



شركة وادي الرياض
Riyadh Valley Co

EdTech
Resurgent with
Booster Shot from
COVID-19

Introduction

In today's digital era, technology is driving change in almost every major industry. The intervention of modern technology has been a major advancement in the education industry over the last few decades. Essentially, the emergence of EdTech has transformed the student-teacher interactions by introducing new methods of learning and teaching tools. Applications of EdTech range from the use of laptops for knowledge transfer to engaging robots to conduct lectures. Other EdTech tools aid in language learning, online communication systems for students, teachers and parents and online tutoring.

Globally, EdTech market is estimated to reach USD 404 billion by 2025. The digital spending in the education sector is expected to reach USD 342 billion by 2025, up from USD 142 billion in 2018. Venture capital investments in EdTech industry grew from USD 500 million in 2010 and to USD 10.6 billion in 2022.¹ Venture capital investments in the EdTech industry is anticipated to triple in the next decade. In 2022, U.S contributed USD 4.2 billion towards global VC investment followed by India's investment of USD 2.6 billion. Despite being the largest EdTech VC investor till 2020, China's global VC investments fell to USD 0.1 billion in 2022 from USD 10.2 billion in 2020. The number of publicly traded EdTech firms with market capitalization greater than USD 1 billion is expected to exceed 100.²

EdTech industry gained traction worldwide in the wake of COVID-19 pandemic. The pandemic came as a boon for the EdTech industry paving way for brands to innovate, each trying to fill the digital gap, differentiating themselves from their peers. As of 2022, there were 30 EdTech Unicorns globally valued at USD 89 billion.³

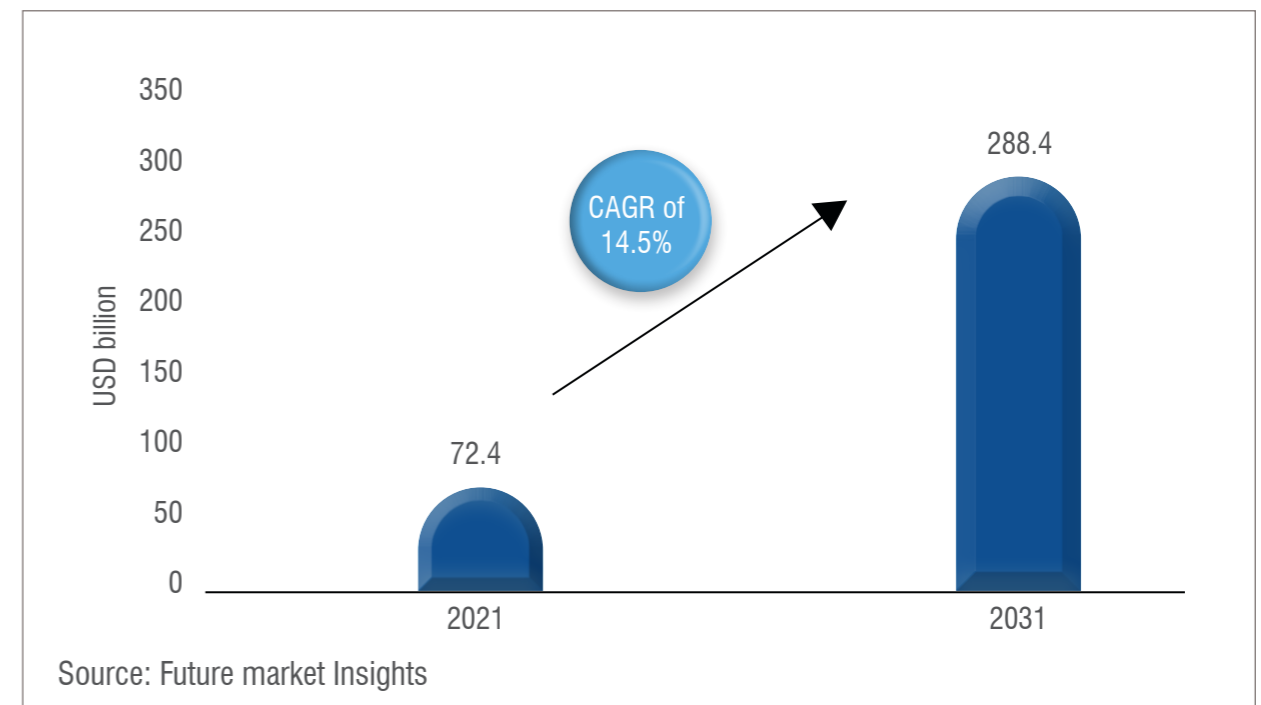
As a result of the rapid transition to digital education, the MENA EdTech industry has emerged as an appealing and promising market, particularly for venture capital investors, and is positioned to receive funding and investments supported by government initiatives. Saudi Arabia initiated the Flexible Learning Pathways Initiative toward the end of 2021 in collaboration with international E-Learning platforms such as Edx, FutureLearn, Coursera, and Udacity to enhance the online learning environment.

01 Overview of EdTech

EdTech, a combination of education and technology, involves the use of information and communication technology tools to provide enhanced, inclusive, and customised learning opportunities. EdTech entails the application of robots, virtual reality courses, and gamified classroom activities etc. to better engage students in learning. EdTech also involves the adoption of machine learning and blockchain technology that assist in developing more efficient grading systems.

Surge in the adoption of education technologies post COVID-19 pandemic and increase in the number of EdTech manufacturers underpin the anticipated boom in the sector. These optimistic forecasts can be linked to rising investment from Europe, India, Middle East and Africa. U.S recorded 2.5x higher investment in 2022 compared to the 2019 levels while Europe's VC funding remained strong bolstered by few large funding rounds.

Market Size of EdTech Industry (2021-2031)



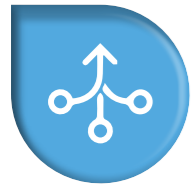
The global EdTech industry is evolving with rapid shifts in customer demand, rising M&A deals and emerging with valuation greater than USD 1 million.

¹Holon IQ

²Holon IQ

³Holon IQ

Top trends in the EdTech Industry



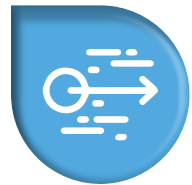
Mergers and Acquisitions (M&A)

- With sales and marketing costs accounting for 20-60% of the business revenue, EdTech players focus on M&A to reduce customer acquisition costs and achieve economies of scale.



B2B offerings

- With the increasing need to upskill employees, Amazon, Walmart and Google invest huge capital to train and build employee talent.
- To meet the growing needs of B2B clients, EdTech players offer wide ranging services to their corporate clients.



Accelerating Investments

- Global EdTech venture capital investments reached more than USD 10 billion in 2020, up from USD 500 million in 2010.
- Additional USD 87 billion worth investments is expected to be added to the industry in the next decade.



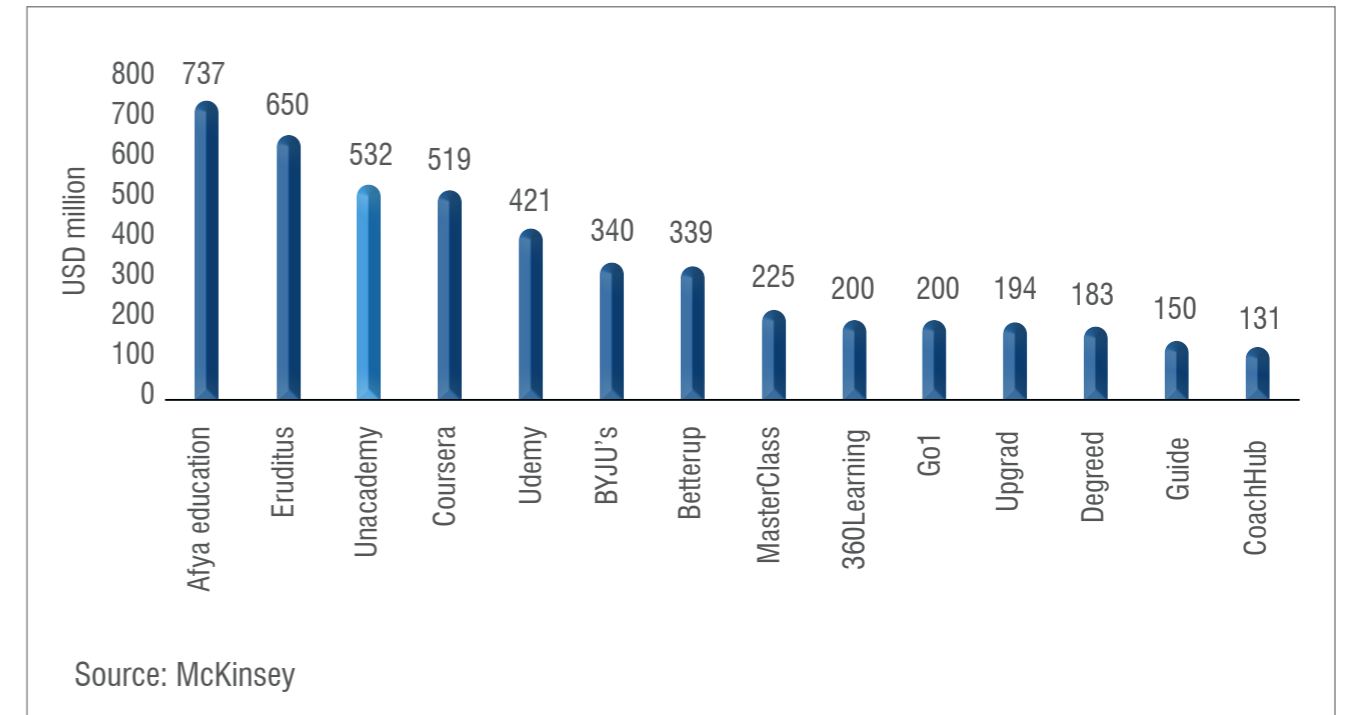
Career-centric Approach

- Learners are looking for value-added services such as personalized mentoring, preparation for interviews, and support in getting a job.
- To meet such expectations and provide holistic experiences, EdTech players are exhibiting significant interest in providing assistance on career-building for the enrolled users and offer placement opportunities for the students.

