

# भारतीय प्रबंध संस्थान बेंगलूर INDIAN INSTITUTE OF MANAGEMENT BANGALORE

# WORKING PAPER NO: 391

# Movement of IT Professionals between India and the EU: Issues and the Way Forward

Divya Satija

Research Associate, Indian Council for Research on International Economic Relations (ICRIER), New Delhi <u>dsatija@icrier.res.in</u>

Professor Arpita Mukherjee Professor, Indian Council for Research on International Economic Relations (ICRIER), New Delhi Arpita@icrier.res.in

Year of Publication-January 2013

This paper is part of a research project titled "Developing a knowledge base for policymaking on India-EU migration", financed by the European Commission (EC) and carried out by Prof. Rupa Chanda at the Indian Institute of Management Bangalore (IIMB), researchers at the European University Institute (EUI), the Indian Council of Overseas Employment (ICOE), and Maastricht University (Faculty of Law). The authors are grateful to Prof. Rupa Chanda and Dr. Kathryn Lum for their valuable comments. We are also grateful to Konrad-Adenauer-Stiftung (KAS), Germany, for funding the survey for the study.

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#### Abstract

India and the European Union (EU) are major exporters of information technology (IT) and ITenabled services (ITeS) and both have high domestic demand for such services. India has developed as a major outsourcing hub. Its skilled and cheap manpower offers complementarities to the EU, which is facing shortage of labour due to a huge ageing population. The EU has a comparative advantage in technology and research and development, which can be beneficial for India. Trade complementarities have accentuated movement of IT professionals between the two economies and the presence of Indian and EU companies in each other's territories has increased. Since IT is a knowledge and skill intensive sector, movement of professionals between the two countries has contributed to the growing bilateral trade in this sector. Against this backdrop the objective of this paper is to examine the flow of IT professionals between India and the EU, identify the barriers in both markets and suggest how they can be addressed through domestic reforms, mutual collaboration and bilateral trade agreements like the ongoing India-EU Broadbased Trade and Investment Agreement (BTIA).

The paper found that movement of professionals has benefitted both Indian and EU companies and, in future, bilateral trade in the IT/ITeS sector and labour mobility is likely to increase. However, there are a number of barriers affecting movement of professionals in this sector. The paper suggests that while some of these can be addressed through domestic reforms in India and the EU, others can be addressed under the on-going India-EU BTIA and through intergovernmental cooperation between India and EU member states.

JEL Classification: F16, F22, L84, L86, L88 and O24 Keywords: India, EU, Movement, outsourcing, professionals, IT, ITeS

#### Introduction

Over the past few decades international offshoring of services has grown considerably. Outsourcing took off in the late 1990s with technological development, globalisation, changes in business models and liberalisation of domestic markets. Despite the global slowdown, the global sourcing market, including information technology (IT) and IT enabled services (ITeS)<sup>1</sup>, grew from around \$106 billion<sup>2</sup> to \$118 billion between 2010 and 2011.<sup>3</sup> India has developed as a major outsourcing hub on account of its proficient, technically skilled and cost effective human capital base (Ghibutiu and Dumitriu, 2008). Outsourcing of services from India took off in the late 1990s with technological development, globalisation, changes in business models and liberalisation of domestic markets. In 2008, India accounted for 55 per cent of global IT offshoring and about 35 per cent of BPO (business process outsourcing) services (Palugod and Palugod, 2011). Among India's major export destinations of computer software and services, the United States (US), with a share of 55 per cent, topped the charts in 2009-10, followed by the European Union (EU) (mainly the United Kingdom (UK), Netherlands and Hungary) with a share of 31.33 per cent.<sup>4</sup>

India and the EU are two key players in the global IT/ITeS trade. While clients from the EU (particularly the UK) continue to dominate the sector, majority of the IT/ITeS offshoring has come to India and the trend is expected to continue (Palugod and Palugod, 2011). The IT/ITeS sector is highly skill intensive. The expansion of knowledge-based industries especially the information and communication technology (ICT) industry in the EU has led to an increase in demand for high skilled IT professionals. At the same time the EU is facing shortage of labour due to a huge ageing population (European Commission, 2006). India with a young and qualified

<sup>&</sup>lt;sup>1</sup> IT services are those services that are directly related to computer software/hardware. For example, providing custom software will be classified as an IT service. An ITeS service is one that uses computers/telecommunications systems to provide the service for a non-IT field such as banking, finance, etc. Some of the examples of ITeS are medical transcription, back-office accounting, insurance claim, credit card processing. Business process outsourcing (BPO) involves the contracting of the operations and responsibilities of specific business functions (or processes) to a third-party service provider. It can be back office outsourcing (such as accounting) or front office outsourcing (customer-related services). BPO services are often termed as ITeS-BPO services because it indicates the provision of BPO services using IT services.

<sup>&</sup>lt;sup>2</sup> All \$ values unless specified are in US dollar

<sup>&</sup>lt;sup>3</sup> National Association of Software and Services Companies (NASSCOM) (2012a)

<sup>&</sup>lt;sup>4</sup> Electronics and Computer Software Promotion Council (2009)

manpower complements growing skill requirement in the EU. These mutual complementarities have accentuated cross-border movement of IT/ITeS professionals, especially Indian professionals to the EU, and presence of Indian and EU companies in each other's territories (Chanda, 2008). While Indian IT professionals are in high demand in the EU to offer business development, onsite project delivery and maintenance services, the EU companies bring professionals to India for training Indian workforce and leading offshore units, research and development (R&D) centres, captive units, etc. among others.

Against this backdrop the objective of this paper is to examine the flow of IT professionals between India and the EU, identify the barriers in both markets and suggest how they can be addressed through domestic reforms, mutual collaboration and bilateral trade agreements such as the ongoing India-EU Broadbased Trade and Investment Agreement (BTIA). The structure of the paper is as follows: Section 1 provides an overview of the IT/ITeS sector in India and the EU focusing on the contribution of the sector to growth and employment, and presenting similarities across industry structure, among others. Section 2 discusses governance structure and regulations, focusing on regulations relating to employment of foreign nationals and movement of professionals. Section 3 discusses the bilateral trade between India and the EU in IT/ITeS sector based on secondary data and information and primary survey analysis. It is important to note that there is no secondary data on movement of IT/ITeS professionals and, therefore, the primary survey tries to capture some key features of this movement. Section 4 discusses the barriers to movement of professionals between India and the EU based on the primary survey. Section 5 provides the policy recommendations and the way forward.

#### 1. Overview of the IT/ITeS sector in India and the EU

The IT/ITeS sector is one of the fastest growing services sectors in India. The total revenue of this sector increased from \$8 billion in 2000-01 to \$88 billion in 2011<sup>5</sup> and the sector is expected to generate a revenue of \$225 billion by 2020.<sup>6</sup> The contribution of the IT/ITeS sector to India's gross domestic product (GDP) increased from less than 2 per cent in 2000-01 to 7.1 per cent in

<sup>&</sup>lt;sup>5</sup> NASSCOM (2012a)

<sup>&</sup>lt;sup>6</sup> Department of Information Technology (2010)

2011-12.<sup>7</sup> The ICT services sector in the EU has also been growing with a value addition of around \$675.42 billion<sup>8</sup> in 2008. The contribution of this sector to the GDP was 3.7 per cent in the same year.<sup>9</sup>

The IT/ITeS sector in India matured from being service providers to becoming strategic partners to their customers, thereby enabling the customers to expand their operations across different geographies. The domestic market is evolving from captive dominated market structure to third party transformational outsourcing relationships. There is an increase in the use of IT in delivery of government services and in sectors like banking, telecommunications, manufacturing, retail, healthcare, travel and transportation. Thus, there is a huge demand in the domestic market. The ICT industry in the EU has also evolved since the late 1980s and early 1990s. Similar to India there has been convergence across different services such as telecommunications and broadcasting (Veugelers, 2012). However, the EU is a more mature and saturated market than India and the IT/ITeS sector has moved up in the value chain.

The IT/ITeS sector has a huge potential for employment generation and skill development in both India and the EU. The sector in India employed around 40,000 people in the late 1990s that increased exponentially to around 2.0 million in 2008<sup>10</sup> and 2.77 million in 2012.<sup>11</sup> In comparison, the ICT services sector in the EU employed 0.22 million people in 2008, which is much lower than India.<sup>12</sup> Abundant pool of cheap and skilled labour in India and the labour shortage in the EU has facilitated the movement of Indian IT professionals to the EU and contributed to the emergence of India as a major outsourcing hub. According to the *AT Kearney's Global Services Location Index (2011)*, India was the topmost outsourcing destination in 2010. India was ranked second in terms of people skills and availability scores. Table 1 gives the relative ranking of India compared to some EU member countries. This table shows that the ranking of some EU member states like Romania and Hungary has improved overtime. These

<sup>&</sup>lt;sup>7</sup> NASSCOM (2012a)

<sup>&</sup>lt;sup>8</sup> Exchange rate: 1C = \$1.4715, period average for the time period January 01, 2008 to December, 31, 2008, last retrieved August 04, 2012, <u>http://www.oanda.com/currency/historical-rates/</u>

<sup>&</sup>lt;sup>9</sup>European Commission (2011)

<sup>&</sup>lt;sup>10</sup> NASSCOM (2008)

<sup>&</sup>lt;sup>11</sup> NASSCOM (2012a)

<sup>&</sup>lt;sup>12</sup> European Commission (2011)

member states have emerged as competitors to India and particularly Romania is emerging as an attractive offshoring destination (Ghibutiu and Dumitriu, 2008).

