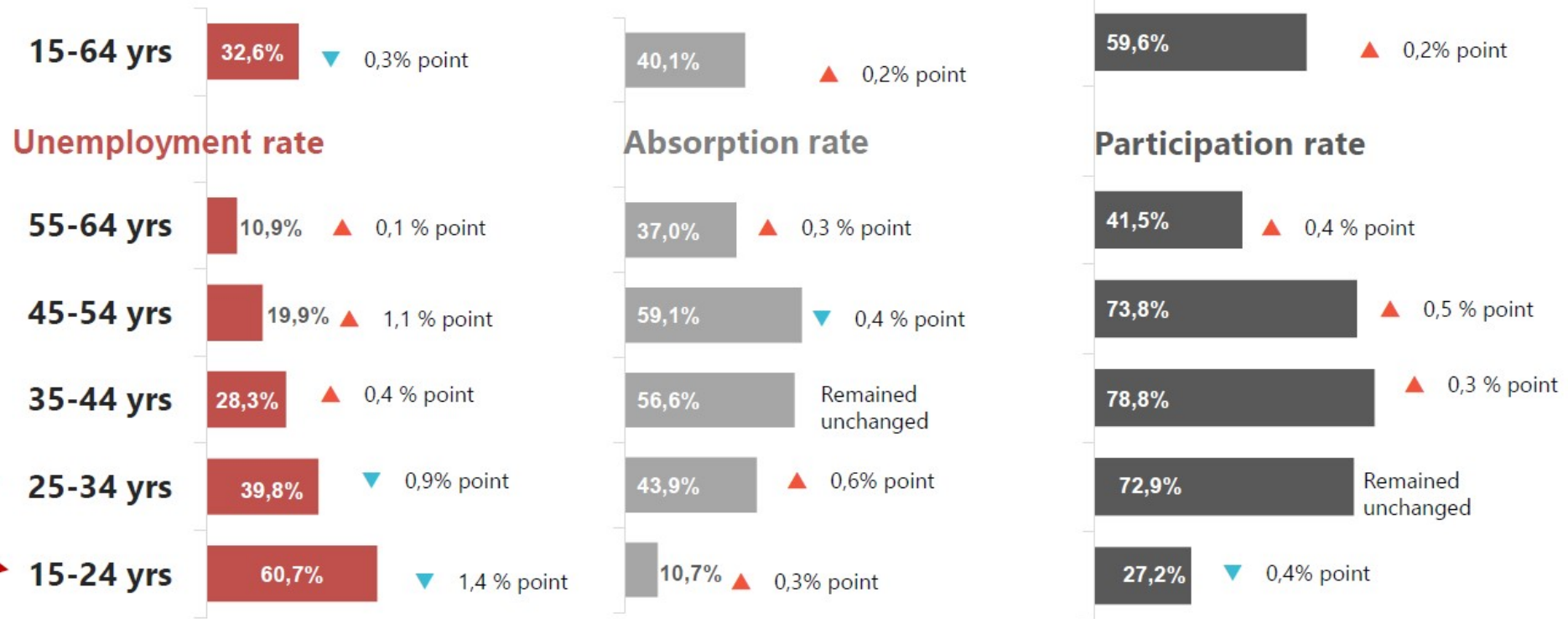# Digital Skills in Labour Markets and VET Systems:
The case of South Africa

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# Youth aged 15-24 years and 25-34 years recorded the highest unemployment rates of 60,7% and 39,8% respectively.

Labour market rates by age group, Q2:2023

▲▼ Change: Percentage points
Q1:2023 to Q2:2023

Unemployment rate

Age group	Unemployment rate	Change
15-64 yrs	32,6%	▼ 0,3% point
55-64 yrs	10,9%	▲ 0,1 % point
45-54 yrs	19,9%	▲ 1,1 % point
35-44 yrs	28,3%	▲ 0,4 % point
25-34 yrs	39,8%	▼ 0,9% point
15-24 yrs	60,7%	▼ 1,4 % point

Absorption rate

Age group	Absorption rate	Change
15-64 yrs	40,1%	▲ 0,2% point
55-64 yrs	37,0%	▲ 0,3 % point
45-54 yrs	59,1%	▼ 0,4 % point
35-44 yrs	56,6%	Remained unchanged
25-34 yrs	43,9%	▲ 0,6% point
15-24 yrs	10,7%	▲ 0,3% point