Source: McKinsey

Among the top 15 adult education companies that received the highest funding deals in 2021, almost all the players except one (Unacademy) offered services to B2B businesses. Recently, EdTech firms derive a greater proportion of their revenue by servicing corporate clients.

Adult Education Companies that Attracted Top Funding in 2021



Most EdTech start-ups leverage latest technology like augmented reality (AR) and virtual reality (VR) and aid the transition to remote and hybrid learning. E-Learning platforms tailored for schools and colleges are increasing due to technological advancements. On the administration side, artificial intelligence (AI), big data, analytics, cloud computing, and the Internet of Things (IoT) simplify manual administration tasks for teachers and school.

Technologies in EdTech Industry

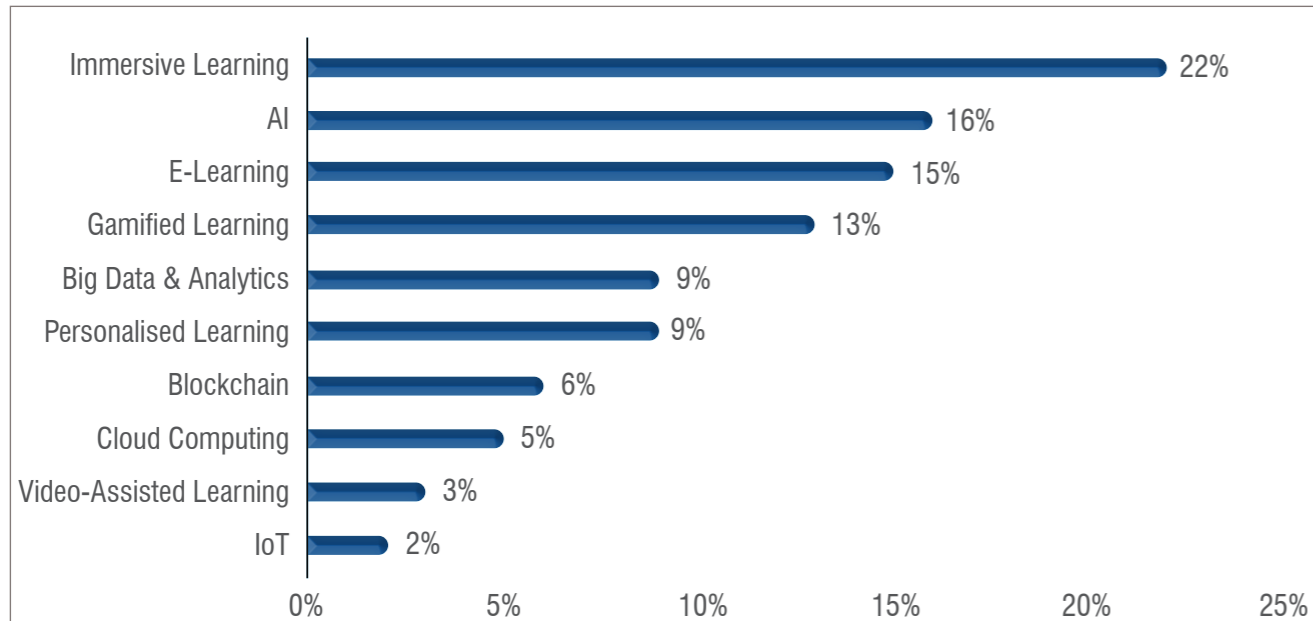
Technology	Use	Example
Immersive Learning	Immersive learning creates artificially stimulated experiences enhancing knowledge retention among students. It facilitates non-linear activities unlike traditional learning methods and improve accessibility to education.	HiDs Technologies, based out of India provides immersive learning platform for schools and colleges. Lectures and notes are made more creative with 3D presentations and visuals to increase student engagement.
E-Learning	E-Learning offers customised online platforms for student-tutor interactions and reduce knowledge gaps. Recorded video sessions provide greater flexibility in learning.	Prisma, an online school in U.S offers live learning platform for grades 4-8. They make learning more interactive and have automated some processes such as attendance recording and time tracking.
Gamification	Gamification integrates games into learning process to make knowledge transfers more fun and engaging. The technology is a key to build collaborative ecosystem for students and teachers. EdTech players use AR/ VR and smartphone apps to develop such games.	ScholarAR, a Turkish EdTech startup provides gamified learning experiences through AR based extensive library along with intriguing games.
Artificial Intelligence and Machine Learning	Artificial intelligence and machine learning tools centralise several repetitive and manual tasks involved in virtual teaching such as attendance tracking and recording. This technology also facilitates uninterrupted 24/7 communication between students and teachers through chatbots.	Singapore based start up Clevai offers online coaching for math courses. It employs AI to study each student's learning history and detect if students lose focus in class and suggest learning resources and feedback accordingly.
Video Assisted Learning	Video assisted learning enable tutors to create videos based on their curriculum. The technology serves as a major value addition to teaching as they aid to reinforce the concepts taught in classroom as well as ensure knowledge is shared to a wider range of audience.	In addition to offering a gamified learning experience to students, US-based start up Bamboo Labs allows teachers to create PDFs and textbooks with interactive videos through the platform's AI-powered menu or from YouTube.

Technology	Use	Example
Blockchain	Blockchain technology fosters paperless administration of educational institutions. They offer effective means to store huge sensitive data and reduce time and costs involved for data verification and maintenance.	Blockology, a start-up based in India offers course completion certificate using Ethereum blockchain while providing unique IDs to verify and certify the data presented in certificates.
Cloud Computing	Cloud computing technology aid in digitalising several tasks involved in traditional teaching. It enables schools and colleges to conduct classes over the cloud and manage several administrations works effectively.	A Nigerian start-up named School-MS offers cloud-based school management system and has automated a range of tasks from student admission to certificate issuance.
IoT	IoT includes the usage of smartboards for interactive learning and air monitoring/ imaging sensors for surveillance within the campus.	iryx Corporation is a US-based start-up that offers classroom activity monitoring. It leverages IoT, thermal imaging and air quality sensors to monitor classroom conditions like particulate counts, temperature, and humidity, among others.
Metaverse	Metaverse aids in student training without the need for physical facilities and expensive personnel, promoting student engagement through 3D VR content. Integration of gamification and VR make metaverse more efficient means of E-Learning.	NextMeet, an EdTech startup based out of India used 3D avatars for virtual interaction and distance learning to make them more interactive.

Source: StartUs Insights

Immersive learning seems to have been the most impactful among tech trends in EdTech. Learners who were trained using virtual reality, an immersive technology, had completed training four times faster than classroom training and 1.5 times faster than those trained through E-Learning.

Impact of Top Tech Trends in EdTech Industry in 2022



Source: StartUs Insights

The COVID-19 pandemic served as a major boom to the EdTech industry as more than 1.7 billion students pursued education through a digital medium by April 2020. The crisis accelerated the pace of industrial growth supported by the influx of venture capital and listed equity. Between 2012 and 2019, the number of hybrid and distance-only students at traditional universities increased by 36%, while COVID-19 pandemic accelerated that growth by an additional 92%.

Examples of EdTech Boom during COVID-19 Pandemic

	Seesaw An Interactive Learning Platform	Increased reach by 10 -fold within one month of school shutdown in March 2020.
	Google classroom Blended Learning Platform	Almost doubled its users to 100 million since the beginning of March 2020 to early April.
	Kooleam , GSX, YouDao After-school tutor centres	Registered more than 10 million enrolments each during March 2020.
	Chegg An edtech company	35% y/y rise in subscriptions to online learning services in Q1 2020.
	Duolingo An language learning app	New user sign ups increased by 108% during 9th to 30th March 2020.
	Coursera An online learning platform	5x increase in new enrolments while personal development courses marked 10x increase in overall enrolments.
	Estachio University University in Brazil	55% growth in enrolment for virtual learning in Q1 2020
	BYJU's E-Learning platform	Recorded six million new users in March 2020

Source: Credit Suisse





While Edtech benefitted from pandemic-triggered boom, the road ahead is mixed. Though drivers such as emergence of hybrid model and digital penetration could support the sector, challenges such as tech disruption and data piracy pose a threat and are to be worked around.

