Government of Sri Lanka

NATIONAL EXPORT STRATEGY
OF SRI LANKA

INFORMATION TECHNOLOGY STRATEGY

2018-2022

ISLAND OF INGENUITY
KNOWLEDGE SOLUTIONS

SRI LANKA

The National Export Strategy (NES) of Sri Lanka
is an official document of the Government of Sri Lanka

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NATIONAL EXPORT STRATEGY
OF **SRI LANKA**
2018-2022

**INFORMATION TECHNOLOGY
STRATEGY**

MESSAGE FROM THE INFORMATION TECHNOLOGY INDUSTRY

In the past ten years, the Sri Lankan IT-BPM industry has expanded by 300% to reach $1.2 Billion in export revenue. The sector has therefore provided employment to more than 80,000 professionals and thereby contributing to 12% of Sri Lankan services exports. Compared to other export sectors, the IT-BPM sector has shown great potential to increase export revenue.

The immense potential of Sri Lanka's IT-BPM sector has been recognised by identifying it as a priority sector of the Sri Lankan National Export Strategy. This strategy is a five-year endeavour that was established through a consultative process involving both public and private sector stakeholders in the country. In line with other aspirations of the National Export Strategy of making Sri Lanka a vital trade & innovation hub in Asia, this strategy seeks to position Sri Lanka as a global IT-BPM destination.

Sri Lankan IT-BPM companies have asserted their competitiveness internationally. This competitiveness stems from reasonable costs, high quality services and having an educated workforce with exceptional skills. This strategy will further Sri Lanka's aspirations to achieve national level branding of Sri Lanka's IT-BPM sector. This branding will support SMEs and larger companies to increases overall sector performance and to enhance visibility and market outreach.

The strategy identifies two specific areas as being priorities for the implementation of the strategy. First, to create a business-enabling environment, address policy & regulatory bottlenecks swiftly, and provide necessary institutional support to improve marketing and promotion of the IT-BPM sector; and second to launch a 'Champion Builder' program targeting firms with exponential growth potential who can help collectively boost sector export revenue by $2 billion.

Critical to achieving the targets as outlined in the strategy will be to coordinate activities, monitor progress and to mobilise resources for implementation. We as sector representatives have recommended that a 'Special Advisory Committee' consisting of public-private stakeholders is established to be responsible for overall coordination, provision of rapid solutions to regulatory and procedural bottlenecks, policy guidance, and the monitoring of industry development along the strategic orientation.

In addition to this, the strategy also seeks to foster and develop skills of individuals in the IT-BPM sector, promote local awareness and regional development of the sector and to develop start-up ecosystems encourage local & international investor interest in the sector.

This strategy bears the formula to transform Sri Lanka into a global IT-BPM destination and Asia's favourite centre of excellence. The implementation of this strategy will have a direct and immediate impact on millions of Sri Lankans through provision of employment and increasing standards of living.

This is a much-awaited strategy for the IT-BPM sector in Sri Lanka. Stakeholders of this sector are committed to collaborate with all relevant professionals to ensure the smooth implementation of this strategy to unlock the potential latent on Sri Lanka's IT-BPM sector.

Dr.Kithsiri Manchanayakke
Chairman
The Federation of Information Technology
Industry Sri Lanka (FITIS)

Ruwindhu Peiris
Chairman
Sri Lanka Association of Software and
Service Companies (SLASSCOM)

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The document benefited particularly from the inputs and guidance provided by the members of the IT-BPM sector team that steered the formulation of the sector Strategy, namely:

Name	Position	Organization
Sector team		
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Mr. Sachindra Samaratne	Project Manager	Information and Communication Technology Agency of Sri Lanka (ICTA)
Mr. Nilan Thimbiripola	Project Manager	ICTA
Mr. Saman Maldeni	Director	EDB
Ms. Renuka Dasanayake	Deputy Director (Investment Appraisal)	Board of Investment (BOI)
Dr. Kithsiri Manchanayakke	Chairman	Federation of IT Industry Sri Lanka (FITIS)
Mr. Jeevan Gnanam	Director / CEO	Orion City (IT Park) IT Park (private or government-led EPZ for IT)
Education, capacity and skills building team		
Dr. Janaka Wijayanayake	Senior Lecturer	Department of Industrial Management, Faculty of Science, University of Kelaniya
Dr. Lalith Gamage	Managing Director/Chief Executive Officer Professor	Sri Lanka Institute of Information Technology (SLIIT)
Mr. Ashique Mohamed Ali	Director, Board representative – Technology Forum	Talliance Pvt. Ltd
Dr. Lochandaka Ranathunga	Senior Lecturer	Department of Information Technology – University of Moratuwa
Dr. Ruwan Weerasinghe	Senior Lecturer	University of Colombo School of Computing
The '$2 billion plan' team		
Mr. Ruwindhu Peiris	Chairman	SLASSCOM
Ms. Lakmini Wijesundara	CEO	IronOne Technologies
Mr. Upendra Peiris	Vice President	OrelIT Pvt Ltd

The full list of public and private stakeholders that contributed their precious time to the design of this Strategy are detailed in Appendix 1.

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ACRONYMS

The following abbreviations are used :

ADB	Asian Development Bank	**LPO**	Legal process outsourcing
B2B	Business-to-business	**MNC**	Multinational corporation
BOI	Board of Investment	**MoDSIT**	Ministry of Development Strategies
BPM	Business process management		and International Trade
BPO	Business process outsourcing	**MoF**	Ministry of Finance
CBoSL	Central Bank of Sri Lanka	**MoFA**	Ministry of Foreign Affairs
DoC	Department of Commerce	**MoHEH**	Ministry of Higher Education
DoIE	Department of Immigration		and Highways
	and Emigration	**MoTDI**	Ministry of Telecommunications
EDB	Sri Lanka Export Development Board		and Digital Infrastructure
ESOS	Employee share option schemes	**MoSDVT**	Ministry of Skills Development
ETA 2006	Electronic Transactions Act,		and Vocational Training
	No. 19 of 2006	**MoU**	Memorandum of understanding
EU	European Union	**NES**	National Export Strategy
FEEA	Foreign Exchange Earners Account	**NIPO**	National Intellectual Property Office
FITIS	Federation of Information Technology	**OECD**	Organisation for Economic Co-operation
	Industry Sri Lanka		and Development
GDP	Gross domestic product	**PoA**	Plan of action
GDPR	General Data Protection Regulation	**PMO**	Prime Minister's office
IP	Intellectual property	**PwC**	PricewaterhouseCoopers
ICT	Information and communication	**R&D**	Research and development
	technology	**RPA**	Robotic process automation
ICTA	Information and Communication	**SLASSCOM**	Sri Lanka Association of Software
	Technology Agency of Sri Lanka		and Service Companies
IoT	Internet of things	**SLSI**	Sri Lanka Standards Institution
IMF	International Monetary Fund	**SME**	Small and medium-sized enterprise
IT	Information technology	**TISI**	Trade and investment support institution
IT-BPM	Information technology-business process	**TVET**	Technical and vocational education
	management		and training
ITC	International Trade Centre	**UGC**	University Grants Commission
JV	Joint venture	**UNCTAD**	United Nations Conference on Trade
KPO	Knowledge process outsourcing		and Development
LKR	Sri Lanka rupee	**WTO**	World Trade Organization

EXECUTIVE SUMMARY

The development of Sri Lanka's IT-BPM industry Strategy is a five-year endeavour and was defined by a consultative process between public and private sector stakeholders. The Strategy aims to transform the country into a global IT-BPM destination and Asia's favourite centre of excellence. Achieving this objective will depend on the ability of industry and the Government to implement the activities defined in this IT-BPM Strategy. To achieve the Strategy's targets, stakeholders will need to coordinate actions, monitor progress and mobilize resources for its implementation. Providing business development support to firms, enhancing innovation and creating an enabling business environment are crucial for successful implementation.

Sri Lanka aims to become a global IT-BPM destination and to unlock sector growth by a factor of five. SLASSCOM foresees the industry achieving US$5 billion in exports by 2022, creating 200,000 direct jobs and launching 1,000 start-ups.[1] This will be achieved by fostering and enabling an adequate regulatory environment and implementing key guidelines and procedures. This will create conditions that are favourable to starting new companies, operating businesses efficiently, growing markets and building industry branding.

In the past decade, the IT-BPM industry in Sri Lanka has seen substantial expansion and had some of the strongest growth among all export sectors. Over the last 10 years, the industry has grown more than 300%, reaching US$1.2 billion in revenue,[2] providing jobs to more than 80,000 professionals and contributing 12% of Sri Lankan service exports.

This innovative and constantly evolving industry can provide significant benefits to the national economy. The Sri Lankan start-up ecosystem is expanding, having created almost half of all new companies in the computer science area. On average, every IT-BPM job generates 2.5 indirect jobs. IT-BPM work has links to all other sectors, supporting retail, hospitality, engineering, agriculture, healthcare, logistics and many other industries. Increased development of the industry will require business assistance for start-ups and SMEs to create and operate efficiently. The industry will grow through the provision of facilities and supporting services such as shared working space and advisory and mentorship programmes. Improving the supply of highly qualified professionals will be essential to satisfy the growing IT-BPM market.

1.– Sri Lanka Association of Software and Service Companies and PricewaterhouseCoopers (2016). *Vision 2022: Sri Lanka IT-BPM Sector*. Available from https://slasscom.lk/report/slasscom-strategy-document-2016.

2.– PricewaterhouseCoopers (2017). ICT/BPM in Sri Lanka – Branding GAP Analysis Report. Colombo.

Figure 1: Sri Lanka IT-BPM and analytics ICT-enable services

IT
- Software R&D
- Application development
- Application management
- IT consulting

Analytics (KPO)
- Data and document conversion
- Legal process outsourcing (LPO)
  conveyancing
- Market intelligence
  investment support market research
  fanancial analysis
- Financial and accounting operations (FAO) verticaly served
  accounting healthcare banking
  taxation leisure telecommunication

BPM
- Medical transcriptions
- Financial transcriptions
- Contact centres operations (CCO)
  Outbound marketing Customer services
  Hospitality services Healthcare services

The IT industry in Sri Lanka has expanded its product base from software and applications development, booking support and transaction processing centres. Today the industry offers professional services in a number of different areas and a full range of IT products, from IT development and maintenance to innovative solutions for all. There is significant potential for Sri Lankan companies to expand the existing range of products and services to create a full range of new products such as mixed reality, augmented reality and Internet of things (IoT) solutions, in which software and hardware come together, which will increase the country's intellectual property (IP) products and patents and increase its high technology product engineering. For smaller companies, focusing on niche products and services will be the most suitable approach. Untapped opportunities lie in further penetration of fast-growing markets with new products for SMEs, the public sector and family-run entities in the Asia–Pacific region, Africa and the Middle East, as well as for large companies and for the diaspora market in the United Kingdom of Great Britain and Northern Ireland, Australia, New Zealand, Canada, Japan and Scandinavian countries.

Sri Lankan IT-BPM companies have earned recognition for their cost-competitive advantages, high quality and educated workforce with developed skills, but international recognition of the industry has been limited. Having an IT-BPM national level brand will benefit both large and small companies. Supporting bigger IT-BPM companies by providing consulting services in sales and marketing, building skills and capacities and expanding marketing and promotion will improve overall industry performance and increase market outreach and the visibility of the industry.

The following key interventions are priorities in order to facilitate the Strategy's implementation:

- Create a business-enabling environment, address policy and regulatory bottlenecks swiftly and provide necessary institutional support to improve marketing and promotion of the IT-BPM sector;
- Launch a 'champion builder' programme targeting firms with exponential growth potential that collectively can help boost sector export revenue by US$2 billion; and
- Make the industry become higher value and IP-driven.

The following is a delineation of the proposed vision and strategic objectives of this Strategy. The vision statement was agreed upon by all stakeholders of the IT-BPM industry in Sri Lanka:

> Sri Lanka: A global IT-BPM centre of excellence of high-end product engineering, IP creation and knowledge process outsourcing

The strategic Plan of Action (PoA) responds to this vision by addressing key constraints and leveraging opportunities in a comprehensive manner. Particular efforts will be made in the following strategic objectives:

Strategic objective 1: Support investment and exports in the IT-BPM sector through a business-enabling, predictable and transparent policy and regulatory framework.	• Create an enabling business environment, implement a formal framework and improve sector institutional coordination to direct the industry in the first step towards improved industry growth.
Strategic objective 2: Drive export growth through innovation and entrepreneurship.	• Provide business development support to firms and enhance innovation to increase the capacities and outreach of IT-BPM start-ups and SMEs in national and international markets.
Strategic objective 3: Improve the supply of skilled highly qualified professionals to satisfy the growing IT-BPM market.	• Raise awareness about career opportunities, bring more students to the industry during their studies and encourage international experts to share knowledge with youth to sustain IT-BPM industry growth.
Strategic objective 4: Grow champion firms ('the US$2 billion plan')	• Initiate proactive investment targeting big companies to improve marketing and visibility for Sri Lanka that will enhance the country's image as a destination for knowledge services and innovation.

Coordinating activities, monitoring progress and mobilizing resources for implementation will be critical to successful achievement of these targets. Accordingly, a public-private Advisory Committee for the IT-BPM industry was established, operationalized and empowered. The IT-BPM Advisory Committee is responsible for overall coordination, provision of rapid solutions to regulatory and procedural bottlenecks, policy guidance and the monitoring of industry development against the Strategy's strategic objectives.

An effectively organized and supported advisory committee will plan industry development strategically. High-level support from the Government, in collaboration with strong championship by the private sector, will be the real drivers to transform Sri Lanka into a global IT-BPM destination and Asia's favourite centre of excellence.

Definitions used in this document:

The rapidly changing character of Information and communication technology (ICT) goods and services has grown in parallel with the need for statistics and analysis to support and inform policy making in this area. Since 1999, the OECD Working Party on Indicators for the Information Society has been providing statistical standards and developing definitions of ICT sectors and products, electronic commerce and ICT infrastructure. The Partnership on Measuring ICT for Development, including Eurostat, ITU, UNCTAD, the World Bank and other relevant UN agencies, helps countries to adopt the same statistical standards and definitions for the development of the information society worldwide.

Despite having a clear definition in international trade statistics, there are currently no agreed upon Partnership indicators for international trade in ICT services. The following are the definitions widely accepted by OECD countries, the European Union and the United National Statistical Commission. For the purpose of international harmonization of terms, the same definitions are used in this Strategy.

The ICT sector is the production (goods and services) of a candidate industry must primarily be intended to fulfil or enable the function of information processing and communication by electronic means, including transmission and display.

The ICT products are the products that must primarily be intended to fulfil or enable the function of information processing and communication by electronic means, including transmission and display.

The ICT infrastructure consist of all components that play a role in overall IT and IT-enable operations, namely public switched telecommunication networks, internet and telecommunication equipment, facilities and services provided to the public (hardware and software).

The ICT services is defined in international trade as services including telecommunications and computer and information services.[*]

The IT services include any type of software development and implementation, content management and development, programming, application testing, IT consulting, IT support services and IT infrastructure management and maintenance.[**]

The ICT-enabled services are services products delivered remotely over ICT networks, and includes BPO, BPM, and KPO.

The information society is a conceptual model that encompasses the widely agreed elements of ICT supply, ICT demand, ICT infrastructure, ICT products and "content".

There is no coherent definition for the BPO, BPM or KPO, and the grouping of various services could be created to cover business process outsourcing and management services. In this Strategy, the Business process outsourcing (BPO) is any front and back-office ICT enable services such as call centres, customer contact centres, simple data entry. The Knowledge process outsourcing (KPO) are analytics services such as legal process outsourcing, market intelligence and financial and accounting operations vertically served. The Business process management (BPM) services cover the delivery of a wide variety of established services, including financial services, insurance services, etc., but also embrace medical and financial transcription, sales and marketing, management, administration, engineering, R&D, education, as well as any other business service than can be delivered remotely.[***]

Source: OECD (2011)v, UNCTAD (2015)

* This definition was approved by the United Nations Statistical Commission at its 47th session in March 2016 based on a proposal by UNCTAD. However, Information services, currently included in the BPM6 standard component 9 Telecommunications, computer, and information services, are not part of the economic activities covered by the OECD's ICT sector definition. UNCTAD (2015). International trade in ICT services and ICT-enabled services. UNCTAD Technical Notes on ICT for Development No. 3, Geneva.

** UNCTAD's typology of ICT-based services

*** See Appendix 2 for ICT services complementary grouping.

A RAPIDLY EVOLVING INDUSTRY DRIVEN BY TECHNOLOGICAL INNOVATIONS AND DIGITAL BUSINESS INITIATIVES

Over the last decade, the IT sector has experienced significant growth and developed remarkable innovations. Strong growth in computer services brought to the IT industry new technological trends that are changing how companies do businesses today. The industry has been led mainly by Untied States-based companies that are leaders in their fields, such as high-end devices, digital content distribution and app stores, online search and advertising, social media, e-commerce, cloud services and productivity software. Now they are actively diversifying into new businesses.[3] Companies offer more and more software solutions providing different type of services, and new global players such as Alibaba, Baidu and Huawei – successful in their home markets – are expanding their scope abroad. There is also a recent tendency for firms providing financial, medical, healthcare and legal services to become software companies or companies offering services online. These companies are investing more in the IoT, content, advertising, emerging distribution technologies and devices and services based on fifth generation telecommunications standards.[4]

Telecommunication, computer and information services have experience increasing export value, with strongly growing computer services. ICT services[5] was the most dynamic sector among commercial services in 2016, growing by over 4% (see figure 2) to US$ 493 billion.[6] In the 2005–2016 period, the ICT compound annual growth rate was 12.41% (see figure 3). Outsourced digital business solutions are often used by companies, and ICT uses digital means to connect business processes so that the company can transfer or use those digital business solutions.