Participation rate

Age group	Participation rate	Change
15-64 yrs	59,6%	▲ 0,2% point
55-64 yrs	41,5%	▲ 0,4 % point
45-54 yrs	73,8%	▲ 0,5 % point
35-44 yrs	78,8%	▲ 0,3 % point
25-34 yrs	72,9%	Remained unchanged
15-24 yrs	27,2%	▼ 0,4% point

In addition to the 7.9million unemployed, there are 3.2million discouraged work seekers

Approximately **3,5 million (34,2%) out of 10,2 million** young people aged 15-24 years were not in employment, education or training (NEET).
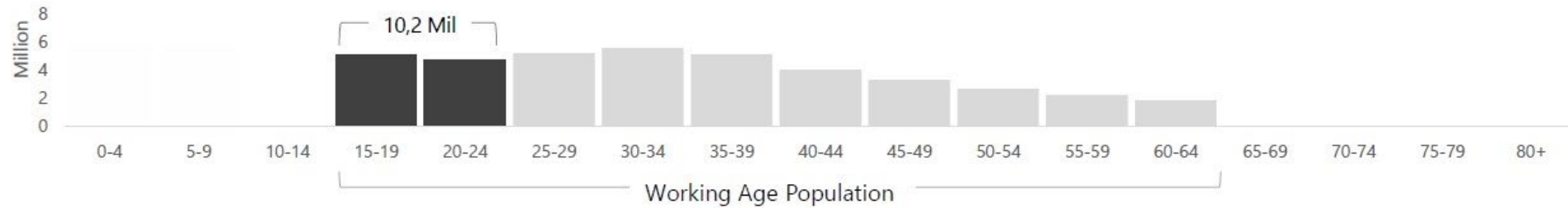
Number of NEET for ages 15-24
Q2:2023

3,5 Mil NEET

6,7 Mil Employed or in Education or Training

Of the 1million of young people who exit the education and training system each year, around 60% become NEETs, only 20% find entry level jobs in the formal economy

