



الجامعة السعودية الإلكترونية  
SAUDI ELECTRONIC UNIVERSITY  
2011-1432

**KSA - SAUDI ELECTRONIC UNIVERSITY (SEU)**

# **Economic Impact Assessment**

**October 2021**

PART

## EDUCATION

*Focus on the evolution of Saudi Arabia's tertiary education system in line with the Kingdom's long-term development agenda, and the role of SEU in supporting economic diversification by expanding educational inclusion through digital tools and the provision of lifelong learning opportunities.*

PART

## INNOVATION

*Spotlight on the innovation potential in Saudi Arabia's digital economy, and SEU's efforts to align degree programmes with evolving market needs while also developing specialised tech-focused business centres, as well as training courses and accelerators to capitalise on emerging digital opportunities.*

PART

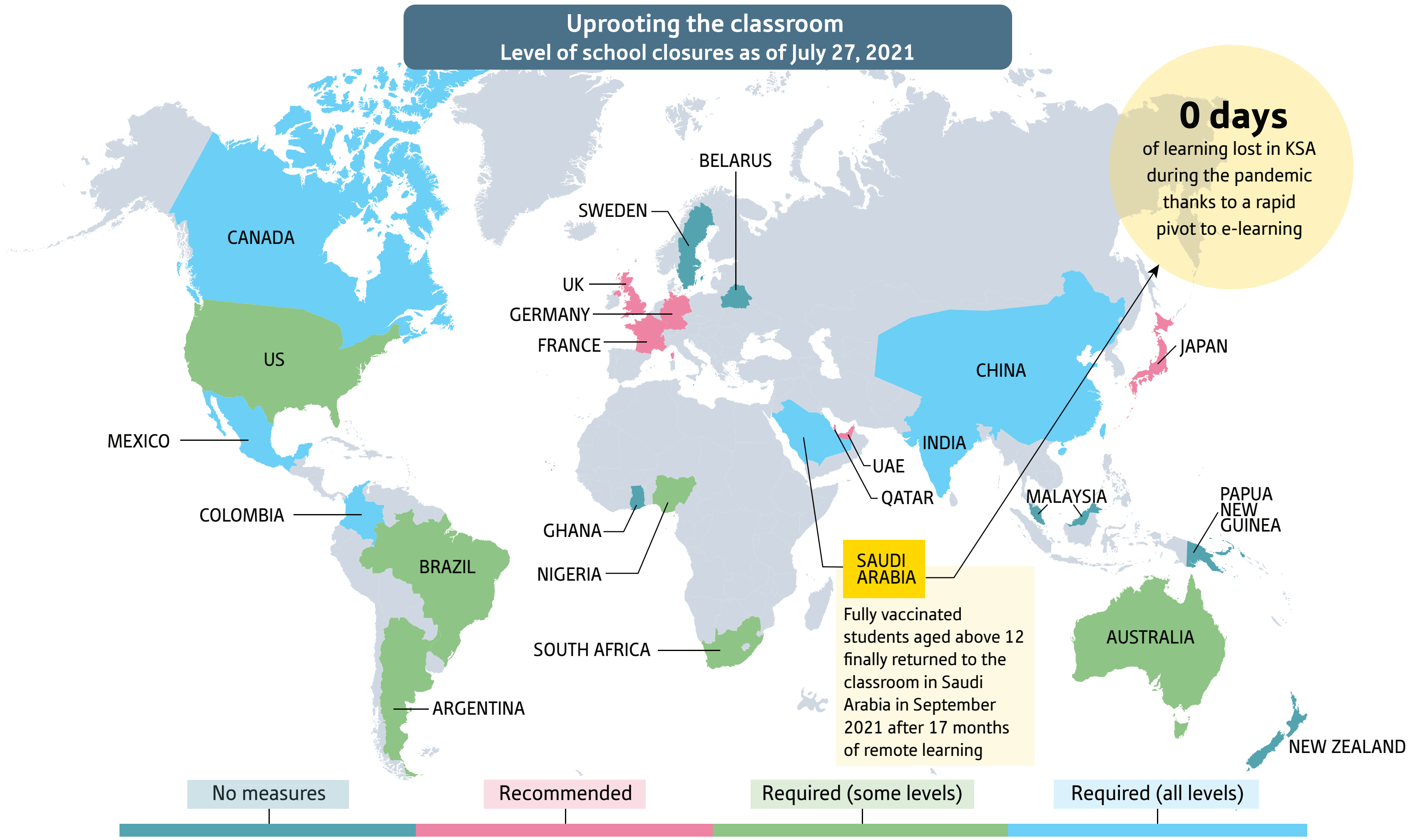
## ACCELERATION

*Analysis of the progress and challenges in reaching Saudi Arabia's long-term targets for human capital development and competitiveness, with a focus on areas with the potential to hasten economic development in the Kingdom, and the extent to which SEU can support this acceleration.*

# Has the pandemic permanently changed education provision?

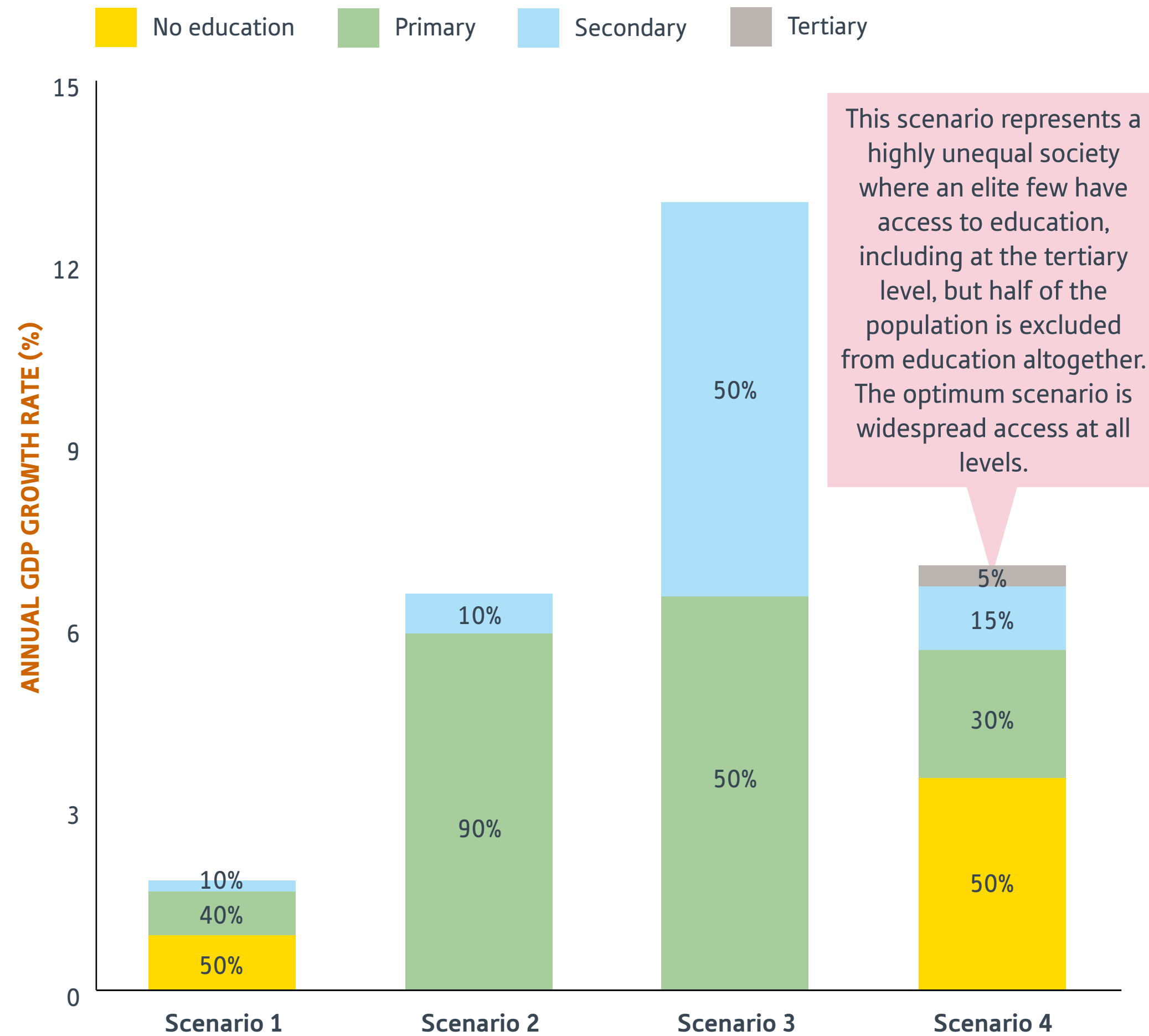
## Continuity challenge

The onset of the global pandemic occurred during a period of rapid digital transformation across the world. As policymakers imposed varying levels of restrictions on campus and classroom tuition in an effort to reduce transmission, educational institutions turned to remote learning and video conferencing tools to enable learning continuity. At the same time, the crisis presented the opportunity to reform outdated academic modalities and reach a broader range of students without geographical limitations. Over the long term educational technology (edtech) could prove to be the great democratizer of education, as costs can be driven down and access can be improved.



# Education is a key component of long-term development in emerging markets

Correlation between educational attainment and economic development



For every **\$1** spent on education, **\$10-15** can be generated in economic growth

If **75%** more 15-year-olds in 46 of the world's poorest countries reached the lowest OECD benchmark for maths, economic growth could improve by **2.1%** from its baseline and **104m** people could be lifted out of extreme poverty

On average, around **50%** of economic growth in OECD countries is related to labour income growth among the tertiary-educated population

## Education pays

Education is one of the primary drivers of long-term economic growth, but many developing economies have struggled to finance effective and accessible education systems. Research by the International Institute for Applied Systems Analysis demonstrates the clear link between expanding access to education and generating economic growth under four different scenarios for developing markets. In the past some resource-rich countries had economically compensated for underperforming education systems through energy revenues, but the continued depletion of hydrocarbon reserves and the global shift towards sustainability are underlining the need for economic diversification that is supported by an educated and productive workforce.

# National Vision 2030 seeks to transform the Saudi economy and generate new opportunities for citizens

## Vision 2030 in action

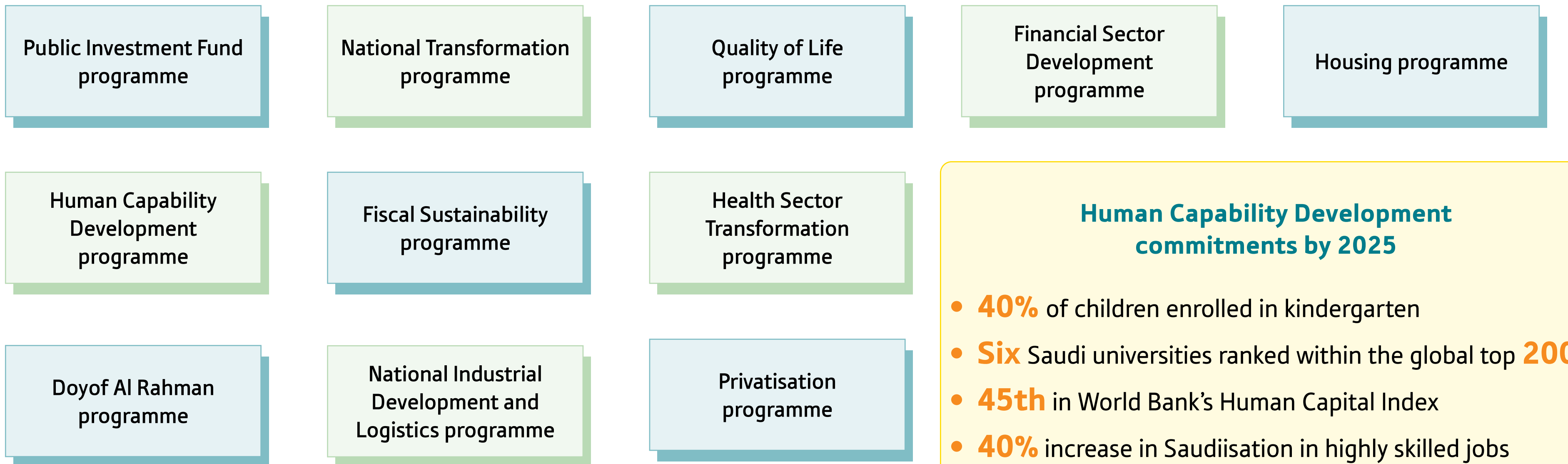


- Enhance government effectiveness
- Enable social responsibility

## Six overarching objectives

- Grow and diversify the economy
- Increase employment
- Strengthen Islamic and national identity
- Offer a fulfilling and healthy life

## 11 Vision Realisation Programmes (VRPs)



### Human Capability Development commitments by 2025

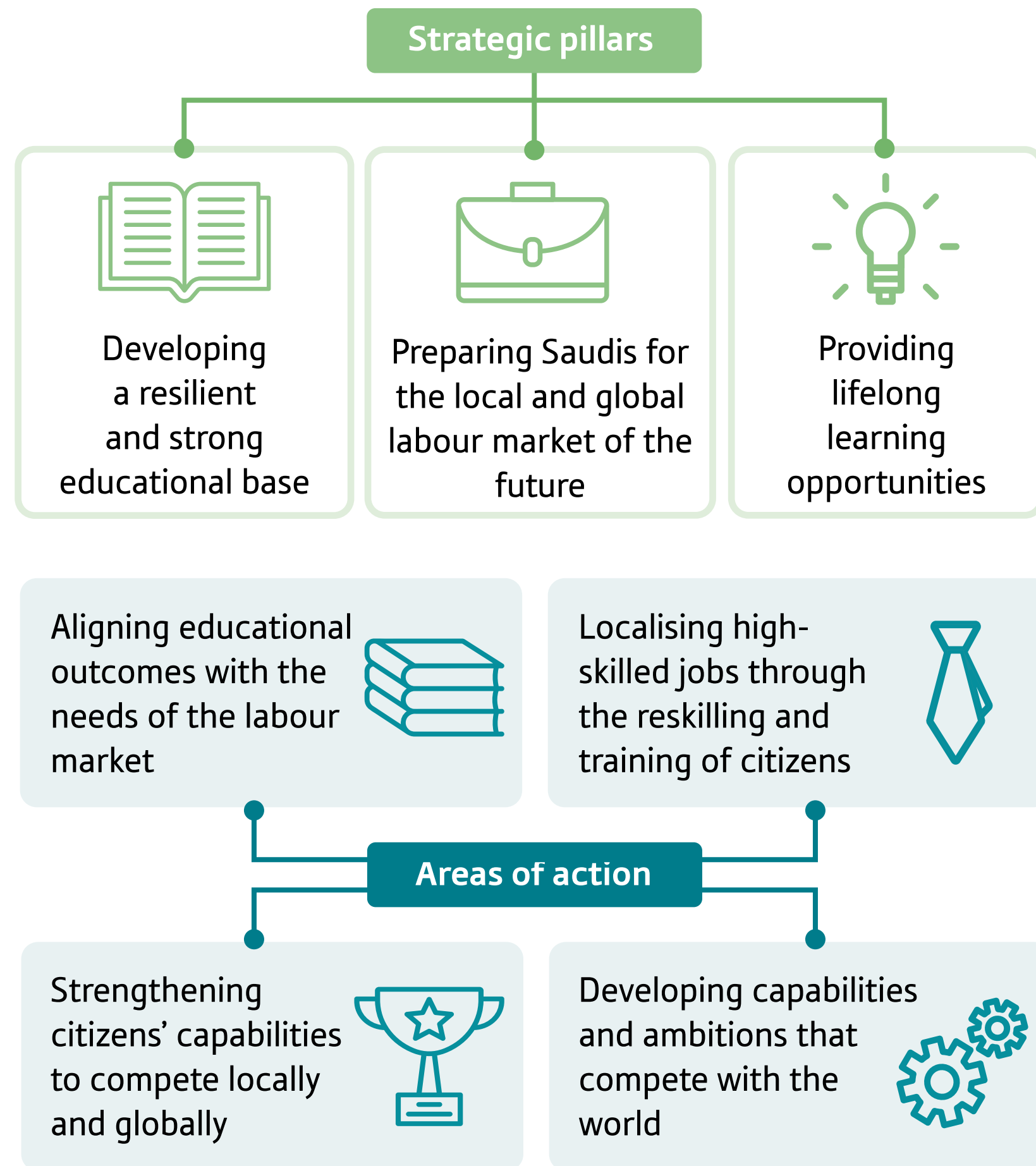
- **40%** of children enrolled in kindergarten
- **Six** Saudi universities ranked within the global top **200**
- **45th** in World Bank's Human Capital Index
- **40%** increase in Saudiisation in highly skilled jobs

## National priorities

Vision 2030 is the landmark national development initiative that was introduced in 2016 by the Saudi Arabian government, with the overarching goals of economic diversification, a reduction in the reliance on natural resources and a shift towards a more sustainable economic model. In order to achieve these goals, a series of vision-realisation programmes were developed, including the Human Capability Development Programme (HCDP). By prioritising education as a core part of the strategic framework, the government is attempting to ensure that the population has the knowledge and skills required in a future economy characterised by dynamism and innovation.

# Human capability advancement is the goal for the wide-ranging programme in support of Vision 2030

## Human Capability Development Programme (HCDP) 2021-25



## HCDP contribution to macroeconomic indicators

Indicator	Baseline (%)	2025 targets (%)
GDP	0.003	0.062
Contribution to local content	47	50
Non-oil GDP	0.006	0.104
Non-government investment	0.002	0.033
Private consumption	0.001	0.004

## Measuring success

HCDP key performance indicators		
	Baseline	2025 target
Number of Saudi students in top-200 universities in the world	4,069	10,000
Average score of the students in PISA assessment	399	454
% of adult population engaged in education and/or training	5	31
% of students with disabilities enrolled in educational institutions	1	20
% of higher education institutions accredited by the ETEC	23	65
% of private sector participation in spending on education	1.1	1.2
Return on investment in education per dollar spent on education	8.6	9

## Holistic approach

The HCDP includes 89 initiatives for the 2021-25 period that are designed to achieve 16 strategic objectives related to Vision 2030 in the areas of promoting cultural and education principles; developing basic and future skills; and acquiring the knowledge that Saudis need to compete in the global labour market. The programme covers kindergarten, schools, universities, and technical and vocational training institutes through initiatives for children, adolescents and adults. Ultimately the HCDP is designed to accelerate gains in human capital development across all social segments in line with the Kingdom's broader economic advancement ambitions.

## PART

**EDUCATION**

What role do public universities play in the wider tertiary education system?

How does KSA compare to other GCC countries in tertiary enrollment?

Are STEM subjects gaining prominence in Saudi higher education institutions?

To what extent was the Kingdom prepared for the widespread adoption of e-learning during the pandemic?

## PART

**INNOVATION**

Has the Kingdom developed an effective digital ecosystem?

Are Saudi students developing the skills needed in the digital economy?

In what ways is SEU supporting the process of national digital transformation?

What role do international partnerships play in SEU's digital transformation plans?

## PART

**ACCELERATION**

Is the Kingdom making sufficient progress towards long-term human capital development goals?

Can KSA establish a regional competitive advantage in AI?

What can be done to prevent automation displacing Saudi workers?

To what extent is SEU's strategy aligned with long-term national development plans?

# The realisation of Vision 2030 is dependent on an effective education system

## Core goals and objectives of Saudi educational strategy:

<p>Promote family participation in preparing for their children's future</p>	<p>Build an integrated educational journey</p>
<p>Provide equal access to education and lifelong learning opportunities</p>	<p>Improve basic educational outcomes</p>
<p>Ensure compatibility between educational outcomes and labour market needs</p>	<p>Enhance the ranking of educational institutions</p>
<p>Empower the private and non-profit sectors to improve financial efficiency in education</p>	<p>Raise the quality and effectiveness of scientific research and innovation</p>

## Priorities in the tertiary education field:

<p>Close the gap between the outputs of higher education and the requirements of the job market</p>	<p>Facilitate the transition of students between appropriate educational pathways</p>
<p>Assist students in making careful career decisions</p>	<p>Enable students to achieve results above international averages in global education indicators</p>

## To achieve these goals:

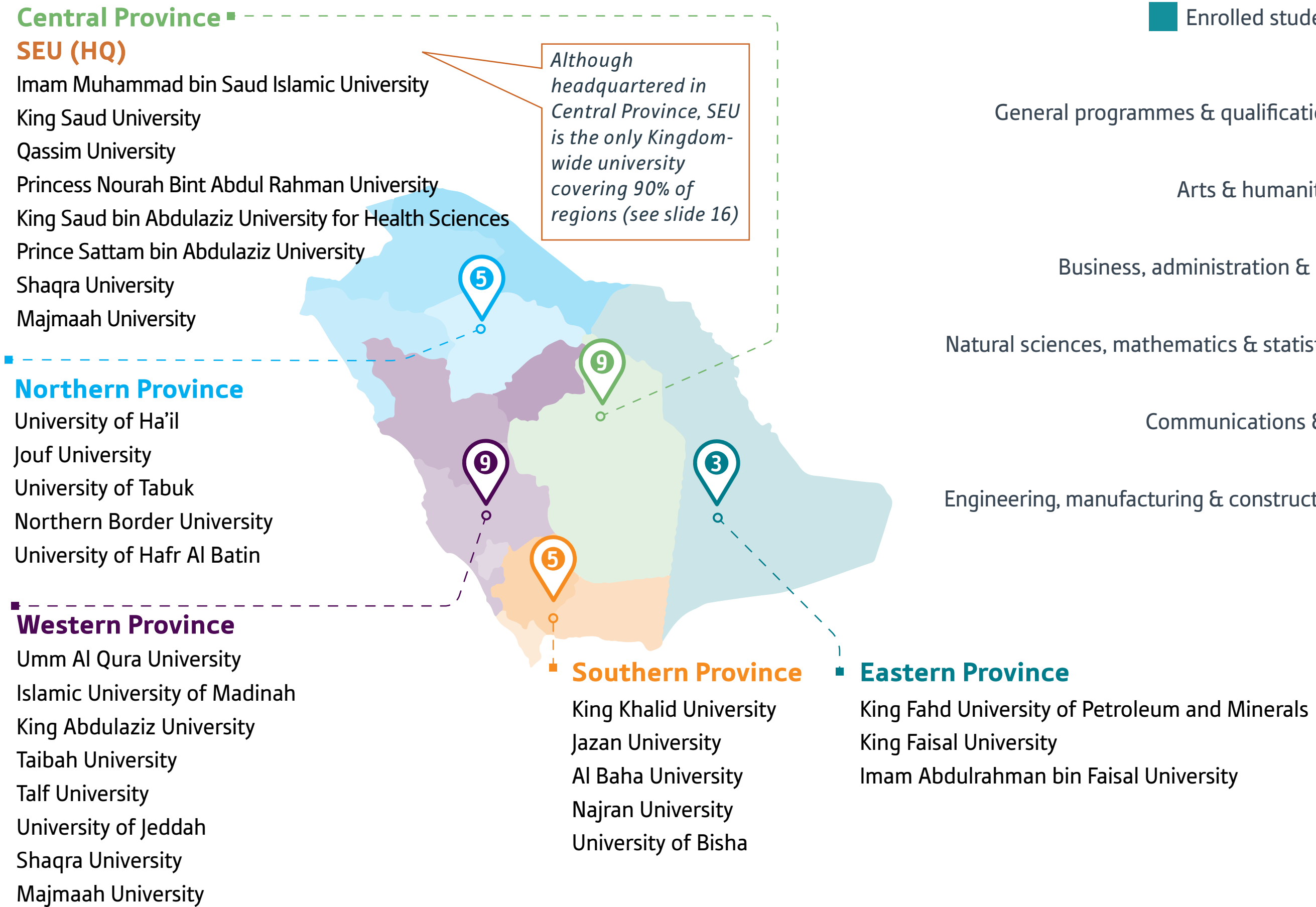
- Prepare a modern curriculum focused on rigorous standards in literacy, numeracy, skills and character development
- Track the progress of reforms and publish a sophisticated range of education outcomes showing year-on-year improvements
- Collaborate with the private sector to ensure higher education outcomes are in line with the requirements of job market
- Invest in strategic partnerships with apprenticeship providers, new skills councils from industry and large private companies
- Work towards the development of job specifications in every education field
- Build a centralised student database tracking students from early childhood through to K-12 and beyond in order to improve education planning, monitoring, evaluation and outcomes

## Learning revolution

Vision 2030 can only be realised if an effective educational system is in place that supports the growth of diverse, high-value industries and helps the Kingdom to capitalise on the potential of digital technologies and Industry 4.0. With this in mind, policymakers have reformed the country's core educational focus, with a special emphasis on the role of higher education in ensuring the domestic workforce is equipped for the demands of emerging industries. As such, tertiary programmes have been increasingly aligned with the requirements of private employers, with the goal of creating a more inclusive ecosystem that promotes technology entrepreneurship, creativity and excellence.