Country	2007	2009	2011	
United States	2.74 (1)	9.03 (1)	9.60 (1)	
India	2.34 (2)	8.26 (2)	9.20 (2)	
China	2.25 (3)	7.76 (3)	8.51 (3)	
United Kingdom	2.16 (5)	7.08 (4)	7.55 (4)	
Germany	2.19 (4)	6.99 (5)	7.23 (5)	
France	2.07 (7)	6.77 (6)	7.05 (7)	
Spain	1.71 (8)	6.33 (7)	6.85 (9)	
Ireland	1.54 (11)	5.21 (10)	5.79 (12)	
Poland	1.17 (24)	4.07 (20)	4.25 (23)	
Hungary	0.95 (40)	3.36 (29)	4.15 (25)	
Czech Republic	1.10 (28)	3.79 (25)	3.79 (29)	
Portugal	1.14 (26)	3.35 (26)	3.63 (30)	
Romania	0.87 (45)	3.02 (36)	3.42 (32)	
Estonia	0.96 (37)	3.10 (32)	3.18 (33)	
Latvia	0.91 (41)	2.86 (40)	3.11 (37)	
Lithuania	0.83 (48)	2.69 (42)	3.10 (38)	
Slovakia	1.04 (30)	3.13 (31)	3.10 (39)	

Table 1: Ranking of India vis-a-vis other countries for People Skills and Availability

Source: Compiled from AT Kearney Global Services Location Index, various issues

#### Notes:

(a) Numbers in brackets indicate the rank of a particular country in the respective year.

(b) Lower the rank better is the performance of the country and (c) The index covers 50 countries and to calculate these scores each country was evaluated against 4 metrics namely: relevant experience, labour force availability, education and language and attrition rate.

Availability of skilled workers, a large unsaturated market and government support in the form of export promotion schemes and incentives have had a positive impact on the foreign direct investment (FDI) flows into the IT/ITeS sector in India. Cumulative FDI inflows in computer services sector (including hardware and software) between April 2000 and March 2012 were

\$11.2 billion, which accounted for about 7 per cent of the total FDI inflows.<sup>13</sup> A number of EU companies have established their IT/ITeS operations in India. Some companies such as the Royal Bank of Scotland (RBS) Group and Deutsche Bank have captive units while others such as Capgemini have non-captive units in India.<sup>14</sup>

In the EU, FDI inflows in the information and communication services sector were 4.58 per cent of the total FDI inflows in the services sector in 2008. The UK is a prominent destination for both inbound and outbound FDI in this sector. Factors such as the UK's conducive business environment and well developed infrastructure, its position as Europe's largest e-commerce market and English speaking resource base, makes the UK an attractive investment destination (Chanda, 2009), especially for Indian companies. Indian companies such as HCL Technologies, Infosys, Tata Consultancy Services (TCS), Birla Soft UK Ltd. and Wipro have established operations across different EU member states with the UK being one of their prominent locations. Other important markets within the EU include Germany, France and Netherlands, among others. In recent years, Indian companies like TCS have set up offshoring operations in Eastern European countries like Romania.

The structure of the industry is similar in India and the EU. In both markets majority of the companies are small and medium enterprises (SMEs). In India there are some large companies such as TCS, Wipro and Infosys who have established presence across different countries. These are also large employers in the IT/ITeS sector. Table 2 presents average employment by company size. In the EU, SMEs represented 99.4 per cent of the enterprises, and accounted for 69 per cent of the employment and 58 per cent of the total turnover in 2006 for computer services and related activities (FWC Sector Competitiveness Studies, 2009). The size of EU software companies is, in most cases, considerably smaller than that of their US or Japanese counterparts but larger than Indian companies. Also, European companies tend to specialise in high technology, product development, etc. while Indian companies specialise in areas such as

<sup>&</sup>lt;sup>13</sup> DIPP Factsheet on Foreign Direct Investment (FDI) (April 2000 to March 2012), available at <a href="http://dipp.nic.in/English/Publications/FDI\_Statistics/2012/india\_FDI\_March2012.pdf">http://dipp.nic.in/English/Publications/FDI\_Statistics/2012/india\_FDI\_March2012.pdf</a>

<sup>&</sup>lt;sup>14</sup> A captive unit is an in-house business unit of a company operating as its own entity offshore, while retaining the work and having close operational tie ups within the parent company. A non-captive unit belongs to the third-party vendors to which the client has outsourced its processes.

software services. Within BPO services, while many European companies specialise in high-end services such as R&D, majority of Indian BPO companies offer low-end services such as call centres.

Table 2: Average Employment by Company Size for Selected Indian Large IT Companies

Company & Year	Number of Employees	Revenue (US\$ million)	
TCS, March 2012	254,000	10,170	
Wipro Ltd., March 2012	139,843*	0.284*	
Infosys Ltd.	153,761*	6500.83*	

Source: Compiled from factsheets of TCS, Wipro Ltd. and Infosys Ltd.

\* The number of employees in Wipro Ltd. provided is for IT services and products segment \*Wipro Ltd. revenue is revenue generated from IT services.

\*The overall number of employees in Infosys Ltd. and its subsidiaries is for the year ending September 2012.

\*The revenue figure for Infosys Ltd. is for the year ending March 2012 and is revenue generated from IT software services and products.

There are some differences between large firms and SMEs in both India and the EU. Large firms cater to wider industry verticals and have better market outreach. The SMEs generally specialise in niche areas. The scale of investment for SMEs is much lower than that of large firms and thus their infrastructure also varies widely. However, since this sector requires less investment and have lower entry barriers in both India and the EU many entrepreneurs have ventured to set up start-ups. While SMEs have to compete with large firms who have international brand recognition, at the same time both complement each other as large foreign and Indian firms operating in India outsource certain specialised services to the SMEs.

Another common feature of this sector across the two economies is clustering of IT firms around few selected areas. In India, the IT/ITeS sector initially developed in cities such as Mumbai (Maharashtra) and Bangalore (Karnataka) mainly after the establishment of a company called Texas Instruments in mid 1980s.<sup>15</sup> Subsequently, Delhi and the suburban regions of Noida and Gurgaon also known as the National Capital Region (NCR) developed as popular IT/ITeS locations along with cities such as Chennai (Tamil Nadu) and Hyderabad (Andhra Pradesh). These cities have witnessed an upsurge of multinational corporations. Availability of high-speed data communication links and built-up space provided in software technology parks and the availability of manpower are some key factors behind the location of companies in specific states and cities (Kumar and Joseph, 2005). With rising operational cost in metro cities, companies started to relocate to tier II cities and new IT/ITeS centres are emerging.

In the EU, majority of the ICT services sector turnover is generated in the EU15 with Spain, Italy, France, Germany, and the UK accounting for approximately 70 per cent of the total turnover.<sup>16</sup> As mentioned earlier, with expansion of the EU, Romania, Bulgaria, the Czech Republic and Poland have now emerged as key outsourcing destinations. In terms of employment generation, the sector is somewhat concentrated in and around regions such as the South of the UK, the French region of Ile-de-France, the Western Region of Germany and the North of Italy. There are various ICT clusters in the EU. Germany is the largest ICT cluster in the EU. Other prominent one is the Madrid cluster. Some small ICT clusters include Munich and Barcelona (Hansen and Serin, 2010).

The next sections discuss the regulatory regime in India and the EU, focusing on regulations relating to movement of professionals.

# 2. Governance Structure and Regulations affecting Employment and Movement of Professionals

India and the EU have a quasi federal governance structure. In India, policies and regulations are formulated at the central government level and implemented at the state level. State governments

<sup>&</sup>lt;sup>15</sup> Texas Instruments India Ltd. started off by setting up a research facility in Bangalore in August 1985 and became the first global technology company to establish its presence in India.

<sup>&</sup>lt;sup>16</sup> The number of member countries in the European Union prior to the accession of ten candidate countries on 1 May 2004. The EU 15 of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, United Kingdom.

can impose certain regulations such as labour regulations which impact the Indian IT/ITeS sector. In the EU, the ICT sector is governed by different EU Directives which are formulated by the European Commission (EC) and the European Parliament but implemented at the member state level. In the EU, regulations relating to employment, work permit and visa issuance are under the jurisdiction of independent member states.

The IT/ITeS sector in India started under private initiatives with the government primarily acting as a facilitator to providing incentives for private and foreign investment. Both India and the EU have liberal FDI regime and 100 per cent FDI is allowed in this sector. Both economies are committed to liberalisation of the IT/ITeS sector in trade agreements and have offered to liberalise investments in this sector (Mode 3) in their respective WTO Revised Offers.<sup>17</sup>

Easier labour mobility is crucial for enhancing trade in this sector. In the case of movement of people, in the EU, work permits and visas are under the purview of individual member states. Unlike the EU, movement of foreign nationals from one state to another is not restricted in India.

Foreign nationals require an employment visa (EV) to work in India. If the EV or stay in India is for a period of over 180 days, the foreign national has to register at the concerned Foreigner's Regional Registration Office (FRRO)/Foreigner's Registration Office (FRO) within 14 days of entry into India. Each state has its respective FRO where a foreign national can register.<sup>18</sup> India is yet to allow dual citizenship. However, foreign nationals who hold a person's of Indian origin (PIO) or overseas citizenship of India (OCI) card can travel to India for the purposes of employment without needing an EV. An EV can be granted within seven to ten working days. In certain cases, where the matter must be referred to the Indian government's Ministry of External Affairs, the deadline may be extended to six to eight months. A work permit will be granted to a foreign national who is a professional in the IT/ITeS sector and has a valid working contract and an income of \$25,000 and above.

<sup>&</sup>lt;sup>17</sup> WTO (2005a) and WTO (2005b)

<sup>&</sup>lt;sup>18</sup> <u>http://www.realestatemumbai.com/Expatriates/FRRO-Foreigners-Regional-Registration-Office.aspx</u>

A foreign national employed in India by an Indian company has to be paid in local currency by the employer. In addition, on September 30, 2009, the Reserve Bank of India issued a notification which stipulates that a foreign citizen who is resident of India and employed with an Indian company, can remit his entire salary received in India in Indian rupees to any foreign currency account in a bank outside India as long as the foreign citizen pays income tax on the entire salary accrued in India.