Photo: (cc) @pixabay

3.– *Ibid*.

4.– *Ibid*.

5.– Analyses of trade in ICT services commonly include trade in telecommunications services and in computer and information services, using data from the IMF balance of payments statistics. However, as ICT definition varies and depends on each country, some of them do not report on all three component of ICT commonly accepted components.

6.– World Trade Organization (2017). *WTO Trade Statistical Review 2017*. Washington, D.C. Available at https://www.wto.org/english/res_e/statis_e/wts2017_e/wts2017_e.pdf.

Figure 2: World exports of commercial services by main category, 2016 (annual change, per cent)
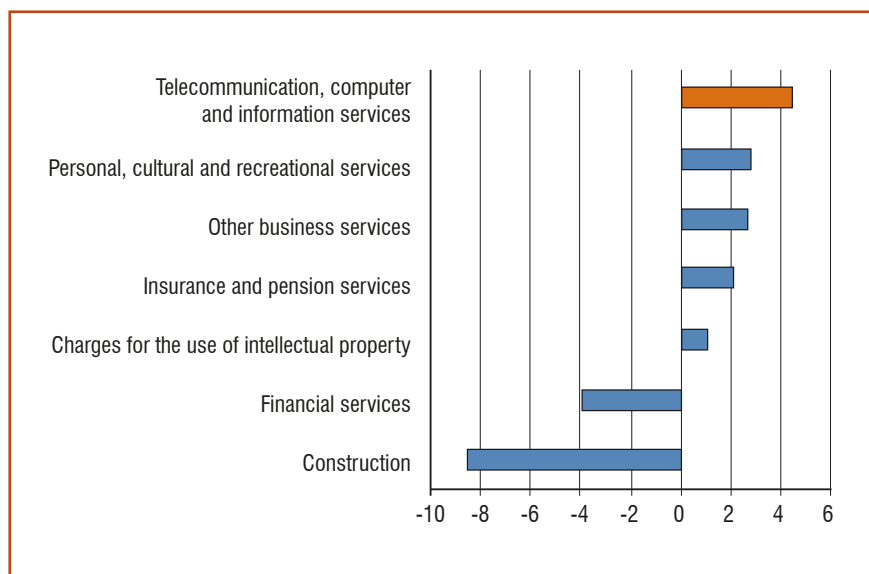
Figure 3: Exported value of global telecommunications, computer, and information services, 2005–2016 (US$ billion)
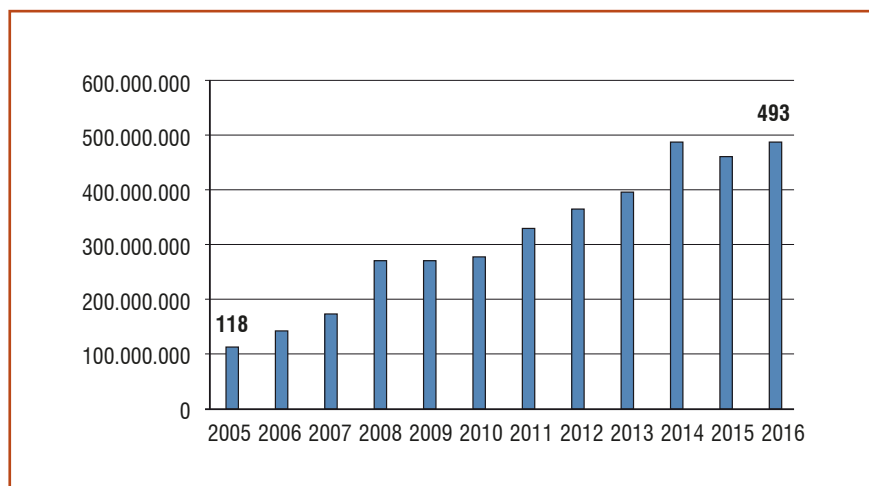
Business process outsourcing (BPO) is becoming commoditized and competition is increasing. The global BPO market continues to grow slowly, with increased competition in all segments of the industry. More experienced players are moving into higher-end services, end-to-end business process outsourcing and domain-specific expertise, while new countries continue to announce themselves as BPO destinations. Definitions for segments of BPO services are becoming wider and providers are becoming more specialized in their offerings. Key technology innovations are driving companies to outsource business processes. Larger offshore players are setting up onshore or near-shore service centres in key geographic locations. India is a leader in providing offshore BPO services, but China is closing the skill gap with India and is expected to outperform in coming years. Malaysia, Indonesia, Brazil, Viet Nam

and the Philippines follow in the ranking of top ten global outsourcing countries.[7] The United States of America remains the country most likely to import offshore ICT services, with nearly two-thirds of ICT imports in computer services. [8]

Data privacy and data security is particularly important for BPO and outsourcing services. Outsourcing transactions involves sensitive data processing and increased cybersecurity threats, which mean more difficulties in managing data privacy and security. The number of cybersecurity incidents worldwide is increasing and many countries have introduced regulations on data protection. The EU's General Data Protection Regulation (GDPR) holds data processors responsible for protection of personal data. Should a data breach occur, even third party providers can be accountable. Similar regulation will encourage companies to comply with data protection laws and regulations regarding the processing, storage, handling, collection and transmission of data.

7.– Sethi, Arun and J. Gott (2016). *The Widening Impact of Automation*. New York: A.T. Kearney Global Services. Available at https://www.atkearney. com/digital-transformation/article?/a/the-widening-impact-of-automation-article.

8.– World Trade Organization, ITC and UNCTAD (2017). WTO-ITC-UNCTAD annual trade in services database. Available at https://www.wto.org/english/ res_e/statis_e/trade_datasets_e.htm. Accessed December 1, 2017.

Box 1: The EU GDPR

Approved by the EU Parliament on 14 April 2016, this regulation will be directly applied by all member states from 25 May 2018. The regulation was designed to harmonize data privacy laws across Europe, to protect and empower all EU citizens' data privacy and to reshape the way organizations across the region approach data privacy.

The GDPR not only applies to organizations located within the EU but also will apply to organizations outside the EU if they offer goods or services to EU data subjects. It applies to all companies that are processing and holding the personal data of data subjects residing in the EU, regardless of the company's location. A data protection officer must be appointed in an organization that engages in large scale processing of sensitive personal data.

Most established BPO destinations are aligning their regulations with the GDPR to ensure compliance at national or sector level. Personal data is allowed to leave the European Economic Area only if there is a sufficient data protection standard in the destination country. When a country has been awarded the status of a country that meets the GDPR standards, information can pass freely between that country and the European Economic Area. Company-to-company model agreements can be also used.

Source: European Union, https://www.eugdpr.org

THE RAPID PACE OF INNOVATION COMBINING SOFTWARE AND HARDWARE SOLUTIONS

The IT industry is evolving constantly and new trends change the global pattern. The following are the emerging IT-BPM trends that need to be considered when planning industry development:

- IoT is considered a very disruptive technology that incorporates smart physical objects into the networked society and digital value networks.[9] IoT affects all sectors of the economy and has the potential to transform business-to-customer relationships that are enabled by smart objects.

A new concept of business-to-thing has emerged and the rise of IoT has facilitated significantly the abilities of businesses to connect, track and measure technologies and human interactions in a digital environment. It can be easily integrated to manage functions such as administration, payroll, recruitment, organizational safety and other tasks that were previously or currently are managed by humans.[10] The management of IoT applications should benefit BPM concepts, methods and technologies and eventually should integrate BPM. IoT can reduce manual tasks and lead to more accurate data, reduced errors

9.– Oberlaender, Anna Maria and others (2017) Conceptualising business-to-thing interactions – a sociomaterial perspective on the Internet of Things. *European Journal of Information Systems*. (In press).

10.– Venkatesh, A.N. (2017). Connecting the Dots: Internet of Things and Human Resource Management. *American International Journal of Research in Humanities, Arts and Social Sciences*, February 8, 2017. ISSN (Print): 2328-3734.

Available at https://ssrn.com/abstract=2913400.

and efficiency gains.[11] Businesses however, will have to secure their networks and data to deploy products that are appropriate and protected.

- **Big data** is data that contains a great variety of data points, which are arriving in increasing volumes and with ever higher velocity.[12] Generated from numerous transaction, production and communication processes, big data is accelerating knowledge and value creation across society. Big data is the core of almost every digital transformation today. New analytical techniques and models are being developed to reveal the value provided by this data. Big data solutions help to predict product and consumer trends, expose product reliability and enable better customer services. Data-driven innovation, in this regard, refers to the improvement of existing or the development of new products, processes, organizational methods and markets.[13] It has the potential to increase efficiency, productivity and economic competitiveness. IT companies are rapidly deploying big data processing, storage and integration technologies on public cloud-based solutions. It is easier for SMEs than for larger companies to implement synergy between BPM and big data due to more inherent flexibility and shorter implementation periods. However, systematic human interaction remains important in order to implement and obtain the best results from big data analytics.

- **Cloud computing** offers an innovative business model through which organizations can adopt IT without upfront investment, software licenses and other requirements. Even governments have become more interested in using cloud computing to reduce in-real-time costs and increase the capabilities and reach of their service delivery.[14] It can offer a number of benefits to companies, including reduced implementation and maintenance costs, increased mobility for a global workforce, flexible infrastructure, quicker time to market and increased availability of high-performance applications and innovation for SMEs. Cloud computing was adopted much more quickly than initially expected, but the security model has significant issues and data sovereignty is still questionable, which impacts adoption of the cloud model. This new technology can eventually reduce upfront costs for new BPM operations that are sourced from the cloud with pay-by-usage contact centre packages. With cloud computing, BPM adoption will expand and become more advanced.

- **Data analytics and data mining** are the processes of extracting and using knowledge from data that lead to better diagnostics, efficient monitoring and better analysis in various disciplines such as computer science, statistics, mathematics, logistics and others. The data analytics process produces models for solving problems and includes acquiring, pre-processing, modelling, testing and reporting data. Data mining represents the process of finding the required structure in data to develop certain insights. The structure may take many forms, including a graph, a network, a set of rules, etc. The knowledge received from a data mining session is a generalized model of the data.[15] Integrating data mining into business process allows flexible design, deployment and management of business processes, and companies using data mining in business processes can improve their productivity and cost efficiency.

- **Robotic process automation** (RPA) is a software based solution to automate rules-based business processes that involve routine tasks, structured data and deterministic outcomes. Most of these solutions were used on back-office business process operations in which the customer was not directly involved. The use of RPA has a number of benefits in terms of productivity, costs, speed and error reduction. RPA allows organizations to automate current tasks and does not require complex integration processes, as RPA interacts with individual systems in the same way as a human user and robotic software can be rapidly modelled, with subsequent deployment of automation. On average, RPA software processes are three times faster than if the same work was undertaken by humans, and cost one-third as much as an offshore employee and one-fifth as much as onshore staff. RPA can save 25% to 50% in costs in select back-office processes. RPA can threaten low-skills jobs but it represents an opportunity for sophisticated solutions for BPM operations.

For companies to follow global IT trends and to keep up with industry expansion, innovation is important, but it is necessary also to focus on affordability, reliability and the quality of provided services. To succeed in an economy driven by innovation, businesses should adapt efficient management solutions, develop new skills required for data processing and comply with the rules and standards for the industry. Legal and regulatory frameworks should match the pace of technology advancement, as well as be aligned to emerging global requirements for data protection and cybersecurity.

11.– Janiesch, Christian and others (2017). The Internet-of-Things Meets Business Process Management: Mutual Benefits and Challenges. Available at https://arxiv.org/abs/1709.03628v1.

12.– Heller, Peter and others (2016). An Enterprise Architect's Guide to Big Data. Oracle Enterprise Architecture White Paper. Redwood Shores: Oracle Corporation. Available at http://www.oracle.com/technetwork/topics/entarch/articles/oea-big-data-guide-1522052.pdf.

13.– OECD (2015). *Data-Driven Innovation: Big Data for Growth and Well-Being*. Paris: OECD Publishing. Available at http://dx.doi.org/10.1787/9789264229358-en.

14.– Almorsy, M., J. Grundy and I. Miller (2016). *An Analysis of the Cloud Computing Security Problem*. Available at https://arxiv.org/ftp/arxiv/papers/1609/1609.01107.pdf.

15.– Roiger, Richard (2016). *Data Mining: A Tutorial-Based Primer, Second Edition*. Boca Raton: CRC Press.

With improved economic conditions, global demand for IT software and services has been on the rise. Ireland is a leader in exporting ICT services (see figure 4) because the country has a competitive tax environment and an open economy which attracts many European, Middle Eastern and African headquarters of global IT companies, including Google, Facebook, PayPal, Amazon, Twitter, Intel, HP, IBM, Microsoft, Apple, Yahoo, MSN and Adobe. Among the countries that import IT services, the United States is number one, while the Netherlands, Germany and France are also top importers of IT services (see figure 5).

Figure 4: Top 10 countries exporting ICT services and Sri Lanka, 2016 (US$ thousands)
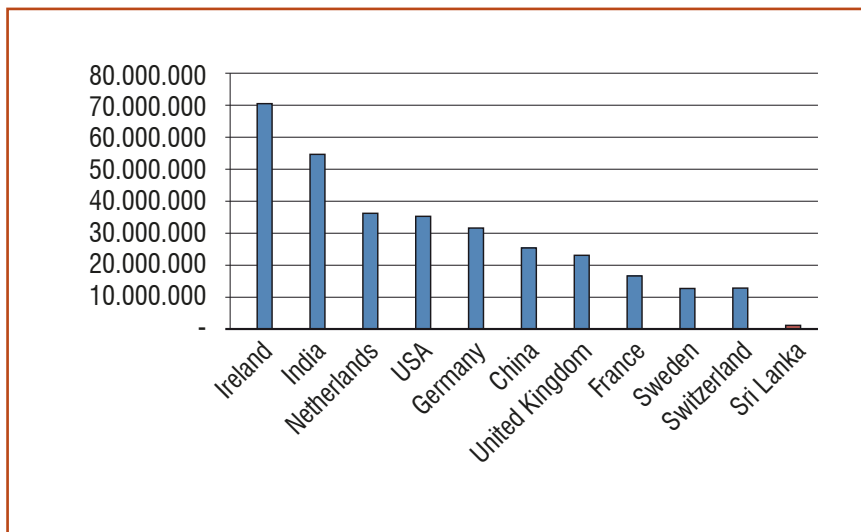
Source: World Trade Organization, ITC and UNCTAD (2017). WTO-ITC-UNCTAD annual trade in services database. Sourced from Eurostat, the IMF Balance of Payments Statistics and from the Trade in Services by Partner Country dataset of the OECD.

Figure 5: Top 10 countries importing ICT services, 2016 (US$ thousands)
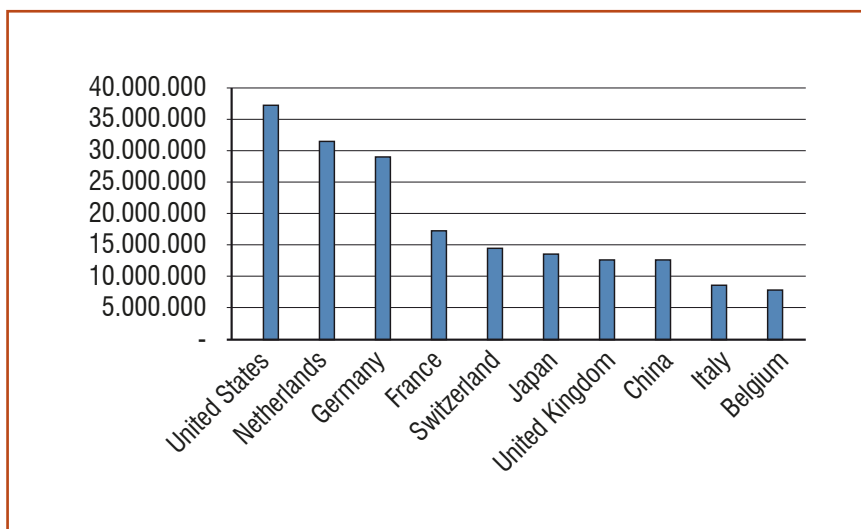
Source: World Trade Organization, ITC and UNCTAD (2017). WTO-ITC-UNCTAD annual trade in services database. Sourced from Eurostat, the IMF Balance of Payments Statistics and from the Trade in Services by Partner Country dataset of the OECD.