EdTech Industry's Drivers Post-COVID

 Growth of Hybrid Model	EdTech and players who are temporarily offline are increasing opting of a hybrid retail model that combining online and offline learning to remain sustainable in the long run.
 Cost Efficiency	The adoption of latest technology in the education sector during the COVID-19 pandemic resulted in centralising several management operations and delivering education services in a cost efficient manner.
 Investments	Investments surged post-pandemic as entrepreneurs and investors viewed the EdTech sector as an attractive investment avenue that offers huge financial returns.
 Digital Penetration	Increasing use of mobile phones and tablets post-pandemic is a major demand driver for E-Learning.

Source: Forbes

Exhibit: Challenges Facing EdTech Post-COVID

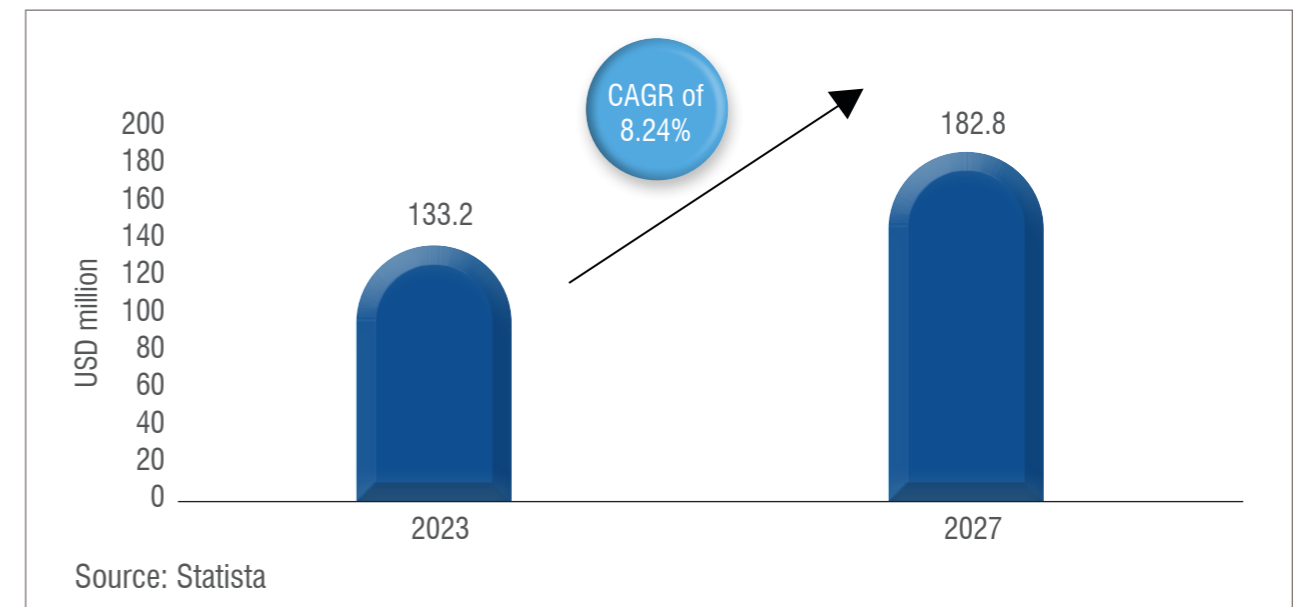
 Technological Disruptions	The ever-evolving technology has necessitated EdTech startups to keep pace with the latest technological developments to compete with the big giants operating on a low-cost basis in the industry.
 Data Piracy	Theft of personal data is a major threat to EdTech industry as huge chunk of user data is fed onto the system and maintained in the cloud.
 Diverse Demands	COVID-19 pandemic has largely influenced customer's want of a smooth and cohesive digital interface. EdTech firms should focus on building customer experience in terms of the content delivered and the infrastructure.
 Failure to Develop Hybrid Model	After the opening of schools and colleges post-pandemic, institutions are reverting back to the traditional way of teaching instead of leveraging and integrating the technological advancements embraced during the crisis.

Source: Forbes

02 EdTech in Saudi Arabia

The number of users of online learning platforms in Saudi Arabia is expected to reach 5.2 million in 2027. User penetration is expected to grow to 13.7% in 2027, up from 10.6% in 2023.

Online Learning Platforms' Revenue (2023-2027)



Saudi Arabia is likely to witness strong growth in EdTech industry because of the boom in online learning on the back of COVID-19 pandemic coupled with remarkable government initiatives.

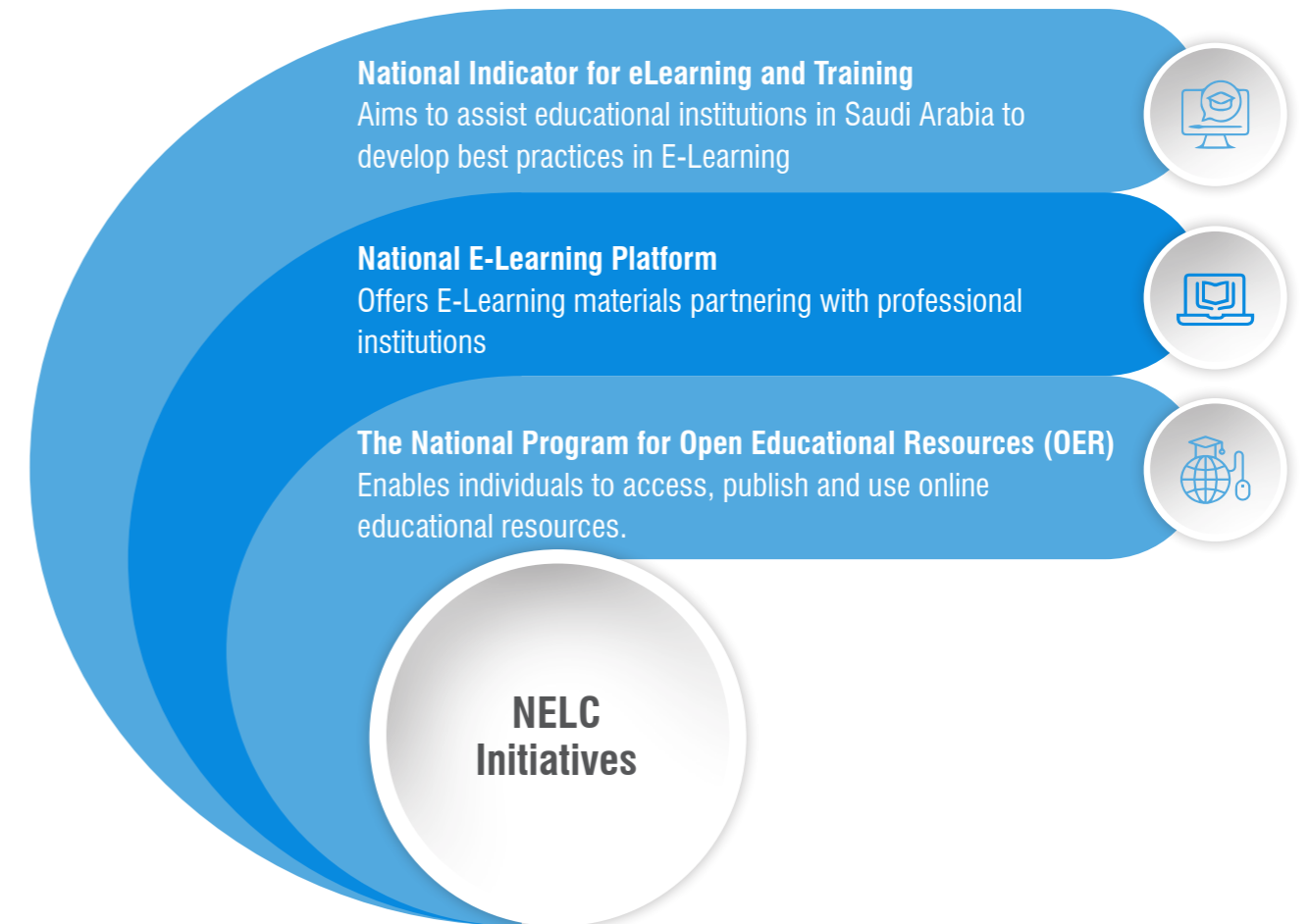
Growth Drivers



Source: Arab News, Argaam, OLC, AlArabiya

The National eLearning Center (NELC) has been taking steps to improve E-Learning in Saudi Arabia. In 2022, it launched three new advanced level professional job courses. The National eLearning Center has also partnered with Coursera to launch nationwide skill training program to upskill the workforce of the country by providing access to courses offered by IBM, Microsoft and Stanford University etc.

