourcing, R&D, courier, tech. testing and analysis)	50,792; 17%
Construction development: townships, housing, built-up infrastructure	24,188; 8%
Computer software & hardware	21,018; 7%
Telecommunications (radio paging, cellular mobile, basic telephone services)	18,382; 6%
Automobiles	15,065; 5%
Drugs & pharmaceuticals	13,849; 5%
Chemicals (other than fertilisers)	11,900; 4%
Trading	11,872; 4%
Power	10,476; 4%
Metallurgical industries	9,227; 3%

Source: DIPP, Government of India

India was also emerging as a major source of FDI in various overseas markets, but that trend has changed. Mr Devendra Kumar Pant, Chief Economist and Senior Director (Head, Public Finance) at India Ratings and Research, was quoted saying: "The declining trend in India's outflows can be explained by the collapse in the commodity side. In the past most of the corporates used to buy assets outside and that too commodities such as coal and oil."[56]

The decline in commodity prices and problems of over-capacity in industries such as steel have negatively affected some of the largest Indian conglomerates' motivation and ability to invest abroad.

Investment Opportunities in India

As the Indian and E29 economies entered a phase of sustained economic development, new avenues began to open up for deeper and broader bilateral investment flows. Today, as India directs focussed attention on manufacturing growth, supported by the high-decibel 'Make in India' Mission launched by the Government of India, many attractive investment opportunities have come up in India for global companies, such as, in the physical infrastructure sector.

Under the 12th Five-Year Plan (2012–17) alone India requires around $1 trillion to fund infrastructure growth covering sectors such as highways, ports and airways. FDI inflows will greatly bridge the investment needs in this sector.

As stated earlier, the 'Make in India' Mission has opened up compelling FDI opportunities in India's manufacturing and service sectors. The Mission is aimed at making India a manufacturing hub while eliminating the unnecessary laws and regulations, making bureaucratic processes easier and shorter.

The 'Make in India' initiative directs focus on investments in the following sectors: automobiles, automobile components, aviation, biotechnology, chemicals, construction, defence manufacturing, electrical machinery, electronic systems, food processing, IT and BPM, leather, media and entertainment, mining, oil and gas, pharmaceuticals, ports, railways, renewable energy, roads and highways, space, textile garments, thermal power, tourism and hospitality and wellness.

Meanwhile, Government of India has brought about "radical liberalisation" of the FDI regime by easing norms for a host of important sectors including defence, civil aviation and pharmaceuticals, opening them up for complete foreign ownership. However, the Government has tightened the rules for such companies producing items with cutting-

[56] http://www.livemint.com/Money/K1BnZ0ZQV6FhJKsZWcMHVL/India-ranks-10th-in-FDI-inflows-UNCTAD-report.html

edge and state-of-art technology - by giving them only a three-year blanket exemption from the 30% local sourcing norm over and above the five years where the 30% procurement requirement would have to be met as an average of five years' total value of the goods purchased. This is to ensure that they manufacture in India rather than making profits through just trading activities.[57]

In the defence sector, foreign investment beyond 49% (and up to 100%) has been permitted through the Government approval route, in cases resulting in access to modern technology in the country. The condition of access to 'state-of-art' technology in the country has been done away with as many foreign investors had complained about the ambiguity regarding that term. The decisions include permitting 100% FDI under government approval route for trading, including through e-commerce, in respect of food products manufactured or produced in India.

To promote the pharmaceutical sector, the government has permitted up to 74% FDI under automatic route in existing pharmaceutical ventures. The government approval route will continue beyond 74% FDI and up to 100% in such brown-field pharma.[58]

The Government has also permitted 100% FDI in India-based airlines. However, a foreign carrier can only own up to 49% stake in the venture, and the rest can come from private investors including those based overseas. This is expected to bring in more funds into domestic airlines. To boost airport development and modernisation, 100% FDI in existing airport projects has been allowed without government permission, from 74% permitted so far. The move comes close on the heels of the new civil aviation policy that relaxed norms for domestic carriers to fly abroad.[59]

In the recent past, the Government had also relaxed FDI norms across sectors, such as, PSU oil refineries, telecom, power exchanges, stock exchanges, constructions, etc. To illustrate this, the Government had amended the FDI policy for the construction development sector. The amended policy provides relaxed area restriction norms, reduction of minimum capitalisation and easy exit from project.

The Union Cabinet had also cleared a proposal to allow 100% FDI in railway infrastructure, excluding operations. Though the initiative does not allow foreign firms to operate trains, it allows them to invest in areas such as creating the network and supplying trains for bullet trains, etc.

Also, the Government has raised the FDI cap in insurance from 26% to 49% through a notification issued by the DIPP. The limit is composite in nature as it includes foreign

[57] http://www.thehindu.com/news/national/modi-reviews-fdi-policy/article8751860.ece

[58] http://www.thehindu.com/news/national/modi-reviews-fdi-policy/article8751860.ece

[59] http://www.thehindu.com/news/national/modi-reviews-fdi-policy/article8751860.ece

investment in the form of foreign portfolio investment, foreign institutional investment, qualified foreign investment, foreign venture capital investment, and non-resident investment.

Further, the Government has relaxed the FDI policy norms for Non-Resident Indians (NRIs). Under this, non-repatriable investments made by Persons of Indian Origin (PIOs), Overseas Citizens of India (OCI) and NRIs are treated as domestic investments and not subject to FDI caps.

However, while India has emerged as one of the most attractive emerging market investment destinations, volume of FDI from the E29 economies has not grown at any significant rate. Cyprus and Switzerland are the 8th and 10th highest investing (FDI) countries in India. Cyprus accounts for a little over 3% of India's total FDI inflows, while Switzerland accounts for around 1.2% share. Rest of FDI from Central and Eastern Europe add up to only a small fraction of India's total FDI inflows **(See Fig 4)**.

Fig 4: Share of top 10 E29 investing countries in India in relation to India's total FDI inflows

Ranking	Country	Amt of FDI inflows (in $ million)	%age to total FDI inflows
8	Cyprus	8,552.40	2.96
11	Switzerland	3,284.59	1.14
19	Sweden	1,235.27	0.43
19	Denmark	432.60	0.15
31	Finland	386.31	0.13
34	Austria	288.91	0.10
37	Norway	182.84	0.06
41	Turkey	136.27	0.05
64	Czech Republic	21.77	0.01
65	Iceland	21.14	0.01

Source: DIPP, Government of India

It may be noted that the top investing countries in India by share are Mauritius (33.24%), Singapore (15.9%), UK (8.01%), Japan (7.27%), USA (6.22%), Netherlands (6%), and Germany (2.99%).[60]

[60] http://dipp.nic.in/English/Publications/FDI_Statistics/2016/FDI_FactSheet_JanuaryFebruaryMarch2016.pdf

A more detailed analysis of E29 FDI sources is as follows:

Cyprus: India and Cyprus have agreed to revise their tax treaty under which capital gains tax will be levied on sale of shares on investments made after April 1, 2017, thus bringing the island nation at par with Mauritius in terms of tax treatment on investments. As per an agreement reached between India and Cyprus on June 29, 2016, investments made prior to April 1, 2017, will be grandfathered.

The new Cyprus Double Taxation Avoidance Agreement (DTAA), which has been agreed upon by both the countries, would provide for source-based taxation of capital gains on transfer of shares. The completion of the negotiation on avoidance of double taxation and the prevention of fiscal evasion will also pave the way for the removal of Cyprus from the list of 'Notified Jurisdictional Areas' retrospectively from November 2013.

Switzerland: India's Prime Minister Narendra Modi called for greater Swiss investments in India to upgrade the country's infrastructure like railways, build Metro train networks in 50 cities and build five crore affordable homes. At a roundtable with chief executives of leading Swiss firms, held in Geneva in June 2016, Prime Minister Narendra Modi spoke about the steps the Indian Government has taken to make it easier to do business in India.

Keeping the climate change agenda in mind, India is targeting to build 175GW of solar energy. "The experience of past two years has shown that we can complete it within time," he said. Mr Modi urged Swiss solar equipment manufacturers to establish their operations in India and innovate.

Earlier, Switzerland's Ambassador to India, Mr Linus von Castelmur had said at a press meeting in India in 2015 that Swiss companies see high investment potential in India and many of them are waiting to come and invest.[61] Nearly 200 Swiss companies have a presence in India.

Switzerland-based global private markets investment management firm Partners Group is gearing up to invest around $1 billion in India over the next three to five years, according to The Economic Times. "India is a dynamic economy and it does not matter if it is slightly up or down for six months. We are taking a far longer-term view on the private market opportunities with an average five- to six-year horizon," Mr Andre Frei, Partner and Co-Chief Executive of the company, said in the report.[62]

[61] http://www.rediff.com/business/report/swiss-entities-keen-to-invest-in-india-says-envoy-/20150310.htm

[62] http://www.vccircle.com/news/alternative-investment/2016/02/03/swiss-investment-firm-partners-group-plans-invest-1b-india

As the world's biggest arms importer, India is a big market for Swiss defence firms but it is not all one-way traffic. Private Indian players are helping the Swiss manufacture high-end products for the global market.

In 2012, India placed a huge order of 75 Pilatus PC-7 MKII planes for the Indian Air Force that is still having a significant impact on Swiss defence export figures. In 2014, total arms exports from Western Europe fell by 7.4%. But Swiss exports increased by 11.2%, mainly due to the Pilatus PC-7 order from India, according to a recent report by the Stockholm International Peace Research Institute (SIPRI).[63]

In the recent past, Swiss multinationals based in India had announced plans to create a centre to provide Swiss-style vocational education to young Indians. The apprentices were expected to help Swiss companies address the shortage of skilled workers in India.[64]

The proposed plan for a Centre of Excellence for Manufacturing was presented at the Swiss Vocational Education Training (VET) day held in June 2015 in New Delhi as a part of the Year of Swiss Innovation in India. Swiss companies such as Burckhardt Compression, Syngenta, Sulzer and Rieter are part of the training venture. The centre is expected to be operational by 2017 and will be based in Koregaon Bhima near Pune where over 20 Swiss companies have manufacturing units.

Besides manufacturing, there are also plans to develop a Swiss Centre of Excellence for Agriculture in the same centre to train rural youth to become agriculture entrepreneurs and technicians. This initiative will be supported by the Syngenta Foundation.

In keeping with growing Swiss interest in the Indian market, lifestyle product brand Swiss Military is expanding its presence in the country with an investment of Rs 200 crore.[65] The $300-million privately held company, which has operations across 26 countries and brand registration across 40 markets, started India operations in 2010 with a 'four-phase' expansion strategy.

Sweden: Prime Minister of India, Mr Narendra Modi, and Prime Minister of Sweden, Mr Stefan Lofven jointly inaugurated the Sweden Country Pavilion at the Make in India Week in Mumbai earlier this year. "Swedish industry has always believed in India as a perfect trading partner - right from the time Ericsson laid the first cables in 1903 to the

[63] http://www.swissinfo.ch/eng/business/pilatus-aircraft_swiss-defence-firms--make-in-india-/41934498

[64] http://www.swissinfo.ch/eng/skilled-workforce_swiss-companies-to-invest-in-indian-apprenticeships/41477634

[65] http://articles.economictimes.indiatimes.com/2015-07-07/news/64178181_1_retail-expansion-swiss-military-worldwide-indian-expansion

current times when our companies are looking to raise their investments and their manufacturing units here," said Swedish Ambassador to India, Mr Harald Sandberg.[66]

Mr Sandberg told The Hindu, "We have a high percentage of Swedish companies doing business here - there are about 150 big companies active in India, but there is huge potential in both directions. The 'Make in India' campaign is interesting both from the Indian perspective in terms of exports towards us, but also for Swedish industry." Swedish companies provide direct employment to 15,000 people in India, while the figures through subsidiary operations run into several lakhs, he said. Some of the biggest Swedish firms operating in India include ABB, Atlas Copco, Camfil, Ericsson, Ikea, Saab, Sandvik, Scania, SKF, TetraPak and Volvo.