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BPM, AN EFFICIENT WAY OF ADAPTING TO THE INFORMATION SOCIETY

The BPM sector shows growth in various application areas, especially in the IT, telecom and healthcare sectors. In 2016, the global BPM market was worth US$ 6.96 billion; the industry is expected to grow at an annual rate of 13.52% during 2017–2021 to reach US$ 14.89 billion by 2021.[16] This growth is caused mainly by the benefits offered by BPM solutions, including cost and time efficiency, better productivity, ease of use, flexibility and the capacity to monitor individual processes throughout the entire lifecycle. Organizations looking for optimization of their business processes are most likely to adopt BPM software.

Banking, financial services and insurance, the public sector, consumer products and retail businesses use the most

BPM solutions. Due to the early adoption of BPM services in public, banking and financial sectors, North American companies dominated the industry with more than 30% share in 2015. The Asia–Pacific region is gradually growing, and a number of countries provide more and more BPM services, thanks to the large scale industrialization and emergence of several start-ups in India, China and countries in the Association of Southeast Asian Nations region.

A continuously developing sector, IT-BPM puts an important focus on research and development (R&D) initiatives that help companies stay competitive. To diversify skills, to develop new offers that provide different solutions and to keep up the increasing pace of industry development, merger and acquisition by bigger players is also anticipated as a key trend.[17]

16.– MarketsandMarkets (2016). *Business Process Management Market by Solution, by Service, by Deployment Type (Cloud, On-Premises), by Organization Size (SMES, Enterprises), by Business Function, by Industry Vertical, by Region (NA, Europe, APAC, MEA, LA) Global Forecast to 2021.* Hadapsar.

17.– *Ibid.*

- Although the sector starts from a low base, export growth demonstrates the interest in and recognition of Sri Lankan products by markets. Consistent export growth demonstrates that the country is in a good position to upscale the sector and transform it into a leading industry, serving as a major component of national branding and becoming a leading foreign exchange earner.
- Over the last decade, the IT sector has experienced significant growth and remarkable and continually evolving innovations.
- BPO is becoming commoditized and competition is increasing.

- Data privacy and data security is particularly important for BPO and outsourcing services.
- The IT industry evolves constantly and new trends change the global pattern.
- To follow global trends in IT and to keep up with industry expansion, innovation is important, but it is also necessary to focus on the affordability, reliability and quality of the services provided.
- A continuously developing sector, IT-BPM puts an important focus on R&D initiatives that help companies to stay competitive.

SRI LANKA'S GROWTH PATHWAY: FROM LOW-END AND SIMPLE TO HIGH-END AND COMPLEX IT-BPM PRODUCTS

The Sri Lankan IT-BPM industry has seen substantial growth in the past decade and has very strong potential to increase export revenue compared to other sectors. The overall ICT sector has experienced growth over past 10 years, growing on average by 17.31% per year (see figure 6). The IT industry's share of exported Sri Lankan services is 12%. Large companies contribute over 85% and it is one of the largest export revenue earners, with 95% value addition. More than 300 IT companies operate in Sri Lanka and the IT-BPM sector directly employs more than 80,000 professionals. IT-BPM achieved a growth of almost 300% over the last 10 years and in 2017 reached US$1.2 billion in revenues. SLASSCOM foresees the industry achieving US$5 billion in exports by 2022.[18]

18.– Sri Lanka Association of Software and Service Companies and PricewaterhouseCoopers (2016). *Vision 2022: Sri Lanka IT-BPM Sector*. Colombo. Available at https://slasscom.lk/report/slasscom-strategy-document-2016.

Figure 6: Sri Lanka ICT export
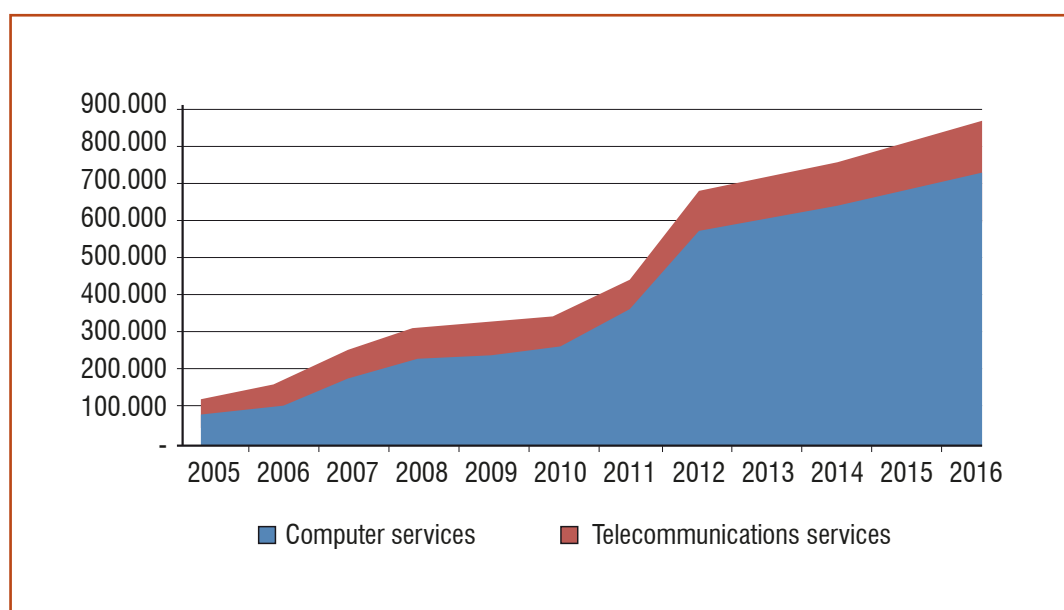
Source: World Trade Organization, ITC and UNCTAD (2017). WTO-ITC-UNCTAD annual trade in services database. Sourced from Eurostat, the IMF Balance of Payments Statistics and from the Trade in Services by Partner Country dataset of the OECD.

The Sri Lankan IT industry has earned recognition and has the established labour pool to move forward and to bring more and bigger contracts to Sri Lankan IT professionals. Sri Lankan IT companies have had a number of contracts with global leaders and the country is emerging as an international IT destination of choice for several key focus domain areas. The IT infrastructure offers tier one services with a tier two cost structure, fast adoptive technology and a trainable and competent work force, most of which is under 30 years of age.

Despite the relatively recent development of the BPM segment, this niche in the Sri Lankan IT industry represents a number of high-end products developed by local SMEs that are in demand in global markets. The BPM industry is emerging and already offering high-end product engineering built around relevant cost-competitive advantages, high quality and an educated workforce pool with developed skills. The country has chosen to concentrate efforts on selected areas such as financing and accounting, among others, because of the large number of internationally certified professionals in accounting. Higher education in accounting and finance is offered in Sri Lankan public and private institutes and by the main professional accounting bodies.[19] Sri Lanka has the largest pool of qualified professionals holding the United Kingdom-based Chartered Institute of Management Accountant's Certificate in Business Accounting outside the United Kingdom.

Sri Lanka's start-up ecosystem is expanding, having created almost half of all new companies in the computer science area. Sri Lanka has a growing number of start-ups in the IT industry and various programmes such as Venture Engine, the Startup Sri Lanka Next Generation programme, SeedStars Colombo, StartupXFoundry and John Keells X Open Innovation Challenge support their development. These programmes allow young entrepreneurs and developers to find affordable workspaces, access international and local investment and overcome barriers to future growth. Despite that, limited office space facilities for IT start-ups remains one of the bottlenecks for industry expansion.

The IT industry has expanded its product base beyond software and application development, call centre and booking support and transaction processing centres. Today the industry offers professional services in different areas and a full range of IT products, from IT development and maintenance to innovative solutions and IP creation. Sri Lankan IT companies have been providing services to global clients for customized and outsourced software development (see figure 7). The services most in demand are for product categories such as software for travel and tourism, computer graphic design, mobile application, e-commerce and content management systems for websites. These products have high potential to be developed in the future.

19.– The Institute of Chartered Accountants of Sri Lanka; the Chartered Institute of Management Accountants, United Kingdom; the Institute of Certified Management Accountants; Association of Chartered Certified Accountants, United Kingdom and The Association of Accounting Technicians of Sri Lanka offer professional accounting qualifications.

Figure 7: Existing IT products and future market orientations
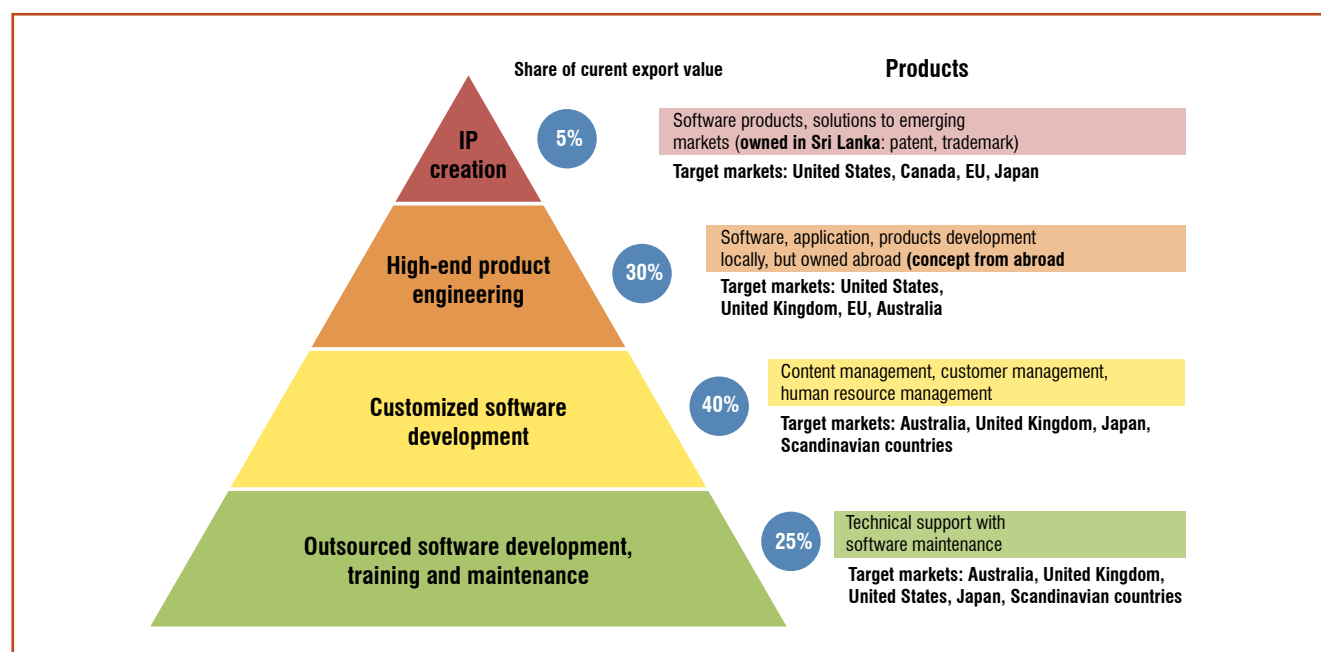
Source: Adapted from Sri Lanka Association of Software and Service Companies and PricewaterhouseCoopers (2016) Vision 2022: Sri Lanka IT-BPM Sector and based on stakeholder consultations.

Professional services from low-end, simple activities to high-end, complex activities in various fields also are provided as offshore services for international companies. Financial and accounting services are the most demanded, but Sri Lankan companies also have qualified professionals in knowledge process outsourcing (KPO) services such as engineering, law and architecture. Other specialized services provided by companies include healthcare KPO services, legal process outsourcing and macro and socioeconomic research. KPO activities such as call centre and booking support and basic analytics are also in high demand and have great potential. The range of services vary from low-end, simple tasks such as book keeping and payroll processing to high-end, complex activities, including investment and quantitative research, financial analysis and others.

The export clients of Sri Lankan IT companies are not only big international companies but also SMEs from abroad, many of which were founded by members of the Sri Lankan diaspora. A number of large foreign companies are clients for Sri Lankan IT, software and BPM services, including the holiday booking sections of Emirates and Qatar Airways and immigration entities in Mauritius and Fiji. Several multinational companies have set up offshore business support operations in Sri Lanka, including HSBC, the London Stock Exchange, Pearson, Sysco, Navantis and others. Along with large Sri Lankan companies that have already gained a reputation in regional and international markets, there are smaller companies that target mainly

medium-sized companies abroad. Many of their clients are from the diaspora. Most of these projects are from Australia, the United Kingdom, Canada, Singapore, Japan, Norway, Germany, Belgium, Switzerland and France.

Sri Lankan BPM companies provide professional services in various fields, but, with a large pool of internationally certified accountants, finance and accounting services lead professional services exports. The BPM segment consists of outsourced business process management operations and analytics outsourcing operations (see figure 8). Other value added services include such services as data and document conversion and financial and accounting vertical service operations, as well as services in banking, taxation, healthcare and leisure. Other value added services include legal process outsourcing and market intelligence services, in addition to investment support, financial analysis and conveyancing. Companies providing outsourced BPM operations services take a larger share in export value terms (around 70%) and work mainly with multinational corporations (MNC), while analytics services are mainly provided to SMEs in the Middle East, Africa and Asia–Pacific counties.[20] The finance and accounting services lead the industry, but the number providing offshore analytics services, legal and medical diagnostics and architectural services are growing.

20.– Stakeholders consultations results and Sri Lanka Association of Software and Service Companies and PricewaterhouseCoopers (2016). *Vision 2022: Sri Lanka IT-BPM Sector*. Colombo. Available at https://slasscom.lk/report/slasscom-strategy-document-2016.

Figure 8: Existing BPM products and future market orientations
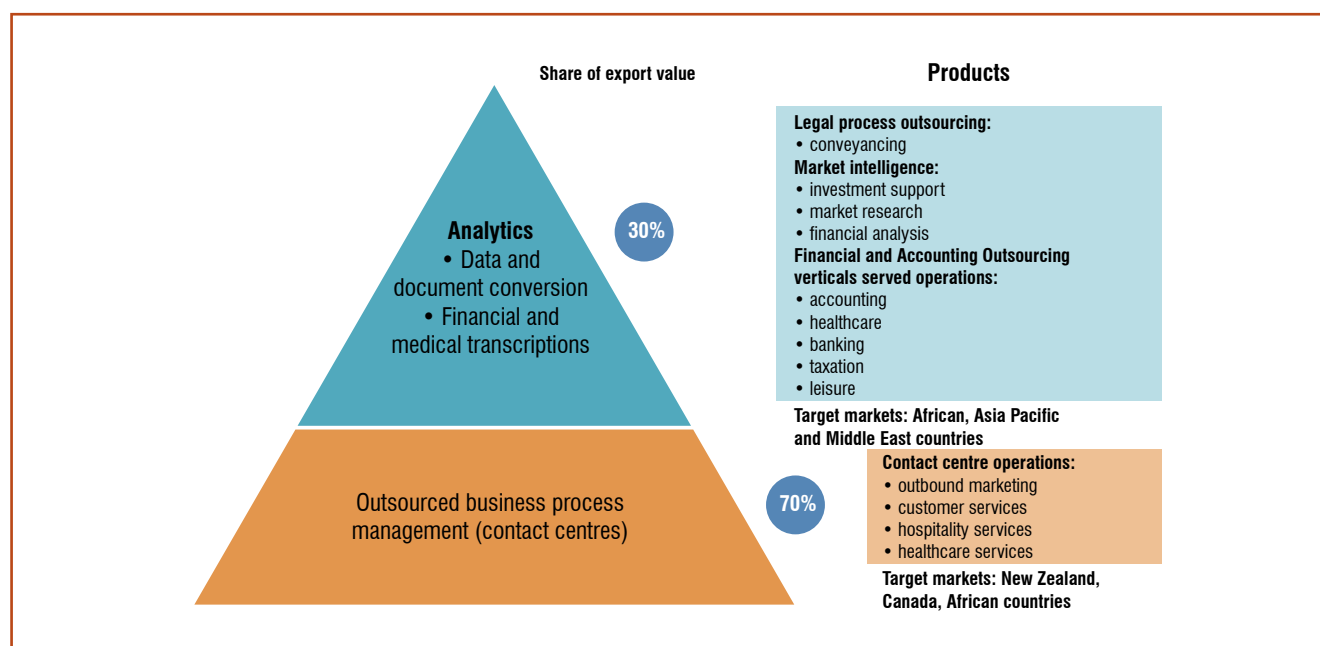
Source: Adapted from Sri Lanka Association of Software and Service Companies and PricewaterhouseCoopers (2016), Vision 2022: Sri Lanka IT-BPM Sector and based on stakeholder consultations.

Sri Lankan companies have a number of advantages compared to other IT-BPM destinations in the region in terms of financial attractiveness and information security. Average associated costs can be 30% lower than other offshore destinations and the country's investment laws permit total foreign ownership, with no restrictions on repatriation of earnings, fees, capital or forex transactions relating to current account payments. The country has the most rigorous IP protection regimes in region and an efficient IT infrastructure. Broadband, leased-line and satellite connectivity is widely available, and there are eight telecom operators and three international submarine cables.

Even though the industry has great importance for the country, its share in the global market is low. The Sri Lankan IT-BPM sector is small in comparison to regional peers and global leaders, both in volume and value (see figure 9). Sri Lanka as an IT-BPM destination is not well known globally, despite some big international companies using its services. The share for ICT services in Sri Lankan exports is also much lower than for ICT exports in neighbouring countries (see figure 10).