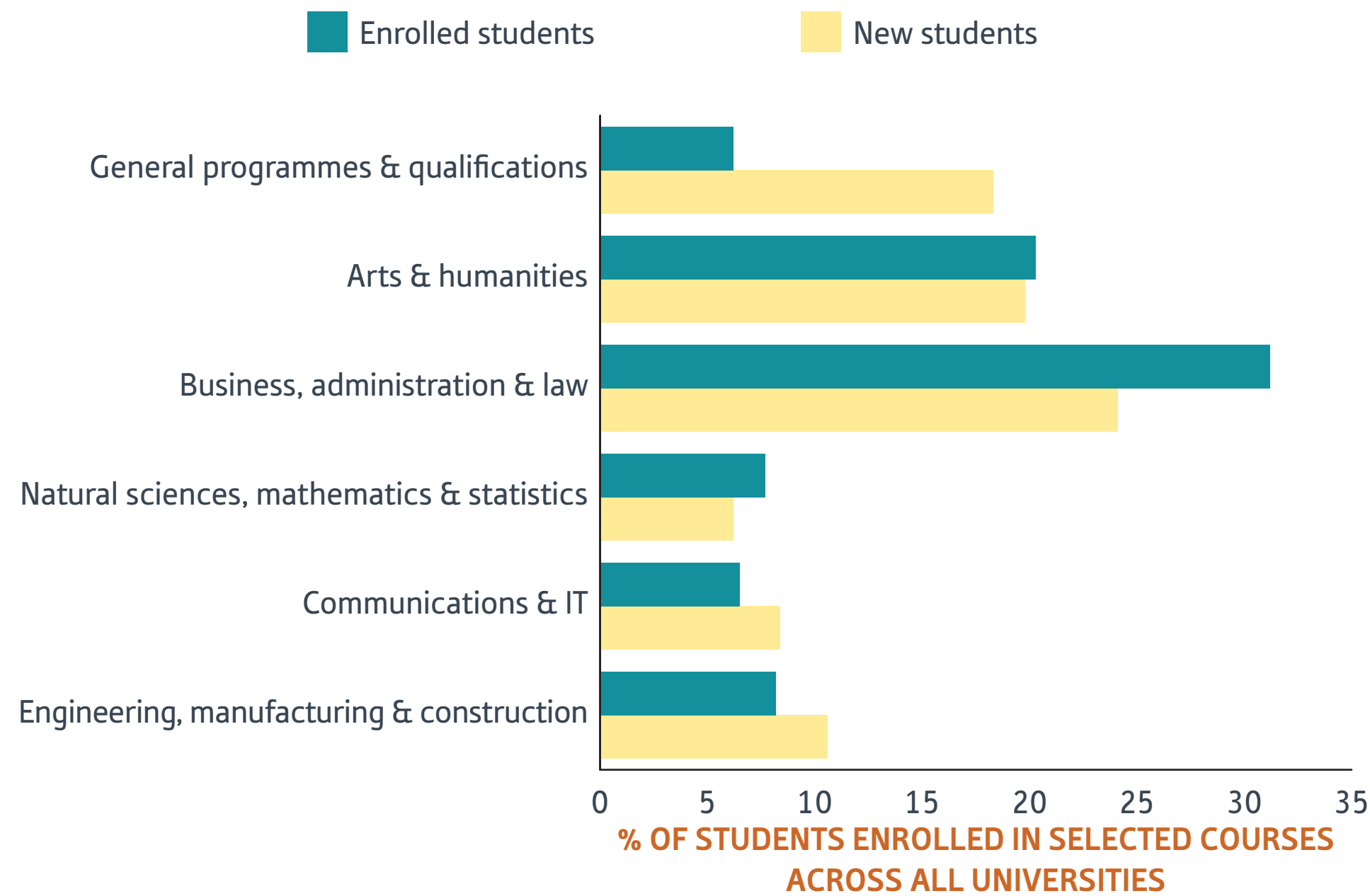
# Public universities remain central to KSA's higher education ecosystem

## Public universities and colleges are widely dispersed across the Kingdom



\*The MOE divides educational regions into five provinces, incorporating all local authorities falling within those boundaries

## Growing interest in ICT and engineering courses among new students



KSA has:  
**28 public** universities and colleges  
**34 private** universities and colleges



Public universities accounted for:  
**81%** of **enrolled students** in 2020 and  
**68%** of **new students** in that same year

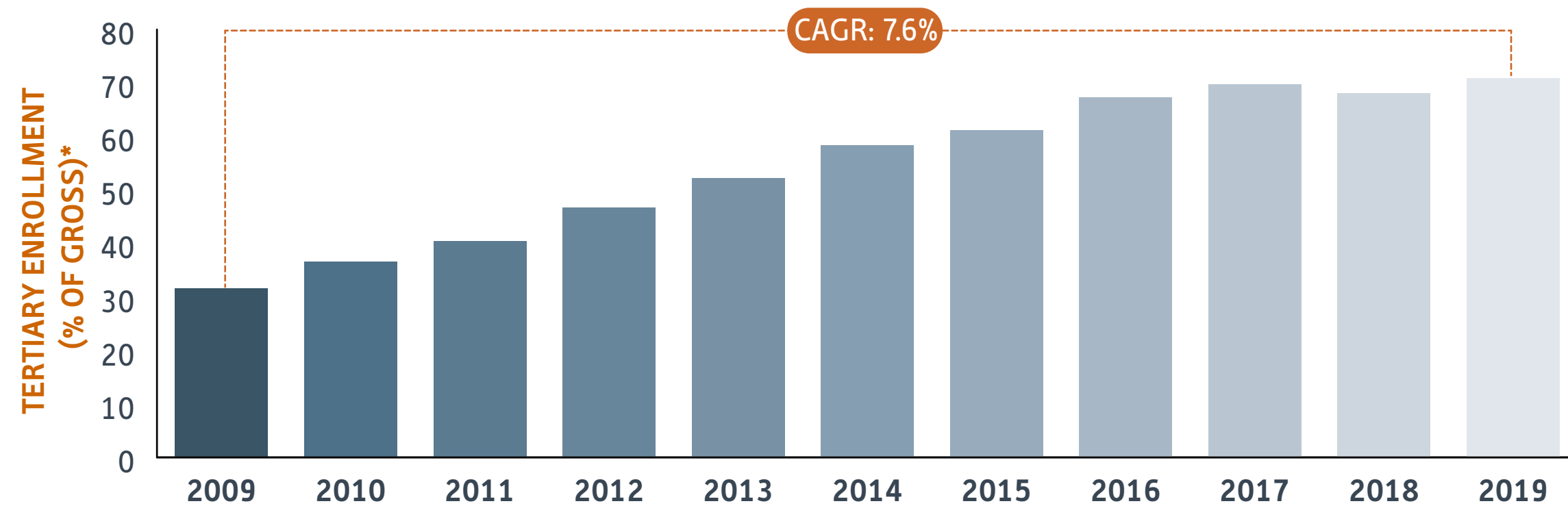


## Gradual shift

Although public universities still account for the majority of tertiary enrollments in the Kingdom, the role of private institutions and vocational centres is growing. In 2020 some 81% of total higher education students were enrolled in public universities and colleges, while 27% of new students chose technical and vocational education and training (TVET) institutes and other learning centres, indicating the growing alignment between student choices and industry needs. Arts and humanities, together with business, administration and law, remain the most popular choices for new students in the country, although recent data suggests they are losing popularity to programmes such as engineering and ICT.

# Progress snapshot: tertiary enrollment on the rise as women play a leading role

## Significant growth in tertiary enrollment over a decade



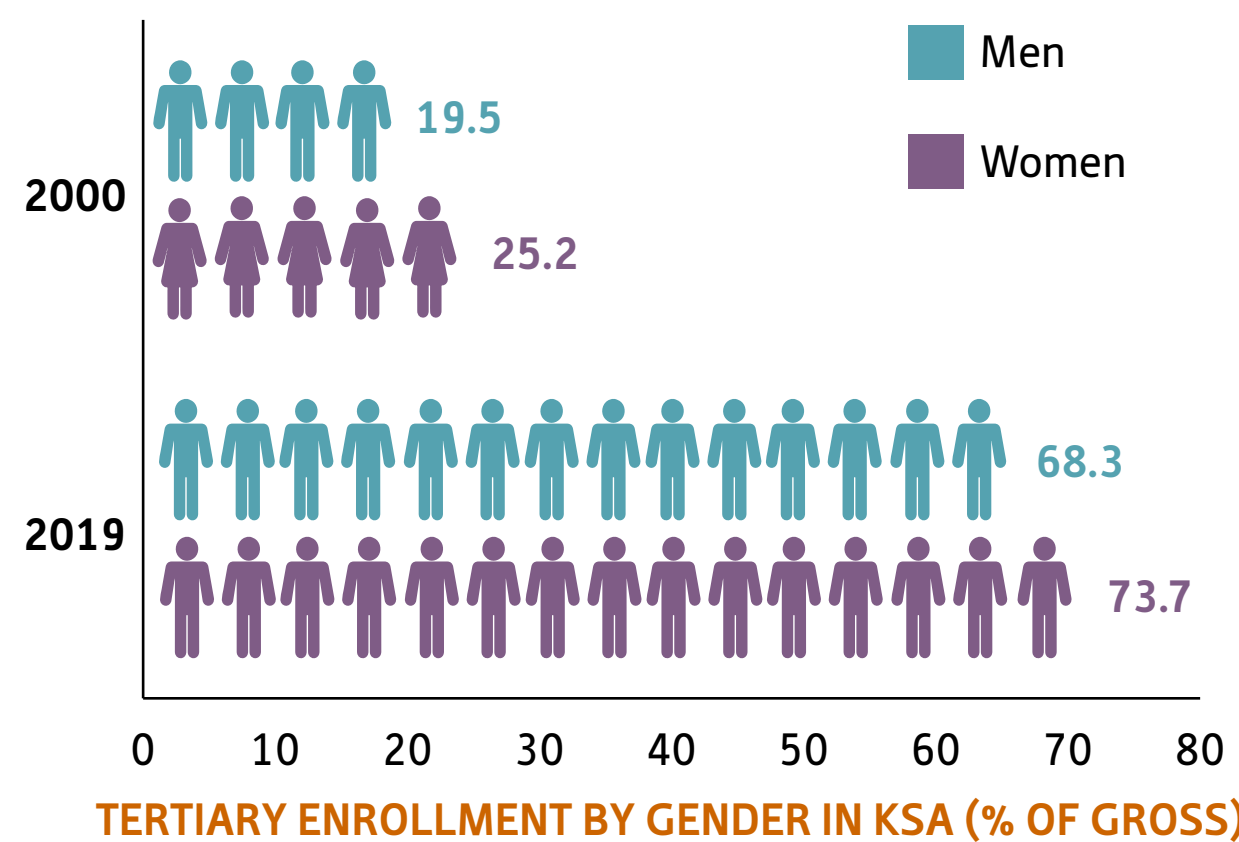
\* Calculated by dividing the number of students enrolled in tertiary education by the population of the age group which officially corresponds to tertiary education, and multiplying by 100

## KSA leads the GCC\* in enrollment

Country	Tertiary enrollment (% of gross), 2019
KSA	70.9
Bahrain	56
Kuwait	55
Oman	40
Qatar	19

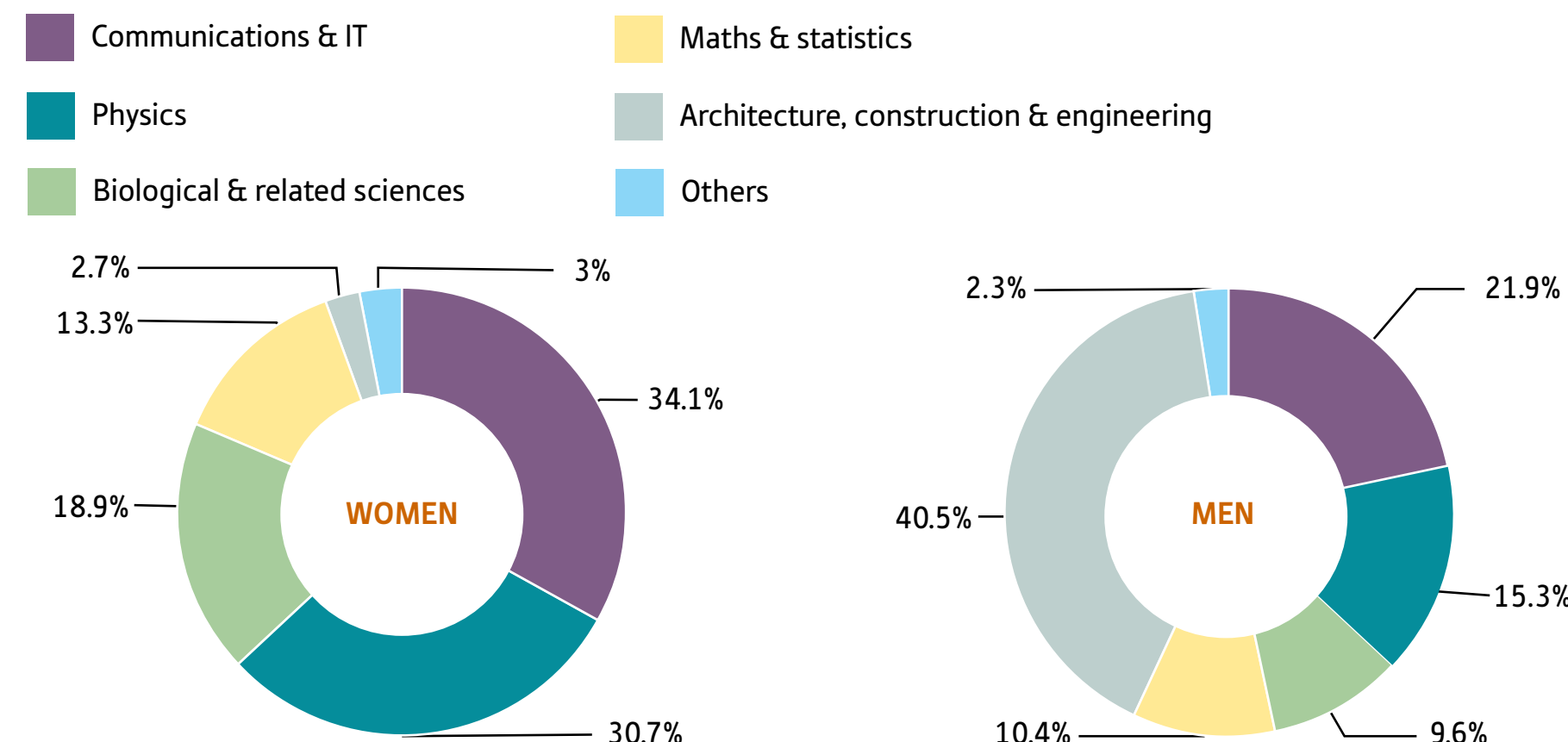
\* UAE 2019 data not available

## Female tertiary enrollment rate exceeds male enrollment



## Female students in KSA favour ICT and physics among STEM subjects

### Composition of STEM graduates in KSA by gender, 2018 (%)



## Educational expansion

The proportion of Saudis entering higher education has increased significantly in the past decade, with the Kingdom recording the highest gross enrollment rate in the GCC by a considerable margin in 2019. Although Saudi women are still underrepresented in the workplace – with only 41% of tertiary-educated women employed in 2019 compared to 94% of men – female students continue to outperform their male counterparts in enrollment terms. When looking at the choice of science, technology, engineering and mathematics (STEM) courses – deemed critical for the future labour market – Saudi women favoured ICT and physics, while a large proportion of men chose architecture, construction and engineering.

# What role does SEU play in the provision of online and lifelong learning in the Kingdom?

## New study programmes

- Master's in Data Science
- Master's in Translation Technology
- Master's in International Business Law
- Bachelor's in Data Science
- Bachelor's in Nursing
- Master's in Digital Marketing
- Executive Master's in Business Administration

## Graduate and undergraduate programmes offered by:

- College of Administrative and Financial Science
- College of Computing and Informatics
- College of Health Sciences
- College of Science and Theoretical Studies

## E-learning expertise

- 10 years of e-learning experience
- 2.2m users of SEU's digital infrastructure Kingdom-wide
- Responsible for operating the e-learning infrastructure for public higher education institutions
- 77 countries have access to SEU's online Arabic programme

## STRENGTHS

- University education provided to all social segments
- High-quality curricula and programmes
- Programmes matched with the **evolving needs** of the economy
- Positive educational outcomes
- First-mover and high level of expertise in **e-learning**
- Kingdom-wide branch network
- Lifelong learning opportunities
- **Academic partnerships**, particularly in delivering programmes

## OPPORTUNITIES

- Covid-19 has accelerated global trends towards blended learning
- Growing awareness of e-learning can expand educational inclusion and differentiation
- Increased demand for lifelong learning and reskilling
- Labour market needs are increasingly focused on technology
- Recent Universities Bylaw allows for regional expansion and autonomy in curricula setting and financial management
- Vision 2030 and VRPs promote educational progress

## Introducing Saudi Electronic University (SEU)

Public tertiary educational institute inaugurated in 2011, SEU is the only specialised university focused on e-learning and blended learning in the Kingdom. It offers undergraduate and post-graduates programmes, as well as lifelong learning

## CHALLENGES

- Insufficient acceptance of certification categorisation
- Enhanced competition from international universities

## Education ambitions

Established by Royal Decree in 2011, SEU is at the centre of the Kingdom's efforts to develop expertise in online and blended learning. The university offers graduate and undergraduate programmes through four colleges spread across 11 branches, with a target of 20 branches by 2025. Master's programmes are delivered in partnership with Colorado State University, and courses are aligned with national strategic priorities that are related to the generation of diverse growth engines, notably in tech-related industries. SEU also delivers lifelong learning opportunities that are supporting the knowledge economy and providing reskilling options in a rapidly evolving labour market.

