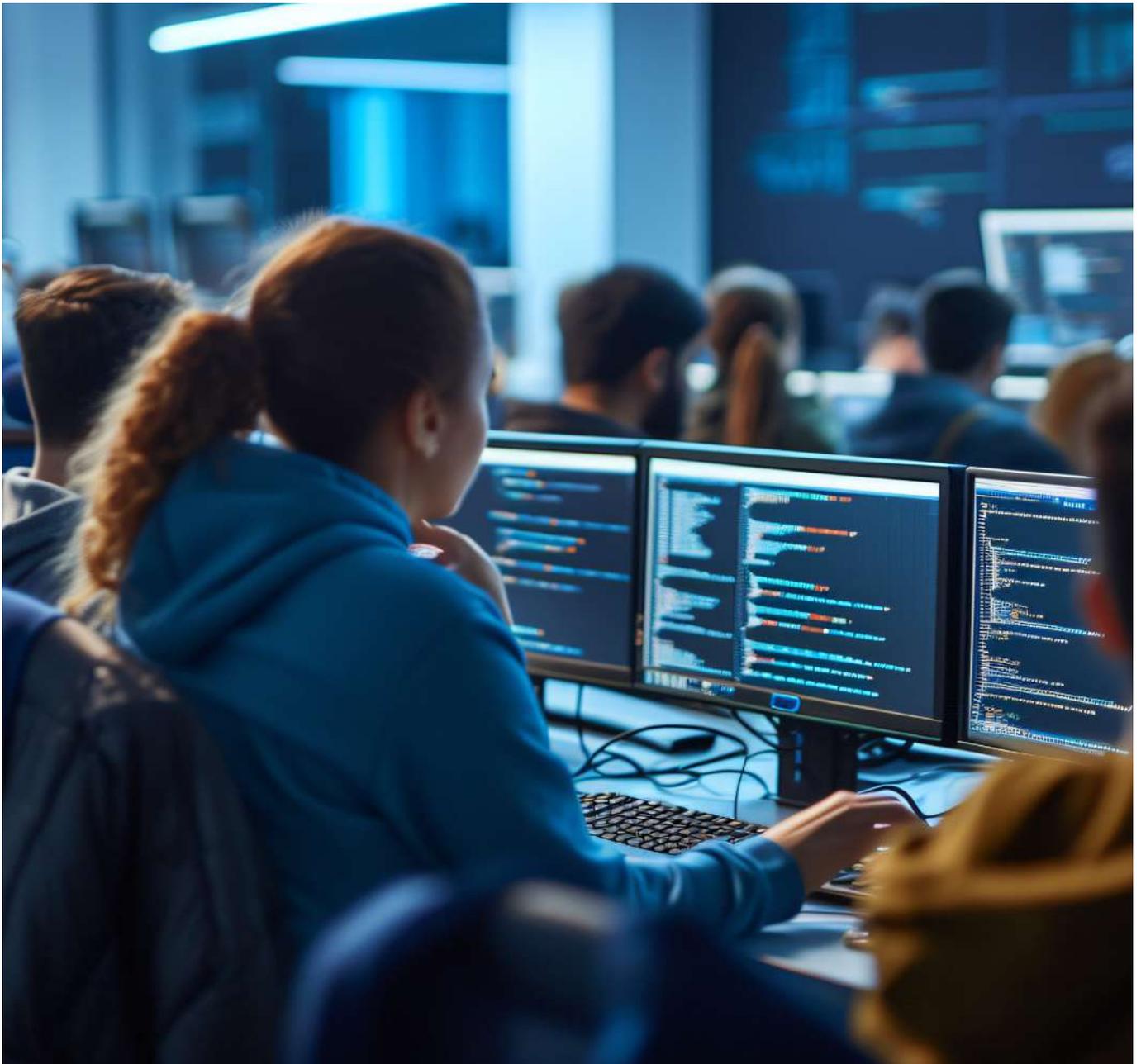


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# EDUCATIONAL HORIZONS

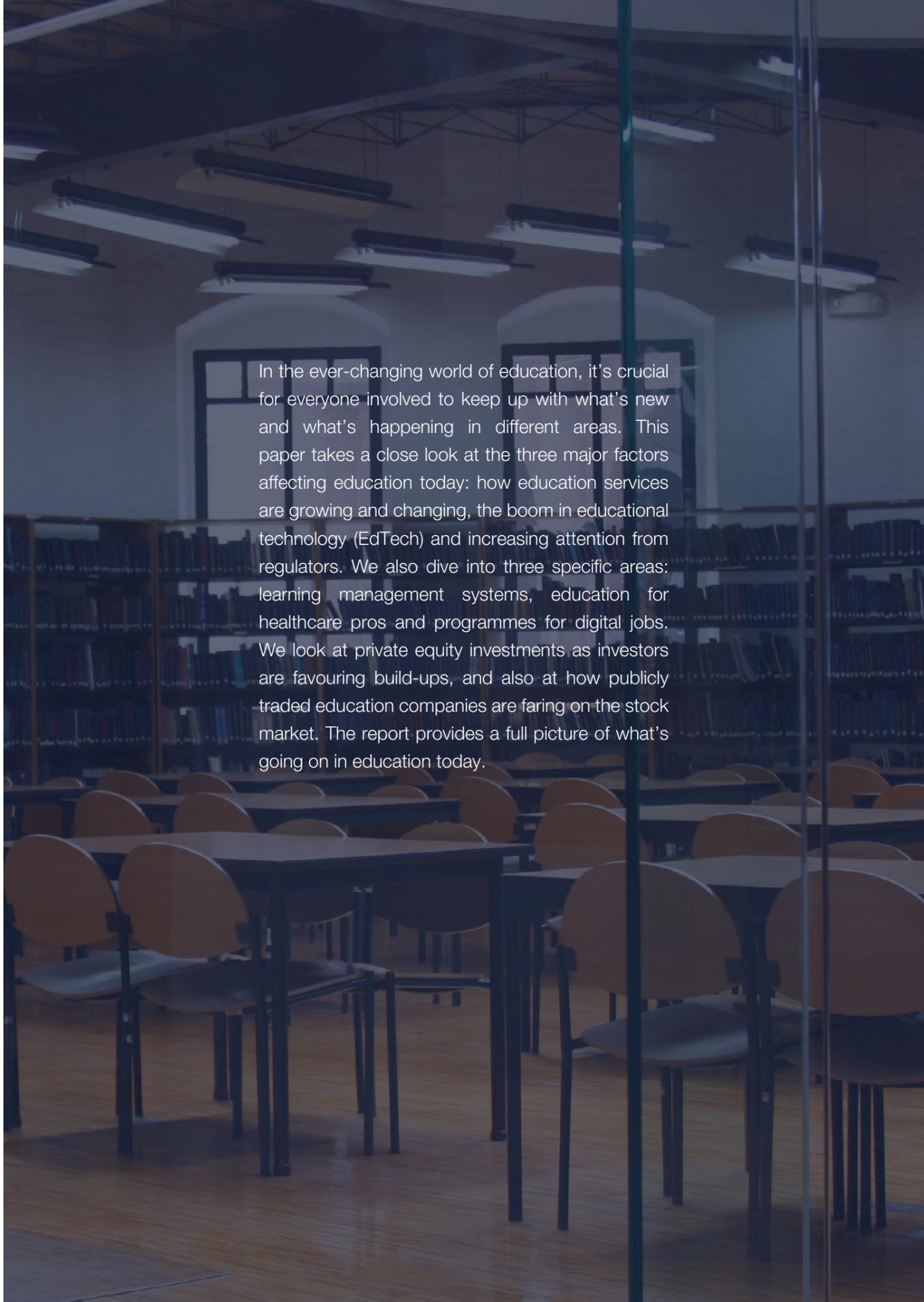
**Exploring Trends, Subsector Dynamics, and Investment Activities**



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In the ever-changing world of education, it's crucial for everyone involved to keep up with what's new and what's happening in different areas. This paper takes a close look at the three major factors affecting education today: how education services are growing and changing, the boom in educational technology (EdTech) and increasing attention from regulators. We also dive into three specific areas: learning management systems, education for healthcare pros and programmes for digital jobs. We look at private equity investments as investors are favouring build-ups, and also at how publicly traded education companies are faring on the stock market. The report provides a full picture of what's going on in education today.



# OVERVIEW OF THE **EDUCATION SECTOR**

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## **SECTION 1**



The education and training industry is a diverse and dynamic sector encompassing various sub-sectors, each catering to specific needs and stages of learning. In this overview, we briefly introduce three key sub-sectors: Education, Assessment and Professional Training & Compliance.

### 1. Education

- **Early Childhood:** Companies in this sub-sector focus on providing educational resources and services for young children. Examples include companies like ABCmouse and LeapFrog, offering interactive and age-appropriate learning materials.

- **K-12:** This sub-sector covers primary and secondary education. EdTech companies like Khan Academy and Google Classroom facilitate online learning, while traditional publishers like Pearson provide textbooks and curriculum materials.

- **Extracurricular Learning:** Platforms such as Outschool and Skillshare offer a variety of extracurricular courses and activities, allowing learners to explore interests beyond traditional academic subjects.

- **Higher Education:** Universities and online platforms like edX and Udacity play a significant role in higher education. They offer degree programmes, certifications and individual courses to a global audience.

- **Lifetime Learning:** As demand for continuous learning grows, platforms like MasterClass and LinkedIn Learning cater to individuals seeking lifelong education and skill development.

### 2. Assessment

- **Pre-hire Assessments:** This sub-sector focuses on tools and services that help employers evaluate the suitability of candidates before making hiring decisions. Examples include platforms like HackerRank for technical assessments and HireVue for video interviews and AI-driven analysis of candidate responses.

- **Post-hire Assessments:** Post-hire assessments evaluate the performance and ongoing development of employees. Companies like Gallup and IBM Kenexa offer solutions for employee engagement surveys, performance evaluations and skill assessments.

- **Educational Assessments & Credentials:** Educational assessments are essential in the academic realm. Companies like Educational Testing Service (ETS) provide standardised testing services, while digital credentialing platforms like Credly offer a way to recognise and verify skills and achievements.

### 3. Professional Training and Compliance

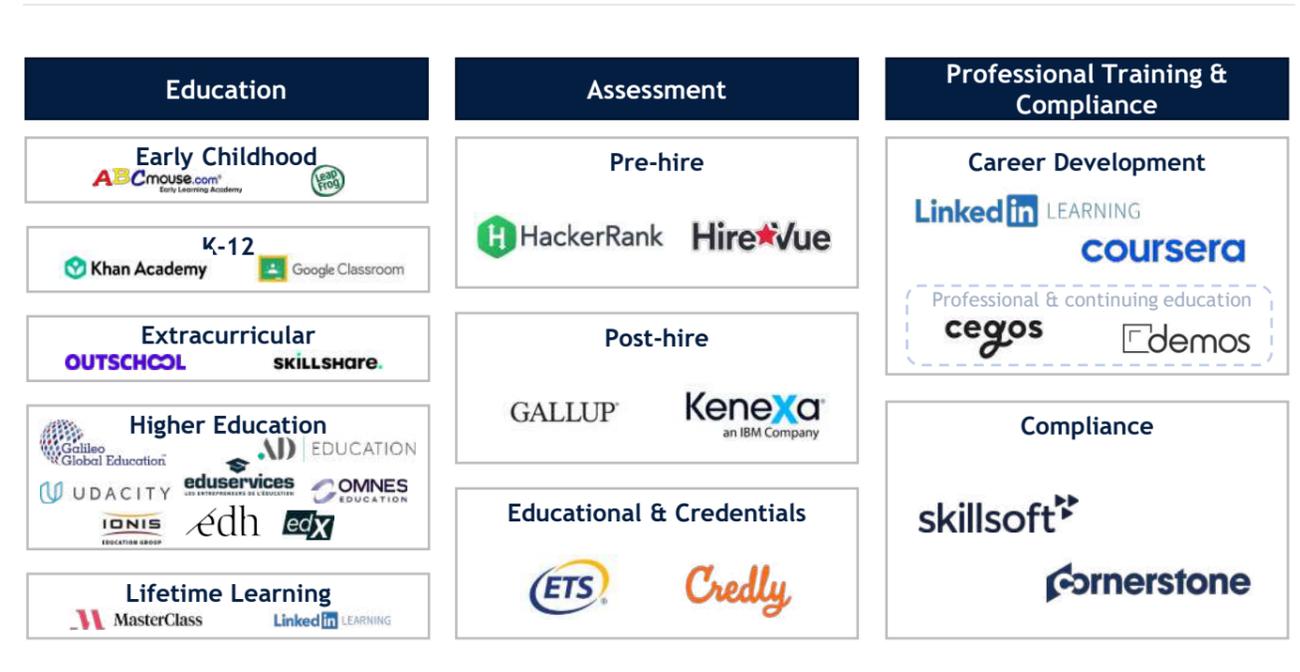
- **Career Development:** Professional training for career development is

a crucial aspect of the workforce landscape. Companies providing specialised courses, workshops and certifications fall into this category. For instance, LinkedIn Learning and Coursera offer a wide range of courses designed to enhance skills and advance careers.

