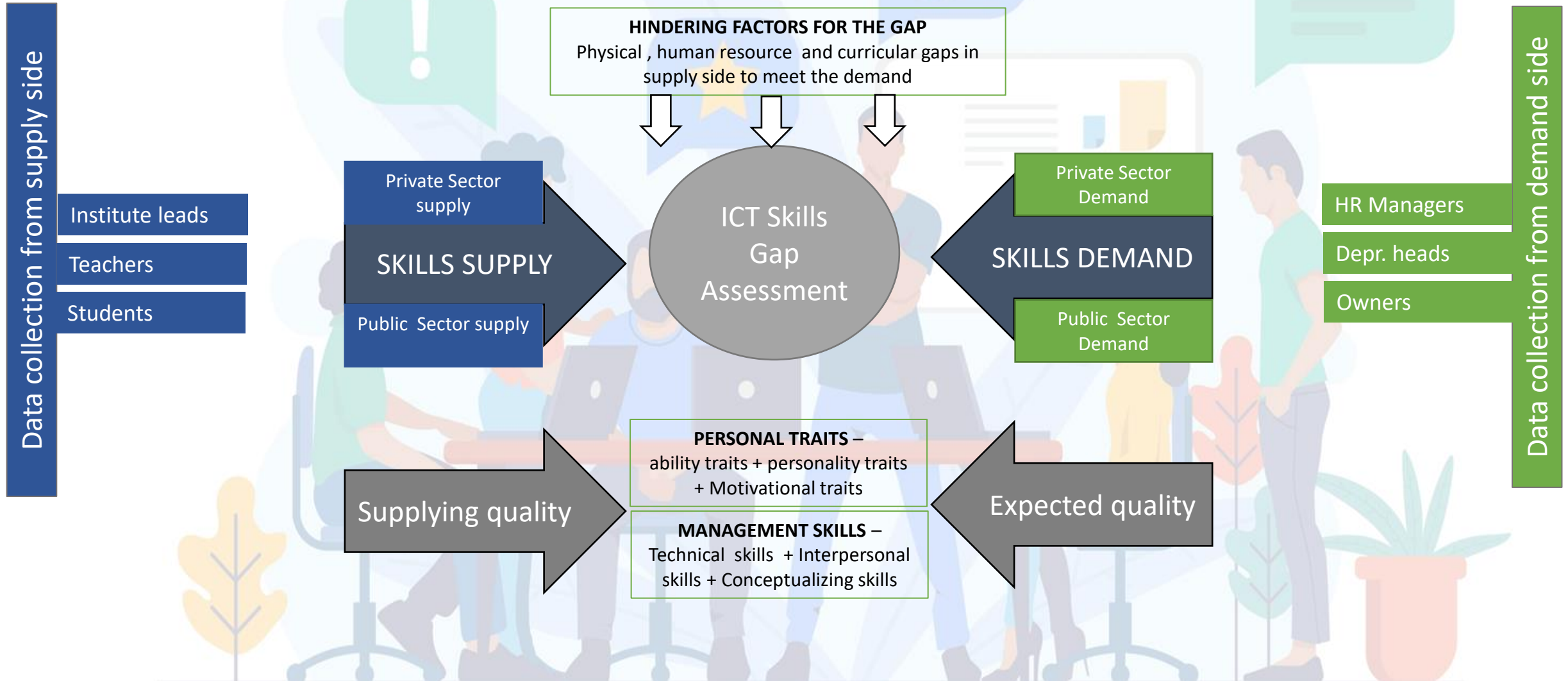




# SKILL GAP ASSESSMENT OF THE ICT SECTOR IN SRI LANKA

A STUDY FOR THE ICT SKILLS SECTOR COUNCIL IN SRI LANKA

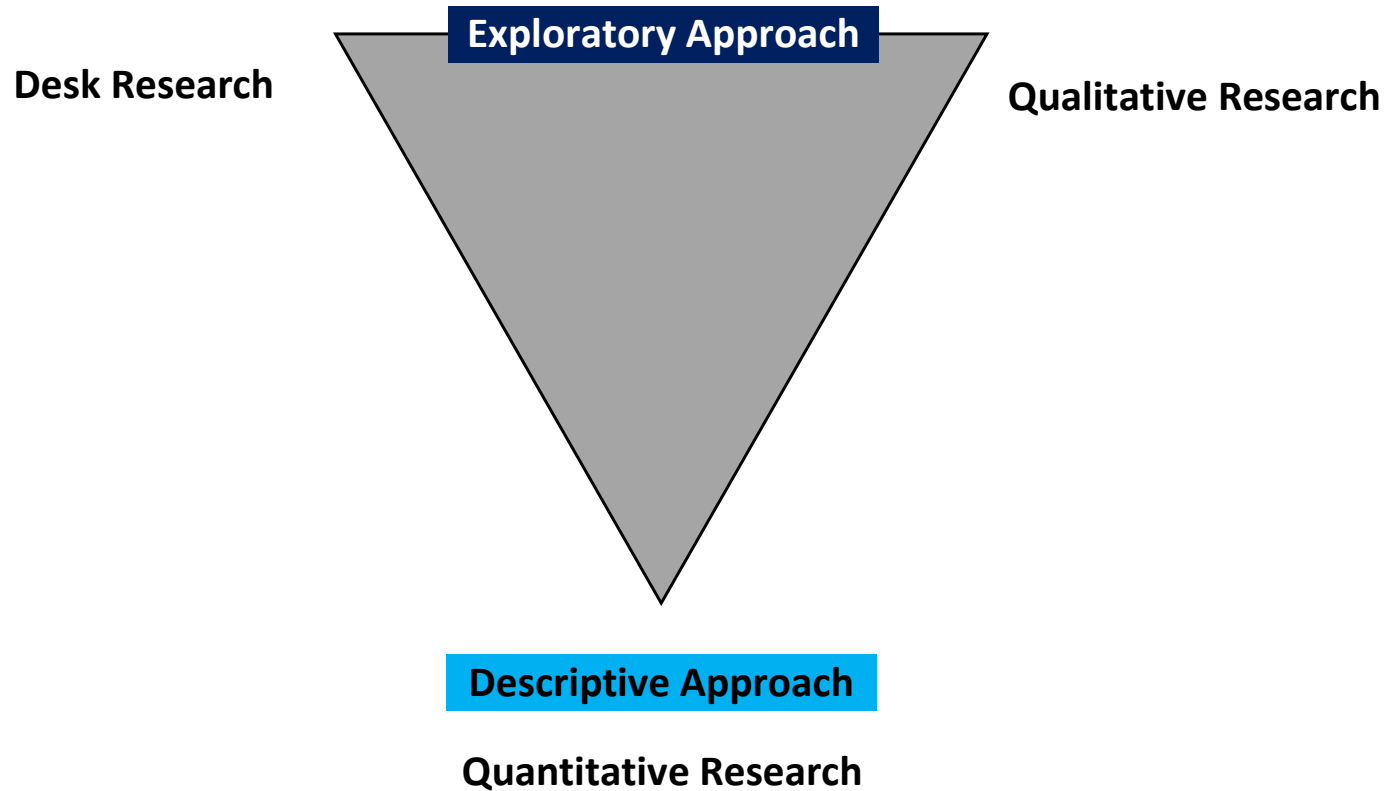
# Skill Gap Assessment Framework



# Research Objectives

- To identify the **present status of IT-BPM industry workforce** in terms of strengths, composition, gender composition, age distribution, quality, and other special characteristics.
  - To discover the **demand for IT-BPM professionals** in the IT-BPM industry in terms of job categories, skills, educational qualifications, entry methods, technologies, service lines and other special attributes.
  - To **evaluate the supply** of NVQ certificate holders in terms of quantity and quality
  - To **identify gap between skills demand and skills supply** of TVET sector (relating to NVQ)
  - To **examine the gaps in the curriculum**, quality of trainers, training needs of trainers and infrastructure
  - To **make recommendations on solutions to bridge skills gaps.**
- To identify future demanding occupations
  - To evaluate Covid-19 impact on ICT industry
  - To discover government policy directives on IT-BPM industry

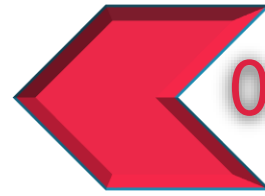
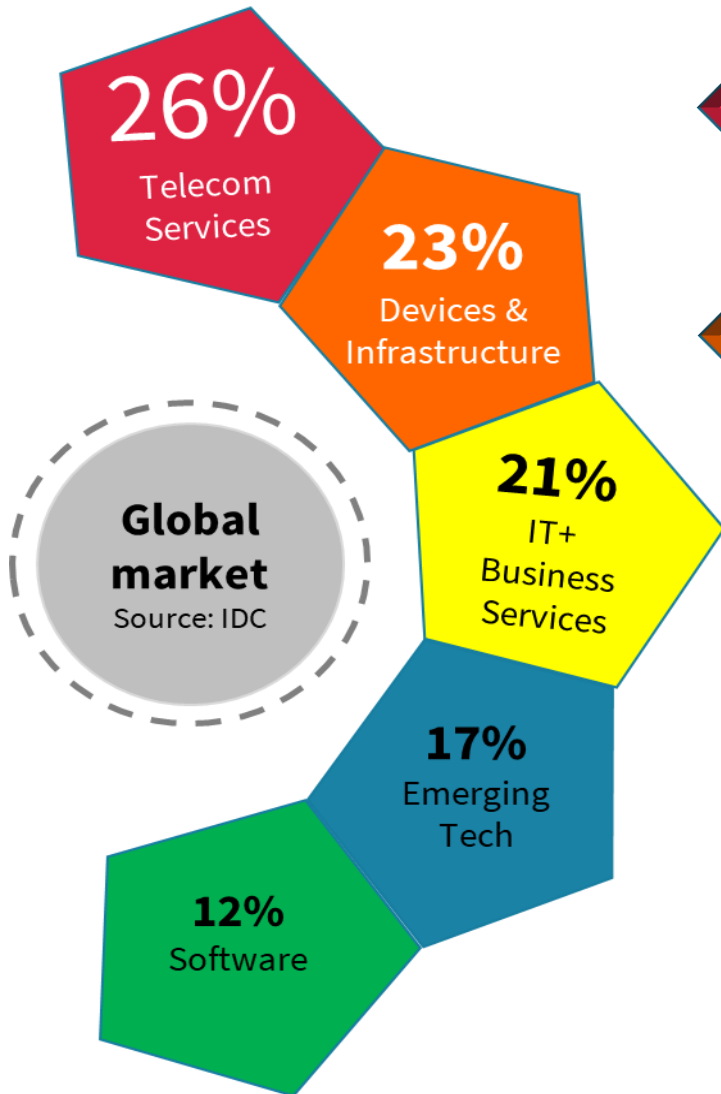
# Research Approach



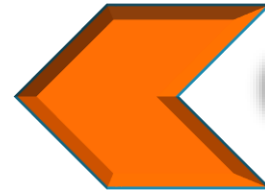
A Triangulation approach was agreed to ensure triple validation of any findings through the study. As the initial stage of the study, this Desk Review was conducted to understand the sector stand in the current context.



# Global ICT Industry Revenue Generators



**01.** Telecom services have been the biggest contribution to the ICT industry



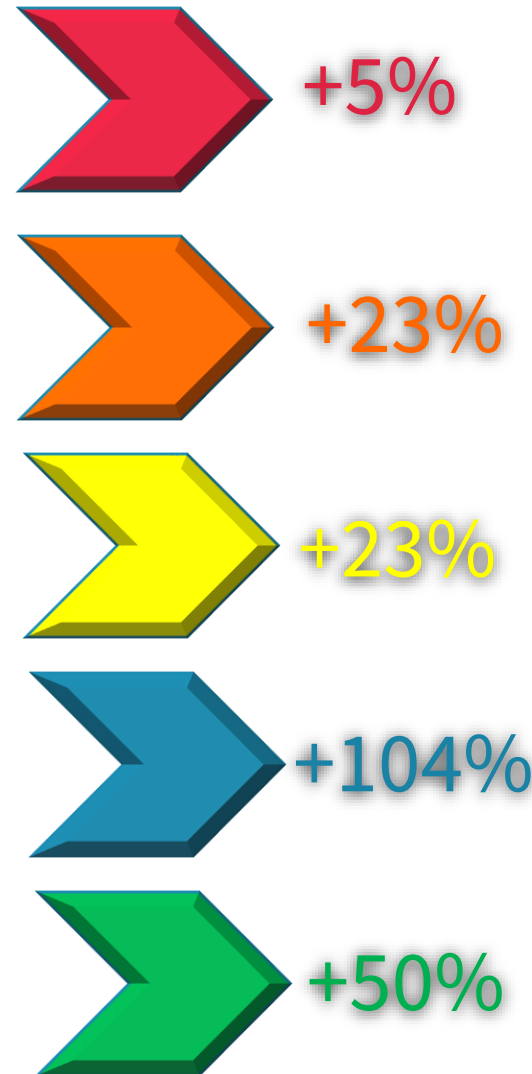
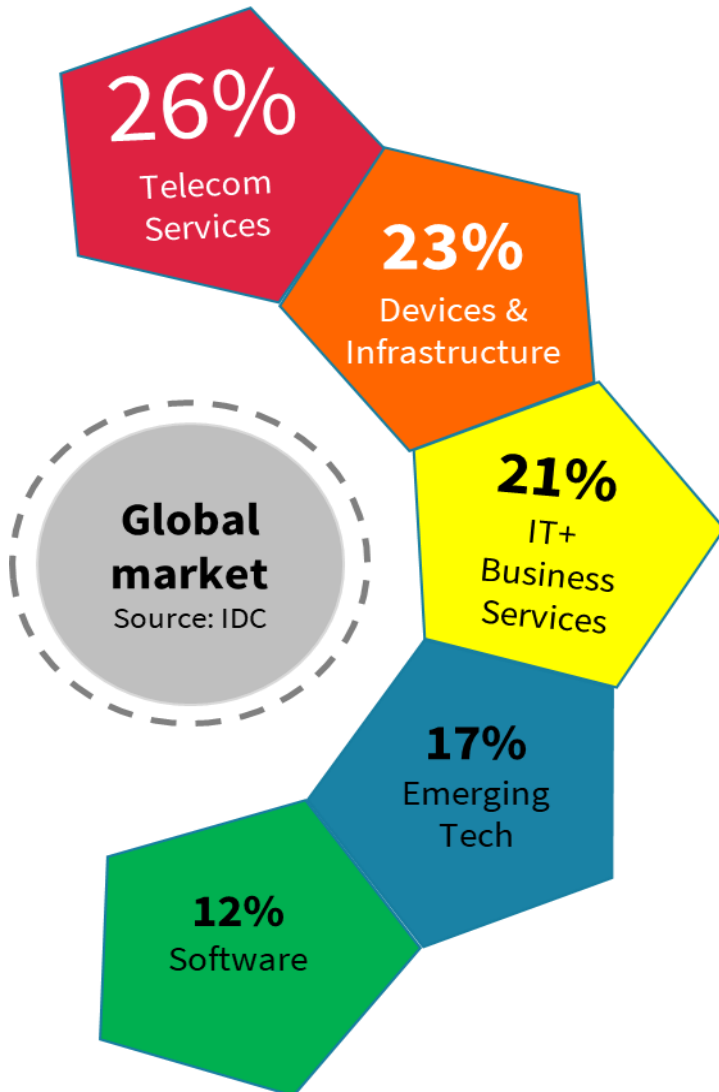
**02.** Hardware has been the second highest contributor to the ICT industry



**03.** Emerging Tech is the future of global ICT Industry

# Global ICT Industry Revenue Growth Drivers

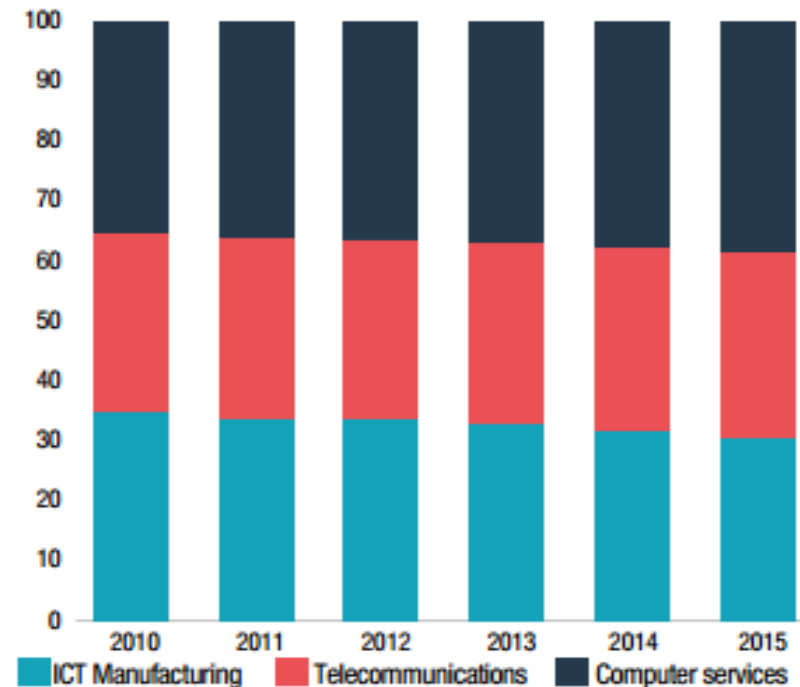
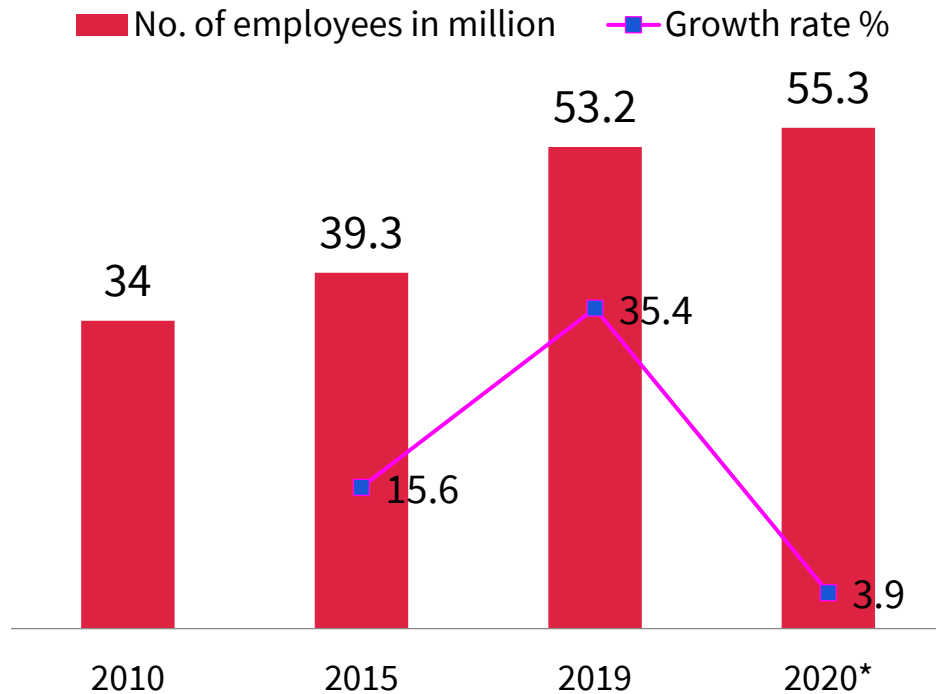
Growth Rate estimated 2018-2023



- As it is recorded in IT Industry Outlook 2020, Emerging Tech Categories would drive revenue growth of global ICT industry
- **46% of new revenue growth** in tech sector attributed to emtech categories during 2018-2023
- Key Emerging Tech Growth Drivers;
  - IoT Software
  - IoT Hardware
  - SaaS + PaaS
  - IoT Connectivity
  - Robotics/ drones
  - AR/VR
  - AI platforms/ applications
  - Big data/analytics
  - Enterprise Social Software
  - Next Gen Security

**Source :** IT Industry Outlook 2020

# Global ICT Sector Employment



- Global employment in the ICT sector grew by 15.6% between 2010 and 2015, rising from 34 million to 39.3 million employees. During 2015 to 2019, there was a significant increase of Global employment from 39.3 million to 53.2 million (35.4%)
- The worldwide full-time employment in the ICT sector is projected to reach 55.3 million in 2020 (pre-corona estimation), an increase of 3.9% over 2019.
- Employment in computer services grew particularly fast during 2010-2015, by 27%, and accounted for the largest share (38 %) of ICT sector employment in 2015, compared with 31% each for telecommunications and ICT manufacturing.