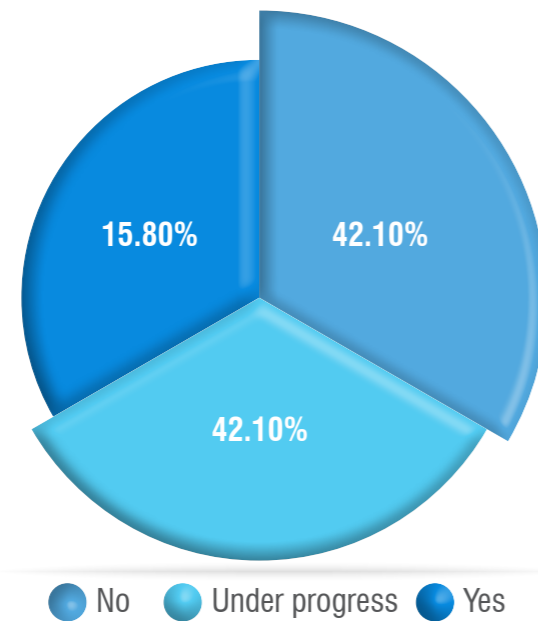
Key NELC Initiatives



Source: NELC

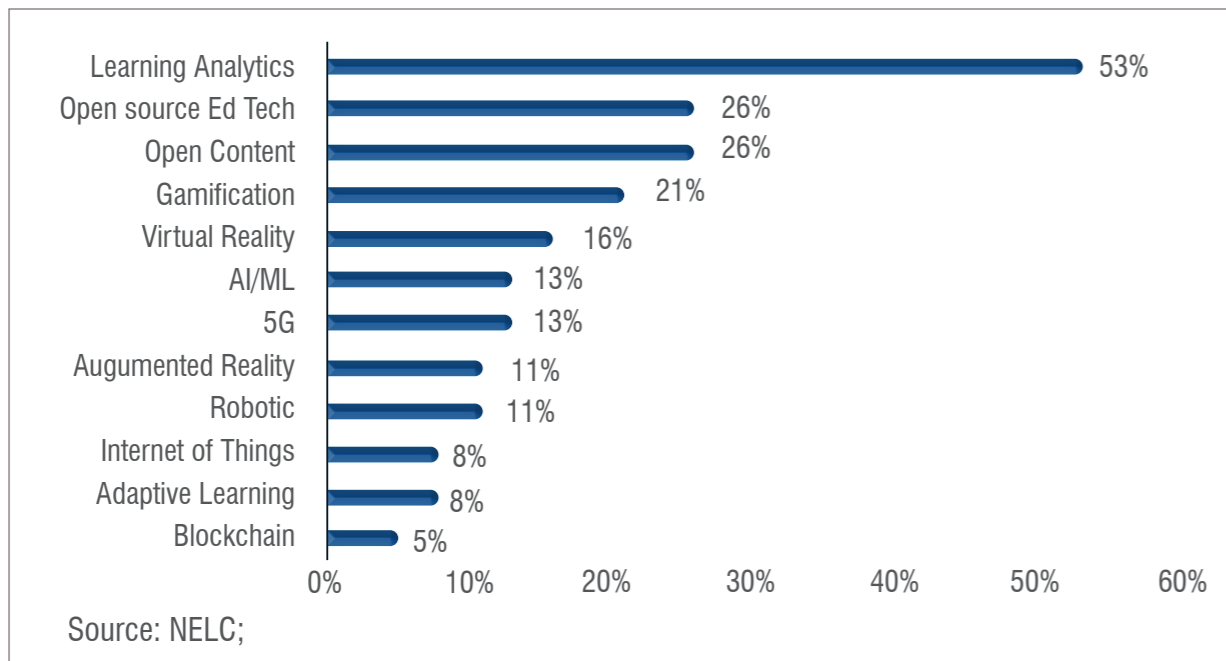
According to the latest indicator on current state of E-Learning in Saudi learning institutions, granting of E-Learning licenses for many institutions is in progress and the adoption of technologies by these institutions also seems favourable.

Saudi Learning Institutions with E-Learning License



Source: NELC; Note: The National Indicator for E-Learning measures the current state of E-Learning in Saudi learning institutions with the participation of 38 out of 62 government and private institutions. Latest available data is for year 2020-21.

Uptake of Innovative Technologies by Saudi Learning Institutions



There are many EdTech start-ups in Saudi Arabia, meeting diverse learning needs ranging from coaching for school students to personality development. Some start-ups that recently received funding include Shaguf, raising seed capital totalling USD 400K, and Aanaab, a raising seed funding of USD 1.5 million. Founded in 2018, AlGooru attracted investments worth USD 2 million from Ray Invest and other angel investors.

EdTech Start-ups in Saudi Arabia



Source: Tracxn

During the COVID-19 pandemic, Saudi Arabia witnessed a smooth transition to remote learning primarily supported by the government's efforts. To ensure sustained offering of good quality online learning, the Saudi government undertook research with the help of Online Learning Consortium (OLC) to understand the state of online K-12 education and build a vision for the post-pandemic environment.

E-learning Tools Implemented During COVID-19 Crisis

The Madrasati Platform

- The platform was launched in August 2020 to facilitate online teaching for more than 5 million students in Saudi Arabia during the pandemic.
- It served as a unified E-Learning platform offering in-person school experience through the implementation of tools such as Microsoft Teams, Office 365, iEN Portal.
- It has offered 154 virtual classes and 16 million learning resources using augmented reality, virtual games, 3D tools and other interactive objects.

Educational Information Network (iEN)

- The National Education Portal launched in 2015 aims to provide superior quality digital content and learning resources to students, parents and teachers such as digital books, educational games, self-assessment tools and resources using AR and 3D technology.
- The platform has already been leveraged by schools in Saudi Arabia during the pre-pandemic period.
- The system has been directly linked to the Madrasati Platform to ensure continuous streaming and availability of the digital content.

Video Recorded Classes

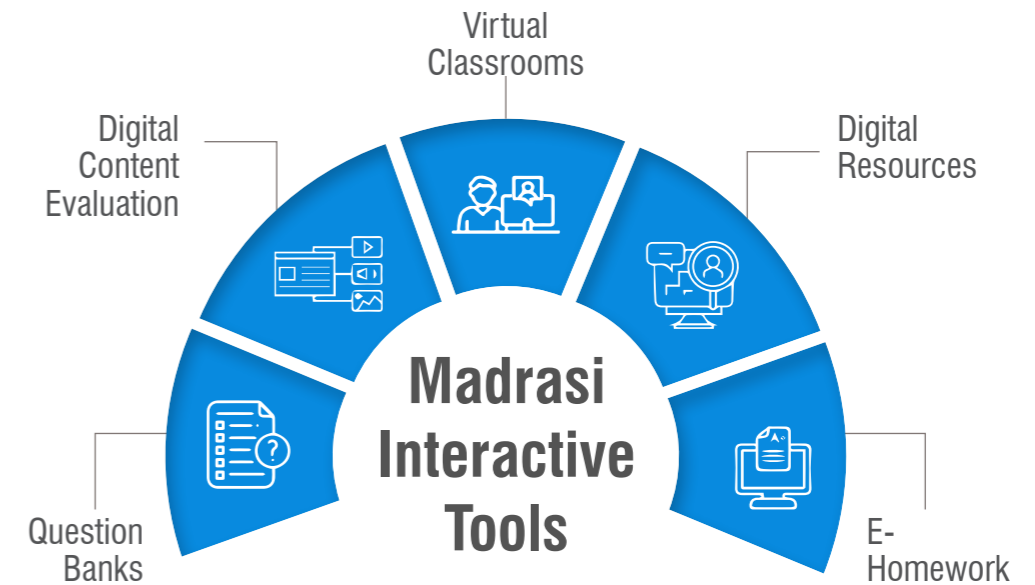
- 23 iEN satellite channels were launched to broadcast all academic lessons for free on TV and Youtube.
- The iEN channels were subject to strict review to ensure the quality of videos delivered through the medium.
- The platform became Saudi Arabia's most watched educational channels by recording 230 million views within a year.

The Back-to-school website

- The Back-to-school website provides various instruction materials such as user guides, infographics and training to effectively use the Madrasati platform.