Figure 9: Regional competitors' ICT services export value, excluding India
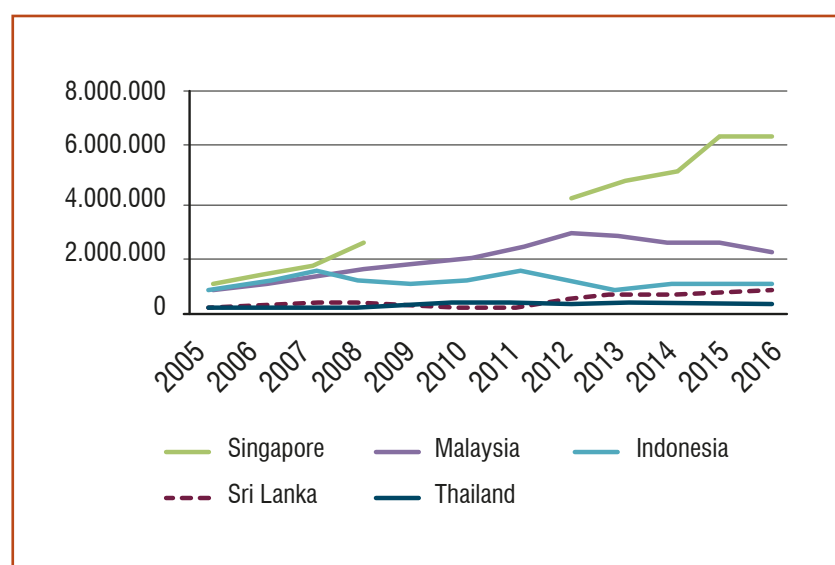
Source: World Trade Organization, ITC and UNCTAD (2017). WTO-ITC-UNCTAD annual trade in services database. Sourced from Eurostat, the IMF Balance of Payments Statistics and from the Trade in Services by Partner Country dataset of the OECD.

Figure 10: Share of ICT services exports as of total services exports, 2015
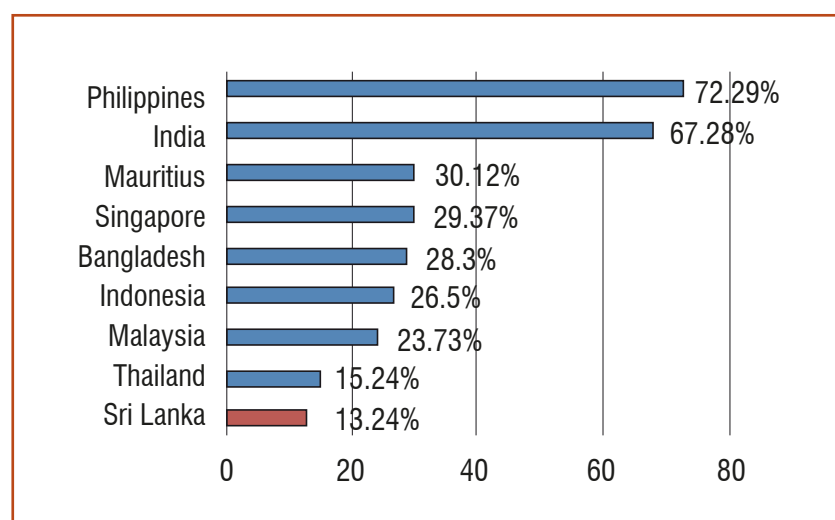
Source: World Bank (2015). Sri Lanka Innovation, ICT and Competitiveness. Draft working paper. Washington, D.C.: World Bank.

Although the talent pool of IT professionals in Sri Lanka is limited, a technically qualified workforce together with low labour costs gives the country a strong advantage (see figure 11). The size of the IT-BPM industry is directly linked to the number of professionals working in the sector. Even though the size of the workforce in the sector is limited, it continues to grow rapidly. Some state and private educational institutions offer diplomas in computer science and engineering and in IT; most university offer degrees in accounting and finance, as well as post graduates diplomas and master programmes in this field. Around 5,000 students graduate annually with IT diplomas, with more graduating in technical and professional disciplines related to BPM (engineering, law, architecture). At the same time, the IT-BPM companies provide internal and external training to their employees, as well as initial training of between three and seven weeks when starting a job. A number of workers have more than one finance or accounting qualification and have internationally recognized certifications, such as those from the Institute of Chartered Accountants of Sri Lanka, the Chartered Institute of Management Accountants in the United Kingdom, the Institute of Certified Management Accountants, and the Association of Chartered Certified Accountants in the United Kingdom.

Sector support is provided mainly through chambers and IT associations that concentrate efforts on developing a start-up ecosystem and on capacity building, while the Government of Sri Lanka is committed to improving the business environment. The Government recognizes the importance of sector development by making efforts to increase IT literacy at the national level and by encouraging investment in the sector through the provision of special tax benefits for IT-BPM. The Government is also committed to improving the business climate in the country by digitalizing the processes for registering employees and paying taxes online. Foreign investment in higher education also has been liberalized to attract private universities to establish branches in Sri Lanka. However, there are other challenges that companies face, namely with supply-side capacity and market entry.

Figure 11: Thematic areas for successful IT-BPM development
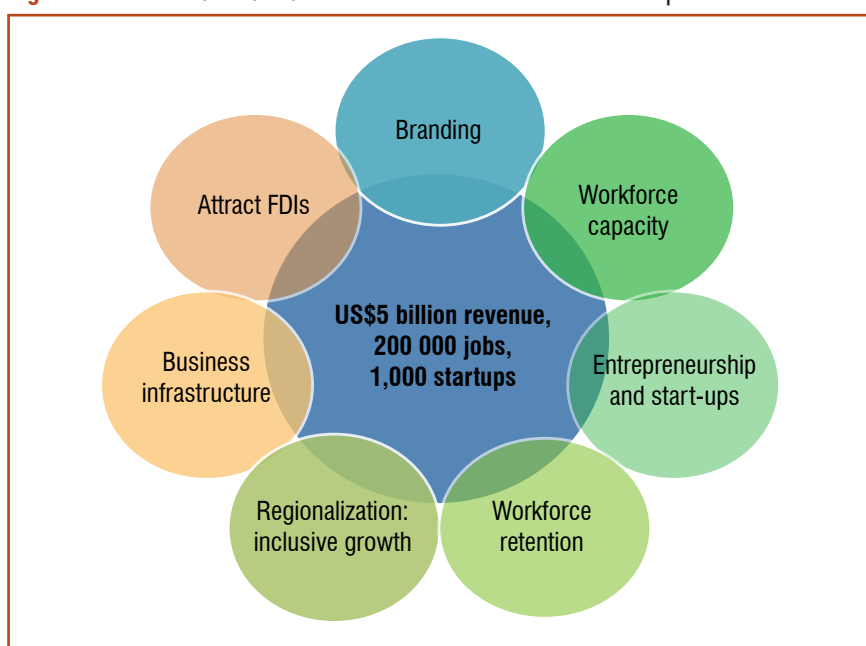
Source: Adapted from Sri Lanka Association of Software and Service Companies and PricewaterhouseCoopers (2016) *Vision 2022: Sri Lanka IT-BPM Sector* and based on stakeholder consultations.

- The Sri Lankan IT-BPM industry has seen substantial growth in the past decade and has great potential to increase export revenue compared with other sectors.
- The IT industry has earned recognition, thanks to cost-competitive advantages and a high-quality and educated workforce pool with developed skills, and is ready to move forward and bring more and bigger contracts to Sri Lankan IT companies.
- The relatively recent development of the BPM sector, a niche IT industry in Sri Lanka, today is represented by high-end products developed by local SMEs that are in demand in global markets.

VALUE CHAIN DIAGNOSTICS

The value chain analysis in figure 12 and in table 1 gives a better understanding of the dynamics in and the issues affecting performance of the industry.
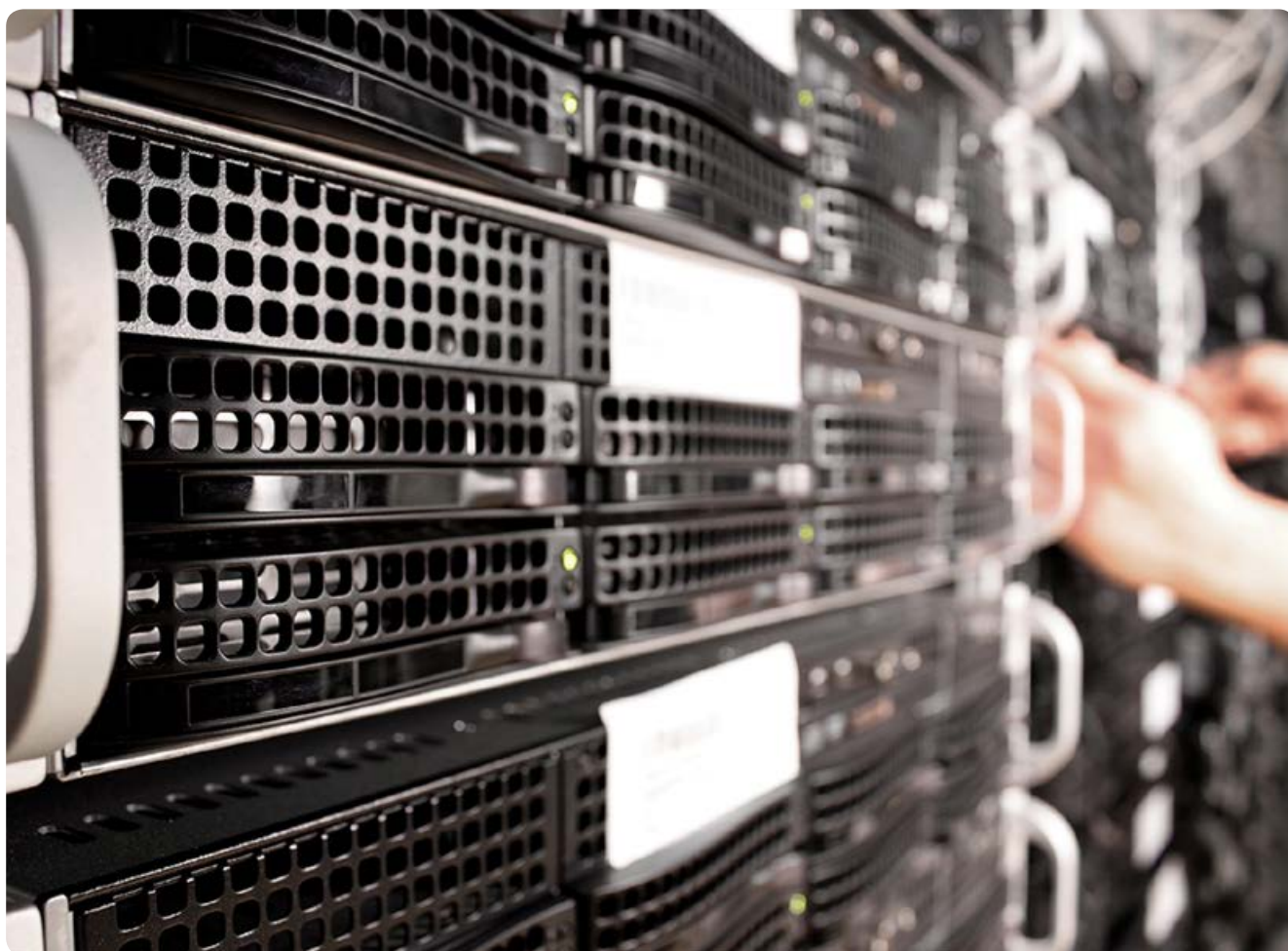
Photo: (cc) @pixabay

Figure 12: IT-BPM value chain

Inputs

Business ecosystem
- Electricity, telecom, internet
- **R&D**
- **Capital/financing**
- Suppliers of enabling services
- Office space
- Hardware
- Software

Regulatory and policy inputs
- Labour Law
- **IT investment and export promotion**
- **IT regulations (e-signature, cyber security)**
- **R&D**
- **Intellectual property rights**

Skilled labour
- Software developers Hardware engineers Computer programmers
- Accountants Marketers
- Health professionals Lawyers Architects
- TVET
- High education
- **Ph.D**
- **Global university partnership**

Legend
- National component
- International component
- Mixed component

Product development

IT
- Software R&D
- Application development
- Application managment
- IT consulting

Analytics (KPO)
- Data and document conversion
- **Legal process outsourcing (LPO)** conveyancing
- **Market intelligence** investment support market research financial analysis
- **Financial and accounting operations (FAO) verticaly served** accounting healthcare banking taxation leisure telecommunication

BPM
- Medical transcriptions
- Financial transcriptions
- **Contact centres operations (CCO)** Outboand marketing Customer services Hospitality services Healthcare services

Market entry

Domestic market
- Business
- Government

International markets

Markets	Products
United Kingdom	Software products, applications, FAO, LPO, CCO
United States	Software products, applications, FAO, LPO, CCO
Canada	Software products
EU	Software products
Japan	Software products
Australia	FAO, CCO
Africa	Other BPM
Middle East	CCO
Asia	FAO, CCO

Table 1: Constraints faced by the IT-BPM industry in Sri Lanka

Inputs	Production	Market entry
Limited financial and infrastructural support to encourage entrepreneurship and IT-BPM start-ups: • Limited availability of common shared space provided to IT start-ups by the Government to build eco-system. • Limited financial support to reduce the operational costs of office space. **Limited availability of industry-relevant workforce** diminishes supply-side capacity: • Workforce pipeline is narrow. • Migration of talent.	**Outdated labour regulation** leads to labour challenges: • Limited flexibility in labour regulations, specifically relating to needs to: - Reform the compensation formula for IT businesses (to allow flexibility in undertaking international projects). - Permit working hours for women after 22:00. • Complicated procedure of getting workers/occupational visa for IT-BPM industry due to introduction of quotas system. **Limited industry-academia** collaboration: • Difficulties in bringing the existing workforce into industry (work force conversion). • Low awareness of industry career prospects within the BPM sector among youth, especially in the regions. • Limited coordination between private sector and academia on curriculum development and incorporation of IT and applied skills into higher education institutions' programmes. **Inadequate policy and regulatory framework** impedes sustainable growth of IT-BPM industry: • Long, costly and burdensome procedure to start and to close a business. • Restrictive foreign exchange rules, including a mandatory deposit on a Foreign Exchange Earners Account (FEEA) and those relating to overseas employee share option schemes (ESOS). • Restricted access to international online payment systems (such as Pay Pal) due to pending e-payment regulation. • Lack of regulation to implement a legal framework for accepting electronic signatures. • Complicated IP registration regime. **Inadequate industry branding** and no proactive investors targeting limit market outreach and awareness about IT industry: • Lack of branding strategy to promote the industry locally and internationally. • Limited Government support for showcasing the Sri Lankan IT industry at regional and international levels. • Support challenges with foreign missions and commercial attachés for trade promotion abroad. • Lack of collaborative government-to-government programmes to promote IT and overseas partnerships. **Limited government-industry dialogue hinders the IT-BPM sector development:** • No coordination mechanism along the IT industry value chain in the country. • Limited awareness by public authorities on how to support industry development.	**Limited market intelligence** and no knowledge sharing among big and small companies about market opportunities results in insufficient access to foreign investors: • Limited information about global trends and client demands. • Insufficient knowledge of global standards in computing. • Low overseas networking capacities of companies. • Insufficient participation by SMEs in delegations going abroad to access and align their interest with investors.

Legend:
- Enterprise performance issues
- Regulatory and policy issues
- Institutional and coordination issues

FOCUSING ON THE MOST PRESSING ISSUES

Extensive stakeholder consultations, field visits and literature reviews have revealed constraints in the IT-BPM sector that challenge its short and medium-term growth. To ensure that the Strategy is efficient and precise, only the most critical bottlenecks to be addressed in this Strategy are detailed below.

Inputs and production issues

Inadequate policy and regulatory framework impedes sustainable growth of IT-BPM industry

Bottlenecks exist in the policy framework that can impede successful industry development. Regulatory constraints relating to the opening and closing of businesses do not enable companies to start or to fail cheaply. There is a costly closing down fee and no incentive to create a business. Labour regulation is not adequately flexible: it is difficult to break a labour contract and three months noticed must be given by an employee wishing to leave a company. Despite the high literacy rate among women and with a 60% female share of enrolments in university, the female labour force participation rate is around 35%, while the male participation rate is at 75%. The IT-BPM sector traditionally is perceived as a male dominated sector and current regulation impedes women's integration into the industry, partly because of the policy on late working hours for women. Another policy limitation is the restraint on students having full-time occupations while being a full-time student, which stops students from getting complete practical experience. In addition, obtaining a worker/occupational visa to bring foreign professionals and experts into the country for the IT-BPM industry requires going through complex procedures.

The IT-BPM sector is based on outsourced activities. No guidelines exist to implement the Electronic Transaction Act, No. 19 of 2006 (ETA 2006) at the institutional level to institute electronic solutions, including e-payment, e-signature, e-documents and tracking, and restricted access to international online payment system such as Pay Pal hinder businesses' abilities to grow globally. Most Sri Lankan businesses, however, have access to smaller international gateways such as 2Checkout and Skrill (formerly called Moneybookers). Existing restrictive rules are also applied to foreign exchange, including those relating to ESOS. It is mandatory to use an FEEA to receive or make a payment in a foreign currency.