Ms Anna Ferry, Former Counsellor, Head of Section Trade & Economic Affairs, Embassy of Sweden in India, said in 2015 that the ease of doing business, 'Make in India' and the smart city project and a number of (other) initiatives have drawn the attention of Swedish companies. Swedish companies also have their competencies when it comes to technology relating to improving air and water qualities, connectivity, retail spaces and smart-living. "I think it's a very exciting and interesting time to be here and contribute," she said.[67]

Swedish companies doing business in India are bullish about India's investment climate. According to the seventh Business Climate Survey, there is a positive shift in the perception of Swedish companies about investments and expanding their operations in India.[68]

The survey captured inputs from 110 Swedish companies established in the country from sectors such as IT, telecom, automotive, service sector, engineering products, defence, direct sales and retail. The Business Climate Survey is conducted annually by the Swedish Chamber of Commerce in India in partnership with the Embassy of Sweden in New Delhi, Consulate General in Mumbai and Business Sweden.

India is keen on partnering with Sweden on aspects of urban development, with a thrust on smart cities. "There is a big demand from the Indian side for sustainable solutions and innovations for urban development; this is an opportunity to meet, talk and showcase

[66] http://www.ndtv.com/india-news/make-in-india-swedish-firms-keen-to-raise-india-investments-says-ambassador-1277065

[67] http://www.thehindubusinessline.com/companies/swedish-companies-have-a-longterm-view-on-india/article7622167.ece

[68] http://www.business-standard.com/article/economy-policy/swedish-companies-bullish-on-indias-investment-climate-115042400928_1.html

where we can have complementary and interesting ideas," said Mr Sandberg. In the area of climate change too Sweden perceives Indian as a "key player".

Poland: Polish companies are keen to invest in clean mining technologies, food processing and green energy projects in India. "Both Indian and Polish governments are focusing on economic development and there are many areas of cooperation including green energy, water treatment among others. Among other areas for collaboration are aerospace and Polish companies are exploring investment opportunities in India," Poland's Ambassador to India, Mr Tomasz Lukaszuk told the Indian media. The country has also expressed interest to export apples to India after Russia banned imports of farm products from the European Union (EU). The country is one of largest exporters of apples.[69]

Currently, there are about 30 Polish companies operating in India and recent investments in India were in area of electric buses and waste to electricity generation projects. Polish personal hygiene company TZMO, which is present in India since 2002, is also looking to expand its presence in the country.

Polish companies have deepened their footprints in India, with firms such Bella Premiere (Torunskie Zaklady Materialow Opatrunkowych (TZMO) in Dindigul (manufacturing hygiene sanitary products), Can-Pack Poland in Aurangabad (manufacturing metal packaging), Inglot (cosmetic products), Geofyzika (seismic surveys for oil companies), GT Torun, and Obram carving out a strong presence in the country.

Denmark: There are some 75 Danish companies which have set up subsidiaries, representative offices or joint ventures in India. Danish investments have been made in sectors like harbour/port modernisation and expansion, beer breweries, wind turbine/rotor blade manufacturing, agro-intermediates /insecticides, and the engineering sector. There is scope for additional investments in renewable energy, pharmaceuticals, food processing, shipping, electronics and infrastructure sectors.[70]

Finland: There are over 120 Finnish companies in India and some 25 Indian companies are in Finland. Many of the Finnish companies in India have manufacturing plants in the country and are truly 'Make in India' companies. Companies like Kone elevators, Wartsila, Ahlstron, Elcoteq, Metso, Fortum, and UPM have set up manufacturing facilities in India and Finnode has opened its office in India.[71] Top sectors attracting

[69] http://www.ibef.org/news/poland-plans-investments-in-food-processing-green-energy-in-india

[70] http://www.ficci.com/international/75127/Project_docs/Denmark_Profile.pdf

[71] http://www.ficci.com/international/75192/Project_docs/finland-ficci.pdf

Finnish FDI inflows are: industrial machinery, electrical equipment, textiles (including dyed, printed), power, and electronics.

Several Finnish companies are engaged in the renewable energy and clean-tech segments in India. Apart from a Finnish energy company that already owns two solar power plants in India and has won a bid to build a third one, a Finnish mobile phone network manufacturer has an R&D centre in India that employs 6,000 people and their equipment serves 280 million mobile phone subscribers.

Finland has significant capacities in the civil nuclear energy field with four reactors in operation in his country. Besides, Finnish companies and relevant government agencies can offer solutions related to safety and security ecosystems in nuclear power plants.[72]

Projects in the Indian infrastructure sector have provided opportunities for Finnish companies. For instance, Metso Minerals sells mining drills and road-building equipment. Finnish firms Metso Automation, KCI Konecranes, Kalmar and Sandvik amongst several others are operating in this sector. Finnish paper products are being marketed in India by Finnish paper giants UPM, StoraEnso and M-real. Andritz Finland and Metso Paper are involved in upgrading paper machines and building new ones. Huhtamaki with its local joint venture partner is the largest Finnish employer in India in the packaging material sector. Eltete is another Finnish company in packaging business operating in India.

Twenty six companies from Finland are now exploring the possibility of working in the areas of clean technology in India. These include sectors such as mining, renewable energy, power plant, bio composts and even outdoor toilets.[73]

Austria: Austria is known for high-end expertise in engineering and heavy manufacturing and India has a wealth of resources and a huge rail infrastructure to improve and maintain. As far back as the 1960s, Plasser & Theurer of Austria supplied to Indian Railways track laying machines and ballast cleaners. Several other Austrian companies have provided engineering expertise (rail laying and tunnelling) or equipment to Indian Railways.[74]

Between 2006 and 2010, Strabag, along with its Indian partners (Larsen & Toubro and IRCON International Ltd.), completed a £61 million, 3.2 km tunnelling project in the phase 2 of Delhi Metro System.

[72] http://articles.economictimes.indiatimes.com/2016-02-13/news/70592893_1_india-week-withholding-tax-norms-india-finland

[73] http://www.thehindu.com/business/Industry/finland-keen-to-invest-despite-nokias-tax-issues/article5244428.ece

[74] http://www.india-at-hannover.com/trains-planes-and-automobiles

Norway: President of India, Mr Pranab Mukherjee, during his state visit to Norway in October 2014 invited Norwegian investors and entrepreneurs to explore possibilities of investment in India's infrastructure sector. He urged the companies to participate in the 'Make in India' initiative of the Indian government.

Down the years, top sectors in India that attracted FDI equity inflows from Norway are: chemicals (other than fertilizers), electrical equipment and electronics.[75] "India is one of those markets where you should expect that we will continue to increase our investments over time, significantly," Mr Yngve Slyngstad, CEO of the Norwegian Government Pension Fund Global (GPFG), said in an interview. The Fund also held roughly $4 billion worth of fixed income investments in India at the turn of the year, of which more than 96% were investments in government bonds.[76]

Turkey: "A Turkish business delegation visiting India had shown keen interest in partnering with Indian companies in the infrastructure sector - roads, power, ports and other related sectors," remarked Mr Rizanur Meral, President, TUSKON (Confederation of Businessmen and Industrialists of Turkiye) in an interactive meeting with the officials of the World Trade Centre (WTC) Mumbai. [77]

Turkish companies find it attractive to invest in the infrastructure, renewable energy, textiles, agro food and other sectors in India. "India and Turkey can explore cooperation in the areas of auto components, pharmaceuticals, chemicals etc. Turkish firms are not only interested to export their goods to India but also establish manufacturing facilities in the country on the back of the Indian government's 'Make in India' campaign."

The macroeconomic fundamental in Turkey is not so strong due to double digit inflation, high interest rates etc. Also, there is slowdown in the economic growth of European countries and other prominent markets in the world. Under this condition, the strong growth in the Indian economy, along with low inflation, offers tremendous potential for foreign companies to invest in this country. Turkish companies find it attractive to invest in the infrastructure, renewable energy, textiles, agro food and other sectors in India.

Reports suggest that India and Turkey can explore cooperation in auto components, pharmaceuticals, and chemicals sectors. Turkish firms are not only interested to export their goods to India but also establish manufacturing facilities in the country on the back of the Indian government's 'Make in India' campaign.

[75] http://www.ficci.com/international/75129/Project_docs/Norway_Profile.pdf

[76] http://www.norwayemb.org.in/News_and_events/News-and-Events/Norwegian-Pension-Fund-set-to-increase-USD-85-Billion-Investment-in-India/#.WB7_W_l942w

[77] http://www.moneycontrol.com/news/sme/turkey-keen-to-investindian-infrastructure_5143441.html

Major Turkish companies operating in India are: LIMAK Construction, which has been in India since 2001. LIMAK has so far participated in collaboration with an Indian company Soma in construction, widening and strengthening of National Highway segments and is in collaboration with another Indian company Gammon India for laying cross-country pipeline and associated facilities on a 274 km stretch.

Sarkar, a high-end garment manufacturer entered the Indian market through its franchisee partners in 2003. Sokatas, a leading garment manufacturer in the European Customs Union, has started work on a proposed garment factory to be set up in Maharashtra.

Izopoli-Kingspan, a leading manufacturer of fire retardants, has opened office in India in 2007 and is looking to invest for manufacturing fire retardants in India, while Hidromas, manufacturer of heavy earth movers is looking to set up a manufacturing unit in Chennai.

Czech Republic: Czech companies are emerging as major investors in energy and finance sectors. They are also bidding for infrastructural and industrial projects in India. Other main thriving sectors of bilateral cooperation are engineering, information technology, medical equipment, chemicals and pharmaceuticals, bio-technology and nanotechnology, science and technology which offer opportunities for flow of trade and investment.

During the last fifty years, Czech companies have made approximately a hundred capital equipment deliveries to India which, in many cases, have led to the emergence of new Indian industries, such as the manufacture of tractors, steam turbines, industrial boilers and motorcycles, and the establishment of engineering metallurgy plants. Traditionally, Czech companies have also supplied India with diesel generators, machine-tools, textile machinery, printing machinery, and food-processing technology.[78]

Some of the major investments from Czech Republic in India are: Skoda Auto: one of the premium automobile manufacturers in India, a fully owned subsidiary of Skoda Auto Czech Republic (Volkswagen Group); Skoda Power: hundred power blocks in operation in India supplied from Skoda Power and by local firm BHEL, to which Skoda sold a license in the 1970s; Vítkovice Machinery Group: a major Czech Industrial group; ZKL Bearings CZ: setting up the production of railways bearings; Bonatrans: setting up railway and metro wheels production; Linet: hospital beds; FANS: cooling towers; and Tatra: a joint venture in India with BEML – manufacturing trucks.

Hungary: The most significant Hungarian investments in India are by Richter Gideon. The Hungarian pharma major has invested $20 million in a 51:49 joint venture with an

[78] https://www.vlada.cz/en/media-centrum/aktualne/india-open-for-business-with-czech-companies-100536/

Indian firm Themis' Medicare Ltd., for production of intermediates, the entire production of which is exported to Richter Gideon, Hungary.