A professional in India has to abide by the labour market regulations. The Industrial Employment (Standing Orders) Act, 1946 formulated by the Labour and Employment Department under the Ministry of Labour and Employment is one of the main Acts that protect the interests of labour in India. However, IT/ITeS sector is largely exempted from this Act. The IT/ITeS companies are not subject to labour market regulations including Minimum Wages Act 1948 and Factories Act 1948. These measures were initiated to grant companies flexibility to hire and fire employees. In fact, the IT/ITeS sector is probably the only sector in India which enjoys maximum labour market flexibility. However, given that the sector is highly human-capital intensive and it is important to protect the employees' interest in this sector, in the year 2012 the Labour and Employment Department rejected the exemption limit under the Industrial Employment (Standing Orders) Act, 1946. This measure has been subject to debate and critics believe that this will reduce labour market flexibility which this sector earlier enjoyed.

At the state level, some states have implemented additional state-level labour market policies to facilitate the growth of IT/ITeS sector (see Table 3). Some states offer special concessions to allow women to work in the IT/ITeS sector.

Name of the State	Policy/Incentives					
West Bengal	• IT/ITeS companies are accorded 'public utilities service providers' status under					
	the Industrial Disputes Act, 1947					
	• Operations of IT/ITeS companies are completely unhindered by strikes or					
	'bandhs'					
	• Companies are also allowed to operate 24X7 and 365 days a year					
Karnataka	Shops and Commercial Establishments Act, 1961 amended in 2002 to allow					
	women IT workers to work during night shifts					
Maharashtra	IT/ITeS companies as public utility services and essential services					
	• Relaxations under Shops and Establishments Act for working hours, work shifts					
	and employment of women					
	• Special passes issued to vehicles transporting women workers of IT/ITeS					
	companies late night.					
	• Special group appointed in the police department for safety of women IT/ITeS					
	workers					
Andhra Pradesh	• \$0.32 million granted as recruitment assistance for employing minimum 100					
	employees within two years of commencement of commercial operations in the					
	Tier-II cities (Visakhapatnam, Vijayawada, Warangal and Tirupati)					
	• Recruitment assistance of Rs.2.5 lakhs for recruitment of 50 local students in the					
	Business Incubation Labs/R&D Centre/IT/ITeS operation, within two years					
	• General permission for three shift operations with women working in the night					
	for IT/ITeS units/companies					

Table 3: Selected State-level Policies to Promote Employment in the IT/ITeS Sector

Source: Authors' compilation from different state government policies

Regulating labour mobility in the EU is a member state specific subject and each member state imposes different conditions on labour movement. This restricts movement of non-EU professionals/nationals across different EU member states. Thus, while there is labour mobility within EU member countries, EU is not a single market for foreign workers and professionals. Over the years some measures have been taken at the EU level to facilitate intra-EU mobility of foreign nationals. These are given below:

- 1. Non-EU nationals entering the EU for a short term for business purposes can avail a Schengen Visa (SV). With the SV, nationals can stay and work in the selected EU member states for upto 90 days.<sup>19</sup> Foreign nationals can visit other member states and other countries in Europe in the Schengen territory that are signatories of the Schengen Accord with this short term business visa.
- 2. The "Blue Card Directive", (2009/50/EC), of the EU allows a high skilled third country national to enter, re-enter and reside (for more than three months) in the territory of an EU member state.<sup>20</sup> The objective of the Directive is to meet the demand created by growing shortage of high-skilled labour in the EU. The EU Blue Card once granted to a non-EU national with a job offer, authorises uniform entry and residence, in an EU member state. It provides access to the EU labour market and residence rights. The EU Blue Card holders enjoy equal treatment with nationals of the member state issuing it with respect to the working conditions, social security, pensions, etc. After 18 months of legal residence in the first member state, Blue Card holders and their family members can move to another member state for high skilled employment. They require approval of the relevant authority in the second member state. The EU Blue Card is valid from one to four years, with the possibility of renewal. The policy states that a Blue Card may also be issued or renewed for shorter periods in order to cover the work contract duration plus three months.
- 3. The *EU "Single Permit Directive"*, (2011/98/EU) seeks to establish a simplified and harmonised procedure for non-EU nationals in order to obtain a work and residence permit in the EU member states. It defines a common set of rights awarded to migrants in order to address the gaps between third-country workers and EU citizens. It necessitates a single application procedure when non-EU nationals apply for work or stay in a member state. The Directive applies to two main categories of non-EU nationals. The first category covers non-EU nationals who apply to reside in a member state to work. The second group includes those who have already been admitted to a member state for the

<sup>&</sup>lt;sup>19</sup> Signatories to the Schengen Accord include Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, and Switzerland.

<sup>&</sup>lt;sup>20</sup> The Blue Card Directive (2009/50/EC) was adopted by the EU Council on 25 May 2009 and came into force on 19 June 2009. The Directive requires that Member States transpose its provisions into their national legislation by 19 June 2011.

purpose of work or purposes other than work and who are allowed to work, such as family members of migrant workers, students and scientific researchers.

The EU has continued to streamline the process of entry and movement of foreign nationals. In July 2010, the EU proposed implementation of a *Directive on conditions of entry and residence of third-country nationals in the framework of an intra corporate transfer*. It was proposed under the EC's *Policy plan on Legal Migration (COM(2005) 669)*.<sup>21</sup> The aim of the proposed Directive is to remove barriers to entry and movement of intra corporate transferees into and within the EU member states.<sup>22</sup> It specifically focuses on creating more favourable and attractive conditions of temporary stay for intra corporate transferees and their family. The Directive aims to provide a harmonized definition of an intra corporate transferee, harmonize conditions of stay, ensure certain social and economic rights, facilitate intra-EU mobility, provide enhanced family rights (without access to the labor market for partners) and fast-track application procedures. The following conditions are proposed to apply to the admission procedure:

- The intra corporate transferee must occupy a post of a managers, specialists and graduate trainees as provided for in the EU's commitments under the WTO;
- The intra corporate transferee's employment in the same group undertaking must have lasted for at least 12 months;
- The intra corporate transferee must have an assignment letter specifying the remuneration and confirming that the transferee has been transferred by a third-country transnational corporation for a temporary period and will return to the host entity after the completion of the assignment;
- The intra corporate transferees are proposed to be issued a specific residence permit allowing them to carry out their assignment in diverse entities belonging to the same transnational corporation subject to certain member state specific conditions;

<sup>&</sup>lt;sup>21</sup> <u>http://eur-lex.europa.eu/LexUriServ/site/en/com/2005/com2005\_0669en01.pdf</u>

<sup>&</sup>lt;sup>22</sup> An intra corporate transferee is a natural person working for a legal person (i.e. a company) established in the territory of a non-EU member state ('home country') and a defined length of time to perform work for a legal person or legal persons belonging to the same group as the aforementioned legal person in the territory of one or more EU member states ("host country" or "host countries").

- Third country national graduate trainees can get short term resident permits to pursue training in a member state and not take up normal work. The trainee will have to produce evidence of the higher education qualifications required;
- The intra corporate transferees are proposed to be exempted from any labour market test;
- The duration of the residence permit is proposed to be limited to three years for managers and specialists, and one year for graduate trainees;
- Intra corporate transferees are proposed to enjoy the rights enjoyed by posted workers;
- In case an intra corporate transferee moves to a second member state, a residence permit may be required if the duration of work exceeds 12 months but may not require the intra corporate transferee to leave its territory in order to submit applications.

At present, this proposal is under discussion. The proposal provides for substantial liberalisation of movement of intra corporate transferee. If implemented, it will remove some of the existing barriers to movement of IT professionals between India and the EU which are in Section 4 of this paper.

Since the EU labour mobility legislations are not harmonised there are certain member state specific legislations that affect labour mobility across EU member states. For example, majority of the EU member states such as France, Italy, Germany and the UK impose restrictions on movement of professionals from Bulgaria and Romania. It is important to note that most countries of the EU15 have bilateral agreements with the individual new member states that allow specific labour migration (seasonal work, contingents for specific industries, etc.) or temporarily limit this migration.

Other regulations such as data protection regulations also impact movement of people. The EU *Directive on the protection of individuals with regard to the processing of personal data and on the free movement of such data or "Data Protection Directive" (95/46/EC)* restricts transfer of personal data to locations outside of the EU unless the importing country ensures adequate data protection under domestic regulations or international commitments. It impacts outsourcing to countries like India because India is not considered as a data secure nation by the EU. This

indirectly impacts movement of professionals and it limits the scope for business development across markets.

The government procurement regulations can impact the ability of companies to get business in foreign markets. As of now, India does not have government procurement legislation. Government procurement is governed by the General Financial Rules, 2005, which only attracts departmental action in case of violation. This results in uncertain business environment for foreign companies. The Indian government is in process of implementing a Public Procurement Bill, 2012 which, if enacted, will allow transparency in government procurement. In the EU, government procurement is governed under the *Directive (2008/C 91/02)* on the application of Community law on Public Procurement and Concessions to institutionalised PPP (IPPP) or "*Directive on Public Procurement*".<sup>23</sup> The EU is a member of the plurilateral Government Procurement (GPA) under the WTO while India has an observer status in the GPA. Since India is yet to be a member of the GPA, it is difficult for Indian companies to access the EU government procurement market and this indirectly limits movement of professionals.

There are other regulations which impact labour mobility. For example, the mandatory requirement of making social security contributions is an important issue. If an employee travels to the EU from India for a short term, he or she is required to make social security contribution. This imposes an additional cost on movement of professionals without the professional enjoying the benefits of social security contribution. To mitigate this problem, the Indian government has entered into bilateral social security agreements with some EU member states. Broadly, these agreements provide three kinds of benefits which are given below and key feature of bilateral agreements with different member states are given in Table 4.