**+35,000** students



**+800** faculty members



**+4000** graduates

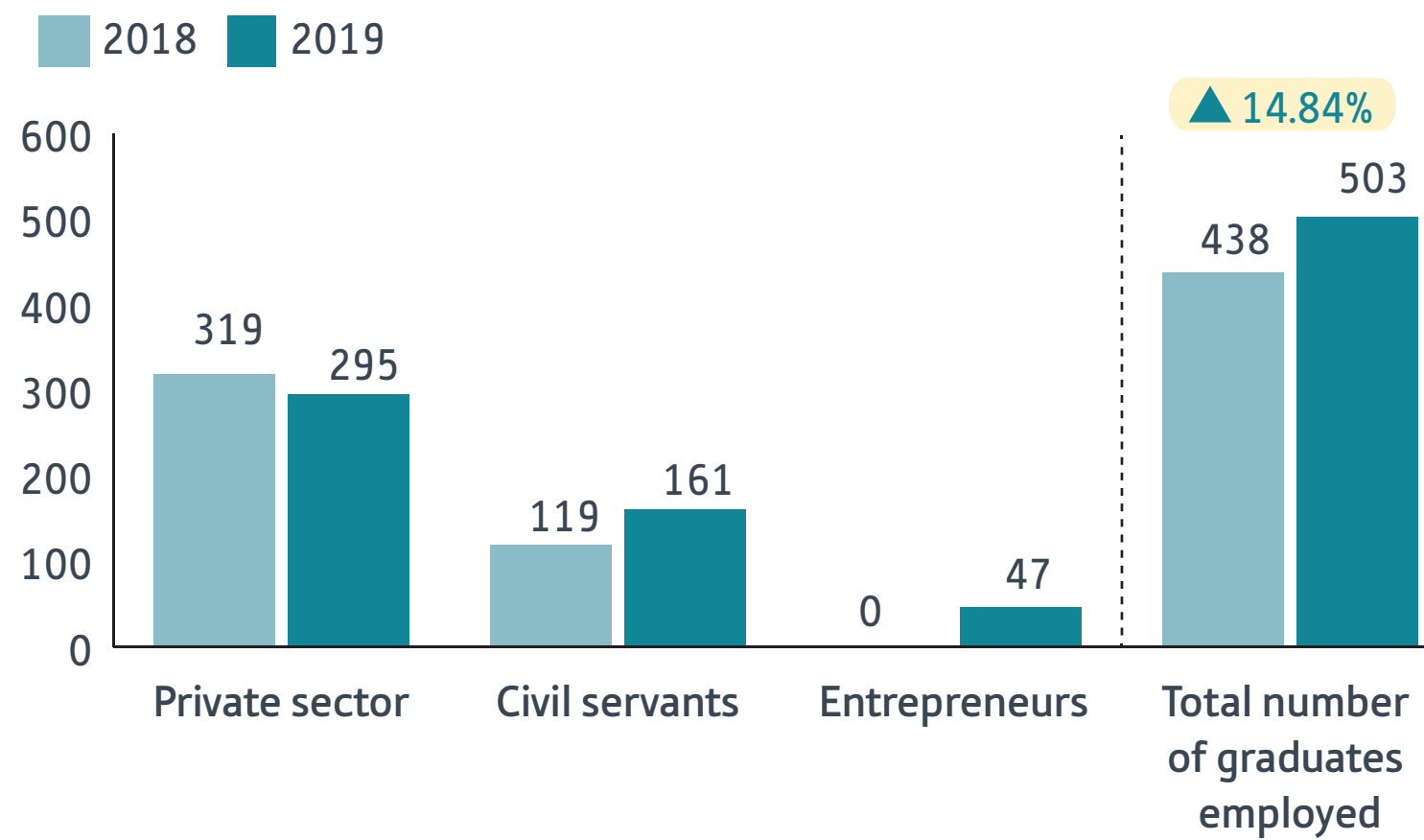


**+140,000** trainees

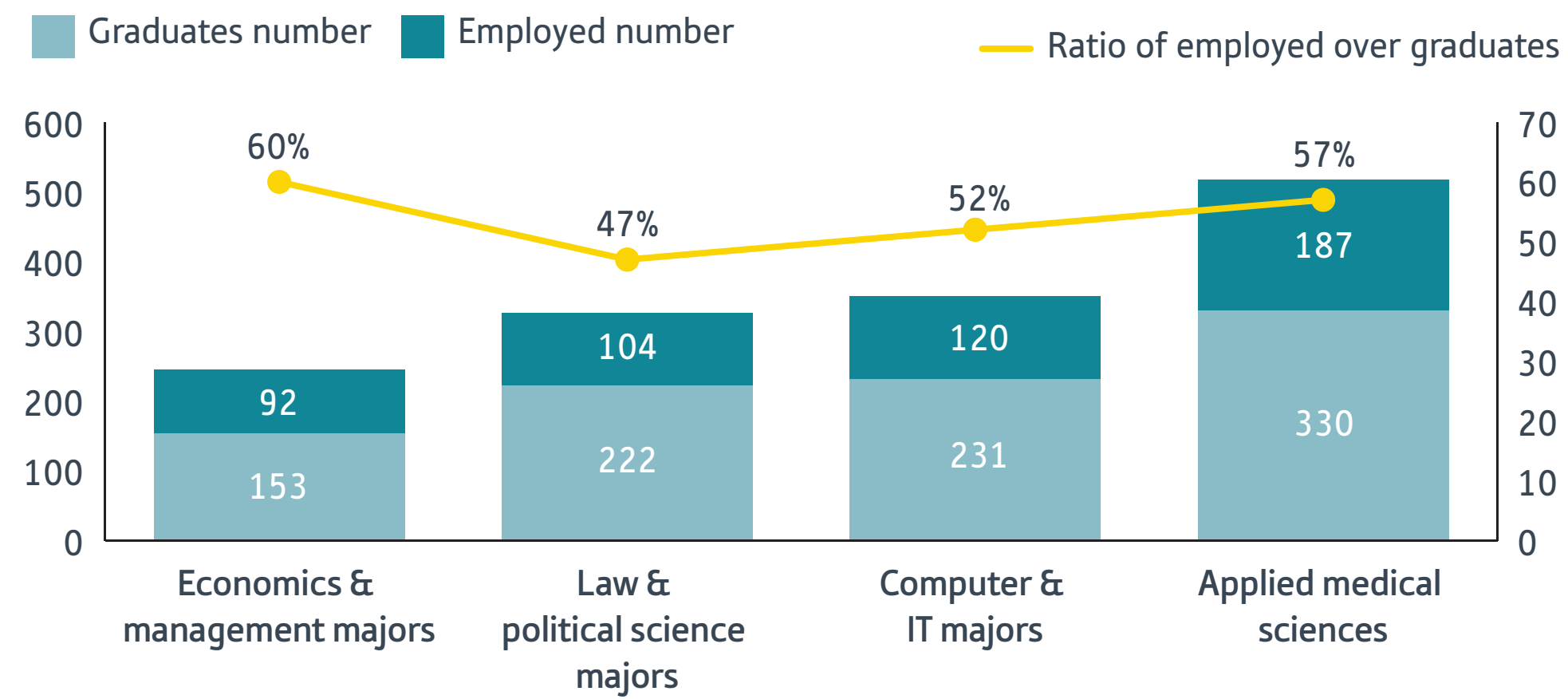


# SEU records growth in key employability and entrepreneurship indicators

SEU's number of employed graduates grew by almost 15%



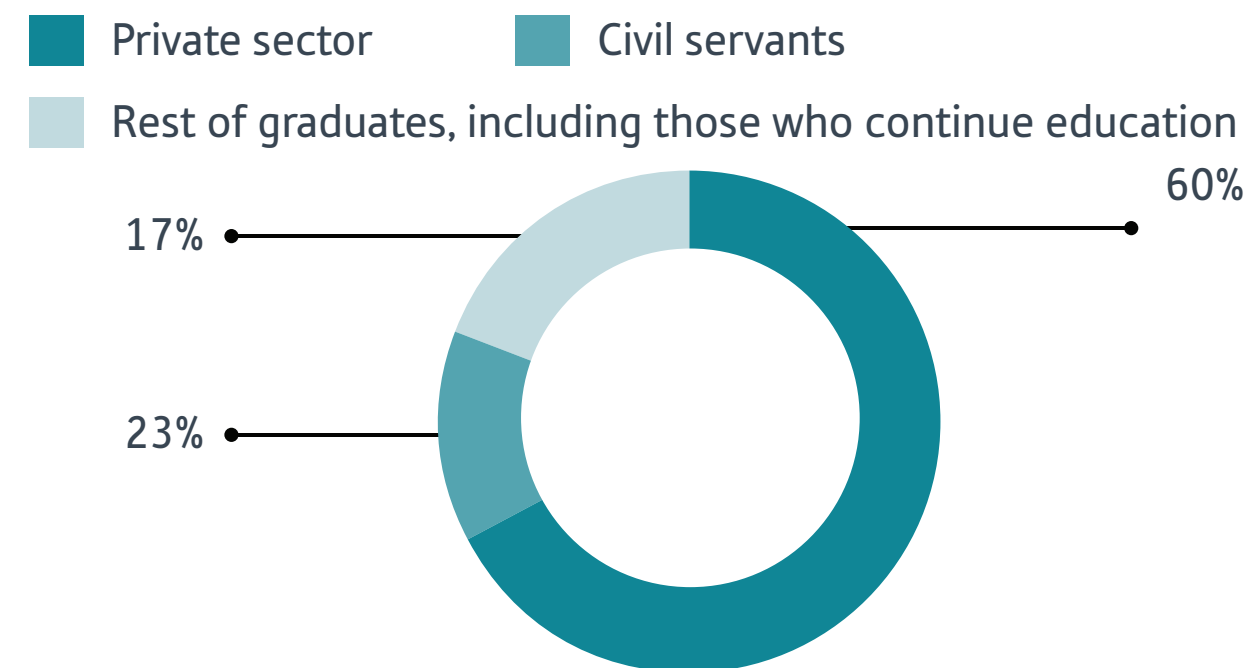
Applied health sciences specialisation recorded the highest employment rate



## Employment boost

SEU's development strategy features goals aligned with strategic aims of the national education system, such as the enhancement of career opportunities and promotion of entrepreneurship. A post-graduate employment rate of 83% was recorded in 2019, and the total number of graduates entering employment grew from 438 in 2018 to 503 the following year, most of which found work in the private sector. The faculty of economics and management records the highest number of both graduates and new employees. At the same time, the specialisation of applied medical sciences recorded the highest overall employment percentage.

SEU graduate employment rate exceeds 80%



## SEU initiatives to boost employability and job creation

### PROMOTE ENTREPRENEURSHIP

- Launch innovation in e-learning centre
- Provide entrepreneurship courses to students at the inter-preliminary level and business programmes
- Continuously review and develop the entrepreneurship courses following the latest international trends
- Develop entrepreneurship track in business programme
- Promote entrepreneurial and innovation culture among faculty members and students
- Provide access to pre-seed and venture capital funds
- Provide financial and logistical support to commercialise digital innovation and research
- Create awareness to increase the proportion of students participating in SEU accelerator and entrepreneurship programmes

### IMPROVE CAREER PROSPECTS

- Develop new interdisciplinary programmes as tracks for current programmes and integrate technology across disciplines
- Create a new graduate programme focusing on e-learning
- Promote periodical review, and revamp programmes and content to align with market demand over three semesters per year
- Mandate six-month internship programmes in all undergraduate programmes and create apprenticeship opportunities
- Activate student exchange programmes in collaboration with international universities to prepare graduates for global competitiveness
- Develop interoperable programmes and courses based on modularity (stackable) in alignment with NCeL guides
- Convert some courses into adaptive ones to promote personalised learning

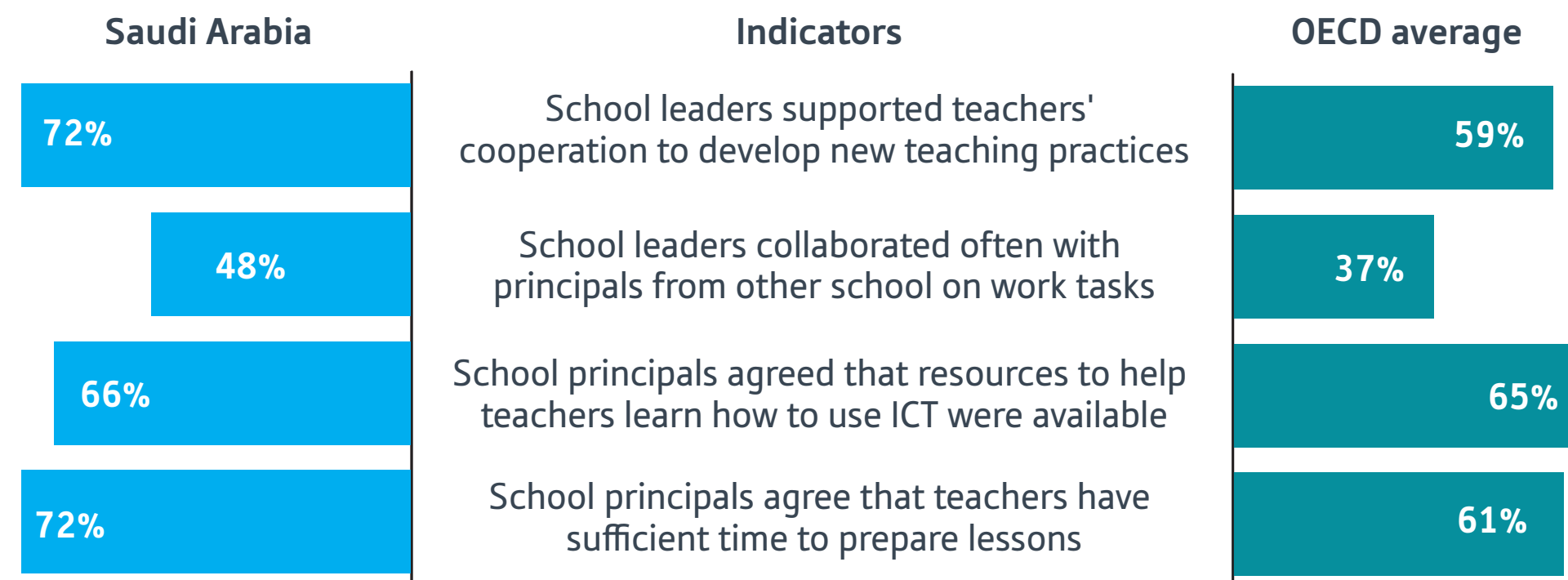
**83%**  
Graduate employment rate, male and female, in 2018



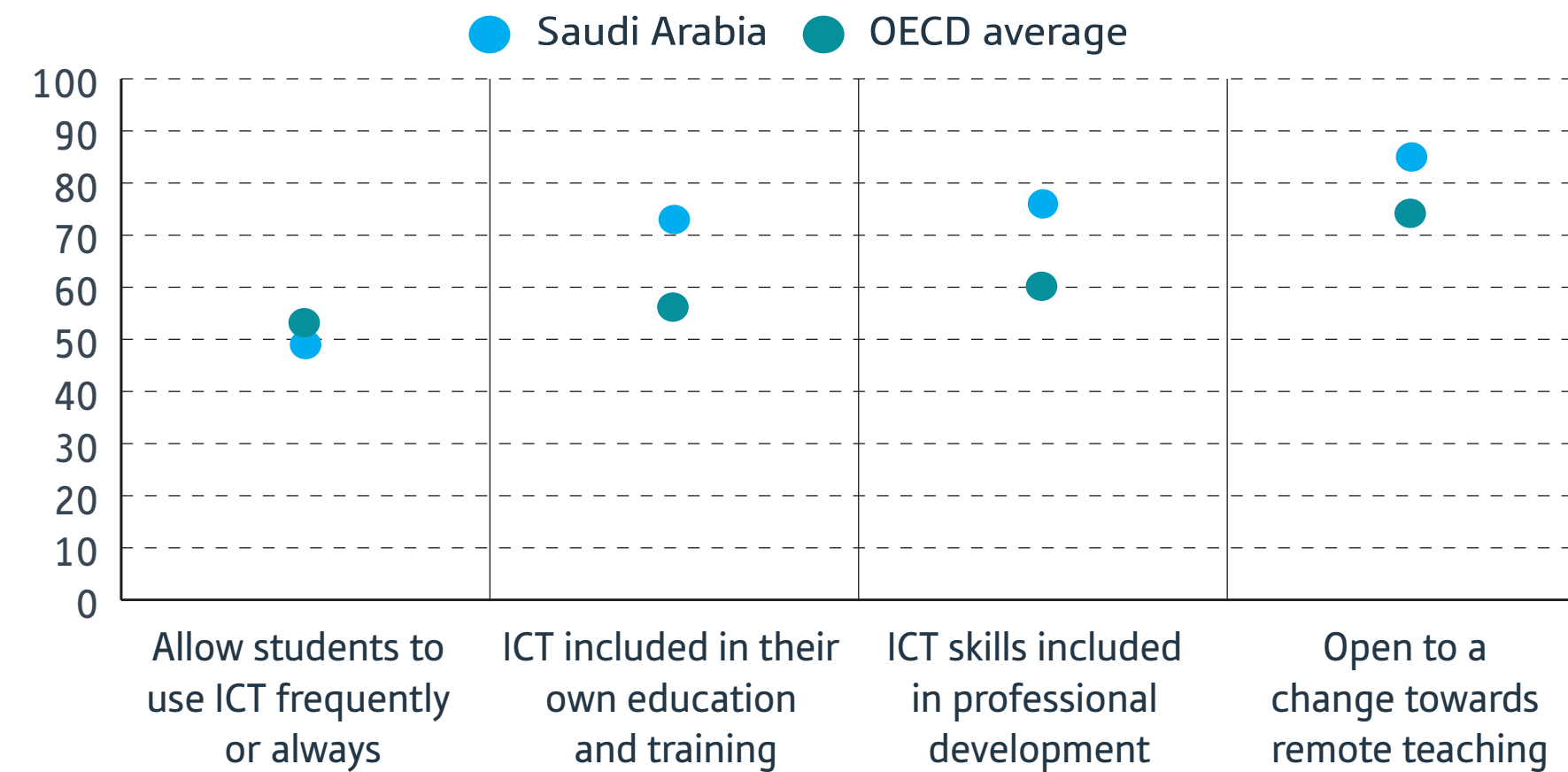
**936**  
Total number of graduates, male and female, in 2018

# Saudi Arabia was making good progress in reforming educational models prior to Covid-19

## School preparedness for ICT-based learning prior to Covid-19



## Teachers' preparedness for ICT-based learning prior to the pandemic



## Positive developments

Before the Covid-19 pandemic, Saudi school administrations were collaborating with teachers and other educational institutions to develop new learning models. Leaders of educational institutions were satisfied with the financial and human capital resources available to promote these reforms. Teachers were technically prepared to deal with the challenges related to the adoption of digital tools and students were confident in managing their own learning processes independently. Although the level of parental support for students in learning had room for improvement in Saudi Arabia, the country had developed a conducive environment for e-learning prior to the pandemic.

## Highlights of modernisation efforts prior to Covid-19

### Roll out of edtech infrastructure across learning institutions

In 2017 the Ministry of Education launched the Future Gate initiative to promote the installation and use of digital learning tools in the classroom. One of its projects is the National Education Portal (iEN), a virtual classroom to connect teachers and students across the Kingdom

### Establishment of National Center for E-Learning (NCeL)

Founded in 2017 to enhance trust in e-learning programmes, enhance innovation in the digital transformation of learning, and enable integration among educational institutions and employers

### Development of online learning standards for public education

As part of its mandate, the NCeL was tasked with developing regulations and quality standards for the use of e-learning in schools and public education institutions, in line with the best international standards. The standards were issued in 2020

### Role of SEU in national e-learning ecosystem

- National source of expertise in e-learning
- Responsible for transferring technology and best practices in e-learning
- Manages the digital infrastructure for e-learning used in all public higher education institutions
- Stimulates and accelerates innovation in e-learning technologies and applications
- Enables the expansion of educational inclusion across the Kingdom through e-learning solutions

# The educational response to the pandemic in KSA was collaborative and effective

## Main features of the Saudi distance learning response during Covid-19

Thanks to advanced planning and robust infrastructure, Saudi Arabia switched to remote teaching within 24 hours of the ministerial decision to close schools

Saudi educational response was characterised by the highly collaborative nature of actions, from schools to parents and communities

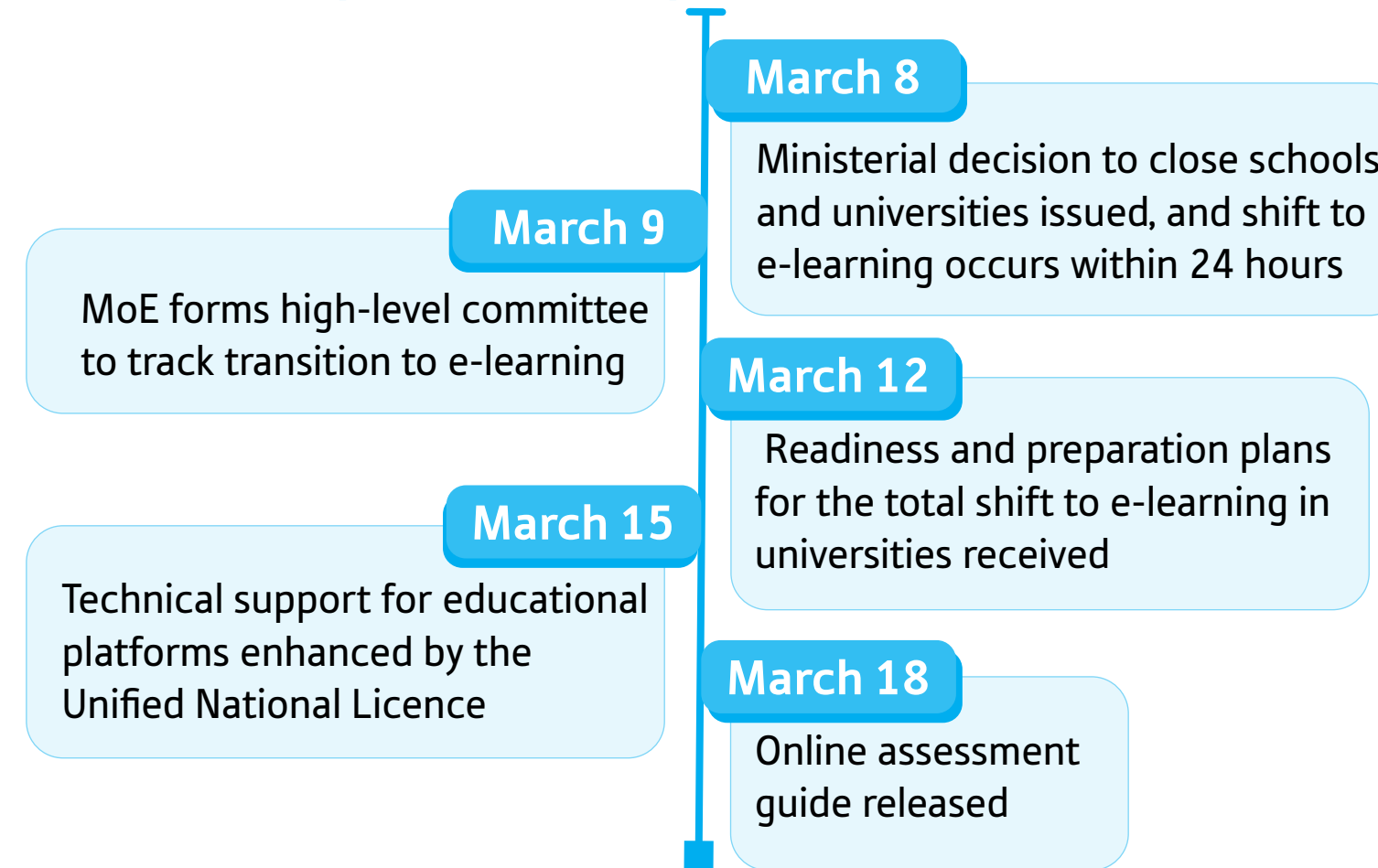
When asked how effective their strategy for education continuity was, Saudi responses are among the most positive in the OECD

Saudi Arabia provided teachers with funds to undertake professional development courses as part of the response to the pandemic

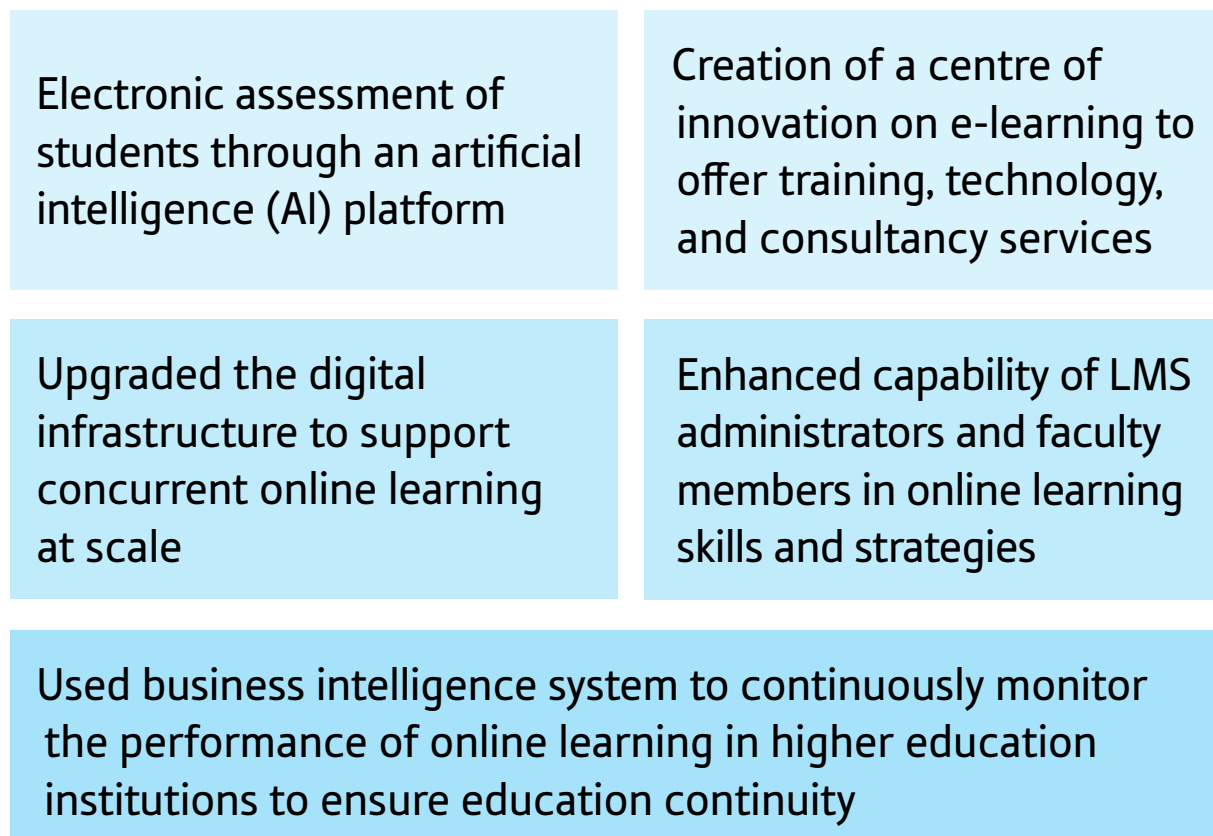
The highly collaborative approach that characterised Saudi's educational response also determined school re-openings