Top sectors attracting Hungarian FDI are: hotel & tourism, drugs & pharmaceuticals, consultancy services, leather, leather goods and pickers, food processing industries, information & broadcasting (including print media), scientific instruments, trading, automobile, services sector, among others.

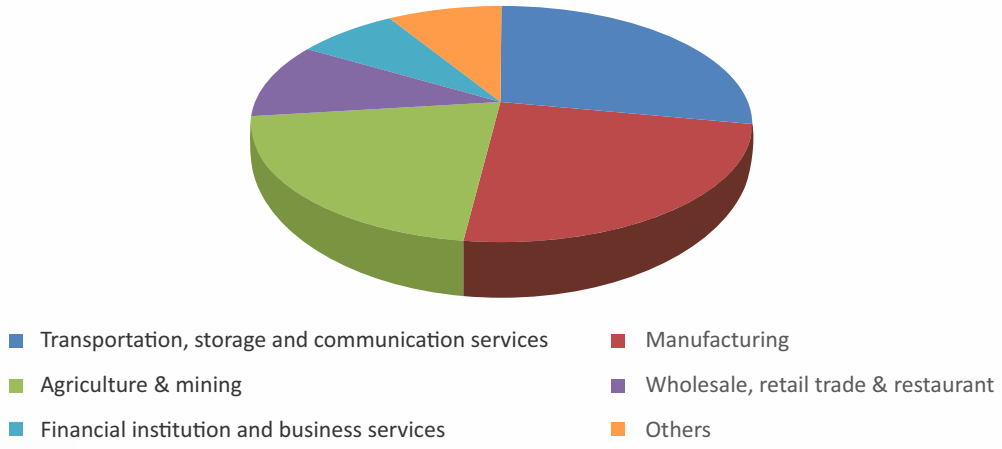
Hungary is keen to promote cooperation between MOL, the Hungarian Oil Company, and ONGC, particularly in the area of joint exploration, where MOL claims to have new technology and expertise.

Indian Investments In E29 Economies

Outbound investments from India have undergone a considerable change not only in terms of magnitude but also in terms of geographical spread and sectoral composition. Outbound FDI from India stood at $1.86 billion in the month of June 2016 as against $2.69 billion in May 2016 and $1.92 billion in June 2015.

There has been a perceptible shift in investment destinations in the last decade or so. While in the first half, overseas investments were directed to resource rich countries such as Australia, UAE, and Sudan, in the latter half, investments came to be directed to countries providing higher tax benefits such as Mauritius, Singapore, British Virgin Islands, and the Netherlands.

Fig: 5 Key sectors - India's outbound FDI



In terms of sectors, transportation, storage and communication services drew maximum investment outflows from India (28%). Companies have also been actively investing in sectors such as manufacturing (24%), agriculture & mining (21%), wholesale, retail trade & restaurant (10%), financial institution and business services (8%).[79]

Indian firms invest in foreign shores primarily through mergers and acquisition (M&A) transactions. With rising M&A activity, companies will get direct access to newer and more extensive markets, and better technologies, which would enable them to increase their customer base and achieve greater global reach.[80]

Down the years, several Indian companies have invested in E29 economies, more so as these economies offer significant incentives to investors, such as, tax exemptions, greater market access and a liberal investment regime. The incentives are principally offered in priority sectors such as R&D, infrastructure, construction, transport, Greenfield projects, communication and energy.

Key Indian private investments in the region are as follows:

Austria: Key industries in Austria are agriculture and forestry, food and drink, mechanical and steel engineering, chemicals, automotive, electrical engineering and electronics, wood, pulp and paper. The Austrian government has directed sharper attention on manufacturing, infrastructure development, R&D and education, service industries, telecommunication, transportation, retail, banking, and tourism. All these sectors in turn offer attractive investment opportunities.

The Austrian government offers tax incentives and R&D subsidies for FDI involving substantial transfer of important technology and job opportunities. The government also offers grants for later-stage R&D activities by companies.

Czech Republic: Czech Republic has advanced manufacturing capabilities in areas like auto parts manufacturing, R&D, biotech, hi-tech engineering and wages are much lower than those in western Europe. Key business sectors in Czech Republic are agriculture, automotive industry, electrical and electronic industry, financial services, construction, and retail. To spur investments, the government offers 10-year full corporate income tax relief for greenfield investments and 10-year partial tax relief for brownfield investments, provision of industrial property on discount, financial support for the creation of new jobs and financial support for the re-qualification of employees.

[79] http://www.ibef.org/economy/indian-investments-abroad

[80] http://www.ibef.org/economy/indian-investments-abroad

Indian companies have invested in Czech Republic in sectors like IT, vehicles, tea, textile, pharmaceutical, auto-components. Infosys, Ashok Leyland, Tata Tea, Alok Industries, Spentex Industries, Motherson Sumi Systems Limited, Glenmark Pharmaceuticals, Lloyd Group, Lloyd Electric and Engineering Ltd, PMP Components Ltd, are among the early movers.

Hungary: Hungary has offered to "incentivise" Indian companies that might leave the U.K. as the EU is unlikely to subsidise UK-based international companies for long in the wake of the Brexit referendum. Mr Peter Szijjarto, Minister of Foreign Affairs and Trade of Hungary, told The Hindu: Hungary is no longer comfortable with "ivory tower" policy makers of the EU and is therefore looking for new partners like India who can strengthen its economy.[81]

"Recently, Indian companies have begun to explore Hungary as a perfect location for investment. We have an excellent skilled labour force which is needed for high-tech companies. Our tax system favours those companies which employ more people. We have given tax benefits to investors. We have already incentivised Indian companies who invested in Hungary and will do so other Indian companies," he said.

Key Hungarian industries are automotive industry, information and communication technology, pharmaceuticals, chemicals, and financial services. To bring in FDI, the government offers development tax allowance, whereby, up to 80% of the corporate income tax payable every year can be foregone for a period of 10 years.

Indian investments in Hungary are witnessing an upswing in recent years. Investment flows are spread over sectors such as IT, pharmaceuticals, power equipment, auto-components and food processing. Indian companies in Hungary include Sun Pharma, Crompton Greaves, SMR, Bakony Wipers, Orion, Hema Engineering and Cosmos. Jet Air has opened an off-line office in Budapest. Several IT companies like TCS, Mahindra-Satyam, Genpact and Cognizant have established their operations in Budapest.

Indian IT companies have considerable expertise on e-governance issues and are keen to participate in Hungarian government projects for e-governance that are financed through EU funds. Indian IT companies in Hungary benefit from multiple language / computer skills and low wage rates of Hungarians as well as the geographical location of the country in the heart of Europe. Hungary itself is becoming a major source of export of ICT services and products, mainly to other European countries. Hungary's long term development goal is to become a 'knowledge' economy.

[81] http://www.thehindu.com/news/national/hungary-welcomes-brexithit-indian-firms/article8812319.ece

The Hungarian pharmaceutical sector offers significant opportunities for cross-border partnerships. As Hungary tries to reduce the burden of its public healthcare system and health subsidies on the Hungarian public exchequer, they are encouraging use of cheaper generic drugs, a sector where India has a significant advantage.

Poland: Key Polish industries are automotive, agricultural production, construction, and financial services. The Polish Government offers income tax & local tax exemption in its special economic zones (SEZ), and also cash grants for strategic investors. Indian investments in Poland add up to $3 billion and more. Leading Indian companies operating in Poland are ArcelorMittal, Videocon, Escorts, Strides Arcolab, Reliance Industries, Ranbaxy, Essel Propack, KPIT Cummins, Zensar Technologies Ltd, Infosys and Wipro, Jindal Stainless, Berger Paints India, UFLEX Glenmark Pharmaceuticals, Flemingo Duty Free, Rishabh Instruments, etc.

Looking ahead, India and Poland could explore synergies in the following sectors: agri and food processing, automobiles and engineering, coal and mining, defence and R&D, green technologies, ICT, pharmaceuticals and healthcare, nuclear energy, skill development, smart cities, and textiles and apparels.

Turkey: In an interview to The Hindu, Turkey's Development Minister, Mr Lütfi Elvan said: "While there is a standardised general incentive policy for investors, Turkey now has 'tailor-made' incentives for investments that help Turkey meet its economic development plans including reducing foreign dependency and bringing technological advancement".[82]

Such incentives will include up to 100% discount in corporate tax, allocation of public property for up to 49 years without rent obligations and free ownership transfer of such property on meeting certain conditions, social security payment exemption for ten years and the government helping out by taking a 49% stake in investment company on the condition that such holding will be offered to public in ten years.

Stating that Turkey is a world leader in PPP projects, Mr Elvan said that Turkey has around 211 PPP projects worth $122 billion including $66.8 billion in airport sector and $25 billion in the energy industry. Turkish authorities are seeking FDI in a big way with emphasis on investments that create new jobs and bring in know-how. Investments in information and communications technology, machine tools, machinery, metal processing, logistics and automotive industry, food processing, pharmaceuticals, energy, services and infrastructure are being particularly encouraged.

[82] http://www.thehindu.com/news/national/turkey-wants-india-to-start-fta-talks-soon/article9306162.ece?w=alauto

More than 150 Indian companies have registered businesses in Turkey in the form of joint ventures, trade and representative offices. They include Polyplex, GMR Infrastructure, TATA Motors, Mahindra & Mahindra, Reliance, Ispat, Aditya Birla Group, Tractors and Farm Equipment, Jain Irrigation, Wipro, Dabur, Kalpataru, Punj Lloyd, Indian Oil, etc.

Romania: Key Romanian industries are automotive manufacturing, pharmaceuticals, real estate and constructions, and financial services. The Romanian Government offers tax exemption on reinvested profit, special incentives for expenses related to R&D, dividend tax exemption for reinvestments, reduced VAT rate of 5% for the sale of buildings, local tax exemptions for businesses located in industrial parks or scientific and technological parks.

The Romanian government is focusing upon restructuring their state-owned enterprises (SOEs) under private management, liberalisation of energy prices for commercial customers, and attracting greenfield investment, particularly in renewable energy, inclusion of reforms in the healthcare system, deregulation of energy prices and the sale of some government holdings in the energy sectors, expansion of the trans-European transport network (TEN-T), and prioritising the construction of a motorway from the Black Sea port of Constanta to Nadlac on the Hungarian border, as part of the Pan-European Corridor IV motorway.

Switzerland: Key Swiss industries are financial services, machinery, chemicals & pharmaceuticals, and tourism. The Swiss government offers investment incentives in the form of a Federal Tax holiday to companies boosting the economy in specific regions of Switzerland. Most cantons in the country also grant tax holidays to companies bringing economic value-added functions and creating significant new jobs. Mr Linus von Castelmur, Ambassador of Switzerland to India and Bhutan said in 2015 that Switzerland could be the gateway to Europe for Indian companies.[83]

Indian biotech and IT firms have opened offices in Switzerland. Besides, every, 20-30 Indian films are shot in Switzerland. It is a favourite spot with Indian film makers. Leading European bourse SIX Swiss Exchange is courting Indian life sciences and specialty chemical firms to get listed on its platform and has reached out to over 200 firms in the country for their IPOs.[84] "We are targeting players from pharmaceutical, biotech,

[83] http://www.thehindu.com/news/national/karnataka/switzerland-can-be-the-gateway-to-europe-for-indian-companies/article6790918.ece

[84] http://www.dnaindia.com/money/report-european-bourse-reaches-out-to-200-indian-life-sciences-biotech-firms-for-ipos-2206330

healthcare and medtech sectors for listing on our platform. Besides, we are focusing on companies which provide services to these sectors," SIX Swiss Exchange Head Issuer Relations, Mr Marco Estermann said.