- **Compliance:** Compliance training ensures that individuals and organisations adhere to legal and regulatory requirements. Companies like Skillsoft and Cornerstone OnDemand provide solutions for compliance training, covering topics such as workplace safety, diversity, and data protection.

The education and training market is a multifaceted ecosystem, with each sub-sector addressing specific educational needs at different stages of life and career development. The integration of technology, online platforms and adaptive learning approaches is reshaping the landscape and providing diverse opportunities for learners and professionals alike.

FIG 1: DIVERSE AND DYNAMIC SECTOR ENCOMPASSING THREE SUBSECTORS (NON-EXHAUSTIVE EXAMPLES)



Source: BG IRIS

The French education sector is recognised for its comprehensive and structured approach to fostering academic excellence and professional development. More specifically, The French emphasis on art education, culinary arts and gastronomy and hospitality management within its education system is a testament to the country's rich cultural heritage and its commitment to fostering expertise in these specialised domains.

- **Arts education:** France has a long-standing tradition of nurturing artistic talents and this is reflected in the presence of renowned art schools across the country. These institutions, such as the École des Beaux-Arts in Paris, provide aspiring artists with a

rigorous and comprehensive education in various forms of visual arts, sculpture and design.

- **Culinary arts and gastronomy:** French cuisine is celebrated worldwide for its sophistication and culinary excellence. To maintain and pass on this culinary heritage, the French education system offers specialised programmes in culinary arts and gastronomy. Culinary institutes, such as Le Cordon Bleu, provide aspiring chefs with a combination of theoretical knowledge and practical training. Students learn not only the techniques of French cooking but also the cultural and historical aspects that underpin the country's gastronomic traditions.

- **Hospitality management:** Recognizing the importance of the hospitality industry, the French education system offers specialised programmes in hospitality management including national diplomas of higher education (Brevet de Technicien Supérieur, Licence Professionnelle, Répertoire National des Certifications Professionnelles) and various master's degrees with top business schools including ESSEC, ESCP, EmLyon, etc. These programmes, often affiliated with prestigious hotel management schools, prepare students for leadership roles in the hospitality sector.

# TRANSFORMING EDUCATION: NAVIGATING TRENDS

FIG 2: FRENCH EMPHASIS ON ART, CULINARY ART & GASTRONOMY, AND HOSPITALITY MANAGEMENT (NON-EXHAUSTIVE)



Source: BG IRIS, Campus France

## SECTION 2



The education sector, a cornerstone of societal development, is currently undergoing a profound transformation marked by three key trends. As

traditional players and innovative newcomers navigate these shifts, the sector is witnessing a dynamic interplay between diversification strategies, the

digital revolution led by EdTechs and a changing regulatory landscape.

The diversification strategy employed by traditional educational institutions is not a one-size-fits-all approach. It involves a dynamic and innovative mix of cutting-

edge programmes, strategic partnerships, digital initiatives and a holistic approach to professional preparation. These examples illustrate how traditional players are

actively shaping the future of education to meet the changing needs of students and the workforce.

## Diversifying offerings for relevance: a strategy for traditional players

In the ever-evolving landscape of education, traditional institutions are taking proactive steps to remain not only relevant but also ahead of emerging demands. This strategic response involves a nuanced approach that manifests in various ways, from the introduction of cutting-edge diploma programmes to the strategic reinforcement of core educational services.

Examples of innovative initiatives:

- **New diplomas:** traditional universities and colleges are breaking away from conventional offerings by introducing new diplomas that align with emerging industry trends. For instance, business schools and universities (University of Cambridge, INSEAD, HEC Paris, Sciences Po, ESCP Europe, Business School Lausanne, etc.) have introduced a specialised diploma in Sustainable Business Management to address the growing importance of sustainability in the corporate world.

- **Reinforcement of core educational services:** while diversification involves exploring new frontiers, traditional players are also reinforcing their core educational services to meet contemporary needs. An example of this is that well-established engineering institutes (MIT, Stanford, Columbia

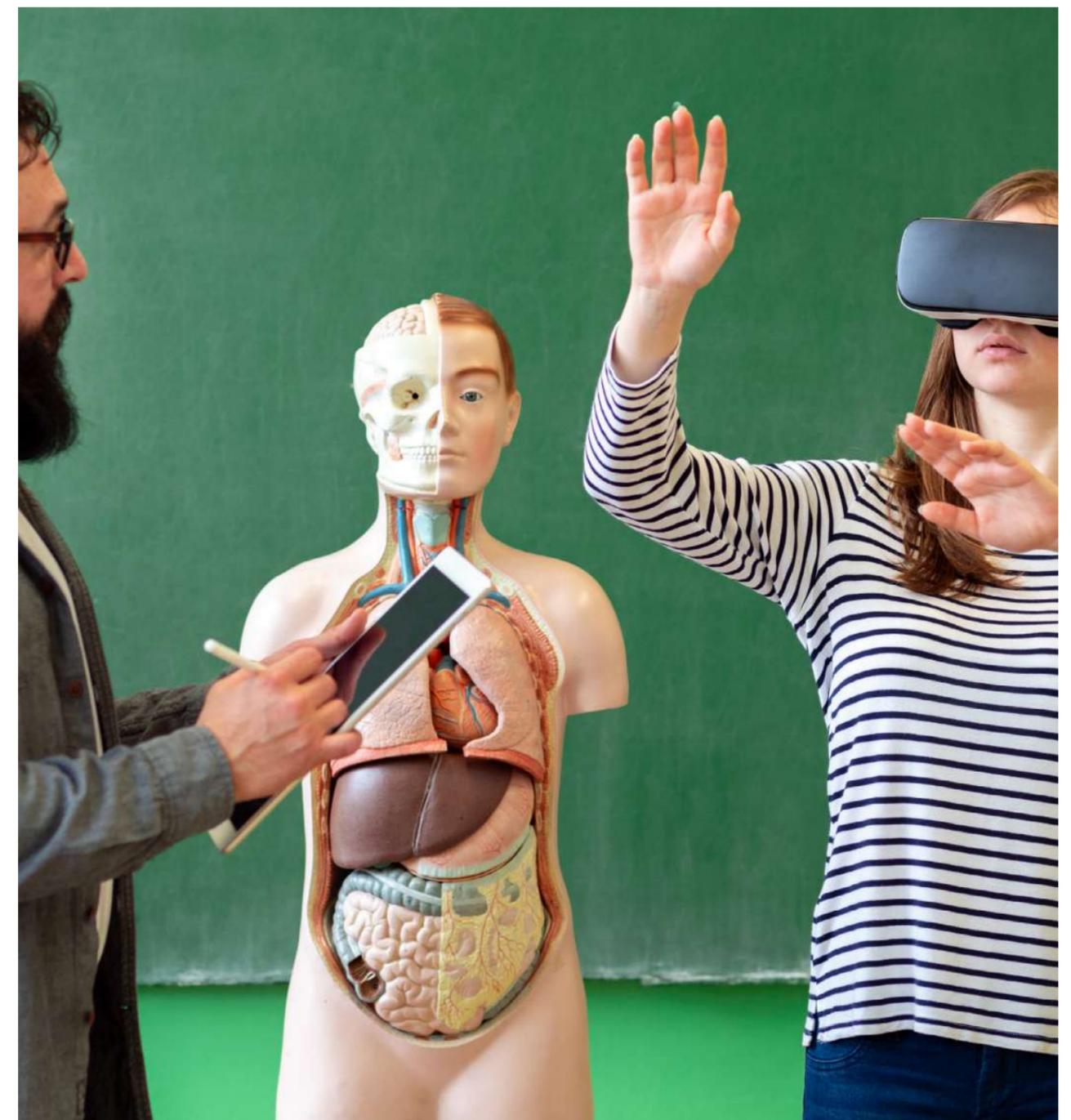
University, Carnegie Mellon University, Duke University, ENS Paris-Saclay, Imperial College London, University of Leeds, etc.) are enhancing their core curriculum with the latest advancements in artificial intelligence and machine learning, ensuring graduates remain competitive in a rapidly evolving technological landscape.

- **Partnerships with industry leaders:** traditional institutions are forging partnerships with industry leaders to bridge the gap between academia and the professional world. For instance, Siemens launched the Industry 4.0 curriculum in partnership with higher education providers including The University of Sheffield, Liverpool John Moores, Middlesex University, Newcastle University and Manchester Metropolitan University, etc.

- **Digital transformation initiatives:** embracing the digital era, traditional players are undertaking initiatives to transform their educational offerings. This may involve the development of online courses, virtual classrooms and interactive learning platforms. A classic example is Cambridge University library's partnership with Google Arts and Culture to open its world-class collections freely to a global audience.

- **Adoption of technological tools:** to enhance the learning experience, traditional educational institutions are adopting technological tools. For instance, Columbia University Vagelos College of Physicians and Surgeons established a Clinical Innovation Lab, where students can sharpen their skills in placing a central line using a virtual reality trainer developed by Columbia physicians and researchers.

- **Holistic professional preparation:** beyond academic excellence, traditional players recognise the importance of preparing students for the demands of the professional world. For example, ESSEC Business School offers different tracks "chair" with companies such as Peugeot, Amundi, Orange, BNP Paribas, Sia Partners, Sanofi, etc. The chairs in the programme produce new knowledge, tackle global challenges and integrate market analyses. Lasting from one trimester to two years, they offer exclusive seminars and courses. Through strong links with academia and industry, chairs unite key communities in specific fields, contributing to industry growth. Completion awards a certificate, showcasing academic and practical expertise.



## Digital revolution and the rise of EdTechs: redefining learning experiences

The global EdTech (Educational Technology) market has been experiencing significant growth and transformation, fuelled by technological progress, increased internet penetration and a growing recognition of the importance of digital learning. EdTech refers to the use of technology to enhance education, encompassing a wide range of tools and platforms designed to improve teaching and learning experiences.

The EdTech market has witnessed a surge in adoption across various educational levels, from primary and secondary schools to higher education and professional development. The shift towards online and blended learning models, especially accelerated by the Covid-19 pandemic, has propelled the EdTech industry to the forefront of educational innovation.