MAPPING OF DIGITAL AND ICT ROLES AND DEMAND IN SOUTH AFRICA

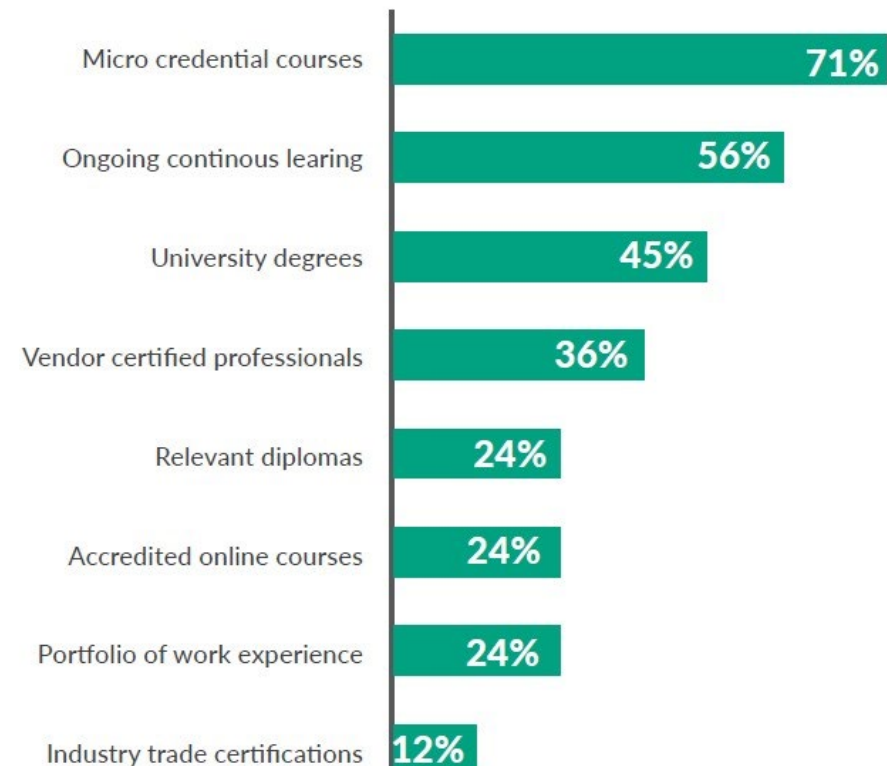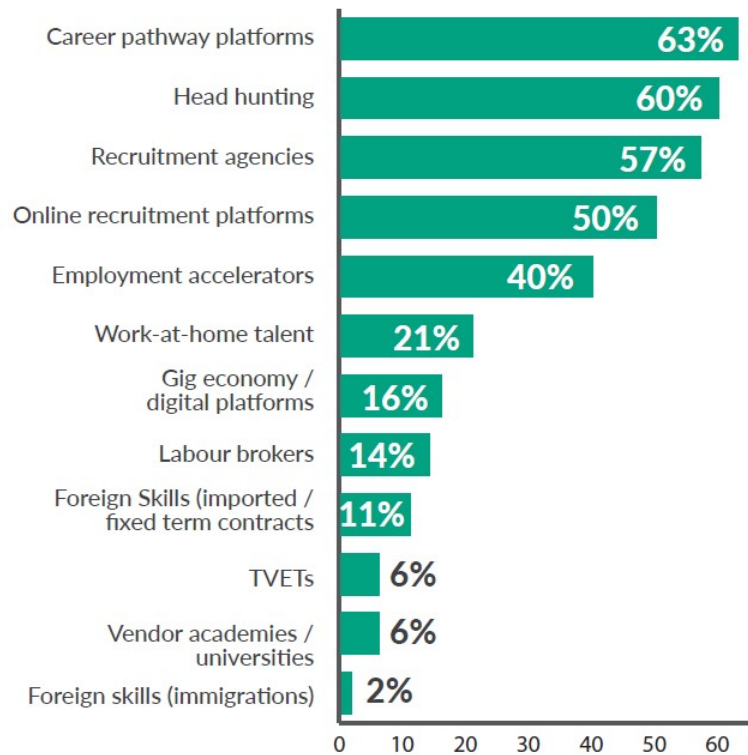Report commissioned by Harambee Youth Employment Accelerator in 2020
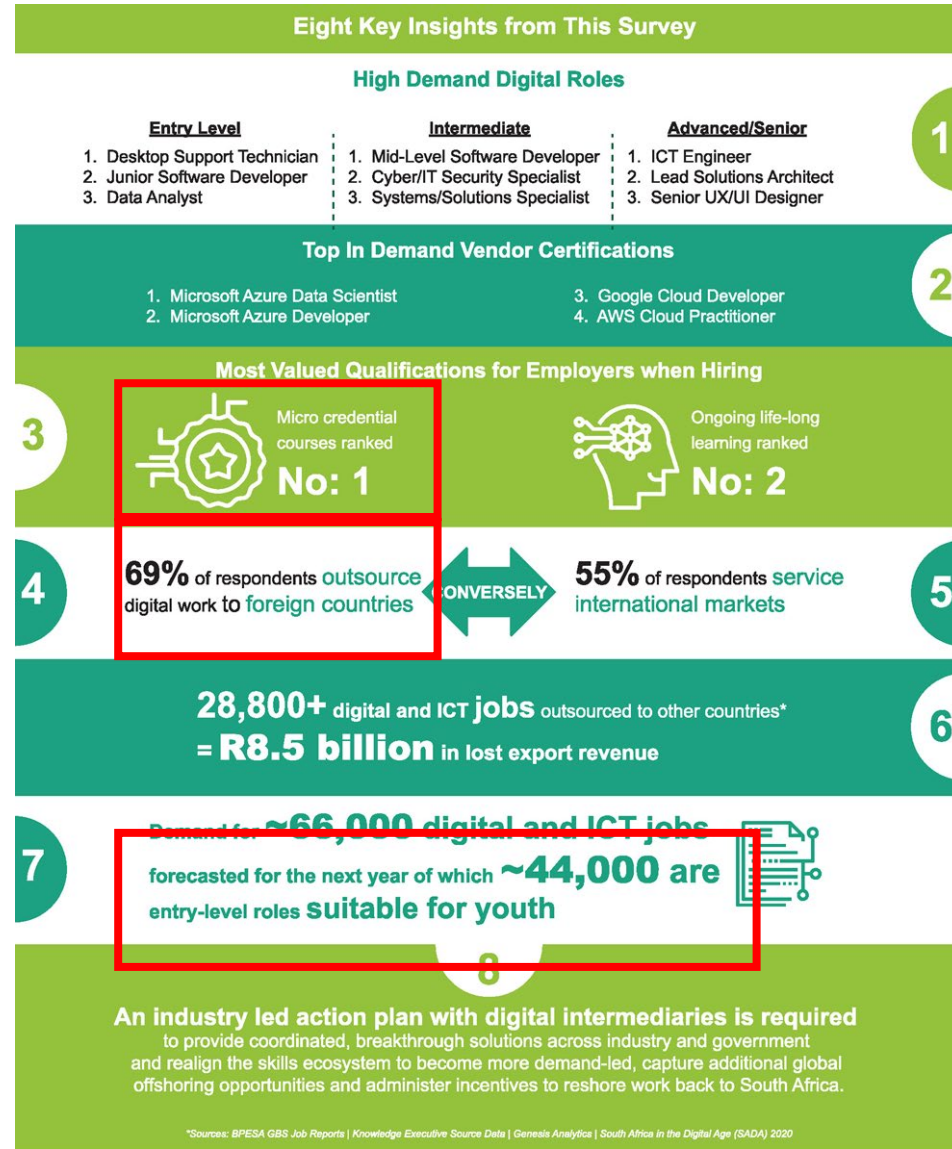
The SA ICT labour market context