Two other constraints are the complicated IP registration regime and the lack of awareness about how to secure IP. Very few innovations and R&D inventions are exported, and often the ownership belongs to a foreign company. It should be noted that the Sri Lankan IP protection regime is one of the most rigorous in the region and companies do not face any particular concerns for business-to-business (B2B) products.[21]

These constraints are addressed in PoA: 1.2.3, 1.3.1, 1.3.2, 1.3.3, 1.3.4, 1.3.5, 1.3.6, 1.4.1, 1.4.2.

Limited availability of an industry-relevant workforce diminishes supply-side capacity

Despite several state and private universities providing high-quality education in the IT-BPM sector, the number of graduates is insufficient to satisfy the growing industry demand. The industry in coming years will require at least twice the current workforce on the supply side. During sector consultations, industry players noted that as many as 18,000 new IT graduates would be needed annually.

There is also an issue in retaining the existing labour force and halting the brain drain. Fresh graduates have high salary expectations. The average wage for an IT programmer in Sri Lanka is on par with Bangladesh and Pakistan and lower than in India, Viet Nam, the Philippines, Malaysia and Mauritius.[22] The average wage for a BPO analyst is in the same range as for one working in Viet Nam and much lower than in Mauritius, India and Pakistan.[23] Graduates look for employment abroad in search of better pay or because they have limited awareness of career opportunities in the Sri Lankan BPM industry. IT companies in Colombo attract more graduates (including those from universities around the country) as they often provide good internship opportunities, higher salaries and additional benefits. This, in turn, affects the availability of talent for IT businesses in regions outside Colombo. Moreover, there are limited IT career guidance/awareness campaigns targeting youth, parents and teachers through the media.

These constraints are addressed in PoA: 2.3.1, 3.1.1, 3.1.2, 3.2.1, 3.2.2, 3.2.3, 3.2.4, 3.2.5, 3.2.6, 3.2.7, 3.3.1, 3.3.2.

Product development issues

Limited industry-academia collaboration makes it difficult to bring existing workforce to industry

There is a skills gap due to limited dialogue between the private sector and universities. Graduates have good technical

21.– A.T. Kearney (2012). *Competitive Benchmarking: Sri Lanka Knowledge Services.* Washington, D.C. Available at https://www.atkearney.com/documents/10192/430128/Country_Competitiveness_Study-Sri_Lanka.pdf/7d3033a4-5935-41d8-bf99-a1462bf7d553.
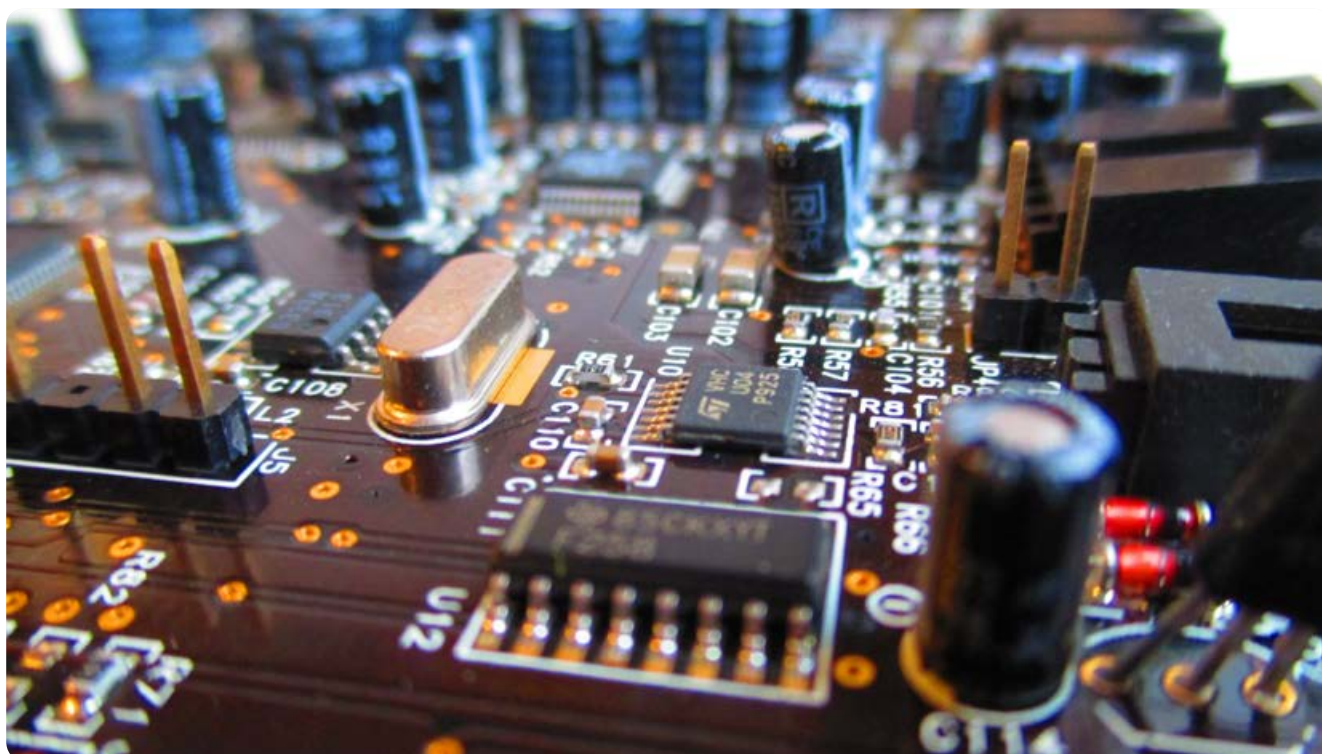22.– *Ibid.*
23.– *Ibid.*

skills, but often are missing soft skills and practical experience. Some internship opportunities are provided to students, but state universities favour full-time, lecture-mode education and do not promote working experience during university years. This creates a problem with workforce conversion and bringing graduates into the industry. There is limited industry-education sector collaboration for curriculum development and incorporation of IT and applied skills into the programmes of schools and higher education institutions to satisfy industry needs. There is also sometimes an overlapping syllabus between different degrees at universities. Recently, the IT Skills Council, under the Ministry of Skills Development and Vocational Training (MoSDVT), revised the curriculum with industry, and some emerging technical and vocational education and training (TVET) institutes are offering certification to IT technicians, computer graphic designers, computer hardware technicians, Cisco technicians and computer network technicians, but there are no placement opportunities for students coming out of vocational training institutes. In addition, there is limited sharing of practical knowledge and experience with students to encourage the cultivation and development of an entrepreneurial mindset at an early age. The limited established relationship between industry and academia has meant that there is no research centre to focus on IT industry development and to build links to other sectors.

These constraints are addressed in PoA: 2.2.1, 3.2.4, 3.2.5, 3.2.6, 3.2.7.

Limited financial and infrastructure support to encourage entrepreneurship and IT-BPM start-ups in Colombo and in the regions

The number of start-ups in the IT industry is growing, thanks essentially to private sector initiatives. Several start-up networks have been created and support is provided through private sector associations. However, there is limited start-up funding and mentoring support outside of Colombo. Training and guidance for IT start-ups on how to set up a business or follow-up on payments and on negotiation skills are lacking. Limited start-up friendly credit facilities through a dedicated model for infant companies and the few office and incubator spaces in Colombo and Jaffna are the main constraints to creating a supportive start-up environment. In most cases, companies are started using the founders' personal savings or funding from family and friends. During the initial stages of a start-up, there is no support to reduce operational costs by providing co-working spaces and lower cost office space or by subsidizing electricity or internet charges. There are few accelerator programmes for start-ups to attract investors and foreign clients. Obtaining finance for SMEs from banks is very difficult, as banks do not understand the valuation models for IT companies and therefore cannot value projects and understand business models. Recently, FITIS and Hatton National Bank launched specialized loan schemes for the IT sector.

These constraints are addressed in PoA: 2.2.2, 2.2.3, 2.2.4, 4.2.1, 4.2.2, 4.2.3.

Market entry issues

Inadequate industry branding and no proactive investor targeting limits market outreach and awareness in the world about Sri Lankan IT industry

The lack of a national level brand for the IT-BPM industry hinders the development and promotion of Sri Lankan products in the global markets. Improved marketing and determined promotion campaigns that can increase visibility of the sector and add to global recognition of Sri Lanka's capabilities in knowledge services are lacking. At the same time, at the national level there is a limited recognition of existing successful IT start-ups case studies in the media. This results in companies needing to make greater efforts to convince customers of their capability and quality and emphasizes the need to raise the importance of the sector among policy makers. Support from Sri Lankan embassies abroad is also limited, as trade missions are understaffed and commercial attachés concentrate their efforts mainly on addressing bilateral trade-related issues or on narrowly focused trade promotion activities.

These constraints are addressed in PoA: 1.2.1, 1.2.3, 2.1.1, 2.1.2, 2.1.3, 2.1.4, 4.1.1, 4.1.2, 4.2.1, 4.2.2, 4.2.3.

Limited market intelligence and no knowledge sharing among large and small companies about market opportunities results in insufficient access to foreign investors and a knowledge mismatch between product offerings and customer demand in the IT-BPM sector

There are study and survey results available on the IT-BPM sector in Sri Lanka; however, there is limited information about global trends and clients' demands that can be provided to local companies. The low networking capacities of companies and insufficient participation in outbound delegations to events to access foreign investors, suppliers and partners limits opportunities for discussions between entrepreneurs and investors to align their interests. This results in a knowledge mismatch between what investors see as potentially high growth sectors and the sectors to which entrepreneurs are catering.

In addition, there are limited established mechanisms for mentorship through which large IT companies can share their experiences with smaller companies. Successful companies with experience in the global market can support IT SMEs in accessing new markets and can facilitate business matching with their partners.

These constraints are addressed in PoA: 2.2.2.

Issues affecting the entire value chain

Limited Government-industry dialogue hinders the IT-BPM sector development

Despite Government recognition of the importance of IT-BPM sector growth, there is weak coordination between public and private sector stakeholders and limited awareness by public authorities of how to support industry development. This can be explained by the fact that there is no coordination mechanism for the IT industry value chain in the country. Sector associations assist companies, but Government assistance is crucial. Public authorities do not always understand what needs to be improved to create an enabling environment in which IT companies can grow.

These constraints are addressed in PoA: 1.1.1.

Most of the issues identified in the IT-BPM industry are related to institutional and regulatory frameworks. The industry has been developing, stimulated by international demand, but with limited support from the public sector.

At this stage, it is crucial for the Government to create an enabling environment while also providing targeted business development support to firms, enhancing innovation, raising awareness about career opportunities, bringing more students to the industry during their studies, initiating proactive investment targeting for large companies and improving marketing and visibility for Sri Lanka that will maintain current industry growth.

THE WAY FORWARD

Industry stakeholders developed the following industry vision to bring the Sri Lankan IT industry to the next level of IT-BPM industry performance and sophistication:

> " Sri Lanka: A global IT-BPM centre of excellence of high-end product engineering, IP creation and knowledge process outsourcing "

THE FUTURE OF THE INDUSTRY

Unlocking the potential of Sri Lanka's IT-BPM industry will require transformations throughout the value chain. The targeted efforts detailed in the Strategy's PoA will address the constraints identified earlier. The industry's future value chain (see figure 13) will be characterized by improved input production, improved overall coordination and governance, enhanced forward planning and increased product and market development (table 2).

Strategic objective 1: Support investment and exports in the IT-BPM sector through a business-enabling, predictable and transparent policy and regulatory framework.	• Create an enabling business environment, implement a formal framework and improve sector institutional coordination to direct the industry in the first step towards improved industry growth.
Strategic objective 2: Drive export growth through innovation and entrepreneurship.	• Provide business development support to firms and enhance innovation to increase the capacities and outreach of IT-BPM start-ups and SMEs in national and international markets.
Strategic objective 3: Improve the supply of skilled highly qualified professionals to satisfy the growing IT-BPM market.	• Raise awareness about career opportunities, bring more students to the industry during their studies and encourage international experts to share knowledge with youth to sustain IT-BPM industry growth.
Strategic objective 4: Grow champion firms ('the US$2 billion plan').	• Initiate proactive investment targeting big companies to improve marketing and visibility for Sri Lanka that will enhance the country's image as a destination for knowledge services and innovation.

Figure 13: IT-BPM future value chain

Market entry

Support with industry branding and outreach

Domestic market
- Business
- Government

Champion builder program

Collaborate with diaspora and embassies

Set up industry representatives or business matchmakers in targeted markets

International markets penetraion*

United Kingdom — IT products and solutions | KPO | BPM
United States — IT products and solutions | KPO | BPM
Canada — KPO | BPM
EU — IT products and solutions
Japan — IT products and solutions | KPO
New Zealand — KPO | BPM
Australia — IT products and solutions | KPO
Scandinavian countries — IT products and solutions | KPO
Asia Pacific countries — KPO | BPM
Middle East countries — KPO
Africa countries — KPO | BPM

*Products range will depend on each company's priority target

Product development

IT
- Software R&D
- Application development
- Application managment
- IT consulting

New products: mixed reality, augmented reality, IoT solutions (software and hardware come together)

Analytics (KPO)
- Data and document conversion
- LPO
  conveyancing
- Market intelligence
  investment support market research financial analysis
- FAO vertically served
  accounting healthcare banking taxation leisure telecommunication

BPM
- Medical transcriptions
- Financial transcriptions

Industry coordination and recognition

Inputs

Increase shared office space facilities

Establish dedicated ICT research centres at universities

'Plug and play' accelerator solutions for start-ups

Business ecosystem
- Connectivity Telecommunica-tions and internet bandwidth
- Hardware
- Software
- Innovation
- Capital/financing
- Suppliers of enabling services

Regulatory and policy inputs
- Labour Law
- R&D
- Intellectual property rights
- IT investment and export promotion
- IT regulations (e-signature, cyber security)

Skilled labour
Software developers Hardware engineers Computer programmers
Accountants Marketers
Health professionals Lawyers Architects
- TVET
- Global university partnership
- High education
- Ph.D

Legend

New markets/products
Market penetration

Investment
Enhanced component

- National component
- International component
- Mixed component

Table 2: Main areas of improvements in IT-BPM sector

Implement a country branding campaign:
- Position Sri Lanka in analyst publications such as Gartner and AT Kearney.
- Improve IT companies' marketing, communications materials and skills.

Launch a 'Champion Builder' programme:
- Create a programme management office and set up monitoring modalities among implementation partners.
- Establish eligibility criteria for selection of the companies.
- Launch a survey to identify the target audience.
- Assess the results and identify the pool of companies.
- Interview shortlisted companies to identify their needs and priorities.
- Develop individual trade support plans for companies.

Increase **availability of industry-relevant talent/workforce** by:
- Attract highly rated higher education institutions to set up branches in Sri Lanka.
- Increase IT awareness for youth by implementing a national IT careers awareness campaign.
- Initiate a programme to increase the number of IT and IT related graduates.

Showcase the Sri Lankan IT industry and promote it at national and international levels:
- Collaborate closely with embassies and the Sri Lankan diaspora in targeted countries.
- Strengthen overseas promotion and proactive investors targeting with country branding and profiling to attract new contracts and investment.
- Organize more B2B and targeted matchmaking meetings in each industry segment.
- Set up industry representatives or business matchmakers (individual consultants or firms) in targeted markets.
- Involve commercial attachés and trade promotion officials in key target markets to collect, analyse and disseminate trade information

Enable and support the development of strong and durable **Government–industry dialogue** by creating an 'IT special advisory committee'.

Establish IT **Research Centres** at universities to support IT industry development in the northern, central and western provinces, and create links with other industries.

Improve the **regulatory framework:**
- Implement key regulatory changes to address restrictive foreign exchange rules and ensure the IT industry can grow in valuation.
- Adopt a regulation to implement the legal framework for accepting electronic signatures.
- Allow more flexibility in labour regulations related to reforming the compensation formula for IT.

Create an **enabling environment for fostering IP creation and refocusing** outsourced engineering services to IP-led product development, and **provide training to companies on IP** in connection with branding activities and certification marks.

Offer infrastructure support to foster more IT firms by creating a shared space for start-ups to build a conducive **ecosystem and build cluster of start-ups** ('plug and play' accelerator solutions).

Legend:
- Market perspective
- Institutional adjustments
- Regulatory amendments
- Investment requirements

MARKET PERSPECTIVE

Sri Lankan IT-BPM keeps growing and there are many opportunities for product and market development (table 3). Further penetration in fast-growing markets with untapped new product opportunities for SMEs, the public sector and family run entities will be possible if an innovative and continuously conducive environment for growth is built for industry development.