Source: World Bank

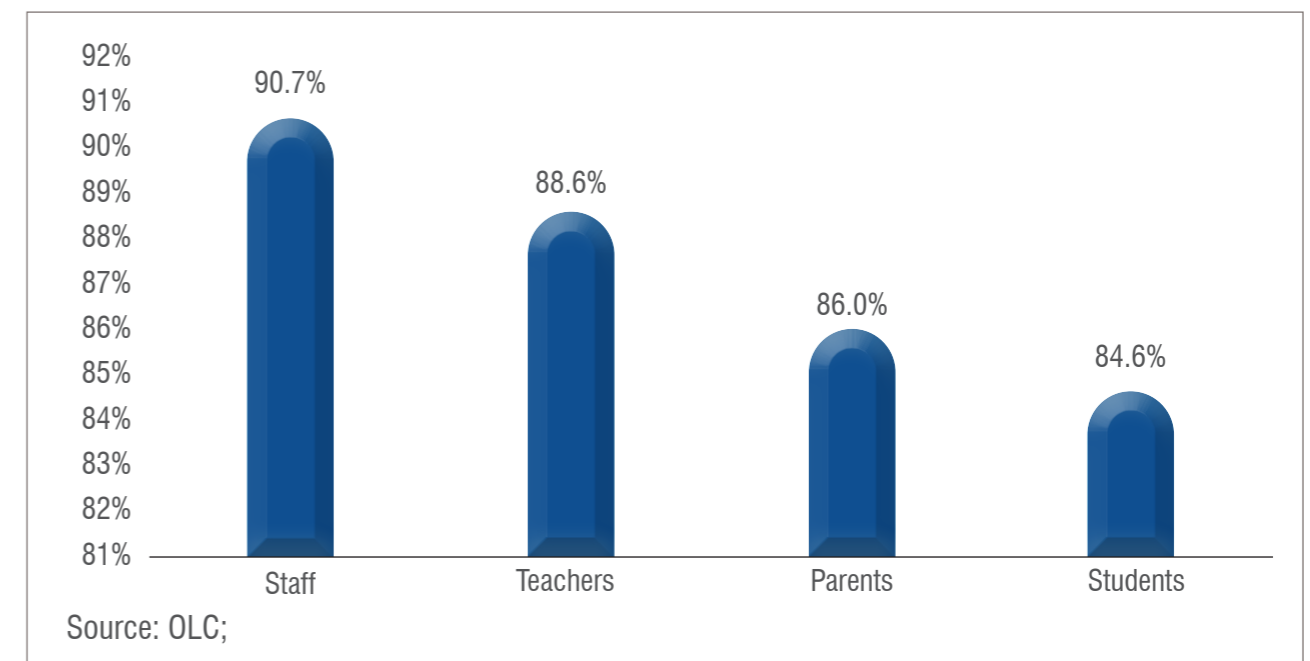
Some Interactive tools in The Madrasati Platform



Source: World Bank

The effective implementation of E-Learning platforms in Saudi Arabia is reflected in high satisfaction levels recorded among students and teachers. According to the survey conducted by the Ministry of Education, Saudi Arabia about 88.6% of the teachers were highly satisfied with the assessment of student learning while 84.6% of the students expressed their satisfaction with the learning and grading tools implemented.

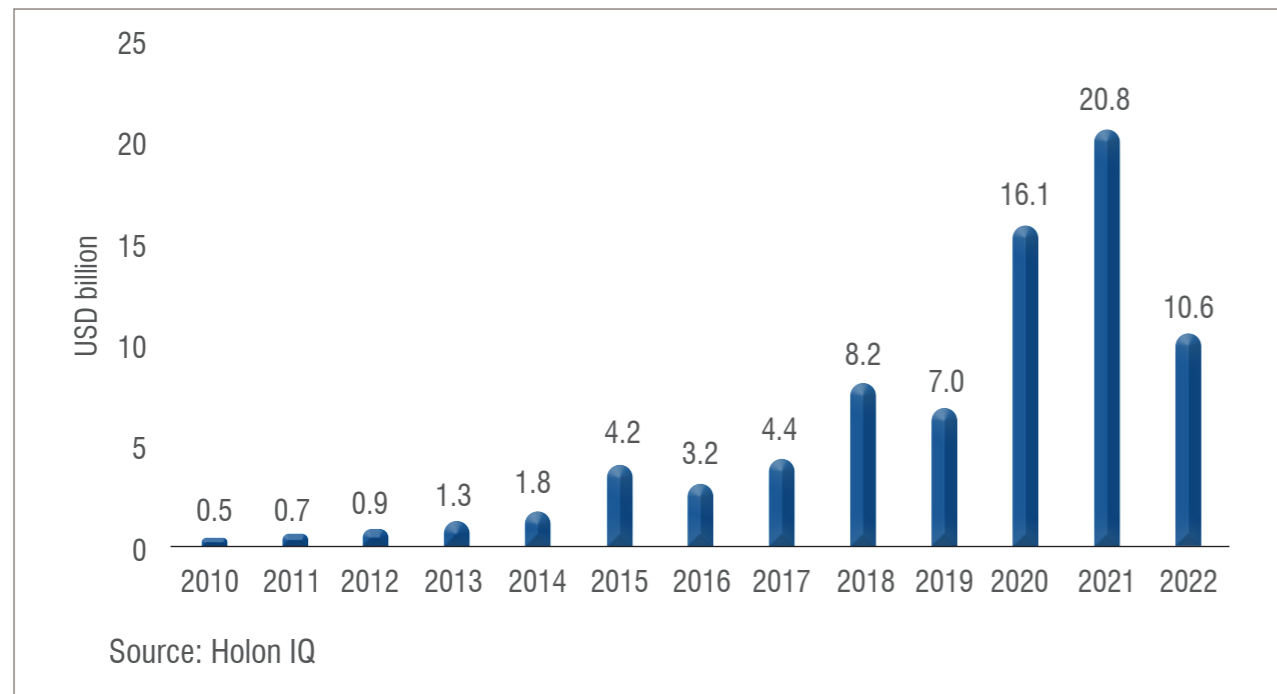
E-learning Tools Implemented During COVID-19 Crisis



03 Global VC Funding in EdTech Industry

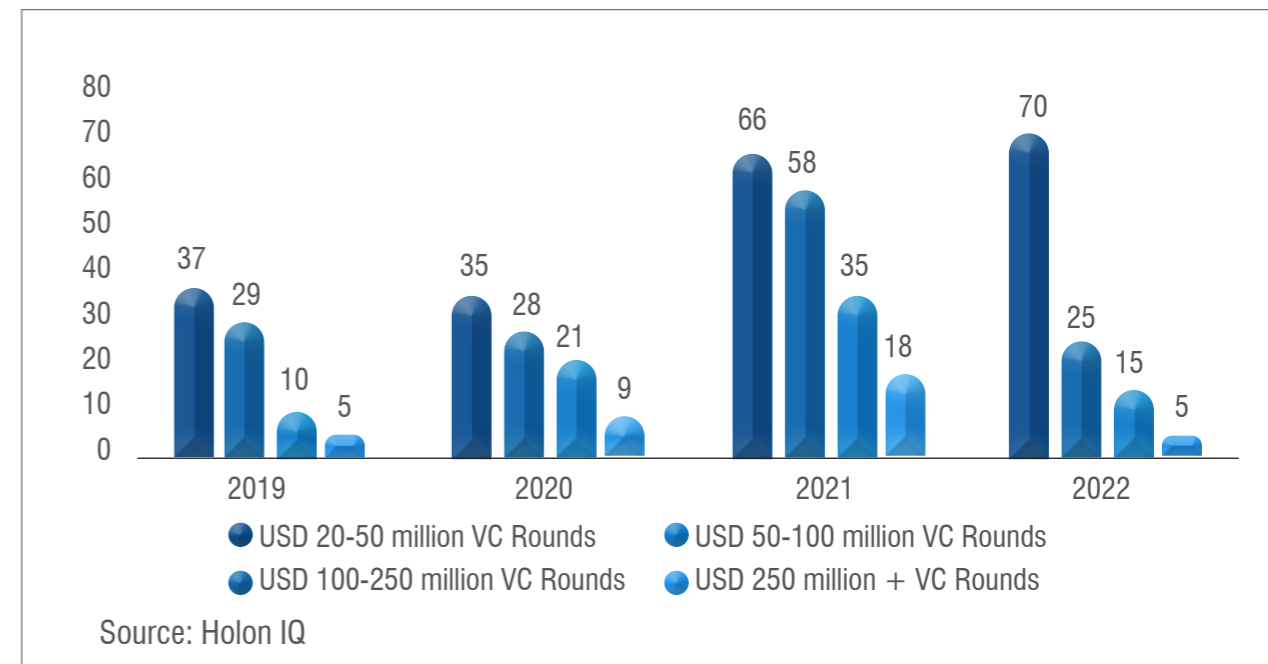
Global venture capital investment in EdTech recorded USD10.6 billion in 2022, marking a 49% fall from the investments witnessed in 2021. The surge in investments witnessed in 2021 is attributed to increased participation of U.S investors in VC markets. 2022 witnessed withdrawal of Chinese investors from the global VC markets even as investor base expanded in U.S, India, and Latin America.