- Many South African businesses lack the critical skills they need to operate and compete in the digital economy, including AI, big data, Internet of Things, as well as vendor specific skills needed to build ICT systems, architecture and cloud-based solutions.

- The pandemic brought about an exponential rise in use of virtual platforms for collaboration communication ad learning. Demands on cybersecurity, data security and cloud services have also increased as a result.

- While 80% of business report having basic digital skills, only 25% report having intermediate skills and only 10% have advanced IT skills.

- Many organisations do not have a clear understanding of their current and future digital skills requirements.

- By adopting exclusionary hiring practices South African employers are missing key opportunities to localise talent and scale new jobs.

- The digital divide is further exacerbating the situation, with large number of young people becoming increasingly marginalized and excluded from the digital economy.

Hiring sources and skills preferences

- Many employers have high expectations for entry-level positions
- Accelerators, work-at-home and gig workers increasingly favoured
- Although higher education qualifications still valued, there is increased value placed on micro credential courses and continuous or on-the-job learning
- This allows for more agile and adaptive learning to keep abreast of changing skills needs.

Career pathway platforms — 63%
Head hunting — 60%
Recruitment agencies — 57%
Online recruitment platforms — 50%
Employment accelerators — 40%
Work-at-home talent — 21%
Gig economy / digital platforms — 16%
Labour brokers — 14%
Foreign Skills (imported / fixed term contracts) — 11%
TVETs — 6%
Vendor academies / universities — 6%
Foreign skills (immigrations) — 2%

Micro credential courses — 71%
Ongoing continous learing — 56%
University degrees — 45%
Vendor certified professionals — 36%
Relevant diplomas — 24%
Accredited online courses — 24%
Portfolio of work experience — 24%
Industry trade certifications — 12%

The ICT labour market context cont....

Enterprises recruiting overseas

Source: 2022 JCSE-IITPSA ICT Skills Survey

- The percentage of respondent employers recruiting overseas shows a sharp increase between 2021 and 2022.

- Steady stream of applications for "critical skills visas" post-pandemic as South Africa remains a desirable destination for ICT practitioners from some African neighbours and from India.
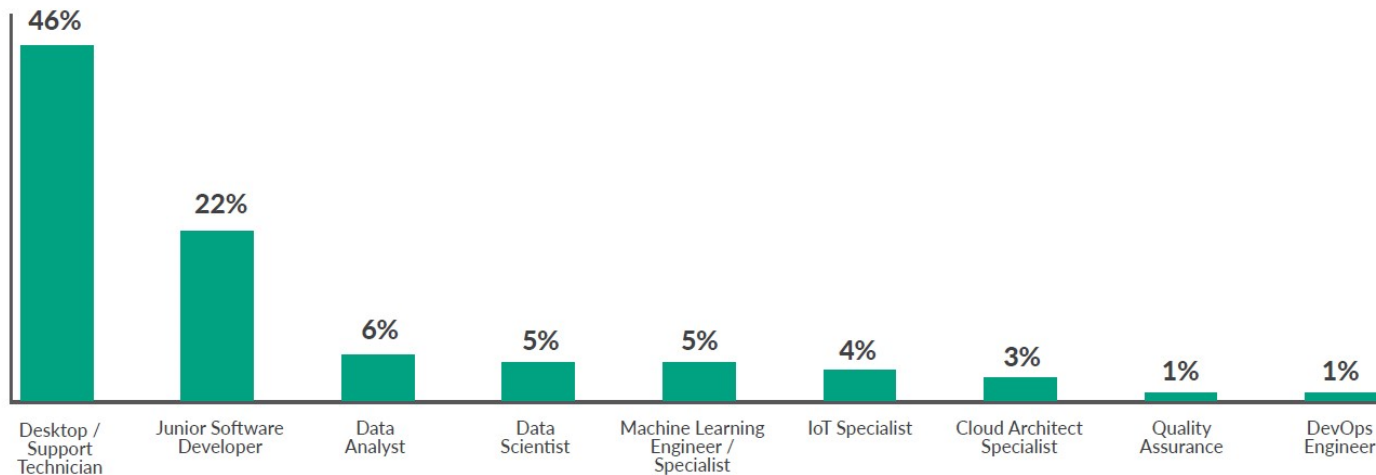
Context for digital skills