Table 3: Product and market opportunities for IT-BPM sector

Products	Rationale	Existing markets	New markets
IT (existing products: software products and solutions, application, IT consulting; new products: mixed reality, augmented reality, IoT solutions where software and hardware come together)	Market segment: MNC and SMEs Why? Growing market demand, quality of products; for emerging markets – growing middle class consumption, better understating of market needs How? Promotion of Sri Lankan products in these countries, business tours	United States, United Kingdom, EU and regional emerging markets including Bangladesh, Myanmar, Cambodia	Australia, Scandinavia, Japan
KPO (finance and accounting outsourcing, data and document conversion)	Market segment: SMEs Why? Growing market demand, English language, world's second largest pool of United Kingdom qualified management accounting professionals, diaspora, cultural and professional links to Sri Lanka How? Promotion of Sri Lankan products in these countries, publishing BPM case studies and success stories in targeted markets, B2B	United Kingdom, United States, Hong Kong SAR, Australia, Singapore, Luxembourg, Ireland, Africa, Asia–Pacific	Norway, New Zealand, Canada, Japan, Middle East
BPM and technical support	Market segment: MNC Why? Growing market demand, alternative to India, English language How? Publishing BPM case studies and success stories in targeted markets, B2B	United Kingdom, United States, Japan, Asia–Pacific	New Zealand, Canada, Africa

Source: ITC

INSTITUTIONAL ADJUSTMENTS

The role of trade and investment support institutions (TISIs) is crucial to supporting companies' efforts to expand their performance and to export. TISIs play an important role in assisting SMEs to improve their competitiveness and to help them connect to value chains.[24] TISIs provide essential intelligence on trade development and support enterprises through training, tools and assistance to find adequate market entry channels and international partners. The quality of a country's business ecosystem hinges on the quality of each of the TISIs.

The institutions are divided into four main categories: policy support, trade services, business services, academia and civil society (box 2). They are the drivers for future logistics industry growth, but certain issues of capacity and resources must be addressed to ensure their efficient support of the sector.

Some key institutional adjustment will be required to unlock sector growth. These changes are crucial in the areas of sector coordination, skills development and market outreach and branding.

24.– International Trade Centre (2017). SME Competitiveness Outlook 2017: Regional Export Strategies. Geneva.

Box 2: TISIs supporting the IT industry

Support	TISIs
Policy support	• Ministry of Telecommunication and Digital Infrastructure • MoDSIT • Telecommunications Regulatory Commission of Sri Lanka
Trade support	• EDB • BOI • ICTA
Business support	• SLASSCOM • FITIS • Computer Society of Sri Lanka • Ceylon Chamber of Commerce • American Chamber of Commerce
Academia, incubators and accelerators	• Faculty of Information Technology, University of Moratuwa • Sri Lanka Institute of Information Technology • Informatics Institute of Technology • University of Colombo School of Computing • Asia Pacific Institute of Information Technology • Chartered Institute of Management Accountants • Institute of Chartered Accountants of Sri Lanka • Spiralation • Xeleration • Venture Engine • Lanka Angels Network • MIT Global Startup Labs

Box 3: Institutional adjustments in the IT-BPM sector

Institutional adjustment	How to implement?
Establish a high-level formal public-private dialogue.	To create a continuous public-private dialogue capable of directing IT-BPM sector development, appoint a high powered 'IT special advisory committee' that would be responsible to coordinate all industry development interventions.
Strengthen academia-industry links.	Increase the availability of industry-relevant workforce with technical and soft skills can be achieved through the activities such as: • Conduct an annual skill demand survey and disseminate information about top skills demanded in the IT sector. • Organize an annual skill demand round table to present the survey findings and to give guidance to youth and university graduates about sector needs and opportunities. • After conducting the survey and holding a series of meeting between industry and academia, align the existing vocational training institutes and their programmes to IT industry needs. • Introduce a six-month conversion programme for arts students to guide them to IT-BPM careers. • Incentivize more on-the-job training and internships during student years.
Enhance links in the industry between small and large companies.	To ensure up-to date knowledge and experience sharing, big companies could transfer their know-how on accessing new markets and developing new products by introducing mentorship programmes and more IT events to provide business advice on product development, taxation, negotiation, pricing, etc.
Establish a dedicated ICT research centre.	To facilitate IT industry development, as well as to build links with other sectors outside the Colombo area, establish IT R&D centres at universities in three major cities (Jaffna, Galle, Kurunegela).

REGULATORY AMENDMENTS

In order to stimulate and enable sustainable growth in the IT-BPM industry, a number of regulatory amendments need to be implemented. Key adjustments to be carried out are summarized in box 4.

Box 4: Regulation adjustments in the IT-BPM sector

Regulatory adjustments	Purpose
Issue the necessary guidelines for implementation of ETA 2006, including e-payment, e-signature, e-documents and tracking.	The main reason that government agencies do not use e-signatures and e-documents in electronic records, as outlined in ETA 2006, is that no central guidelines exist to enact electronic solutions at the institutional level. Easing regulations that currently restrict the operations of international payment platforms like PayPal and Stripe in Sri Lanka will allow entrepreneurs to receive overseas payments directly, and overall will enhance trade and businesses.
Allow more flexibility in labour regulations.	More flexible work arrangements are needed to: • reform the compensation formula for IT businesses (to allow for flexibility in undertaking international projects); • permit working hours for women after 22:00. Shop and Office Employee Act and Section 2A of Employment of Women, Young Persons, and Children, Act No. 24 of 2006.
Address restrictive foreign exchange rules.	Adjust foreign exchange rules relating to overseas ESOS and permit payments in foreign currency with no mandatory deposit in a FEEA.
Simplify the procedure for obtaining a workers/occupational visa for the IT-BPM industry.	Fast track the current approval process for IT enterprises to bring in international experts, as required, by introducing necessary procedural reforms for visas at the Department of Immigration and Emigration (DoIE). Initiate a programme similar to the French Tech Visa, a simplified, fast-track procedure for three types of international start-up founders, employees and investors.
Allow universities to establish companies and start-ups independently.	Allow universities to establish companies and start-ups independently and facilitate those companies in individually applying for bids and contracts and in leveraging their research through commercialization and entrepreneurship. Universities Act, No. 16 of 1978
Ease regulatory constraints relating to closing down a business and the overall cost of doing business.	Reduce the business closing fee and directors' personal liability. Sections 266 and 319 of the Companies Act No. 7 of 2007
Align the Sri Lankan regulatory framework with global requirements for data protection (data classification, encryption, and intermediaries' liability).	Provide sufficient data protection standards to meet the requirements of the European GDPR and global requirements for data protection (data classification, encryption and intermediaries' liability) so companies may offer their services in EU countries without obstacle.

INVESTMENT OPPORTUNITIES

To provide favourable conditions for SME development as well as for bigger companies' growth, investment in the IT-BPM sector will need to be concentrated mainly on two components. The two-track Strategy goal to grow pipelines of SMEs and to bring big contracts to large companies will need to be supported by coordinated activities and regulatory mechanisms that support the implementation of identified activities.

The following investment activities will help to support industry growth:

Photo: ITC

- **Launch a 'champion builder' programme targeting exponential growth firms that collectively can help boost sector export revenues by US$2 billion.** This activity would establish a programme to provide support to five of the biggest IT-BPM champion companies. The initiative will be implemented by MoDSIT together with EDB and SLASSCOM. The target for the initial investment of US$100,000 from the national budget would be to grow exports by US$2 billion by 2022.

- **Create a shared space (100,000 square feet) for start-ups, with common facilities and support services, by converting existing government buildings under public-private partnerships.** Procuring support services and facilities for start-ups is the number one condition needed to grow a pipeline of start-ups and SMEs. An initial investment of US$50,000 from the national budget will provide shared facilities and support services (lower or no electricity cost or internet cost) to offer 'plug and play' accelerator solutions for start-ups. The lead implementing agency for this initiative is the Ministry of Telecommunications and Digital Infrastructure (MoTDI).

- **Establish dedicated ICT research centres.** To support IT industry development in the northern, central and western provinces – and to create linkages with other sectors such as agriculture, electronics and tourism – it is important to develop technologies, applications and methods for improving production and services. To achieve this, establishment of dedicated ICT research centres at universities throughout the country – starting with University of Jaffna, University of Moratuwa and University of Peradeniya – is required. Financing can come from public-private partnerships with technical support from the Ministry of Higher Education and Highways (MoHEH) and the Ministry of Finance's (MoF) University Grants Commission (UGC).

- **Attract foreign universities.** Bringing top foreign universities to set up satellite campuses in Sri Lanka will enhance advanced skill levels and local R&D capability. Universities such as the Carnegie Mellon University and the Massachusetts Institute of Technology can be targeted through public-private efforts.

- **Set up industry representatives or business matchmakers (individual consultants or firms) in targeted markets.** Collaborating closely with embassies and the diaspora in targeted countries by establishing a network of individual consultants or firms will help to promote the industry abroad. Business matchmakers, financed through cost sharing, will prepare local and regional roadshows, place articles in newspapers and organize local briefings and B2B meetings.

MOVING TO ACTION

THE STRATEGIC FRAMEWORK

The strategic objectives define the main directions that will guide the Strategy's implementation to achieve the vision laid out by the industry. The PoA will respond to the vision by addressing the sector's constraints and leveraging opportunities in a comprehensive manner. To this end, these strategic objectives will be addressed:

Support investment and exports in the IT-BPM sector through a business-enabling, predictable and transparent policy and regulatory framework	Drive export growth through innovation and entrepreneurship	Improve the supply of skilled highly qualified professionals to satisfy the growing IT-BPM market	Grow champion firms ('the US$2 billion plan')
• Enable and support the development of strong and durable Government-industry dialogue capable of steering the IT-BPM sector's development • Attract new contracts and investment to grow the IT-BPM industry • Implement key regulatory changes to stimulate and enable sustainable growth of the IT-BPM industry • Create an enabling environment to foster IP creation	• Substantially increase market outreach and targeting • Provide financial and infrastructure support to foster more IT-BPM firms in Colombo and in the regions • Organise a "Start-up in Sri Lanka" campaign to facilitate return of diaspora and setting up IT-BPM companies	• Increase IT-BPM awareness among youth and encourage innovation • Increase the availability of industry-relevant talent / workforce • Enable access to global talent	• Build a cohort of firms with exponential growth potential, currently in the second tier • Implement a country branding programme focused on growing champion firms and the overall industry

STRATEGIC OBJECTIVE 1:
SUPPORT INVESTMENT AND EXPORTS IN THE IT-BPM SECTOR THROUGH A BUSINESS-ENABLING, PREDICTABLE AND TRANSPARENT POLICY AND REGULATORY FRAMEWORK

Creating an efficient business and policy environment for enterprises is a first step for the future growth of the IT-BPM sector. Identifying areas for improvement in order to create an enabling environment, as well as having a formal framework and improving sector institutional coordination to direct industry development, will be achieved through continuous public-private dialogue. This strategic objective has four operational objectives:

- Enable and support the development of strong and durable Government-industry dialogue capable of steering IT-BPM sector development.
- Attract new contracts and investment for growing the IT-BPM industry.
- Implement key regulatory changes to stimulate and enable sustainable growth of the IT-BPM industry.
- Create an enabling environment for fostering IP creation.

STRATEGIC OBJECTIVE 2:
DRIVE EXPORT GROWTH THROUGH INNOVATION AND ENTREPRENEURSHIP

This strategic objective tackles the lack of infrastructure and of financial and promotional support for start-ups and SMEs to boost their expansion. It covers activities that can improve outreach and business development by firms in national and international markets. At the same time, industry branding and promotional campaigns would increase industry visibility and market outreach. This strategic objective is composed of three operational objectives, namely:

- Substantially increase market outreach and targeting.
- Provide financial and infrastructure support to foster more IT firms in Colombo and other regions.
- Organize a 'start-up in Sri Lanka' campaign to facilitate the return of members of the Sri Lankan diaspora to start IT companies.

STRATEGIC OBJECTIVE 3:
IMPROVE THE SUPPLY OF SKILLED, HIGHLY QUALIFIED PROFESSIONALS TO SATISFY THE GROWING IT-BPM MARKET

Human capital is a core component of the industry and having highly skilled professionals will help to move sector development forward. Raising awareness about career opportunities, bringing more students to the industry during their studies, introducing conversion programmes and bringing national and international experts to share their knowledge with youth are the main activities needed to sustain IT-BPM industry growth. To reach this strategic objective, there are three operational objectives:

- Increase IT awareness among youth and encourage innovation.
- Increase the availability of industry-relevant talent/workforce.
- Enable access to global talent.

STRATEGIC OBJECTIVE 4:
GROW CHAMPION FIRMS ('THE US$2 BILLION PLAN')

Providing support and guidance to companies on branding, licensing, IP and the global standards in computing that need to be met to improve their competitiveness is another important element in achieving industry growth. Institutions can provide essential intelligence on trade development and support enterprises through trainings, tools and financial assistance. Through the development of a country branding programme, companies will acquire adequate market entry channels and access to international partners. This strategic objective is composed of two operational objectives, namely:

- Build a cohort of firms that are currently in the second tier but have exponential growth potential.
- Implement a country branding programme, focused on growing champion firms.

IMPLEMENTATION FRAMEWORK

The strategic development of the IT-BPM industry in Sri Lanka aims to transform the country into a global IT-BPM destination and Asia's favourite centre of excellence. Achieving this ambitious objective will depend on the ability of the industry to implement the activities defined in this IT-BPM Strategy. To structure sector development, it is recommended that the following interventions be implemented as a priority:

- Create a business-enabling environment, address policy and regulatory bottlenecks swiftly and provide the necessary institutional support to improve marketing and promotion for the IT-BPM sector;
- Launch a 'champion builder' programme that targets firms with exponential growth potential that can help collectively boost sector export revenue by US$2 billion; and
- Make the industry become higher value and IP-driven.

These immediate quick win activities are necessary to initiate successfully the Strategy implementation and to create rapid industry growth.

MANAGING FOR RESULTS

It is the actual translation of the priorities into implementable projects that will contribute to achieving the substantial increase in export earnings and export competitiveness envisaged under the Strategy. These increases will be driven by reforming the regulatory framework, optimizing institutional support to exporters and strengthening private sector capacities to respond to market opportunities and challenges. Allocation of human, financial and technical resources is required to efficiently coordinate, implement and monitor overall implementation.

Success in the execution of activities will depend on the ability of stakeholders to plan and coordinate actions in a tactical manner. Diverse activities must be synchronized across public and private sector institutions to create sustainable results, and it is necessary to foster an adequate environment and create an appropriate framework for its implementation (see figure 14).

Figure 14: Institutional framework for IT-BPM industry development
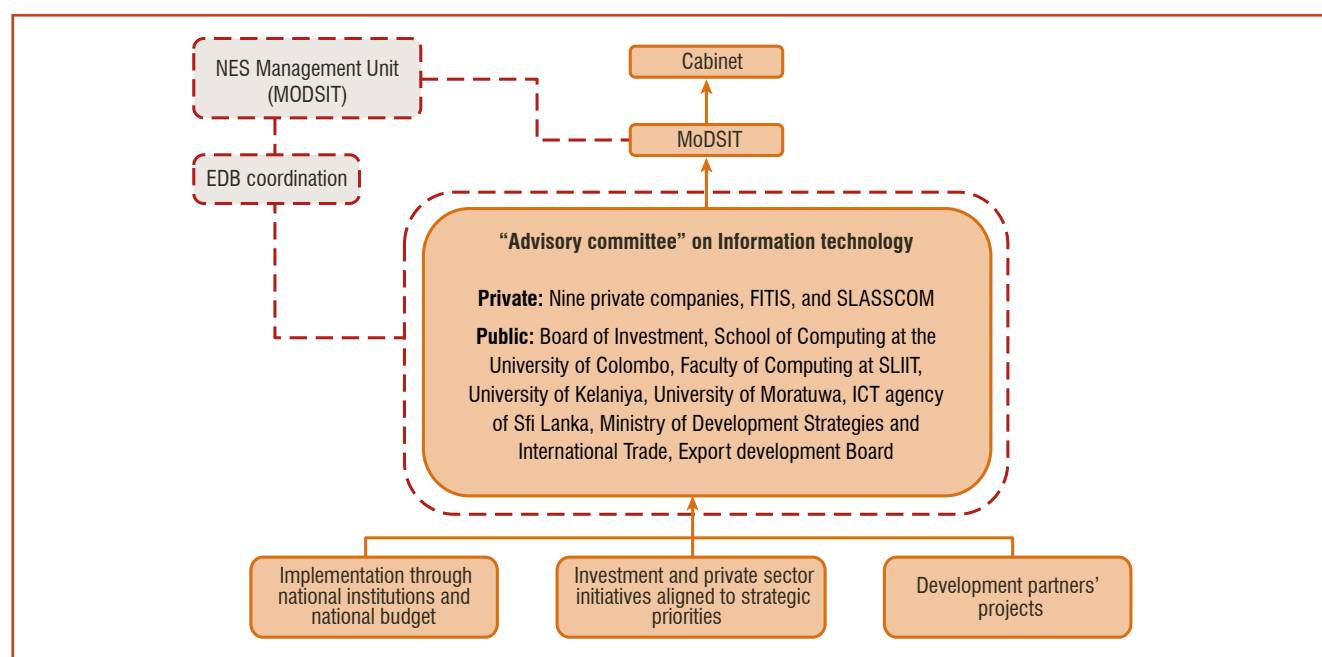
Key actions needed to achieve the targets will be coordinating activities, monitoring progress and mobilizing resources for implementation. Industry representatives recommended that a public-private 'special advisory committee' for the IT-BPM industry be rapidly established, operationalized and empowered. The IT-BPM special advisory committee is to be responsible for overall coordination, provision of policy guidance and the monitoring of industry development in relation to the Strategy.