Global VC investments in EdTech Industry



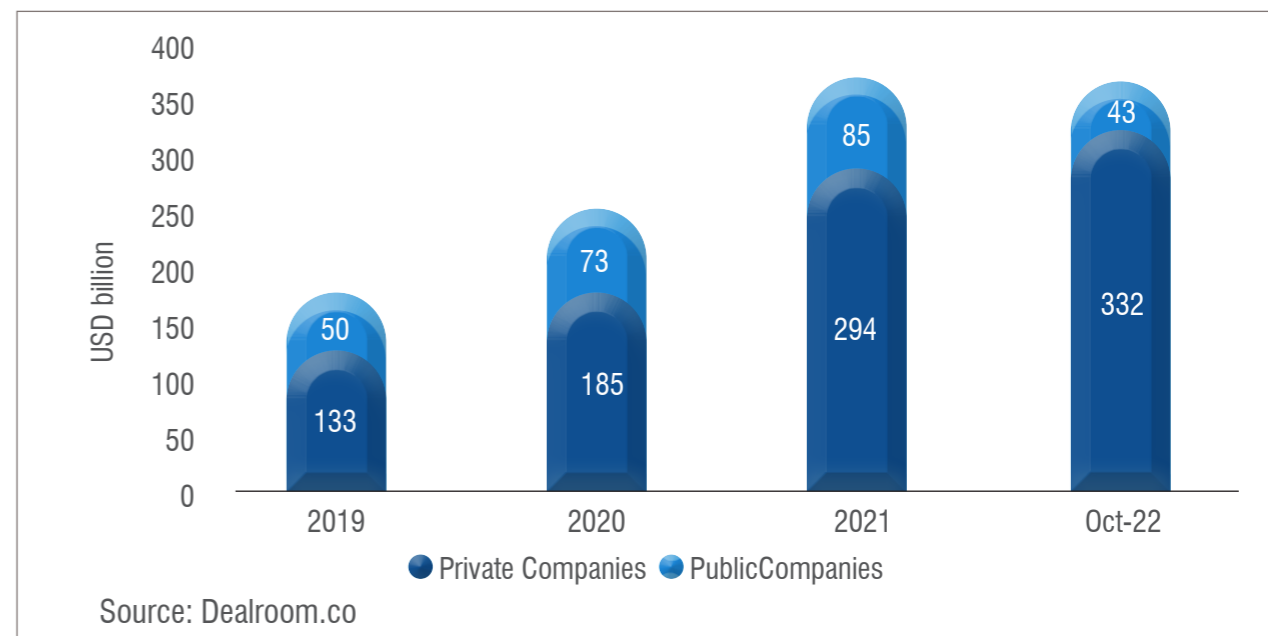
2022 delivered an overall dip in VC funding rounds greater than USD 50 million. However the level of investment in USD 20-50 million rounds and below has increased consistently year over year and continued its momentum in 2022.

Global EdTech VC Funding Rounds (2019-2022)



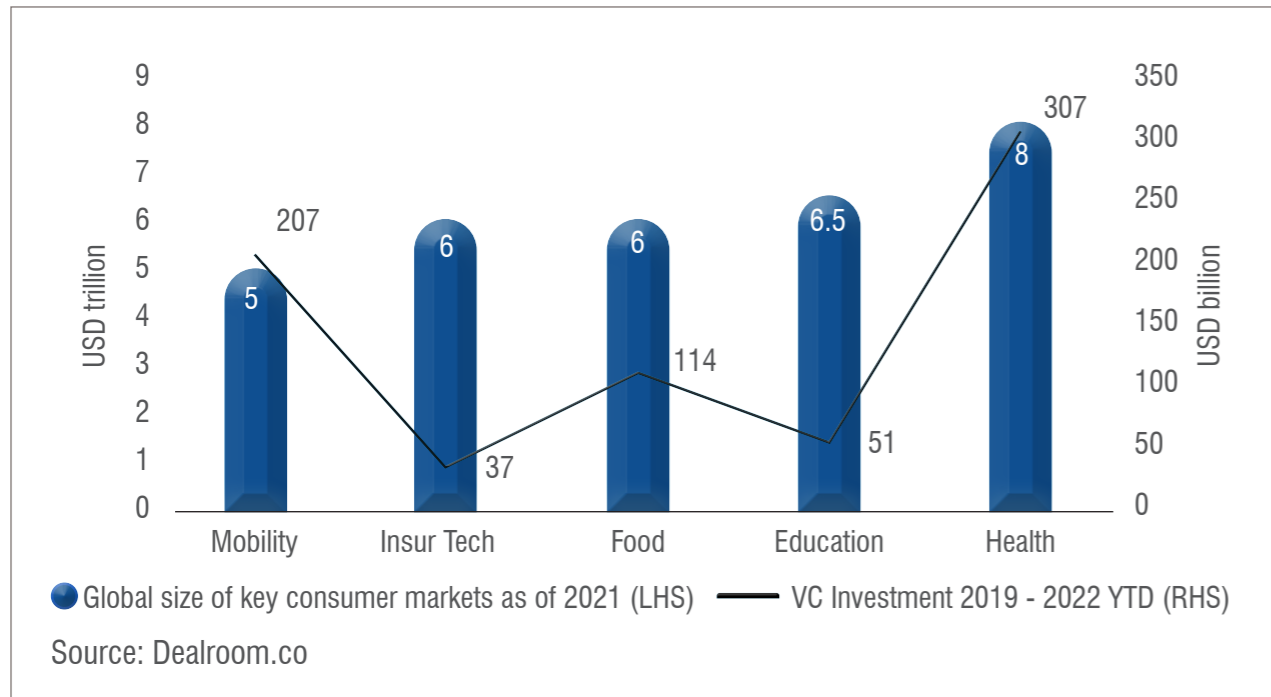
EdTech valuations in the public markets witnessed a steep fall, almost 50% from the 2021 levels. However, value of private companies is growing at a faster pace recording 13% since the end of 2021.

Valuation of Global EdTech Firms (2019- October 2022)



The EdTech industry presents massive investment opportunities in the near term as it is one of the globally most underfunded industries among the other industries of similar size. While K-12 segment has been observing high flow of investments, corporate learning segment has also seen a rise in the rate of investment during 2021 and 2022.