- Most young people from disadvantaged backgrounds in South Africa continue to be denied access to ICT

- 74% of South African schools have no internet used for teaching and learning

- Only 36% of South Africans own a smartphone and a computer, with rural youth having less access to technology and connectivity

- Eighty-one percent (81%) of Grade Four (Gr4) children in South Africa couldn't read for meaning in any language in 2021 which will impact on their ability to engage in digital literacy

- More than half of participants in a recent ILO study report having only basic digital skills, and Less than 20% have intermediate or advanced digital skills

- Limited access to digital literacy skills interventions and the high cost of data inhibits the ability of young people to use digital platforms for learning and job search

Entry level ICT roles in demand

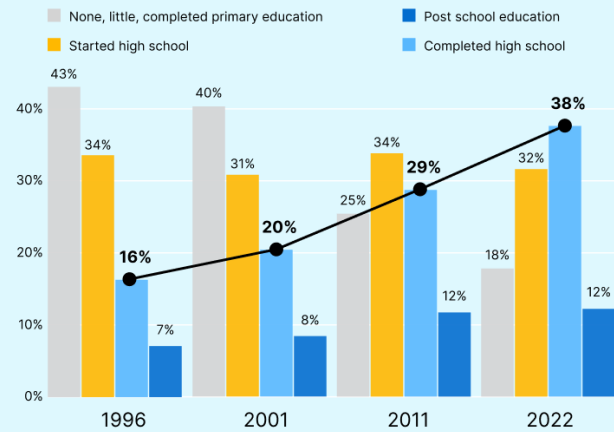Overall, the top 10 most in demand entry-level job roles included:

46% — Desktop / Support Technician
22% — Junior Software Developer
6% — Data Analyst
5% — Data Scientist
5% — Machine Learning Engineer / Specialist
4% — IoT Specialist
3% — Cloud Architect Specialist
1% — Quality Assurance
1% — DevOps Engineer

- The top three entry level roles require no work experience.
- Most organisations that identified the importance of this role - and subsequent entry-level positions - indicated that candidates should have Grade 12 or basic certifications as a minimum requirement (as opposed to degrees or advanced certifications).
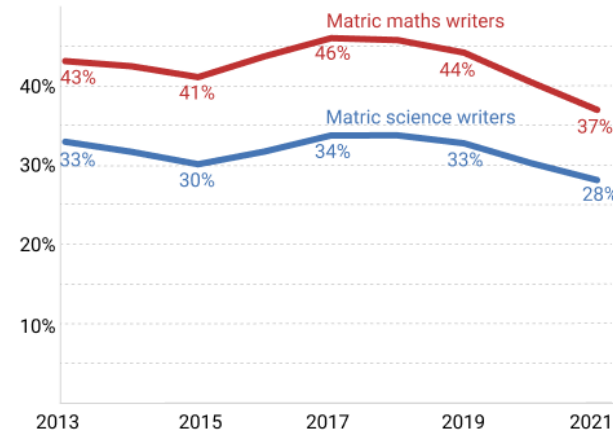
High school completed

Over a third of South Africans 20 years and older have completed high school compared with only 16% in 1996

Legend: None, little, completed primary education | Post school education | Started high school | Completed high school

1996: 43%, 34%, 7%, 16%
2001: 40%, 31%, 8%, 20%, 25%
2011: 34%, 34%, 12%, 29%
2022: 18%, 32%, 12%, 38%

Source: **Census 2022**, Stats SA: Figure 4.5
Note: Percentages rounded up.