In tertiary education, SEU and the National Centre for E-Learning created plans for the total transformation to distance learning in Saudi universities. Those plans were adopted after rigorous reviews by specialised committees

## Initial pandemic response timeline in 2020



## SEU initiatives during the pandemic period



### Academics

Embrace the potential of e-learning to improve teaching outcomes and engage with students in new and effective ways

### Learners

Increased learning flexibility requires self-management and a lifelong learning approach

### Employers

E-learning is key to developing employees' skills and growth mindset

### Businesses

Recognise that the Middle East is the fastest-growing market for e-learning



### Governments

Move university accreditation to being outcome based, and foster a culture of digital teaching and learning

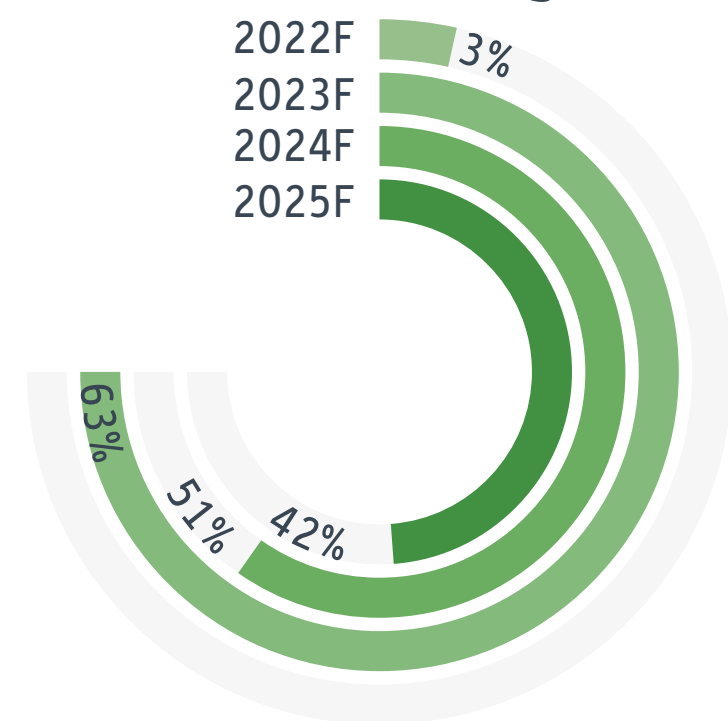
### Higher education institutions

Consider e-learning as a means to scale and improve quality of outcomes and operational efficiency

# How does SEU's lifelong learning approach make skills development more accessible and inclusive?

Expected revenue growth from SEU's lifelong learning service  
Annual growth (%)

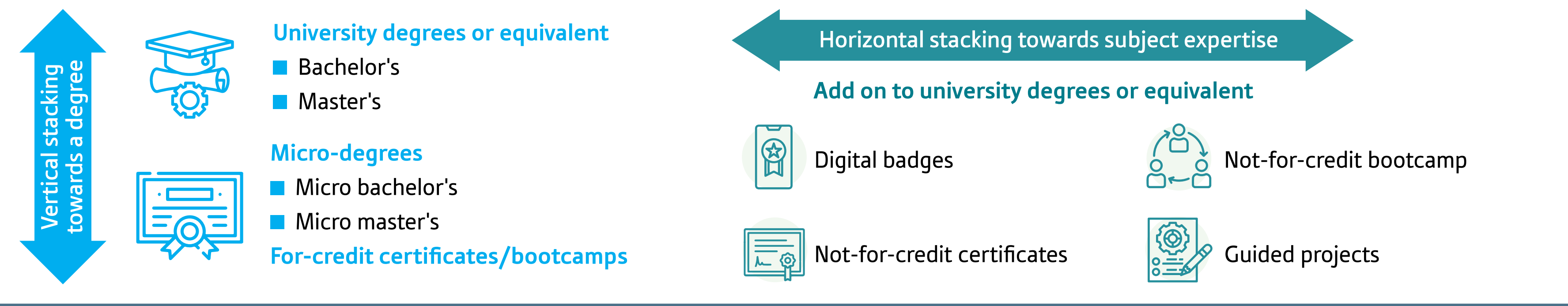
Lifelong learning revenue projected to record a CAGR of **92%** in 2021-25 period



## SEU's targets for lifelong learning

- Provide education services to a wide range of ages, backgrounds and career paths
- Increase demand for lifelong learning
- Increase lifelong learners from 2000 to 45,000 by 2025
- Promote community development by providing lifelong learning programmes in focus areas

## Stackable and add-on credentials encouraging lifelong learning



## Implementation strategies by SEU for lifelong learning

- Mixed-learning approaches to promote self-learning and peer-learning through flipped classrooms and collaborative exercises
- Redesigning programmes to become continuous, stackable and recognised modules to support lifelong learning

## Expanding options

As workplace skill requirements continue to evolve in the 21st century, SEU aims to cultivate a learning ecosystem that extends beyond the formal classroom. By increasing its lifelong learning offering to individuals and institutions alike, SEU will be contributing to the HCDP and fulfilling a key aspect of Vision 2030 – to provide digital upskilling and lifelong learning services to all Saudi citizens – as well as aiding diversification by helping citizens acquire qualifications relevant to emerging industries. Lifelong learning will make educational opportunities more accessible to Saudis through programmes linked to career enhancement.

# What does the expansion of SEU's branch network mean for educational inclusion?

## Growth in Saudi branch network

9 branches in 2020	11 branches in 2021	20 branches by 2025
Riyadh (HQ), Dammam, Jeddah, Madinah, Qassim, Alahsa, Tabuk, Abha and Jazan	Opening of branches in Najran and Hail	Expand to all regions of KSA

## Benefits of expansion

- Facilitates SEU's goal of expanding educational inclusion across the Kingdom
- Strengthens SEU's engagement with local communities
- Expands SEU's potential to foster a Kingdom-wide culture of innovation and tech entrepreneurship
- Allows SEU to provide programmes and initiatives aligned with local development plans
- Enables SEU to better address local skill shortages
- Empowers SEU to respond to sudden shifts in local labour markets with targeted initiatives
- Improves economies of scale

## Kingdom-wide inclusion

One of the key components of SEU's development strategy is the expansion of its Saudi branch network, from nine in 2020 to 20 by 2025. Despite the disruption of the Covid-19 pandemic, the university proceeded to open two new branches in 2021 – in Najran and Hail – and was on track to have a Kingdom-wide branch network within the next four years. A growing branch network is fundamental to a number of the university's strategic aims, enabling it to extend educational opportunities to a broader segment of society while improving economies of scale and better addressing localised skills and educational challenges.

## Regional and global ambitions

Aim to establish at least **1 MENA branch beyond KSA**

**Boost global Arabic online learners** from 22,000 to 10m

**Gain inclusion** in global university indices

PART



## EDUCATION

81% of tertiary students are enrolled at public universities, although vocational centres are gaining prominence

KSA has the highest tertiary enrollment rate in the GCC, with a higher proportion of female students than male

Among STEM students, female students favour ICT and physics while male students prefer engineering and construction

KSA had developed a conducive e-learning environment pre-Covid-19, with educators accustomed to ICT-based teaching

PART



## INNOVATION

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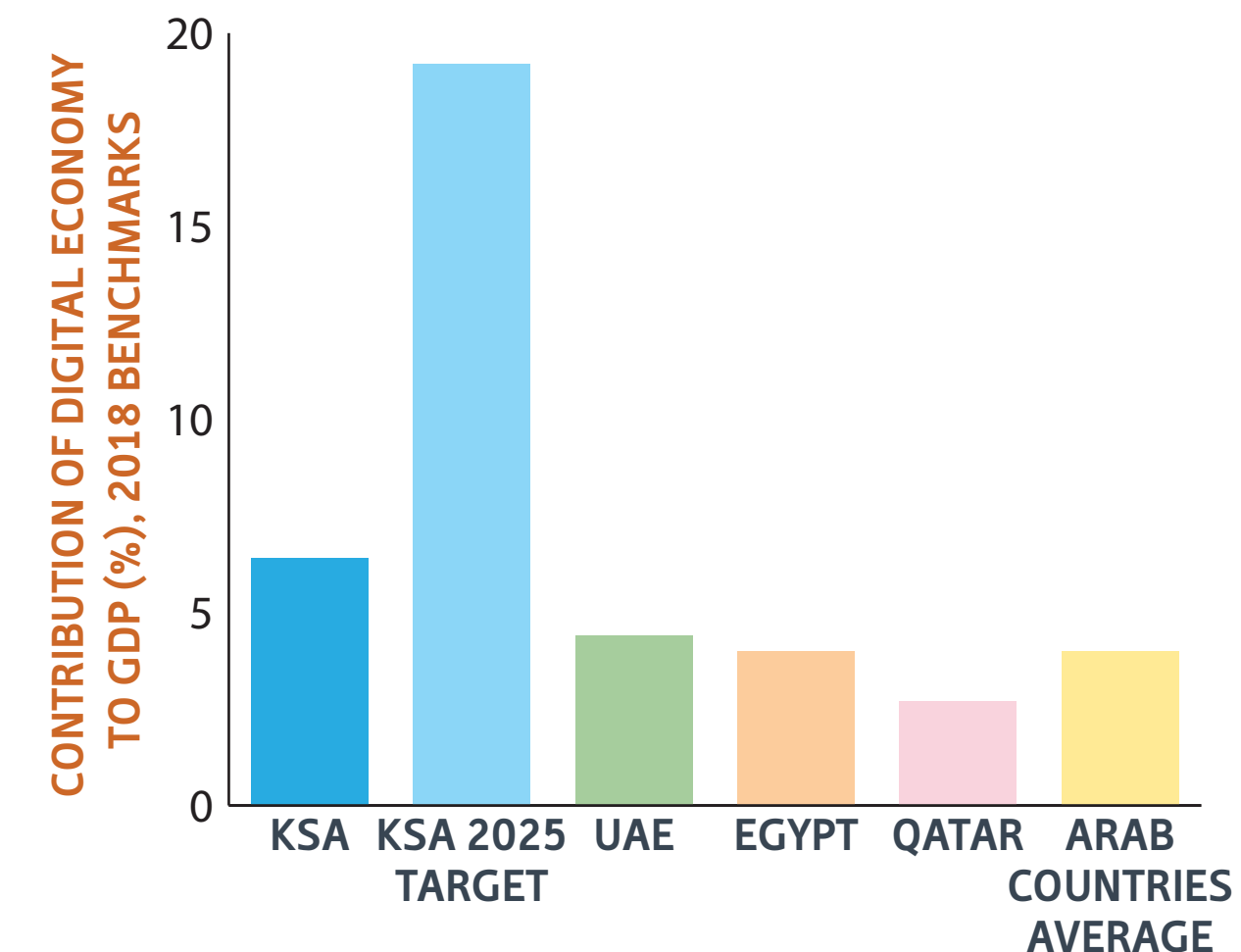
# Growth in the digital economy is vital for national transformation

## National digital transformation agenda

Key stakeholders	
<b>National Digital Transformation Unit</b>	Established in 2017 to accelerate and coordinate digital transformation efforts
<b>Ministry of Communications and Information Technology</b>	Sets and monitors development plans for the ICT sector
<b>Communications and Information Technology Commission</b>	Regulates the ICT sector
<b>Saudi Data and AI Authority</b>	Core mandate to create a data-driven and AI-supported government and economy
<b>Digital Government Authority</b>	Develops and enhances national capacity in e-governance

Oversaw the formulation and 2020 launch of the national Digital Economy Policy based on seven pillars: access, technology, innovation, human capital, social prosperity, inclusion, digital confidence and open market.

## KSA has the largest digital economy in the Arab world



## Digital-first approach

Saudi Arabia is taking a holistic approach to national digital transformation. The government is attempting to lead by example by digitising information and digitalising services across all ministries and departments in an effort to streamline processes and enhance efficiencies. By doing so, the government can reduce productivity losses elsewhere in the economy that result from cumbersome analogue practices, while also encouraging a digital-first approach across society. In the area of education, the digital transformation process is helping to expand access to education at all levels, as well as providing educators with new tools to engage students and raise standards.

## Technology-enabled mega-projects under development

- NEOM**  
Futuristic smart city powered by smart and sustainable technologies
- Qiddiya**  
An innovative, multipurpose entertainment destination in Riyadh
- Red Sea Project**  
Vast leisure and tourism development plan on the Red Sea coast

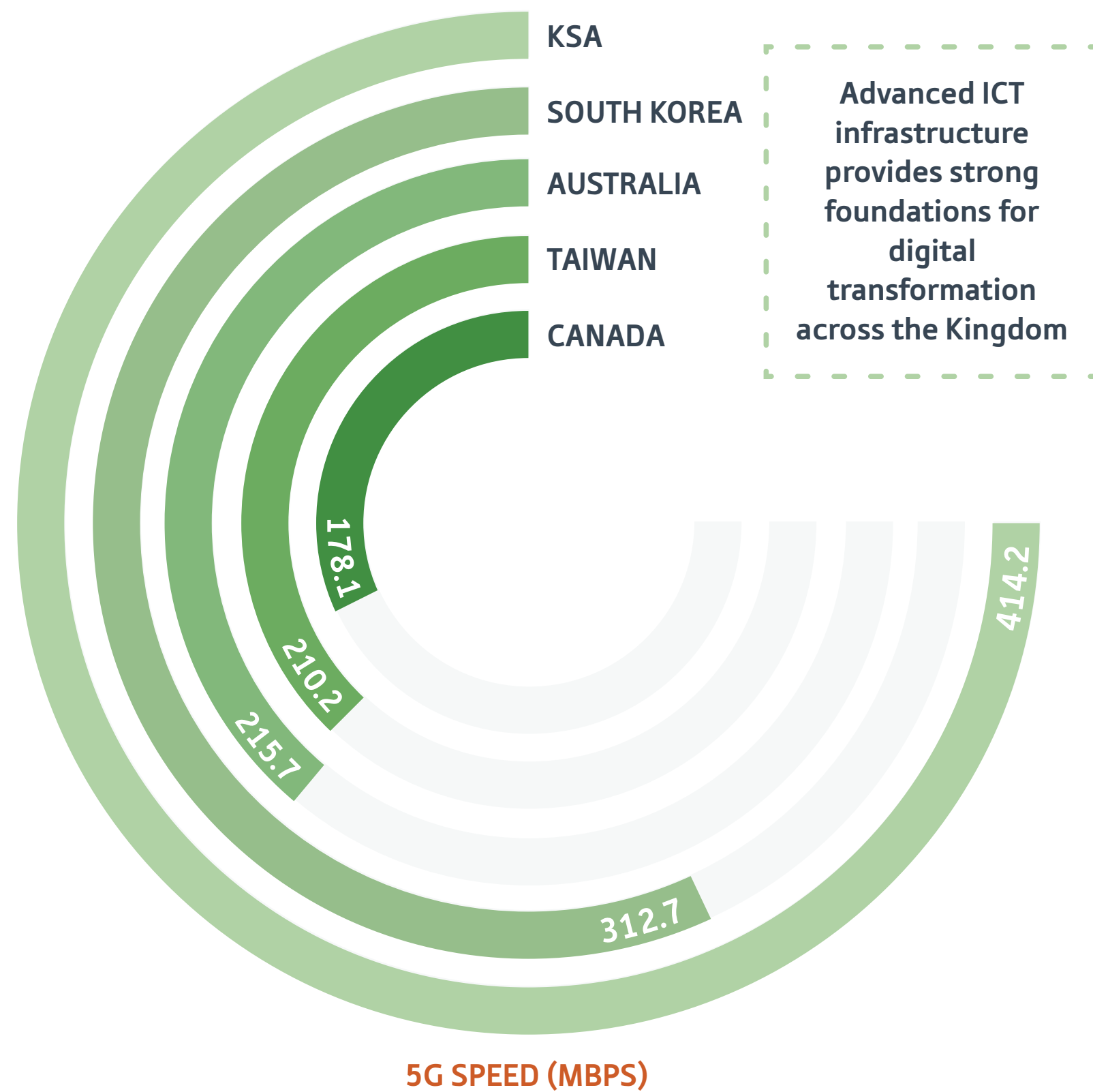
## Digital transformation in education

### Ministry of Education initiatives:

<b>Madrasiti platform</b> Launched as the new platform for e-learning in the 2020-21 academic year	<b>Noor system</b> Long-standing online educational management system
<b>Jameah platform</b> Cloud-based system designed to offer integrated electronic services to Saudi higher education institutions, students, staff and faculty	<b>Ethrai platform</b> E-learning solution to improve the skills of civil servants
	<b>iEN national education portal</b> Comprehensive portal providing e-learning services to public education institutions supported by interactive content

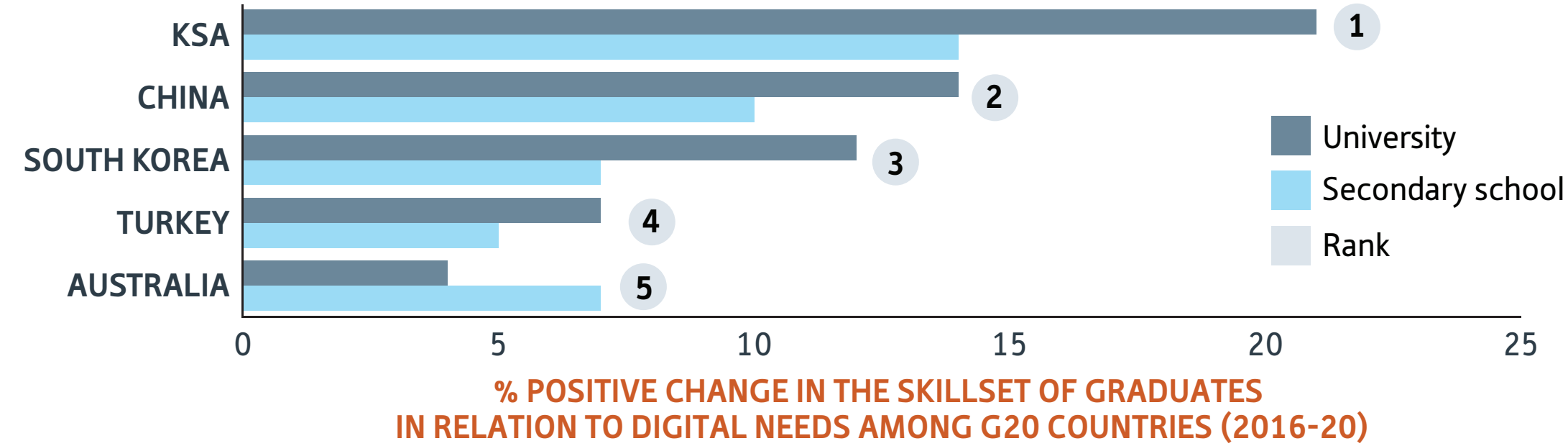
# Progress snapshot: KSA makes significant strides in the digital transformation agenda

KSA records the world's fastest 5G download speeds

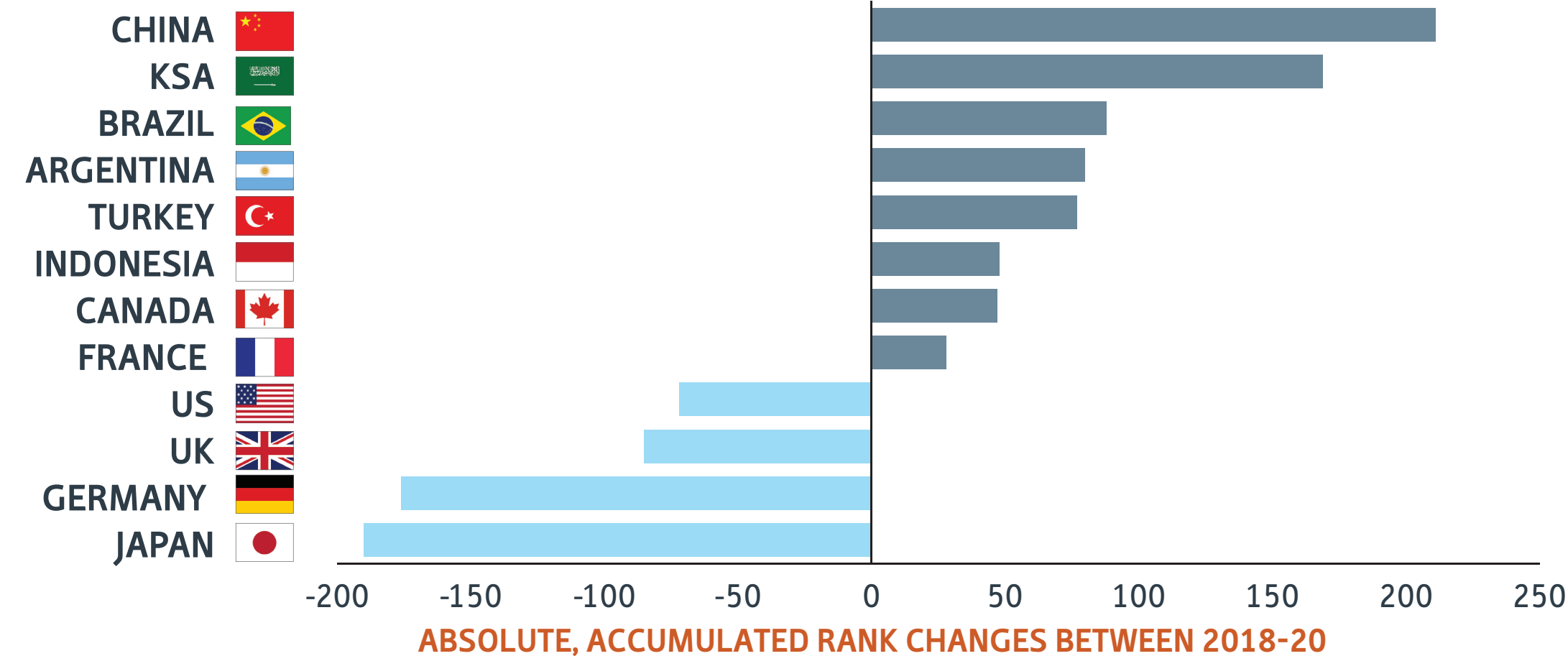


Data collected May 16-Aug 14, 2020

KSA leads G20 in aligning graduate skills with digital economy needs



KSA among top "Digital Risers" in G20



\* Ranking developed by ESCP Business School to assess the transformation pace of the digital mindset and the ecosystem in each country

## Significant strides

Efforts to accelerate digital transformation are translating into positive results, with the Kingdom ranking highly in a range of respected international indicators. In fact, Saudi Arabia was named the G20's top "Digital Riser" in 2020 in recognition of the speed with which it has been developing an effective digital ecosystem. Saudi educational institutions have also been recognised by the World Economic Forum (WEF) for leading the G20 in successfully adapting curricula to the needs of the digital economy. Looking ahead, the Kingdom could benefit from greater scientific knowledge development and an improved technological framework, according to the IMD World Competitiveness Centre.