<sup>&</sup>lt;sup>23</sup>At community level there are no specific rules governing the founding of IPPP. However, in the field of public procurement and concessions, the principle of equal treatment and the specific expressions of that principle, namely the prohibition of discrimination on grounds of nationality and Articles 43 EC on freedom of establishment and 49 EC on freedom to provide services, are to be applied in cases where a public authority entrusts the supply of economic activities to a third party. More specifically, the principles arising from Article 43 EC and Article 49 EC include not only non-discrimination and equality of treatment, but also transparency, mutual recognition and proportionality. For cases which are covered by the Directives on the coordination of procedures for the award of public contracts ('the Public Procurement Directives'), detailed provisions apply. For more details see <a href="http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2008:091:0004:0009:EN:PDF">http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2008:091:0004:0009:EN:PDF</a>

- Detachment Employees sent on assignment up to a specified period are exempt from making social security contributions in the host country provided they continue to make social security contributions in their home countries;
- Exportability of pension Employees who contribute to social security in the host country, would be entitled to "export" the benefits to their home countries on completion of their assignment or on retirement;
- 3. Totalization of contributory periods The period of service rendered by an employee in the home and host countries will be considered in totality to determine "eligibility" of the social security benefits. The payment of benefits to the individuals from the social security systems of each country will generally be in proportion to the length of their service.

				Totalization
		Detachment	Pension	
September 01,				
2009		60 months		
Signed on 8		60 months		
December 2011,				
<b>n</b> ot yet effective				
May 01, 2011	$\checkmark$	60 months		Х
July 01, 2011		60 months		
October 13,	$\checkmark$	60 months		
2011				
June 01, 2011		60 months		
Not yet effective	$\checkmark$	60 months		
December 01,		60 months		Х
2011				
Not yet effective	$\checkmark$	60 months		
	2009 Signed on 8 December 2011, not yet effective May 01, 2011 July 01, 2011 October 13, 2011 June 01, 2011 Not yet effective December 01, 2011	2009Signed on 8 $$ December 2011, not yet effectiveMay 01, 2011 $$ July 01, 2011 $$ October 13, 2011 $$ Not yet effective $$ December 01, 2011 $$ Not yet effective $$ Not yet effective $$	200960 monthsSigned on 8 $\sqrt$ 60 monthsDecember 2011, not yet effective $\sqrt$ 60 monthsMay 01, 2011 $\sqrt$ 60 monthsJuly 01, 2011 $\sqrt$ 60 monthsOctober 13, 2011 $\sqrt$ 60 monthsJune 01, 2011 $\sqrt$ 60 monthsNot yet effective $\sqrt$ 60 monthsDecember 01, 2011 $\sqrt$ 60 monthsNot yet effective $\sqrt$ 60 months	200960 monthsSigned on 8 $\sqrt$ 60 months $\sqrt$ December 2011, not yet effective $\sqrt$ 60 months $\sqrt$ May 01, 2011 $\sqrt$ 60 months $\sqrt$ July 01, 2011 $\sqrt$ 60 months $\sqrt$ October 13, 2011 $\sqrt$ 60 months $\sqrt$ June 01, 2011 $\sqrt$ 60 months $\sqrt$ December 01, 2011 $\sqrt$ 60 months $\sqrt$ Not yet effective $\sqrt$ 60 months $\sqrt$ Not yet effective $\sqrt$ 60 months $\sqrt$

Table 4: Benefits under Social Security Agreements between India and EU Member States

Source: Authors' compilation from government interviews and Deloitte (2011)

The next section provides a snapshot of India-EU bilateral trade in this sector.

#### 3. Bilateral Trade in IT/ITeS Sector

In 2010 the EU followed by India, ranked among the top two exporters of information and communications services among the WTO member countries. While the EU accounted for 58.5 per cent of the world's total exports, India accounted for 19 per cent in 2009.<sup>24</sup> Globally, India and EU's trade in computer and information services has been growing consistently and both have positive trade balance in this sector. Bilateral trade data shows that exports of India and the EU to each other's territory respectively has been increasing (see Figure 1). In fact post 2006, EU's exports to India rose sharply in comparison to India's exports to the EU.

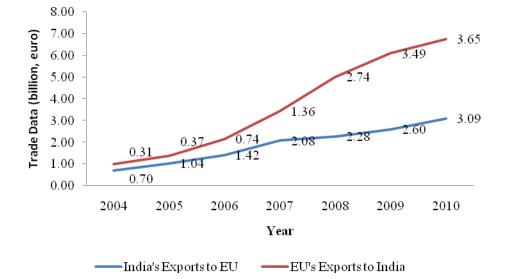


Figure 1: Bilateral trade between India and the EU

Source: Eurostat data, available at

http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search\_database

At present, India's largest export market is the US, accounting for 26.5 per cent of the total trade followed by the UK (12.11 per cent share in 2009-10). The Netherlands (7.96 per cent) and Hungary (2.80 per cent) follow suite and France (1.27 per cent) and Finland (0.99 per cent) also

<sup>&</sup>lt;sup>24</sup> <u>http://www.wto.org/english/res\_e/statis\_e/its2011\_e/its2011\_e.pdf</u>

rank among the top 10 major countries for computer software/services exports in 2009-10.<sup>25</sup> The EU region on the whole accounts for 31.33 per cent of India's total exports of these services.

Growth in bilateral trade in the IT/ITeS sector has accentuated movement of professionals between the two countries. Temporary movement of professionals or Mode 4 trade between India and EU is discussed in details below.

### 3.1 India-EU Mode 4 Trade: Existing Literature on Type of Movement

Existing literature shows that movement of professionals between India and the EU is broadly at two levels - company and individual level. Differences between them are given in Table 5.

Company level Movement	Individual level Movement
Categorisation under WTO - Business Visitors,	Categorisation under WTO - Independent
Intra Corporate Transferees and Contractual	Professionals
Service Suppliers	
Time Duration – Short Term	Time Duration – Long Term
Purpose – Company Projects	Purpose – Immigration/Short term work
Parties responsible for paper and legal work	Parties responsible for paper and legal work
and compensation – Company	and compensation – Migrating Individual
Nature of Visa – non-immigrant visa/short	Nature of Visa – mostly Immigrant Visa
term work permit	
Factors affecting – qualification of the	Factors affecting – qualification, experience,
employee and company and client demand	language skills, work experience, education
	and age.
Job guarantee – 100 per cent	Job guarantee – individual may or may not
	have a job at the time of migration.

Table 5: Differences across Company and Individual level Movement of Professionals

Source: Authors' compilation from NASSCOM (2012b)

Globally there are two systems that have shaped up movement of IT professionals (Hultin, 2012). These include the point based system<sup>26</sup> and demand or employer driven system.<sup>27</sup>

<sup>&</sup>lt;sup>25</sup> Electronics and Computer Software Promotion Council (2009)

Immigration is based on the point based system and movement of business visitors, intra corporate transferees and contractual services suppliers is demand or employer driven. While the former is based on points earned by an independent professional on the basis of qualification, experience, language skills, work experience, education and age, the latter can be based on any or all three of these - labour market tests, precleared occupations and employers, and attestation based decisions. In the case of point based system labour flows are not linked to specific jobs, but they are related to them in the case of employer driven system. In the EU, different member states have adopted different systems. The UK and Denmark have point based system and Sweden, Spain and Norway have employer driven system. The UK has a five tiered structure under the point based system. Tier I covers exceptional talent, Tier II is for skilled workers who have a job offer, Tier III allows a limited number of lower skilled workers to fill temporary shortages in the labour market, Tier IV covers students and Tier V includes youth mobility schemes and temporary workers.

Since there is a dearth of literature on the system adopted in India, Indian government officials were interviewed and they pointed out that in the case of movement of people to India, a more hybrid system is adopted. It includes features of both point based and demand or employer driven system, but priority is given to the employer demand.

## 3.2 India-EU Mode 4 Trade: Patterns and Factors Contributing to Movement of Professionals

India-EU trade in IT/ITeS sector is more than two decades old and movement of professionals is a key component of this trade. The movement of Indian software professionals to the EU began in the early 1980s, but accentuated in the 1990s after India and EU markets liberalised. The Y2K crisis, economic downturn following the 9/11 attack in the US and the recent economic downturn did impact the bilateral trade flows, but overall there has been an increase in IT/ITeS trade and movement of people. European banks and other financial institutional and transnational

<sup>&</sup>lt;sup>26</sup> The point based system seeks to increase the population of workers whose skills, education and other attributes are thought to be in short supply or are of intrinsic economic value to the economy.

<sup>&</sup>lt;sup>27</sup> Demand or employer driven system allows employers to select the workers they need, subject to government regulations.

companies are now increasingly outsourcing large IT projects to Indian companies and are establishing captive units in India. Indian companies have started to buy out European companies and are investing in Europe. This has led to increase in bilateral trade and investments and people movement.

It is difficult to quantify the movement of IT/ITeS professionals between India and the EU since neither India nor EU member states have a record of total movement and movement of professionals under different categories – independent professionals, business visitors, intra corporate transferees and contractual service suppliers, as defined under the WTO/General Agreement on Trade in Services (GATS). In fact, there is no data to even distinguish between movement at individual and company level. Individual companies do record the movement of their employees between India and EU member states. For instance, on average Indian companies such as TCS and Infosys apply for 4800-5400 visas to send its employees to the EU annually. European companies such as Cognizant Technology Solutions on an average apply for 3600 visas to send their employees in India to the EU annually. A primary survey has been conducted to understand the flow of movement of IT professionals in detail. However, before discussing the survey findings, it is important to understand what factors have contributed to the movement of professionals from India to the EU.