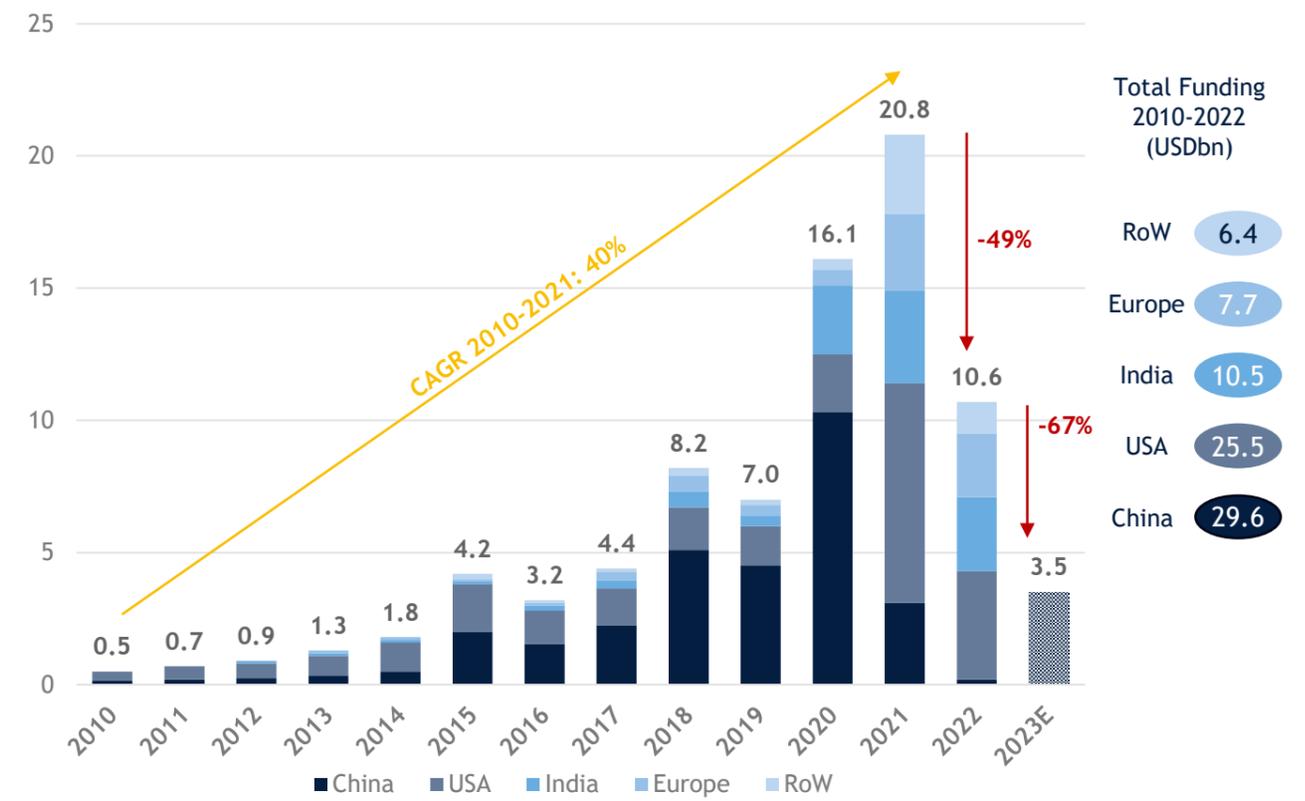
From 2010 to 2021, EdTech venture funding witnessed a substantial 40% CAGR. The driving forces behind this growth were the spectacular expansion of EdTech markets in China and the United States, both emerging as global leaders in adopting educational technology. Concurrently, India and Europe experienced significant catch-up, contributing to the overall evolution of EdTech funding dynamics. This transformative period underscores the global impact of technology on education, shaping the landscape of venture funding in the educational technology sector over the past decade.

In 2022, the global EdTech Venture Capital sector demonstrated resilience by securing USD10.6 billion in investments, although this marked a 49% decrease from the unprecedented levels witnessed in 2021. Despite

this decline, the year proved robust when measured against pre-pandemic standards. The exuberance that characterised the 2020-2021 boom in venture funding has now subsided, leading to a renewed focus on fundamental principles and tangible outcomes.

The slowdown in venture funding continued in 2023 mainly due to the saturation point reached in Edtech, economic downturns and uncertainties, and an overall more pessimistic and risk-averse investor sentiment.

FIG 3: CHANGE IN GLOBAL EDTECH VENTURE FUNDING OVER 2010-2023E (USDBN)



Source: BG IRIS, HoloIQ



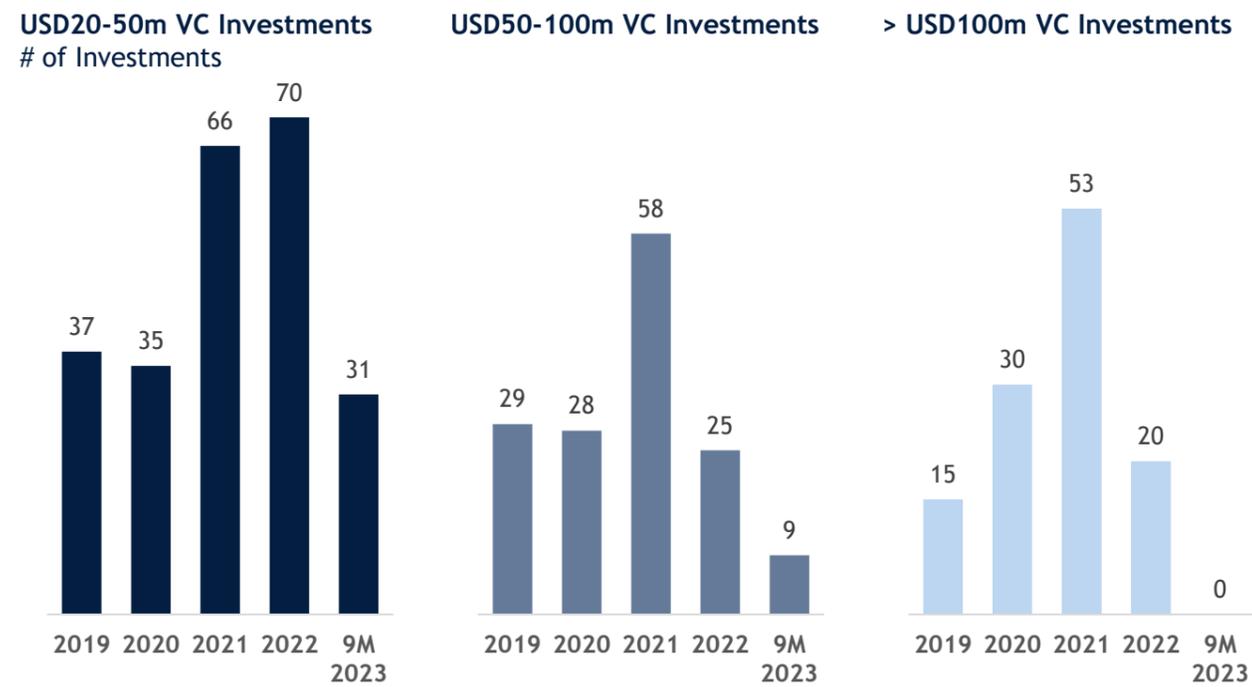
A notable shift in 2022 was the withdrawal of Chinese investors from the EdTech market, contributing a mere USD0.1bn compared to the substantial USD10.2bn seen in 2020. In contrast, both Europe and India have witnessed significant growth in EdTech VC investments over recent years. However, the surge in funding can be attributed not only to a broader and higher quality base of early-stage

start-ups but also to a few outliers, the sustainability of which remains uncertain for the next two/three years.

Beyond geographic variations in funding, market dynamics have been shaped by the ascent and moderation of mega-rounds. While 2021 witnessed over 50 mega-rounds (exceeding USD100m), with 18 surpassing USD250m, 2022 saw an overall decrease in VC funding

rounds exceeding USD50m. During the first nine months of 2023, mega rounds even disappeared. There has been a consistent increase in investments in rounds ranging from USD20m to USD50m and below, showcasing a sustained upward trajectory year after year, continuing into 2022. However, VC investments in this range witnessed a slowdown in 2023 reflecting a more cautious investment sentiment.

**FIG 4: TOGETHER WITH THE PLUNGE IN MEGA-ROUNDS (>USD100M), SMALLER-SIZED INVESTMENTS (USD20-50M) STARTED TO SLOW IN 2023**



Source: BG IRIS, HoloIQ

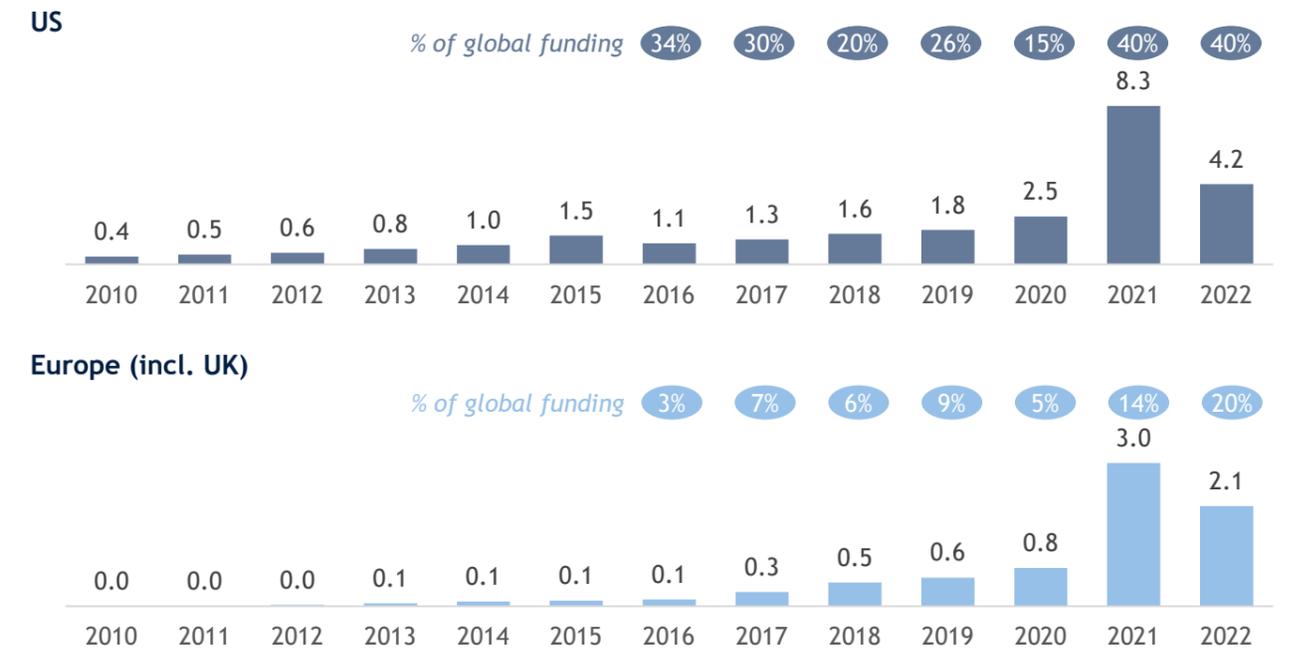
Looking ahead, the EdTech VC landscape is set to moderate in 2024, reverting to pre-pandemic levels. Growth is expected in the US, Europe, and India, compensating for the absence of China.

In contrast to the US, Europe is rapidly catching up in terms of venture funding

in the education sector. This trend reflects a growing acknowledgment of the transformative power of EdTech and innovative learning solutions. Europe's diverse start-up landscape, coupled with increasing awareness of the importance of lifelong learning, has created a favourable environment for investment in education. Supportive

government policies and a shift in societal attitudes toward EdTech further contribute to this trend. While the US has historically led in EdTech, Europe's accelerating momentum suggests it is becoming a significant player in global education technology investment.