# Video Gaming is one of the Trending Business Globally

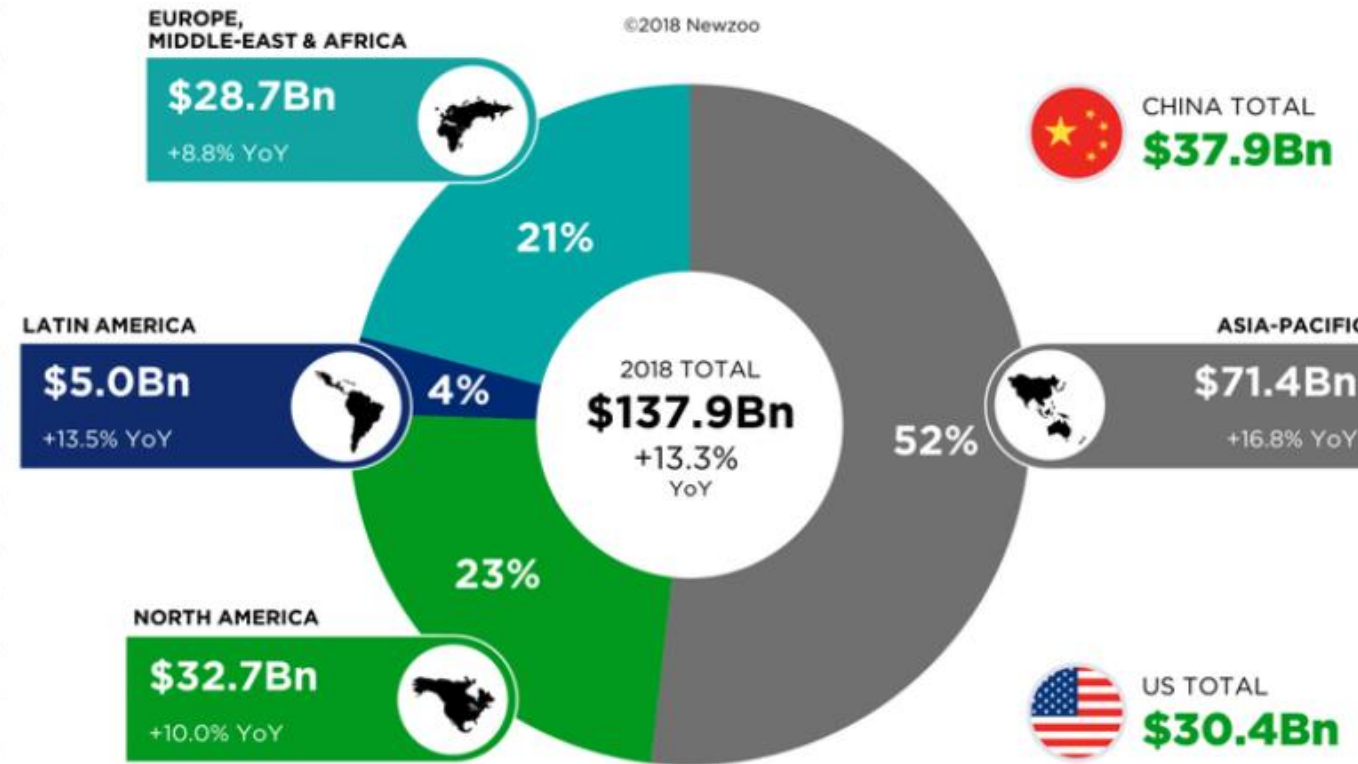
Tencent 腾讯

SONY



Microsoft

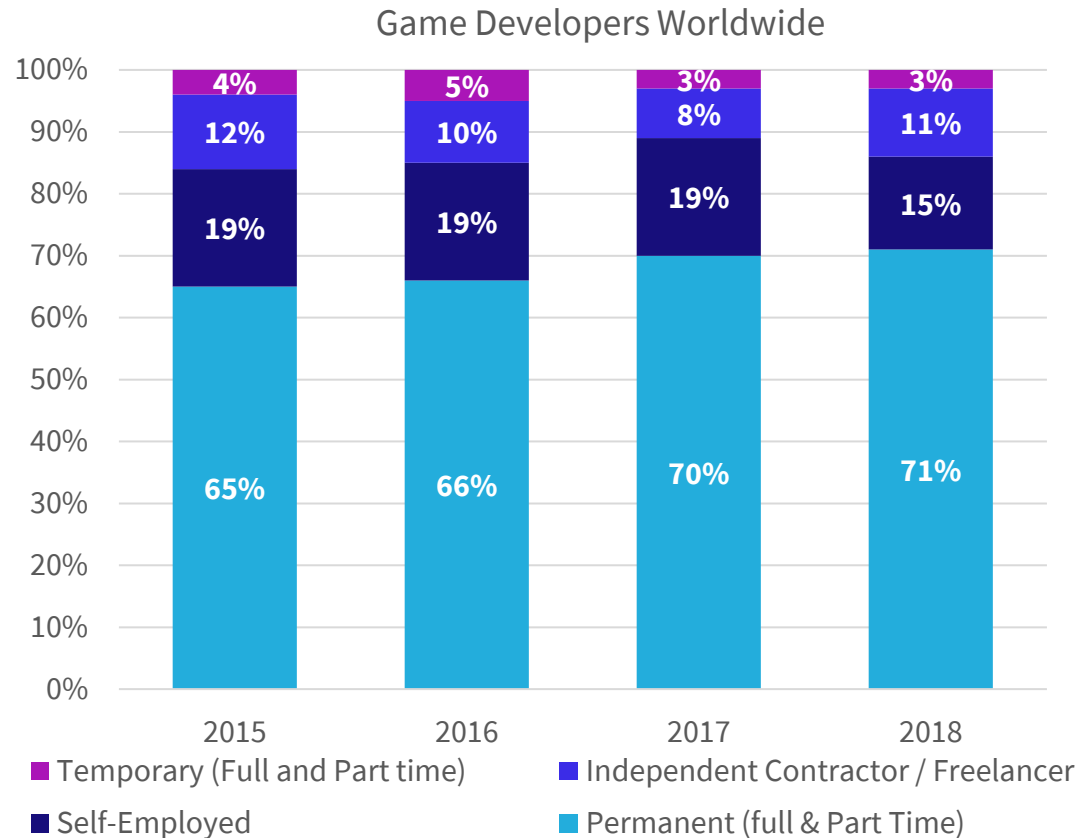
- Video gaming business YOY increase is nearly 13% and larger contributor is Asia Pacific
- Largest contributing company to video gaming business is Tencent followed by Sony, Apple, Microsoft along with other small players like Activision, Netease, Google, EA, Nintendo, Bandai Namco.
- As per many recent studies most important factors that will enable for the growth of this business globally are better content, designs & the storyline of the game, better discovery, further the developers to have more funds, better marketing.



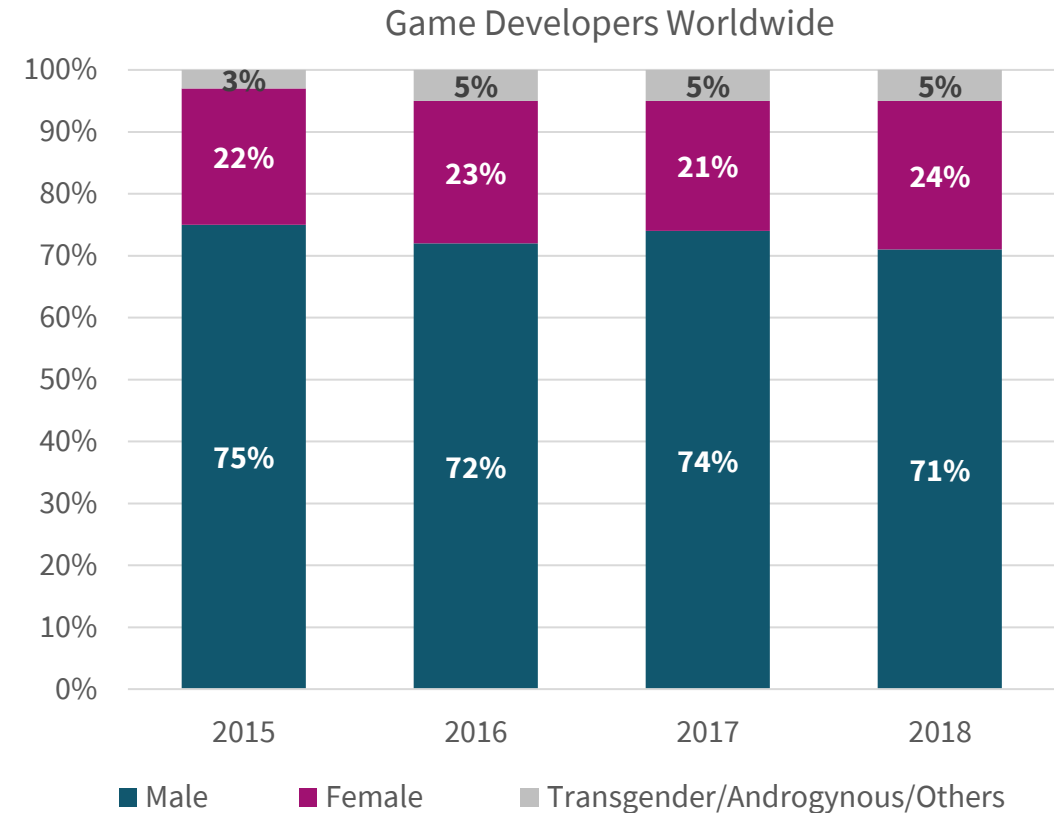
Source: ©Newzoo | April 2018 Quarterly Update | Global Games Market Report  
newzoo.com/globalgamesreport



# Employment Status of Game Developers Worldwide



- Majority of developers are doing it as their permanent job .



- Against the global female labour participation is 39.2% which is reported to have declined in the last two decades, 1/4<sup>th</sup> of developers are female and it seems slightly increasing over the years

# Challenges Faced by ICT Professionals Globally

- **Hiring**
  - Talent recruitment and retention is a major challenge for IT leaders—**50% are currently struggling in the area. Only seven percent of IT decision-makers say that hiring has been easy.**
- **Budget**
  - A lack of budget and resources is another major concern for both IT staff and decision-makers.
- **Leadership support in prioritizing new skills development**
  - Some IT decision-makers do not authorize training even when it's built into their budget—**41% had formal training available but decided to forgo it. Nearly 20% of IT professionals say management does not see a tangible benefit from training.** That's a huge disconnect, especially since IT professionals have a strong desire to learn and grow their careers. It's difficult to accomplish that without support from leadership.
- **Career Growth**
  - **Two-thirds of IT professionals who changed employers last year did so in pursuit of better growth and development opportunities.** In fact, growth outweighs a higher salary in terms of the top factor for changing employer
- **Analytics and Data Management**
  - **Aside from cybersecurity and cloud computing, this is the biggest skill gap area for IT departments.** Organizations are struggling to manage a wealth of new data. By 2025, IDC estimates the world will create and replicate 163 zettabytes (ZB) of data, 10 times the number that was created in 2016.



- **Workload**
  - Both IT staff and decision-makers are overwhelmed with work demands.
- **Cyber Security**
  - Cyberattacks are growing and sophistication
  - Millions of cybersecurity jobs remain unfilled
- **Skill Gaps**
  - **According to IT decision-makers, skills gaps will cost employers up to 416 hours and over \$22,000 per employee, per year.** You would think those numbers would motivate organizations to increase skill development opportunities for employees, but that isn't always the case. Less than 60% of decision-makers say their organizations offer formal training for technical employees, down one percent from the previous year. This tells us that organizations aren't serious enough about skill development.
- **Digital Transformation**
  - Digital transformation is latest disrupter. It has led to technology no longer providing a sustained competitive advantage. It now plays a supporting role to people with the right skills. Expertise is needed now more than ever to manage and implement all of the new technologies.
- **Cloud Computing**
  - Cloud is the top investment area worldwide for IT departments. Organizations require an infusion of cloud skills to match their monetary investment in cloud platforms. **Much like cybersecurity, cloud professionals are in high demand and short supply.** According to IT decision-makers, cloud computing is the second most challenging hiring area in the world.

Sources: International Data Corporation (IDC)

Source : [www.statista.com/statistics/263801/global-market-share-held-by-selected-countries-in-the-ict-market/](https://www.statista.com/statistics/263801/global-market-share-held-by-selected-countries-in-the-ict-market/)

# Covid – 19 positive impact on Global ICT Industry

## KEY HUMAN BEHAVIOUR CHANGES

**01.** Organizations promoting working remotely

**02.** e-learning & e-governance culture being promoted in pandemic

**03.** e-commerce with the trend of self-isolating and avoiding overcrowded places

**04.** Consume more media content & more frequently

**05.** More communication needs of connecting distant people

- An exponential rise in video calls/phone calls, as an increasing number of people are organizing meetings via apps or collaboration platforms → DIGITAL MEDIA AND OVER THE TOP (OTT) CONTENT PLAYERS are benefiting while VIRTUAL PRIVATE NETWORKS (VPNS), CYBERSECURITY, and DATA SECURITY are other technologies that will see a surge as most workforces are operating remotely.
- CLOUD SERVICES will grow, boosted by higher usage of content, gaming downloads, video conferencing, and the impact of remote access to corporate networks.
- There will also be an increased focus on technologies like ARTIFICIAL INTELLIGENCE, BIG DATA, AUGMENTED REALITY, and VIRTUAL REALITY
- DIGITAL PAYMENT taking over a lot faster than the physical payment options.
- EQUIPMENT MAKER, given the on-ground communication challenges to ensure smooth connectivity.
- The current circumstances may also accelerate the ADOPTION OF 5G to meet the demands of bandwidth, performance, and network slicing. Social distancing and self-isolation mean that telecommunication has become an elevated essential service. It will be worthwhile to see how the Communications Service Providers (CSPs) both Mobile Network Operators (MNOs) and cable operators meet the challenge of their new critical role in the changed world.

Source: <https://fractal.ai/covid-19-consequences-opportunities-for-ict/>

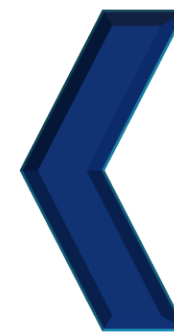
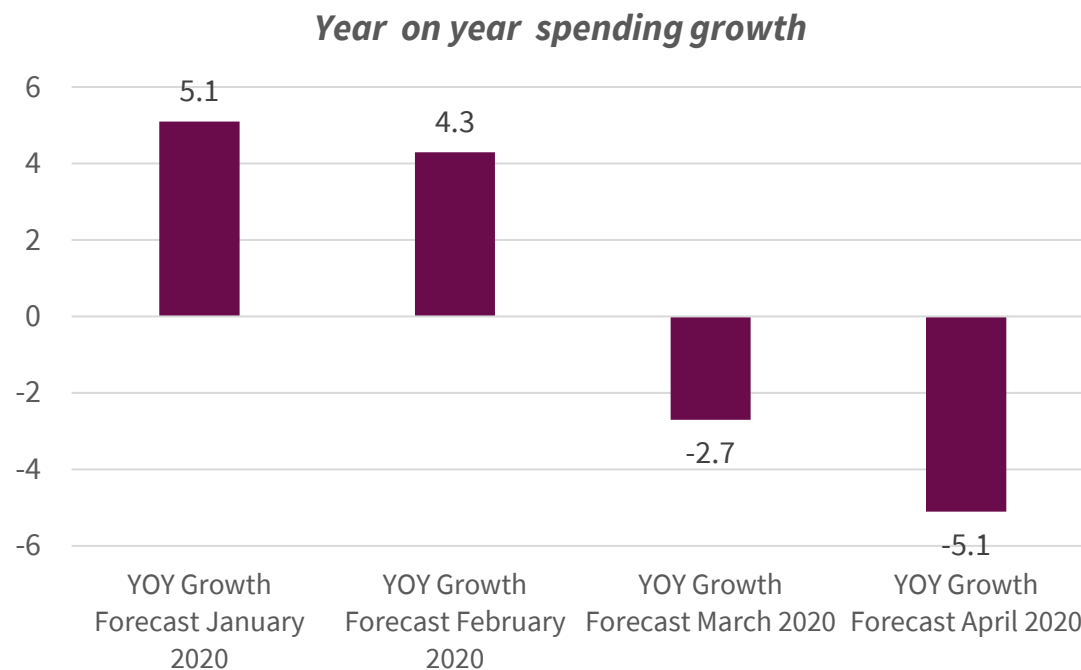
Source: <https://www.researchandmarkets.com/reports/5011293/covid-19-impact-on-ict-industry-2q-2020-edition>

Source : [www.statista.com/statistics/263801/global-market-share-held-by-selected-countries-in-the-ict-market/](https://www.statista.com/statistics/263801/global-market-share-held-by-selected-countries-in-the-ict-market/)

# Covid – 19 impact on Global ICT Industry

COVID-19 HAS IMPACTED A LARGE NUMBER OF COUNTRIES AND IS TURNING OUT TO BE EVEN WORSE THAN THE CRITICAL ECONOMIC, STRATEGIC, AND POLITICAL CLASHES HAPPENING AROUND THE WORLD.

Even though businesses are grappling with current losses, in the long run, the ICT industry might be one of the few still standing and, in many aspects, stronger than before. But it will not be plain sailing for all businesses in the market. **The strain on infrastructure networks, contractions in consumer spending, disruptions to supply chain, reduced availability of components, and the all-around financial impact of the Coronavirus are taking its toll in the short-term.**



As per published data on Statista.com, the outbreak of Covid -19 has led to revised growth forecast for global IT spending.

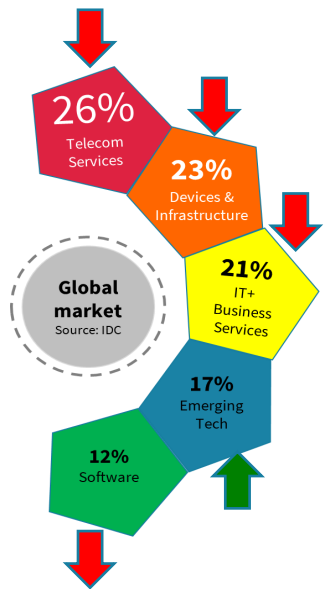
According to International Data Corporation (IDC), growth in global IT spending is expected to reduce by 3-4% by the end of 2020, considering the 'pessimistic scenario,' due to the COVID-19 pandemic.

Source: <https://fractal.ai/covid-19-consequences-opportunities-for-ict/>

Source: <https://www.researchandmarkets.com/reports/5011293/covid-19-impact-on-ict-industry-2q-2020-edition>

Source : [www.statista.com/statistics/263801/global-market-share-held-by-selected-countries-in-the-ict-market/](http://www.statista.com/statistics/263801/global-market-share-held-by-selected-countries-in-the-ict-market/)

# Covid – 19 impact on Global ICT Industry



The outbreak has and still is impacting all industries, including the Information & Communication Technology (ICT) sector

While the major impact is expected to be on hardware business, including devices, the software, and services businesses are also expected to slow down as the spread of Coronavirus goes beyond the boundaries of Asia.

However, the adoption of collaborative applications and cloud service sees a positive impact followed by technologies such as security, big data, AI, IoT, where the impact seems relatively small.



Microsoft, lowered its revenue estimates in the quarter ended March 2020 due to the impact of the epidemic with lower sales of Windows software and surface devices



Apple also had early 2020 said its revenue for the quarter to be below forecast.

Source: <https://fractal.ai/covid-19-consequences-opportunities-for-ict/>

Source: <https://www.researchandmarkets.com/reports/5011293/covid-19-impact-on-ict-industry-2q-2020-edition>

Source : [www.statista.com/statistics/263801/global-market-share-held-by-selected-countries-in-the-ict-market/](https://www.statista.com/statistics/263801/global-market-share-held-by-selected-countries-in-the-ict-market/)



# **PRESENT STATUS OF IT-BPM INDUSTRY WORKFORCE**

*Govt. Policy Directives*



# Current Industry Key Priorities

- TVET-ICT sector to pursue the skills development and education of both **new entrants to the industry and current unskilled workforce** with a view to ensure optimum use of limited human resources.
- Major partnerships across government, industry and institutions should be developed to **improve employability of TVET-ICT graduates**.
- **Training of trainers** is vital in improving quality of graduate output of the TVET sector.
- Supply of **low-skilled TVET-ICT graduates** need to be directed towards **medium-skilled occupation sectors**.
- **Development of soft skills** is a key for career development and business growth.
- Focus on **Career guidance**



# Govt. Policies to Consider

## Extracted from the Government Policy Paper

### Harnessing the Power of Youth

**A Youth Human Resource Data Bank will be established to provide employers with information regarding youth eligible for public and private sector employment as well as for foreign employment.** This will enable young persons to upload their curriculum vitae to this data bank. The data bank will have provision to be regularly updated.

**Information Technology (IT) services will be totally free from taxes** (Zero Tax), considering said industry as a major force in the national manufacturing process.

**The Business Process Outsourcing (BPO) industry** and the Knowledge Process Outsourcing (KPO) industry would be developed to make export earnings of USD 3 billion by 2025. To realize this, we will set up IT centres and BPO centres in our connecting cities.

We will take steps to **increase the number of software engineers and programmers** to reach 300,000 by 2025.

Instead of importing the software needed to run local industries, we will **encourage local software engineers and IT designers to develop such software** locally with the full backing of the government.