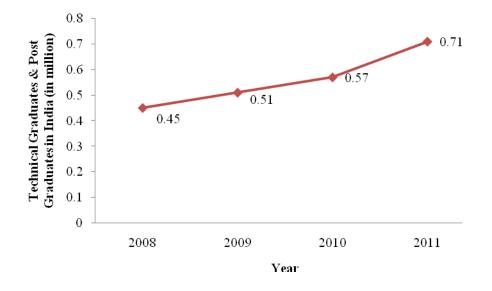
First, India has a huge population base of 1.21 billion.<sup>28</sup> It accounts for 17.5 per cent of the world's population, which is expected to increase to 17.9 per cent by 2030. Second, a large percentage of India's population is literate. In 2011 India's literacy rate was at 74.04 per cent up from 64 per cent in 2001. India has a large pool of skilled IT personnel (see Figure 2). This makes it relatively easy for companies of all sizes to recruit professionals in the IT/ITeS sector. Majority of the Indian population is in the age group of 15-64 and 54 per cent of Indians are under 25 years of age.<sup>29</sup> On the contrary across EU's strong economies – the UK, Netherlands, Germany and Italy, growth in this age group (particularly 15-59) is stagnating. For instance, it is estimated that in the UK, population in this age group will increase from 40 million in 2008 to only 41 million in 2020 while it is estimated to decline from 55 million to 53 million in Germany

<sup>&</sup>lt;sup>28</sup> Census of India (2011)

<sup>&</sup>lt;sup>29</sup> Census of India (2001)

during the same period.<sup>30</sup> This implies that the growing young population of India can meet the future job demands in the EU if proper education and training is provided in India. India has over 3,300 engineering colleges which helped to create abundant skilled IT professionals and meet the growing needs of this sector. According to All India Council for Technical Education's (AICTE), India produced 4.6 lakh engineers in 2004-05, out of which 31 per cent were computer engineers. According to NASSCOM, the number of IT graduates and post graduates in India increased by 57.8 per cent between 2008 and 2011 (see Figure 2).





Source: Authors compilation from NASSCOM Strategic Review, various sources.

In India, there is a strong interaction between industries, industry association such as NASSCOM and educational institutes in developing skills for IT/ITeS sector. On-the-job training offered by both Indian and European companies has enhanced the skill level of Indian IT professionals. Some Indian IT training institutes such as National Institute of Information Technology (NIIT) have globalised and have offices across the EU member states such as the UK, Belgium, Netherlands, Germany and Spain. The EU-India collaborative research programmes such as the

<sup>&</sup>lt;sup>30</sup> NASSCOM (2012b)

one initiated under the Euro-India Research Centre (EIRC) has positively affected the IT/ITeS sector through joint R&D and innovations.

#### 3.3 Primary Survey

A pan-India survey of 30 Indian and EU companies along with Indian policymakers, representatives from EU embassies and consulates (such as the British High Commission and the European Commission), industry chambers such as Federation of Indian Chambers of Commerce and Industry (FICCI) and NASSCOM was conducted to understand the pattern of movement of professionals between India and EU. The survey was conducted in October and November 2012 in the form of in-depth interviews with senior management and Human Resource personnel. Questions were asked on recent trends in movement of professionals, nature of professionals and the frequency of travel, factors affecting the movement, barriers to movement of professionals, expectations from the on-going India-EU BTIA and what is their expectation from the Indian and EU governments.

The survey confirmed that primary reasons for EU companies to outsource to India or to establish presence in India and to engage an Indian company in the IT/ITeS sector is the availability of a large pool of qualified manpower at a low cost, global recognition of Indian IT professionals and proven their competence. According to the survey participants, the cost per head of offshoring is 30-35 per cent lower in India compared to the US or other destination within the EU. The survey found that EU companies have been large employers within the IT/ITeS sector of India. For example, Capgemini, which has presence in the Indian market for close to a decade now, has expanded its employment team from 200 employees in 2001 to 40,000 in 2012. Thus, presence of EU companies in India has generated substantial employment in IT/ITeS sector of India. It has also led to movement of high skilled personnel from EU member states to India, mostly at managerial and technical positions. They offer a wide range of services including training and dissemination of technical know-how.

The presence of Indian IT professionals and their family members across the EU member states suggests maximum concentration in the western EU including member states such as the UK,

Ireland, Germany and Netherlands. There is presence of Indian IT professionals in Nordic countries such as Sweden. Although Indian IT companies have near shore centres in member states such as Hungary, Poland, Portugal and Romania, they mostly appoint locals and presence of Indian professionals is limited.

According to the survey Indian IT professionals' skill level and purpose of visit have changed overtime. In the 1980s and early 1990s, majority of the IT professionals were sent abroad under body shopping arrangement but now contractual service suppliers and intra corporate transferees is a more common mode of movement.<sup>31</sup> In case of flow of professionals from EU, generally professionals and experts come to India in senior manager positions, to provide training in specialised areas, for business development etc. The survey found that movement of professionals for captive and non captive units respectively differs. For example, a captive unit may send a specialist with the domain expertise applicable for their company (say a particular bank) while the experts sent for non-captive units posses more general skills (skills needed for any EU bank). Indian software development centres or captive units of multinational corporations (MNCs) (like Siemens Information Systems and Barclays Shared Services) and Indian software companies (like TCS, Infosys, etc.) send Indian IT professionals such as domain experts and senior level professionals, to parent companies or entities of Indian companies to the EU on an assignment basis mainly for a short term. Only a few professionals are sent for a long term. In the EU, these employees may be visiting one or more entities of the same company sending them. These may or may not be located in different member states. They could also move to another company which is not an entity of the company sending them. In order to serve different clients Indian IT professionals may be required to operate in diverse locations.

Irrespective of the duration and nature of job, there is a gender bias towards men in the pattern for movement of IT professionals. Even though the proportion of women working in the Indian IT/ITeS sector is increasing, women usually resist projects that involve movement to locations outside of India due to family commitments. Academic literature points out that this trend is not

<sup>&</sup>lt;sup>31</sup> Body shopping refers to Indian companies contracting out their Indian employees to subsidiary multinational companies (MNCs) that have offices in India. They use the professionals for meeting their clients' requirements. They are usually hired on a short term contract for low-end maintenance and coding jobs. These professionals are supervised under contracts held by subsidiaries of MNCs (Upadhya, 2006).

specific to India. For instance, Piper (2005) highlights the presence of gender heterogeneity in the migration of highly skilled IT professionals. Since many spouses work in the Indian IT/ITeS sector, Indian government and industry association like NASSCOM through India's bilateral agreements have pushed for provision to allow spouse and dependents to work in the partner country. India has secured commitments in this area in its existing bilateral agreement with countries Korea and Singapore. This has facilitated movement of females.

Under the GATS Mode 4 negotiations there are four broad categories of temporary movement of professionals. These include:

- a) *Business visitor* is a person who visits another country for a short duration specifically for business negotiations and/or for preparatory work towards establishing a business;
- b) *Intra corporate transferee* is an employee of a company who is transferred from an office in the country of origin to an office of the same company in another country;
- c) *Contractual service supplier (CSS)* is an employee of a foreign company who enters another country temporarily in order to perform a service pursuant to a contract;
- d) *Independent professional (IP)* is a self-employed person based in the territory of another country who supplies a service on the basis of a services contract with a consumer in the host country.

The survey participants argued that even if India seeks liberalisation under these four modes, still Indian companies will face barriers because there is no clear definition for movement of employee from an Indian company says TCS to different offices of their client in the EU (say Volkswagen). This is a mix of a contractual service supplier and intra corporate transferee mode since the movement is between two different companies.

The survey also found that movement of IT professionals will continue to increase in the future as the IT/ITeS sector is growing in both India and the EU. The respondents pointed out that India is an unsaturated market and in recent years there has been an increase in the use of IT services across all sectors. Increase in domestic demand has helped Indian companies to grow despite the global slowdown. It has also helped companies to consolidate their businesses. Indian companies

that earlier provided only outsourcing services such as voice-based services, data processing, etc. are consolidating their offerings to provide a broader range of services. As a result clients do not have to approach different service providers for different services. The EU companies also confirmed that they are expanding their business in India which will, in turn, increase movement of professionals between India and the EU. As Indian companies are moving up the value chain and are providing more integrated and sophisticated services to their clients, they expect growth in business in the EU. During the global slowdown some Indian companies had large acquisitions in the EU. This has further contributed to movement of professionals for the purpose of business consolidation and training.

The survey found that many IT graduates in India have been turning into entrepreneurs by starting their own start ups. The total number of start-ups in India is around 10,000, with 5,000 start-ups in Bangalore, followed by Mumbai, Delhi and Chennai. The survey found that Indian entrepreneurs have innovated various delivery models including Software-a-Service (SaaS), cloud-based 'Work Platform' and Online Database Application Platform (PaaS) to provide more sophisticated services to clients worldwide including EU clients.

With EU's expansion there has been new demand in countries like Eastern European countries. Many respondents pointed out that those Indian companies with delivery centres in EU member states such as Holland, Poland, Germany, etc. are now focussing on strengthening their on-site delivery models because they provide more sustainable and higher returns.

When asked about the recent labour movement related regulations in the EU and measures taken by the EU to harmonize the labour market for foreign nationals, survey participants pointed out that although the Blue Card Directive and the Single Permit Directive is a step in the right direction, the gains are more for individuals than companies. Also, these Directives regulate immigration rather than short term movement of professionals. The Directive on conditions of entry and residence of third-country nationals in the framework of an intra corporate transfer proposed by the EC in 2010 will be more beneficial for Indian companies.<sup>32</sup> It will help Indian and the EU companies in several ways. Indian companies will have to meet a common and well

<sup>&</sup>lt;sup>32</sup> http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0378:FIN:EN:PDF

defined set of rules and requirements and EU companies will have better and faster access to global talent to meet staffing needs for managers, specialists and graduate trainees. Moreover, the EU will be able develop a knowledge-based and innovative economy that attracts investment, thereby creating jobs. In addition to fast-track entry procedure and single application for a combined work and residence permit, the Directive proposes to include more attractive residence conditions for the families and enhance mobility within the EU.