IT-BPM SPECIAL ADVISORY COMMITTEE

The Export Development Act (1979) grants the EDB the authority: 'On advice from the Board, the Minister may by Order in the Gazette, establish advisory committees for the development and promotion of certain products, product groups and commodities as well as functional aspects of trade.' Additionally, 'each such advisory committee shall have the power to fix and regulate its own procedure, including the power to determine the number of members necessary to form a quorum at its meeting.' The advisory committees have the function 'to advise the Board on any or all of the matters which the Minister considers necessary for the purposes of carrying out or giving effect to the principles and provisions of this Act.'

An IT advisory committee has been established by Minister MoDSIT to enable private sector and public institutions to strategically steer development of the ICT/BPM industry. The ICT/BPM advisory committee is composed of the following members:

Private sector:

- Nine private companies
- FITIS
- SLASSCOM

Private sector:

- BOI
- School of Computing, University of Colombo
- Faculty of Computing, Sri Lanka Institute of Information Technology
- Department of Industrial Management, University of Kelaniya
- Department of Information Technology, University of Moratuwa
- ICTA
- MoDSIT
- EDB

The advisory committee is empowered to meet quarterly and implement the following functions:

i. Create a shared understanding of key market challenges and opportunities facing the sector;
ii. Set goals and targets that, if achieved, will strengthen the sector's competitive position and enhance Sri Lanka's overall capacity to meet the changing demands of markets;
iii. Propose key policy changes to be undertaken and promote these policy changes among national decision makers;
iv. Support the coordination, implementation and monitoring of activities in the sector by the Government, private sector, institutions or international organizations to ensure alignment to goals and targets and, as required, contribute to resource identification and alignment.

KEY SUCCESS FACTORS FOR EFFECTIVE IMPLEMENTATION

The presence of the advisory committee to oversee the implementation of the Strategy is a key success factor, but it is not sufficient to effectively fulfil its assigned functions.

Private sector support and participation in implementation

The private sector clearly expressed its willingness to contribute, directly or in partnership with public institutions, to the implementation of the Strategy. Their implementation efforts can range from providing business intelligence to institutions to contributing to project design, promotion and branding, policy advocacy, etc. The private sector's practical knowledge of business operations is essential to ensuring that the Strategy remains aligned to market trends and opportunities.

Proactive networking and communication

The key implementing institutions detailed in the PoA need to be informed of the content of the Strategy and the implications for their 2018–2022 programming. This networking and communication is essential to build further ownership and to provide institutions with the opportunity to confirm the activities they can implement in the short-to-long term. It will be important for the EDB, MoDSIT and members of the special advisory committee to reach out to relevant institutions nationally to create awareness of and support for the IT-BPM industry development.

Resources for implementation

The special advisory committee, in collaboration with the EDB and the NES Management Unit at MoDSIT, will need to leverage additional support for efficient implementation. Effective planning and resource mobilization is indispensable in supporting Strategy implementation. Resource mobilization should be carefully planned and organized.

As the IT-BPM industry is a priority of the NES, the Government of Sri Lanka should define annual budget allocations and support to drive industry growth forward. This commitment will demonstrate clear engagement to strengthening the sector and will encourage private partners to support development. In addition to national budget support, resource identification will require the BOI to release land and to provide a shared space, with common facilities and support services, for start-ups by converting existing government buildings under public-private partnerships. Investment flows to Sri Lanka also should be considered as a valuable driver of Strategy implementation and overall industry development.

The various implementation modalities detailed will determine the success of Strategy implementation. However, high-level support from the Government, in collaboration with strong championship by the private sector, will be the real driver of successful Strategy implementation.

To achieve the vision and strategic objectives discussed, a robust, actionable and realistic strategic PoA is required. This is provided below, and constitutes the heart of this Strategy.

The PoA is structured along the four strategic objectives and their respective operational objectives. For each objective, the PoA outlines detailed activities and their implementation modalities, which include:

- **Priority level:** Priority 1 is the highest and 3 the lowest.
- **Start/end dates:** The desired time frame of the activity.
- **Targets:** Quantifiable targets that allow completion monitoring of the activity during the implementation stage.

- **Leading implementing partners:** One single accountable lead institution per activity. (The institution can restrict itself to an oversight and coordination role but also can have a technical role.)
- **Supporting implementing partners:** Any institution that should be involved at any stage of an activity's implementation.
- **Existing programmes or potential support:** Existing initiatives ongoing in the specified area of the activity.
- **Indicative costs (US$):** An estimate of the activity's cost for the total implementation

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PLAN OF ACTION
2018–2022

Strategic objectives	Operational objectives	Activity	Priority	Start date	End date	Targets	Leading implementing partners	Supporting implementing partners	Indicative costs (USD)
1: Support investment and exports in the IT-BPM sector through a business-enabling, predictable and transparent policy and regulatory framework.	1.1: Enable and support the development of strong and durable Government–industry dialogue capable of steering the IT-BPM sector development.	1.1.1 Appoint a high-powered IT special advisory committee responsible for the coordination of industry development interventions: • The committee should be comprised of all relevant government agencies, together with leading industry representatives; • The Minister of MoDSIT should be invited to chair the committee;	1	01/04/2018	31/12/2022	• IT Special Advisory Committee established; • PMU established • 8 meetings per year conducted	Ministry of Development Strategies and International Trade	Export Development Board; Information and Communication Technology Agency (ICTA); SLASSCOM; Policy Development Office of the Prime Minister's Office	20,000
	1.2: Attract new contracts and investment to grow the IT-BPM industry.	1.2.1 Run an outreach campaign to attract five to 10 global MNCs (such as HSBC) through a targeted investment promotion programme (including government-to-government approaches). This effort will include: • Building the capacity of investment promotion officers; • Analysing and identifying potential investors; • Preparing the investment case and investment profiles for targeted investors; and • Establishing communication with government bodies of target countries responsible for investment abroad.	2	01/04/2018	31/03/2022	• 5 MNC companies reached per year; • 2 companies attracted per year	Board of Investment (BOI)	Ministry of Development Strategies and International Trade; Ministry of Finance; Ministry of Foreign Affairs; Export Development Board; SLASSCOM; Federation of Information Technology Industry; Department of Commerce	–
		1.2.2 Hire an international agency and assign the task of bringing five IT sector multinationals (second tier) to establish operations or JVs in Sri Lanka, with remuneration based on a success fee, paid upon achieving targets.	2	01/04/2018	31/03/2022	• 1 IT companies successfully attracted by the hired agency per year	Board of Investment (BOI)	Ministry of Development Strategies and International Trade; Export Development Board; SLASSCOM; Federation of Information Technology Industry	50,000
		1.2.3 Amend Sections 266 and 319 of the Sri Lanka Companies Act, No. 7 of 2007. to ease regulatory constraints relating to closing a business, particularly the business closing fee and directors' personal liability,	1	01/04/2018	30/03/2020	Regulation # to open and close the business adjusted	Ministry of Development Strategies and International Trade	Ministry of Industry and Commerce; Ministry of Finance; SLASSCOM; Federation of Information Technology Industry; Sri Lanka Registrar of Companies	–
	1.3: Implement key regulatory changes to stimulate and enable sustainable growth of the IT industry	1.3.1 Provide information sessions to SMEs and start-ups on the available instruments to receive foreign payments and exchange money digitally, such as Business Foreign Currency Accounts (BFCA) and Electronic Fund Transfer Card. Additionally, develop of additional instruments to facilitate the exchange of money digitally.	1	01/04/2018	30/03/2020	• Sensitization and information sessions completed • New instruments developed	Central Bank of Sri Lanka	Information and Communication Technology Agency (ICTA); SLASSCOM; Federation of Information Technology Industry	10,000
		1.3.2 Issue the necessary guidelines for implementation of ETA 2006 to fully enable e-payment, e-signature, e-documents and tracking.	2	01/04/2018	30/03/2020	Provision of the "Electronic Transactions Act, No. 19 of 2006" (ETA 2006) implemented	Ministry of Telecommunication and Digital Infrastructure	Central Bank of Sri Lanka; Information and Communication Technology Agency (ICTA); Ministry of Justice	–

Strategic objectives	Operational objectives	Activity	Priority	Start date	End date	Targets	Leading implementing partners	Supporting implementing partners	Indicative costs (USD)
1: Support investment and exports in the IT-BPM sector through a business-enabling, predictable and transparent policy and regulatory framework.	1.3: Implement key regulatory changes to stimulate and enable sustainable growth of the IT industry	1.3.3 Allow more flexibility in labour regulations, specifically to: • Reform the compensation formula for IT businesses (to allow flexibility in undertaking international projects); and • Permit working hours for women after 22:00, by amending the Shop and Office Employees Act, No. 15 of 1954 and Section 2A of Employment of Women, Young Persons and Children Act, No. 24 of 2006.	2	01/04/2019	31/12/2022		Department of Labour	The Employers' Federation of Ceylon; SLASSCOM; Federation of Information Technology Industry	–
		1.3.4 Provide information sessions to SMEs and start-ups on: foreign exchange rules (including those relating to overseas ESOS) for start-ups and digital entrepreneurs, and payments in foreign currency with no mandatory deposit on FEEA. This follows passing of Foreign Exchange Act, No 12 of 2017. As required, develop of additional instruments to facilitate the foreign exchange transactions.	1	01/04/2018	30/03/2020	• Information sessions provided • Additional instruments defined and promoted	Central Bank of Sri Lanka	Ministry of Development Strategies and International Trade; Export Development Board; SLASSCOM	20,000
		1.3.5 Simplify the procedure for obtaining a workers/occupational visa for the IT-BPM industry by introducing a pre-approved, quota-based system.	2	01/04/2018	31/12/2022	Regulation # adjusted	*To be finalized by Department of Immigration and Emigration*	Board of Investment (BOI); Information and Communication Technology Agency (ICTA); SLASSCOM; Federation of Information Technology Industry	–
		1.3.6 Introduce amendments to facilitate the establishment of spin-off companies and start-ups to spur research commercialization in state universities and to allow them to function independently of current university regulations.	2	01/01/2019	31/12/2019	UGC Act amended	Ministry of Higher Education and Highways	University Grants Commission	–
	1.4: Create enabling environment for fostering IP creation.	1.4.1 Fast track the speed/processes of granting IP registration by the National Intellectual Property Office (NIPO) and improve the awareness and guidance provided by NIPO regarding IP creation, application filing and registration.	2	01/04/2019	31/12/2019	• IP application processing time reduced by 50% • 2 guidance and awareness sessions on IP application and filing conducted annually	National Intellectual Property Office	Export Development Board; Information and Communication Technology Agency (ICTA); SLASSCOM; Federation of Information Technology Industry	40,000
		1.4.2 Provide training to companies on IP in connection with branding activities and especially on certification marks. Offer training to SLASSCOM and FITIS staff. Support all the mentioned institutions to develop guidance and services for industry representatives. Link to 1.4.1	2	01/04/2018	31/03/2022	1 training to be conducted annually to all the institutions	National Intellectual Property Office	Export Development Board; SLASSCOM; Federation of Information Technology Industry	50,000

Strategic objectives	Operational objectives	Activity	Priority	Start date	End date	Targets	Leading implementing partners	Supporting implementing partners	Indicative costs (USD)
2: Drive export growth through innovation and entrepreneurship.	2.1: Substantially Increase market outreach and trageting	2.1.1 Introduce structured mechanism to have at least two B2Bs and targeted match-making meetings per industry segment per year on both local and international levels. B2B meetings must be very focused and well-structured and cross-subsidization funding should be enabled, including a transparent mechanism to utilize the funds in a timely manner. The main funding agency for this activity will be EDB/MoDSIT. The budgets set for this would be for administration. Each of the marketing events would require additional funding. The specific markets are in discussion.	1	01/04/2018	31/12/2022	• B2B mechanism on how to conduct the meeting developed; • Results of meetings monitored	SLASSCOM	Ministry of Foreign Affairs; Export Development Board; Federation of Information Technology Industry	30,000
		2.1.2 Set up industry representatives or business matchmakers (individual consultants or firms) in targeted markets (starting with Australia, New Zealand, Scandinavia, United Kingdom, EU, United States, Canada, Japan and the Middle East) through cost sharing by EDB and DoC and collaborate closely with embassies and the Sri Lankan diaspora in targeted countries. Business matchmakers' responsibilities include, but will not be not limited to: • Organizing local analyst briefings; • Placing articles in local/regional media; • Preparing local/regional roadshows and missions; and • Establishing a network with the local diaspora.	2	01/01/2019	31/12/2021	10 B2B meetings per industry segment in targeted market are organised by industry representative yearly	Export Development Board	Ministry of Foreign Affairs; SLASSCOM	50,000
		2.1.3 Build capacities in overseas foreign missions for promotion and proactive investor targeting in targeted market by: • Organizing training of commercial attachés and trade promotion officials in key target markets to collect, analyse and disseminate trade information; and • Actively involving IT-BPM industry representative in outward missions and trade shows).	1	01/04/2018	31/12/2020	• Ccommercial attachés in key target markets trained; • promotional package targeted at customer for commercial attachés developed; • 10 example case studies and testimonials developed (by local editor)	Export Development Board	Ministry of Foreign Affairs; SLASSCOM; Department of Commerce	30,000
		2.1.4 Train SMEs on best practices in branding, sales and promotion strategy, and apply the new branding strategy, developed by the Asian Development Bank (ADB)/PricewaterhouseCoopers' (PwC) project, to adapt and improve their marketing communications materials and to build capacity in selected individual firms to promote the new brand positioning to customers. This can be completed through workshops and clinics with individual firms on branding, sales training and complement the design of marketing plans with improved communication strategies.	1	01/04/2018	31/12/2019	• Workshops on best practices in branding – marketing communication for SMEs conducted; • Advisory on how to improve marketing communication materials through clinics with selected individual firms provided; • Sector level printed marketing materials for selected firm adapted and improved.	Export Development Board	Information and Communication Technology Agency (ICTA); SLASSCOM; Federation of Information Technology Industry	100,000

Strategic objectives	Operational objectives	Activity	Priority	Start date	End date	Targets	Leading implementing partners	Supporting implementing partners	Indicative costs (USD)
2: Drive export growth through innovation and entrepreneurship.	2.2: Provide financial and infrastructural support to foster more IT firms in Colombo and in the regions.	2.2.1 Establish dedicated ICT research centres at universities throughout the country, starting with the University of Jaffna, University of Moratuwa and University of Peradeniya to support IT industry development in the northern, central and western provinces and create links to the agricultural sector (i.e. Ag-Tech) in provinces to develop technologies, applications and methods to improve yields.	2	01/01/2019	31/12/2021	ICT Research Centre at University of Jaffna, University of Moratuwa and University of Peradeniya established	Ministry of Higher Education and Highways	Ministry of Finance; University of Moratuwa; University of Peradeniya; University of Jaffna; University Grants Commission	100,000
		2.2.2 Hold business clinics for IT start-ups' in three major cities (Jaffna, Galle, Kurunegala) twice a year to provide business services and advice on contracts, negotiation, pricing, labour regulations, taxation, etc. To be implemented by SLASSCOM/FITIS.	2	01/01/2019	31/12/2021	'Business Clinics for IT Start-ups' in 3 major cities organised twice a year.	Information and Communication Technology Agency (ICTA)	Export Development Board; SLASSCOM; Federation of Information Technology Industry	150,000
		2.2.3 Create a shared space (100 000 square feet) for start-ups by converting existing government building. Shared space to provide: • Flexible leasing options that involve minimal commitment; • High-speed Internet and business centre services; and • Conference rooms. A first step is for the Government to provide the facilities and through a tender process let management of this shared space to SLASSCOM.	1	01/04/2018	31/12/2019	A land for shared space/ facilities for start-ups provided	Ministry of Telecommunication and Digital Infrastructure	Ministry of Development Strategies and International Trade; Ministry of Finance; Information and Communication Technology Agency (ICTA); SLASSCOM; Federation of Information Technology Industry	100,000
		2.2.4 Enhance financial support for early -stage IT start-up companies under the 'spiralion' programme, providing up to LKR 2 million each for 50 companies.	2	01/01/2019	31/12/2022	Grants for 50 start-ups to subsidise infrastructure, capacity building, business development provided yearly	Information and Communication Technology Agency (ICTA)	Ministry of Development Strategies and International Trade; Ministry of Finance; Export Development Board	500,000
	2.3: Organize a 'Start-up in Sri Lanka' campaign to facilitate return of members of the Sri Lankan diaspora and setting up of IT companies.	2.3.1 Include fast tracking of visas and other residency requirements to attract members of the Sri Lankan diaspora to create IT start-up companies and promote these opportunities abroad (linked to 2.1.2).	2	01/01/2019	31/12/2021	• Fast tracking visa for diaspora implemented; • Promotion to diaspora of business opportunities through social media and other communication channels completed	Ministry of Telecommunication and Digital Infrastructure	Information and Communication Technology Agency (ICTA); SLASSCOM; Department of Immigration and Emigration; Federation of Information Technology Industry; Sri Lanka Registrar of Companies; Department of Commerce	20,000
3: Improve supply of skilled, highly qualified professionals to satisfy growing IT-BPM market growth.	3.1: Increase IT awareness among youth and encourage innovation.	3.1.1 Conduct IT awareness events in all provinces, starting with seven cities (Galle, Matara, Rathnapura, Kurunegala, Anuradhapura, Batticaloa, and Bandarawela) to raise awareness about IT industry careers opportunities.	0	01/04/2018	31/12/2022	• Yearly events for IT Careers Awareness in the regions conducted	Export Development Board	Information and Communication Technology Agency (ICTA); SLASSCOM; Federation of Information Technology Industry	20,000
		3.1.2 Showcase the Sri Lankan IT industry based on existing digital content and promote in a targeted manner through social media and websites to raise awareness about industry importance. To be implemented by SLASSCOM/FITIS.	0	01/01/2019	31/12/2022	• 6 Show cases and success stories per year published	Information and Communication Technology Agency (ICTA)	Export Development Board; Information and Communication Technology Agency (ICTA); SLASSCOM; Federation of Information Technology Industry	50,000