Slovenia: Key Slovenian industries are automotive, chemical and pharmaceuticals, electrical and electronics, information and communication technology, machining and metalworking. Slovenia has invited Indian investments in sectors such as mining, tourism and IT. Slovenia ranks 76th in terms of investment with cumulative FDI inflows into India amounting to $8.24 million (April 2000 – December 2013).

Croatia: Key Croatian industries are chemicals, food and beverages, and tourism. To draw investments, the Croatian government offers reduced taxable base for 10 years ranging from 50% to 100% depending on volume of investments and number of new employees hired during the year. The government also offers 10%-20% of the eligible costs of investments for construction of the new factory, production facility or tourist facility or buying of new machines depending on the amount of investment.

Bulgaria: Key industries in Bulgaria are mining and semi-processing, construction, tourism, and financial services. The Bulgarian government offers part or full reduction in amount of annual corporate income tax due by entities on their profits from manufacturing activities carried out in municipalities with high unemployment.

Looking ahead

Expansion of India-E29 investment relations is contingent on:

- Robust cross-border information flows on bilateral investment opportunities
- Exchange of business and investor delegates and missions
- Improvement in Ease of Doing Business in India and E29 economies
- Joint R&D research initiatives and joint initiatives in value-added manufacturing
- Bilateral and multilateral partnerships for technology sharing, skill development
- New partnerships among Indian and E29 young entrepreneurs



4 INDIA-CYPRUS ECONOMIC TIES – BUILDING ON THE GAINS



INDIA-CYPRUS ECONOMIC TIES – BUILDING ON THE GAINS

Bilateral Investment Ties

In August this year India and Cyprus revised the Double Taxation Avoidance Agreement (DTTA), ending a period of uncertainty that marked the bilateral economic ties since 2013. According to the new DTTA, Indian Government will have the right to tax capital gains on investments routed through Cyprus prospectively from April 1, 2017. The agreement also includes a provision for assistance in collection of taxes and exchange of information.

Down the years several major Indian companies have invested in Cyprus or participated in key Cypriot development projects. BHEL, PEC, Tata Projects Ltd, Bharati Shipyard Pvt Ltd, and Reliance Globalcom are some of the big Indian companies that have made a mark in Cyprus.

At a project level, BHEL had won a contract worth $34 million for the supply of 2 x 60MW turbine generators and ancillary equipment for the Dhekelia power station which has been completed. Tata Exports Ltd had won a contract worth $1.3 million from the Cyprus Petroleum Refinery for supply of roof tanks and associated pipe work. Bharat Ship Yard (P) Ltd has supplied three tug boats worth $15 million to the Cyprus port Authority. PEC had supplied ammunition worth $1 million to the Cypriot National Guard. Tata Projects Ltd teamed up with Austrian Energy as sub-contractor for the erection of boilers at the 240MW Vasilikos Power Station in southern Cyprus and the project has been completed.

India's cumulative investments in Cyprus added up to an estimated $60 million. Now, with the revised DTTA in place, many more Indian companies would be encouraged to invest in Cyprus.

Cyprus has sought Indian collaboration for setting up R&D projects and technology parks in the country. Oil and gas exploration is another area where Cyprus has sought Indian investments and capabilities. Pharmaceuticals manufacturing, financial services and tourism are some of the other sectors where joint ventures and collaborative arrangements could be established. Notably, Cyprus is among the top 10 investors in India. Cumulative investments from Cyprus were $8.55 billion. The bulk of Cypriot investments in India were seen in the construction sector **(See Fig 1)**.

Fig 1: Top sectors attracting FDI equity inflows from Cyprus
(April 2000 – March 2016)

Sector	FDI (in $ mn)	% age of FDI equity inflows from Cyprus
Construction development: Townships, housing, built-up infrastructure and construction-development projects	3,983.96	46.58
Services Sector	900.66	10.53
Automobile Industry	517.55	6.05
Hotel & Tourism	416.09	4.87
Metallurgical Industries	347.81	4.07
Total	**6,166.07**	**72.10**

Source: DIPP, Government of India

Bilateral Trade Flows

India's trade with Cyprus increased several fold in the period 2005-06 to 2008-09 as imports from Cyprus marked an unprecedented rise due to import of ships, boats and floating structures. Thereafter, the imports and exports declined sharply. Bilateral trade flows once again saw an uptrend in 2010 and 2011.

In 2015-15, total trade between India and Cyprus grew by over 46% to $107.98 million as imports from Cyprus marked an unprecedented rise to 111% due to import of tankers worth $31.04 million from Cyprus.

Major items of exports from India to Cyprus include organic chemicals, oil seeds, oleagi fruits, fish and other aquatic invertebrate, vehicles and accessories, and iron and steel, whereas major items of import from Cyprus include machinery & mechanical appliances, iron & steel aluminium and articles thereof, pulp of wood/other fibrous materials, engines, electrical machinery, ammunition, optical plastic, etc.

Total bilateral trade flows in the last three years is presented in Fig 2 (below).

Fig 2: India's total trade with Cyprus (2013-14 to 2015-16)

	2013-14	2014-15	2015-16
Indian exports to Cyprus	61.57	51.11	59.80
% growth	11.95	(-) 16.98	16.99
Indian imports from Cyprus	20.31	22.82	48.18
% growth	(-) 8.26	(-) 0.48	(-) 14.96
Total trade	81.88	73.94	107.98
% growth	7.36	(-) 9.70	46.04

Looking Ahead

The Cypriot economy is in transition. The Cypriot authorities have cancelled their financial arrangement with the IMF, which was set to expire in mid-May, after having turned around the domestic economy[85].

"Cyprus regained access to international financial markets barely 16 months after the crisis and has successfully issued debt three times since then. That puts the country in a good position. Nonetheless, Cyprus is a small open economy, and is therefore dependent on external demand and capital inflows from abroad," Cyprus Mission Chief's Rachel van Elkan was quoted in an interview article published on the IMF website.

The European Commission expects growth to maintain momentum in Cyprus in the course of 2016 and 2017 (1.6% and 2%) and the debt to GDP ratio to drop to 105.4% in 2017, while the budget will retain positive primary balance of 2.2% and 2.4% respectively[86].

The Commission has noted that growth has resumed in Cyprus and was expected to slowly gain strength with labour market conditions improving in parallel. The economy continues to benefit from low energy prices. Service exports, in particular tourism, appear resilient to the challenging external environment. The general government balance is also expected to improve, supporting debt reduction. Investment, particularly in transport equipment, increased rapidly in 2015, mainly reflecting an elevated number of ship-registrations. Further, declining consumer prices could support consumption and exports more than expected.

[85] https://www.imf.org/en/News/Articles/2015/09/28/04/53/socar031516a

[86] http://www.sigmalive.com/en/news/economy/144580/eu-cyprus-growth-to-be-maintained-in-2016-and-2017

Developing offshore hydrocarbon resources remains a critical component of the government's economic recovery efforts, but development has been delayed as a result of regional developments and disagreements about exploitation methods.

A shift towards external demand as a source of growth relative to domestic demand is also expected to facilitate a reversal of the economy's savings-investment position and help unwind current imbalances.

Tradable services sectors, which rely significantly on external demand, are leading the recovery, while activity in the construction and real estate sectors remains subdued.

To revive its potential, Cyprus has put forward a list of pro-growth reforms that form the basis for the Cypriot Action Plan for Growth. The plan hinges on improving framework conditions for businesses, strengthening human capital and stepping up high quality investment projects, including those supported by EU initiatives and EU funds to increase the export potential of the economy and its ability to attract foreign investment. Combined with growth-enhancing privatisations, reform of the energy sector, and more incentives to innovation, this is set to help Cyprus boost investment and export growth and unwind its current imbalances[87].

Indian companies will see a raft of new investment opportunities in Cyprus as the island nation forties its economy and ushers in growth-oriented policies. A robust Cypriot economy will also positively impact Cypriot FDI inflows into India.

[87] FICCI report on India Cyprus Bilateral Relations, 2016

5 PARTNERING WTH THE NORDIC ECONOMIES



PARTNERING WTH THE NORDIC ECONOMIES

The Nordic region covering Denmark, Finland, Norway, Sweden and Iceland is a highly varied regional economy. The Nordic countries stand for a "universalist" welfare state aimed specifically at enhancing individual autonomy and promoting social mobility while promoting widespread private ownership, free markets and free trade[88].

Fig 1: A comparative view of GDP growth of Nordic region vis-à-vis Global GDP growth

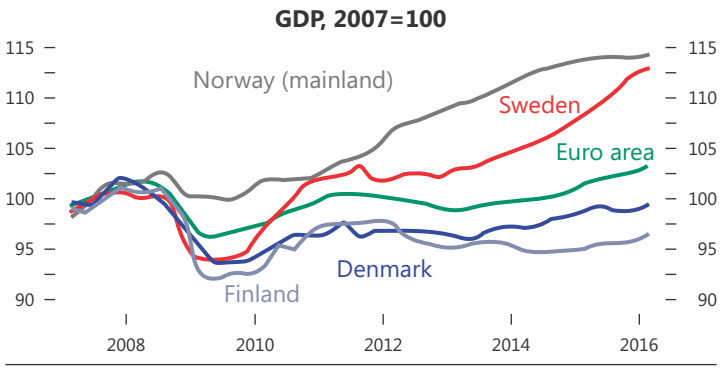
Global GDP growth

Year-on-year percentage change

	2014	2015	2016	2017
United States	2.4	2.4	1.9	2.5
Japan	0.0	0.6	0.5	0.5
Germany	1.6	1.7	1.7	1.8
China	7.3	6.9	6.5	6.3
United Kingdom	2.9	2.2	1.9	2.3
Nordic Countries	1.6	2.2	2.2	2.0
Baltic Countries	2.8	1.8	2.6	3.1
OECD	1.9	2.1	1.9	2.3
Emerging Markets	1.7	3.9	4.1	4.7
World, PPP*	**3.4**	**3.1**	**3.1**	**3.7**

Source: OECD, SEB *Purchasing power parities

Fig 2: A comparative view of GDP growth of Nordic economies



Source: OECD

[88] https://en.wikipedia.org/wiki/Nordic_model

India shares cordial political, diplomatic and economic ties with all the Nordic countries, complemented by bilateral partnerships in sectors like renewable energy, mining, science and technology, ICT and R&D. This chapter presents an analytical overview of India's bilateral engagements with each of the Nordic economies:

India-Denmark Partnerships

World Bank has ranked Denmark first in Europe in their 'Doing Business Report'. Denmark ranks in the top 20 in all but one of the 11 metrics used to measure the Best Countries for Business. The country excels in categories like freedom and low corruption, and has one of world's most transparent and efficient governance system.

The Danish government has unfurled several initiatives to enhance the ease of doing business in the country. The Danish workforce is also among the most productive in Europe and there are no restrictions within the country with regard to overtime work; so companies can operate 24 hours a day, 365 days a year.