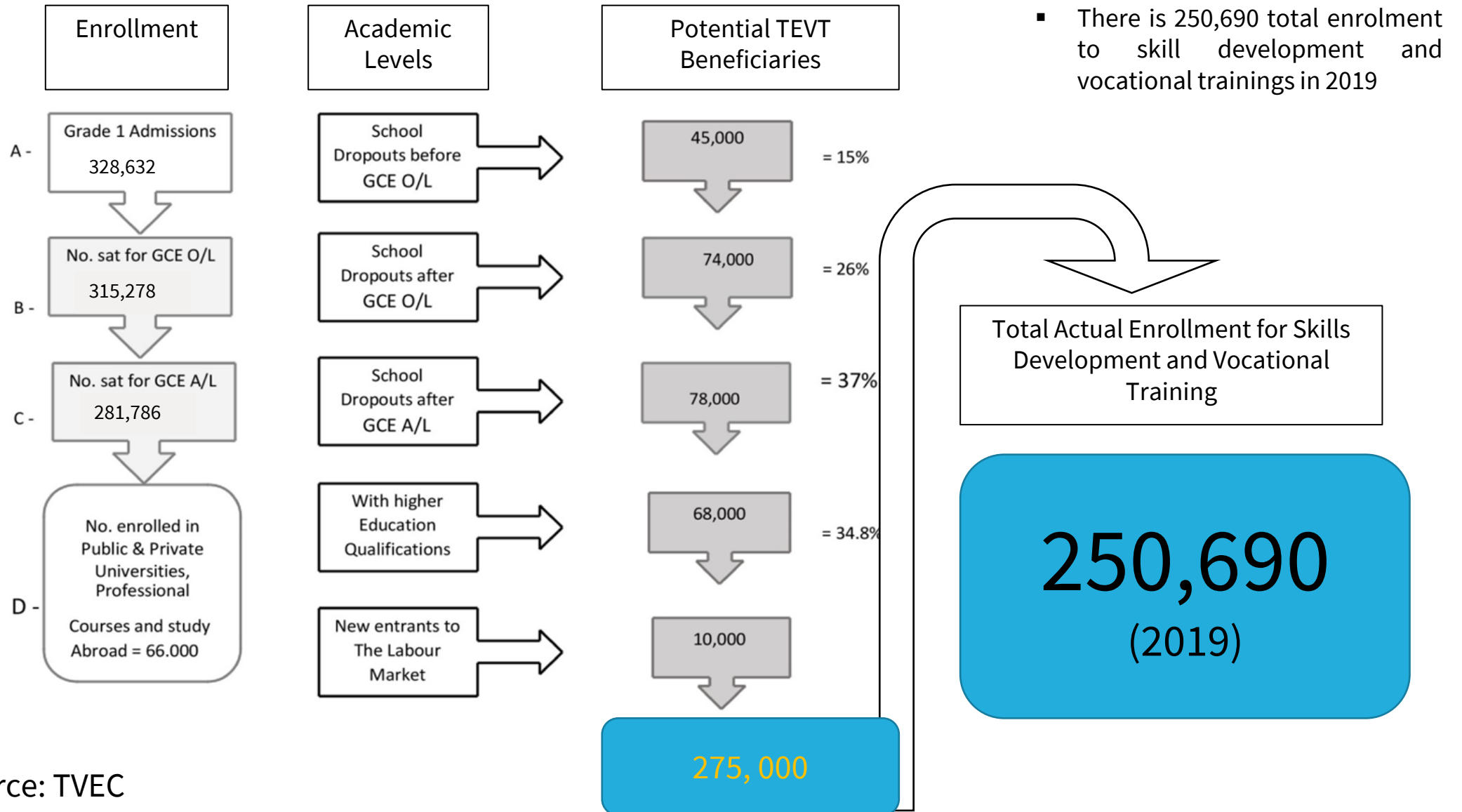
We pledge to bring about a technological revolution across all sectors. A country cannot progress without adapting to the rapid technological changes taking place. It is with this in mind that our policies will create the environment required **to develop the IT competencies and language skills of future generations, in order to enable them to conquer global markets.**

# **PRESENT STATUS OF IT-BPM INDUSTRY WORKFORCE**

*Total Supply*



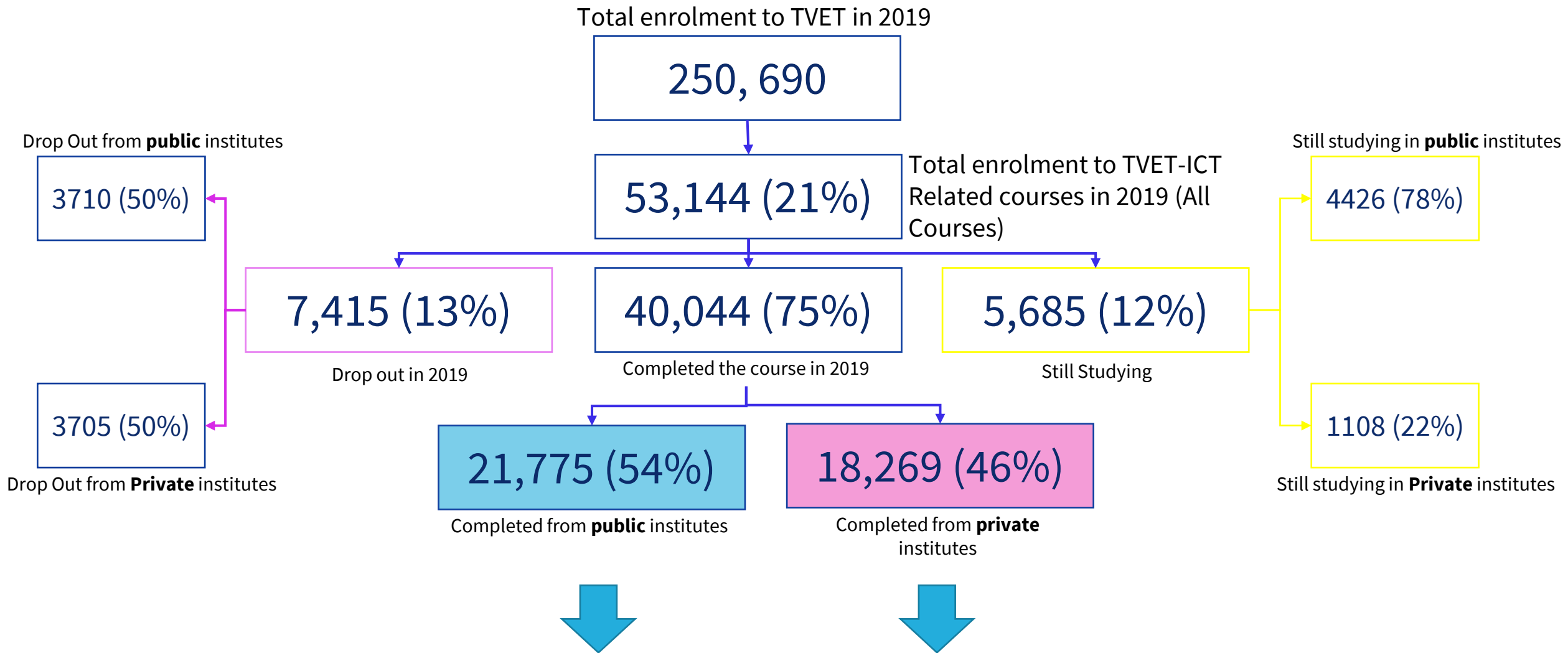
# Total Skills Supply by TVET



Source: TVEC



# ICT Sector Skills Supply In Summary



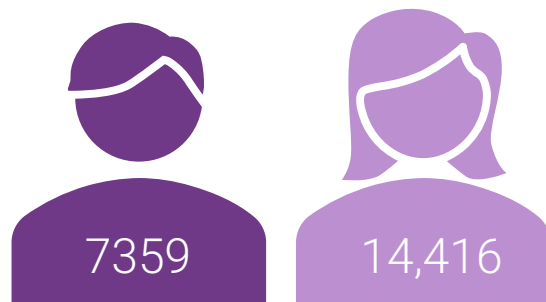
Source: TVEC

Note: Without the output from UGC approved Govt. Universities

# ICT Sector Skills Supply By Institutes - 2019

Total completed student size from  
Public Institutes in 2019

**21,775**

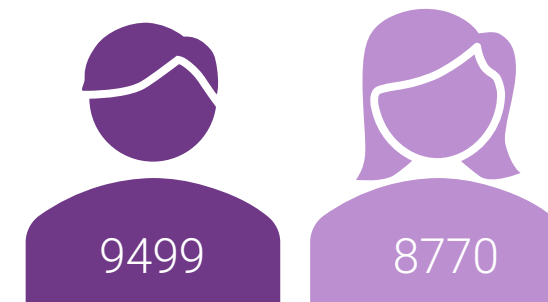


34%

66%

Total completed student size from  
Private Institutes in 2019

**18,269**



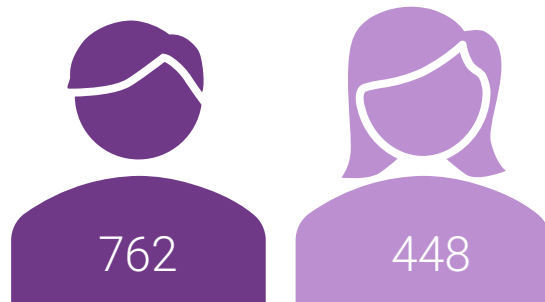
52%

48%

# ICT Sector Skills Supply By Universities

Total completed student size from  
Public Universities in 2019

**1210**



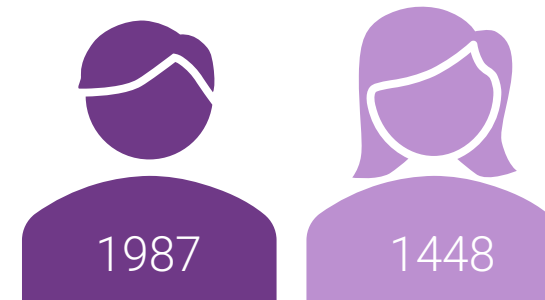
63%

37%

Total completed student size from  
Private Universities in 2019

**4637**

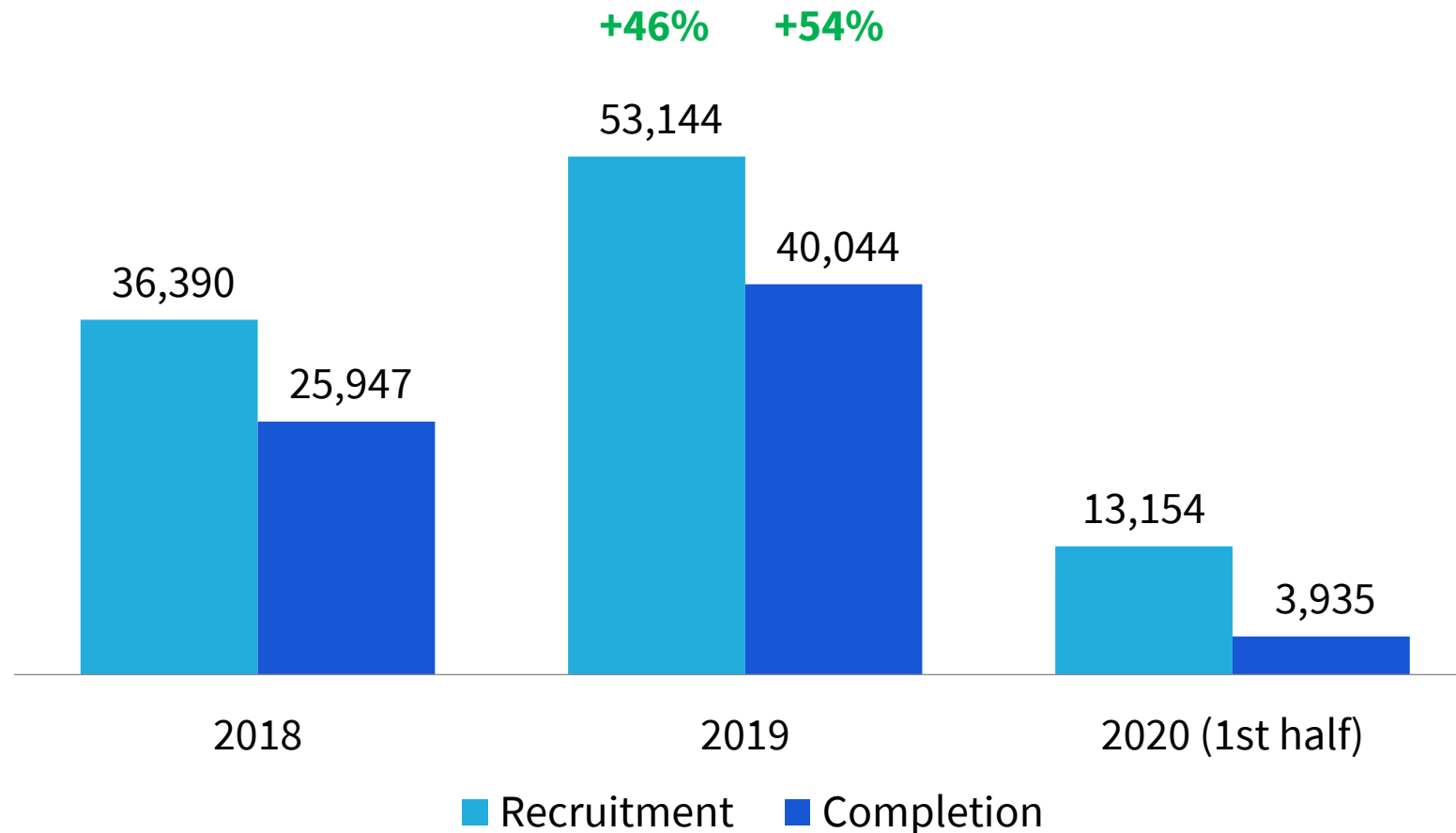
**3427**



58%

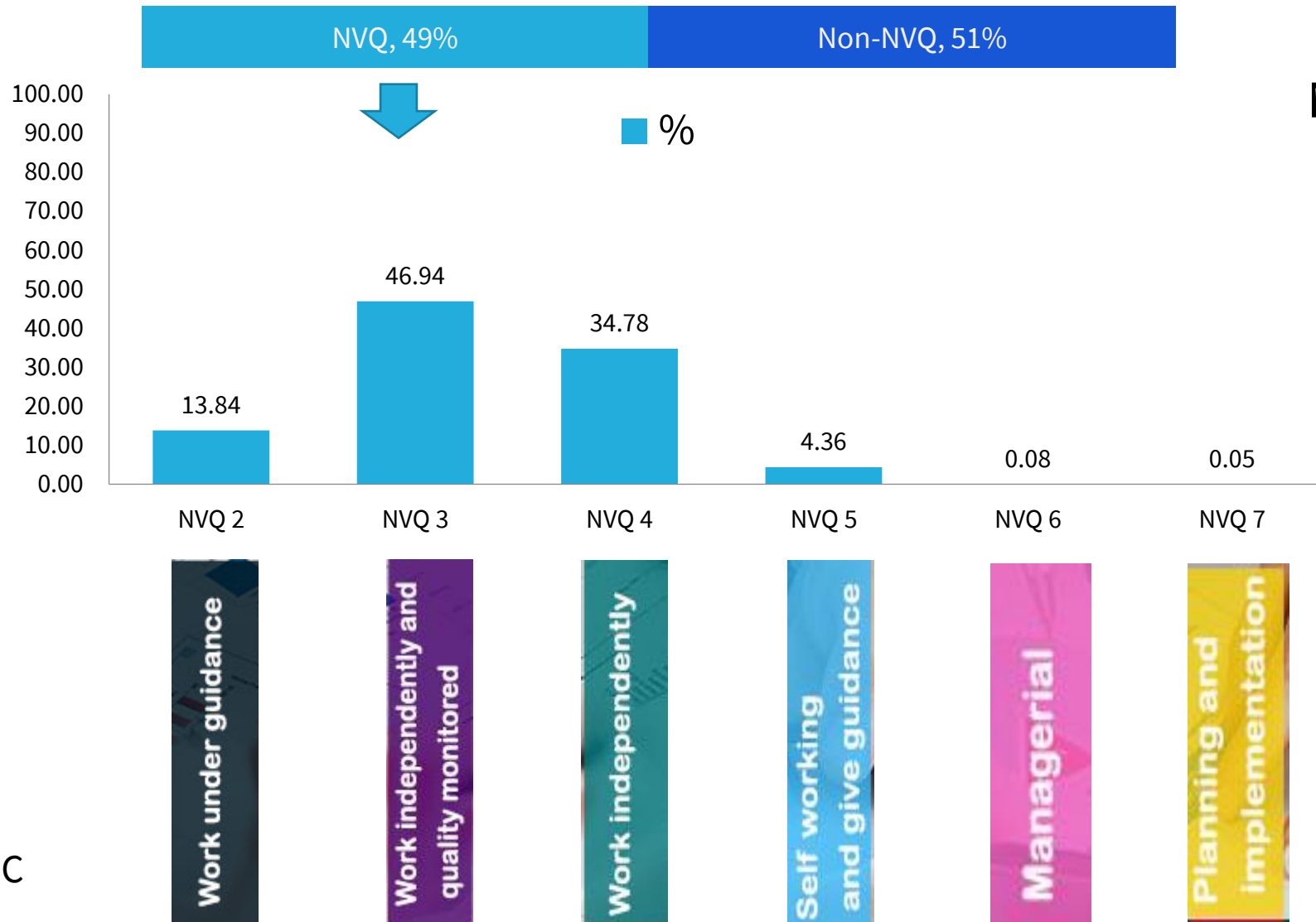
42%

# Y-Y Growth of TVET Skills Supply – ICT Related



Year on Year Growth of supply from 2018 to 2019 is great but to be better to meet the exponential increase of demand  
2020 data shows a large drop, due to Covid 19 impact. It is expected to stabilize with new policy direction to increase enrolment

# ICT Sector Skills Supply By NVQ Levels



NVQ - 49% = 19622  
Non-NVQ - 51% = 20,422

Highest number of students have completed NVQ Level 03 followed by NVQ 4, NVQ 2, NVQ 5 and NVQ 6.



# ICT Sector Skills Supply By Public Institutes - 2019

<b>Name of the institute</b>	<b>No. Recruited</b>	<b>No. Completed</b>	<b>No. Dropped out</b>
DTET	4,962	3,277	1,002
MPMA	549	549	-
NAITA	2,517	2,651	335
NGO	1,671	1,431	240
NIBM	3,350	789	76
NYSC	7,364	5,933	1,255
Ocean University	22	-	-
Other Government	1,493	1,125	236
SLIOP	294	186	50
UNIVOTEC	204	128	4
VTA	7,485	5,706	512

Source: TVEC

# ICT Sector Skills Supply By Private Institutes -2019

Private	No. of institutes	Annual Enrolment	Completed	Drop Out
LARGE CONTRIBUTORS	07	8,389	6,470	1,315
OTHERS	127	14,844	11,799	2,390
ALL PRIVATE	134	23233	18269	3705

These key private institutes' contribution to supply is 35% of the total supply from private sector. All other 127 institute make 65% of the contribution.