**FIG 5: EDUCATION VENTURE CAPITAL FUNDING 2010 – 2022, COMPARISON BETWEEN US AND EUROPE (\$BN)**



Source: BG IRIS, HoloIQ

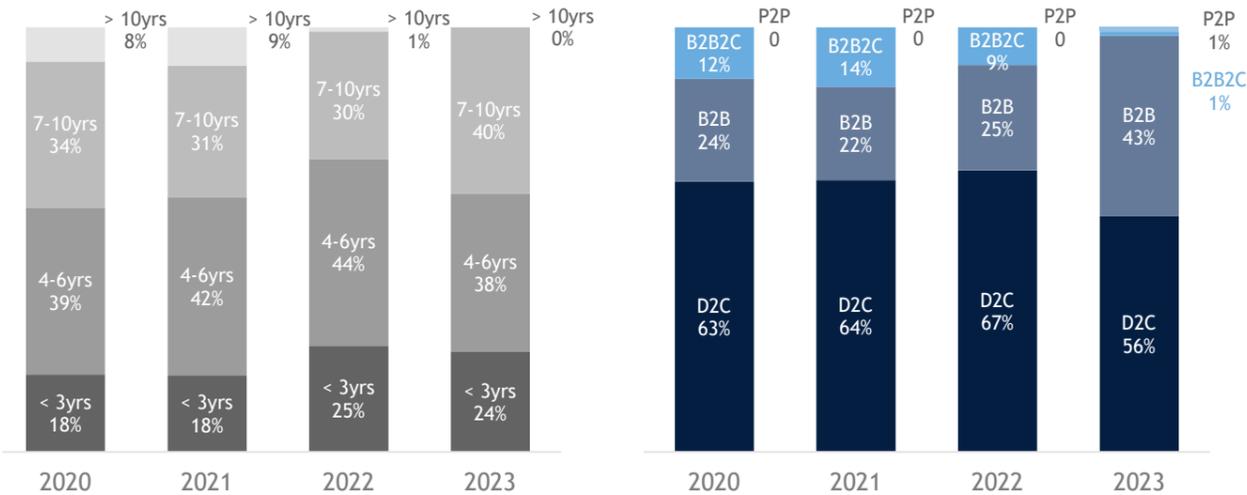
Moreover, Europe hosts a thriving early-stage EdTech ecosystem, featuring a substantial quarter of start-ups established during or in the aftermath of the Covid-19 pandemic. In 2023, Direct-to-Consumer (D2C) models

constituted more than half of the current cohort, although not reaching the peak levels seen in previous years. There has been a pronounced surge in B2B models, driven by corporate and institutional demand for digital solutions

tailored to their specific needs. To date, within the European EdTech sector, there are already several Unicorns such as 360Learning, GoStudent, Multiverse and Ornikar.

**FIG 6: THRIVING EARLY-STAGE EDTECH ECOSYSTEM WITH A PRONOUNCED SURGE IN B2B MODELS )**

**Breakdown of # of European Edtechs by year of inception and business model**



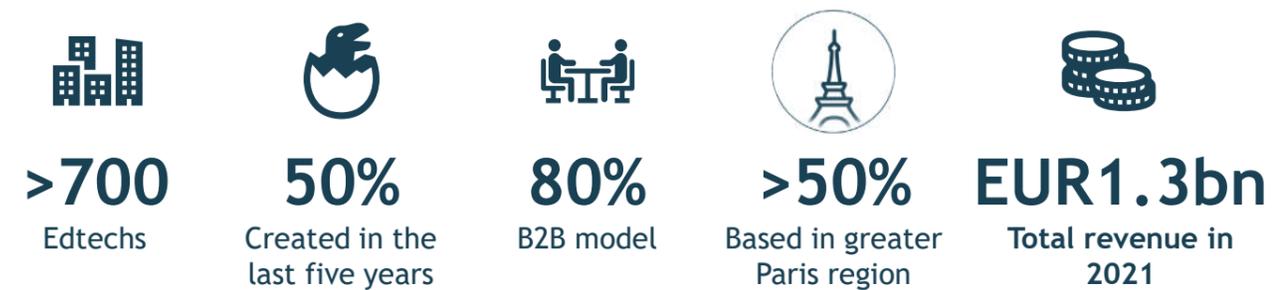
Source: BG IRIS, HoloIQ

In France, the EdTech sector remains in its early stages of development. There are more than 700 EdTech companies in France, half of which have emerged in the last five years. Primarily adopting B2B models, these companies

concentrate on the professional training segment (c.50% of total companies). The sector's momentum is largely steered by the top 20 rapidly expanding entities, counting for 70% of the industry's revenue. Despite the sector's

dynamics, only 2 EdTechs have achieved the status of French Unicorns: 360Learning and Ornikar, with the promising candidate OpenClassrooms.

**FIG 7: KEY FIGURES IN FRENCH EDTECH SECTOR**



Source: BG IRIS, Press

Based on client type, French EdTechs can be segmented into three subsectors:

**• K12**

EdTech companies catering to this sector benefited from the impact of the Covid-19 crisis, witnessing remarkable adoption rates among both teachers and students, particularly during lockdowns. To capitalise on future growth opportunities, entrepreneurs must adjust to the procurement procedures prevalent in the public sector and ensure that their solutions align seamlessly with the pedagogical approaches of teachers.

Example of EdTechs: Colori, Lingo ZING, Beneylu School, Colori, Digischool, Kartable, Index Education, etc.

**• Higher education**

The realm of higher education includes private schools embracing EdTech and an increasing inclination to adopt digital tools for pedagogy within public universities. EdTechs have the potential to serve as crucial tools or partners for higher education institutions, facilitating the creation of pedagogical continuity solutions and offering hybrid programmes to attract a broader student demographic. Certain business schools, such as EMLyon with Ed Job Tech, have also developed proprietary tools in-house to bolster their innovative image and attract a fresh audience. To harness future growth, EdTechs should prioritise interoperability with existing tools within institutions.

Example of EdTechs: Aimaira, Auriga, Training Orchestra, Ynov Campus, Maria Schools, etc.

**• Professional training – The biggest and most mature subsector**

The professional training sector stands out as the most developed segment in the French EdTech industry, with growth driven by substantial demand from both young individuals and job seekers. Capitalising on the benefits of the personal training fund (CPF), EdTech firms in this category are expanding their reach, particularly in the realm of online training. This mode of training is emerging as a cost-effective and flexible solution, adeptly meeting the evolving needs of the French market.

Example of EdTechs: 360Learning, A World for US, Simplon Go, Walter Learning, Skills and You, Teach on Mars, etc.



## Example – Aimaira

### Aimaira in a snapshot

Created in 2015 by 3 higher education professionals, Aimaira is a software editor aiming to reinvent the ideal 100% web-based ERP for French higher education establishments. All employees of Aimaira come from higher education sector and project managers all have ERP deployment experience in higher education establishments. Sectorial know-how and equity-based shareholding structure ensure that Aimaira's independence and strategic focus on quality of products and services.

With a team of more than 30 employees, Aimaira serves more than 40 higher education establishments including HEC Paris, ESSEC, Eduservices, Ges Eductive (Skoale), Vatel, Quest, Icones, etc.

*Interview with Jean Dufranne, chairman and founder of Aimaira*

**Q: The ERP market in Europe and France is fragmented. What is the current state of ERP systems for the education sector in terms of equipment rates, market concentration, development in each sub-sector (higher education, K12, public institutions and organizations, etc.)?**

A: The adoption of ERP and CRM systems within the education sector in France is still in its early stages on a global scale, characterized by a limited number of players and a low penetration rate. Private higher education institutions in France exhibit a high concentration of private equity activities, which serves as an additional incentive for the adoption of ERP system. This is driven by the demand from financial investors for key performance indicators (KPIs) that demonstrate cost savings. Taking a closer look at each sub-segment within the education sector:

- K12: This sector is relatively more competitive, primarily dominated by foreign players, Index Education (a subsidiary of DocaPoste, Groupe La Poste) and Aplim.

- Higher education: In this segment, there are only two major players, Aimaira and Auriga. However, the penetration rate remains low.

- Professional training & continuing education: Ymag holds the leadership position in this subsector.

Overall, the landscape for ERP adoption in the education sector in France is still evolving, with significant potential for growth, particularly in private higher education where the demand for cost-saving measures is driving adoption.

**Q: Among education software suppliers, I see a lot of specialists in a specific sub-sector with a specific product in a specific country. Is horizontal expansion between education sub-sectors possible? For example, from private higher education to professional training centres or vice versa**

A: Diversifying products, expanding into new geographic regions, and exploring various subsectors organically presents significant challenges. Firstly, recruiting developers with the requisite coding skills and experience in the education sector proves to be a daunting task. Each subsector within education possesses distinct product requirements, adding complexity to the development process. Secondly, navigating the intricate web of legislation presents yet another barrier, particularly when attempting to enter international markets. These multifaceted challenges underscore the considerable difficulty inherent in achieving organic growth through diversification within the education sector.

**Q: How does Aimaira stack up against other software publishers in the same subsector?**

A: Without significant rivals vying for market share, Aimaira faces little pressure to expand its offerings or explore new territories. The absence of competitive tension allows Aimaira to operate comfortably within its current market scope, without the need to resort to aggressive strategies to capture market share. Consequently, the company maintains a single-product and single-subsector strategy, with limited exploration into diversification opportunities across different product lines, subsectors, geographical regions, or distribution models. This approach allows us to guarantee delivery quality, by fully focusing on continuous improvement and optimization of our unique offering, thus ensuring maximum customer satisfaction and high performance of our solution in the higher education sector.

**Q: What is your strategic roadmap for the next few years in terms of product development?**

A: Our strategic roadmap for the next few years prioritizes organic reinforcement across several key functionalities within our product development. Firstly, we're focused on enhancing the planning

of lessons and scholar agenda management. This entails refining our tools to facilitate more efficient scheduling and organization within educational institutions, ensuring educators can better manage their curriculum and student activities. Additionally, we recognize the importance of finance and accounting features, particularly in schools where accurate revenue, cost, and cash flow projection are crucial. As such, we're committed to strengthening these aspects of our software to provide schools with the core functionality they need for effective financial management. Furthermore, our roadmap includes advancements in recruitment processes within educational institutions. We plan to introduce generative AI technology for candidate selection, aiming to streamline and optimize the hiring process for schools. By leveraging AI-driven algorithms, we aim to make recruitment more efficient and effective, ultimately helping schools identify the most suitable candidates for their needs. Overall, our strategic roadmap emphasizes organic reinforcement in these critical areas of functionality, reflecting our dedication to continuously improving and innovating our product to better serve the evolving needs of educational institutions.

## Tighter CPF rules: clouds on the horizon

Since 2019, the law concerning professional training and subsidies has come into force, leading changes to the French personal training fund (CPF):

Facilitated access: access to “Mon Compte Formation”, a platform dedicated to training organisations and introduction of the national catalogue of courses eligible for CPF funding.