**112.7%** Mobile penetration, 2021

**95.7%** Internet penetration, 2021

**Top 10** Ranking for digital skills in 2020 WEF Global Competitiveness Report

# How does SEU support national digital transformation?

## In figures

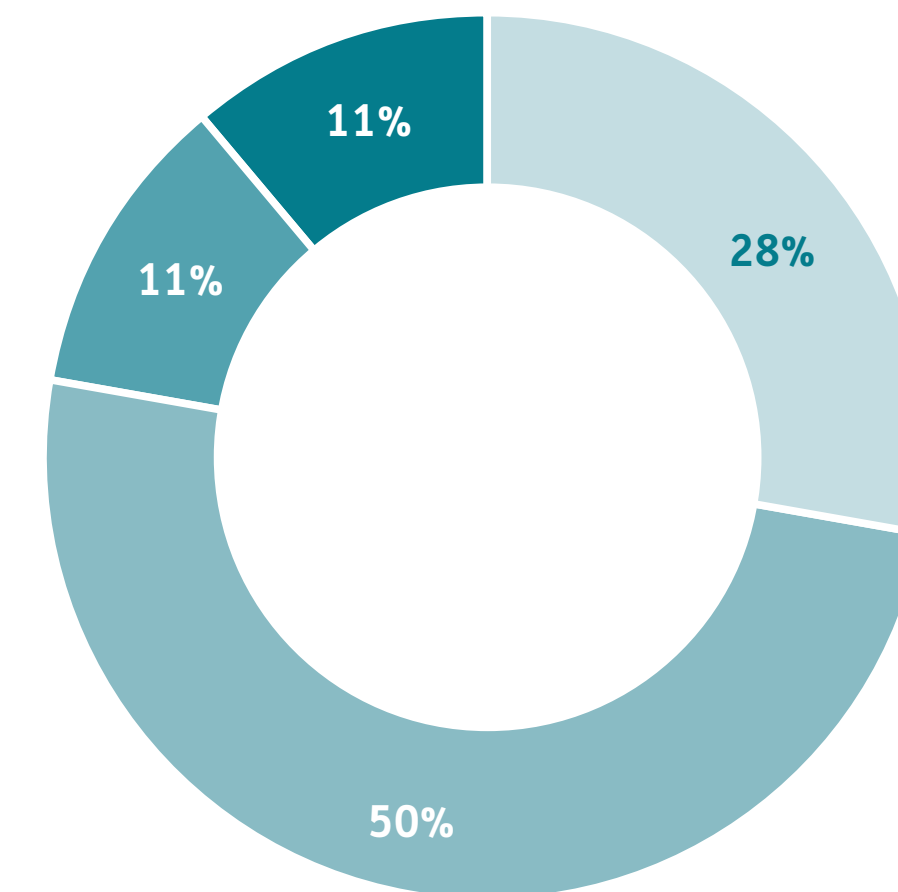
- 5th** place ranking in national digital transformation index
- Top 3** in digital transformation in education
- Top 15** in e-services maturity
- Top 25** in digital transformation in the public sector
- 2.2m users** use SEU's education management platform
- 288** automated services provided by SEU
- 22,000** users of SEU's Arabic language learning platform worldwide

## PIONEERS OF FUTURE LEARNING



## Breakdown of 2020-21 entrepreneurship and innovation activities

- Training camps
- Workshops & conferences
- Training courses
- Local participations



See next slide for more details of these programmes

## Strategic initiatives

- Strengthen strategic partnerships with local and global actors
- Modernise digital infrastructure
- Launch a digital production centre
- Launch SEU academic technologies
- Improve in-class use of advanced technologies
- Transformation of physical labs into virtual labs
- Adopt assistive technologies
- Launch innovation in e-learning centre
- Launch digital innovation centre
- Increase students' participation in the SEU accelerator programme
- Automate all student services

## Digital-oriented graduate programmes

Master of Digital Marketing

Master of Science in Cybersecurity

Master of Data Science

Master of Translation Technologies

## Digital enabler

In line with the rapid digital transformation of the Saudi economy, the Kingdom requires more professionals with wide-ranging digital skills across all industries. In recognition of this, SEU's 2025 strategy has disruptive innovation at its core, with a view to utilising cutting-edge tools, methodologies and learning structures to cultivate a deep and diverse pool of talent that is equipped with the skills needed in the economy of the future. SEU's embrace of technology allows it to extend its reach far beyond the traditional campus environment to serve learners of all ages and social segments without incurring unsustainable overhead costs.

# Beyond the conventional classroom: how can universities support lifelong innovation?

## SEU training camps

<b>Intelligence Camp: Data and AI</b>	Introducing trainees to the field of AI, its applications and data manipulation for decision-making
<b>Camp (Fath) for future engineers of robotics</b>	Training camp for young people aged 8-14 to learn the basics and principles of robotics programming
<b>Web programming camp</b>	Designed to teach programming and website-building techniques like front-end and back-end programming, and coding
<b>The Python programming camp</b>	Training camp to learn Python programming with practical applications, big data libraries and machine language

## SEU-led workshops and accelerator programmes

<b>SEU Hackathon Programme</b>	First hackathon in the field of innovation and entrepreneurship in e-learning that connected innovators, students and graduates from 32 universities to exchange skills and initiate innovative projects
<b>Business Accelerator in E-Learning</b>	Workshop that gathers participants with a group of specialists in e-learning technologies, computer software and business to refine and launch creative projects
<b>Sawaed Student Entrepreneurship Club</b>	Entrepreneurship club aimed at nurturing and incubating innovative and entrepreneurial ideas among university students
<b>Global Entrepreneurship Week Events</b>	Workshops presented in conjunction with the Global Entrepreneurship Week to initiate innovative project ideas and develop entrepreneurship among young people
<b>Entrepreneurship in start-ups</b>	Forum aimed at familiarising participants with the importance of entrepreneurial thought in start-ups and the basic concepts of entrepreneurship
<b>WEmpower Research Accelerator</b>	WEmpower was launched to support female faculty members and students to develop their research capacity and skills. The initiative is in alignment with the drive to both empower women and enhance R&D capacity in the Kingdom, as part of Vision 2030

## Courses offered at SEU to drive innovation

<b>Building the internet of things (IoT) from scratch</b>	Introductory course to IoT, its protocols, data exchange and applications, with practice on Arduino systems and software
<b>Accounting for small businesses</b>	Course on basic accounting principles in small projects, including transactions, financial and human resources, assets and liabilities
<b>Technical training package</b>	Courses introducing participants to areas such as cloud computing, AI and IoT, with basic concepts and practical examples
<b>Financial technology (fintech) courses</b>	Fintech courses covering e-commerce, e-marketing and logistics, with basic concepts and practical examples
<b>Introduction to IoT programming</b>	Course on IoT platform of smart devices that use embedded systems, such as processors, sensors and communication devices
<b>From idea to a company</b>	Course aimed at introducing participants to the world of entrepreneurship and to transform creative ideas into real products and services
<b>Feasibility study and ideation of economic projects</b>	Focused on the concept of SMEs and entrepreneurship, project ideation and evaluation, and formulating feasibility studies of all kinds

## Specialised business centres launched by SEU



E-learning  
Innovation  
Centre

Cyber-  
security  
Centre

AI Centre

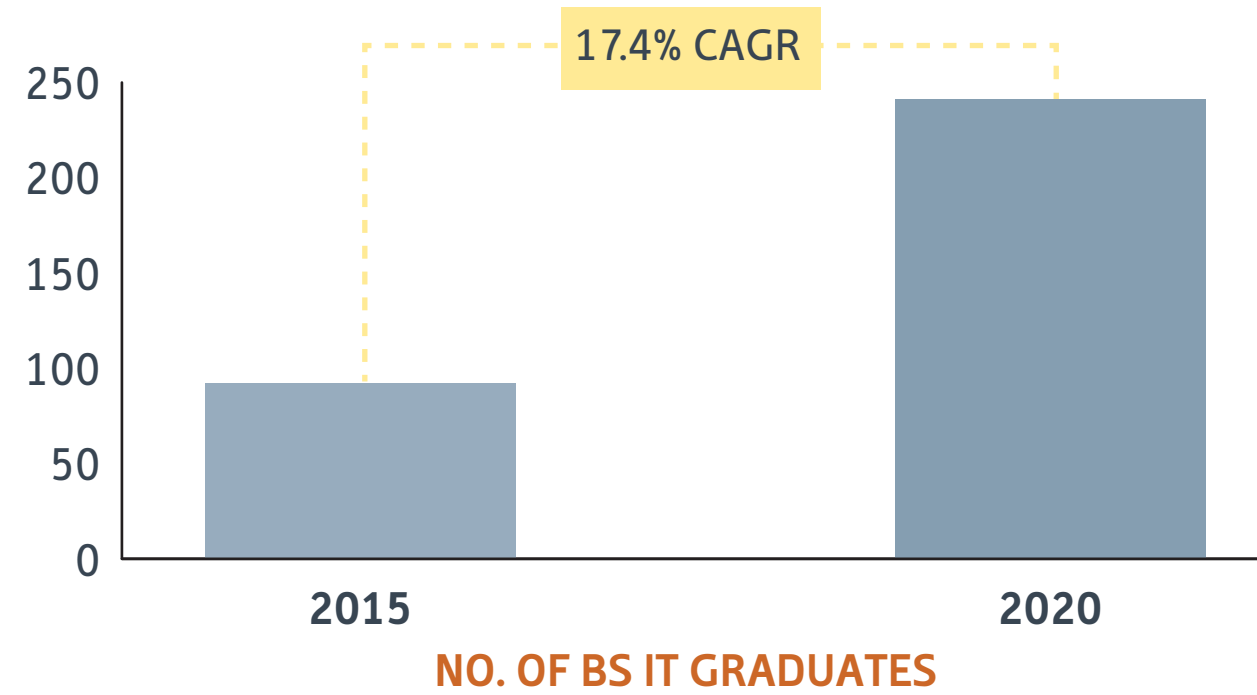
Entrepreneurship  
and Digital  
Innovation Centre

## Nurturing growth drivers

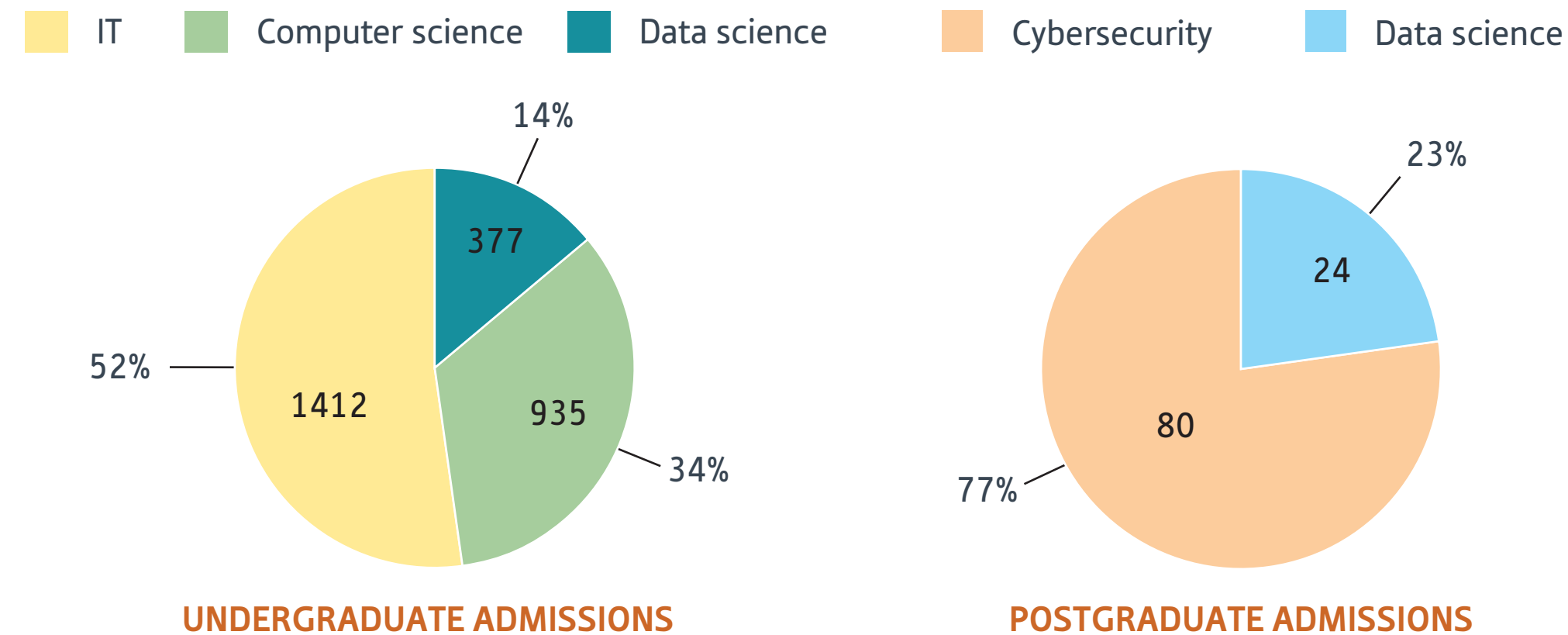
Beyond conventional degree courses, SEU is implementing various alternative initiatives to support the development of innovation and entrepreneurship in Saudi Arabia. For example, it offers a number of specialised courses, training camps and workshops, and has established four specialised business centres. Elsewhere, SEU launched a hackathon and accelerator in the field of innovation and entrepreneurship in e-learning, and facilitates the participation of students in local and international innovation and entrepreneurship events. Led by a woman president, SEU has also developed a dedicated research accelerator to enhance the research and development (R&D) capacity of female students and faculty members.

# Undergraduate and postgraduate courses prepare SEU students for careers in the digital economy

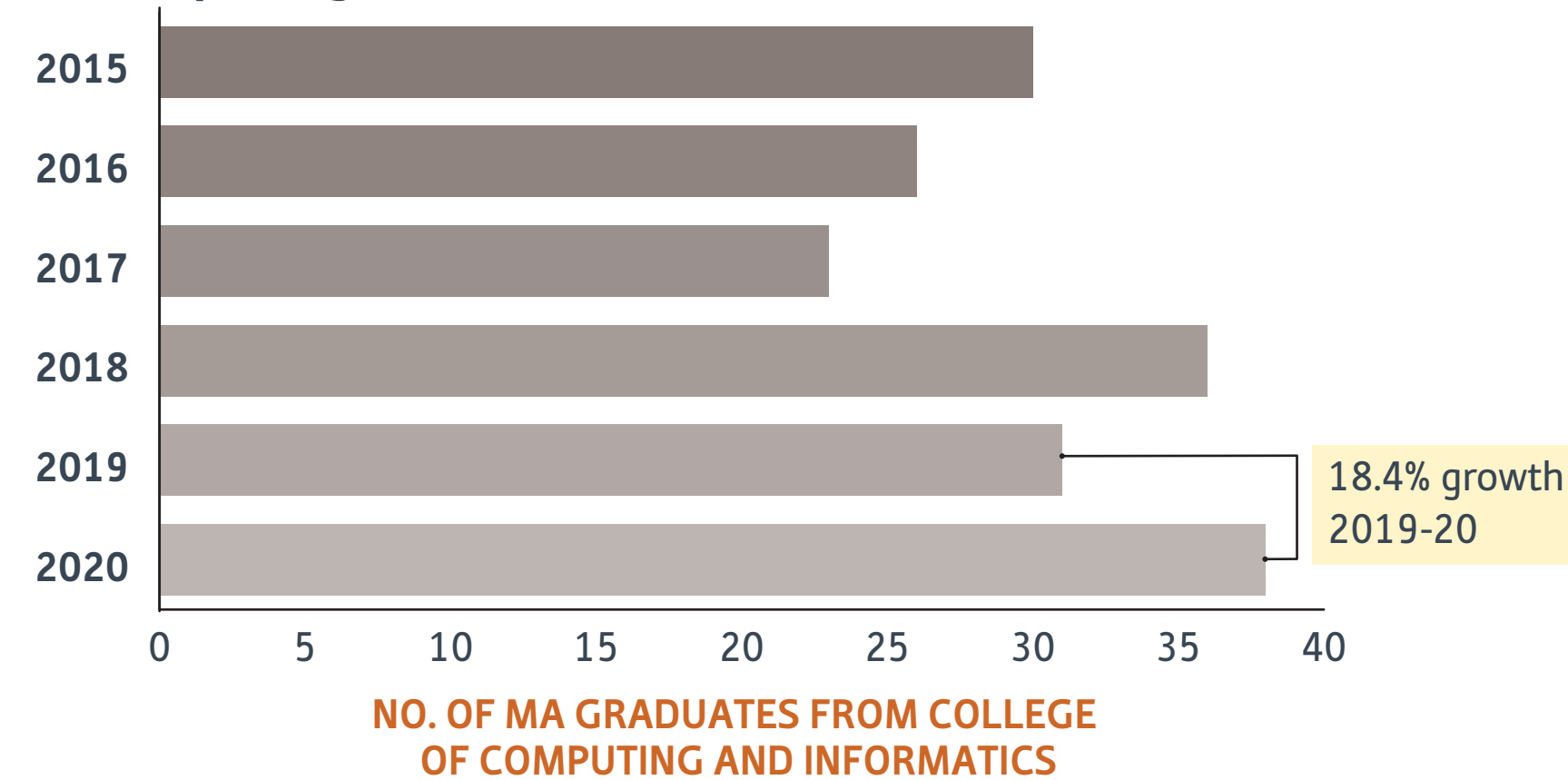
Steady flow of BS IT graduates at SEU



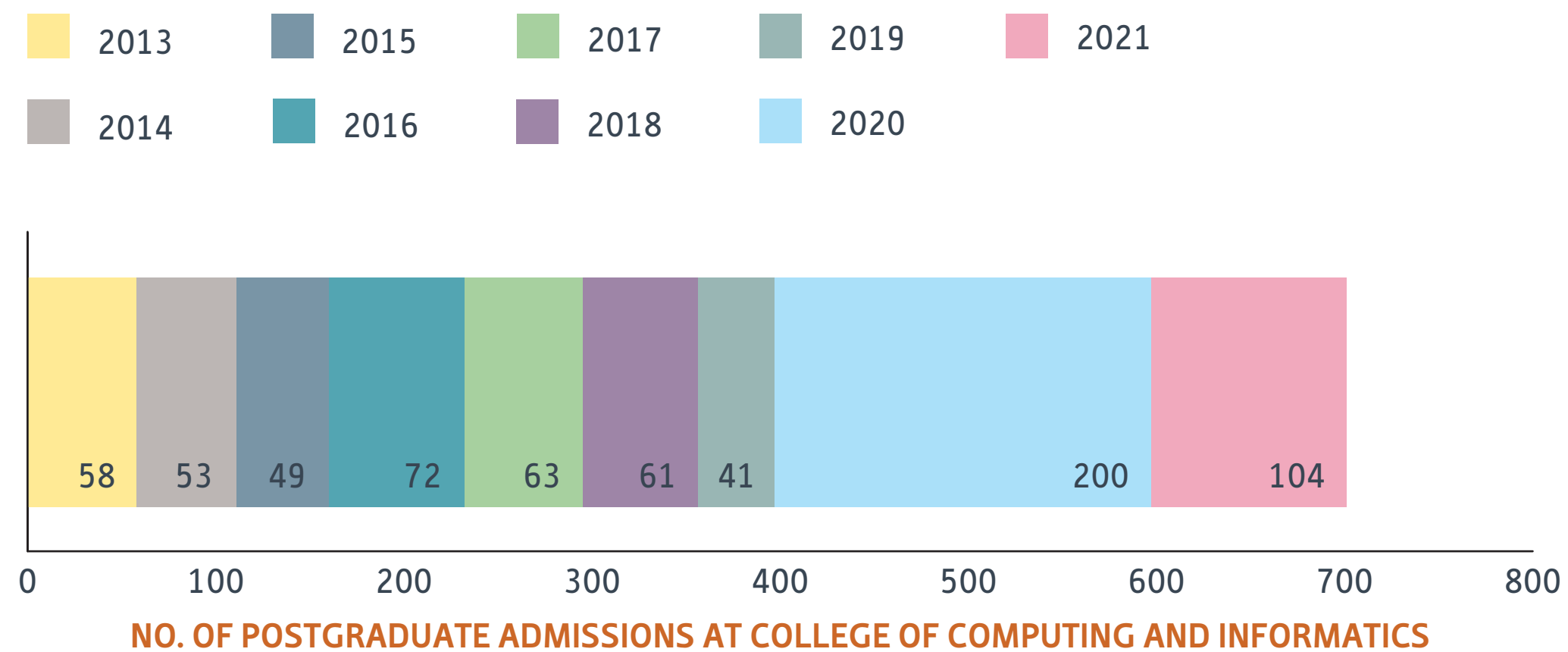
Composition of admissions at the College of Computing and Informatics, 2021



2020 was a record year for MA graduates at College of Computing and Informatics



43% of total postgraduate admissions occur in the 2020-21 period



## Expanded offering

SEU's College of Computing and Informatics offers an ever-growing range of undergraduate and postgraduate courses designed to equip students with the skills to succeed in the digital economy. The portfolio of programmes is constantly evolving in line with the rapid developments in computing and tech-related industries. For example, the master's programme in data science was added in 2020 and has so far attracted 77 admissions across two intakes. These degree programmes are a key part of the university's broader support for the digital economy, which includes lifelong-training courses and business centres in e-learning, artificial intelligence (AI), cybersecurity and digital innovation.