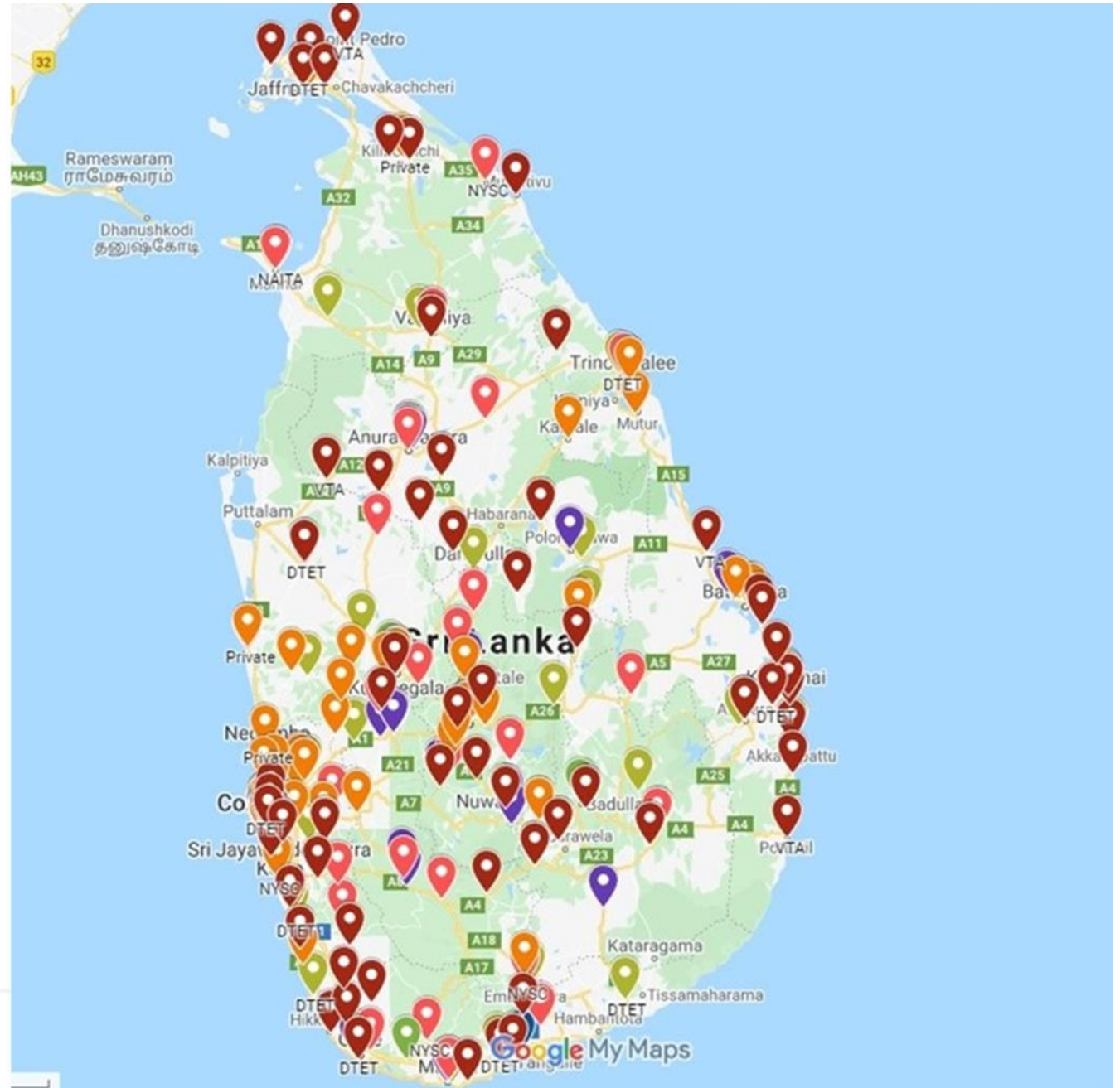
Given it is very fragmented of the private sector institute, there is an opportunity to optimize the resources in order to make a larger contribution to the supply by these private institutes. Hence, further evaluation of the private sector resource utility is vital.

Source: TVEC

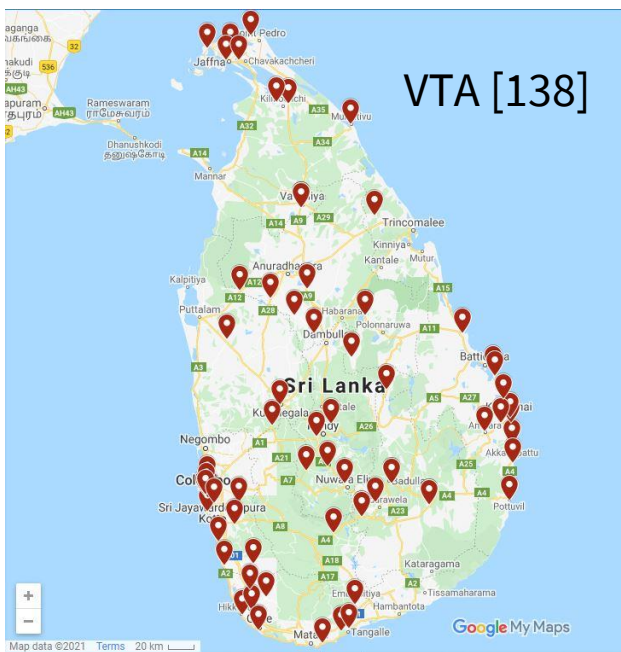
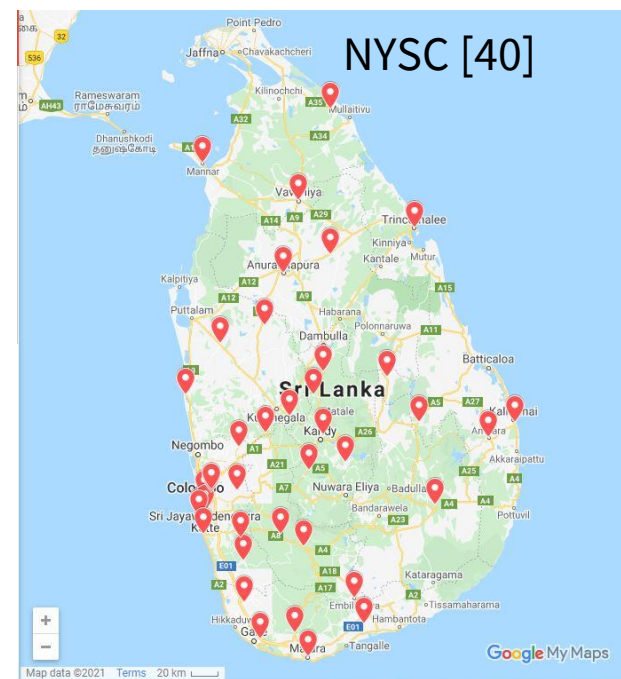
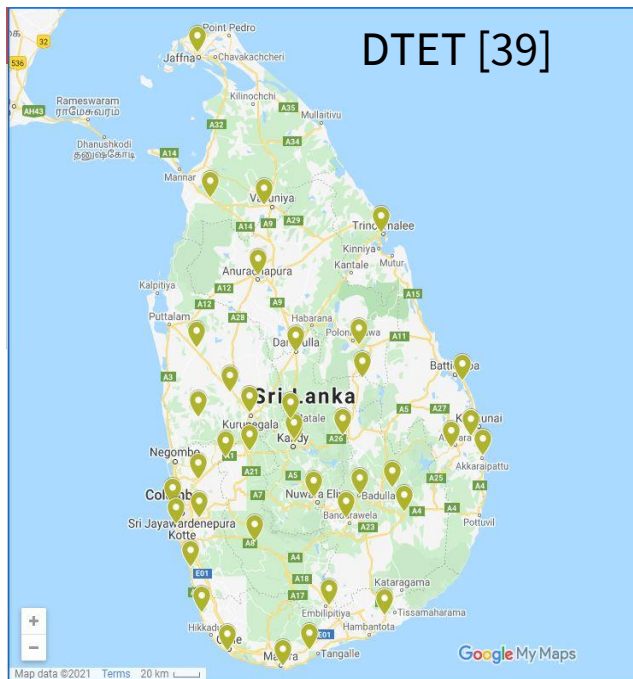
Key contributing Private Institutes	Annual Enrolment	Completed	Drop Out
ESOFT METRO CAMPUS	2,592	2,278	314
I.S.S. COMPUTER SYSTEMS (PVT) LTD	219	118	64
IDM ACHIEVERS INTERNATIONAL CAMPUS	1,127	922	201
INTERNATIONAL COLLEGE OF BUSINESS AND TECHNOLOGY	738	96	153
WINSYS NETWORKS (PVT) LTD	564	550	14
BRITISH COLLEGE OF APPLIED STUDIES	646	417	155
ESOFT METRO COLLEGE	2,503	2,089	414
	8,389	6,470	1,315

# Distribution of ICT training Institutes by district

- Private [145]
- VTa [138]
- NAITA [50]
- NYSC [40]
- DTET [39]
- Other Government [24]
- NIBM [6]
- MPMA [1]
- Ocean University [1]
- SLIOP [1]
- Univotec [1]



# Distribution of Key ICT training Institutes by district

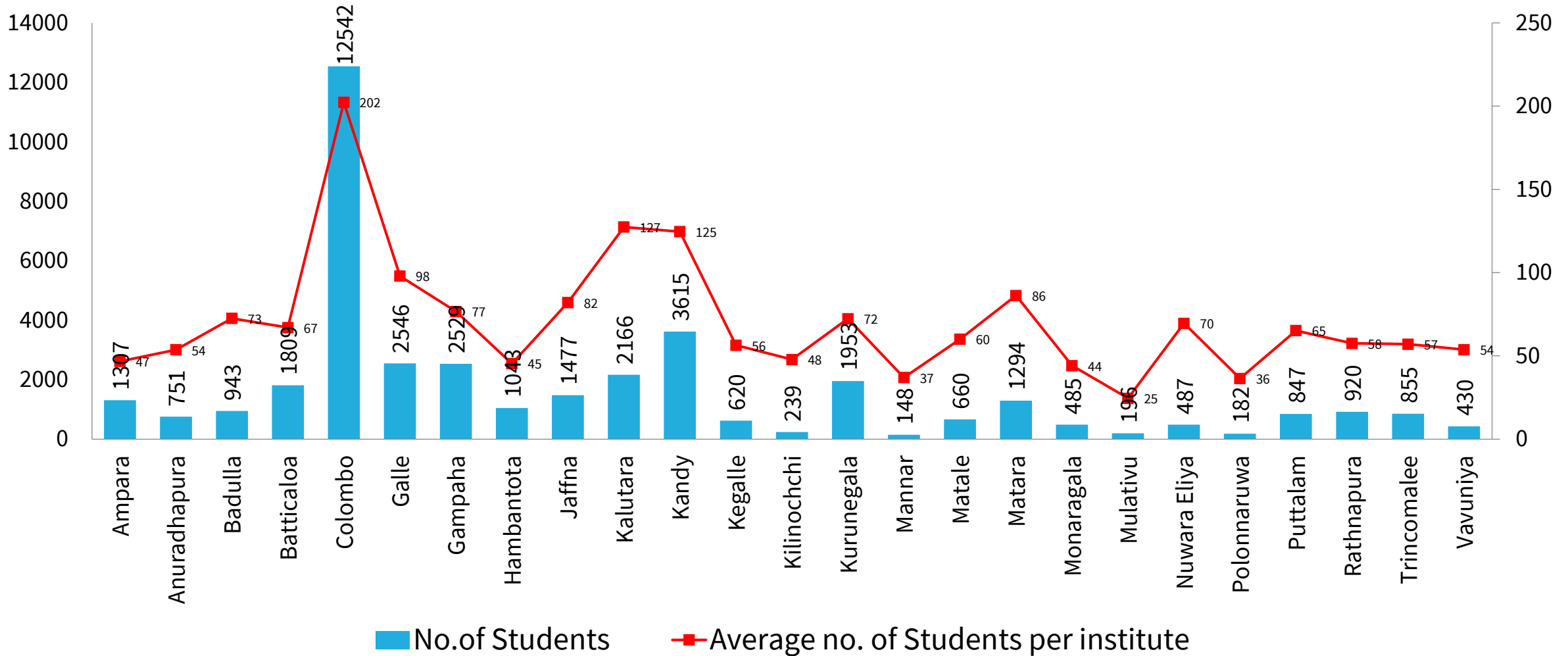


# Distribution of ICT training Institutes by district

	DTET	MPMA	NAITA	NIBM	NYSC	Ocean University	Other Governme nt	Private	SLIOP	Univotec	VTA	<b>Total</b>
Ampara	4		1		1		1	1			11	<b>28</b>
Anuradhapura	1		3		2			3			5	<b>14</b>
Badulla	2		1				1	4			5	<b>13</b>
Batticaloa	1		2		4		3	8			9	<b>27</b>
Colombo	3	1	7	2	4		3	32	1	1	8	<b>62</b>
Galle	2		3	1	2			7			11	<b>26</b>
Gampaha	1		1		3		1	19			8	<b>33</b>
Hambantota	2		2		2	1	6	3			7	<b>23</b>
Jaffna	1		2				2	8			5	<b>18</b>
Kalutara	1		2		3			7			4	<b>17</b>
Kandy	3		3	1	2		2	12			6	<b>29</b>
Kegalle	2		3					1			5	<b>11</b>
Kilinochchi			1					1			3	<b>5</b>
Kurunegala	3		2	1	4		1	9			7	<b>27</b>
Mannar	1		1		1						1	<b>4</b>
Matale	2		2		1			4			2	<b>11</b>
Matara	1		2	1	2			2			7	<b>15</b>
Monaragala	2		1		1		2				5	<b>11</b>
Mulativu											8	<b>8</b>
Nuwara Eliya	1		3		1		1	1				<b>7</b>
Polonnaruwa	1		1								3	<b>5</b>
Puttalam	1		1		2			4			5	<b>13</b>
Rathnapura	2		3		3			4			4	<b>16</b>
Trincomalee	1		2		1		1	5			5	<b>15</b>
Vavuniya	1		1		1			1			4	<b>8</b>
<b>Total</b>	<b>39</b>	<b>1</b>	<b>50</b>	<b>6</b>	<b>40</b>	<b>1</b>	<b>24</b>	<b>145</b>	<b>1</b>	<b>1</b>	<b>138</b>	<b>458</b>



# Distribution of ICT Supply by district -2019



# ICT sector skills supply Courses 2019

## Public Institutes

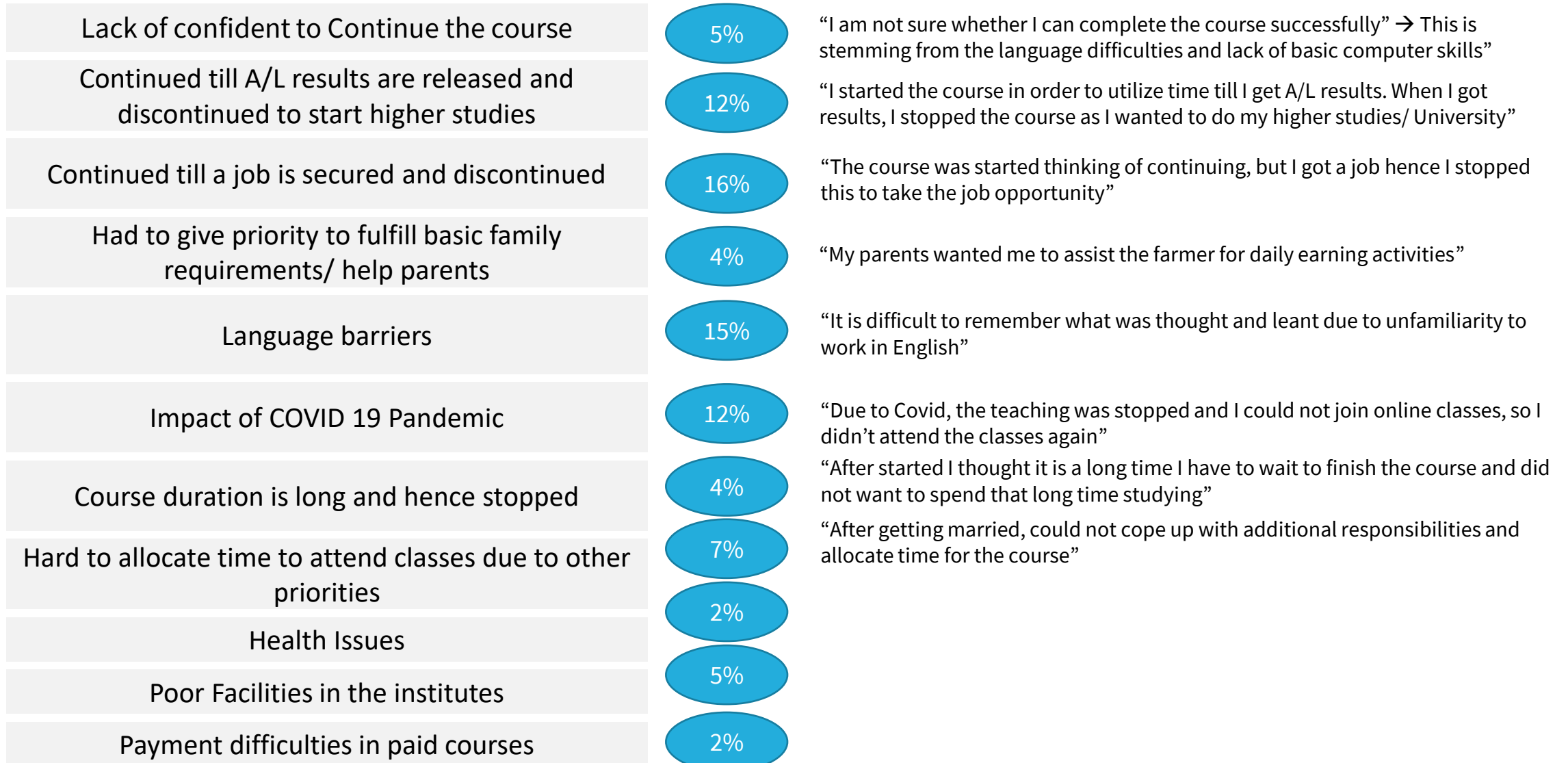
	Recruitment	Completion		Dropout
Private Sector	Total	Total	%	Total
Hardware related courses	1270	993	4.6	273
Software related courses	1195	246	1.1	21
Networking related courses	1409	832	3.8	203
<b>Information and Communication Technology Technician</b>	<b>14619</b>	<b>11841</b>	<b>54.4</b>	<b>2093</b>
Programming	169	101	0.5	16
Web Development	405	312	1.4	41
Graphic Design	471	413	1.9	58
Computing & System Development	601	154	0.7	50
MS Office	666	653	3.0	13
Computer Application	6382	4821	22.1	831
Other	2724	1409	6.5	111
<b>Total</b>	<b>29911</b>	<b>21775</b>	<b>100.0</b>	<b>3710</b>
<b>%</b>	<b>100%</b>	<b>100%</b>		<b>100%</b>

## Private Institutes

	Recruitment	Completion		Dropout
Private Sector	Total	Total	%	Total
Hardware related courses	261	223	1.2	50
Software related courses	1351	553	3.0	223
Networking related courses	2310	1882	10.3	341
Information and Communication Technology Technician	12003	9905	54.2	1668
Programming	8	2	0.0	6
Web Development	705	577	3.2	116
Graphic Design		Data Not Available		
Computing & System Development	984	786	4.3	191
MS Office	582	407	2.2	159
Computer Application	4006	3097	17.0	690
Other	1,023	837	4.6	261
<b>Total</b>	<b>23,233</b>	<b>18,269</b>	<b>100.0</b>	<b>3,705</b>
<b>%</b>	<b>100%</b>	<b>100%</b>		<b>100%</b>

Source: TVEC

# Reasons for drop out from ICT courses



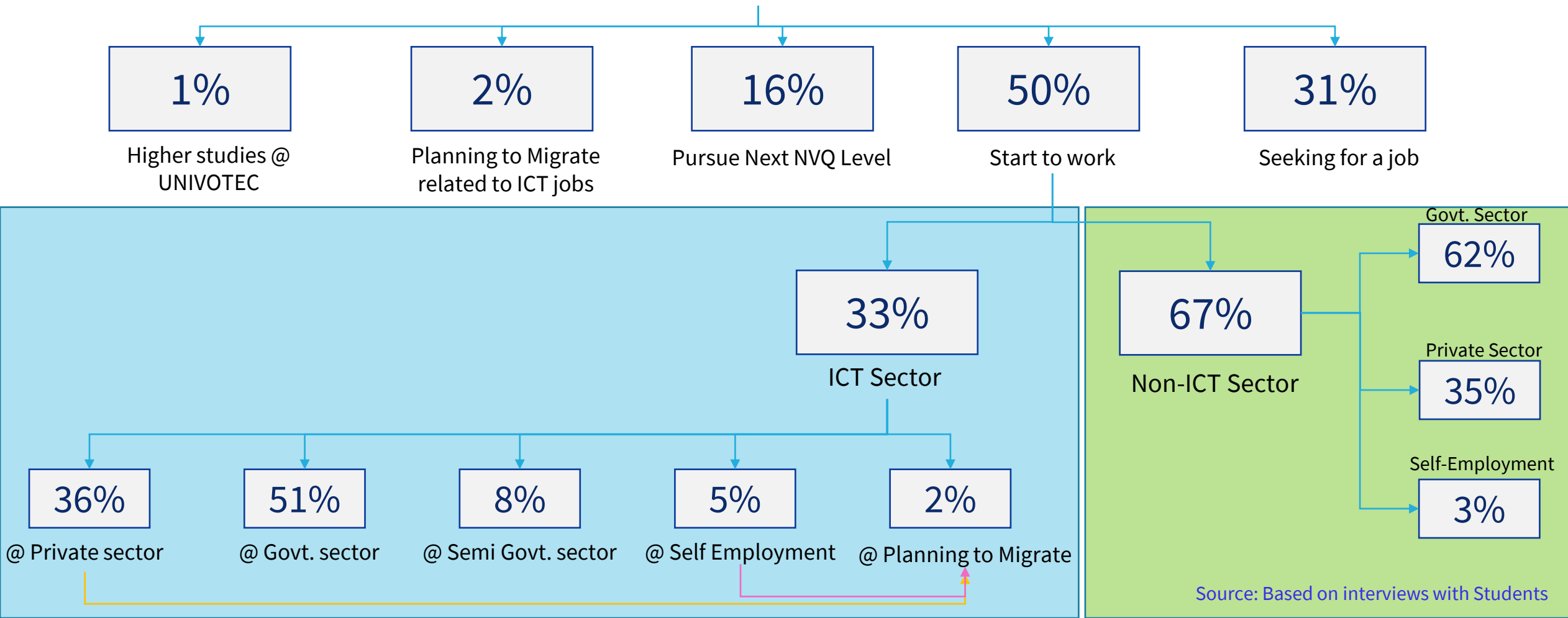
**SOURCE: Primary Data Collection - Students**