• **Increased funding:** Before the reform, CPF accounts were funded with

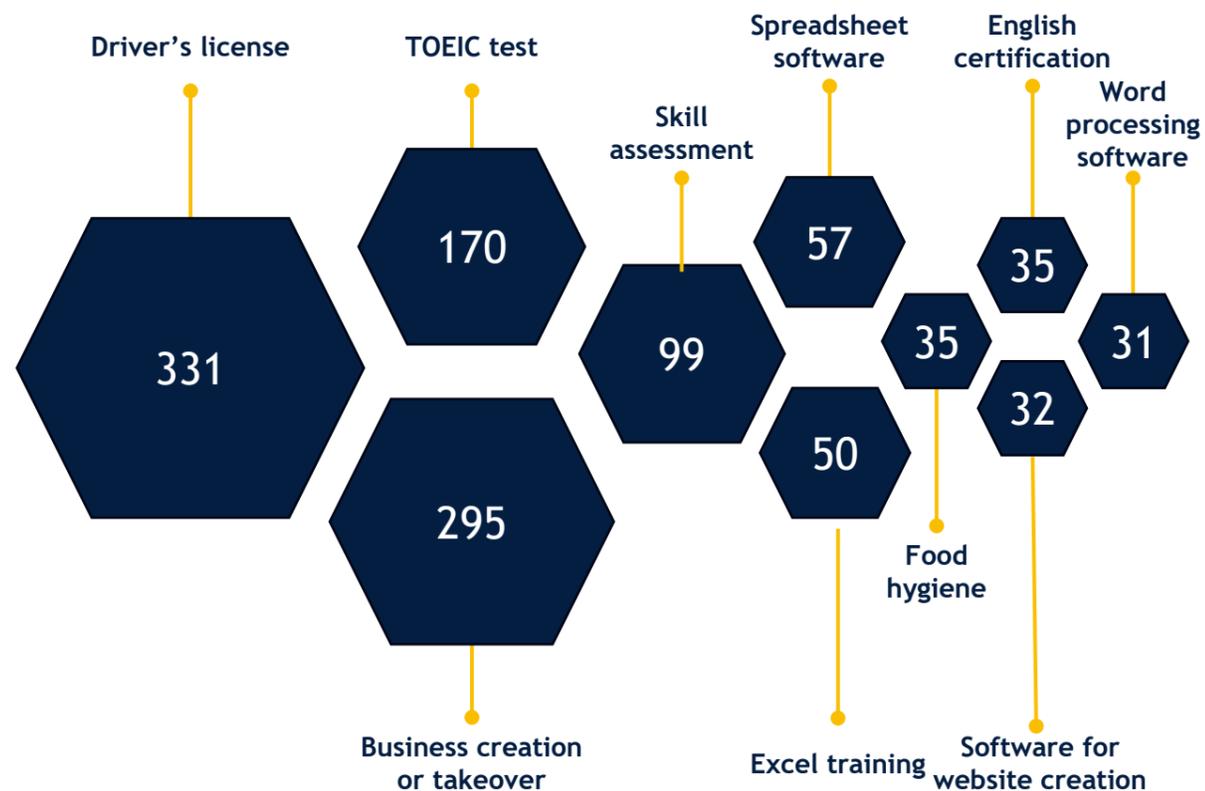
EUR360 annually for full-time activities. Since the end of 2019, this annual funding has increased to EUR500 for any part-time activity or more, with a maximum cumulative sum of EUR5,000.

• **Expanding eligibility:** a universal list of training courses accessible through the CPF has been available, regardless of the professional sector or location. This comprehensive list, managed by France Compétences, comprises around 14,000 certifying training

courses registered with the RNCP. Training centres seeking inclusion must meet specific criteria.

• **Various purposes of usage:** Rights acquired under the CPF can be used for certification, skill assessment or obtaining a driving license, as well as for assistance in business creation and takeover, etc.

FIG 8: THE 10 MOST REQUESTED CERTIFICATIONS FINANCED BY THE CPF IN 2022 (IN THOUSANDS OF REQUESTS)



Source: BG IRIS, Caisse des Dépôts

These CPF changes have stimulated economic activities in the training and education sector, leading to increased spending.

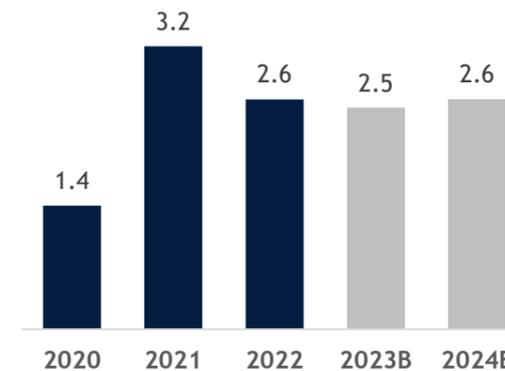
Spending via the CPF increased from EUR1.4bn in 2020 to EUR3.2bn in 2021 but experienced a decrease to EUR2.5bn in 2022. The number of

accepted applications followed a similar trajectory, rising from 1.2m to 2.4m and then dropping to 1.8m. The decline in CPF spending in 2022 was attributed to measures such as a crackdown on fraud, stricter eligibility criteria and the implementation of the FranceConnect+ connection procedure.

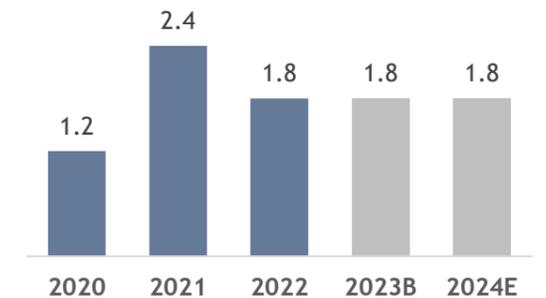
For 2023, the CPF budget voted by France Compétences' Board of Directors amounted to EUR2.4bn with an estimated budget of EUR2.5bn for 2024.

FIG. 9: LOWER CPF SPENDING IN 2022 AND A FLAT BUDGET FOR 2023 AND 2024

CPF spending in EURbn



# of requests accepted



Source: BG IRIS, Caisse des Dépôts

The CPF's funding changes have resulted in a notable rise in the hourly cost of training, driven by a reduction in course duration with no equivalent reduction in fees.

Caisse des Dépôts reported a stiff increase in training course prices financed by the CPF between 2020 and 2022. The hourly rate skyrocketed from EUR16.80 in 2020 to EUR27.46 in 2022—a 63.5% nominal increase. More

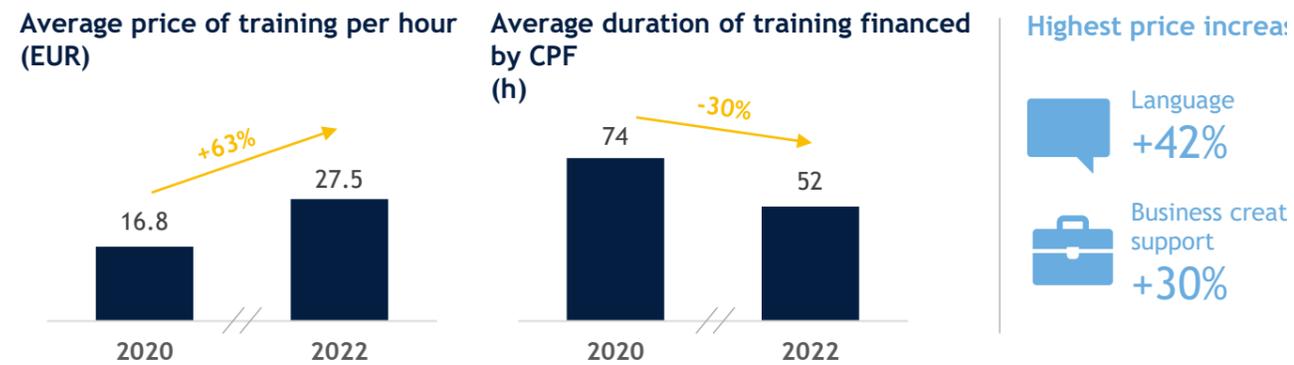
specifically, language courses saw a 42% increase in hourly prices while business creation support witnessed a 30% increase. The transportation sector and the B driving license showed a more limited impact.

Despite a decrease in both expenditure and funded hours in 2022 compared to 2021, the CPF financed shorter yet pricier training sessions. The average duration of CPF-funded training

dropped from 74 hours in 2020 to 52 hours in 2022.

Several factors have contributed to the rise in the hourly rate, including a structural shift towards more expensive training themes, a decline in displayed hours by providers and a straightforward increase in hourly prices.

FIG. 10: THE CPF'S FUNDING CHANGES HAVE RESULTED IN A NOTABLE RISE IN THE HOURLY COST



Source: BG IRIS, Caisse des Dépôts

With significant fraud and embezzlement accompanying the boom in spending, France Compétences and other public authorities will continue to clamp down sharply on access conditions for CPF eligibility by training organisations, reinforce demanding protocols to accept professional training and

certification, and ban commercial canvassing.

Additionally, the introduction of a co-payment for CPF holders has been suggested, pending a government decree, with projected savings of up to EUR800 million. The measure, criticised

by trade unions and some members of parliament, is currently on hold, awaiting further clarification of its parameters. The Ministry of Labour is expected to delay any action until after the adoption of the pension reform in parliament due to the current social context.



# ZOOM ON SUBSECTORS

## SECTION 3



## LMS, a market enjoying double digit growth driven by mobile learning, technological advancement in AI and corporate training

Europe is a mature market for e-learning products and services with demand from schools, municipalities, universities and corporates.

Among e-learning products, the Learning Management System (LMS) has a significant and pivotal role. Acting as software designed to document, monitor, report on and deliver training courses and programmes, LMS proves instrumental in facilitating cost-effective knowledge acquisition for employees, yielding various benefits for companies. Furthermore, the advanced functionality of LMS platforms has streamlined the learning process to unprecedented levels of simplicity. These solutions not only empower employees to acquire knowledge efficiently but also foster global collaboration in educational institutions, connecting students from diverse corners of the world.

The European LMS market size was valued at c.EUR4.5bn in 2021 and is projected to reach c.EUR23bn by 2023, registering a CAGR of 19.4% during the period from 2021 to 2030 (Straits Research, 2021).

This strong growth is mainly driven by mobile learning, technological advancement in AI and corporate training needs:

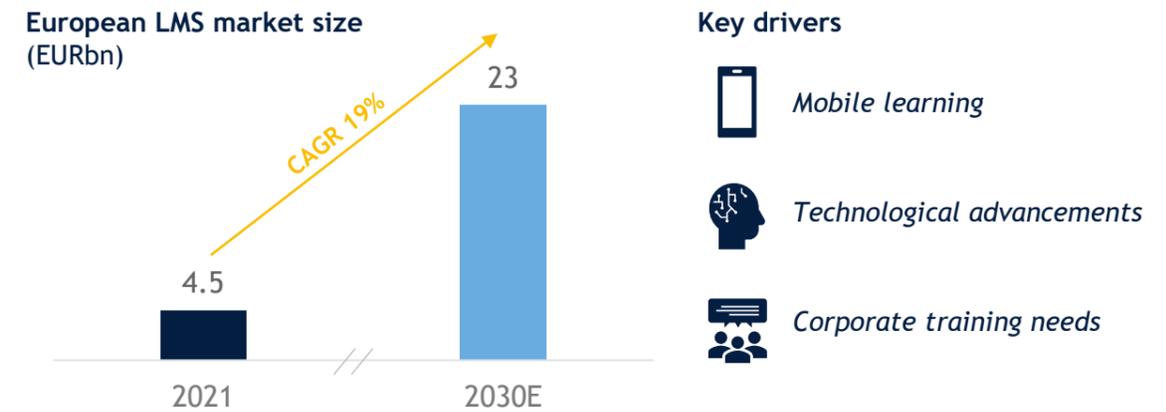
**1. Mobile learning:** Mobile learning, or m-learning, has become a major driving force in the European e-learning landscape. The increased use of smartphones and tablets has transformed the way individuals access educational content, allowing for flexibility and convenience. For instance, educational apps, interactive mobile courses and responsive e-learning platforms enable learners to engage with materials anytime, anywhere. This accessibility has significantly broadened the reach of e-learning initiatives.

**2. Technological advancements in AI:** The integration of AI into e-learning platforms has revolutionised the learning experience. AI technologies, such as machine learning and natural language processing, enhance personalisation, adaptability, and interactivity. Intelligent tutoring systems, automated assessments,

and personalised learning paths are examples of AI-driven advancements that cater to individual learner needs, improving overall engagement and knowledge retention.