# How can ICT partnerships enhance technical expertise and talent development in tertiary institutions?

## Memoranda of understanding signed by SEU with ICT partners



### E-Learning and Training Company (Semanoor)

Partnership to support SEU with advanced educational technologies and methodologies; provision and protection of software licences and e-learning management systems; development of digital content, virtual classes and exhibitions; Arabic text processing; and developing e-education and training content



### IBM Middle East

Cooperation with IBM to develop faculty members' skills by providing training courses with certification for faculty members in three distinct tracks: Predictive Analytics Modeler, AI Analyst and IoT Cloud Developer



### Oracle Academy

This collaboration aims to provide computing education resources for the classroom to help increase knowledge, skills development, innovation and diversity in technology fields. As well as technical and professional resources, this partnership also provides member recognition



### Huawei Tech Investment Saudi Arabia

Joint programme aimed at developing talent in ICT and networks, establishing SEU as an Huawei ICT Academy with SEU students benefitting from Huawei-taught programmes, and providing free training for SEU teachers within the Teacher Training Programme to become certified Huawei trainers



### Explorance Blue

Contract with Explorance Blue to build an experience management platform using automation and a robust reporting engine to help SEU track the most popular feedback initiatives, from student feedback on instruction to employee engagement in the workplace



### IEEE Student Branch

Students have the opportunity to meet and learn from fellow students as well as faculty members and professionals in the field. Numerous educational, technical and professional advantages are provided through special projects, activities, meetings, tours and field trips



### Red Hat Company

Collaboration to provide expertise in the fields of digitisation, distinguished qualification and training for faculty members and students at SEU's College of Computing and Informatics to raise their skill and knowledge level



### Blackboard

Close collaboration with Blackboard since SEU first began operations, with the aim of enhancing education in Saudi Arabia using advanced e-learning technologies, and providing the higher education sector with cost effective yet globally competitive teaching and learning platforms



### CyberHub

CyberHub is a Saudi Federation for Cybersecurity, Programming and Drones initiative to support students in the cybersecurity field in Saudi universities to meet labour market needs and align with Vision 2030



### Deloitte & Touche Middle East

Agreement to launch an apprenticeship scheme designed by Deloitte & Touch Middle East and implemented by SEU as an open invitation to high school graduates to acquire training in digital innovation and professional services using technical tools, applications and communication technology



### Coursera

Joint collaboration on a foundation year programme on a nationwide scale for Saudi universities as well as the provision of content, services and platforms to support SEU's students and faculty as part of its plans to further enhance their learning opportunities.



### Microsoft

The agreement aims to provide member institutions with quality training resources on Microsoft technologies to help educators, faculty, staff and enrolled students to obtain the skills needed to reach their academic and career potential

PART



## EDUCATION

81% of tertiary students are enrolled at public universities, although vocational centres are gaining prominence

KSA has the highest tertiary enrollment rate in the GCC, with a higher proportion of female students than male

Among STEM students, female students favour ICT and physics while male students prefer engineering and construction

KSA had developed a conducive e-learning environment pre-Covid-19, with educators accustomed to ICT-based teaching

PART



## INNOVATION

Vision 2030 has helped to accelerate the development of an effective, multi-stakeholder digital ecosystem in KSA

KSA outperforms its G20 peers in the improvement of graduate skillsets related to the needs of the digital economy

SEU offers a broad range of degrees, training courses, workshops and other initiatives in order to support national digital transformation

SEU partners with leading global tech firms to bring innovative edtech solutions to KSA while improving internal processes

PART



## ACCELERATION

Is the Kingdom making sufficient progress towards long-term human capital development goals?

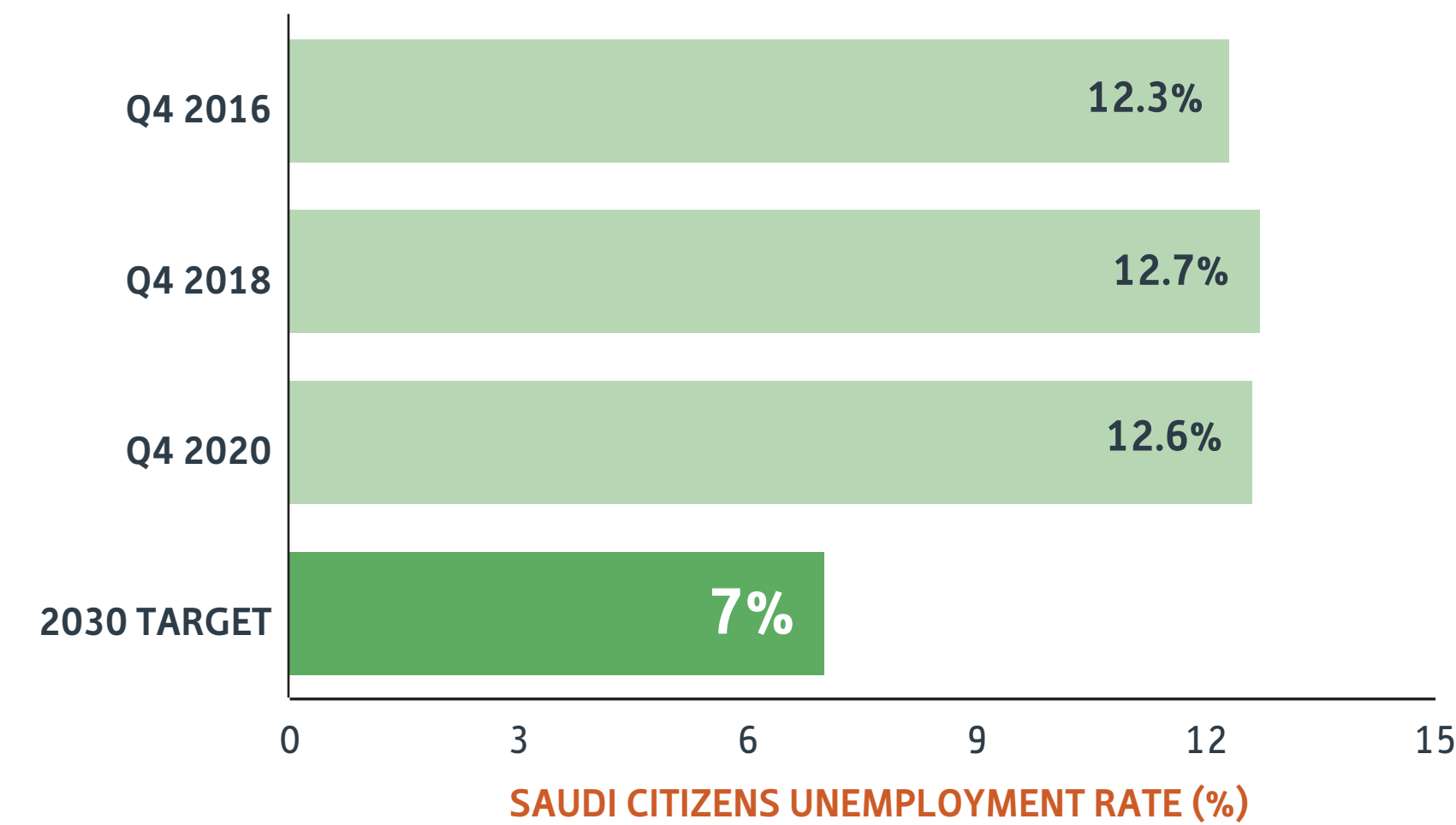
Can KSA establish a regional competitive advantage in AI?

What can be done to prevent automation displacing Saudi workers?

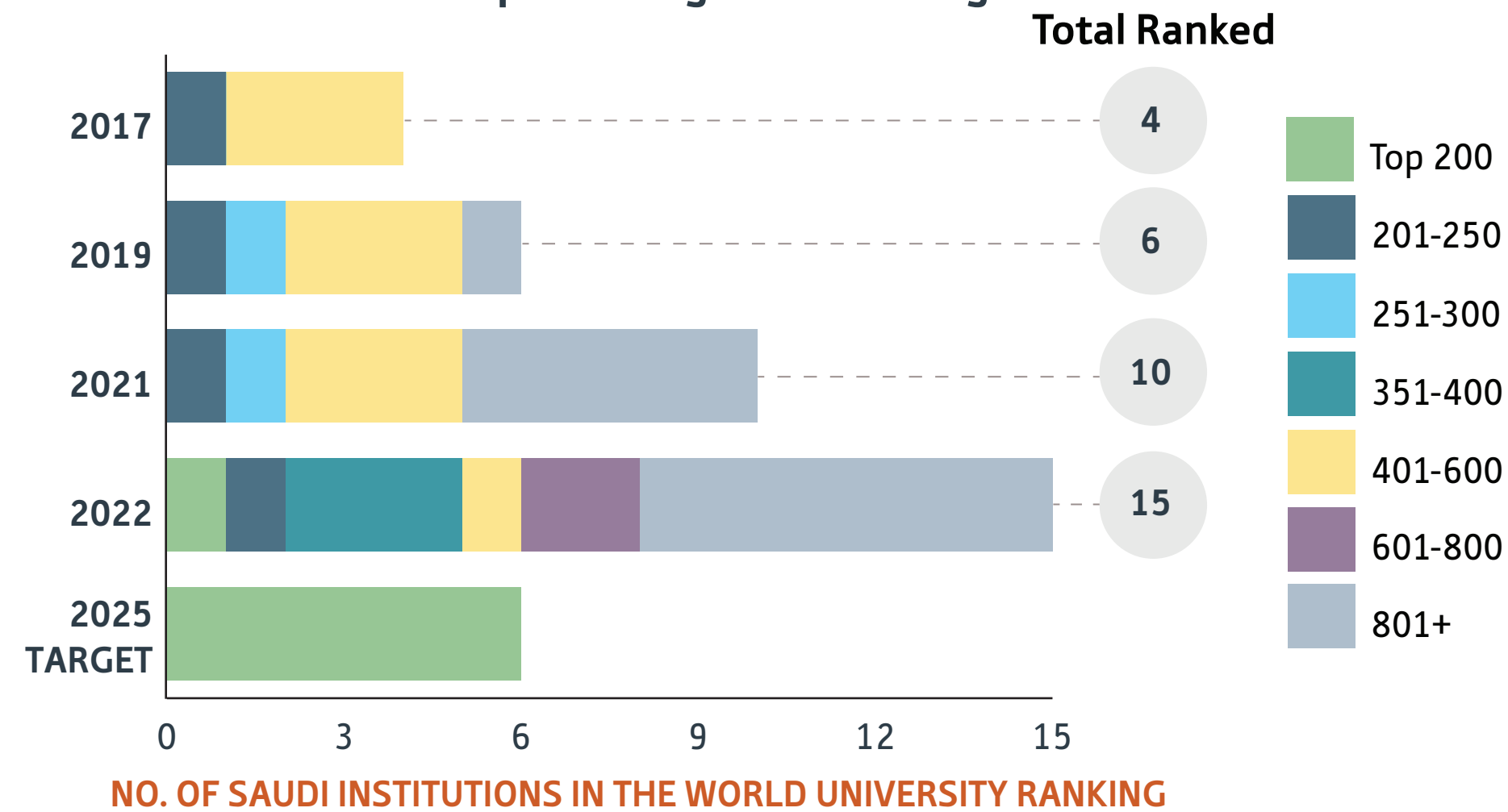
To what extent is SEU's strategy aligned with long-term national development plans?

# Further progress needed to meet the Kingdom's human capital and competitiveness goals

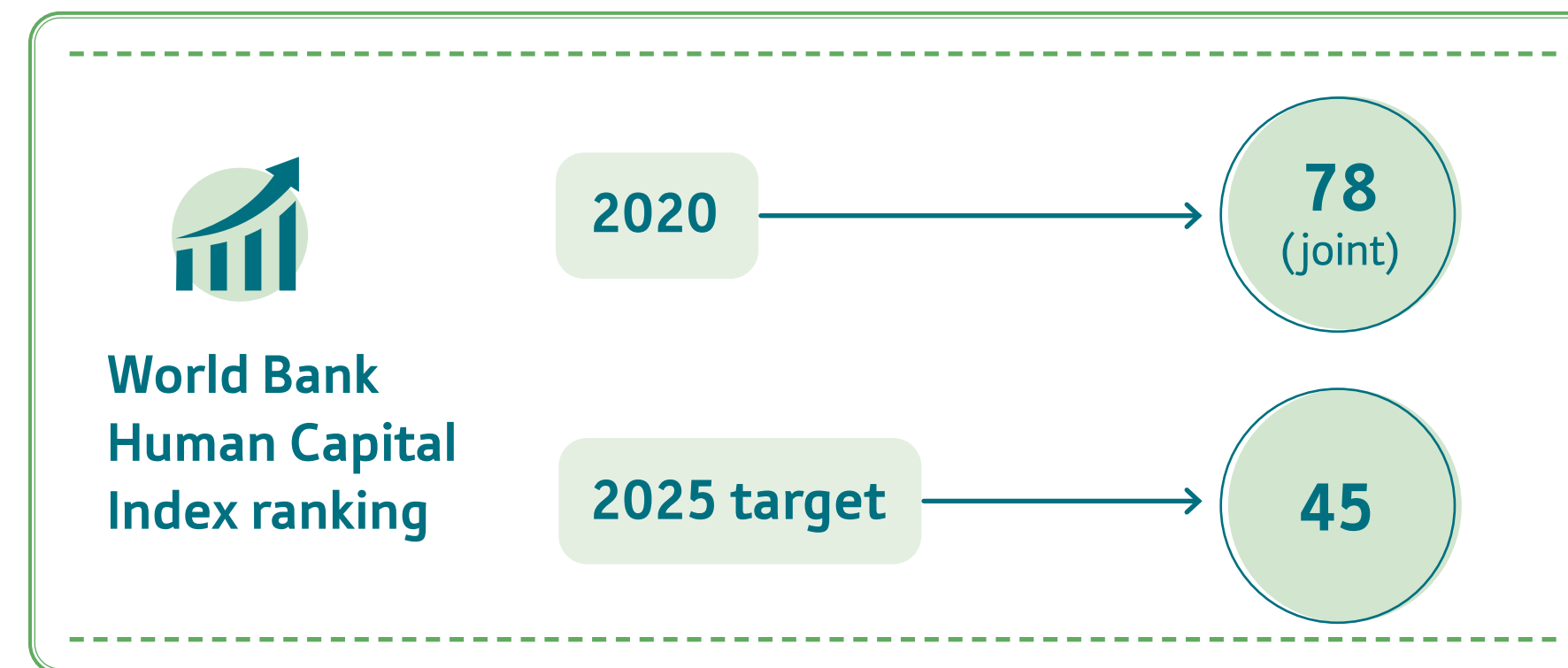
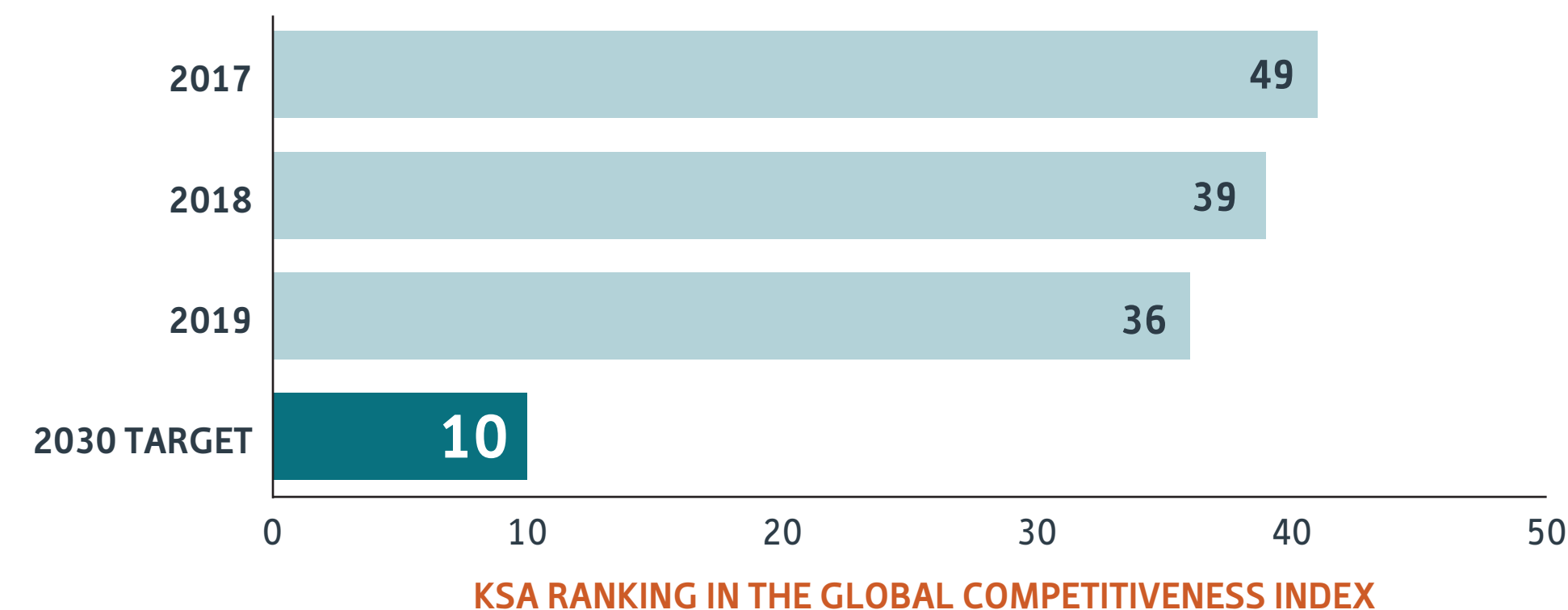
Reducing the Saudi unemployment rate remains a national priority



Saudi universities improve in global rankings



More progress is needed to reach global competitiveness goal

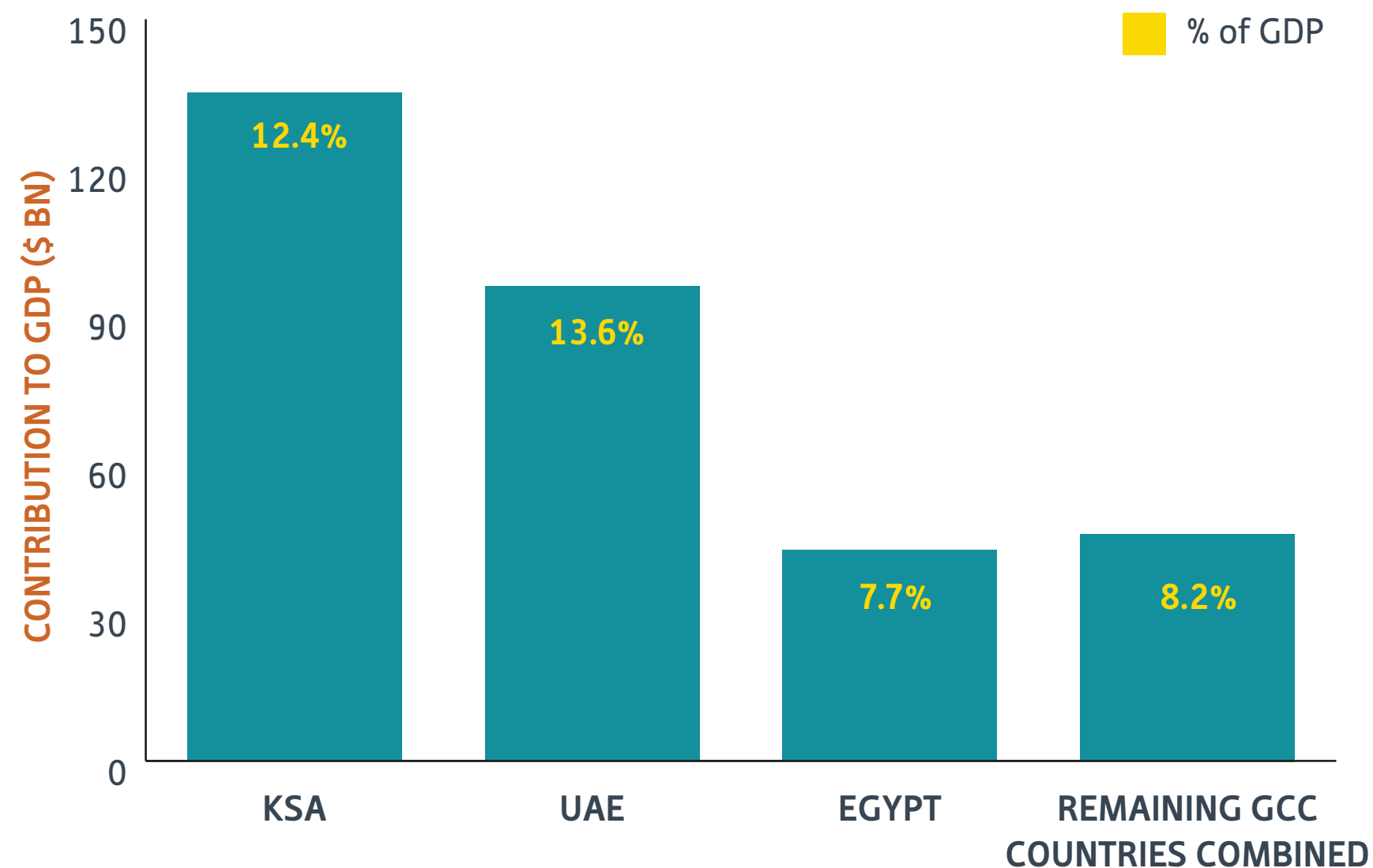


## Moderate improvement

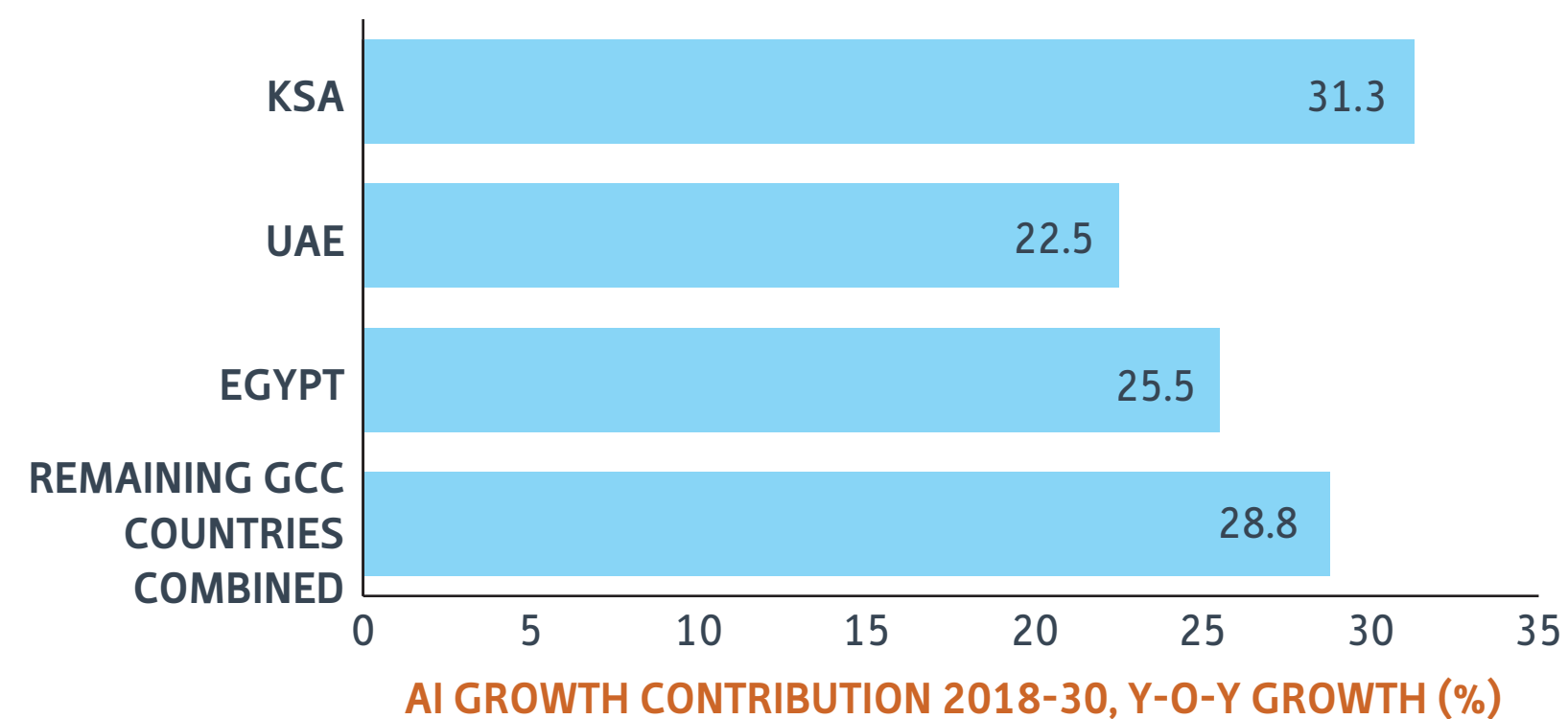
Saudi Arabia is making progress in the adoption of digital solutions, the diversification of the economy and the creation of an education system that prepares students for the future labour market. However, as the disruption of the global pandemic gradually subsides, progress towards medium- and long-term human capital and competitiveness goals will need to be accelerated if they are to be realised. The number of Saudi Arabian universities in the Times Higher Education (THE) World University Rankings has been rising every year, but further work is needed to reach the target of having six Saudi institutions in the top 200 by 2025.