# ICT Sector Skills Supply Flow Out

## Passed out students

Possible career paths for these completed students

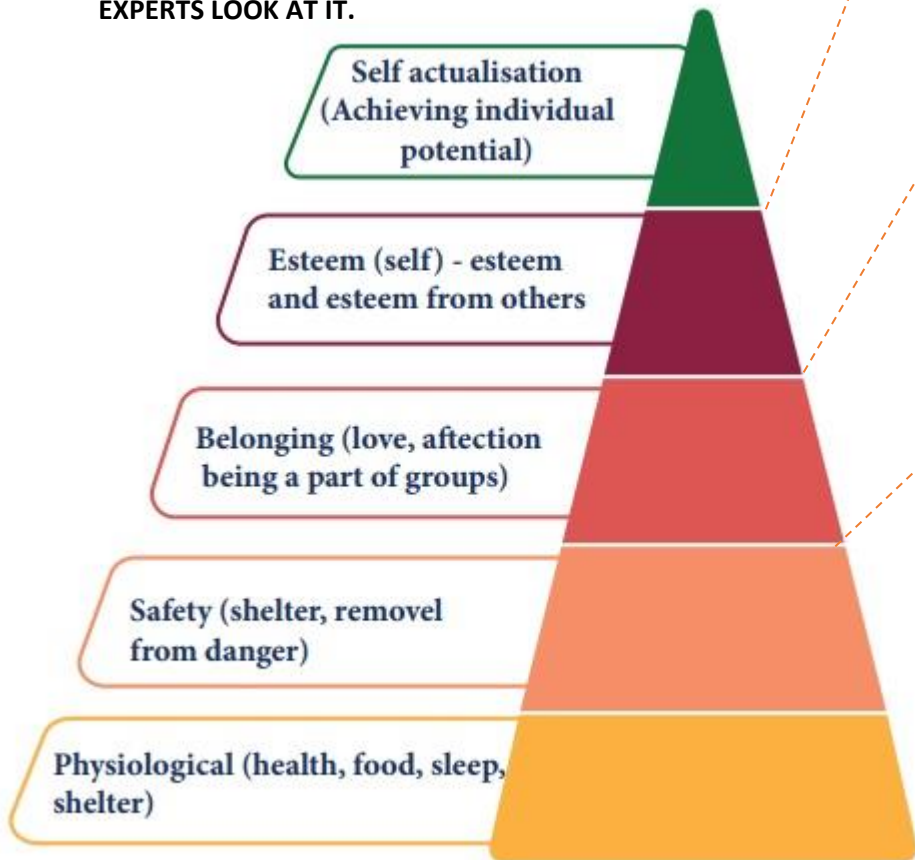
Future research is vital to further explore and validate this flow out chart for the entire TVET system. This will provide better insights to realign the students' expectation, course offering with demand side expectation



# Motivations to choose ICT as Higher Studies

FROM ICT DEMAND AND SUPPLY SIDE EXPERTS POV, RECOGNITION AND ATTRACTION TOWARDS LESS HARD WORK BY CURRENT YOUTH ARE THE SALIENT REASONS FOR THE CHOICE OF ICT SECTOR BY CURRENT GENERATION.

THERE IS NO CAREER AMBITION DRIVEN MOTIVES AS HOW EXPERTS LOOK AT IT.



## HIGH DEMAND FOR WHITE COLOR JOBS:

“Training courses like Welding, Plumbing, Carpentry etc. trying to create hard skills. Current youth are not interested with a job which needs hard skills”

## AS A RECOGNITION

“Most of students select ICT related Vocational Education with a plan of getting government job. They perceived that NVQ certificate or qualification from a Vocational Trading Institutes are highly accepted by Government Organization”

## INFLUENCE FROM THE INNER CIRCLE

“Due to parents’ influence and friends’ recommendation, they select Vocational Training as well as ICT field”

## TREND OF THE TIME

“They select ICT since it is perceived as a trending industry” / “Students select ICT field without having any or deeper understanding / clear vision on ICT as its is most spoken about industry”

## AS A TIME GAP FILLER

“After OL or AL , they have free time until results come. For use of that time effectively, they selected Vocational Education”

“Most of courses that vocational training institutes offered are free of charge”

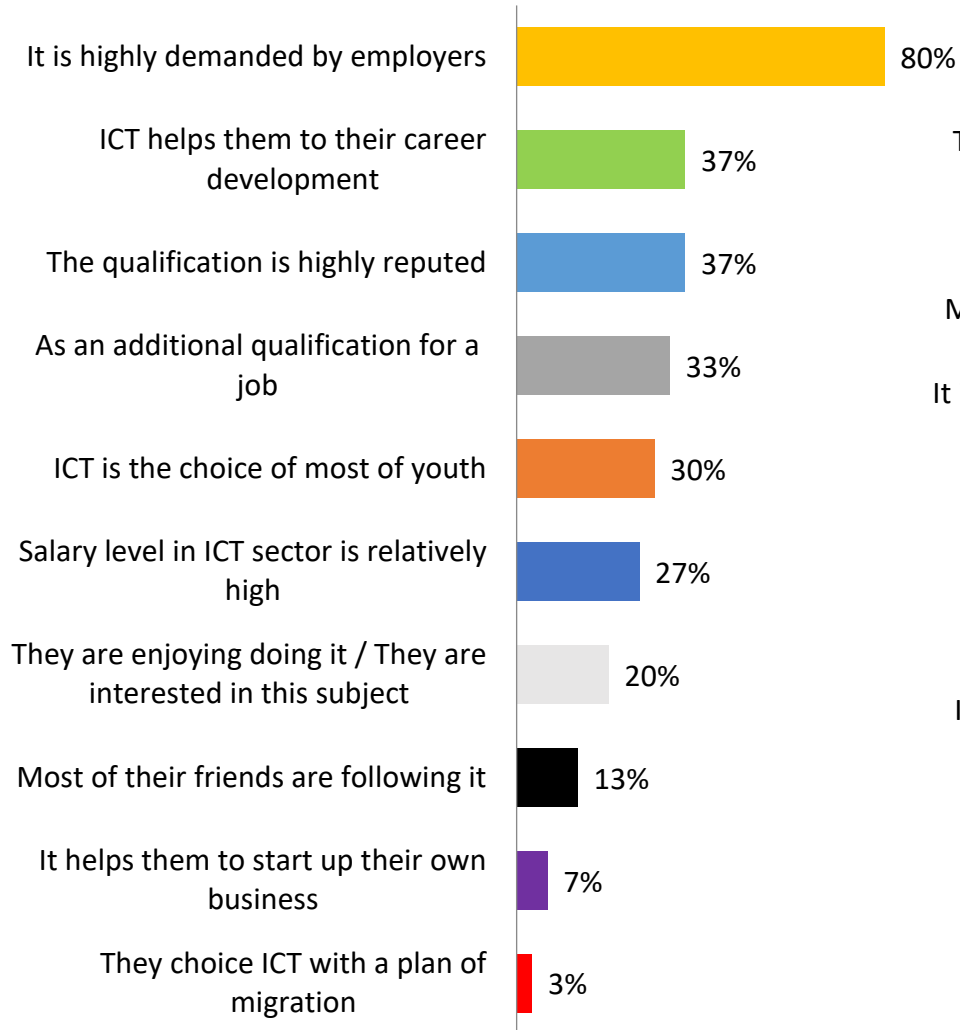
## BASIC CAREER REQUIREMENT

“Computer is a major skill that need to have for any job”

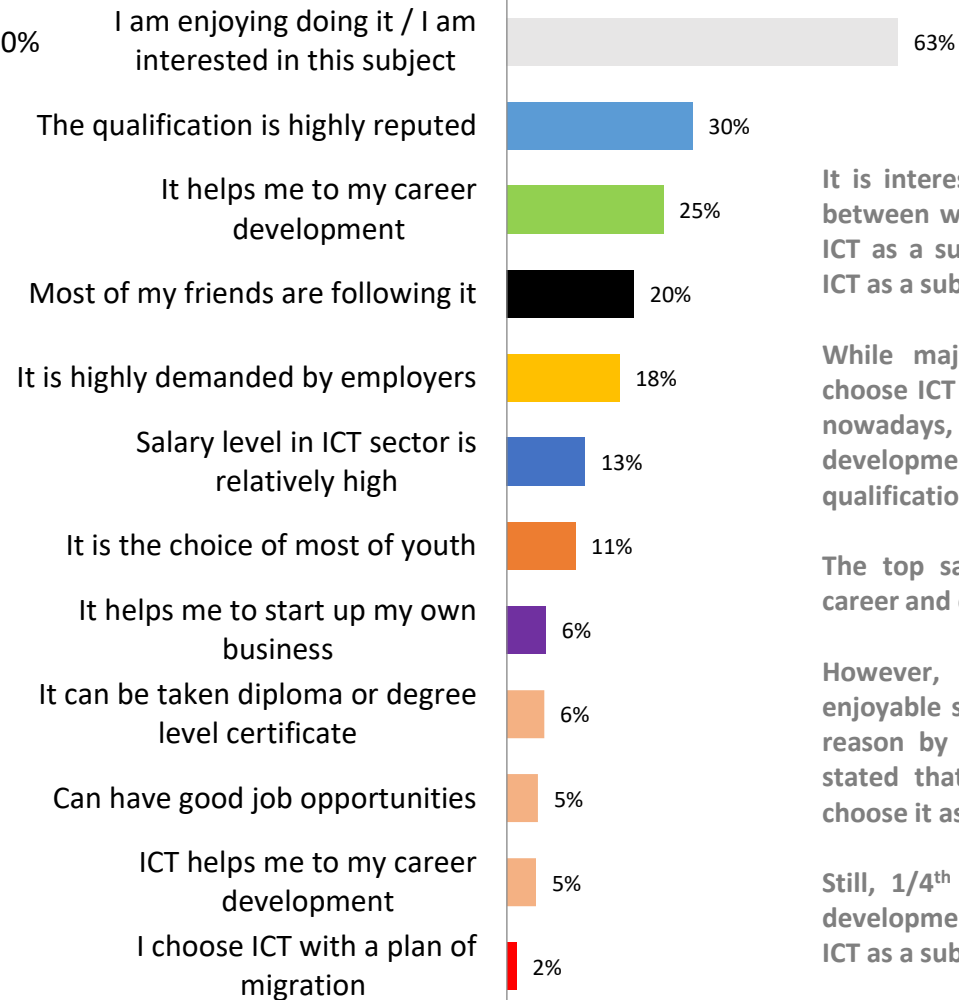
“they prefer ICT as it creates soft skills which need to do a job in office environment”

# Motivations to choose ICT as Higher Studies

## TVET SECTOR INSTRUCTORS' POV



## TVET SECTOR STUDENTS' POV



It is interested to observe that there is a mismatch between what teachers believe why students choose ICT as a subject Vs. why truly students have chosen ICT as a subject .

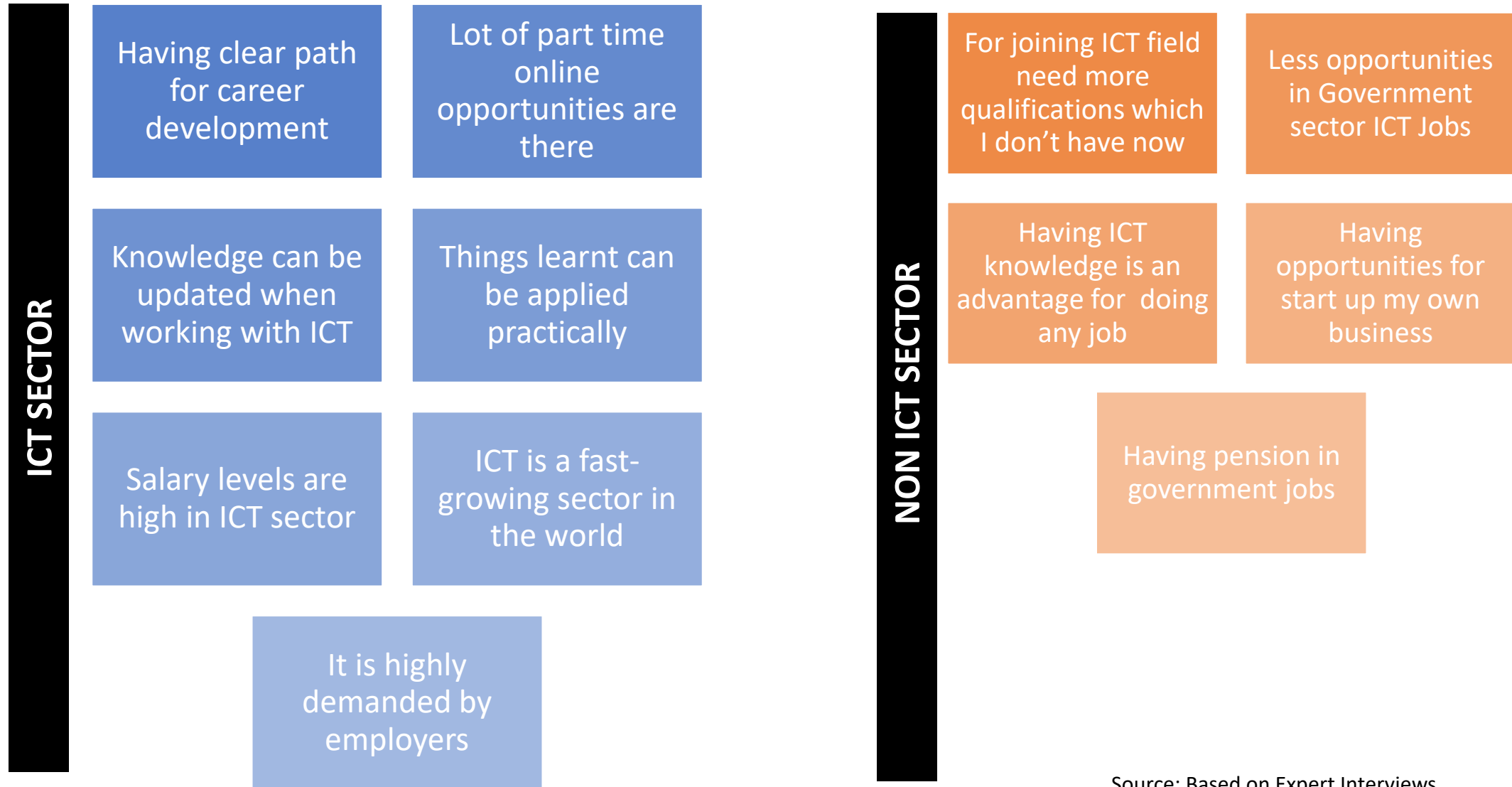
While majority of teachers believe that students choose ICT as it is the most demanded by employers nowadays, ICT helps them for their career development and added it as an additional qualification to their career.

The top salient perception of teachers are around career and career development..

However, from students POV, ICT is the most enjoyable subject for them to study is coming as the reason by majority where as only 18% of students stated that it is highly demanded and hence they choose it as the subject to study..

Still, 1/4<sup>th</sup> of student segment consider the career development aspect that they can achieve by studying ICT as a subject .

# Motivations to choose ICT as Higher Studies





# Motives for migration for ICT related jobs



Having lot of job opportunities in outside the country



High earning / high salary expectation



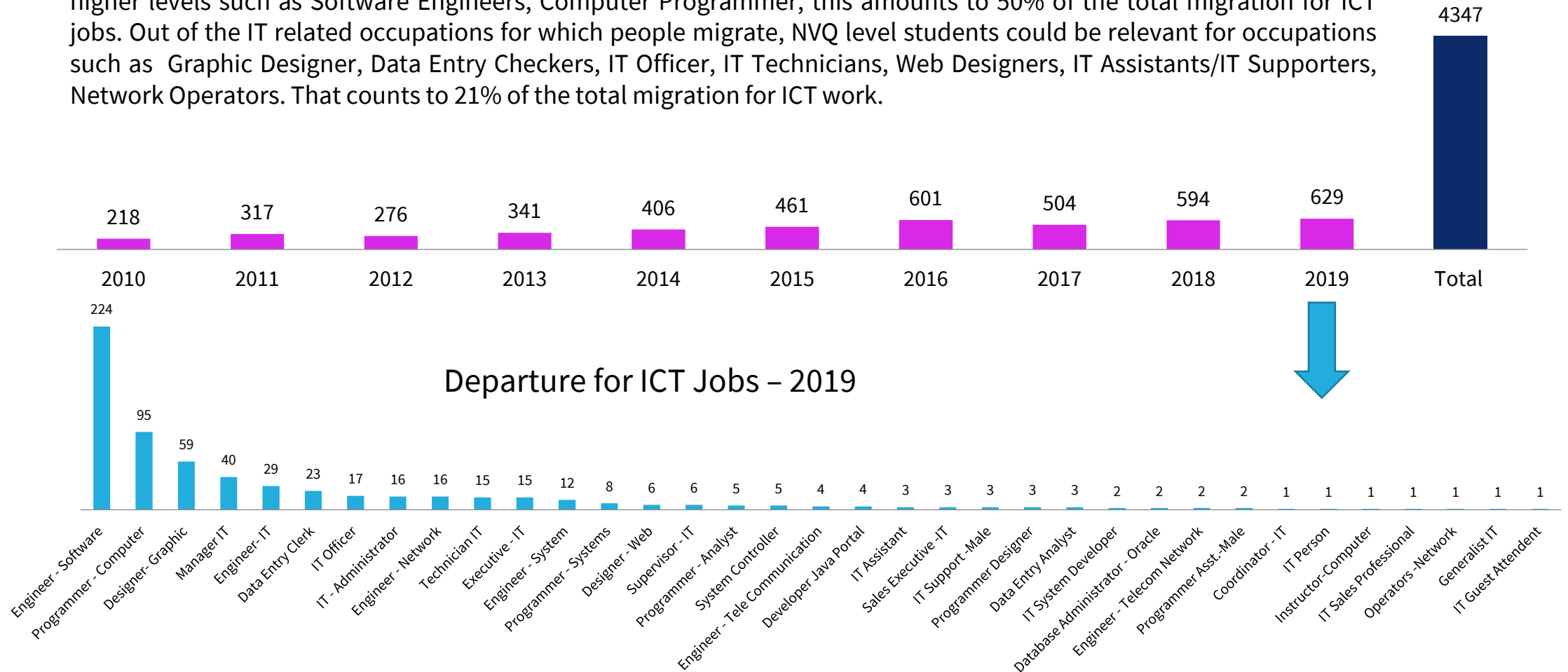
Having new technology in other countries



Planning to have a degree from other country

# ICT Sector Skills Departing For Other Countries

As of 2019, 629 departed for other countries for ICT related occupations. Out of that majority of them are migrating for higher levels such as Software Engineers, Computer Programmer, this amounts to 50% of the total migration for ICT jobs. Out of the IT related occupations for which people migrate, NVQ level students could be relevant for occupations such as Graphic Designer, Data Entry Checkers, IT Officer, IT Technicians, Web Designers, IT Assistants/IT Supporters, Network Operators. That counts to 21% of the total migration for ICT work.



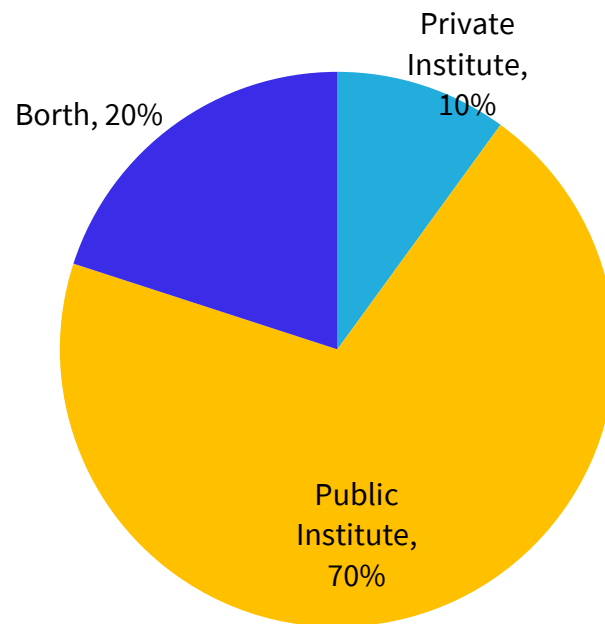
# **PRESENT STATUS OF IT-BPM INDUSTRY WORKFORCE**

*Quality of supply &  
Gaps*



# Reason to choose Public or Private Sector Institutes by students

Majority like **70% instructors** recommend Public Sector Institutes for ICT related vocational training courses



Institute	Recommendation (mean)
NAITA	4.45
VTA	4.44
NYSC	4.50
DTET	4.14
Private Institutes	4.67



Key Reasons for recommending Public Institutes;

## **INSTRUCTOR**

- Provide free education
- Offering “NVQ” qualification
- Having good curriculums
- Provide compulsory OJT
- Acceptance of Government Sector

## **STUDENT**

- The only institute in my area
- Reputation of Public Institutes
- Offering various ICT related courses
- Institute supports in finding a job
- Recommended by past students

# Demand side appreciate students of private institutes

Expert believe that **private institute students** are a better fit to their organizations due to **superior soft skills** in comparison to public institutes

VS.