Denmark is home to leading companies in industries like pharmaceuticals, transportation, and wind energy. The year 2015 saw a record number of foreign countries investing in Denmark. The strong Danish cleantech and ICT/tech industries attracted the highest number of investments in 2015; life sciences, the maritime sector, foods and design are the other key industries in Denmark that foreign investors seek to tap into[89]. Smart city and data centres are two relatively new strategic focus areas where 'Invest in Denmark' experiences are in high demand.

India and Denmark are exploring the opportunities for joint initiatives to develop smart cities in India. Currently valued at $2.2 billion, India's data centre infrastructure market is expected to touch $4.5 billion by 2018 and become the second-largest market for data centres in Asia-Pacific by 2020 and investments in this space are expected to reach $7 billion, according to a report by Internet and Mobile Association of India (IAMAI)[90].

In June 2015 the Indian government presented its ambitious '100 Smart Cities' mission, which focuses on sustainable urban development in 100 cities across India. The Danish Embassy in India has since launched four Smart City reports at a seminar in Asia House in Copenhagen on June 8, 2016 which gave recommendations on how Danish companies can make their solutions applicable to the Indian Smart Cities and utilise the opportunities in the Indian urban development market.[91]

[89] http://um.dk/en/news/NewsDisplayPage/?newsID=EA3F4D2B-1CF7-4000-BBF5-67C52F30FAFF

[90] http://www.gadgetsnow.com/tech-news/Data-centre-market-in-India-to-touch-4-5-billion-by-2018-IAMAI/articleshow/52438691.cms

[91] http://indien.um.dk/en/about-us/news/newsdisplaypage/?newsid=1b83b86a-4fea-4249-b55b-528d248cf68d

Danish investments in the Indian market cover sectors like harbour/port modernisation and expansion, beer breweries, wind turbine, agro-intermediates and engineering.[92] There is scope for additional investments in renewable energy, pharmaceuticals, food processing, shipping, electronics and infrastructure sectors.

India-Finland Partnerships

Finland has a highly industrialised, mixed economy with a per capita output that matches western economies like France, Germany, Sweden and the UK. Services constitute the largest sector of the economy (72.7%), followed by manufacturing and refining at 31.4%.

Finland's manufacturing sector is dominated by industries covering electronics, machinery, vehicles and other engineered metal products, forest industry and chemicals. The Finnish economy topped the ranking in the Global Information Technology 2014 report released by the World Economic Forum[93].

The Finnish workforce is experienced and exceptionally well educated. In 2015, the World Economic Forum estimated that Finland has the best human capital in the world in terms of education, well-being and employment. According to OECD (Education at a Glance 2016), the highest performing graduates in Europe come from Finland. Due to a structural change in the Finnish ICT sector, there is now a unique opportunity to engage top talents. Many foreign companies have established R&D operations in Finland, benefitting from a large pool of highly educated professionals and a wide range of supporting services[94].

There are some 25 Indian companies operating in Finland in diverse sectors like IT, healthcare and tourism. In an official bilateral discussion that took place in Mumbai in February 2016, Prime Minister of India, Mr Narendra Modi mentioned that several initiatives including Ease of Doing Business have been taken to bring about consistency, clarity and predictability in India's policies.[95]

There are more than 100 Finnish companies established in India. Many of the Finnish companies in India have manufacturing plants in the country and are truly 'Make in India' companies. Several Finnish companies are engaged in the renewable energy and

[92] http://www.indiavision.dk/images/india_supplement_print_media.pdf

[93] https://en.wikipedia.org/wiki/Economy_of_Finland

[94] http://www.investinfinland.fi/business-opportunities

[95] http://team.finland.fi/documents/10616/1266558/Joint-statement-Finland-India-2016.pdf/cf36df83-96e0-4719-ae1b-5ba349c28925

clean-tech segments. A Finnish energy company already owns two solar power plants in India and has won a bid to build a third one. A Finnish mobile phone network manufacturer has an R&D centre in India that employs 6,000 people and their equipment serves 280 million mobile phone subscribers.

The Indian solar market is growing in size. The Indian Government has shown a strong commitment to promote renewables and its push towards solar energy is beginning to show results. At the end of 2015-16, solar represented 2.55% of net installed power generation capacity in India, up from 1.4% a year ago, and was the fastest growing new energy source in the country. Solar accounted for 17.4% of all renewable energy generation in 2015-16 compared to 10.5% in 2014-15.[96]

Fortum, a Finland-based company, has announced plans to invest €200-400 million to increase operational assets in India in solar power sector. The company currently operates 15MW of solar power capacity, and recently secured rights to develop a 70MW project in a solar power park in Rajasthan. Fortum is now planning to bid for an additional 100 MW of capacity.[97]

India-Norway Partnerships

Norway, western Europe's top oil and gas producer, has been hit by the 70% fall in crude prices since mid-2014. Otherwise, Norway is a politically stable, modern and highly developed country with a very strong economy. The country is open to foreign investments. Foreign companies represent about 25% of all value-creation being done in Norway and account for 20% of total employment[98].

Key factors that induce companies to invest in Norway are availability of natural resources like oil and gas, marine resources, hydropower and forest resources, etc. Norway also provides innovative work place, a competent work force and egalitarian values stimulate innovation.

Norway is a leader in areas like aquaculture, maritime industries, hydropower generation, telecommunications, etc. India could partner Norway in areas like alternative energy development.

Both India and Norway have taken steps to counter the challenges of climate change. The Norwegian Embassy in India has signed a Framework Agreement on Climate

[96] http://economictimes.indiatimes.com/articleshow/52639406.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst

[97] https://cleantechnica.com/2016/04/22/finlands-fortum-invest-e400-million-indian-solar-market/

[98] https://www.thebalance.com/guide-to-investing-in-norway-1979041

Change and Sustainable Development with The Energy and Resources Institute (TERI).[99] The overall goal of the agreement is to move the growth and development of India's economy to a path that addresses adaptation and mitigation aspects of climate change, leading to sustainable development, with focus on efficient resource utilisation. The implementation of the project will lead to identification of interventions and strategies needed to address adaptation and mitigation aspects of climate change.

In the skill development sector, in a bid to strengthen the startup culture in India, a Norway-based oil and petroleum firm is expanding its operations in the country to provide long-term financial, skill and emotional support to new Indian IT businesses.[100]

Norway is one of the biggest exporters of salmon to various countries, including India and therefore Norway has evinced interest to collaborate with West Bengal in the fisheries sector in the near future both in terms of technology and research and development.[101]

India-Sweden Partnerships

Sweden has a large multilingual, qualified workforce, very high per capita purchasing power, economy at the forefront of new technologies and innovation. The Swedish Government has directed focused attention on sectors like biotechnologies and food processing and rapidly growing markets like the Baltic countries, India, Brazil, etc. Sweden is ranked 8th out of 189 in the 2016 Doing Business report issued by the World Bank.

Around 50 Indian companies including 20 IT companies are present in Sweden. The main industries in Sweden include motor vehicles, telecommunications, pharmaceuticals, industrial machines, precision equipment, chemical goods, home goods and appliances, forestry, iron, and steel that provide Indian companies avenues to invest.[102]

With Government of India's "Make in India" campaign, 70% of Swedish manufacturing companies in India consider the country a hub, nationally and as a base for exports. There are around 160 Swedish companies operating in India employing 160,000 people directly and 1.1 million indirectly. Swedish bus-maker Volvo has given credit to 'Make in

[99] http://www.norwayemb.org.in/News_and_events/News-and-Events/Norway-and-TERI-sign-new-agreement-on-Climate-Change/#.WCoKwTIw1AY

[100] http://economictimes.indiatimes.com/articleshow/50379957.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst

[101] http://indiatoday.intoday.in/story/norway-may-collaborate-with-bengal-in-fisheries-sector/1/790833.html

[102] https://en.wikipedia.org/wiki/Economy_of_Sweden

India' and the 'Digital India' initiative will also draw greater Swedish investment in India. Volvo will soon export the first batch of its India-made buses to Europe.[103]

India-Iceland Partnerships

Iceland's economy is highly diversified with core strengths in sectors like tourism, ICT, biotechnology, medical devices and food processing technology. The country has abundant hydropower and geothermal resources that have drawn overseas companies to invest in the country's electricity-intensive sectors like aluminium smelting, data centre, etc.

India and Iceland have taken steps to boost bilateral cooperation in climate change mitigation -- continued scientific cooperation aimed at understanding the implications of climate change on ice covers and glaciers in the two regions.[104]

Tourism is the largest foreign exchange earner for Iceland – growing at 16-18% annually with 1.5 million tourist arrivals every year[105]. Iceland is seeing a steady increase in Indian visitors, thanks to Indian film industry; the country invites Indian companies to invest in the hospitality sector in Iceland.

India's plan to step up renewable energy capacity to 175GW by 2022 has induced European geothermal energy producers to seek licences to set up generation plants in India. Iceland, a major player in this sector, is seeking licences to set up two power plants in India—a 5MW plant at Pagu in the Ladakh region of Jammu and Kashmir and a 10MW plant at Tattapani in Chhattisgarh.[106] Icelandic companies have the expertise and experience in harnessing geothermal energy.

[103] http://www.cntraveller.in/story/whats-driving-swedish-companies-to-india/#s-custtetra-pak

[104] http://timesofindia.indiatimes.com/city/delhi/India-Iceland-agree-to-facilitate-trade-and-economic-partnership/articleshow/51701830.cms

[105] http://www.thehindu.com/features/cinema/iceland-wooing-indian-film-industry/article9129237.ece

[106] http://www.livemint.com/Industry/74YK2SI5rXK8Yu8dK8XIpN/Europes-geothermal-power-producers-eye-Indian-market.html

6 COOPERATION AT THE INTERSECTION OF TECHNOLOGY & BUSINESS



COOPERATION AT THE INTERSECTION OF TECHNOLOGY & BUSINESS

India – Demonstrating Leadership

India has much to be proud of its scientific and technological developments as its treaty with science can be traced back to the early stages of human civilisation. India was the fountainhead of important scientific developments and approaches that cover many great scientific discoveries and technological achievements in mathematics, astronomy, architecture, chemistry, biotechnology, metallurgy, medicine, natural philosophy and other areas. From the invention of zero to being the first nation to reach Mars on its initial attempt, India has many outstanding technological achievements to its credit.

Since the establishment of the Council of Scientific and Industrial Research (CSIR) in 1942 by Government of India, the country has marched ahead expeditiously towards making history in numerous science and technology fields, and today, India is among the topmost countries in the world in the field of scientific research.

At present, the country has 17 Indian Institutes of Technology (IITs), 31 National Institutes of Technology (NITs), 677 universities awarding about 29,000 doctorate degrees, and about 40 research laboratories run by CSIR. India is among the world's top 10 nations in terms of the number of scientific publications. Position-wise, India is ranked 17th in the number of citations received and 34th in the number of citations per paper across the field of science and technology (among nations publishing 50,000 or more papers). The country is ranked ninth globally in the number of scientific publications[107] and 12th in the number of patents filed. India has been the forerunner among developing countries in promoting multi-disciplinary activities in the field of biotechnology.

In a recently concluded event of the Indian Science Congress, Prime Minister of India, Mr Narendra Modi called on Indian scientists to keep the economy, environment, energy, empathy and equity at the heart of their endeavours in the interest of impactful

[107] www.ibef.org/industry/science-and-technology.aspx

science. "The impact of science will be the most when scientists and technologists keep the principles of what I call Five Es (economy, environment, energy, empathy and equity) at the centre of their enquiry and engineering," the Prime Minister told the delegates from Indian universities and eminent world scientists who had gathered at the Mysore University.