# Saudi Arabia is projected to be regional leader in terms of AI development and adoption

AI to generate 12.4% of KSA's GDP by 2030



KSA to be largest regional beneficiary from AI

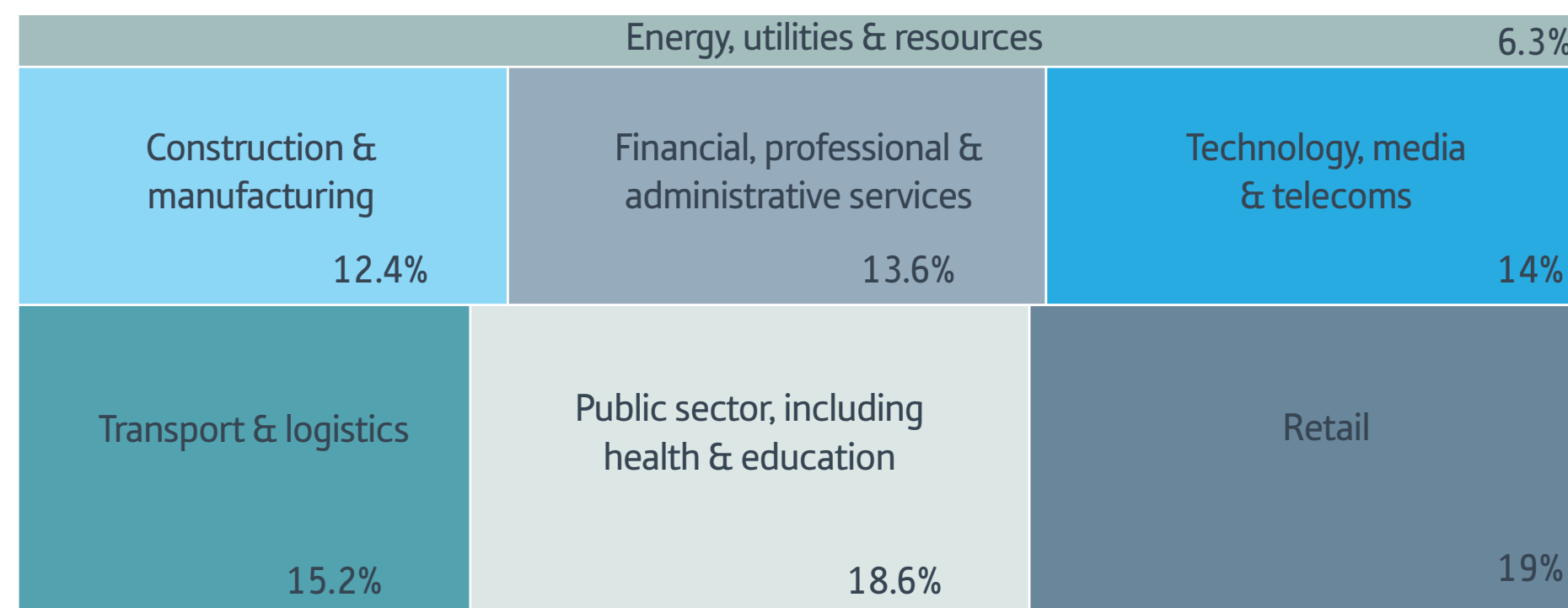


## AI-driven economic growth depends on government support and upskilling

Potential impact of AI on KSA's economy and productivity		% points difference
Forecast 2017-30		
GDP growth rate (average)	2.2%	
Average labour productivity growth rate	0.2%	
If labour force is upskilled		
GDP growth rate (average)	3.8%	1.6%
Average labour productivity growth rate	1.8%	1.6%
If government implements support policies		
GDP growth rate (average)	4.8%	2.6%
Average labour productivity growth rate	2.9%	2.7%
If insufficient government support		
GDP growth rate (average)	1.3%	-0.9%
Average labour productivity growth rate	0.4%	0.2%

## Retail and the public sector to benefit the most from AI adoption

Contribution of AI to Middle East GDP by industry in 2030

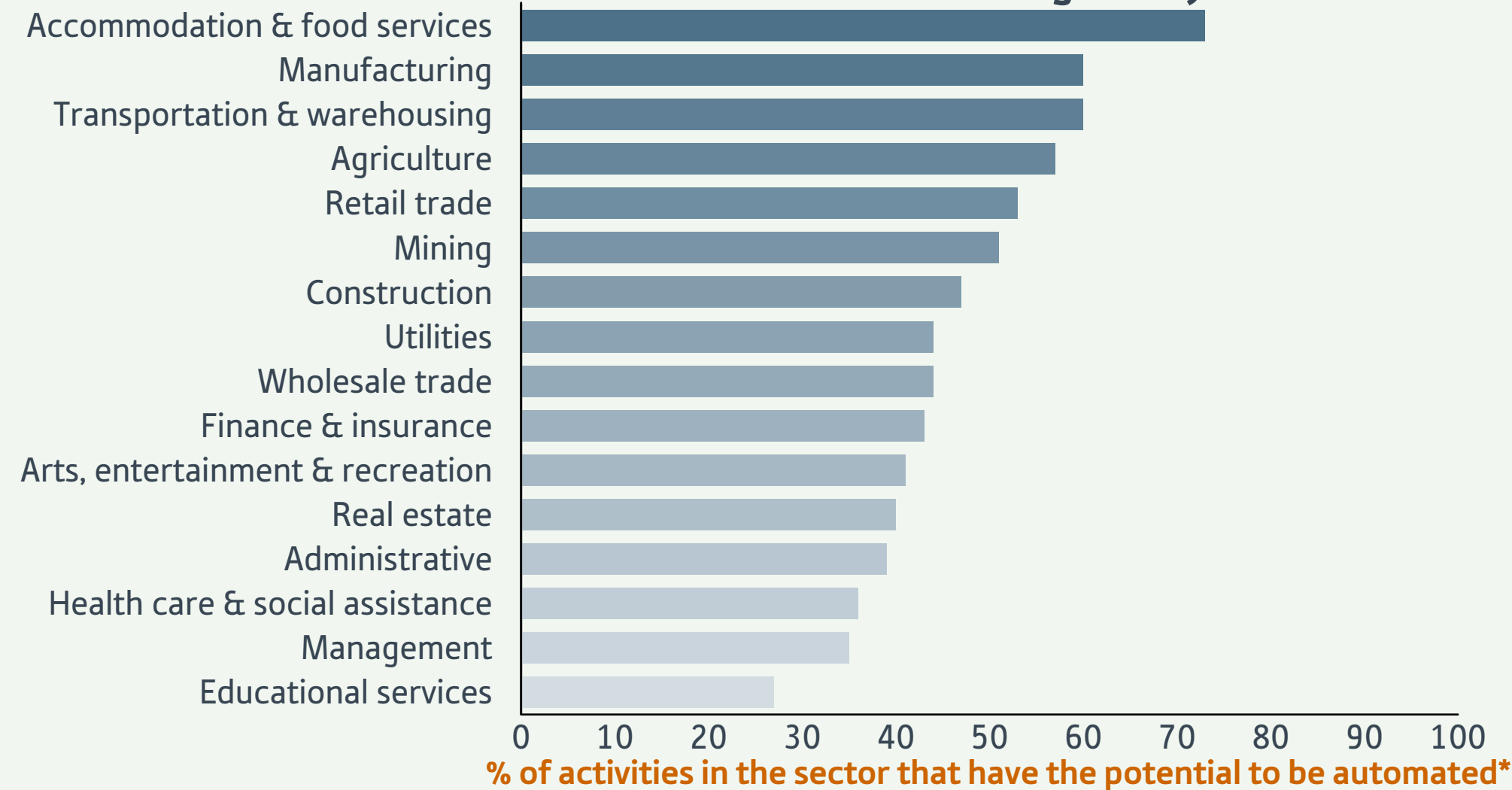


## University role

Saudi Arabia is well positioned to be a regional leader in terms of AI development and adoption. Indeed, according to PwC, AI's contribution to GDP is projected to grow at an average pace of 31.3% per year until 2030, the highest growth rate in the region. The extent to which this potential will be fulfilled will depend on the level of government support and the capacity of stakeholders to upskill the country's labour force. To this end, higher education institutions are increasingly investing in initiatives to build expertise in AI. This includes SEU's Artificial Intelligence Centre, which provides AI solutions to organisations across various industries.

# Universities need to keep pace with evolving skill demands as automation disrupts the job market

## Which industries are most vulnerable to automation globally?



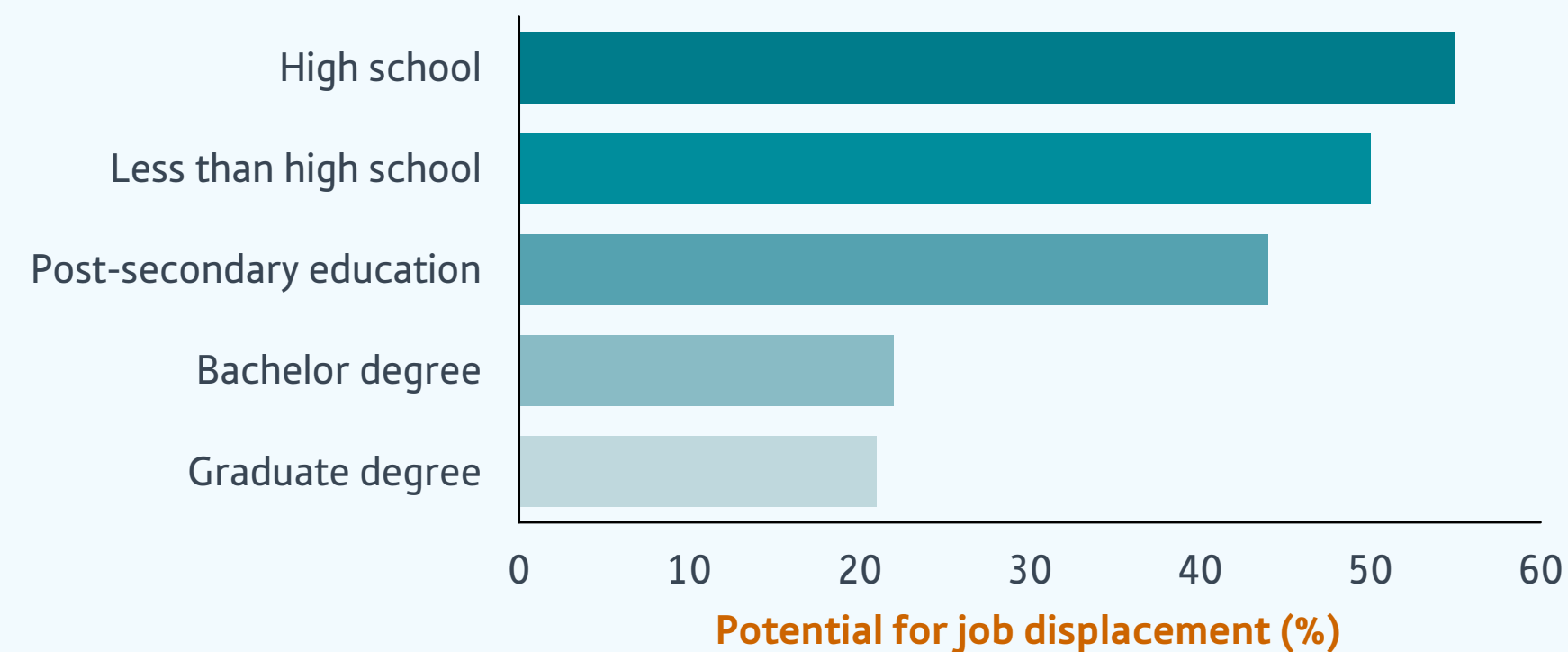
## Preparing the Saudi workforce

- 58% of Saudis currently work in clerical, sales or service positions
- 93% of Saudi employers expect their existing workers to pick up new skills
- 87% of Saudi employers are looking to automate more work
- SEU is striving to develop deliver market-oriented and interdisciplinary programmes
- SEU is focused on expanding internship and apprenticeship opportunities in domestic industries
- Emphasis at SEU on fostering "T-shaped" skills through extra-curricular activities
- Stackable and add-on credentials accelerate shift to "skills over degrees" and lifelong learning

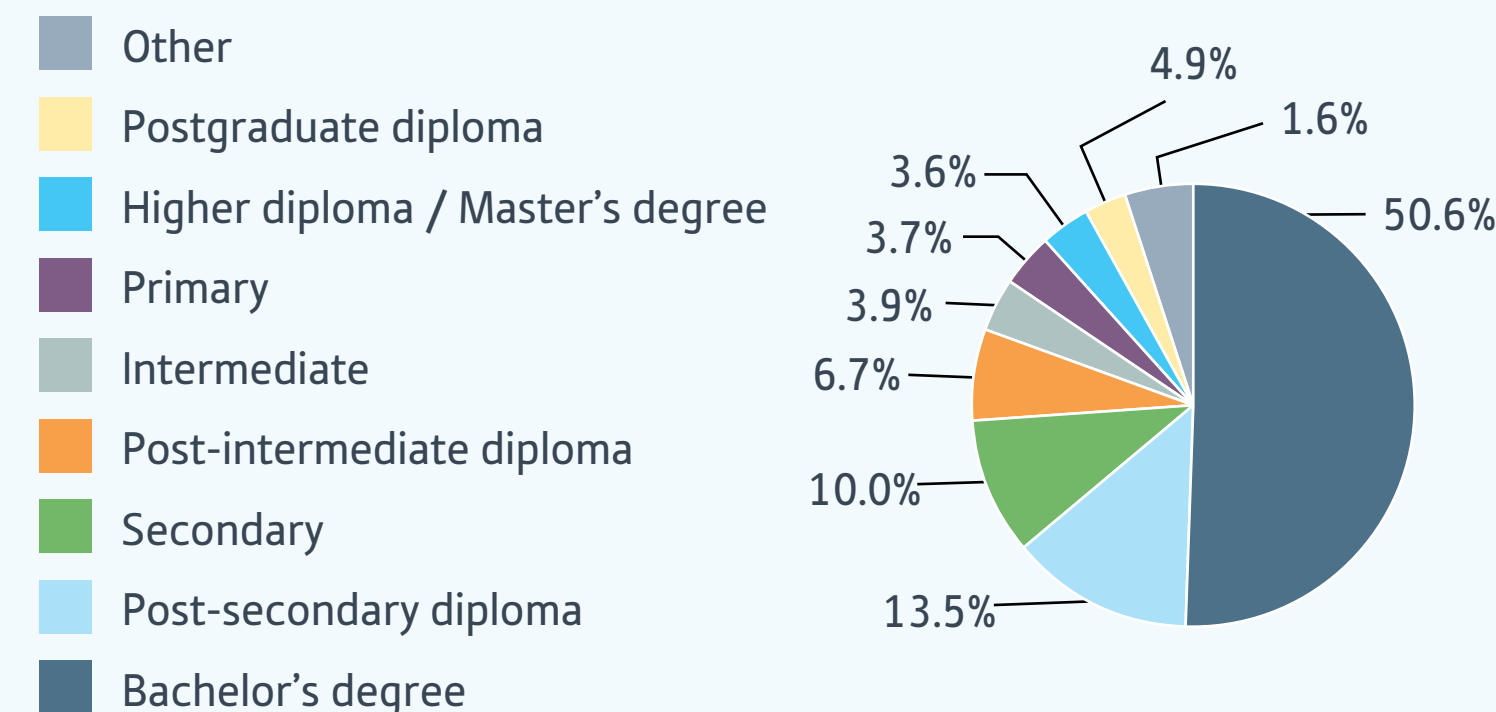
## Job displacement

Industry 4.0 is seriously affecting the global labour market, as digital advancements lead to the automation of jobs that had previously required human inputs. As a result, labour demands are increasingly shifting towards more specialised and advanced tasks. According to the WEF, approximately \$367bn of wage costs in the Middle East are spent on activities that are technically automatable today and are likely to be impacted in the near future as employers seek to increase productivity. As a result of this, universities have a key role to play in equipping the workforce with the skills that are needed in a highly disrupted market.