**3. Corporate training needs:** The corporate sector's increasing emphasis on employee training and development is a major driver for growth in e-learning. Organisations leverage e-learning platforms to deliver efficient and scalable training programmes. Virtual classrooms, online modules and interactive simulations are examples of e-learning tools employed for corporate training. Moreover, LMS could be interconnected into company intranet or human resources information systems. This not only enhances employee skills but also provides a cost-effective and flexible solution for workforce education.

FIG. 11: LMS' STRONG GROWTH SUPPORTED BY MOBILE LEARNING, TECHNOLOGICAL ADVANCEMENT IN AI AND CORPORATE TRAINING NEEDS



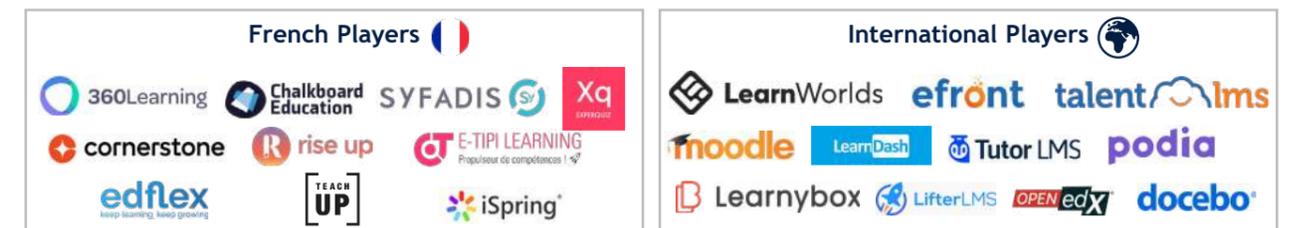
Source: BG IRIS, Straits Research

French companies have widely adopted LMS training platforms. As revealed by an IFTS survey, the most effective training methods identified by respondents include the virtual classroom (18%), fast learning sessions lasting less than 15 minutes (15%), and microlearning sessions of less than two minutes (13%). This trend highlights a growing

preference for concise training content, especially tailored for mobile devices, shaping a new standard in e-learning training. Additionally, the incorporation of gamification into training content is emerging as a noteworthy trend, aligning seamlessly with the ongoing adaptation of e-learning content to the mobile format.

In France, LMS is very fragmented, crowded by both local and international players, led by 360Learning.

FIG 12: MAJOR LMS PLAYERS IN FRANCE (NON-EXHAUSTIVE)



Source: BG IRIS

## The booming landscape of education for future digital professionals

Tech Bootcamps have emerged as dynamic and intensive training programmes designed to meet escalating demand for skilled professionals in the rapidly evolving

tech landscape. Unlike traditional education models, these bootcamps prioritize hands-on, practical learning, offering participants a fast-track route to acquiring in-demand digital skills.

With a focus on reskilling and upskilling, Tech Bootcamps have become pivotal in addressing the global shortage of tech talent.

FIG 13: TECH BOOTCAMPS ARE BOOMING THANKS TO THE EVOLVING TECH LANDSCAPE

| Bootcamp offerings  | Bootcamp users   |
|---|--|
| <p><b>Coding</b> (software or web development)</p> <p><b>Data science</b></p> <p><b>UX/UI design</b></p> <p><b>Cyber Security</b></p> <p><b>Data analytics</b></p> <p><b>Product management</b></p> <p><b>Digital Marketing</b></p> <p><b>Other subjects</b> (tech sales, mobile development, IoT, cloud engineering, blockchain engineering)</p> | <p><b>B2C</b></p> <p>Career changers</p> <p>Working professionals</p> <p>Students &amp; recent graduates</p> <p>Entrepreneurs</p> <p>Tech Enthusiasts &amp; hobbyists</p> <p><b>B2B</b></p> <p>Companies for workforce development</p> <p>Governments and educational institutions</p> |

Source: BG IRIS

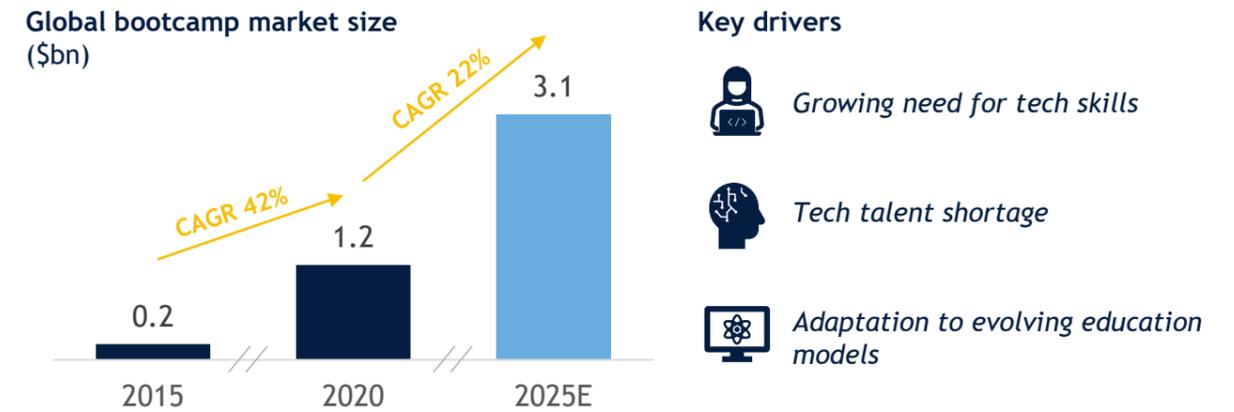
In recent years, the popularity of these bootcamps has skyrocketed. According to HolonIQ, in 2021, Tech Bootcamps successfully re-skilled and up-skilled over 100,000 professionals globally—an impressive surge from the less than 20,000 in 2015. HolonIQ's projections indicate a further increase to over

380,000 by 2025, translating into a substantial increase in revenue from USD0.2bn in 2015 to USD3.1 billion in 2025.

This growth is fuelled by the widespread adoption of rapid, high-return-on-investment training by governments,

employers, universities and colleges. These entities are investing in capacity-building for software, marketing, cyber and tech sales to stimulate economic growth.

FIG 14: DOUBLE-DIGIT GROWTH DRIVEN BY GROWING NEED FOR TECH SKILLS, A SHORTAGE OF TECH TALENT AND EVOLVING EDUCATION MODELS



Source: BG IRIS

Despite the rapid growth in tech bootcamps since 2015, a significant transformation is anticipated in their structure and operations. It is projected that bootcamps will evolve beyond simple business-to-consumer (B2C) models into multi-channel, multi-market, and multi-model platforms. This change is indicative of the dynamic nature of the educational landscape and the ever-changing demands of the tech industry.

The next generation of bootcamps is strategically leveraging its original cohort model to facilitate multi-channel expansion. This expansion involves reaching a broader audience through various channels and markets, allowing bootcamps to cater to diverse learner needs. The traditional boundaries that

once defined bootcamps as primarily B2C entities are gradually blurring as these programmes explore new avenues for growth and impact.

A notable shift in the industry is the increasing emphasis on on-demand education. Bootcamps are recognising demand for flexible, self-paced learning experiences and are adapting to this trend. By incorporating on-demand elements, bootcamps are ensuring accessibility and accommodating individuals with varying schedules and learning preferences. This shift aligns with the broader movement towards learner-centric education.

Additionally, bootcamps are embracing licensing models to structure their curricula, supporting 'accelerated'

digital skills programmes. This approach allows for more standardised and scalable content delivery. As a result, bootcamps are not only equipping individuals with essential digital skills but are also establishing themselves as key players in the broader education technology ecosystem.

The distinctions between bootcamps, Online Programme Management (OPM), and on-demand course marketplaces are becoming less defined. This blurring of boundaries reflects the adaptability of bootcamps to evolving educational paradigms. As they continue to diversify their models and expand their reach, tech bootcamps are positioned to play an essential role in shaping the future of digital education.

FIG 15: BOOTCAMPS: FROM SIMPLE B2C MODEL TO MULTI-CHANNEL PLATFORMS WITH STRONGER RECURRING REVENUE GENERATION



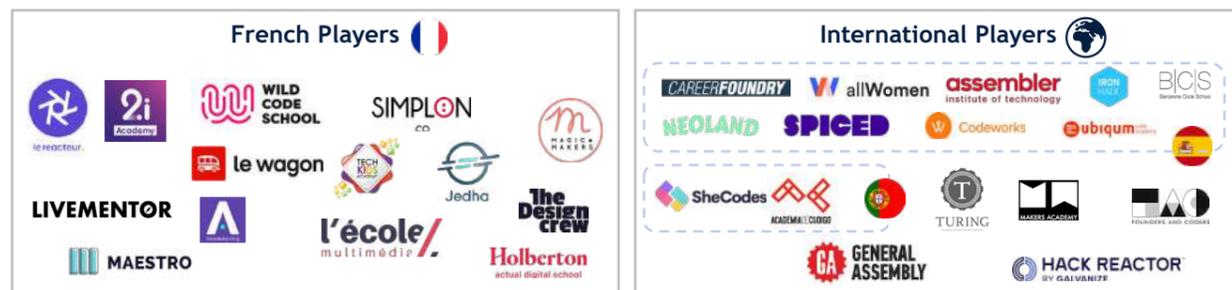
Source: BG IRIS

In France, a surge in tech-related interest and investment has fuelled demand for skilled professionals, particularly in software development, data analysis and IT. Adding to the dynamics, government initiatives, such as the personal training fund (Compte Personnel de Formation - CPF), subsidise coding bootcamps.

This subsidy, designed to support professional development, enhances accessibility to these programmes. The CPF has a tangible impact, making tech education more affordable and contributing to the market's adaptability. The French coding bootcamp market is highly competitive, featuring both domestic and international players.

Notably, Spanish coding bootcamps contribute to the market's diversity. This crowded landscape offers a range of programmes, reflecting individual career goals. The market's dynamism underscores its adaptability to meet evolving industry needs, providing diverse pathways for acquiring essential tech skills.

FIG 16: CROWDED FRENCH BOOTCAMP MARKET



Source: BG IRIS

## Education for healthcare professionals plays an important role in addressing the market imbalance

The French healthcare sector faces an unbalanced situation between supply and demand.

From a supply perspective, key factors include:

- A lack of healthcare professionals, which is a general situation in France.

According to a workforce needs survey by Pôle Emploi at the end of 2021, a staggering 135,940 healthcare professionals are estimated to be unavailable in France. This shortage is particularly pronounced for roles such as orderlies and nurses, identified as the most sought-after profiles in the healthcare sector. This scarcity underscores the urgency for educational programmes that can swiftly train and prepare individuals for these crucial roles in patient care. **There is also a huge problem of retention rates in nursing programmes.** A DREES study published in August 2023 indicates that three times as many female nursing students will drop out of their first year in 2021 as in 2011 and that nearly half of hospital nurses leave or change careers after 10 years. While some shift to administrative roles within the healthcare sector, retention challenges persist.

- Shortage of specialised healthcare services professionals. Specialised healthcare service providers, including dentist clinics, veterinary services, radiology clinics, and medical analysis laboratories, are expanding their

networks. This expansion contributes to overall demand for well-trained healthcare professionals to meet the specialised needs of these services. Notably, there has been a substantial increase in job opportunities within the healthcare sector, with tens of thousands of vacancies reported.

On the demand side, several factors contribute to the increasing need for healthcare professionals:

- Firstly, there is a **rising prevalence of health problems**, requiring a larger healthcare workforce to address diverse medical issues.
- The **aging population** further amplifies this demand, as elderly individuals often require specialised care and attention.
- Additionally, the changing healthcare landscape, with **more demanding requirements for professionals** such as pharmacists, requires continuous education and training to meet current standards.
- Rise in recruitment for healthcare management roles.** According to a study by APEC published in April 2023, there was a 9% increase in job offers for healthcare, social and medico-social management roles between 2021 and 2022. The most sought-after skills vary across professions, with a focus on advisory, preventive and patient support skills for nursing and paramedical

roles. Additional competencies include proficiency in medical-administrative procedures and sales techniques for prosthetic and orthotic devices. Transversal skills such as accounting management, meeting facilitation and scheduling are also valued.