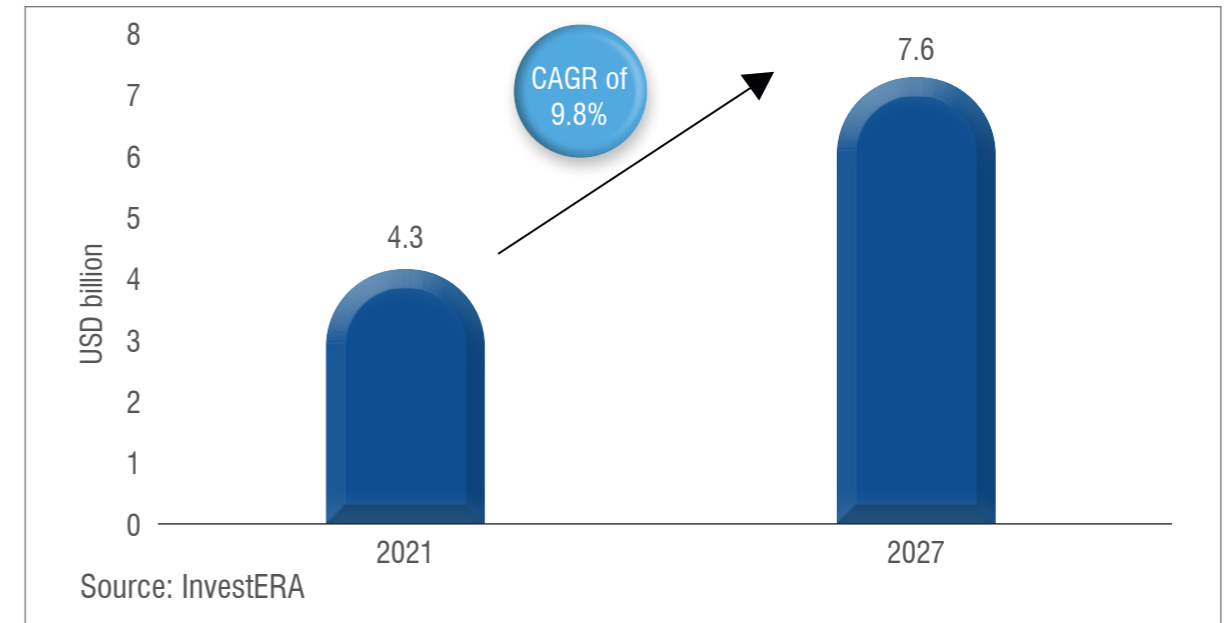
Investment Potential in EdTech Industry



04 EdTech Investment in MENA Region

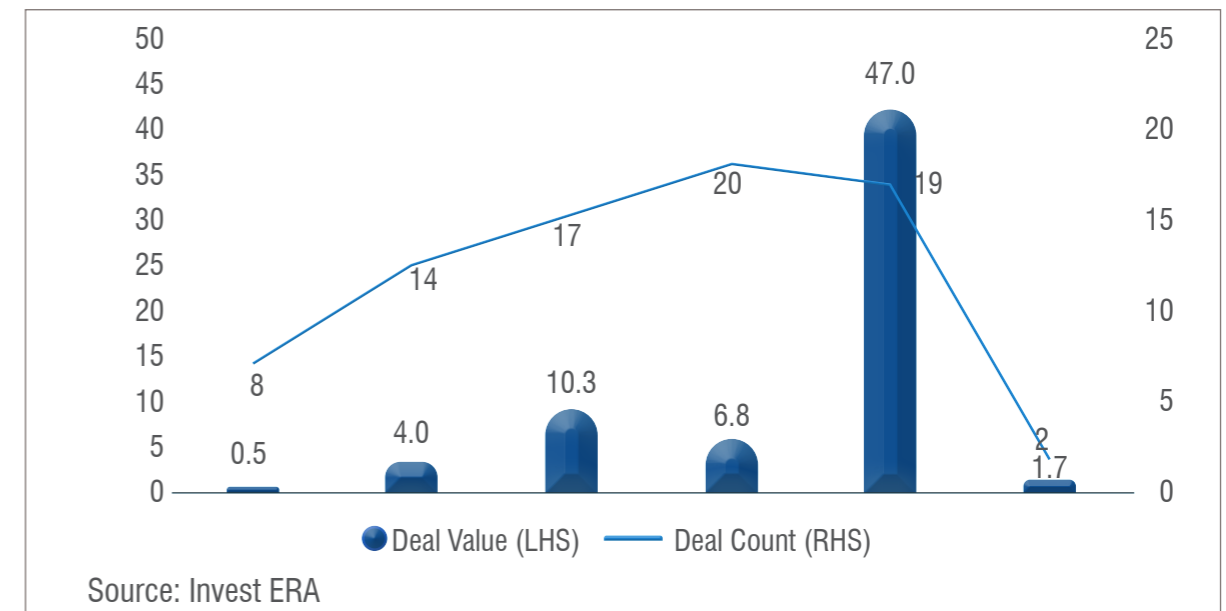
EdTech industry in the MENA region has registered growth in the past few years with several international players gradually entering the market. While UAE, Saudi Arabia and Egypt have a well-developed education industry, EdTech is expected to witness strong boom in these countries.

Market Size of MENA EdTech Industry (2021-2027e)



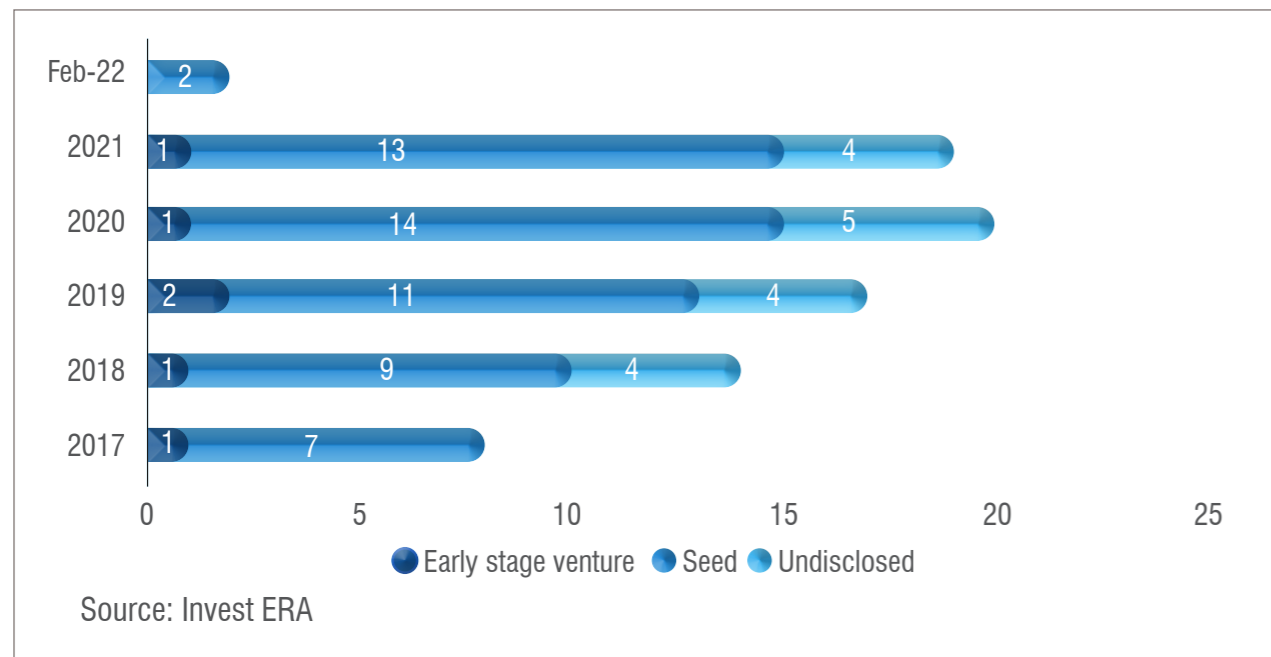
In the past five years, the MENA EdTech industry had received a total VC investment worth USD70.36 million across 80 funding rounds. The huge increase in the total funding amount raised during 2021 can be attributed to Abwaab's Early-Stage Venture round that secured the highest funding value of USD20 million.

MENA VC deals (2017-Feb 2022)



Between 2017 to 2022, the MENA region has observed a total of 80 funding rounds in the EdTech industry. The seed stage received the highest number of deals totalling to 56 deals followed by 17 deals in the undisclosed stage and 6 in early-stage venture capital.

Funding stage breakdown (2017-Feb 2022)



05 Spotlight: Noon Academy

Noon Academy is one of the fastest growing social learning platforms in Saudi Arabia with more than 12 million students and 100K teachers across the globe.⁵ The platform operates on a freemium model by offering free learning material to users requiring minimum access to basic content. However, the start-up charges fees from users requiring access to advanced content from experienced tutors.

Founded in – 2013

Headquarters – London

⁵Learnatnoon

Noon Academy's Product Evolution

2013

Video-based content

- High quality content was delivered through videos

2017

1:1 on-demand tutoring

- 1-1 on-demand affordable private tutoring
- The model was not economically scalable

2017

1:many on-demand

- Launch of Peer-learning platform on demand
- Economical and convenient platform

2019

Live tutoring classes

- Live tutoring classes provided by experienced teachers.
- Availability of quality tutors was a major challenge

2019

Study Groups

- Adoption of community-based learning to promote student involvement and interest

Digital Learning Tools for Students

1 Peer Learning

- The digital platform promotes collaborative and peer learning through games and in-class chat.

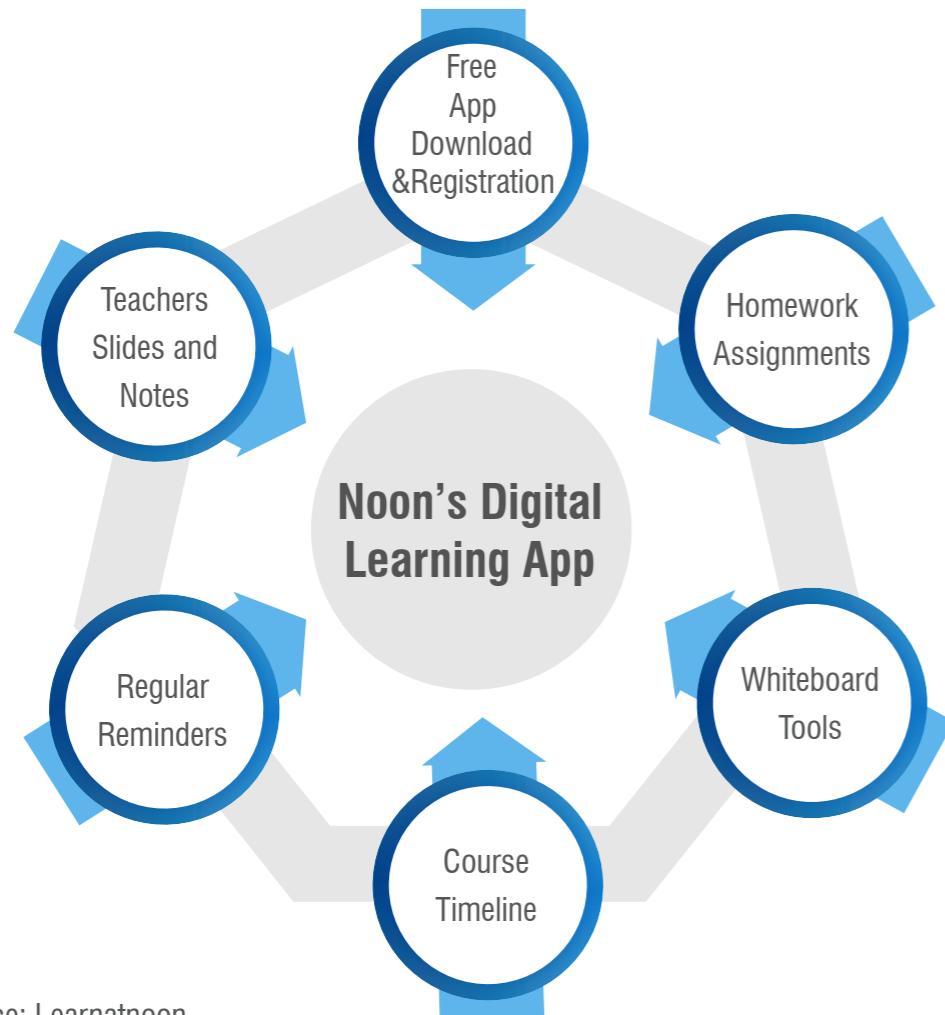
2 Gaming in Learning

- Progress indicators such as badges and player levels
- Social interaction with others
- Fun environment
- Instant feedback

- 3 **Discussion Forums**
 - Communication point between students, teachers and classmates to clarify their doubts.
- 4 **Discussion Forums**
 - Scheduled classes are timetabled and organised to ensure students focus on the course enrolled.
- 5 **Live Classes**
 - Live classes facilitate student and teacher interactions with recorded session accessible to students after the live classes.
- 6 **In-Class Chat**
 - The feature enables students to send messages to their teachers and peers during live-classes.