Indian companies felt that it is important that movement of intra corporate transferees and individual migrants be differentiated since the purpose of visit is different for the two categories and so is the impact on the sending and receiving economies. Contrary to individual level migration, movement of intra corporate transferees is for a short period and is demand driven. It is for a specific official purpose of the company sending them, without personal interest.

#### 4. Barriers to Movement of IT/ITeS Professionals between India and the EU<sup>33</sup>

The survey found that there are some barriers which impact movement of professionals between India and the EU. The Indian companies were asked to rank the barriers in the EU and companies from EU member states were asked to rank the barriers in India. These barriers have been ranked in order of importance in Table 6. Overall, the study found that some barriers are specific to India and EU while others are applicable to both India and EU. Market information, size, lack of finances, etc., have not come up as important barriers.

<sup>&</sup>lt;sup>33</sup> Survey participants were asked to rank the barriers that they face. In this section we only present the most important and sector specific barriers.

Table 6: Ranking of Barriers to Movement of IT/ITeS Professionals based on PrimarySurvey Findings

Principal Challenges	Ranking of Barriers		
	By Indian	By EU	
	Companies for	companies	
	the EU	for India	
Market and Market Entry			
Size of market	5	5	
Competition from incumbents	5	5	
(a) Work Permit and Visas			
Work permit and visa time	2	2	
Work Permit visa application and approval process	1	2	
Qualification requirements	1	5	
Nationality/citizenship/residency requirements	2	5	
Minimum experience requirements	3	5	
Requirement to obtain local registration with a professional body	4	5	
Intra-state movement/intra-country movement	1	4	
(b) Others			
Access to Government Procurement Market	2	4	
Data Protection	2	2	
Availability of marketing channels and market information	3	5	
Culture and Language barriers	3	3	
Job Market			
Rising attrition rate and cost of manpower	4	2	
Lack of skill/technical personnel	5	2	
Lack of managerial staffs	5	2	
Slowdown/anti-outsourcing sentiments	2	4	
Finance and Investment			
Investment Limitations	3	5	
Minimum capital requirements	3	5	
High and multilayered taxation	2	2	
Availability of appropriate financing channels	5	5	
R&D base	5	5	
Legal and Regulatory	3	2	
Labour laws	2	2	
Limitations on the legal form of establishment	2	5	
Lack of mutual recognition and Social Security Agreement	2	3	
Multiple clearance requirements	2	2	
Corruption and bribery	5	2	
Regulatory uncertainty	2	2	

Source: Compiled by authors from survey responses

Note: the ranking is based on: 1=Very Important 2= Important 3=Moderately Important, 4= of Little Importance, 5=Unimportant

The barriers can be categorised as *direct barriers and indirect barriers* to movement. Direct barriers to movement includes issues such as work permit and visa restrictions while indirect barriers includes restrictions such as data protection regulations. Table 6 shows that some indirect barriers have been ranked very high. There are some other issues which can impact ongoing BTIA negotiations relating to movement of professionals. First, India, EC or member state governments do not collect data on bilateral movement of IT/ITeS professionals. In its absence, it is difficult to estimate the volume of temporary movements of service providers. This is especially crucial when India and the EU are negotiating the number of service providers who can be given liberal entry into the EU market under the BTIA agreement. In the absence of data on total flow of movement of IT professionals, the basis of ascertaining the number of professionals permitted to enter the EU is contentious. The second major issue is related to the definition. The nature of IT services is complex and the four categories of movement namely, business visitors, intra corporate transferees, contractual service suppliers and independent professionals are not comprehensive as mentioned earlier. Moreover, the way in which India and the EU defines the categories and are willing to liberalise them in the WTO (as given in their respective Revised Offers) differ. In general the Indian definition is broader. For instance, unlike India, in the EU's Revised Offer there is an additional condition on contractual service suppliers (CSS) and independent professionals (IPs) to have professional experience of atleast 3 years and a numerical ceiling that restricts the number of CSS and IPs that can perform a service in the EU. This restriction is applicable on performing computer and related activities in the UK. In general the duration of stay is higher for India and in the EU there are certain member state specific restrictions (see Table 7).

all 4 CategoriesType of Service SupplierIndia-Revised OfferEU's Revised OfferBusiness Visitor180 days90 daysIndependent Professionalone year6 monthsContractual Serviceone year6 months

five years (includes managers,

specialists and executives)

3 years for managers and

graduate trainees

specialists and 12 months for

 Table 7: Differences across India and EU's Revised Offers in terms of Duration of Stay for

 all 4 Categories

Source: Compiled from WTO (2005 a) and WTO (2005b).

Notes:

Supplier

**Intra corporate transferees** 

(a) In any twelve month period. Commitments are subject to numerical ceiling. In case of Denmark, the Netherlands, Poland, Sweden and the UK (other than computer and related services in the case of the UK).

(b) In any twelve month period. In Luxembourg it is for 25 weeks and in Latvia it is for 3 months. Commitments are subject to numerical ceiling.

(c) In Estonia, for managers and specialists, the period of stay may be extended for up to two additional years for a total term not to exceed five years. In Latvia, for manager the stay may be extended.

One of the direct barriers to movement of IT/ITeS professionals is the *barriers to entry of professionals in India and the EU*. In general, the survey found that, barriers to entry are lower in India compared to the EU. Survey participants pointed out that processing of visa applications is cumbersome and time consuming in India. This is mainly due to immense bureaucratic requirements. EU nationals working in India who were surveyed pointed out that they lack awareness about the presence of FROs in their place of residence and tend to miss the timeline of 14 days for registration. Respondents also pointed out that there are problems related to online visa application. The website is slow and there are some other problems such as difficulty to pay visa fees online and inability to access visa application through the unique temporary identity (ID) number granted on applying for a visa online.<sup>34</sup>

<sup>&</sup>lt;sup>34</sup> This particular number helps a person to track the visa status.

In the EU, visa and work permit regulations are not harmonised and they vary across member states. The survey participants pointed out that even for temporary stay and business visits, separate visas for entering into different states outside of the Schengen region is required. While the Schengen visa permits multiple entries into states that are signatories of the accord, visa is granted only for a short period. Moreover, the service providers have to first enter the country which gives the visa. Some restrictions in specific member states as compiled from the survey are given in Table 8. As is evident from this table and as survey participants argued, different member states have different immigration and entry rules and regulations. This inhibits movement across the member states for Indian companies which have multiple offices in the EU. Precisely, the survey found that the Eastern European countries such as Romania, Hungary, Slovakia and Czech Republic, among others are the relatively more difficult countries in terms of movement of IT professionals, compared to the UK and the Nordic countries. This is because the UK has a friendlier investment regime; it is an English speaking country and has a welldeveloped IT sector. In the past the UK government had relaxed labour market regulations to facilitate movement of professionals between India and the UK. On the contrary the Eastern European countries have huge cultural differences vis-a-vis India. The IT/ITeS sector of these countries is less developed and not many firms operate in this region. States such as Romania and Bulgaria have only recently become a part of the EU27 and had stricter labour mobility restrictions in the past. These countries also have surplus labour. Countries such as Greece creates problems in issuing short term visas while is Spain there are certain procedural requirements which cause delays.

In addition to the barriers listed in Table 8, movement of IT professionals to different companies that are not entities of the parent company is restricted. Survey respondents pointed out visa processing can vary from one week to six months depending on the member state. In fact, there is no provision for long-term multiple-entry business visa. In addition, there are various restrictive conditions on entry of dependants and visa extensions and renewals.

ICT	Austria	France	Italy	Germany	Greece	Spain
Application procedure						
Variation in process		Different system for dependants' visa applications		Differences regarding eligibility for/exemption from social security contributions depending on work permit	Greece does not issue any business visas or work permits to NASSCOM's member company	<ul> <li>Personal appearance of the legal representative is mandatory to submit the documents.</li> <li>Documentary requirements change frequently</li> </ul>
Processing time	10 weeks, plus delays due to holiday seasons	12 weeks, plus regular delays due to work overload of the responsible department and holiday seasons	10 weeks, plus delays due to holiday seasons	Lead time differs depending on type of work permit		Lead times varies between 3 and 9 months

## Table 8: Comparison of ICT Application Processes across selected EU Member States

Source: Authors' compilation based on NASSCOM's survey inputs.

In addition few changes in some of the member states' immigration policies have also affected movement of professionals indirectly. Of late, especially after the economic slowdown, some sudden and sporadic changes have been announced by individual member states without prior notice. For instance, since April 2012 the UK government discontinued the Tier I Post Study Work Visa and there are restrictions on Tier II visa in the form of a cap on the number of visas issued to Indian nationals and an increase in the salary limit of professionals eligible to get a visa for five years.<sup>35</sup> These impose restrictions on movement of professionals.

In the EU, labour market policies vary across member states. There are rigid labour market restrictions in countries like Germany on hiring and firing of workers, working hours, unemployment compensations etc. In some countries there are minimum wage requirements.

Survey respondents explained that it is important to understand that movement of people is requirement based. For instance, at the beginning of a project, Indian professionals need business visas for short term visits to understand the project. At times, a small team may be required in the client country to facilitate the implementation and to monitor the project, which is a long process. Indian professionals need work permits and multiple entries visa for this purpose. However, the visa and work permit regimes of different member states do not take into account such specific requirements of the IT/ITES sector. The member state specific regulations and delays in visa issuance make the process time consuming and cumbersome and cause operational difficulties both for Indian companies and their clients. Some survey participants pointed out that it is more difficult to obtain visas, work permits and resident's permits for some EU countries than from the US. This finding is in confirmation with other survey based studies (Upadhya, 2006).