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Less than 40% of matric pupils wrote maths in 2021

Matric maths writers: 43% (2013), 41%, 46%, 44%, 37% (2021)
Matric science writers: 33% (2013), 30%, 34%, 33%, 28% (2021)

Source: Examination Reports, Technical Reports

THE OUTLIER

Barely any progress in providing internet for teaching and learning

19,151 schools without internet for teaching and learning

18,538 schools without internet for teaching and learning
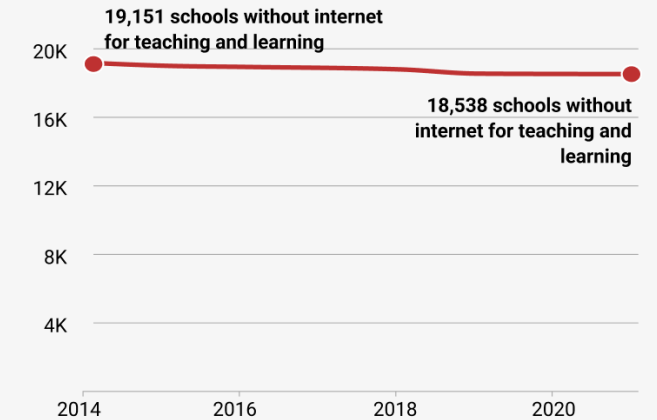
Source: NEIMS reports 2014 - 2021

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Despite gains in completion of secondary education, the schooling system is not preparing young people for the digital economy.....

Performance of TVET System

On average, only 4000 new enrolments in IT&CS qualification over 2016-2021 (6% of total enrolments in NCV qualifications)

Throughput between 2017 and 2019 in NCV IT&CS : 4%

On average, only 350 graduates from IT&CS qualification annually between 2016-2021 (3% of total graduates from NCV qualifications)

A key factor is poor preparation at secondary school level

Table 3: Throughput rate of NCV Level 2 students enrolled in TVET Colleges in 2017, by programme