The education system for healthcare professionals plays an important role in resolving the mismatch between supply and demand.

In France, there are numerous training programmes for healthcare professionals, categorised as follows:

- Medical programmes:** medicine, dentistry, midwifery, etc.
- Paramedical programmes, interacting with medical professions:** nursing, physiotherapy, speech therapy, optics, nursing management, dietetics, etc.
- Programmes in healthcare management and marketing:** Bachelor's degree, master's degree, MBA.
- Programmes in the medico-social sector, as well as broader health and social sectors:** training for roles like childcare assistant, specialised educator, nursing assistant and more.

These courses are available at various levels, offered by institutions such as medical faculties, physiotherapy schools, osteopathy schools, nursing schools (IFS), podiatry-pedicure schools, nursing assistant schools (IFAS), medical secretarial schools, speech therapy schools, occupational therapy schools, childcare assistant schools (IFAP), optics schools, dietetics schools, and more. Most of these institutions, often affiliated with universities, are linked to a hospital centre. This affiliation allows students to undergo training, apply theoretical knowledge directly in the field, and gain practical experience by interacting with patients.

We forecast the following trends in the healthcare education sector in France:

- **Increased capacity:** Healthcare schools must adapt by increasing their

capacity to train more professionals. This could involve expanding existing programmes, introducing new specialties, and collaborating with healthcare institutions to ensure practical, hands-on training opportunities.

- **Specialised training:** Tailoring training programmes to meet the specific needs of different healthcare professions is crucial. This includes aligning curricula with the evolving requirements of the sector, ensuring that graduates possess the skills demanded by employers.

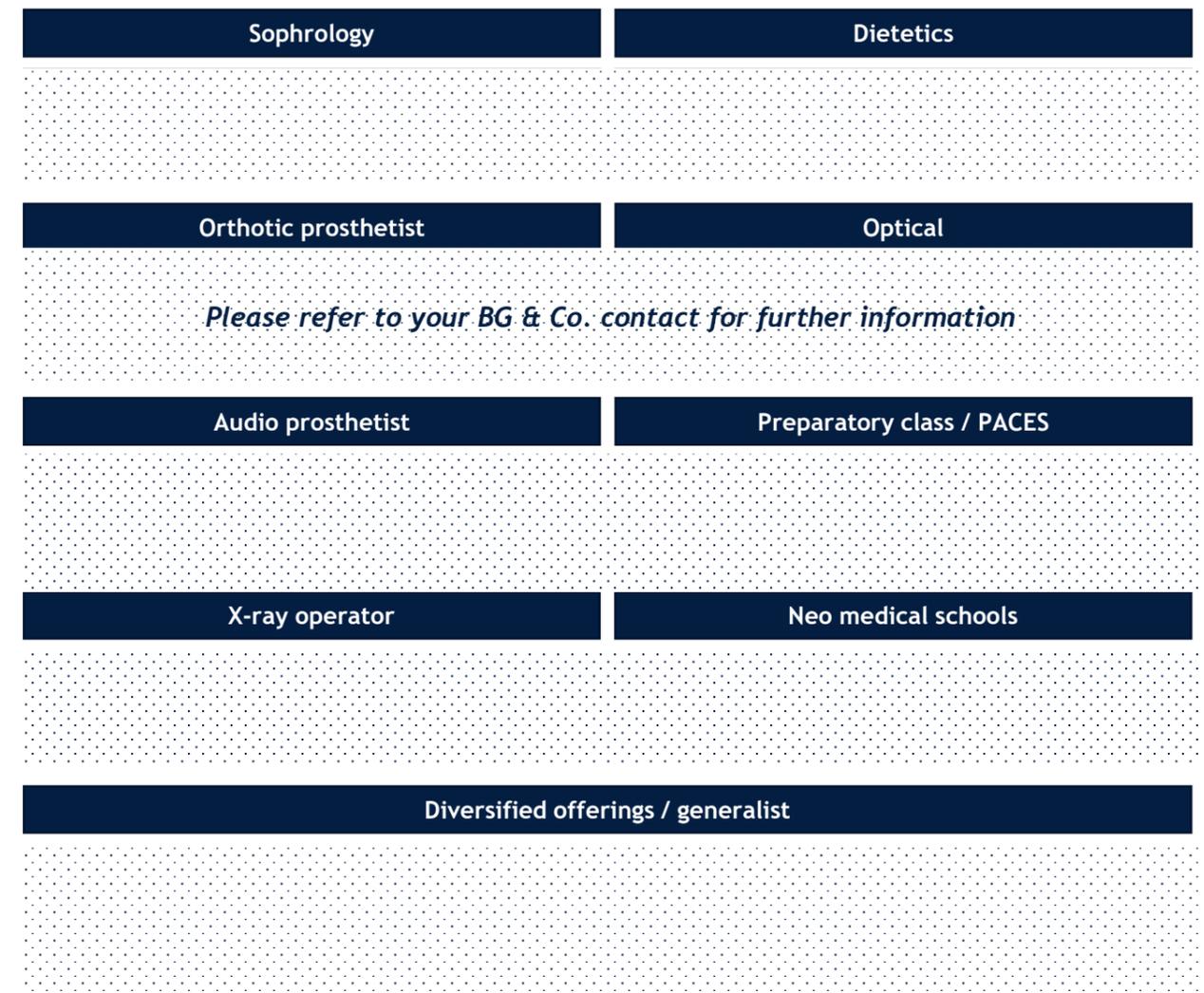
- **Focus on transversal skills:** Emphasising transversal skills, such as effective communication, organisational acumen, and adaptability, can better prepare healthcare professionals for the multifaceted challenges of their roles.

- **Retaining talent:** Training programmes should incorporate strategies to enhance job satisfaction and address retention challenges. This may involve mentorship programmes, career development opportunities and initiatives to improve working conditions.

- **Continuous learning:** Given the dynamic nature of healthcare, training programmes should promote a culture of continuous learning. Healthcare professionals need opportunities for ongoing education and upskilling to stay abreast of medical advancements and changes in best practices.



FIG 17: UNIVERSE OF SPECIALISTS, INSTITUTIONS AND NEO MEDICAL SCHOOLS (NON-EXHAUSTIVE)



Source: BG IRIS



# CONSOLIDATION FUELLED BY STRONG APPETITE FROM **FINANCIAL INVESTORS**

## SECTION 4



Over the next five years, we anticipate significant changes in the French education sector, characterised by heightened competition.

Multi-specialist groups are poised to maintain their dominance by continuous consolidation, primarily attributed to the formidable barriers to entry, particularly in the higher education segment. From a strategic viewpoint, consolidation

between education services providers could offer:

- **Expansion of offerings**, which brings opportunities for cross-selling and reaching out to new student/client types
- **Operational synergies**, such as resources (shared infrastructure, joint procurement) optimisation, research

and development collaboration, faculty collaboration, marketing & outreach in internationalisation, quality assurance etc.

- **Reinforcement of brand images**
- **Cross-credential recognition**

FIG 18: MAJOR MULTI-SPECIALIST GROUPS IN FRANCE (NON-EXHAUSTIVE)



Source: BG IRIS



Nonetheless, the landscape is expected to witness a reinforcement of non-capital alliances and organic growth promises over time. As detailed in the previous sections, these strategic approaches are likely to play a pivotal role in shaping the future dynamics of the sector, as educational entities seek collaborative paths to navigate challenges and enhance their market positions.

Furthermore, a strong appetite among financial investors for opportunities within the education sector is evident. This financial interest is expected to contribute to the sector's growth and development, bringing additional resources and expertise to support innovative initiatives and advancements. The convergence of these factors underscores the dynamic nature of the French education sector,

signalling a period of transformative changes and competitive intensity in the coming years.

This strong appetite could be explained by the following key factors:

- **Predictable revenue.** The sector offers a high degree of revenue visibility, particularly in higher education, providing investors with a clear understanding of income streams.
- **High EBITDA margin and cash generation capabilities.** The education industry demonstrates robust profitability and cash generation by companies, adding to its appeal for investors seeking stable returns.
- **A fragmented market ready for consolidation.** The sector's capacity to easily establish consolidation platforms

is another compelling factor, given the presence of numerous small-scale local players.

- **Proven resilience.** The education sector has exhibited resilience, notably during the Covid-19 crisis, emphasising its stability in the face of external challenges.
- **ESG interests.** The sector's alignment with corporate ESG goals, with many companies making a positive impact, adds an ethical dimension to investment decisions.
- **Growing willingness to pay for education services.** Lastly, the macroeconomic shift in French spending habits towards a greater investment in education further enhances the sector's allure for PE investors.

FIG 19: ATTRACTIVE OPERATIONAL SYNERGIES AND STRONG GROWTH POTENTIAL

| For strategic acquirers  | For financial acquirers   |
|--|---|
| <ul style="list-style-type: none"> <li>Expansion of offerings (cross-selling &amp; new client/student reach, etc.)</li> <li>Operational synergies (resources optimisation, collaboration, internationalisation, quality assurance, etc.)</li> <li>Reinforcement of brand images</li> <li>Cross-credential recognition</li> </ul> | <ul style="list-style-type: none"> <li>Predictable revenue</li> <li>High EBITDA margin</li> <li>Fragmented market ready for consolidation</li> <li>Proven resilience</li> <li>ESG goals</li> <li>Growing willingness to pay for education services</li> </ul> |

Source: BG IRIS

Over the last five years, there has been a clear increase in dynamic private equity activities within the sector. Following

the acquisition of a platform by financial investors, the sector has witnessed a

rapid and continuous series of build-ups, further speeding up consolidation.

FIG 20: MAJOR PE INVESTMENTS AND BUILD-UPS IN THE FRENCH EDUCATION SECTOR



Note: including financial sponsor backed education service providers  
Source: BG Corporate Finance, MergerMarket, Press

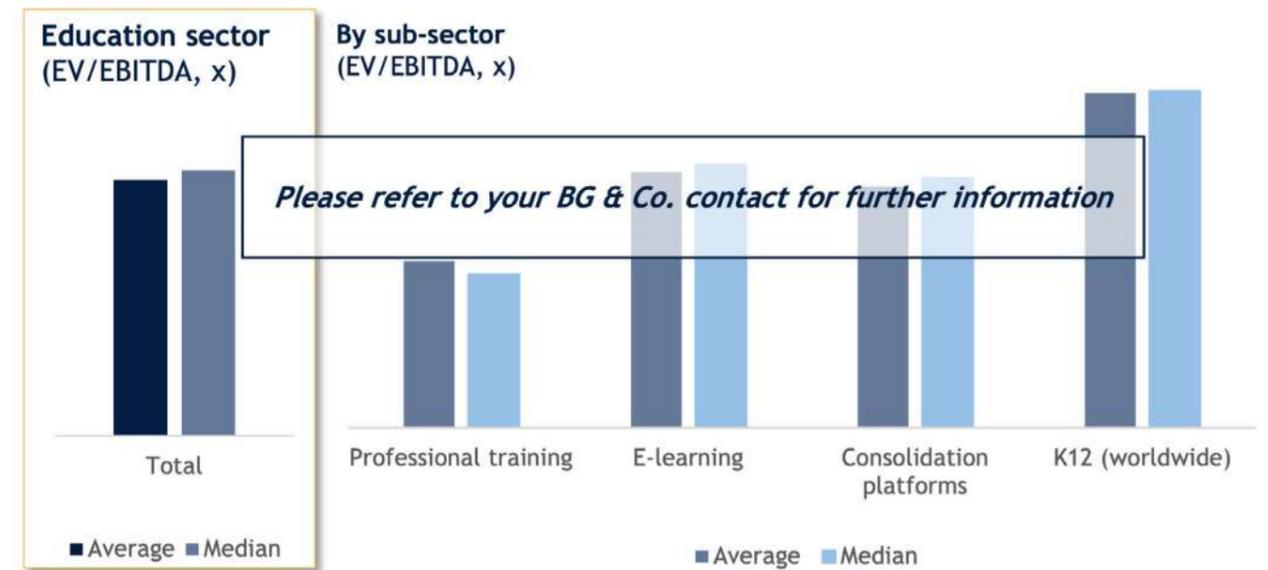
By reviewing M&A transactions over the past years, we see that:

- Both strategic and financial investors paid moderate valuation multiples with a median EV/EBITDA multiple at 14.3x

- The K-12 sub-sector show a tendency for high valuations thanks to its high degree of recurring revenue visibility.
- The e-learning sub-sector enjoyed higher valuations thanks to higher growth potential.