In an attempt to harmonise the EU labour market, the Blue Card Directive was introduced in 2009. However, this Directive has limitations as each member state will maintain the right to determine the number of immigrant workers that can be admitted into the domestic labour market through the Blue Card. In addition, while few member states such as Austria, Cyprus and

<sup>&</sup>lt;sup>35</sup> It is a type of visa granted to foreign students graduating from a university in the UK. Once granted it will allow the student to work in the UK on completion of studies. It is issued for 2 years on a non-extendable basis.

Greece have not yet transposed the provisions of the EU Blue Card into their respective national legislations, others such as the UK and Netherlands are not in favour of the policy. The argument is that their existing labour mobility legislations are strong and open enough to ensure high-skill labour migration and hence the member states want to retain the right to screen employees of foreign origin entering their territory. Given that UK is the largest market for Indian IT/ITeS service providers, the EU Blue Card is restrictive in nature. Even if countries adopt the Blue Card system, Indian companies sending employees to the EU member states for short term stay (including intra corporate transferees) will still have to face lengthy and cumbersome procedural requirements. The EU "Single Permit Directive", (2011/98/EU) also has some limitations. It does not cover long term residents, seasonal workers or intra corporate transferees and posted workers.

To overcome this problem a proposal on the implementation of the Directive for entry and stay of intra corporate transferees has been proposed to the EU Parliament. The Indian companies have welcomed this move. However, they pointed out that the proposed Directive does not have a provision to cover movement of professionals to companies that are not entities of the non-EU company sending them to perform service in the EU.

Indian companies also mentioned that there are several barriers to investment in the EU that inhibits movement of professionals. In the EU, a company is treated differently based on its mode of operation. A foreign company is treated as an EU company only if it is a wholly-owned subsidiary; and setting up a wholly-owned subsidiary entails a high cost. This restricts companies which operate on project-by-project basis. This limitation is also highlighted in EU's Revised Offer to the WTO. The survey participants pointed out that investment requirements vary across member states and it takes between two to six months to establish office. They also highlighted the high incidence of corporate tax and stringent accounting and auditing requirements adds to the cost of operations.

The social security contribution acts as a key barrier in the EU. India has signed social security agreements with member states including Germany, France, Belgium, Netherlands, Czech

Republic, Denmark, Hungary, Luxembourg and Norway.<sup>36</sup> In the case of other member states, especially the UK, which has maximum number of Indian IT/ITeS professionals, non-EU nationals have to make social security contribution, even if he/she does not avail the benefits of the contributions. It was pointed out by government official during the survey that the UK government is unwilling for the same because of the fiscal pressures after the global financial crisis.

In the last few years, movement of professionals have been adversely affected by economic slowdown, unemployment in EU member states and anti-outsourcing sentiments. Due to the slowdown, companies have to reduce cost including travel cost. This impacts cross-country movements. Non-familiarity with the European culture and language also impacts labour mobility. In fact, the presence of Indian companies is limited in non-English speaking countries due to language barriers.

During the survey, the EU companies highlighted that although India has abundant manpower, there are problems such as shortage of qualified and trained manpower, high attrition rate and rising salaries. Skill level and employability of the existing pool is diminishing and this has been observed over the past four-five years. Time taken to train students from well-acclaimed institutes like the Indian Institute of Technology (IIT) is same as that required to train non-IITians. According to a Hewitt report, salaries in the IT/ITeS sector are expected to increase at an average rate of 11 per cent in 2012.<sup>37</sup> While the urban human capital resource is getting saturated, human capital in the rural areas is not appropriately skilled and has limited access to education and training institutes. Rise in labour cost and unavailability of adequate skill will reduce India's competitiveness in the global market and drive various companies to other investment destinations.

In the case of India, both Indian and the EU companies referred to the uncertainty related to discontinuation of the exemption granted to the IT/ITeS sector under the Industrial Employment

<sup>&</sup>lt;sup>36</sup> Deloitte, 2011, India Tax, available at <u>http://www.deloitte.com/assets/Dcom-</u>

India/Local%20Assets/Documents/GES%20alerts/2011/GES-01-2011.pdf

<sup>&</sup>lt;sup>37</sup><u>http://articles.economictimes.indiatimes.com/2012-02-21/news/31083113\_1\_aon-hewitt-highest-hike-cent-respondents</u>

(Standing Orders) Act, 1946. They felt that while this will ensure protection of the workers engaged in this sector, it will result in a hike in the companies' operating cost. Companies will not have the flexibility to hire and fire as per project requirements. They argued that labour laws in India are highly outdated.

There are some *indirect barriers* which adversely impacts the cross-country movement of people between India and EU. A key barrier is data protection. This issue is being extensively discussed under the on-going BTIA negotiations. The main concerns for Indian companies and some EU companies is that India is not accorded the status of a data secure nation by the EU.<sup>38</sup> This is despite the fact that India has made necessary amendments to its domestic regulations (the Information Technology Act, 2000) in 2011. The new Information Technology (Reasonable security practices and procedures and sensitive personal data or information) Rules, 2011 are in line with the safe harbour principles adopted by the US and the US is accorded a data safe country by the EU. Regulations for data protection in the EU are cumbersome as they require creation of government data protection agencies, registration of data bases with those agencies and, in some cases, prior approval before personal data processing can be done. The EC, which is empowered to identify whether a third country ensures adequate level of data protection has identified a limited number of countries (such as the US), but India is not among them. As a result, the Indian companies and even subcontracting parties have to meet the lengthy requirements laid down under the EU Directive on data protection. The survey found that Indian call centre companies which work with live customer data and jobs which involve outsourcing of live and confidential data on European citizens to India are the most affected due to the rigid data protection regulations. In addition, access to data is restricted across the EU member states because of which Indian software engineers have return to India to draft codes instead of doing the job in the EU. It is much convenient and viable to draft codes in the EU but adhering to the data protection regulations is complicated and expensive and several approvals from the national and other multiple authorities of each member state are required.

<sup>&</sup>lt;sup>38</sup> Countries such as Andorra, Australia, Canada, Switzerland, Faeroe Islands, Guernsey, Israel, Isle of Man and Jersey are considered as data secure nations by the EU.

The EU side have argued that the Information Technology (Reasonable security practices and procedures and sensitive personal data or information) Rules, 2011 do not include a strong enforcement clause that will ensure accountability, adherence of the new rules and penalty guidelines in the case of non-adherence. This is adversely impacting movement of people through restrictions on business development as it restricts the transfer of personal data to locations outside of the EU unless the importing country ensures adequate data protection.

A key issue in the India-EU negotiations is access to government procurement market in India and the EU. India is yet to implement a government procurement regulation. The EU companies pointed out that they face barriers due to non-transparent procedures and a comprehensive regulation will help to streamline the procedures. Inspite of these barriers the survey found that EU companies are working closely with Indian government in many government projects. Indian IT companies pointed out that even if India implements the domestic legislation, becomes the member of the WTO's Plurilateral GPA and makes government procurement related commitments under the BTIA, it may not enhance Indian companies' access into the EU's government procurement market in the IT/ITeS sector. This is because majority of Indian companies are small and may not meet the threshold limits. Also, few Indian companies can provide integrated services and the companies mostly operate in the EU in collaboration with large EU companies or companies from other countries like the US. Indian companies pointed out that delivery of services are related to products and hardware, both of which are weak in India. Thus, even in the near future, India companies will have to continue to be subcontractors of global players.

The survey participants also mentioned about another barrier to trade which can also result in opportunities for future India-EU collaborations. Majority of the growth in the IT/ITeS sector in India is accounted for by software and BPO services.<sup>39</sup> India predominantly exports low-technology products. This is because of lack of adequate R&D facilities and initiatives. India's total R&D investment is forecasted to be only 0.8 per cent of GDP which is very low compared

<sup>&</sup>lt;sup>39</sup> BPO offshoring is outsourcing or offshoring of BPO services such as human resource, finance, customer service, etc. These can be outsourced to a third-party vendor or performed from an internal offshore location. IT offshoring is outsourcing or offshoring of IT services such as application development, application maintenance and IT infrastructure, among others. These can be outsourced to a third-party vendor or performed from an internal offshore location.

to countries such as the UK (1.84 per cent), Sweden (3.62 per cent), China (1.6 per cent) and Japan (3.5 per cent), among others. Even though India is emerging as a hub for outsourcing IT software services, investment in R&D, particularly by the private sector is still low and based largely on the outsourcing market.<sup>40</sup> There are a few R&D institutions in India, but they lack resources and industry support. As a result, the IT/ITeS sector is heavily dependent on foreign technology and herein lays the scope for further collaboration between India and EU companies. However, R&D collaboration can be impacted by other barriers such as data protection issues. If R&D collaborations happen, EU companies can develop their R&D centres in India. This will lead to movement of people.

One interesting fact that came out of the survey is that unlike other professional movement differences in qualification standard has not come up as an important barrier. When probed survey participants pointed out that Indian IT/ITeS companies have already created a brand name and therefore they face lesser barriers than other professional movements. Also, the sector largely appoints engineers and other degree holders which is not a registered profession in India and many EU member states. Hence, IT professionals do not need to register with professional bodies.

#### 5. Policy Recommendations and the Way Forward

The discussion in the previous sections shows that India and the EU have trade and investment complementarities in IT/ITeS services and these complementarities can be accentuated through movement of professionals between the two economies since the sector is skill intensive. While professional movement can lead to increase in trade through other modes, increase in trade in other modes also propels professional movement. India's abundant supply of high-skilled professionals complements the labour shortage in many EU member states. Indian and EU companies have established presence in each others' market and have diversified their services offerings. In future, trade in IT/ITeS sector between these two economies will continue to grow leveraging on their mutual strength. This is a key sector in the on-going BTIA negotiations and

will be a key sector driving the overall India-EU services trade, investment and collaborations in future.