India is taking strident steps in the new technologies space too. For instance, India's analytics industry is expected to touch $16 billion by 2025 from the current $2 billion, according to the National Association of Software and Services Companies (Nasscom).[108]

Government of India has set out to invest 2% of the country's GDP in scientific R&D under the 12th Five-Year Plan period (2013–17), translating into sustained increase in Plan allocations for scientific departments, setting up of new institutions for science education and research, launch of the Science, Technology and Innovation Policy 2013, creation of centres of excellence for research and facilities in emerging and frontline science and technology areas in academic and national institutes, establishment of new and attractive fellowships, strengthening infrastructure for R&D in universities, encouraging public-private R&D partnerships, recognition of R&D units, fiscal incentives and support measures for enhancing industry participation in R&D.

Government of India, through the Science, Technology and Innovation (STI) Policy 2013, among other things, aspires to position India among the world's top five scientific powers. India figures among top five nations in areas like missile technology development and space exploration. As a case in point, the Indian Space Research Organisation's (ISRO) Polar Satellite Launch Vehicle-C35 (PSLV-C35) has successfully placed eight different satellites in a single rocket mission, including SCATSAT-1 for weather related studies, five foreign satellites and two satellites from Indian academic institutes into orbit.

Some of the key developments in the Science & Technology spectrum in India that would be of the essence to E29 economies are:

IT/ITeS

India accounts for ~67% of the $124-130 billion global market, employing about 10 million people. This industry has led the economic transformation of the country and altered the perception of India in the global economy. The Indian IT/ITeS industry has four major segments – IT Services, Business Process Management (BPM), Software Products and Engineering Services, and IT Hardware.

[108] www.ibef.org/industry/science-and-technology.aspx

The $143 billion IT-BPM sector was expected to grow at a CAGR of 8.3% YoY in 2015-16, and contribute 9.5% of India's GDP and more than 45% in total services export in 2015-16. However, the sector has been impacted by increased protectionism in different countries even as India was being urged to open up its markets under various trade agreements, says Government of India's Economic Survey for the period 2015-16.[109]

Some of the major initiatives taken by the Indian Government to promote the IT/ITeS sector are to increase the number of common service centres or e-Seva centres to 250,000 from 150,000 currently to enable village level entrepreneurs to interact with national experts for guidance, besides serving as a e-services distribution point; extension of e-Tourist Visa (e-TV) scheme to 37 more countries thereby taking the total count of countries under the scheme to 150 countries; development of five incubation centres for 'Internet of Things' (IoT) start-ups, as a part of Prime Minister Narendra Modi's Digital India and Startup India campaigns, with at least two centres to be set up in rural areas to develop solutions for smart agriculture.[110]

The European countries have a comparative advantage in technology and R&D, which can be beneficial for India. Trade complementarities have accentuated movement of IT professionals between the two regions and the presence of Indian and E29 companies in each other's territories has increased.

Europe is the second largest market for the Indian IT/BPO industry, contributing almost 30% of the Indian IT industry's export revenue.[111] Poland is one strong potential partner in this space – having recorded significant digital success stories. Poland has already produced a number of global tech startup successes, social learning network Brainly being one of them. Poland is on track to become a major tech startup hub.

Renewable Energy

In the renewable energy sector, Government of India plans to pursue a green path to growth by doubling investment in clean energy research to $145 million in the next five years from current investment of $72 million.[112] RD&D efforts are directed towards process/ technology development and demonstration with emphasis on cost reduction and improving efficiency.

[109] http://economictimes.indiatimes.com/tech/ites/economic-sur vey-2016-protectionism-impacting-143-bn-indias-it-bpm-sector/articleshow/51155573.cms

[110] http://indiainbusiness.nic.in/newdesign/index.php?param=industryservices_landing/395/3

[111] http://economictimes.indiatimes.com/tech/ites/indian-it-firms-face-spending-cut-disruption/articleshow/52910401.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst

[112] www.ibef.org/industry/power-sector-india.aspx

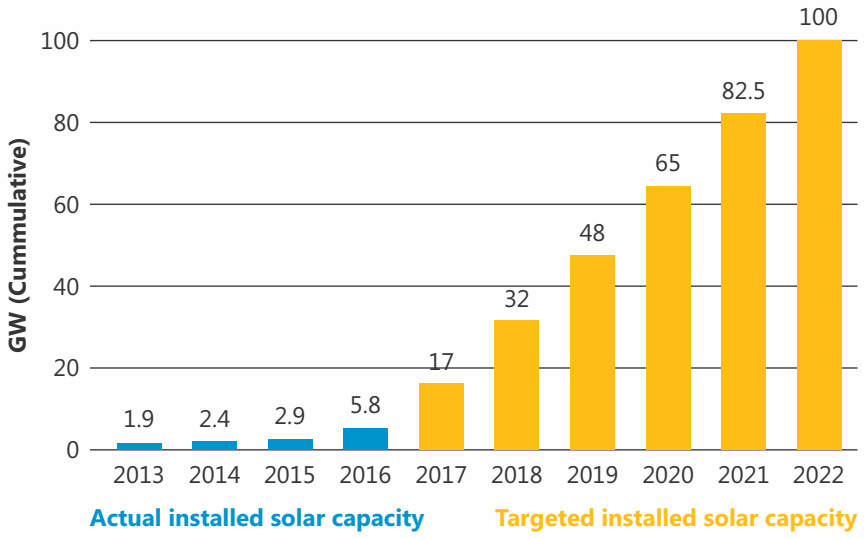
The Ministry of New and Renewable Energy (~$7.75 million / Rs 525 crore), Government of India has strengthened the capacity and capability of R&D/academic institutions and industries for carrying out R&D for technology development and demonstration in the new and renewable energy sector. As much as (~$5.7 million / Rs 417 crore) has been spent on R&D by the MNRE Ministry until December 2015 in the proportion given in table below.

Fig 1: Proportion of funds allocated for development of new and alternative energy sources under the MNRE Ministry, Government of India (until Dec 2015)

Project Area	Amount spent (in Rs crore)	Proportion of investment (%)
Solar energy	259.32	62.2%
Wind energy	65.93	15.81%
Bio-Energy	36.182	8.67%
Small Hydro	16.55	4%
New Technology(Hydrogen & Fuel Cell)	39.0	9.35%

Source: MNRE Ministry, Government of India

Fig 2: India's plan to drive solar energy apacity



Notes: FY=All years in chart are fiscal year from April 1 to March 31; 1 GW=1,000 MW.
Sources: Bloomberg New Denergy Finance (BNEF); The Economic Times.

Source: World Resources Institute

The European Union's Renewable Energy Directive sets a binding target of 20% final energy consumption from renewable sources by 2020. This impacts the energy outlook of E29 economies as well. To achieve this, many countries have committed to reaching their own national renewables targets ranging from 10% in Malta to 49% in Sweden. They are also each required to have at least 10% of their transport fuels come from renewable sources by 2020.[113] All EU countries have adopted national renewable energy action plans showing what actions they intend to take to meet their renewables targets. These plans include sectorial targets for electricity, heating and cooling, and transport; planned policy measures; the different mix of renewables technologies they expect to employ; and the planned use of cooperation mechanisms.

With respect to the objectives set by the EU 20-20-20 strategy, nine European countries have already reached the level required to meet their national renewable energy targets for 2020: Bulgaria, Czech Republic, Estonia, Croatia, Italy, Lithuania, Romania, Finland and Sweden. Moreover, Denmark and Austria are less than 1 percentage point from their 2020 targets[114]. More than half of Norway and Sweden's energy consumption now comes from renewable sources - ten times the proportion in the UK[115].

Clean Technologies

Clean technologies are key to inclusive growth in India and will have a major bearing on the country's energy security, climate change mitigation and environment protection. Every sector of the economy, be it industry, agriculture, services, or infrastructure, has the potential for clean technology interventions.

Government of India has directed focus on generating energy through renewable energy sources. The Government has decided to spend $20 billion for hydro projects by 2020 and $200 billion to add 150GW of power capacity over a period of 5 years[116].

India also has an ambitious plan to cut emissions by up to 35% of year 2005 levels and source 40% of the total electricity demand from solar and other renewable sources by year 2030.

[113] https://ec.europa.eu/energy/en/topics/renewable-energy

[114] http://climateobserver.org/nine-eu-countries-achieved-2020-renewable-energy-target/

[115] www.telegraph.co.uk/news/earth/energy/renewableenergy/12021449/Renewable-energy-in-the-EU-Which-countries-are-using-the-most-renewable-energy.html

[116] http://techstory.in/cleantech-startups-in-india/

The Indian water and wastewater market, presently sized at over $4 billion, is growing at 10-12% every year while the solid waste management market in India is expected to be worth $13.62 billion by 2025. Besides, the Government targets to reach an installed solar capacity of 100 GW by year 2022 from the present installed capacity of 5500 MW and towards the recent Union Budget has allocated (~36.6 million / Rs 5,036 crore) for Renewable Energy in year 2016-17[117].

The EU and India decided to step up their cooperation to fight climate change and adopted the 'Joint Declaration between the EU and India on a Clean Energy and Climate Partnership'. This would also have a major bearing on India-E29 cooperation in clean technology.

Many of the European countries and India have agreed to address environmental challenges and work together towards sustainable development enhancing cooperation on environment issues. Establishment of the Clean Energy and Climate Partnership as well as the Indo-European Water Partnership will bring together representatives of relevant stakeholders, including interested EU Member States and India, European and Indian institutions, businesses and civil society creating business and technology opportunities between Europe and India.

Countries like Belgium, Norway and Denmark have signed MoUs with India in various renewable energy sectors. The Norwegian Research Council has two research programmes with India running on offshore wind energy. Danish consulting company is designing the first offshore wind project in India (First Offshore Wind Farm Project in India, FOWPI), along with an Indian wind energy consultant. This project started in January 2016 and has a duration of 42 months[118].

Healthcare

The healthcare industry in India attracts heavy investments from foreign companies, particularly in terms of capital investment and provision of private healthcare services. The share of the Indian healthcare today within the market can be rounded off to about $100 billion and this number is expected to reach a staggering $280 billion by 2020[119].

[117] http://cleantech-india.in.messefrankfurt.com/newdelhi/en/exhibitors/welcome.html

[118] http://www.flandersinvestmentandtrade.com/export/sites/trade/files/market_studies/Cleantech.pdf

[119] http://indiainbusiness.nic.in/newdesign/index.php?param=industryservices_landing/373/2

A unique initiative for healthcare 'Sehat' (Social Endeavour for Health and Telemedicine) has been launched at a government run Common Service Centre (CSC) to empower rural citizens by providing access to information, knowledge, skills and other services in various sectors through the intervention of digital technologies and fulfilling the vision of a 'Digital India'. The E-health initiative aims at providing effective and economical healthcare services to all citizens. The programme aims to make use of technology and portals to maintain health records and help people book online appointments with various departments of different hospitals using eKYC data of Aadhaar numbers.

India is actively working towards establishing itself as a leader in industrialisation and technological development. In healthcare sector, nanotechnology is expected to transform the Indian pharmaceutical industry. The Department of Health Research (DHR), Ministry of Health and Family Welfare, Government of India plans to set up a three-tier national network of Viral Research and Diagnostic Laboratories (VRDLs) under which 160 VRDLs will be set up with capability to handle around 30-35 viruses of public health importance.