Expert believe that **public institute students** have the **basic subject knowledge at a good level** but **lack of soft skills** that are demanded from organizations

**Students who passed out from private institutes are confident**

“They are able to converse with confident not just the language capabilities”

**They have the maturity to work in a team**

“Their team work and team spirit to achieve a team goal in demonstrated at work”

**Socialize and that helps for better client service**

“Their inter personal skills have been great in handling good client servicing ”

**Public sector students get a good basic computer knowledge from their courses**

“Whatever others say about the passed out student of public institutes, the curriculum is very strong and they should get a thorough basic knowledge of computer ”

# Public sector gaps in skills supply

But Experts believe that **public institutes** have less attraction among students due to **lack of continuous improvement**



**Lack of digitization** which slows down processes

**Outdated Teaching Methods** which creates a mismatch of current expectations

**Irrelevant curriculums** which is a mismatch of current expectations

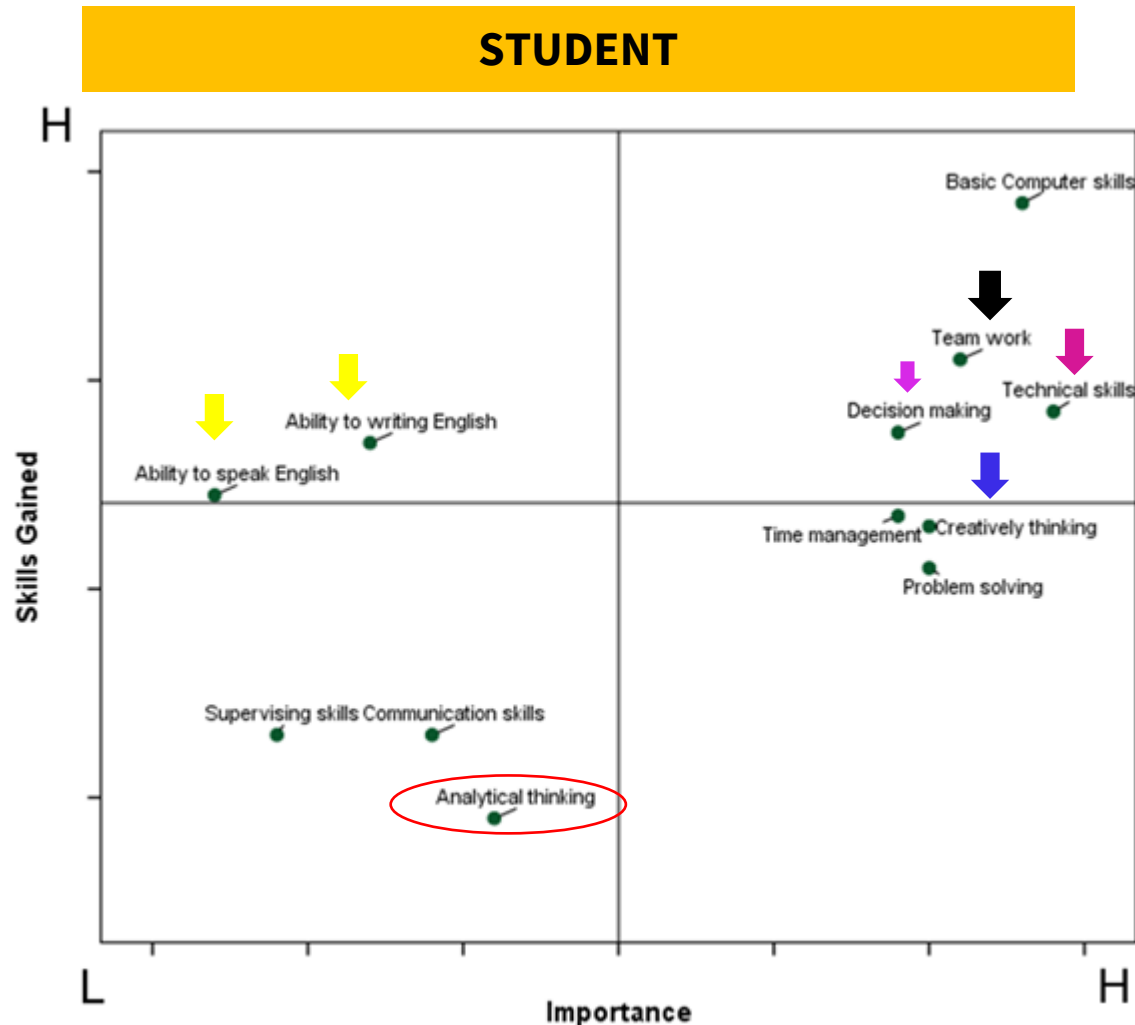
## **Expediting the processes of government related works**

“We have helped improve the government related tasks to expedite their process, Digitizing most government related institutes.”

*“The curriculum revisions also not in the right direction”  
“They might have the courses but not updated systems, ex: statistics still using SPSS”*

*“TVET curriculum needs to broaden and to be more relevant to the industry, for this introduction of new curriculum should be faster. We are working with SLASSCOM helping this expanding the facilities and training opportunities”*

# Students expectation and satisfaction on what they gained from Public institutes



Although majority of demand side companies are in view that students passed out from public institutes lack skills like ability to speak English, Creative thinking and communication skills, students are in view that these are not so important skills to the ICT sector career have been give to them through their trainings

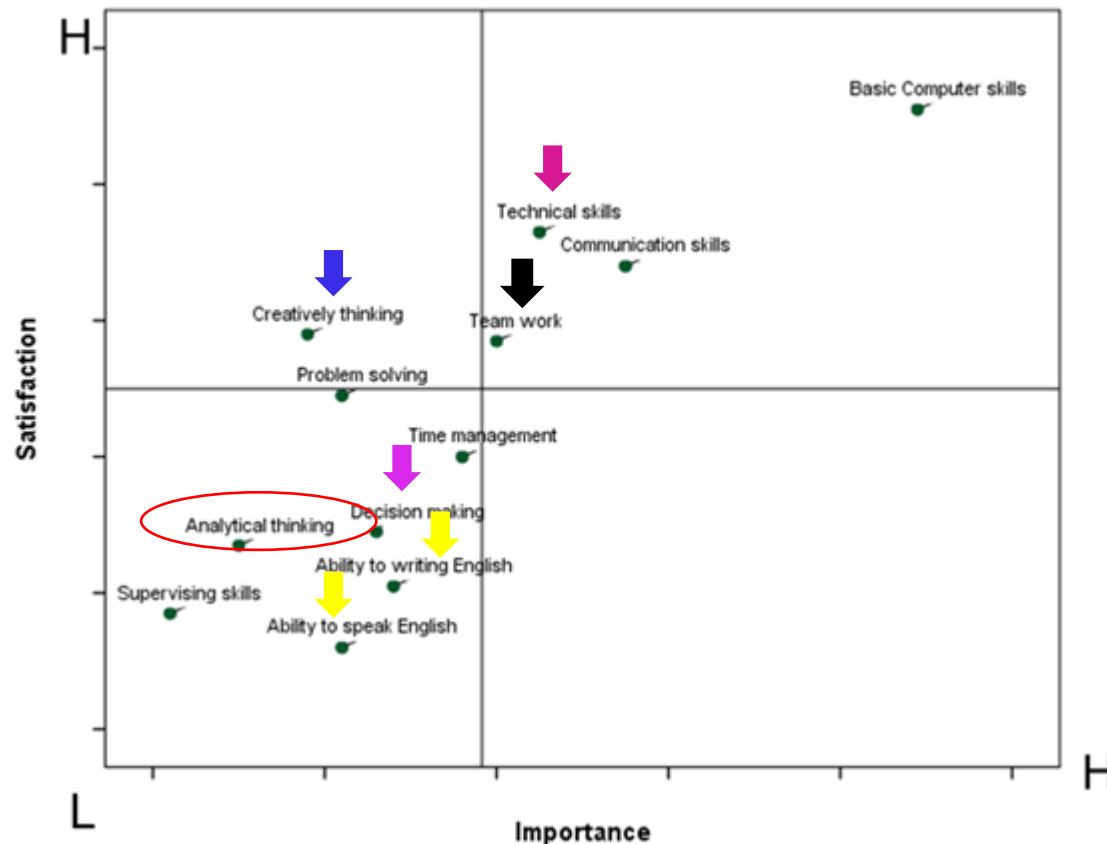
However, technical skills, decision making ability, teamwork and basic computer skills are certain areas that the demand side expect from them to have and have gained through their training at public institutes

Problem solving ability, creative thinking and problem solving are certain soft skills students thinks that not expected from the industry from them but areas like ability to write English and team work are certain areas that they have gained knowledge on from their trainings



# Instructors' expectation and satisfaction on what students gained from Public institutes

## INSTRUCTOR



It is interesting to see that even instructors too believe that students who are trained by them have the communication skills. Additionally, instructors feel that students are good in their technical skills, communication skills, basic computer skills and team work

It is critical to be aware that instructors are in the view that skills such as creative thinking, decision making ability, analytical thinking, supervising skills, ability to write English and ability to speak English are not so important to the industry career

# **PRESENT STATUS OF IT-BPM INDUSTRY WORKFORCE**

*Other Characteristics  
of current Supply Side*



# Teacher Student ratio at TVET

	TVET	ICT
OVERALL	41:1	60:1
PUBLIC	58:1	68:1
PRIVATE	20:1	61:1

Teacher : Student ratio

The global standard for tertiary and higher education is 15:1.

The average at TVET is at 41:1.

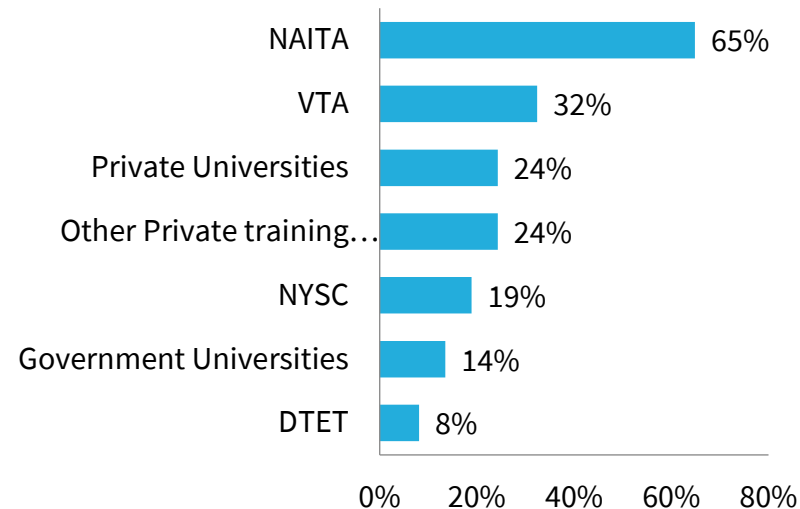
ICT has the highest student teacher ratio → can be attributed to;

1. Lack of instructors who are willing to join to teach vocational training
2. Scarcity in finding the right talent of instructors to cover the curriculum

# On the Job Training

24%

of companies in the sample provide “on the job training” (OJT) for students who follow ICT related vocational training courses or ICT Undergraduates coming from ..



*There is a trend of not giving opportunities for OJT in private financial companies by considering data security and sensitivity*

## Different occupation categories that On-the-Job Trainings are being provided are;

- ✓ Data entry operator [57% and Average 6.7 students]
- ✓ IT Assistant [43% and Average 4.6 students]
- ✓ Graphic Designer [24% and Average 10.5 students]
- ✓ Software technician [16% and Average 4.7 students]
- ✓ Hardware technician [16% and Average 17.5 students]
- ✓ Networking technician [5% and Average 2.0 students]
- ✓ Other [19% and Average 6.4 students]

Majority of companies in ICT, BPM and Non-ICT sector are giving Job opportunities or hire permanently for students who perform well in the OJT

# **PRESENT STATUS OF IT-BPM INDUSTRY WORKFORCE**

*Total strengths*



# Demand Side Sample Interviewed

Company type	Total sample	Western	Outstation	Servicing client's type			Scale of the company		
				Local companies	Foreign clients	Both	Small	Medium	Large
ICT companies	60	85%	15%	80%	12%	8%	69%	20%	11%
BPM companies	30	100%	-	93%	7%	-	44%	22%	33%
Non-IT Private companies	150	74%	26%	93%	3%	4%	48%	36%	16%
Government organizations	60						26%	29%	42%

## Definition of Scale of organizations:

As per EDB,

Small scale = Employees less than 25

Medium Scale = 25-200 employees

Large Scale = Over 200 employees

## Universe Figures used for projections:

ICT Companies = 600 (*Sources: 2019 National IT-BPM Study*)

Non-ICT Companies = 102000 (*Sources: Business registrar*)

BPM Companies = 80 (*Sources: EDB*)

Government Entities = 860 (*Source: Government Websites*)

**Finding:** In the data collection process, it was found that some of the BPM and ICT sector organizations have been closed down.

**Source of Sample Universe :** Company Registrar, National IT-BPM Workforce Survey 2019, EDB, Expert Interview in Demand Side

*ICT Companies – MoE – 12%*

*BPM Companies – MoE – 14%*

*ICT Users Private – MoE – 8%*

*ICT Users Govt – MoE – 12%*

# **PRESENT STATUS OF IT-BPM INDUSTRY WORKFORCE**

*Strength of ICT WF &  
Characteristics*





# Projected ICT Workforce by Major Occupational Groups

## Current ICT Workforce

590,649

ICT Occupational Groups	Current WF	%	
Computer / Data entry Operator	293373	49.67	Govn.+ICT Users
Web Developers	99061	16.77	Govn.+ICT Users
Software Eng.	46610	7.89	All
Computer Programmers	40698	6.89	ICT
IT & Technical Support	27979	4.74	ICT Users
Business Development	23684	4.01	ICT
Senior Manager / Manager IT	20485	3.47	Govn.+ICT Users
IT Officer / IC executive	15143	2.56	Govn.+ICT Users
Hardware Technician	7822	1.32	Govn.+ICT Users
Business Analysis	5400	0.91	ICT
Director IT	1879	0.32	Govn.+ICT Users
Software Quality Assurance	1429	0.24	ICT
Deputy Director IT	886	0.15	Govn.+ICT Users
Software Project Mgt.	851	0.14	ICT
Data Analysis	818	0.14	BPM
Data Scientists	753	0.13	ICT
Database Dev.& Admin	742	0.13	ICT
Client Support	622	0.11	ICT
IT Service Mgt. & Governance Specialist	436	0.07	ICT
System / Network Eng.	382	0.06	ICT
Mgt. Information Systems/It Mgt.	360	0.06	ICT
Customer Services	255	0.04	BPM
Finance and Accounting	222	0.04	BPM
Human Resource Management	219	0.04	BPM
IT Help Desk	184	0.03	BPM
Document Management	178	0.03	BPM
User Interface Eng.	120	0.02	BPM
Innovators & Researches	55	0.01	ICT

# Projected ICT Workforce by Major Occupational Groups

## Current WF

66,262

Projected ICT workforce in ICT companies is estimated to be 66,262. Majority like 35% each has been contributed by Software Engineers and Business Development Occupation categories.

## ICT Companies

ICT Occupational Groups	Current ICT WF	Proportions - %	Male %	Female %
Database Dev.& Admin	742	1.1%	57%	43%
User Interface Eng.	120	0.2%	82%	18%
Business Analysis	5,400	8.1%	72%	28%
System / Network Eng.	382	0.6%	83%	17%
Software Eng.	23,029	34.8%	55%	45%
Software Project Mgt.	851	1.3%	95%	5%
Software Quality Assurance	1,429	2.2%	66%	34%
Client Support	622	0.9%	93%	7%
Business Development	23,684	35.7%	76%	24%
IT & Technical Support	2,629	4.0%	68%	32%
Innovators & Researches	55	0.1%	100%	0%
Mgt. Information Systems/It Mgt.	360	0.5%	73%	27%
Data Scientists	753	1.1%	59%	41%
IT Service Mgt. & Governance Specialist	436	0.7%	78%	23%
Web Developers	5,771	8.7%	48%	52%

# Projected ICT Workforce by Major Occupational Groups

## Current WF

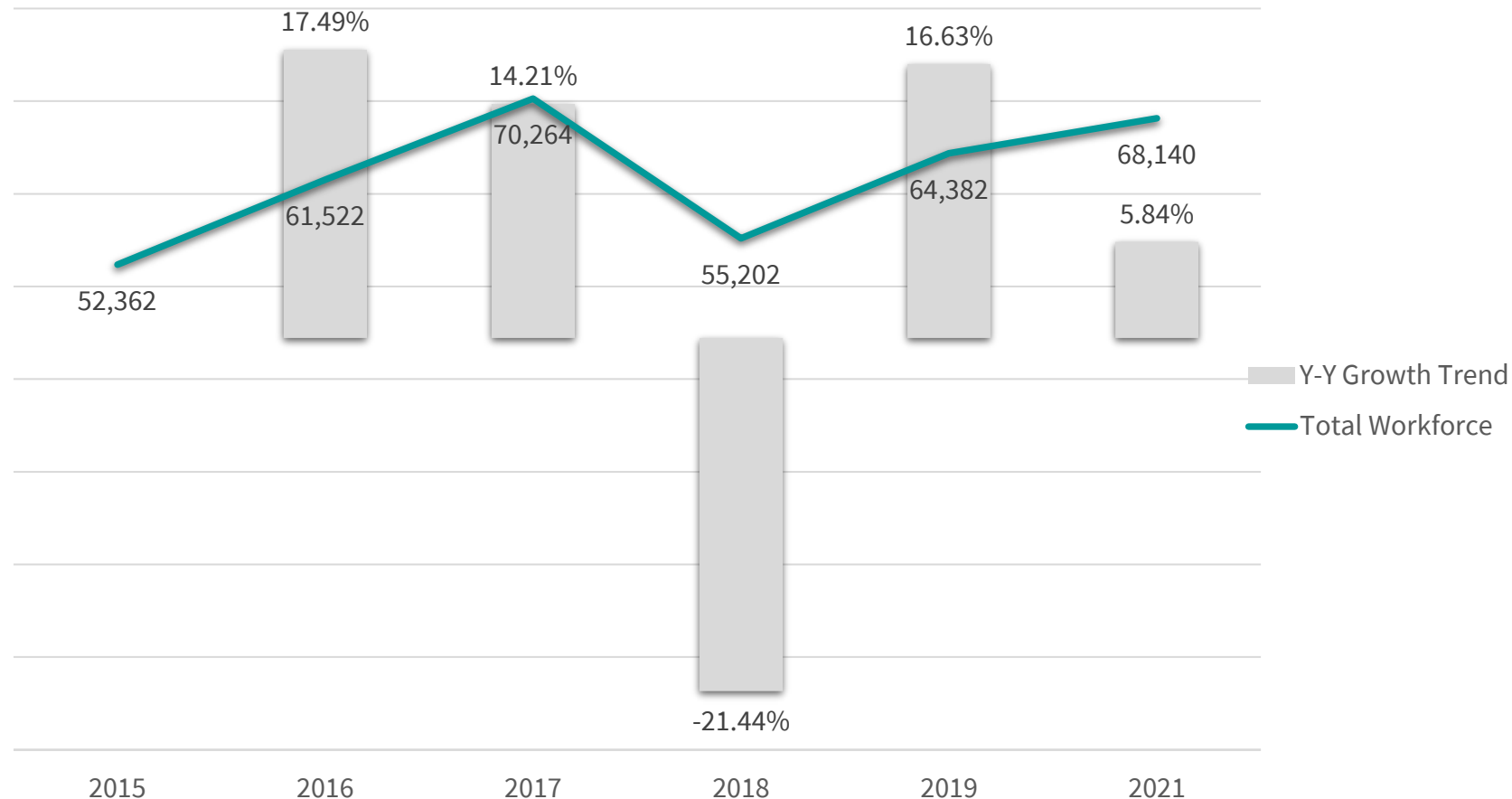
1,879

Projected ICT workforce in BPM companies is estimated to be 1,879. Majority like 43% each has been contributed by Data Analysts.

## BPM Companies

ICT Occupational Groups	Current ICT WF	Proportions - %	Male %	Female %
Customer Services	255	13.6%	57%	43%
Data Analysis	818	43.5%	55%	45%
Document Management	178	9.5%	53%	47%
Finance and Accounting	222	11.8%	61%	39%
Human Resource Management	219	11.7%	73%	27%
IT Help Desk	184	9.8%	82%	18%
Procurement	3	0.2%	100%	0%

# ICT Workforce Trend Over the Years



Based on labour force study 2019, information and communication workforce has been estimated at 64,382 in 2019 which reports a growth of 16.6% in comparison to 2018 when the workforce has degrown compared to the previous year.

However as per the estimate of this study, the current workforce is recorded with a 5-6% growth compared to 2019.