The paper highlights a number of barriers to trade in this sector. Some of these can be addressed through domestic reforms in India and the EU and others under the on-going BTIA negotiations and through inter-governmental collaborations. One area where there is an urgent need for inter-governmental collaborations is the collection of data on movement of people between India and EU member states by some key professional categories including IT/ITeS. The two economies should also have a common definition for different categories of movement of professionals. It will facilitate movement of professionals between the two economies if the definition used by India in the Revised Offer submitted to the WTO (August 2005) is adopted by both India and the EU in the BTIA. The BTIA can have a separate chapter on movement of people, which focuses on movement of certain skills including those engaged in the IT/ITES sector. The EU government needs to harmonise the EU market to introduce single window clearance for fast tracking investment approvals for establishing commercial presence (Mode 3) in the EU member states. India and governments should finalise the signing of the Social Security Agreement. In addition the Indian and the UK government should enter into a social security agreement.

To facilitate movement of IT/ITeS professionals both India and EU needs to address the issues related to visa and work permits. The Indian government needs to reduce bureaucratic hurdles in visa application procedure. Online visa application procedure should be streamlined and made more efficient to avoid delays. Since there is a skill shortage in the EU and EU companies have benefited from the services of Indian IT/ITeS professionals, the EU member states should harmonise the work permit and visa process to facilitate intra-EU movements. The proposed ICT Directive should be implemented. To streamline the process, intra corporate transfers can be based on company profiling and certification. Indian companies can then register with the EC and their employees can be granted visa on the basis of prior company certification and authentication. This will reduce time and effort for issuing repeat visas and fasten the movement of professionals especially in the case of temporary and frequent visits. The EC should try to

ensure that all member states, especially the UK, transpose to the existing Directives on movement of people such as the Blue Card Directive.

To address the problem of declining skill level of the labour pool in India, the government also needs to invest in improving the existing education standards and skill level across Indian cities especially the tier II and III cities. Focus should be on strengthening grass root level education along with university level collaborations with Indian and foreign universities so that a highly skilled pool of IT professionals can be created. Branches of well acclaimed Indian educational institutes of tier I cities should be set up in tier II and III cities. Government should encourage government and university level collaborations with foreign universities especially from the EU. This will expose Indian students to global standards and increase their employability. Government should also set employment standards in collaboration with IT companies. The IT companies can outline the necessary skills required in the IT/ITeS sector, which should be adopted in the course and curriculum of education institutes. Higher focus on in-house R&D facilities in educational institutes and in IT companies will automatically increase the skill level of the students and professionals.

While India needs to modify the Information Technology Rules, 2011 to include an 'enforcement' clause so as to ensure accountability and identify an independent authority clearly defining the procedures and penalties in case of failure to compliance, the EU needs to work with India to find out ways in which India can be accorded a Safe Harbour Nation status. Alternatively if the EU does not declare India as a safe harbour nation then NASSCOM pointed out that there can be three ways in which data protections barriers can be reduced. These include (a) clearly define benchmark safe harbour principles and audit each country trading with the EU; (b) appoint a self regulator that identifies data secure companies in India; (c) provide a clear pathway recommending changes in Indian legislations so that India can become a data secure nation. This will enhance trade and investment and movement of professionals between the two economies.

To facilitate trade and movement of professionals, Indian government needs to expedite the implementation of the Government Procurement Bill. The EC may consider a liberal policy

towards India while opening up the EU procurement market to Indian companies. Since Indian companies will be at a disadvantage compared to companies from the GPA signatories, survey participants pointed out that Indian companies can be initially offered some incentives such as the \$162 million cap on outsourced contracts and reservation for small and medium enterprises in the EU can be phased out for initial five years, until the time that India enters into the plurilateral GPA.

Lastly and not the least, there is need for more investment in R&D both at the government level and at the company level. Joint R&D between Indian and EU companies will facilitate movement of IT/ITeS professional and also lead to skill upgradation. Under the BTIA there can be a separate chapter on R&D collaboration with specific reference to R&D related to the ICT sector. Since IT/ITeS sector is interlinked to other services sector, commitments of India and EU in other services sectors under the BTIA will have an implication for trade and movement of professionals in IT/ITeS sector. If both India and EU offer commitments across a wide range of services sectors and liberal commitments in temporary movement of people across different categories it will facilitate trade in IT/ITeS sector.

#### References

AT Kearney (2011), 'Offshoring Opportunities Amid Economic Turbulence', Global Services Location Index, 2011, available at,

http://www.atkearney.com/index.php/Publications/offshoring-opportunities-amideconomic-turbulence-the-at-kearney-global-services-location-index-gsli-2011.html.

- Battelle (2012), '2012 Global R&D Funding Forecast', The Business of Innovation, December 2011.
- Census of India (2001), Population projections for India and states, 2001-2026, 'Report of the Technical Group on Population Projections' Constituted by the National Commission on Population, Ministry of Home Affairs, Government of India, May 2006.
- Census of India (2011), Provisional population totals paper 1 and 2 of 2011 and India series 1 and paper 2, Ministry of Home Affairs, Government of India, 2011.
- Chanda, Rupa (2008), 'Trade in IT and IT-Enabled services: Issues and Concerns in an India-EU Trade and Investment Agreement', an ICRIER report, New Delhi, September, 2008, available at <u>http://wtocentre.iift.ac.in/EU%20BTIA/EU%20BTIA/Report%20on%20IT-ITES-%20India-EU%20BTIA.pdf</u>.
- Deloitte (2011), 'Snapshot of the Status of India's Social Security Agreement with Other Countries and Underlying Comparisons/Implications', Vol. GES/1/2011, available at http://www.deloitte.com/assets/Dcom-

India/Local%20Assets/Documents/GES%20alerts/2011/GES-01-2011.pdf.

- Department of Information Technology (2010), Annual Report 2010-11, Ministry of Communications & Information Technology, Government of India.
- DIPP Factsheet on Foreign Direct Investment (FDI) (April 2000 to March 2012), Department of Industrial Policy and Promotion, Ministry of Commerce, Government of India, 2012, last accessed on available at

http://dipp.nic.in/English/Publications/FDI\_Statistics/2012/india\_FDI\_March2012.pdf (last accessed on October 25, 2012)

Electronics and Computer Software Export Promotion Council (2009), 'Statistical Year Book 2009-2010' - A Detailed Analysis of India's electronics, Computer Software/Services and ITeS Industry and Export 2009-10, India.

- European Commission (2006), 'Fostering the Competitiveness of Europe's ICT Industry', EU ICT Task Force Report, November 2006, available at http://ec.europa.eu/information\_society/eeurope/i2010/docs/high\_level\_group/ict\_task\_fo rce\_report\_nov2006.pdf.
- European Commission (2011), 'The 2011 Report on R&D in ICT in the European Union', JRC Scientific and Technical Reports.
- Ghibutiu, Agnes and Irina Dumitriu (2008), 'The Effects of Offshoring on Trade in Services. Evidence from Romania', Working Paper, European Trade Study Group, 2009, available at <u>http://www.etsg.org/ETSG2007/papers/dumitriu.pdf</u>.
- Hansen, Povl A. and Goran Serin (2010), 'The European ICT Clusters an overview of selected ICT clusters in Europe', European Union publication, available at <a href="http://rucforsk.ruc.dk/site/files/32956338/the\_european\_ict\_clusters\_web\_0.pdf">http://rucforsk.ruc.dk/site/files/32956338/the\_european\_ict\_clusters\_web\_0.pdf</a>).
- Hultin, Goran (2012), 'Skill Matching between India and the European Labour Market: An Assessment of the Labour Market needs of selected European countries', CARIM-India Research Report, 2012/05, available at <u>http://www.india-eu-migration.eu/media/CARIM-India-2012-05.pdf</u>
- Kumar, Nagesh and K.J. Joseph (2005), 'Export of Software and Business Process Outsourcing from Developed Countries: Lessons from the Indian Experience', Asia-Pacific Trade and Investment Review, Vol. 1, No. 1, 2005, pp. 91-110.
- National Association of Software and Services Companies (NASSCOM) (2012a), 'The IT-BPO Sector in India', Strategic Review 2012, India.
- NASSCOM (2008), 'The IT-BPO Sector in India', Strategic Review 2008, India.
- NASSCOM (2012b), 'The Need for Flexible Employment markets in a Globalising World', Discussion Paper.
- Palugod, Nora and Paul A. Palugod (2011), 'Global trends in offshoring and outsourcing', International Journal of Business and Social Science, Vol. 2, No. 16, 2011, pp. 13-19.
- Piper, Nicola (2005), 'Gender and Migration', Research Paper, Global Commission on International Migration, September, 2005, available at <u>http://www.iom.int/jahia/webdav/site/myjahiasite/shared/shared/mainsite/policy\_and\_res</u> <u>earch/gcim/tp/TP10.pdf</u>

- Upadhya, Carol (2006), 'The Global Indian Software Labour Force IT Professionals in Europe', Indo-Dutch Programme on Alternatives in Development, Working paper series 2006, No. 1.
- Veugelers, Reinhilde (2012), 'New ICT sectors: platforms for European growth?', Bruegel Policy Contribution, No. 2012/4, Bruegel, Brussels, August, 2012.
- WTO (2005a), EU Revised Offer, Communications form the European Communities and its Member States, conditional revised offer, TN/S/O/EEC/Rev.1, 2005, retrieved on 29 October 2012, <u>http://www.esf.be/pdfs/GATS%20Revised%20Offers/EU%20revised%20GATS%20offe</u> <u>r.pdf</u>.
- WTO (2005b), India Revised Offer, 'India Revised Offer', TN/S/O/IND/Rev.1, 2005, retrieved on 29 October 2012, <u>http://commerce.nic.in/trade/revised\_offer1.pdf</u>.