Source: Learnatnoon

Features of Noon Digital App



Source: Learnatnoon

06 Conclusion

The EdTech industry is expected to grow exponentially over the next decade because of increased opportunities to improve and redefine the education sector. The Venture capital investments in the EdTech sector is expected to continue its upward trajectory with moderate back to pre-pandemic levels in 2023 with major investor participation from U.S, India, and Europe. Global EdTech funding of USD87 billion or over is expected through 2030. VC investment is gaining traction in large emerging markets, particularly Middle East, India, and Latin America, where multibillion-dollar funds are being established to invest in education and other impact sectors.

Mobile penetration and low-cost devices will be game changers in delivering and supporting more knowledge learning and driving industry growth. Schools are systematically integrating technology, with 79% of teachers in developed countries using at least some technology in a systematic way.⁶ With online learning emerging as the new mode of instruction, EdTech products and services are growing in popularity and demand from governments and private entities. The use of Augmented Reality (AR), Big data, and Artificial Intelligence (AI) is reshaping the online learning platform. Education spending could nearly double in the next 15 years. Only 2% of the global USD 5 trillion education market is currently digital. The digital education sector has a high growth potential in the near term.

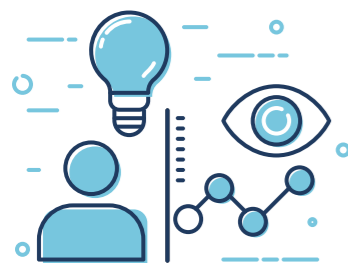
Given the immense funding opportunities coupled with government initiatives, EdTech industry is anticipated to witness robust growth in Saudi Arabia. Increasing expatriate flow and relatively young population support high enrolment rates in the education sector and a driving force for the progress of EdTech sector in the region.



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Riyadh Valley Co

Riyadh Valley Company

Riyadh Valley Company established in 2010 by Royal Decree No.116 dated 13/4/1431 AH to be the investment arm of King Saud University in the fields of Knowledge Economy and the university strategic projects.



Vision

To be the regional leader in knowledge-based investment and technology.



Mission

Riyadh Valley Company is a strategic investor, focused on leveraging the local capabilities, investing locally and globally in growth - stage businesses to create financial and strategic returns that will support the future of economic development in the Kingdom.

Investment Sectors:

Venture Capital Investments



Healthcare Investment



FinTech



Renewable energy & Sustainable Resources



Education



Information & Communication Technology



Logistics and Transportation

Strategic Investments



Innovation and R&D Projects



Commercial Projects



Educational Projects



Residential Projects

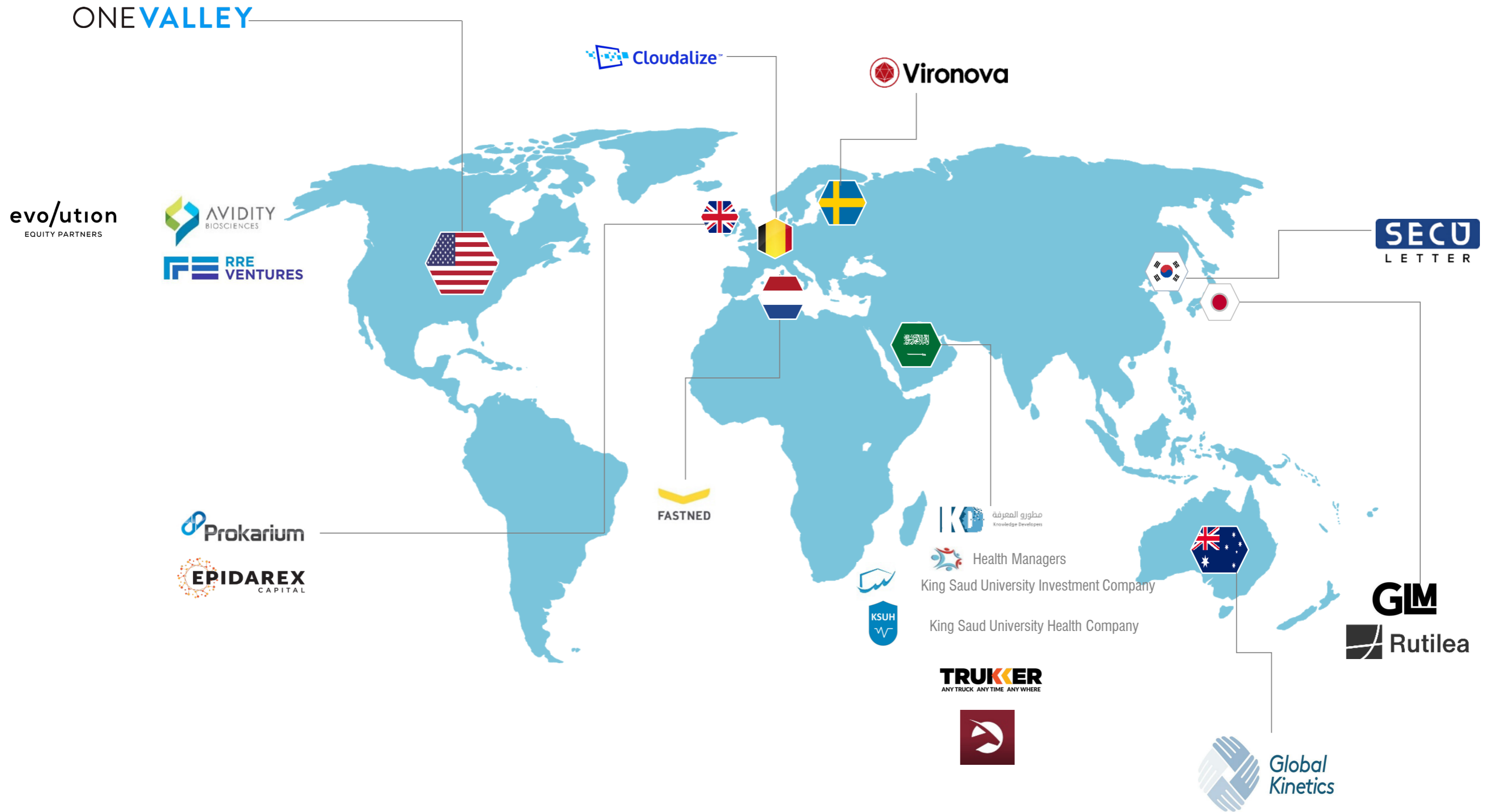


Healthcare Projects



Mixed-use Projects

Knowledge Investment Portfolio



Strategic Investment Portfolio



Sudair Pharma Company Project

Research center and company offices for Sudair Pharma Company



ELM Information Security Company Project

Innovation Center project for Elm information security company



Four Directions Company Project

Commercial and office project contains office buildings and multi-use halls



Majd Real Estate Company Project

Commercial and Office project



Derma Clinic Company Project (Residential)

Residential project for Derma Medical Clinics



City Lights Real Estate Company Project

Entertainment-Commercial project contains screens on the building and architectural blocks, in addition to areas for live shows



Qasr Alaaredh

Social-Entertaining and sports project



Sahat Al-Ardh Company Project

A commercial project contains various shops



NMR Real Estate Company Project

Mixed-use project includes a hotel, restaurants and cafes



Takween Altanmia Company Project

Commercial and Office project



Al-soroooh Al-Mubarakah Company Project

Mixed-use project contains office complex, Mall, Restaurants, cafes, and walkway for visitors



Obeikan Company Project

Commercial project contains various stores near the Common First Year building



Derma Clinic Company Project

Medical-Commercial project contains several medical clinics, medical products stores, and pharmacies



Dur Alkuttab Company Project

Educational project for Primary Schools



Four Directions Company Project

Commercial and Residential project



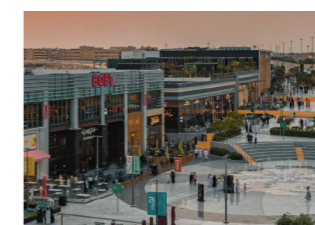
Omnia Real Estate Development Company Project

Commercial project contains various shops



Unified Real Estate Development Project

Cultural-Entertainment project that includes Luxury restaurants, Cafes, Cinemas and green spaces



University Boulevard

Commercial-Entertainment project gives visitors a different experience, and it includes Restaurants and cafes



Arrowad For Higher Education Company Project

Educational complex, Arrowad colleges University campus in Riyadh