## University-educated workers in MENA are less susceptible to job displacement

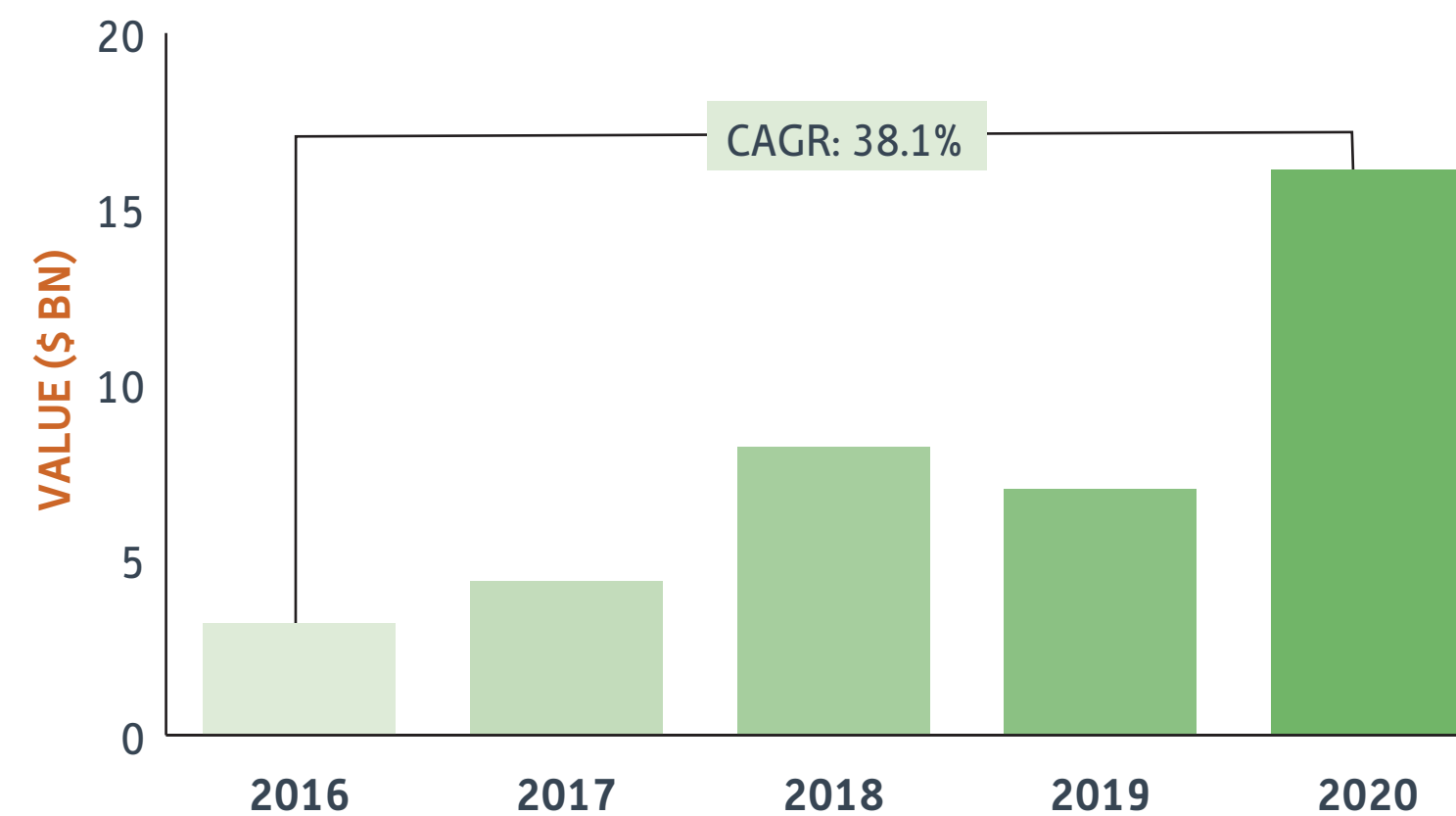


## Most Saudi workers have a bachelor's degree

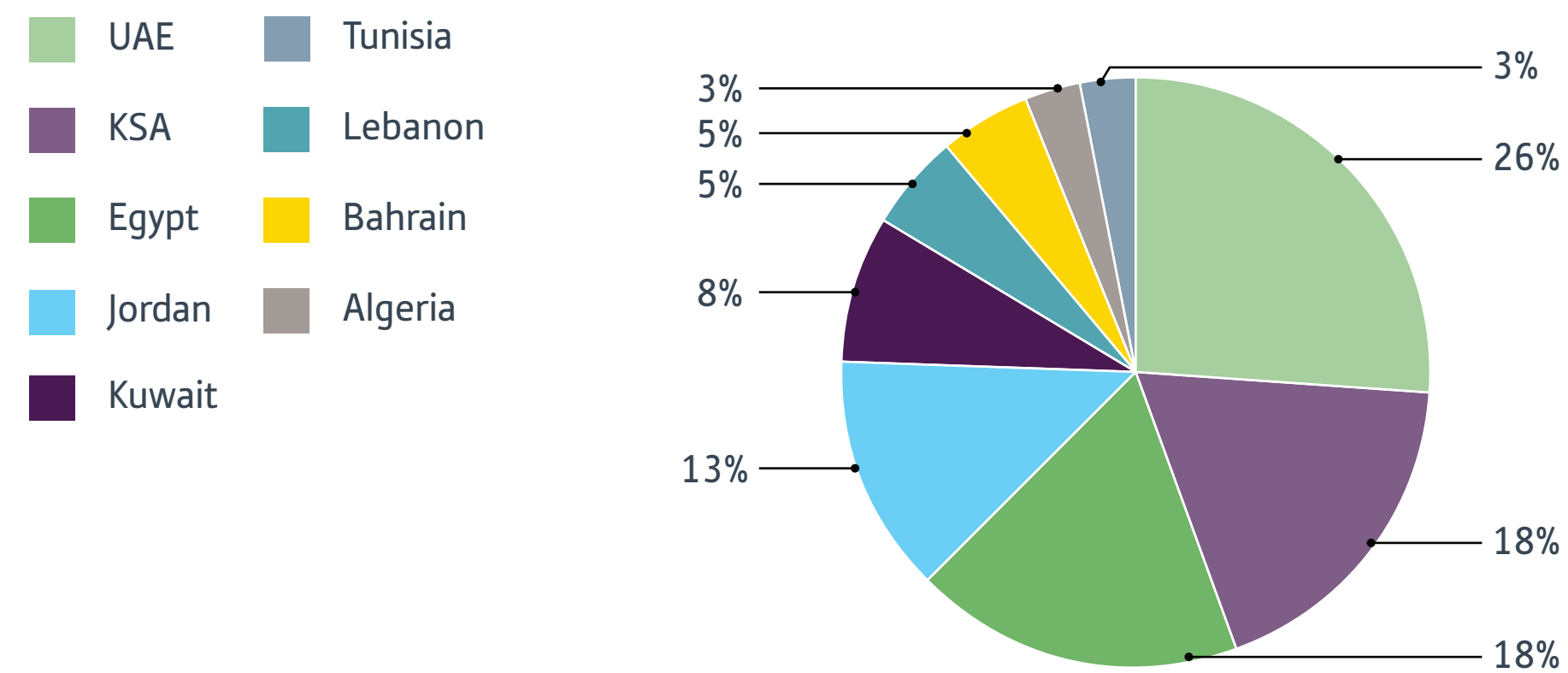


# Edtech primed for post-pandemic boom in KSA amid rising global investments in online learning

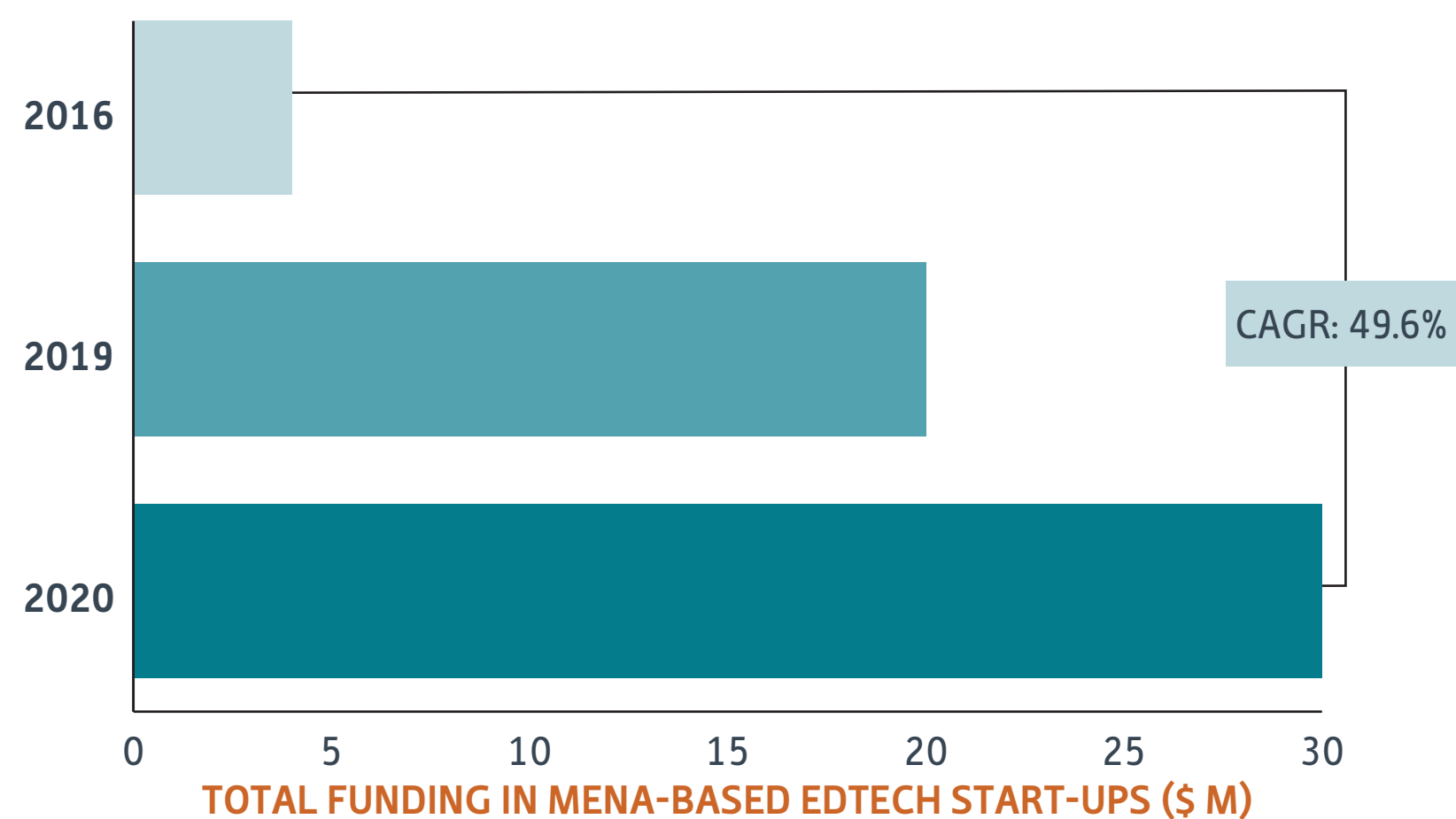
Global edtech investment witnesses strong growth



High concentration of edtech start-ups in KSA



Funding of MENA-based edtech start-ups grows exponentially



KSA e-learning prospects in numbers

**\$1bn+** Projected revenues in e-learning market by 2025

**23.9%** Forecasted CAGR in education technology services in 2020-25

**18.9%** Predicted CAGR in education content services in 2020-25

## High potential

The shift from in-class to online learning as a result of the pandemic, coupled with the fast pace of innovation in new technologies, has been accelerating investment in edtech start-ups globally. International investments in edtech reached \$16bn in 2020 and MENA-based edtech start-ups attracted about \$30m of this total – with some of the largest edtech start-ups in the region located in Saudi Arabia. The regional e-learning market is expected to see a compound annual growth rate (CAGR) of 9.8% over the next five years, with the Kingdom projected to record market-beating growth levels in both technology services and content services in line with this rising demand.

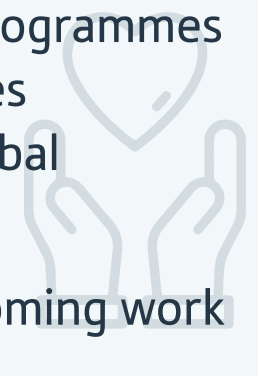
# Strategic alignment between SEU and the HCDP aims to accelerate skills progress

## SEU's role in advancing the HCDP

### HCDP objective Foster values of moderation and tolerance

#### SEU's strategic initiatives

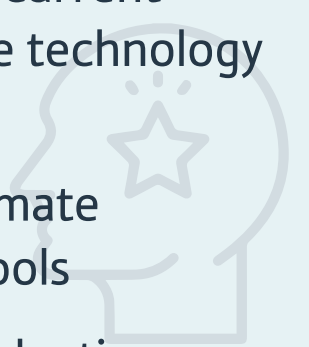
- Launch student exchange programmes with international universities to prepare graduates for global opportunities
- Build a supportive and welcoming work environment for staff



### HCDP objective Foster the values of mastery and discipline

#### SEU's strategic initiatives

- Develop new interdisciplinary programmes as tracks for current programmes and integrate technology across disciplines
- Create, enhance and automate 360-degree assessment tools
- Introduce new student evaluation methods to increase the accuracy of distance assessment



### HCDP objective Uphold the Arabic language

#### SEU's strategic initiatives

- Contribute to the expansion of Arabic programmes to more countries via the internet



### HCDP objective Build a lifelong learning journey

#### SEU's strategic initiatives

- Maintain and strengthen relations with SEU alumni



### HCDP objective Improve fundamental learning outcomes

#### SEU's strategic initiatives

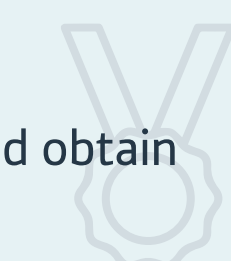
- Promote periodic reviews and revamps of programmes and content to align with market demand over three semesters per year
- Monitor and adopt emerging teaching and learning methods



### HCDP objective Improve ranking of educational institutions

#### SEU's strategic initiatives

- Develop relevant criteria to include SEU in QS ranking and obtain global accreditation for programmes



### HCDP objective Ensure alignment of educational outputs with labour market needs and improve readiness of youth to enter the labour market

#### SEU's strategic initiatives

- Add compulsory six-month cooperative training programmes for all undergraduates and launch apprenticeship programmes
- Strengthen strategic partnerships with internationally renowned educational institutes and companies to impart the latest knowledge, tools and services



### HCDP objective Nurture and support the innovation and entrepreneurship culture

#### SEU's strategic initiatives

- Teach entrepreneurship courses to students at the preparatory stage
- Provide training courses on latest digital entrepreneurship trends and develop a bachelor's programme in digital entrepreneurship
- Promote entrepreneurial and innovation culture among faculty members and students
- Create awareness to increase the proportion of students participating in accelerated innovation in the e-learning field



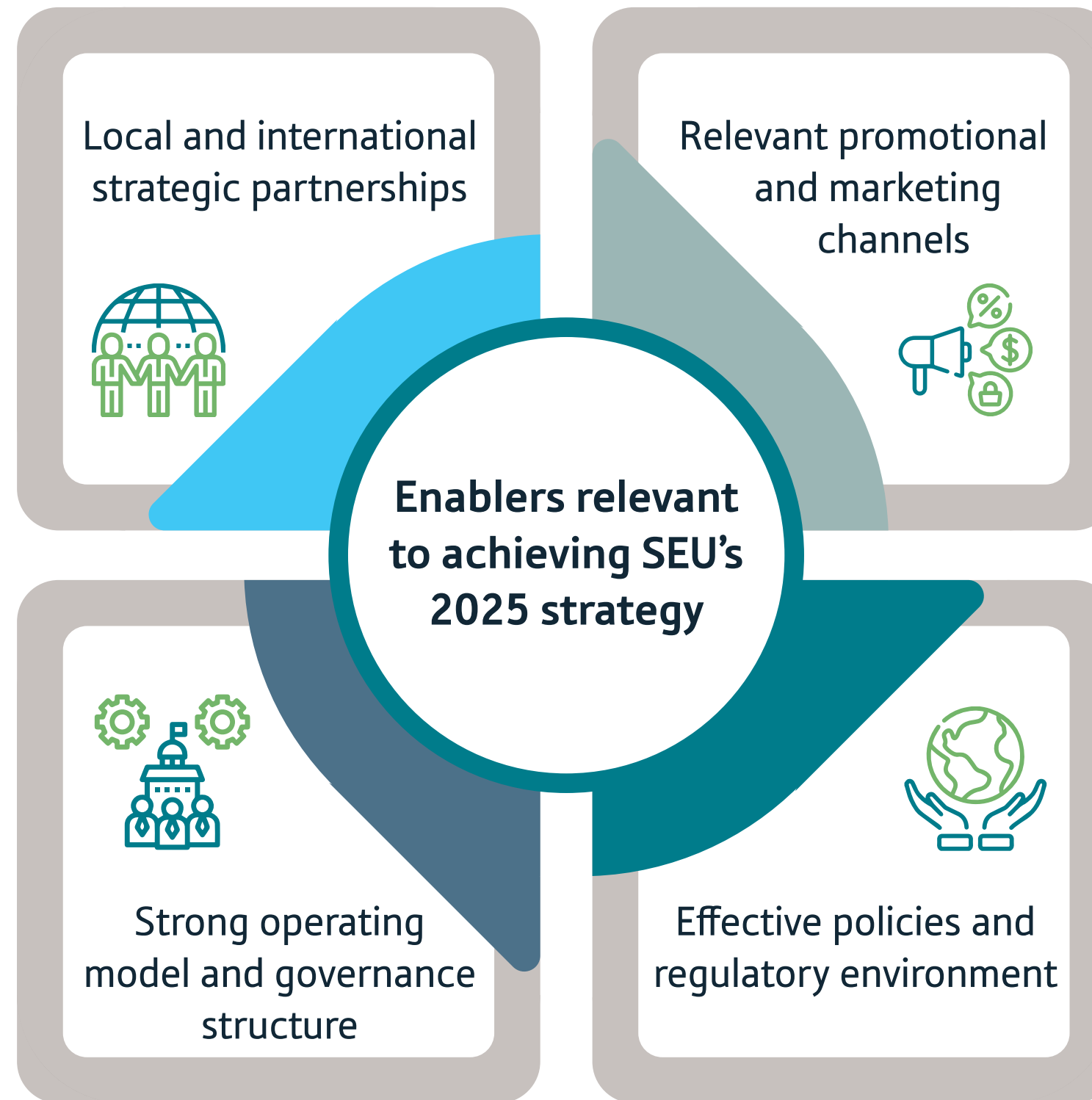
## Five key themes

SEU's 2021-25 strategy was designed to align with the national HCDP under five themes: learner's empowerment; e-learning leadership; digital innovation commercialisation; community development; and financial sustainability. The university is constantly reviewing its programme content, and teaching and learning methods to align with market demands and international best practices, as well as developing new assessment methods aimed at accurately measuring a student's holistic development. Students are also being incentivised to participate in international exchanges, training programmes and internships to gain experience beyond the classroom and prepare them for the future workplace.

# SUMMARY: SEU's five-year strategy will expand reach, improve performance and support national development goals

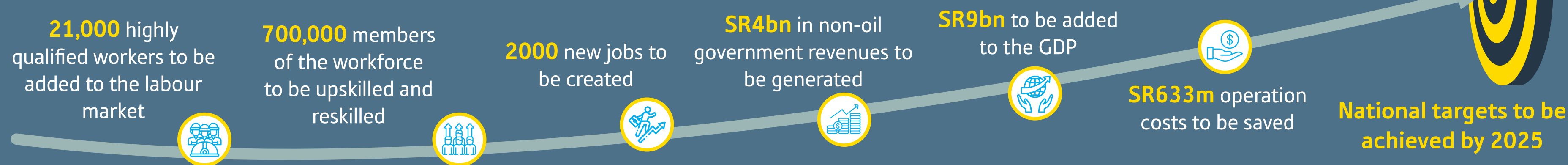
## Five themes guiding SEU's 2025 vision

<b>Learner empowerment</b>	<ul style="list-style-type: none"> <li>Increase the number of enrolled students from 27,667 to 68,397</li> <li>Increase the number of annual graduates from 4,286 to 10,900</li> <li>Increase capacity from 12% to 60%</li> <li>Increase technology and interdisciplinary programmes from 18 to 25</li> </ul>
<b>E-learning leadership</b>	<ul style="list-style-type: none"> <li>Rank among the top 300-500 universities of the world in the QS ranking</li> <li>Expand Arabic e-learning programme from 22,000 to 100m users</li> <li>Increase accredited programmes from 0 to 10</li> <li>Grow edtech solutions offered to education institutions from 1 to 5</li> <li>Establish 1 regional e-learning branch</li> </ul>
<b>Digital innovation commercialisation</b>	<ul style="list-style-type: none"> <li>Increase the number of tech start-ups with funds from 0 to 12</li> <li>Grow average number of reputable publications per faculty from 0.8 to 3</li> </ul>
<b>Community development</b>	<ul style="list-style-type: none"> <li>Increase the number of branches from 9 to 20</li> <li>Increase lifelong learners from 2000 to 45,000</li> </ul>
<b>Financial sustainability</b>	<ul style="list-style-type: none"> <li>Reduce rental in unsafe buildings by 91%</li> <li>Increase the staff to students ratio from 1:35 to 1:50</li> <li>Improve operating profits to +17%</li> <li>Grow SEU annual revenue to SR1bn</li> </ul>



## Looking ahead

In summary, SEU's Strategic Plan 2021-25 is designed to support the sustainable development of the institution and the attainment of long-term objectives. This holistic strategy aligns with national development priorities by contributing to all Vision 2030 pillars. In particular, it is focused on improving human capital through the provision of quality educational services to a wide spectrum of society across different regions and age groups. It also contributes to Saudi Arabia's international image by expanding global access to Arabic language training. Ultimately, the strategy should help to drive non-oil growth by promoting innovation and accelerating the growth of tech-preneurship.



PART

## EDUCATION

81% of tertiary students are enrolled at public universities, although vocational centres are gaining prominence

KSA has the highest tertiary enrollment rate in the GCC, with a higher proportion of female students than male

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KSA had developed a conducive e-learning environment pre-Covid-19, with educators accustomed to ICT-based teaching

PART

## INNOVATION

Vision 2030 has helped to accelerate the development of an effective, multi-stakeholder digital ecosystem in KSA

KSA outperforms its G20 peers in the improvement of graduate skill-sets related to the needs of the digital economy

SEU offers a broad range of degrees, training courses, workshops and other initiatives in order to support national digital transformation

SEU partners with leading global tech firms to bring innovative edtech solutions to KSA while improving internal processes

PART

## ACCELERATION

KSA has made progress towards long-term human capital development goals, although acceleration is needed in places

AI is projected to contribute more than 12% of KSA's GDP by 2030, boosting productivity across numerous industries

The Kingdom's educated workforce is relatively well placed to mitigate automation risks, but universities must continue to evolve their curricula

SEU's plans to expand the KSA-wide provision of lifelong learning opportunities in non-oil-related disciplines will support economic diversification

# Lilac Ahmad Al Safadi, President, Saudi Electronic University (SEU)



## How would you describe the state of e-learning at higher education institutions before and during the Covid-19 pandemic?

**AL SAFADI:** Before the pandemic the Ministry of Education (MoE) had taken steps to modernise higher education institutions and meet the rising demand for post-secondary education by promoting e-learning. Because of this, Saudi higher education institutions had sufficient digital readiness to handle the temporary cessation of in-person learning due to the pandemic, and to move learning online within 24 hours of the ministry's decision to close schools. During the pandemic Saudi Arabia upgraded its online-learning infrastructure to handle remote and concurrent instruction on a large scale, and conducted professional development trainings for educators to further develop their online teaching skills. The MoE created a strong governance framework that continuously assessed education continuity and took quick action to ensure the sustainability of systems, while providing both students and faculty members with a quality e-learning experience. In addition, the MoE reformed some regulations to promote multiple learning modes and enforced quality criteria. These forward-thinking actions that helped control the crisis facilitated the continuity of safe education.

## What are the limits of remote education, and when is it best to combine online lessons with in-person learning?

**AL SAFADI:** Physical and virtual classrooms offer different learning outcomes. Online learning can be a disadvantage for teachers with less training, as they need to be equipped with specific online-teaching strategies, as well as for students, who must have strong time-management and self-directed learning skills. Moreover, some classes require active

and hands-on engagement with students. However, it is important to acknowledge that traditional classrooms are not perfect. They do not always provide opportunities for rich interaction and engagement for students, and often focus on providing information and awarding credentials rather than involving students in meaningful, interactive learning experiences. SEU adopted blended learning over a decade ago to harness the best of both the digital and analogue worlds, and the university is currently adopting advanced models in this area – such as flipped classrooms and collaborative experiences – for more effective and efficient learning.

## Which segments of the population stand to gain more from online education in Saudi Arabia, and to what extent is the experience with remote education aligned with the country's Vision 2030 goals?

**AL SAFADI:** Online learning has the potential to increase access to higher education among students who need flexibility, such as candidates with family obligations, those in remote areas, individuals with business responsibilities that do not fit around traditional university schedules, and students with physical disabilities that require personalised services. These categories stand to benefit significantly from e-learning.

Vision 2030 spurred the Kingdom to modernise all governmental services and encouraged cooperation among government institutions. Education was one of the most efficient sectors in responding to the plan, and efforts have been under way to leverage innovation to modernise the sector and fulfil the vision's commitment to provide citizens with equal access to education, diversify the economy and equip students for the jobs of the future.

“  
Online learning has the potential to increase access to higher education among students who need flexibility  
”

# 6 Key Takeaways

1

## Foundations

Saudi Arabia's tertiary education system is underpinned by a strong network of 28 public universities across the Kingdom, which account for 81% of student enrollments. However, the ongoing process of economic diversification is also contributing to a rise in admissions to vocational training institutes and private universities, which is helping to raise standards across the board and to ensure programmes are attuned to the needs of the market.

2

## STEM

As Saudi Arabia's economy becomes more digitalised and diversified, there is growing demand for certain STEM programmes, particularly in ICT and engineering. There is a notable gender split when it comes to STEM preferences, with female students – who outnumber male students in absolute and proportional terms – mostly opting for ICT and sciences, particularly physics, whereas men favour engineering and construction-related programmes.

3

## E-Learning

Saudi Arabia was relatively well prepared for the pandemic-induced shift to e-learning at schools and universities in 2020/21. Data shows that teachers and students were accustomed to ICT-based, self-directed learning prior to Covid-19, which aided the adjustment when in-class tuition was paused. SEU has long been at the forefront of efforts to promote e-learning and blended learning through its teaching practices and application of technologies.

4

## Digital skills

Vision 2030 has helped to stimulate the development of a vibrant digital economy supported by a well-regulated ecosystem that features universities, training institutes, research centres, accelerators and competitions. In just a few years, Saudi Arabia has emerged as a G20 leader in aligning graduate skillsets with the needs of the digital economy as well as in the cultivation of a national digital mindset. SEU is contributing to national digital transformation through specialist degree programmes, business centres and lifelong learning options.

5

## Future workforce

Saudi Arabia's efforts to advance human capital development and cultivate the knowledge economy bode well for future competitiveness and should help to alleviate the risk of job displacement from automation. Supported by SEU and other universities that are updating their curricula and teaching methods to reflect the job market, the Kingdom can harness the productivity-boosting potential of Industry 4.0 and create high-value job opportunities for a skilled workforce.

6

## Lifelong learning

As new economic growth engines emerge and the prominence of traditional industries wanes, education and skills development will increasingly be seen as a lifelong endeavour that is not limited to the traditional classroom. SEU has already gained a competitive advantage in the area of lifelong learning provision through digital and blended teaching approaches, and its multifaceted efforts to expand educational inclusion and differentiation across the Kingdom will help support long-term economic development.