Programme	Number enrolled (NCV 2,2017)	Number completed (NCV4, 2019)	Throughput rate (%)
1. Civil Engineering and Building Construction	4 384	291	6,6
2. Drawing Office Practice	90	4	4,4
3. Education and Development	1 416	301	21,3
4. Electrical Infrastructure and Construction	8 033	347	4,3
5. Engineering and Related Design	7 608	498	6,5
6. Finance, Economics and Accounting	3 897	366	9,4
7. Hospitality	3 964	473	11,9
8. Information Technology and Computer Science	3 538	143	4,0
9. Management	2 982	357	12,0
10. Marketing	2 858	210	7,3
11. Mechatronics	417	36	8,6
12. Office Administration	11 641	1 874	16,1
13. Primary Agriculture	1 822	238	13,1
14. Primary Health	340	61	17,9
15. Process Plant Operations	251	8	3,2
16. Safety in Society	2 249	291	12,9
17. Tourism	4 007	577	14,4
18. Transport and Logistics	1 548	253	16,3
Overall	61 045	6 328	10,4
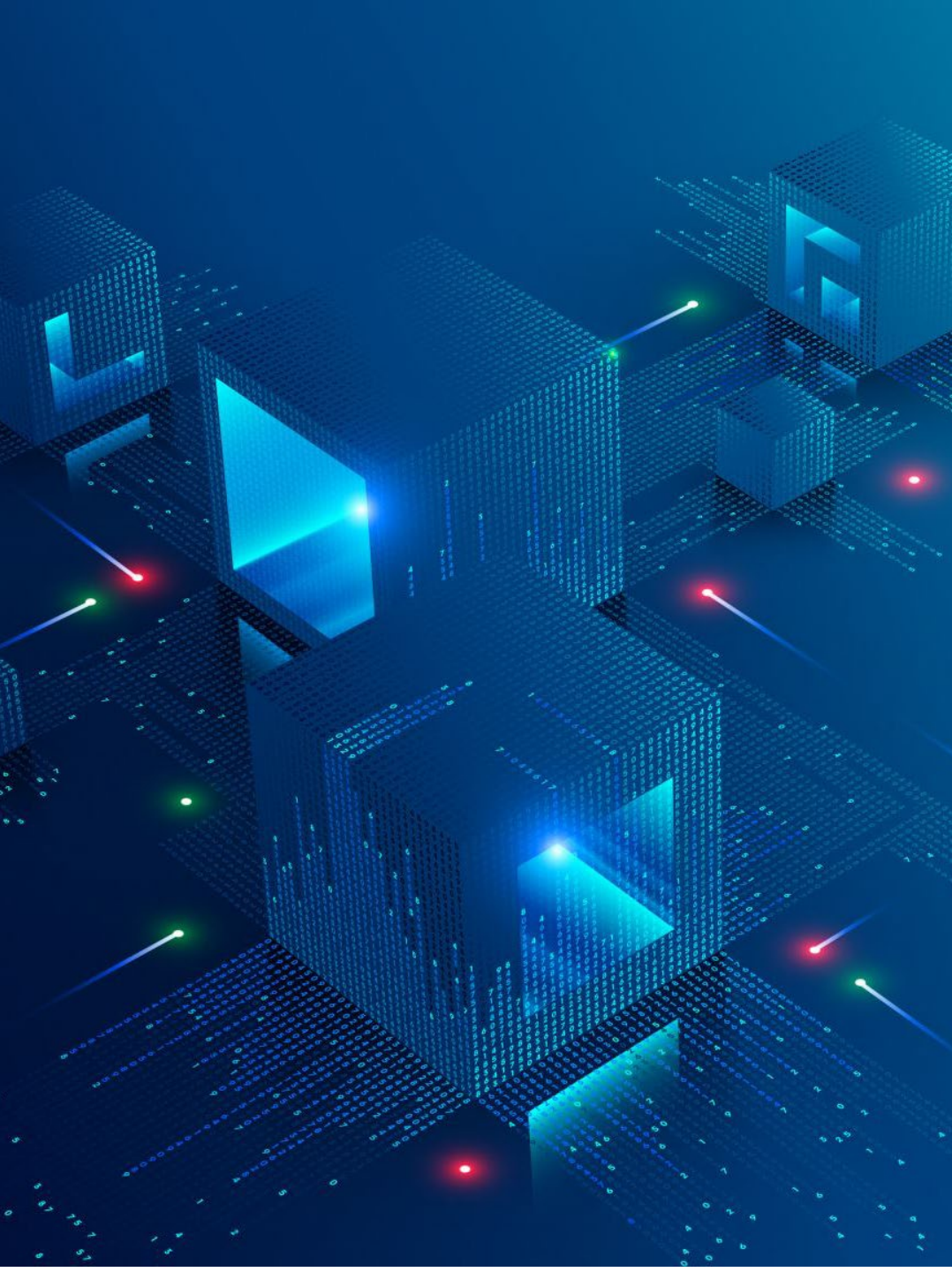
Repositioning the TVET system (aligned to government's digital and future skills strategy)

- Revised National Certificate (Vocational) Information Technology and Computer Science (NCV-IT&CS) curriculum, including introduction of a Robotics specialisation.

- Through partnership with the Cisco Networking Academy, the Life Orientation component of the qualification now covers latest ICT developments in areas such as Introduction to Internet of Things, and Introduction to Cybersecurity.

- Investment in upgrading and enhancing the qualifications of TVET lecturers, not only in the specific digitally-oriented programmes, but also in strengthening their digital pedagogical competency.

- Targeted campaign to recruit more students into the Information Technology and Computer Science fields, Mechatronics, and Engineering and Related Design qualifications.

- Introduction of recognized and accredited shorter skills programmes linked to demands of enterprises (SMEs and Large) and aligned to learning pathways

Achieving inclusive and just transition to the digital economy

- Balancing the opportunities emerging from the 4IR with the need to ensure inclusive digital skills at the lower end of spectrum (including increased access to STEAM subjects at school).

- Mobile technology represents the best solutions for scalable access to skills and careers, if combined with sound digital literacy.

- Developing skills in the numbers and at the levels they will be required can take several years and so it is critically important for all stakeholders to urgently address future skills needs.

- The future workforce in South Africa will have to be agile, adaptable and constantly learning.

- Intermediate digital skills also lend themselves strongly to entrepreneurial opportunities.

- This will have to be coupled with the deliberate investment of the private sector through inclusive hiring and workplace-based learning, including through the use of incentives and other labour market interventions.

THANK YOU!