In Europe, with a rising demand in healthcare and pressure to provide better and affordable services countries have called for a change in the way of organising and delivering of health services. Many European countries have initiated changes in their respective national health systems by bringing in digitisation, integrated care, new medical technologies/services.

Information and Communication Technologies used in healthcare and social care systems have could increase efficiency, improve quality of life and unlock innovation in health markets. Many European countries are focusing on eHealth (the transfer of health resources and healthcare by electronic means). The eHealth action plan will provide a roadmap to empower patients and healthcare workers, link up devices and technologies, and facilitate investments in research towards personalised medicine of the future[120].

Various eHealth Governance initiatives underway in countries like Iceland, Switzerland, Sweden, Slovenia, Slovak Republic, Romania, Malta, Lithuania, Latvia, Hungry, Greece, Finland, Estonia, Denmark, and Austria set the ground for deep India-E29 partnerships in this space[121].

[120] http://www.flandersinvestmentandtrade.com/export/sites/trade/files/market_studies/Cleantech.pdf

[121] http://indiainbusiness.nic.in/newdesign/index.php?param=industryservices_landing/373/2

Fig 3: Per capita health expenditure in E29 economies (in PPP terms) in 2014

E29 economies	Per capita healthcare expenditure (in$)
Austria	4,553
Czech Republic	2,040
Denmark	4,553
Estonia	1,542
Finland	3,517
Greece	2,366
Hungary	1,719
Iceland	3,903
Norway	6,177
Poland	1,530
Slovak Republic	2,010
Sweden	4,904
Switzerland	6,466
Turkey	941

Source: OECD Statistics. Organisation for Economic Co-operation and Development

India-E29 Bilateral Cooperation in Science & Technology

Down the decades, India has deepened the bilateral cooperation with E29 countries in the realms of science and technology. Some of the key bilateral partnerships that India has forged with the E29 countries are as follows:

Switzerland: The economic and commercial ties between India and Switzerland dates back to the signing of Treaty of Friendship on August 14, 1948 whereby both the countries resolved to strengthen the bilateral relations encompassing trade, investment, science and technology, research and development fields, to name a few.

Switzerland regularly ranks among the top five European investment destinations. And with the recent reform initiatives taken by India, the Swiss-India business collaboration has gained great momentum. Business sectors in India such as clean technologies, life sciences, engineering, and medical technology offer plenty of opportunities for Swiss companies.

Under the Framework Agreement on Scientific and Technical Cooperation (2003) between the Government of India and the Government of Switzerland, the Department of Science and Technology (DST), Ministry of Science & Technology, Government of India and the Swiss Agency for Development and Cooperation (SDC) have agreed to jointly fund the Indo-Swiss Collaborative Research on Climate Science and Adaptation to Climate Change in the Indian Himalayan Region (2017-20).

In yet another innovative approach towards green energy, the Indo-Swiss Building Energy Efficiency Project, a bilateral cooperation project between the Ministry of Power, Government of India and the Swiss Agency for Development and Cooperation (SDC), Federal Department of Foreign Affairs of the Swiss Confederation, aims at reducing energy consumption in new commercial buildings through efficient design, construction, innovative technologies, capacity building and disseminate best practices and knowledge on energy-efficient building designs.

In the healthcare sector Swissnex India is now working to connect Switzerland-based med-tech and healthcare companies to propel transfer of technology and collaborations with start-ups in the country. The move according to Swissnex India would spur the much-needed innovation driven growth. The combination of Swiss capability with India's competence would be the ideal fit for the future.[122]

Denmark: There is great scope for cooperation in the development of renewable energy. Envecon has opted for Denmark as its global launch pad, following in the footsteps of wind energy major Suzlon Energy[123]. In the IT sector, India's Tata Consultancy Services (TCS) and L&T Infotech set up their offices in Denmark since 1990 and 2000 respectively and in the last few years, other Indian IT majors, Infosys Technologies, ITC Infotech, Mahindra Satyam and Ubique Systems have set up their operations in Denmark on a limited scale.

Turkey: Electronics, nanoscience and nanotechnology are some of the key emerging areas of bilateral cooperation between India and Turkey. Companies like Entekno, Sampas, Inovenso, Nano109 and Grafen Chemical Industries are pioneering R&D on nano materials, green technology and commercial production of nanotechnology products. India ranks third in the number of research publications in nanotechnology, after China and the US. It is imperative for India and Turkey to deepen the bilateral initiatives in these areas[124].

[122] http://www.swissnexindia.org/about/yosi/india-and-switzerland-as-innovation-partners/

[123] https://www.mea.gov.in/Portal/ForeignRelation/Denmark_12_01_2016.pdf

[124] http://statnano.com/news/44475

Sweden: India and Sweden have joined hands to facilitate green financing and investment in areas like smart grid and energy solutions, smart cities, electro mobility and waste to energy and energy efficient mining and mine automation /optimisation. Both the countries have also agreed to enhance collaboration in energy sector with special focus on areas such as waste-to-energy, hydropower, smart metering and solar energy.[125]

Albania: Albania has expressed keen interest in attracting Indian investments in the field of energy, agriculture, infrastructure, chemicals, IT parks, pharmaceuticals, etc.[126]

Estonia: Estonia's strength and potential in the science and technology field has been recognised by many countries around the world. The country stands strong in fields of digital innovation, material science, electrical engineering and biotechnology. Estonia also has a well-established centre for biochemistry, molecular biology, gene technology and biotechnology. Currently, there are eight research centres and 55 biotechnology enterprises in Estonia. There is immense scope of strengthening India's bilateral ties with Estonia in the science and technology domains.

Finland: India and Finland have resolved to step up bilateral cooperation in innovation and transforming ideas into internationally marketable products. They agreed that digitisation and the Internet of Things are emerging technologies that the innovators from both countries could take forward in cooperation[127]. India and Finland also plan to deepen bilateral cooperation in the areas of science, technology and innovation with emphasis on energy research projects encompassing solar, hybrid and smart grid systems, clean tech, biomedical devises and electronic system & design manufacturing.

Hungary: Hungary recognises India as a country with a well-developed R&D and 'knowledge' infrastructure. Hungary has established an excellent network of R&D institutions under the Hungarian Academy of Sciences (HAS). A joint India-Hungary science and technology fund of two million euros has been created to promote research in agriculture, pharmaceuticals, information and communication technology, nanotechnology and molecular biology. Suggested areas include green chemistry, bio-medicine and space (opto-electronics).

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[125] http://indianexpress.com/article/india/india-news-india/india-sweden-to-enhance-cooperation-in-energy-sector-3737294/

[126] https://www.mea.gov.in/Portal/ForeignRelation/Albania_Feb_2016.pdf

[127] http://mea.gov.in/bilateral-documents.htm?dtl/26356/India_Finland_Joint_Statement_during_the_visit_of_Prime_Minister_of_Finland_to_India__February_13_2016

The Department of Science & Technology (DST) of India and the National Research, Development and Innovation Office (NRDIO) of Hungary have also asked for active participation from scientists and researchers of India and Hungary in the Indo-Hungarian Strategic Research Fund (IHSRF) in scientific and technological areas of strategic relevance to both countries. This initiative is taken to create synergies across borders and institutes, benefit from pooled research efforts and expertise, bring development in the fields of information and communication technologies, geoscience, biological science, nanotechnology and water management[128].

Iceland: Iceland has initiated a Science and Technology Policy Council to support scientific research, science education and technological development in Iceland so as to strengthen the foundations of the Icelandic culture and increase the competitiveness of the economy. Nearly 90% of Iceland's energy supply is from renewable sources. The country has many geothermal energy sources (which tap into the earth's heat) that feed into Iceland's energy mix. India is also focusing on renewable energy with importance on solar and hydro-power. While India is in a low geo-thermal potential region, Iceland can play a major role in helping India tap its potential in this sector[129].

Lithuania: Lithuania is a world leader in producing science graduates per head of the population and renowned for cutting-edge technologies. Lithuania is a research leader among the Baltic States. It has five modern science and business valleys that carry out the most advanced research in health, energy, technological, marine, and agricultural areas. Young people in Lithuania are increasingly interested in studying technological sciences.

Lithuania has the fastest public WiFi in Europe and ranks as number one by the use of e-government solutions. Today, India is embracing ICT in a big way for e-governance. The government has set a vision to transform government functions by leveraging IT to improve efficiency of citizen services. Lithuania and India can definitely explore opportunities for bilateral cooperation in this space.

Slovenia: With eased visa norms, Slovenia is looking for deepening ties with India in sectors like green technology, renewable energy, ICT and nanotechnology etc. Scientific research and development activities in Slovenia are well developed, especially when compared to other countries of Central and Eastern Europe. Slovenia ranks 24th among

[128] https://www.fundsforngos.org/hungary/indo-hungarian-strategic-research-fund-bringing-together-researchers-and-scientists-from-india-and-hungary/

[129] http://thewire.in/27890/as-crisis-unfolded-in-iceland-foreign-minister-sought-strong-ties-with-india/

50 of world's most innovative economies. India and Slovenia can collaborate in various fields of renewable energy[130].

Malta: Malta has developed a clear strategy for sustainable economic development, identifying key sectors with high growth potential as well as plans to support their consolidation and success. These sectors include, but are not limited to, life sciences (including the biotechnological, pharmaceutical and chemical industries) and communication technology.

India's IT industry has a strategy to capture new opportunities coming in from the life sciences and healthcare sectors. The life sciences industry is now increasingly adopting cloud and software-as-a-service models. Indian IT industry with its global operating model, has gained expertise across multiple areas in life science. The life science sector can definitely form a bridge between India and Malta to strengthen their bilateral ties.

Moldova: Maldova in its action program for 2016-18 has chalked out clear strategies in the field of science and technology. Some of them are to reform the government of the national system of scientific research, technological development and innovation in order to adopt a more open, inclusive and transparent model, facilitate networking and technology integration of domestic and foreign companies (business angels, venture investors, innovation camps), support the integration of innovators and Moldovan researchers in the global circuit of innovations and ideas, reform national research and innovation system, create scientific and technological parks under public-private partnership, enhance investments in order to modernize medical technologies.

India-Moldova relations are warm, stable and friendly since 1991. Though the trade and other collaboration between remains rather modest, there is scope for bilateral cooperation in scientific R&D[131].

Norway: The cordial and cooperative relationship at the government level between India and Norway has facilitated the development of multifaceted economic linkages. India's Polar Research Station "Himadri" was established in July 2008 at Spitsbergen, Svalbard, Norway. Since then there has been regular visits by Indian scientists to Norway to carry out research and developmental activities.

A recently concluded workshop in Hyderabad brought together leading researchers from India and Norway to establish a high impact collaborative research initiative in the

[130] http://www.investslovenia.org/business-environment/infrastructure-utilities/research-development/

[131] http://www.gov.md/sites/default/files/document/attachments/government_of_republic_of_moldova_-_action_programme_of_the_government_of_republic_of_moldova_for_2016-2018.pdf

rapidly growing field of ICT. ICT has been identified as a topic for future research collaboration from the Joint Working Group of Science and Technology between India and Norway. Ideas presented and discussed for possible collaboration included social media analytics, smart transportation monitoring and planning ahead, machine learning and deep learning to improve speech technology, real-time remote patient monitoring, robots and automation, critical infrastructure protection, internet of things - smart sensors, smart cities, big data analytics in healthcare, and many more[132].