Source: LFS DCS (extracted 2015 to 2019 data)

Source: Demand Side Interviews (extracted 2021 data)

# Projected ICT Workforce by Major Occupational Groups

## Current WF

509,779

Projected ICT workforce in Non ICT companies is estimated to be 509,779 Majority like 55% each has been contributed by Data Entry Operators.

## ICT User Companies - Private

ICT Occupational Groups	Current ICT WF	Proportions - %	Male %	Female %
Deputy Director IT	816	0.2%	50%	50%
Director IT	1,809	0.4%	100%	0%
Senior Manager / Manager IT	20,205	4.0%	89%	11%
Software engineer	23,405	4.6%	79%	21%
Hardware Technician	7,752	1.5%	79%	21%
IT Officer / IC executive	14,652	2.9%	73%	27%
IT assistant	24,514	4.8%	71%	29%
Computer / Data entry Operator	282,638	55.4%	46%	54%
Computer Programmers	40,698	8.0%	28%	72%
Web Developers	93,290	18.3%	57%	43%

# Projected ICT Workforce by Major Occupational Groups

## Current WF

12,728

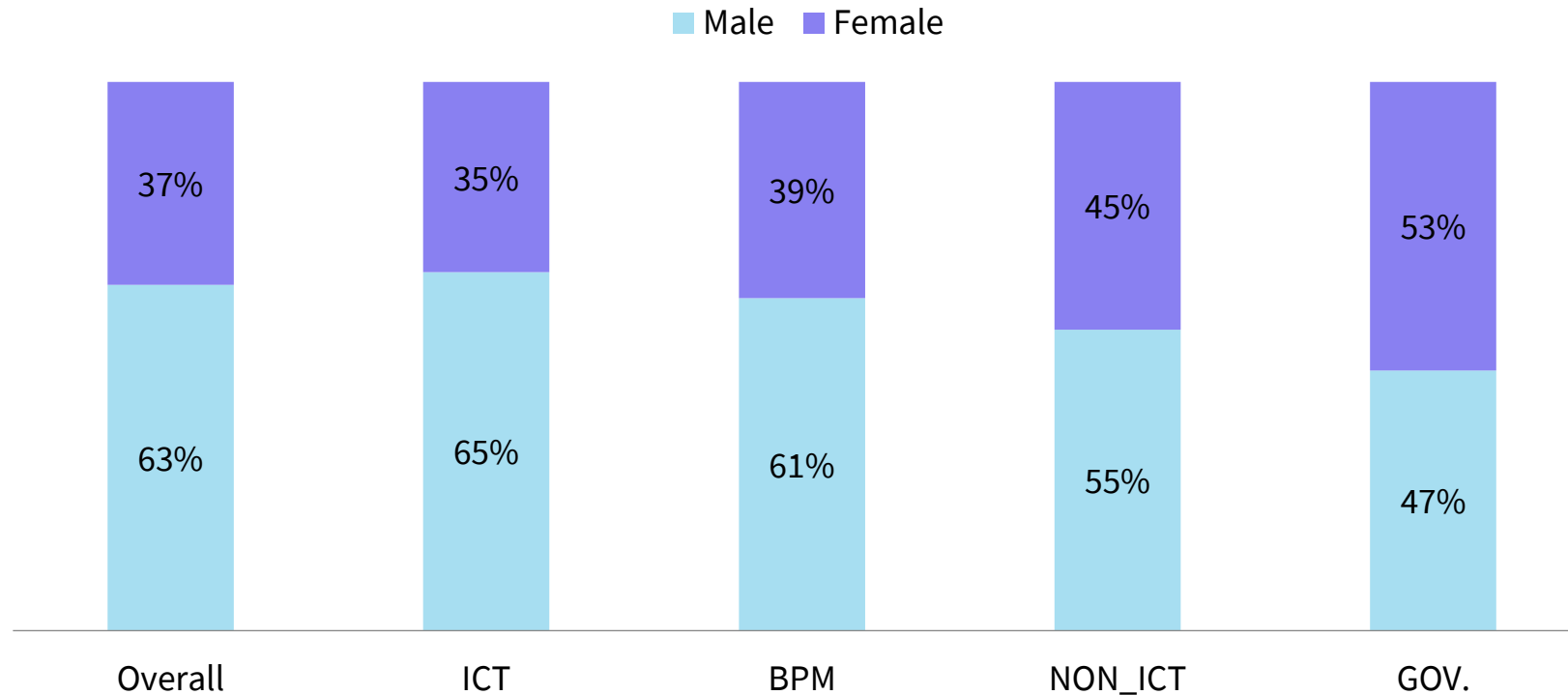
Projected ICT workforce in Government Organizations is estimated to be 12,728. Majority like 84% each has been contributed by Data Entry Operators.

## ICT User - Government Organizations

ICT Occupational Groups	Current ICT WF	Proportions - %	Male %	Female %
Deputy Director IT	70	0.6%	50%	50%
Director IT	70	0.6%	50%	50%
Senior Manager / Manager IT	280	2.2%	88%	13%
Software engineer	176	1.4%	60%	40%
Hardware Technician	70	0.6%	100%	0%
IT Officer / IC executive	491	3.9%	43%	57%
IT assistant	836	6.6%	38%	63%
Computer / Data entry Operator	10,735	84.3%	47%	53%

Estimated ICT Teachers in Schools = 10000 ( assuming each school have at least one IT teacher)

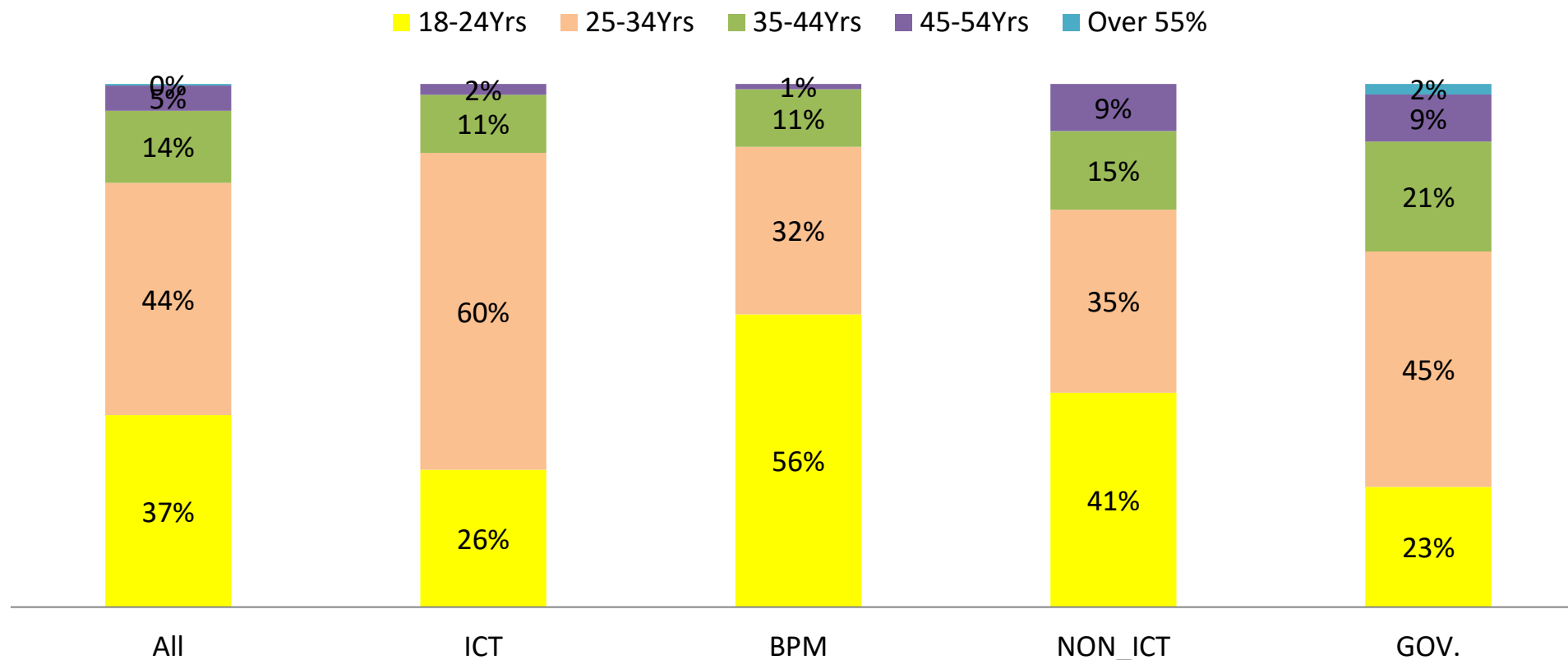
# Gender Composition in Current ICT Workforce



In the country women participation in workforce is at 34% whilst the women participation in the ICT sector is higher.



# Age Composition in Current ICT Workforce



While ICT and BPM workforce is skewed towards the younger age group, relatively older workforce representation can be found in Non-ICT and Government sector. BPM is highly skewed by very young workforce segment.

# **PRESENT STATUS OF IT-BPM INDUSTRY WORKFORCE**

*Next Two Years'  
Requirement of ICT  
Workforce*



# Projected ICT Workforce by Major Occupational Groups – Next Two Years

## Future ICT WF

12,098

As per the business growth plans claimed by ICT companies interviewed within the study, ICT workforce requirement for the next two years is estimated to be around 12,098. Most prominently the high demand occupational categories is IT & IT Support.

## ICT Companies

ICT Occupational Groups	Future ICT WF	Proportions - %
Database Dev.& Admin	349	2.9%
User Interface Eng.	142	1.2%
Business Analysis	3,262	27.0%
System / Network Eng.	371	3.1%
Software Eng.	2,716	22.5%
Software Project Mgt.	491	4.1%
Software Quality Assurance	993	8.2%
Client Support	469	3.9%
Business Development	1,320	10.9%
IT & Technical Support	1,964	16.2%
Innovators & Researches	22	0.2%

# Projected ICT Workforce by Major Occupational Groups – Next Two Years

## Future ICT WF

1,118

As per the business growth plans claimed by BPM companies interviewed within the study, ICT workforce requirement for the next two years is estimated to be around 1,118. Most prominently the high demand occupational categories are data analysts followed by customer service and documentation management categories.

## BPM Companies

ICT Occupational Groups	Future ICT WF	Proportions - %
Customer Services	222	19.9%
Data Analysis	280	25.1%
Document Management	209	18.7%
Finance and Accounting	175	15.6%
Human Resource Management	107	9.5%
IT Help Desk	118	10.6%
Legal Services	3	0.2%
Procurement	4	0.3%
Transcribing	1	0.0%

# Projected ICT Workforce by Major Occupational Groups – Next Two Years

## Future ICT WF

302,641

As per the business growth plans claimed by Non-ICT companies interviewed within the study, ICT workforce requirement for the next two years is estimated to be around 302,641. Most prominently the high demand occupational categories is computer and data entry operators.

## Non-ICT Companies

ICT Occupational Groups	Future ICT WF	Proportions - %
Director IT	905	0.3%
Senior Manager / Manager IT	1,561	0.5%
Software engineer	7,786	2.6%
Hardware Technician	2,448	0.8%
IT Officer / IC executive	7,219	2.4%
IT assistant	11,068	3.7%
Computer / Data entry Operator	190,228	62.9%
Computer Programmers	28,305	9.4%
Web Developers	53,122	17.6%

Second highest demanded category of ICT workforce in Non-ICT companies seems to be web developers. With the significant transition that is taken place in organization of converting the processes and way of working into digital platforms and technology usage ICT staff whos' able to develop their internal websites and platforms requirement should be identified as an important trend.

# Projected ICT Workforce by Major Occupational Groups to The Universe

## Future ICT WF

12,366

As per the business growth plans claimed by Government Organizations interviewed within the study, ICT workforce requirement for the next two years is estimated to be around 12,366. Most prominently the high demand occupational categories is computer and data entry operators.

## Government Organizations

ICT Occupational Groups	Future ICT WF	Proportions - %
Senior Manager / Manager IT	35	0.3%
Software engineer	35	0.3%
Hardware Technician	139	1.1%
IT Officer / IC executive	209	1.7%
IT assistant	244	2.0%
Computer / Data entry Operator	11,704	94.6%

With the government plans of enhancing ICT education and other ministries this requirement will be much higher in the future

# Current & Future Expectation on Different Occupations

## ICT Companies

### Current WF

ICT Occupational Groups	Proportions - %
Database Dev.& Admin	1.1%
User Interface Eng.	0.2%
Business Analysis	8.1%
System / Network Eng.	0.6%
Software Eng.	34.8%
Software Project Mgt.	1.3%
Software Quality Assurance	2.2%
Client Support	0.9%
Business Development	35.7%
IT & Technical Support	4.0%
Innovators & Researches	0.1%
Mgt. Information Systems/It Mgt.	0.5%
Data Scientists	1.1%
IT Service Mgt. & Governance Specialist	0.7%
Web Developers	8.7%

### Future WF

ICT Occupational Groups	Proportions - %
Database Dev.& Admin	2.9%
User Interface Eng.	1.2%
Business Analysis	27.0%
System / Network Eng.	3.1%
Software Eng.	22.5%
Software Project Mgt.	4.1%
Software Quality Assurance	8.2%
Client Support	3.9%
Business Development	10.9%
IT & Technical Support	16.2%
Innovators & Researches	0.2%

In the current workforce Software Engineers and Business Development staff contributes to the highest whilst the highest demanded categories in the next 2 years would be, Business Analysts, Software Engineers, IT & Technical support plus Business Development.

# Projected ICT Workforce by Major Occupational Groups to The Universe

## BPM Companies

### Current WF

ICT Occupational Groups	Proportions - %
Customer Services	13.6%
Data Analysis	43.5%
Document Management	9.5%
Finance and Accounting	11.8%
Human Resource Management	11.7%
IT Help Desk	9.8%
Procurement	0.2%

### Future WF

ICT Occupational Groups	Proportions - %
Customer Services	19.9%
Data Analysis	25.1%
Document Management	18.7%
Finance and Accounting	15.6%
Human Resource Management	9.5%
IT Help Desk	10.6%
Legal Services	0.2%
Procurement	0.3%

In the current workforce Data Analysts staff contributes to the highest whilst the highest demanded categories in the next 2 years would be, Data Analysts, Customer Service, Document Management, Financial & Accounting, IT Help Desk.



# Projected ICT Workforce by Major Occupational Groups to The Universe

## Non-ICT Companies

### Current WF

ICT Occupational Groups	Proportions - %
Deputy Director IT	0.2%
Director IT	0.4%
Senior Manager / Manager IT	4.0%
Software engineer	4.6%
Hardware Technician	1.5%
IT Officer / IC executive	2.9%
IT assistant	4.8%
Computer / Data entry Operator	55.4%
Computer Programmers	8.0%
Web Developers	18.3%

### Future WF

ICT Occupational Groups	Proportions - %
Director IT	0.3%
Senior Manager / Manager IT	0.5%
Software engineer	2.6%
Hardware Technician	0.8%
IT Officer / IC executive	2.4%
IT assistant	3.7%
Computer / Data entry Operator	62.9%
Computer Programmers	9.4%
Web Developers	17.6%

In the current workforce Computer and Data Operators staff contributes to the highest whilst the highest demanded categories continued to be the same.

# Projected ICT Workforce by Major Occupational Groups to The Universe

## Government Organizations

### Current WF

ICT Occupational Groups	Proportions - %
Deputy Director IT	0.6%
Director IT	0.6%
Senior Manager / Manager IT	2.2%
Software engineer	1.4%
Hardware Technician	0.6%
IT Officer / IC executive	3.9%
IT assistant	6.6%
<u>Computer / Data entry Operator</u>	<u>84.3%</u>

### Future WF

ICT Occupational Groups	Proportions - %
Senior Manager / Manager IT	0.3%
Software engineer	0.3%
Hardware Technician	1.1%
IT Officer / IC executive	1.7%
IT assistant	2.0%
<u>Computer / Data entry Operator</u>	<u>94.6%</u>

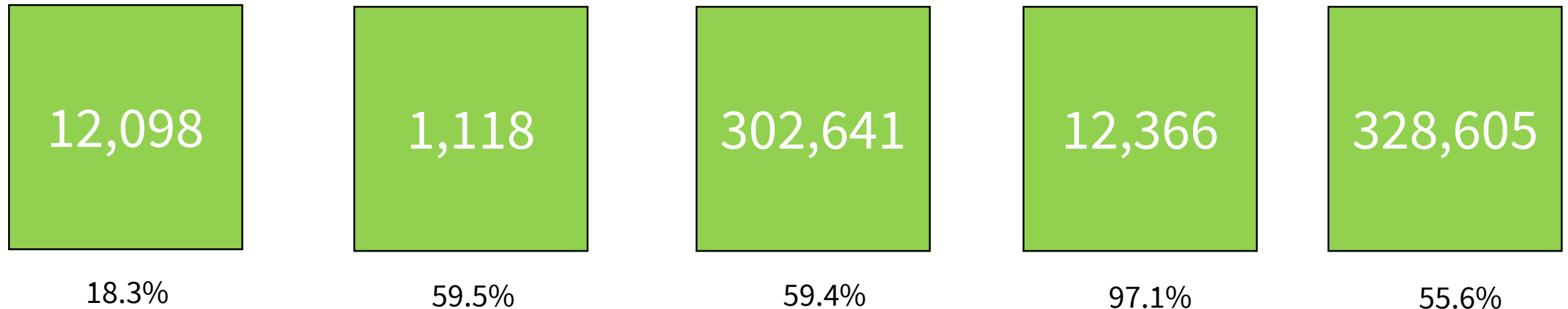
In the current workforce Computer and Data Operators staff contributes to the highest whilst the highest demanded categories continued to be the same.

# Total ICT Workforce Current & Future Strength

## Current WF



## Next Two Years WF



Overall ICT workforce is expected to grow 55.6% in the next two years, important point to note is that, majority of this staff is required at entry levels like computer and data operators.

Source: Demand Size Primary Data Collection

# Total ICT Workforce Current & Future Strength

## Current WF

	ICT Companies	BPM Companies	Non-ICT Companies	Govt. Organizations	Total
<b>DE</b>	0	0	282,638	10,735	293,373
<b>OP</b>	66,262	1,879	227,141	1,993	297,275

## Next Two Years WF

<b>DE</b>	0	0	190,228 67.3%	11,704 109%	201,932 68.6%
<b>OP</b>	12,098 18.2%	1,118 59.5%	112,413 49.5%	662 33.2%	126,291 42.5%

When analyzing the future ICT workforce requirement in the country it is evident that around 18% increase of ICT staff (Non data operators) is reported as the need for the ICT companies. With a lot of plans the BPO companies have to grow their business into different avenues like the KPOs, they claim that they expect for a ICT workforce to be increased in their sector around 59%.