- Financial investors are not paying excessively expensive valuations for acquisitions of consolidation platforms or build-ups.

FIG 21: TRANSACTIONAL VALUATION BENCHMARK IN EUROPE



Source: BG Corporate Finance, MergerMarket, Press





Despite market volatility since Covid, the education sector has demonstrated significant resilience with its current valuation at a very healthy level.

Historical share price performances of major listed companies in the education sector showed the following:

- Listed American companies, especially companies in the American higher education sector were affected by Obama's reform of the Education sector, resulting in a weaker performance compared to the S&P500

(2014-2016) as the American education sector is sensitive to state aid and political reform.

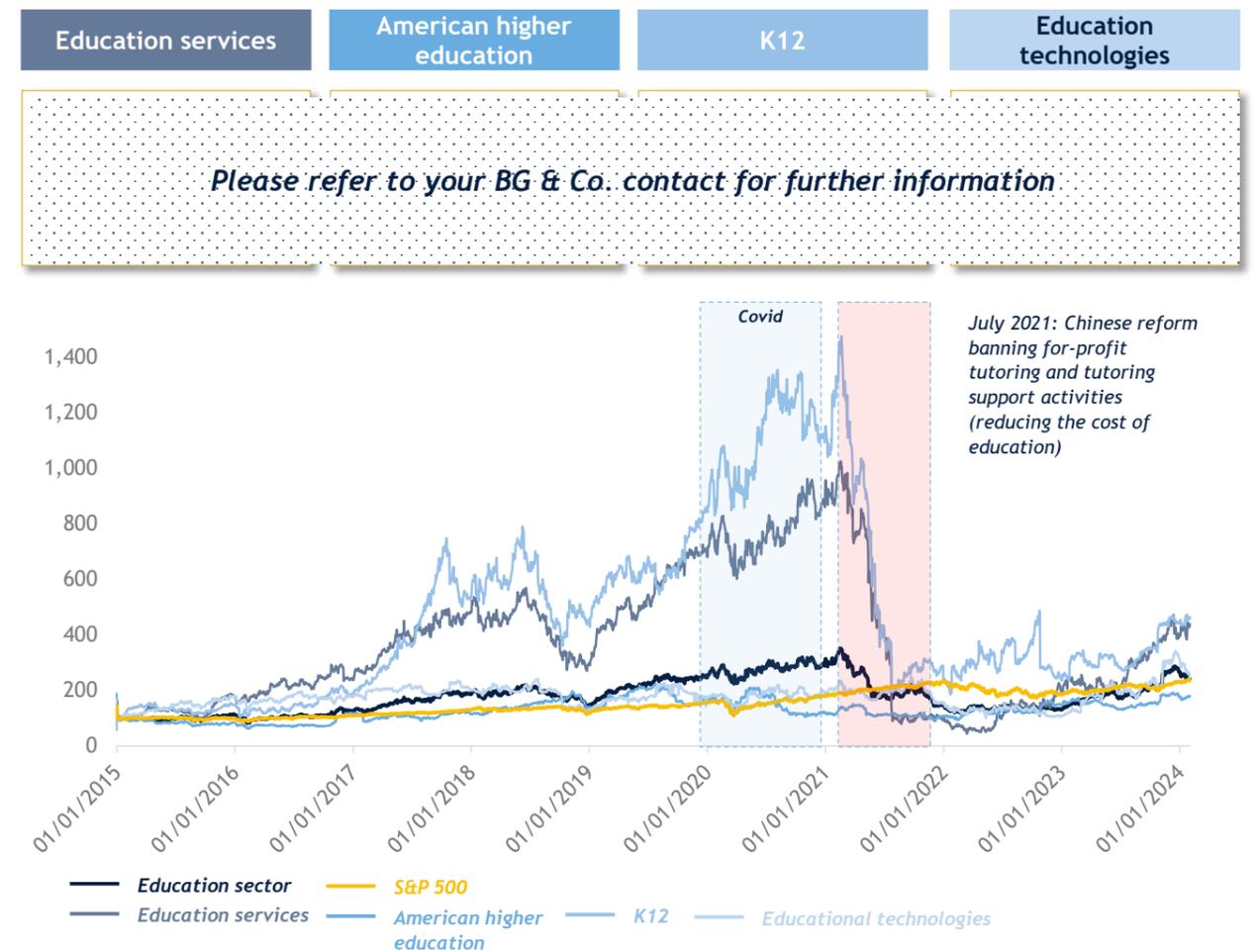
- Strong performance in the Education services sub-sector was mainly driven by the robust growth of New Oriental Education whose market capitalisation multiplied by almost 10x between 2014 and 2020, in line with the skyrocketing needs of language training and test preparation in China.
- The surge of K12 performance was mainly driven by TAL Education Group,

whose market capitalisation boomed by nearly 20x between 2014 and 2020, representing strong activities in the after-school education market in China.

- In July 2021, the Chinese government banned for-profit tutoring activities and this reform had a huge direct impact on revenue and profitability potential for Chinese actors (New Oriental Education, TAL Education Group and Virscend), explaining the plunge in share prices in the Education services and K12 sub-sectors



**FIG 23: SHARE PRICE PERFORMANCE OF MAJOR LISTED COMPANIES IN THE EDUCATION SECTOR (REBASED TO 100)**



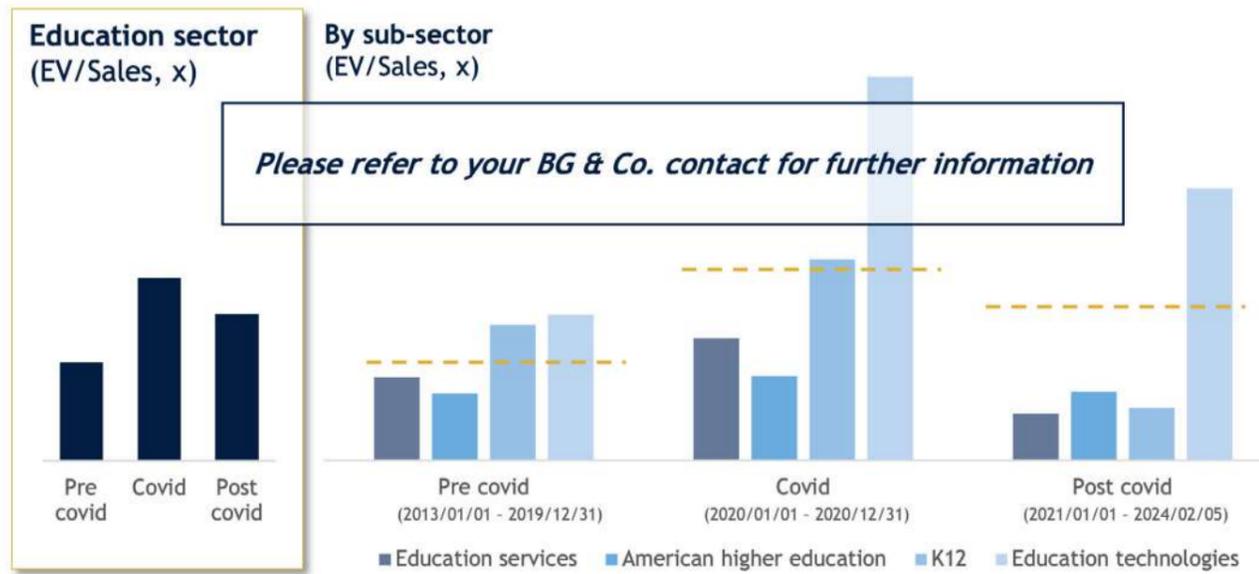
Source: Reuters, BG IRIS

Despite current market volatility, listed companies in the education sector have demonstrated significant resilience. As of 5th February 2024, Stifel's Education Index\* recorded a sales trading multiple of 3.7x, above the pre-Covid level. Public industry participants have historically outperformed the S&P 500

during periods of economic downturn. During the Covid-19 pandemic (1st January 2020 – 31st December 2020), Stifel's Education Index\* averaged 6.3x EV/sales, even higher than the pre-Covid level, boosted by investor interest in the resilient K12 sub-sector and the education technology sub-

sector, which perfectly fitted the need for remote learning during the lockdowns. During the recessionary period following the Covid peak, the Education Index averaged 5.1x EV/Sales, illustrating the current strength of publicly traded companies.

FIG 24: MAJOR LISTED COMPANIES IN THE EDUCATION SECTOR



Source: BG Corporate Finance, BG IRIS, Reuters

As we enter the early months of 2024, we observe a modest performance on equity markets, persistent inflation levels and fluctuating consumer confidence. Nevertheless, we expect the education sector to remain resilient

to economic challenges this year. This resilience is reinforced by ongoing consolidation within the industry, heightened investment levels, the expansion of early childhood education and sustained growth in professional

education. Participants in the middle market segment play a crucial role in enhancing the lifelong value for learners in this dynamic environment.

FIG 25: TRADING MULTIPLES OF MAJOR LISTED COMPANIES IN THE EDUCATION SECTOR

| Company  | Country | EV / Sales |        |        | EV / EBITDA |        |        | EV / EBIT |        |        | P / E  |        |        |
|--|---------|------------|--------|--------|-------------|--------|--------|-----------|--------|--------|--------|--------|--------|
|  |         | Dec-22     | Dec-23 | Dec-24 | Dec-22      | Dec-23 | Dec-24 | Dec-22    | Dec-23 | Dec-24 | Dec-22 | Dec-23 | Dec-24 |
| <b>Education</b>   |         |            |        |        |             |        |        |           |        |        |        |        |        |
| <b>Education services</b>  |         |            |        |        |             |        |        |           |        |        |        |        |        |
| <i>Please refer to your BG &amp; Co. contact for further information</i> |         |            |        |        |             |        |        |           |        |        |        |        |        |
| <b>American higher education</b>   |         |            |        |        |             |        |        |           |        |        |        |        |        |
| <i>Please refer to your BG &amp; Co. contact for further information</i> |         |            |        |        |             |        |        |           |        |        |        |        |        |
| <b>K-12</b>  |         |            |        |        |             |        |        |           |        |        |        |        |        |
| <i>Please refer to your BG &amp; Co. contact for further information</i> |         |            |        |        |             |        |        |           |        |        |        |        |        |
| <b>Education technologies</b>  |         |            |        |        |             |        |        |           |        |        |        |        |        |
| <i>Please refer to your BG &amp; Co. contact for further information</i> |         |            |        |        |             |        |        |           |        |        |        |        |        |
| <b>Average</b>   |         |            |        |        |             |        |        |           |        |        |        |        |        |
| <b>Median</b>  |         |            |        |        |             |        |        |           |        |        |        |        |        |

Source: BG Corporate Finance, BG IRIS, Reuters

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