Poland: Among a host of bilateral initiatives, Department of Science & Technology (DST), Government of India and the Ministry of Science & Higher Education of the Government of Poland (MNISW) have invited proposals for Joint Research projects in bilateral mode involving scientists and technologists from India and Poland

Romania: A lesser known fact about Romania is that it is fast growing into a centre for home-grown tech startups. According to European Digital City Index, it has over 170 startups. India on the other hand is a hub of tech-start up. Hence, this segment can prove to be a new and creative sector for bilateral partnerships.

Serbia & Montenegro: The Science and Technological Development of the Government of the Republic of Serbia has taken initiatives to develop the science and technology scenario in the country. Based on a situation analysis and key issues, the strategy establishes goals in the field of science and innovation in Serbia by 2020. The vision of this document is for science within the next five years to be based on a system supporting excellence in science and relevance for the economic development and competitiveness of the Serbian economy, as well as overall social development[133].

Slovak Republic: Slovak Republic supports clean energy through nuclear reactors. The country has also initialised the preparation of a new agreement on cooperation in the area of nuclear energy between the Slovak National Nuclear Control Agency UJD and the Indian Atomic Energy Commission. Slovak Republic also favours renewable sources of energy, from which they now generate around 10% of electricity, with the aim to reach 14 % by 2020. The potential is much higher, reaching more than 30 000 GWh/year. Renewable energy is indeed a sector where India and Slovak republic and collaborate for knowledge sharing.

[132] http://www.norwayemb.org.in/News_and_events/News-and-Events/Moving-forward-with-ICT/#.WCKHdDIw1AY

[133] http://socijalnoukljucivanje.gov.rs/en/strategy-of-scientific-and-technological-development-of-serbia-adopted/

Way Forward

While India-E29 bilateral partnerships in science and technology is still at an early stage in comparison with India's engagements with many other regions of the world, the emerging capabilities and needs of the two regions suggest that a myriad opportunities for bilateral institutional partnerships will surface in the near to immediate term, as the bilateral trade and investment flows expand.

7 SKILLS FOR THE FUTURE



SKILLS FOR THE FUTURE

Skill India Mission

India, a country with 1.25 billion people has 50% of its population below the age of 25 and 65% below the age of 35. And it is said that developing countries with large youth population could see their economies soar, provided they invest heavily in young people's education, healthcare and skill development. Skilled workforce in India is relatively smaller when compared to countries like UK, Germany, USA, Japan and South Korea[134] and therefore India is now focusing upon scaling up its skill training efforts.

Based on the Census 2011 and National Sample Survey Organisation (68th Round) data, it is estimated that 104 million fresh entrants to the workforce will require skill training by 2022, and 298 million of the existing workforce will require additional skill training over the same time period[135]. Acknowledging the formidable scale of this challenge, India in the last one year has invested heavily on restructuring and re-energising the skill ecosystem in the country. The country has made some significant efforts in ensuring coordination and convergence across all initiatives and schemes that were active in the skill ecosystem. Skill India was launched in 2014 to leverage the potential of India's aspiring youth by equipping them with the skills required to acquire sustainable livelihoods[136].

The Government prioritised skill and entrepreneurship development by forming the Ministry of Skill Development & Entrepreneurship which now also plays a critical role in fulfilling the objectives of the 'Make in India' campaign. The Ministry is responsible for the coordination of all skill development efforts across the country, technical training context and building the vocational skill upgradation programmes. The Ministry aims to skill 500 million men and women by the year 2022 with high standards to achieve the vision of a 'Skilled India'[137].

[134] http://www.firstpost.com/business/economy/pm-modi-launches-skill-development-mission-hopes-to-mak e-india-hub-of-skilled-manpower-2344090.html

[135] http://www.narendramodi.in/national-skill-development-mission-175207

[136] http://pib.nic.in/newsite/PrintRelease.aspx?relid=137488

[137] http://stcskills.com/business-area/government-projects/nsdc/

India's Global Partnerships in Skills Development

Japan has supported the Skill India Initiative through training initiatives at Industrial Training Institutions (ITIs), skills development for managers, curriculum development and the Skills Evaluation System Promotion Programme. Both countries will further advance their cooperation by providing Indian trainees with opportunities to acquire industrial skills in Japan including under the Technical Intern Training Program[138].

Under the new UK-India Skills pledge, 11 UK companies have committed to support skills development in India. Together, the UK government and UK businesses will establish new "Centres of Excellence" in key sectors, starting with a centre for Automotive and Advanced Engineering in Pune.

The Europe India Foundation for Excellence (EIFE), a think-tank, innovation-incubator and non-profit organisation created with the objective of informing and educating global audience, with a focus on Europe about India has launched an ambitious project -- EU-India Skill Development Partnership, with the objective of building a platform with various government, private sector and civil society players to rapidly build up a vibrant skill development partnership ecosystem which envisages help from EU for various aspects of building up skill development in India. The Foundation will find partners in India and Europe and with them finance, co-produce or encourage research, education and other activities in order to promote other organisations, companies or events in the domain of, innovation and excellence[139].

Since the beginning of 2015, the EIFE has actively scanned the skill development terrain in India and has signed several MOUs with Government of Gujarat, Government of Jharkhand, HEC Ranchi, INTEX Tv Gujarat, Gift City Gujarat, IL&FS, Honeywell, and others[140].

India and Switzerland have also signed an agreement to establish formal cooperation in the fields of skills development and vocational and professional education and training. The agreement institutionalises cooperation between the two countries in these areas and aims to promote Swiss vocational and professional education and training internationally.[141]

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[138] http://www.mea.gov.in/bilateral-documents.htm?dtl/26176/Joint_Statement_on_India_and_Japan_Vision_2025_Special_Strategic_and_Global_Partnership_Working_Together_for_Peace_and_Prosperity_of_the_IndoPacific_R

[139] http://eife.org/eisdm

[140] http://eife.org/iisds/about.php

[141] http://economictimes.indiatimes.com/articleshow/52872671.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst

India - E29 Skills Development Partnerships – Key Sectors

Manufacturing: Finding skilled labourer is the biggest challenge in the manufacturing sector. According to NSDC, India will need to add 109.73 million people by 2022 to cater to 24 crucial sectors in the country. Currently around 240 million people are engaged in the agricultural sector while 220 million are working in the non-agriculture sector. In order to expand the share of manufacturing in India's GDP from the current 12.5% to 20%, skilled labour is one of the biggest issues to be addressed.

Today, Indian manufacturing companies in several sectors are targeting global markets and are becoming formidable global competitors. Many are already amongst the most competitive in their respective sectors. Various manufacturing sectors like defence, automotive, engineering, textile, chemical, food processing, leather, pharmaceuticals and electronics have attracted many foreign investors and therefore it is imperative for the Government to initiate skill development activities in these sectors.

Finland, Norway and Switzerland hold the top three positions globally on a worldwide Human Capital Index, utilising around 85% of their human capital. Central and Eastern European countries, such as Poland, Czech Republic, Hungary, Romania and Turkey are major hubs for manufacturing innovation due to the easy availability of cash grants and tax incentives, and the accessibility of skilled researchers.[142]

India could certainly collaborate with these countries to enhance it skill development initiatives in the manufacturing space.

Food Processing: The food processing sector has emerged as an important segment of the Indian economy in terms of its contribution to GDP, employment and investment. During 2014-15, the sector constituted as much as 9% and 10.1% of manufacturing and agriculture sectors, respectively. The Ministry of Food Processing Industries, Government of India is implementing various schemes for providing impetus to the development of food processing sector.

The growing quality consciousness among consumers requires the workforce in this industry to be skilled in basic hygiene and sanitary practices. There is a growing need to impart technical skills to more specialist personnel who are capable of working on imported machines in specific sub-segments. Focus also needs to be on the front-end

[142] http://www.forbes.com/sites/sarwantsingh/2016/03/29/future-of-manufacturing-in-europe-seven-transformative-forces-that-will-boost-industrial-growth/#582f42b224cc

staff for developing customer relationship management skills, which are integral to maintaining healthy relationship with institutional players, such as hotels, restaurants and retailers.

Poland has one of the most dynamic food processing industries in Eastern Europe and is the 7th major food industry producer in European Union. In 2014 over 2,600 companies operated in this sector, producing goods valued at over $64 billion. Modern enterprises involved in processing of food products resulted in rapid development of this sector. The most important sectors of the food processing industry in Poland are meat, dairy, alcohol, followed by confectionery and food concentrates.[143]

Poland is targeting India's food processing sector to boost bilateral trade. Poland has also shown interest in exporting the latest food processing machinery and technology to India. With so much progress happening on the bilateral trade side, both countries have identified areas to strengthen cooperation by build skill development and training facilities.

Infrastructure / Railways

India has the largest rail network in Asia and the second largest in the world. It covers a track-length of around 114,000 km, running 12,500 trains to carry more than 20 million passengers daily. The Government has signed MoUs with many countries including Czech Republic for technology transfer and technical cooperation in High Speed Rail, modernisation of infrastructure and maintenance.[144]

India and Poland have also recognised the great potential for exchange in the area of Transport and Infrastructure and agreed to explore a deeper collaboration. They welcomed the finalisation of the text of a MoU on cooperation in the Rail sector and acknowledged the potential business opportunities for the rail industry as well as opportunities of cooperation in research and education in the sector.

Smart Solutions to Cities: By 2030, approximately 600 million Indians will be living in cities. Government of India has decided to develop 100 smart cities by 2024. Building smart cities will involve development of technology solutions coupled with urban infrastructure and connectivity that can address cities' growth aspirations and offer

[143] http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Food%20Processing%20Sector%20Report%20_Warsaw_Poland_4-4-2016.pdf

[144] https://www.kpmg.com/IN/en/IssuesAndInsights/ArticlesPublications/Documents/India-Soars-high.pdf

employment opportunities to its citizens. Technology solutions for smart city development will help administrators to enhance resource utilisation via real-time monitoring and informed decision making based on usage analytics. Many cities in India are already undergoing smart transformation and deploying such solutions.

India and Sweden have underlined the importance of IT as a key driver of growth and prosperity. Sweden and India have launched a Joint Working Group on Sustainable Urban Development and agreed to encourage companies and government agencies to support the development of smart cities and providing smart solutions to cities.

Logistics: The India-EU Skills Development Project contributes to the implementation of the Skill Development Policy of the Government of India in order to improve the quality and relevance of the number of certified skilled labour in various sectors of employment. Keeping this in mind, one of the three components of the project deals with capacity building. Within this component the project prepared and delivered a Training of Trainers session (ToT) for two selected sectors Capital Goods and Logistics.

Similar initiatives could be taken between India and E29 countries with regard to skills development for the logistics industry.

About FICCI

Established in 1927, FICCI is the largest and oldest apex business organisation in India. Its history is closely interwoven with India's struggle for independence, its industrialization, and its emergence as one of the most rapidly growing global economies.

A non-government, not-for-profit organisation, FICCI is the voice of India's business and industry. From influencing policy to encouraging debate, engaging with policy makers and civil society, FICCI articulates the views and concerns of industry. It serves its members from the Indian private and public corporate sectors and multinational companies, drawing its strength from diverse regional chambers of commerce and industry across states, reaching out to over 2,50,000 companies.

FICCI provides a platform for networking and consensus building within and across sectors and is the first port of call for Indian industry, policy makers and the international business community.

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