Strategic objectives	Operational objectives	Activity	Priority	Start date	End date	Targets	Leading implementing partners	Supporting implementing partners	Indicative costs (USD)
3: Improve supply of skilled, highly qualified professionals to satisfy growing IT-BPM market growth.	3.2: Increase the availability of industry-relevant talent/workforce.	3.2.1 Conduct, publish and disseminate the findings and key messages of an annual survey of the top 10 skills demanded in the IT sector to give guidance to youth and university graduates on sector needs and opportunities.	2	01/01/2019	31/12/2022	• Survey finding of 10 skills demanded in IT sector published yearly • Media IT Careers Awareness Campaign held	Information and Communication Technology Agency (ICTA)	Ministry of Education; Ministry of Higher Education and Highways; SLASSCOM; Federation of Information Technology Industry; University Grants Commission	20,000
		3.2.2 In collaboration with SLASSCOM, implement an IT careers awareness campaign on state media targeting parents and teachers.	2	01/01/2019	31/12/2022	Media IT Careers Awareness Campaign held	Information and Communication Technology Agency (ICTA)	Ministry of Education; Ministry of Higher Education and Highways; Export Development Board; SLASSCOM; Federation of Information Technology Industry	20,000
		3.2.3 Commission an employability survey within the SLASSCOM HR Forum to identify a means to give feedback to universities and faculties. Conduct an annual skill demand round table in which findings of survey and industry trends are conveyed to universities and other educational institutes and steps forward are identified to meet those needs. Align the existing vocational training institutes and their programmes to IT industry needs.	0	01/01/2019	31/12/2022	• Yearly round table conducted; • Recommendations to meet industry needs concluded IT programs for TVET developed	SLASSCOM	Ministry of Higher Education and Highways; Ministry of Skills Development and Vocational Training; Information and Communication Technology Agency (ICTA)	50,000
		3.2.4 Initiate a programme to increase the number of IT related graduates by 18,000 over the next four years (mix of free and fee-levying). This can be achieved by: • Expending capacity in universities; • Introducing distance learning programmes; and • Developing Open University concept lectures online.	2	01/01/2019	31/12/2022	Programme to increase the number of IT graduates is introduced and applied	Ministry of Higher Education and Highways	Ministry of Skills Development and Vocational Training; Vocational Training Authority of Sri Lanka; SLASSCOM; Federation of Information Technology Industry	200,000
		3.2.5 Through public-private partnerships, bring in top foreign universities to set up satellite campuses in Sri Lanka to enhance advanced skill levels and local R&D capability (Carnegie Mellon University, Massachusetts Institute of Technology, etc.).	2	01/01/2019	31/12/2021	• 2 foreign universities reached per year • 1 university attracted	Board of Investment (BOI)	• EDBTreasury; SLASSCOM; Policy Development Office of the Prime Minister's Office; University Grants Commission	50,000
		3.2.6 Introduce a six-month conversion programme for graduates in different discipline to study for IT-BPM careers (Bachelor of Arts degree to KPO and management, Bachelor of Science to software development and hardware engineering) and develop technical, analytical and professional skills specific to the industry.	1	01/01/2019	31/12/2022	Conversion program is introduced and applied	Ministry of Higher Education and Highways	Ministry of Skills Development and Vocational Training; Vocational Training Authority of Sri Lanka; SLASSCOM	100,000
		3.2.7 Based on MoF regulations and procedures, increase access to IT training and degrees by providing financial assistance through existing student loan programme and introduce a more effective IT specific student loan scheme implemented by state banks.	1	01/01/2019	31/12/2020	IT-specific student loan scheme introduced	Department of Development Finance MoF	Ministry of Finance; SLASSCOM; Federation of Information Technology Industry; Bank of Ceylon; People's Bank	100,000

Strategic objectives	Operational objectives	Activity	Priority	Start date	End date	Targets	Leading implementing partners	Supporting implementing partners	Indicative costs (USD)
3: Improve supply of skilled, highly qualified professionals to satisfy growing IT-BPM market growth.	3.3: Enable access to global talent.	3.3.1 Enable a two-week rapid visa approval to fill the critical roles from global talent pool for emergency cases for roles that cannot be filled locally.	1	01/04/2018	31/12/2019	2-week rapid approval introduced	Ministry of Development Strategies and International Trade	Export Development Board; SLASSCOM; Federation of Information Technology Industry; Ministry of Internal Affairs	–
		3.3.2 Facilitate introducing a scheme to fast-track short-term business visas (within 24 hours) catering to disaster recovery/business continuity services (including allowing immediate visas for pre-approved lists (named or quota-based).	2	01/01/2019	31/12/2020	A fast-track short-term business visas scheme introduced	Ministry of Development Strategies and International Trade	Ministry of Foreign Affairs; Export Development Board; Department of Immigration and Emigration	–
4: Grow champion firms (the US$2 billion plan').	4.1: Build a cohort of firms with exponential growth potential, currently in the second tier.	4.1.1 Launch a 'champion builder' programme targeting exponential growth firms, with a programme management office, call for applications, and credible and robust selection criteria. This programme will target two groups based on revenue/growth achievements: • 20 companies with US$20 million in revenue that aim to reach US$100 million over five years; and • 50 companies with US$2 million in revenue that plan to reach 10 million in five years. Following steps are required to identify the companies and their needs: • Create a programme management office and set up monitoring modalities among implementation partners; • Establish eligibility criteria for the selection of the companies; • Launch the survey to identify the target audience; • Assess the results and identify the pool of companies; • Interview shortlisted companies to identify their needs and priorities; • Develop individual trade support plan for companies.	1	05/04/2018	31/12/2022	• 'Champion Builder' program launched; • 20 companies with $20 million revenue selected; • 50 companies with $2 million revenue selected; • Needs and priorities of selected companies identified	To be finalized by Policy Development Office of the Prime Minister's Office	Ministry of Development Strategies and International Trade; Export Development Board; Information and Communication Technology Agency (ICTA)	500,000
		4.1.2 Provide technical and financial support for business development to 'champion builder' firms through a transparent process, namely with: • Access to consulting services: market orientation, product positioning, and IP management; • Skills and capacity development: specialized training programmes on disruptive/emerging technologies, grants and subsidies for process certification and fast-track process for work visas; • Marketing and sales: promotion and advertising campaign, subsidies to facilitate trade visits and marketing materials; and • Assistance with scaling for growth: consulting on merger/acquisition strategies, setting up joint ventures and partnership in target markers, introduction to investors and cost-effective access to office space.	1	01/04/2018	31/12/2022	• Technical and financial support for selected companies to reach $2 billion plan provided	To be finalized by Policy Development Office of the Prime Minister's Office	Ministry of Development Strategies and International Trade; Export Development Board; Information and Communication Technology Agency (ICTA)	200,000

Strategic objectives	Operational objectives	Activity	Priority	Start date	End date	Targets	Leading implementing partners	Supporting implementing partners	Indicative costs (USD)
4: Grow champion firms ('the US$2 billion plan').	4.2: Implement a country branding programme focused on growing champion firms and the overall industry	4.2.1 Develop a brand for the IT-BPM industry and produce marketing materials within the framework of the IT-BPM Branding Implementation Plan (ADB-PwC), namely: • Develop brand guidelines (visual identity and formats for visuals aids); • Research and develop a set of content (case studies) to be used for marketing materials; • Design and print marketing materials; • Produce supporting videos; and • Launch a digital marketing campaign (social media, search engine optimization and management).	1	01/04/2018	31/12/2022	• IT-BMP brand created; • Content by sub-sector developed and edited; • Marketing materials designed; • Supporting videos produced; • Digital marketing campaign launched	Export Development Board	Information and Communication Technology Agency (ICTA); SLASSCOM; Federation of Information Technology Industry	100,000
		4.2.2 Hold global public relations design and management campaign within the framework of IT-BPM Branding Implementation Plan (ADB-PwC), namely: • Position Sri Lanka in analyst publications such as Gartner and AT Kearney by inviting analysts or by funding country supplements; • Place IT-BPM industry in global business and trade media; • Organize analyst and journalist familiarization tours; and • Leverage the global diaspora to promote the industry abroad.	1	01/04/2018	31/12/2022	• Industry positioned at least at 1 analytical publication per year; • Industry is placed in global business and trade media at least 4 times per year; • 2 tours for journalist familiarisation held per year	Information and Communication Technology Agency (ICTA)	Board of Investment (BOI); Export Development Board; Information and Communication Technology Agency (ICTA); SLASSCOM	200,000
		4.2.3 Organize inbound tours for chief information officers from identified top tech firms to showcase talents and skills and experience the potential in Sri Lanka through the local and regional roadshows and missions. Target three well-prepared roadshows per year, e.g.: • 1st year: Japan, the United Kingdom, Australia and New Zealand; • 2nd year: India, United States, Nordic countries; • 3rd year: Gulf/Middle East, countries in the Association of Southeast Asian Nations, Germany.	2	01/01/2019	31/12/2022	-3 roadshows organized yearly	Export Development Board	Ministry of Foreign Affairs; Board of Investment (BOI); SLASSCOM	450,000

APPENDIX 1: LIST OF PARTICIPANTS IN THE PUBLIC-PRIVATE CONSULTATIONS

No.	Name	Designation	Name of the Institution
1	Mr. S. Kariharakanapathy	Head Of the Department/IT	Advanced Technical Institute
2	Mr. Thiriyambaga Sharma	IT Executive	Agoysoft (Pvt) Ltd
3	Mr. Ishan Kannangara	Director- Marketing	Apps Technologies (Pvt) Ltd
4	Ms. Angela Croslin	Project Analyst	Asian Development Bank (ADB)
5	Mr. Udaya De Silva	DGM -Business Development	Bartleet Electronics (Pvt) Limited
6	Ms. Renuka Dasanayake	Deputy Director (Investment Appraisal)	Board of Investment (BOI)
7	Mr. A.S. Subasinghe	Assistant Director	Board of Investment (BOI)
8	Mr. S. Shanthakumar	Additional Director	College of Technology Jaffna
9	Mr. Asela Jayarathna	Business Development Consultant	EPIC Lanka (Pvt) LTD
10	Mr. Sharanyan Sharma	Managing Director	Extreme SEO Internet Solutions
11	Dr. Kithsiri Manchanayakke	Chairman	Federation of IT Industry Sri Lanka (FITIS)
12	Mr. Indika de Zoysa	Director (Projects)	Information and Communication Technology Agency (ICTA)
13	Mr. Sachindra Samararatne	Project Manager	Information and Communication Technology Agency (ICTA)
14	Mr. Nilan Thimbiripola	Project Manager	Information and Communication Technology Agency (ICTA)
15	Ms. Lakmini Wijesundera	Chief Executive Officer	IronOne Technologies Pvt Ltd
16	Mr. T. Loganathan	Director	Jaffna College Institute of Technology
17	Mr. Jeewana Waidyarathne	General Manager	Metatechno Lanka Company (Pvt) Ltd
18	Mr. Pubudu Basnayake	OEM Director - New Market for South East Asia	Microsoft Sri Lanka
19	Mr. U G Ratnasiri	Additional Secretary - Economic Affairs	Ministry of National Policies & Economic Affairs
20	Mr. Waruna Dhanapala	Senior Assistant Secretary (ICT for Dev)	Ministry of Telecommunication & Digital Infrastructure
21	Mr. R. Thirumurugan	Inspection Officer	National Apprentice and Industrial Training Authority (NAITA)
22	Mr. T. Thavaruban	Chairman	Northern Chamber of Information Technology
23	Mr. Y. Sharmmhik	Vice Chairman	Northern Chamber of Information Technology
24	Mr. Upendra Pieris	Vice President	OrelIT (Pvt) Limited
25	Mr. Jeevan Gnanam	Director / CEO	Orion City IT Park
26	Mr.Siddharthan Udhayakumaran	Executive Assistant to CEO	Orion City IT Park
27	Mr. Nishan Mendis	Director - Consulting	PricewaterhouseCoopers (PWC)
28	Ms. Pubudini Abeyesekera-Anthonypillai	Executive Coordinator	S.A. Knowledge Services (Pvt) Ltd (SAKS) Website Directions Orion City
29	Mr. M. Nilashan	Director	Satron
30	Mr. Haridhu Abeygoonaratne	General Manager	Sim Centric Technologies (Pvt) Ltd.
31	Mr. Ruwindu Peiris	Chairman	Sri Lanka Association of Software and Service Companies (SLASSCOM)
32	Mr. Chrishan De Mel	Executive Director	Sri Lanka Association of Software and Service Companies (SLASSCOM)

No.	Name	Designation	Name of the Institution
33	Ms. Menushika Fernandopulle	Programme Manager - Tentative	Sri Lanka Association of Software and Service Companies (SLASSCOM)
34	Mr. Channa Manoharan	Director Operations	Sri Lanka Association of Software and Service Companies (SLASSCOM)
35	Dr. Pradeepa Samarasinghe	Head OF Department Department of IT	Sri Lanka Institute of Information Technology (SLIIT)
36	Dr. Pradeep Abeyguunawardane	Senior Lecturer Head - Department of Information Systems Engineering	Sri Lanka Institute of Information Technology (SLIIT)
37	Mr. Ashique Mohamed Ali	Director	Talliance (Pvt) Ltd
38	Mr. M.C.M. Farook	Deputy Director	Telecommunications Regulatory Commission of Sri Lanka
39	Mr. T.G. Premaratne	Development Officer	Telecommunications Regulatory Commission of Sri Lanka
40	Dr. Ruvan Weerasinghe	DGM Business Development	University of Colombo School of Computing
41	Dr. A. Ramanan	Head Of the Department(IT)	University of Jaffna
42	Dr. Janaka Wijayanayake	Senior Lecturer - Department of Industrial Management Faculty of Science	University of Kelaniya
43	Mr. Bhanu Watawana		University of Kelaniya - Faculty of Science
44	Dr. Lochandaka Ranathunga	Senior Lecturer - Department of Information Technology	University of Moratuwa
45	Mr. Madu Ratnayake	Executive Vice President	Virtusa Polaris
46	Mr. E. Vijithan	Assistant Director	Vocational Training Authority of Sri Lanka
47	Mr. Vidura Gamini Abhaya	Director of engineering	WSO2
48	Mr. Tharmarajah Suresh	Chairman/ Group CEO	Zillione Holdings (Pvt) Ltd.
49	Mr. M.K.S.K. Maldeni	Director – Export Services	Export Development Board
50	Ms. Vajira Kularathna	Assistant Director	Export Development Board
51	Mr. Dinesh Aththanayaka	Export Promotion Officer	Export Development Board
52	Ms. Dhanushka Ruwanpathirana	Export Promotion Officer	Export Development Board

APPENDIX 2: ICT SERVICES COMPLEMENTARY GROUPING (EXTENDED BALANCE OF PAYMENTS SERVICES CLASSIFICATION (EBOPS 2010)

EBOPS 2010	EBOPS 2010 description	CPC Ver.2.1	CPC Ver.2.1 description	ISIC Rev.4	ISIC Rev.4 description
9.1	Telecommunications services	841	Telephony and other telecommunications services	61	Telecommunications
		842	Internet telecommunications services		
		84631	Broadcasting services	60*	Programming and broadcasting activities
9.2.1	Computer services-computer software	83143	Software originals	5820*	Software publishing
		8434	Software downloads		
		84391	On-line games		
		84392	On-line software		
9.2.2	Computer services-Other computer software	8313	IT consulting and support services	6202*	Computer consultancy and computer facilities management activities
		83141	IT design and development services for applications	6201*	Computer programming activities
		83142	IT design and development services for networks and systems	6202*	Computer consultancy and computer facilities management activities
		8315	Hosting and information technology (IT) infrastructure provisioning services	6311*	Data processing hosting and related activities
		8316	IT infrastructure and network management services	6202*	Computer consultancy and computer facilities management activities
		8713	Maintenance and repair services of computers and peripheral equipment	9511*	Repair of computers and peripheral equipment
		92919*	Other education and training services, n.e.c.	8549*	Other education
8.3	Licenses to reproduce and/or distribute computer software	73311	Licensing services for the right to use computer software	5820*	Software publishing
Note: *Partial allocation.					

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