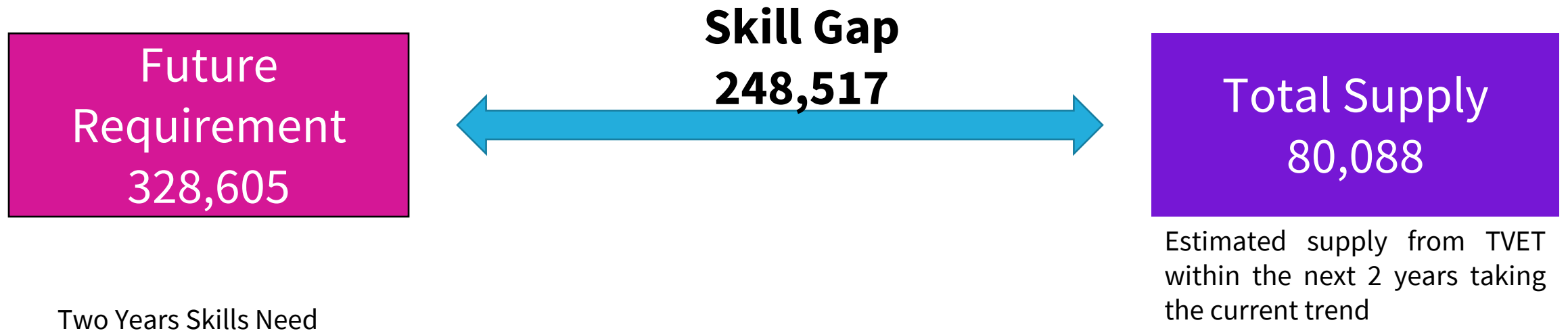
# Claimed expectations on emerging occupational categories

## All Companies

Emerging ICT Occupational Groups	% of companies claimed
Computer Operators with advanced skills	67%
Cyber security	22%
Mobile App developer	15%
Big data management	10%
AI/Machine Learners	9%
Cloud management	6%
IOT Engineers	5%
Blockchain Engineers	5%

- Majority of companies (67%) claimed that they need computer operators with advanced skills.
- Hence, it is vital to further explore on advance skills expectations that the industry and non-industry companies have when they recruit computer operators before finalizing or proceeding with any curriculum revisions of courses where computer operators are developed
- The next biggest expectation from companies are to recruit Cyber Security workforce to their organizations. With more focus on privacy concerns in the digital and system space, this is going to be a key skill category to the industry in the near future

# Demand vs Supply Gaps in the Industry – Next Two Years

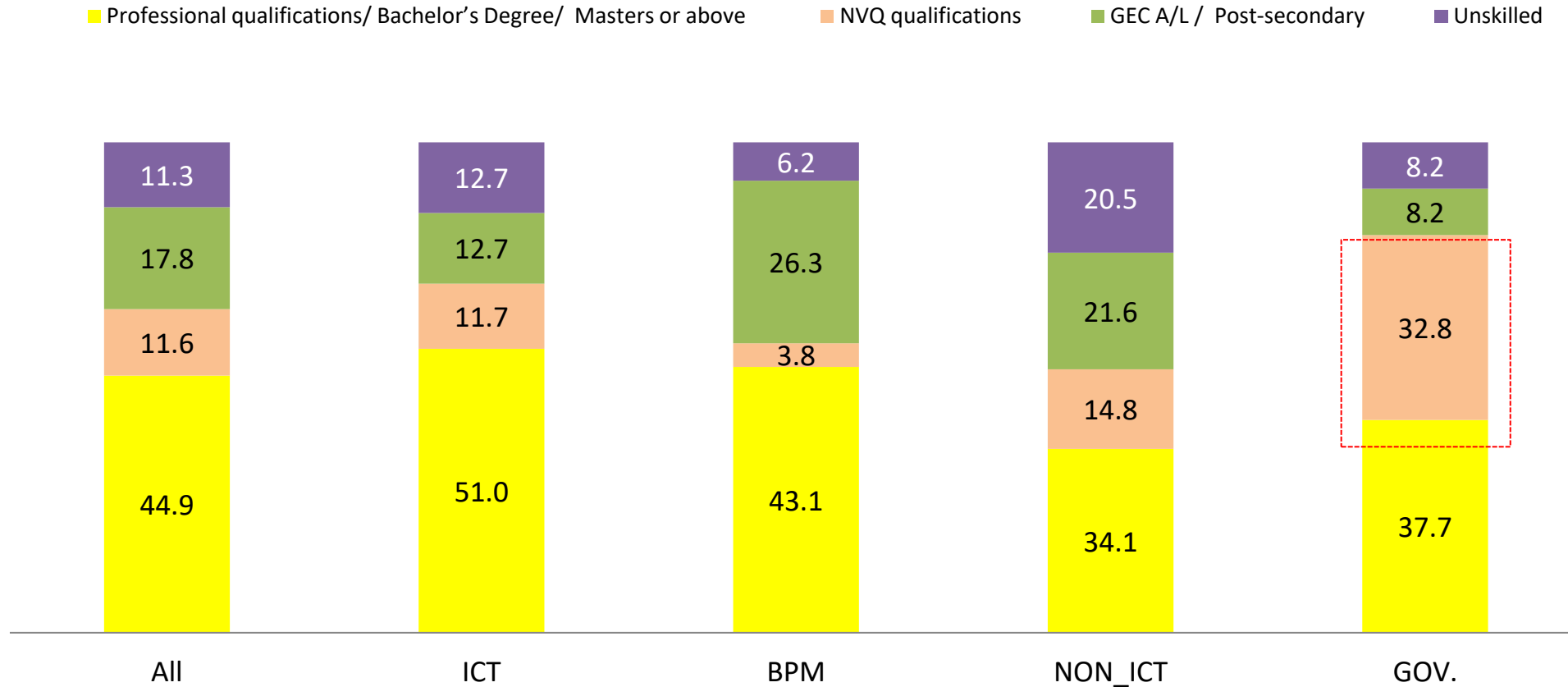


# **PRESENT STATUS OF IT-BPM INDUSTRY WORKFORCE**

*Entry Methods*



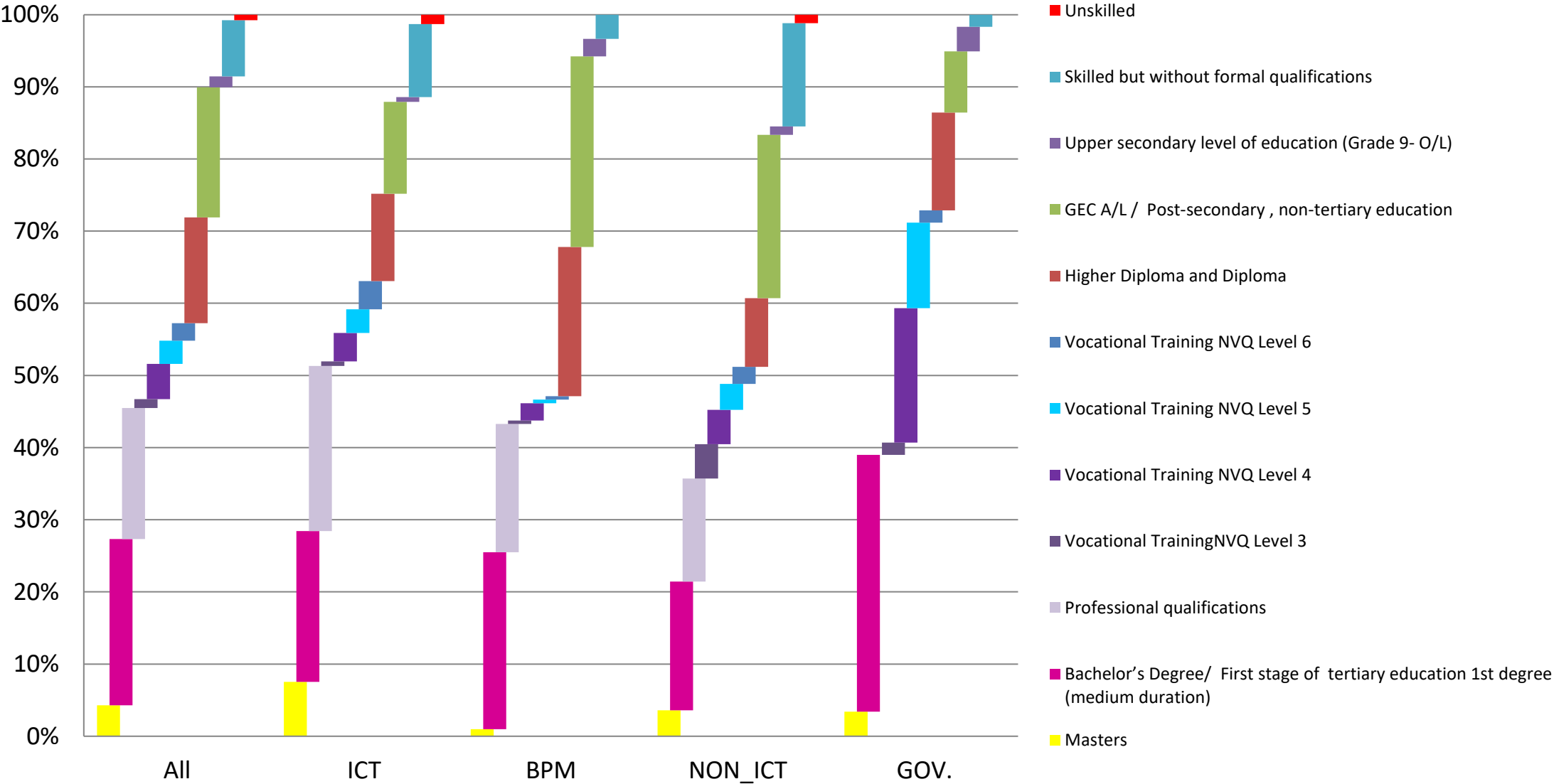
# Education Composition in Current ICT Workforce



Expectation of Degree or above qualification is the key for ICT workforce. NVQ is a basic qualification which need to apply for a government job.



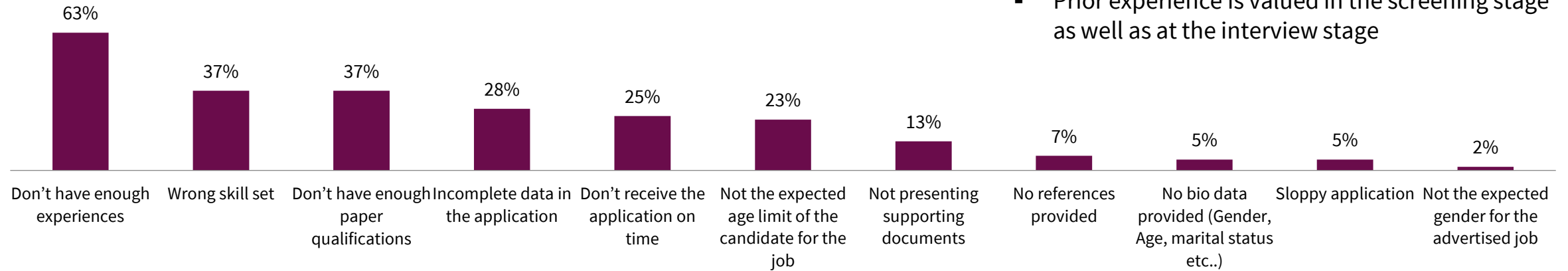
# Education Composition in Current ICT Workforce



Source: Demand Side Interviews

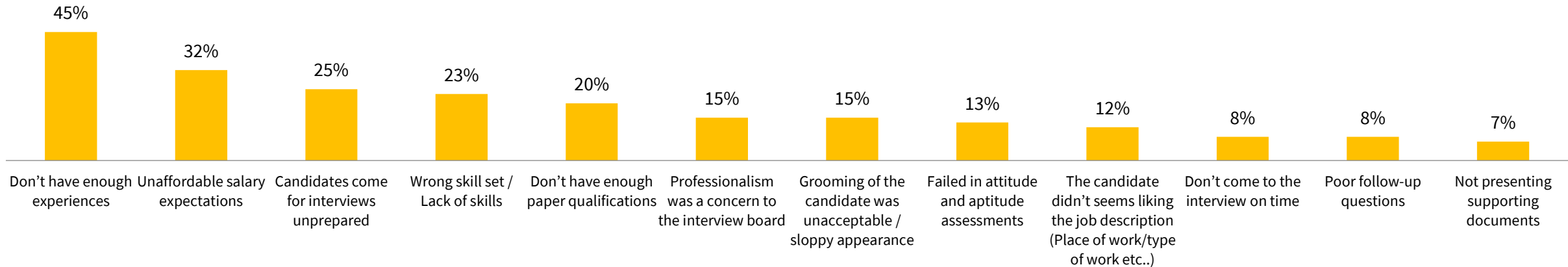
# Reasons for Rejection of Candidates

## Most prominent reasons for rejection of applications at screening stage



- At the application screening stage gender has not been a reason for rejection
- Prior experience is valued in the screening stage as well as at the interview stage

## Most prominent reasons for rejection of candidates at interviewing stage

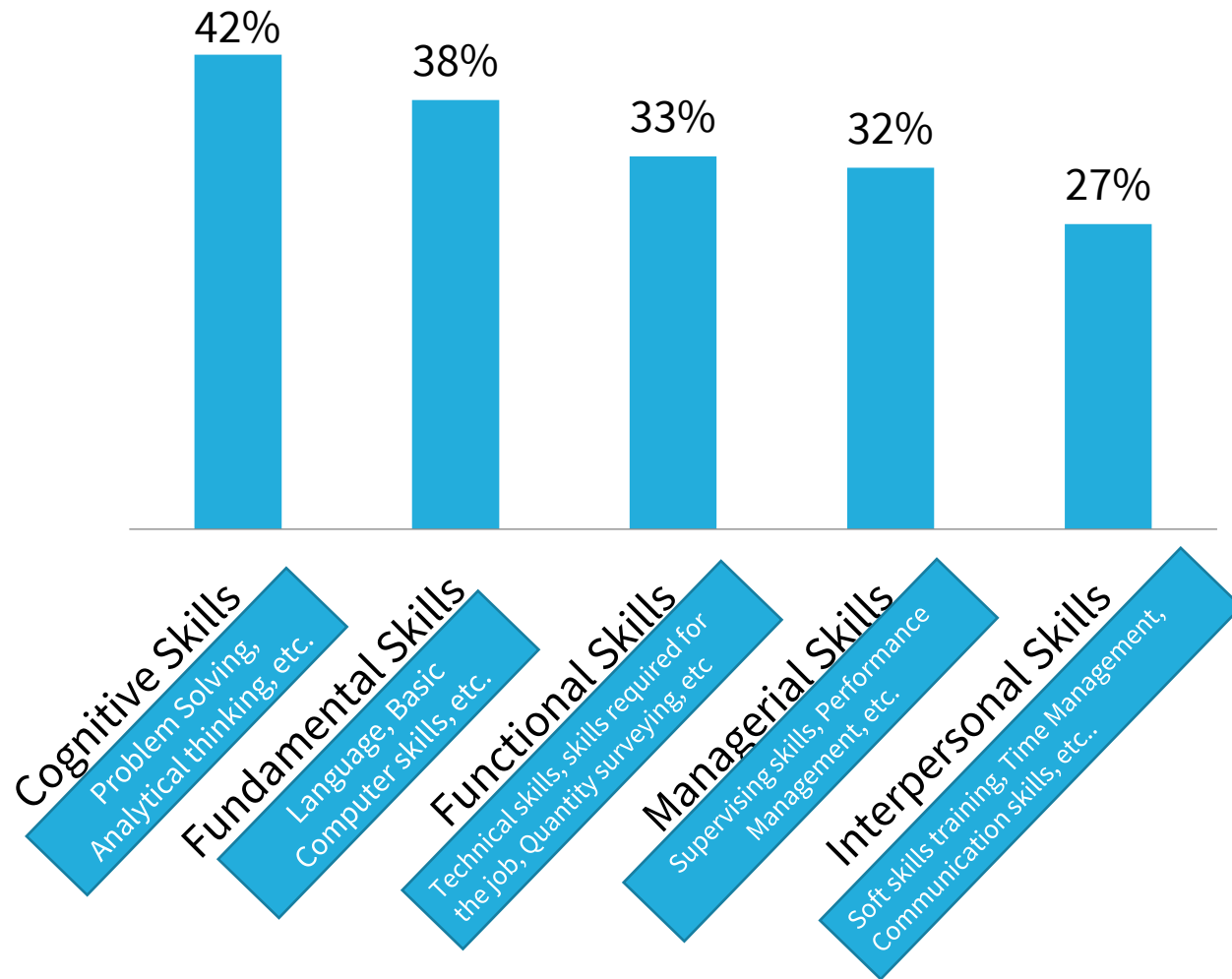


# **PRESENT STATUS OF IT-BPM INDUSTRY WORKFORCE**

*Gap in Demand and  
Supply*



# Most lacking skill sets of the candidates who apply for the skilled worker level



Whilst students, teachers and skills supply experts point of view Cognitive and Fundamental skills are considered as strong skill sets among the students who are coming out to the employment market, from the demand side these are seen as the most lacking skills set.

## Absentees

Desirable skill and attitudes that are currently lacking

Start focus when developing skills

Endurance  
Target driven  
Ability to work under pressure  
Positive attitudes – ability to work under guidance  
Attention to details  
Hard working – Night shifts  
Reputation created for the industry skilled jobs in the society  
Commitment

## Supportive

skill and attitudes that are supportive to be a skilled employee

Continue focusing when developing skills

Team working ability  
NVQ 3 /4 levels  
OJT  
Technical knowledge of the products and services  
English language and mathematics capabilities

Fundamental characteristics that define the skilled jobs

## CORE

Experience in the industry  
Computer Literacy

Short term driven career objectives  
Expectation on fast career progression

Peripheral  
Areas to be reduced to be on the core job

Change when developing skills

Passion towards office jobs

Change when developing skills/ show the right path

Attitudes and expectations that deviates from selecting skilled job

## Detractors

# EXECUTIVE SUMMARY

- ICT-BPM sector revenue growth has been sharp in the last decade globally which has been supportive to uphold the growth of the sector in Asian Countries like Sri Lanka where it works as offshore development centers for many global ICT companies.
- COVID-19 has impacted a large number of countries and businesses while expanding lot of innovative opportunities for an industry like ICT. However, ICT industry also needs to work harder to sustain the development as well as to acquire opportunities that are coming up.
- Needless to say that, COVID-19 impact has resulted in slashing employment and closing up businesses including ICT, with the right talent and infrastructure Sri Lanka would have a lot of opportunities to drive and sustain local ICT sector development.
- This would drive a large growth of export earnings through ICT with the blessing and support of the new government policies in place in favour of the ICT industry development.
- It has been reported a steep growth of ICT-BPM workforce over the last decade in Sri Lanka of which demand at entry level skills as well as emerging occupation categories are topping the list of future skill requirements.
- While both private and public sector institute under TVET enroll approximately 53,144 students into ICT related courses in 2019 TVET statistics shows around 75% of them successfully pass out and enter to the market.
- The students who enter the market are flow into many avenues of their interests or based on opportunities that they get.
- It is pleasing to see a considerably high registration like 21% of the total enrolment to TVET in 2019 has been into ICT related courses which is equally contributed by both private sector and public sector institutes.
- While there is 13% drop out rate, pass out rate has been consistently healthy during the last two years.
- Most prominent reasons for drop out from ICT courses for students has been mainly about the difficulty in handling the courses which are taught in English, although they enter to the course with a lot of excitement to learn what they enjoy.
- However, due to many practical difficulties and reasons such as lack of self confidence, personal level economic difficulties and impatient attitude that they have to complete the course have become reasons for dropout unfortunately.

# EXECUTIVE SUMMARY

- During COVID-19 although online facilities were given for students to continue classes, due to hardships faced to do so, students have been demotivated to continue with the courses.
- However, majority like 50% of students those who have passed out from the courses amidst of these difficulties, are currently perusing some employment on ICT or non ICT sector while around 30% are in the process of seeking employment.
- It is interesting to note, that most of the students who are enrolling or passing out from courses, are having an aim of entering to government sector and hence their prime motive to follow these courses is to accomplish that objective.
- The students are aware that NVQ qualification well accepted and is a value addition or the additional advantage that they need to have to enter to the government sector employment.
- While there are more employment in the private sector to go up the career ladder, still majority of students are aiming an employment in the government sector is a clear showcase of seeking more secured place to be in by youths today.
- Biggest motivation for the choice of ICT as a higher education by student seems to be the attached reputation to ICT courses and influence by peers and parents. Further, ICT course have been chooses as a way of resisting to do any courses related to hard work.
- Although many students identify positives of ICT related courses to accomplish their future career goals, it is unfortunate to see the students are using vocational training course time as a stop gap filler between their important life turning points such as ‘till they get A/L results’, ‘till they get a job’ etc..
- While there are different perceptions on students who pass out from public institutes Vs. Private institutes, both supply side experts and instructors believe public sector institutes are providing basic computer skills and technical skills thoroughly than in private institutes.
- Further, the supply side instructors believe that students in public sector institute are been well trained on soft skills such as team work creative thinking, time management and communication skills etc..

# EXECUTIVE SUMMARY

- However, it was evident from demand side experts that the students passing out from private institutes are bringing superior soft skills to the table when compared to students passed out from public institutes.
- Demand side experts' expectation to see more confident individuals coming out from these institutes for them to recruit for their organizations.
- It is fascinating to analyze that the student who are joining vocational training and ICT related courses, are rarely joining the course with the aim of ending their journey in a ICT profession but only to secure an employment in a government or private sector, with a value-added qualification they gain from the ICT NVQ qualification.
- On the other hand the demand side experts believe that the lack of soft skills of students will not meet their expectation in the industry, and hence choice of them to the ICT industry is not a frequent pattern while they often take an efforts to give opportunities or such candidates too.
- Sometimes it is fair to believe that when the students are entering to their courses without having a aim to end their journey in ICT profession, demand side to not to have an expectation on them to fill their market expectation.
- In the ICT workforce demand estimation that was carried out in this study, a total of 68,140 ICT workforce are deployed currently in ICT and BPM companies which amounts to a 6% growth when compared to 2019 ICT workforce status.
- However, in cumulation of Non- ICT companies and government organizations' ICT workforce, it is estimated to 522,507 of which the largest contribution is coming from computer and data entry operators.
- However, 7 out of 10 organizations interviewed within the study has claimed that they really need to hire computer operators with advance skills to meet their clients' expectations in the future.
- Hence, the authorities who are generating skills to the ICT-BPM industry need to explore the advanced skill sets that is demanded in the market in detail before they proceed with their training curriculum finalization.



# EXECUTIVE SUMMARY

- More and more companies are aiming to hire cyber security, mobile app developer, Big DATA management in the future as emerging areas of skills interest. It is vital to explore the training opportunities to provide course in these areas when developing the training calendar in the coming years.
- When considering next two years' skills requirement in ICT-BPM is counted to be around 328, 605 by ICT, BPM, Non-ICT and Government sector in the country across all the ICT related occupation categories.
- Even if we estimate of the same trend of enrolment to ICT courses in the next two years, we could expect 80,088 skills to come out to meet this requirement which creates a skills gap of 248,517 in the market in the next two years.

Thank You!

