The EnterEdTech Project

https://www.enteredtech.eu/

Module 1 The Education Market





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Modules

1. The Education Market

2. Product Market Fit & Evaluation

3. Marketing and sales

4. Financial Planning & Revenue Models in EdTech

5. Commercialisation, Marketing, and Pitching





Objectives

Participants of this module should:

- recognize and become aware at the global, regional and national edtech markets
- understand and interpret projections for the growth of the market
- identify the most important stakeholders with a specific focus on the national market







Competences

- be aware of the global, regional and national learning economy
- being able to understand the structure and trends of the edtech and education markets
- being able to understand and calculate market projections for specific niche markets in education
- being aware about the most important indicators and data-sources for market predictions



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Units of Module 1

- **1.** Overview of the Education Market
- 2. Digital Transformation of Education Market
- **3.** Learning Science, Social Forces, Regulatory Forces
- 4. Funding for edtech
- 5. Edtech Procurement in Europe

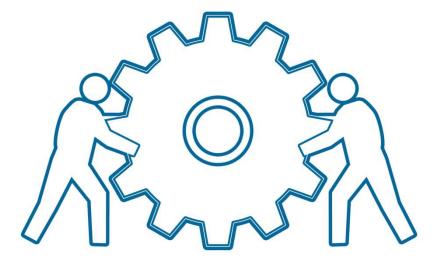


Unit 1 Overview - The EdTech and education market

Objectives

Learners should be able to understand the specifics of

- the global EdTech and education market
- the European EdTech and education market
- the national EdTech and education market



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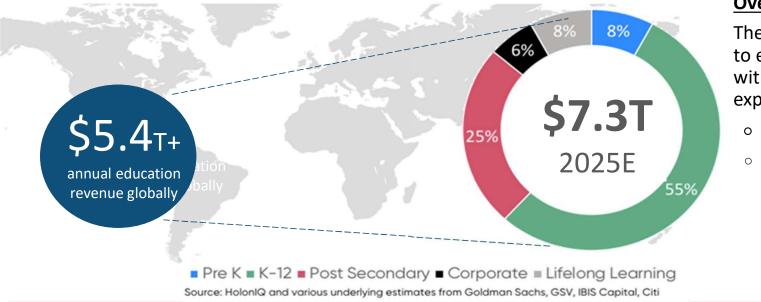
The European education market

- What are the different aspects of the European education market (key attributes of the formal (government funded) market and some information on the growth of EdTech in these markets)?
- Who are the most important players in the European education market?
- What is the current funding available to the European EdTech market?



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The global education market includes 8B learners and almost \$7T



Over 8B learners

The challenge of the century is to equitably reach more learners with evidence-based learning experiences leading to:

o citizenship skills, and

Source: HolonIQ

 21st century employability skills

Education and training:

the largest industry in the world that has not yet undergone a digital transition - work behavior will change when transition occurs

The Education Market: factors that drive growth

- Population Growth:
 - The populations of most countries is increasing, as well as, the percent of the young people attending at least primary and eventually secondary school.
- Globalization and Economic Growth
 - Opportunities for advancement in developing countries
- Future of Work
 - According to the World Bank, the top 5 jobs of the future don't exist yet.
- Advanced Technology
 - New technology requires new training materials and forms of training

Population growth will significantly drive education demand

- Population grow is typically considered the key factor in the growth of the education market with most countries ensuring that young people attend schools.
- The last 30 years, the world's population has increased by 2.5 billion people.
 - The next 30 years are expected to increase global population by another 1.6 billion.
- Globally K12 and post-secondary systems will need the capacity to credential 1 billion additional learners over the next 30 years.
- The population of Europe was estimated to have increase 0.1 percent in 2021, reaching 747 million people, driven by birth rates and net migration.
 - In 2022 net migration from Ukraine has reached 3m. Since 1950, Europe's population growth rate has never exceeded one percent so 2050 estimates cluster at modest growth

Education population in Europe

Total in EU in millions	Early Childhood	Primary	Early Secondary	Late Secondary
~76	15.6	24.5	18.3	17.6

Total in EU in millions	Bachelors	Masters & PhD.	Tertiary short cycle
~18	10.8	5.9	1.3

- Altogether, there were almost 76 million pupils and students enrolled in schools and pre-schools in the EU
- 'Late secondary' covers both general studies and vocational studies.
- 18 million pupils and students enrolled post secondary education in the EU.

In most of the world, relatively high population growth rates tend to challenge capacity of education and often privately funded education solutions prevail.

The education market: trends in submarket growth

- The global education market is made up of sub-markets by learner age, intention and educator actor for that portion of the education market.
- In many cases the formal education market funded by governments has had increasing impact from growing private providers
- In some cases, (for example Australia) university education has become a major export market for some countries
- EU policies have supported cross-country university transfers



Globalisation and Economic Growth

- European is well suited to communicate and set standards as the nature of the globalization changes in the upcoming decades
- As climate change, medical challenges and population movements continue there are major changes in global economies Rise of middle class. Prevalence of knowledge economy. All drive an interest in education.
- Investment in education has been lower than any other industry of comparable size. Macro trend of education and edtech will continue up to grow with some disruption from economic disturbances.



Future of work & Advanced Technology

Future of work

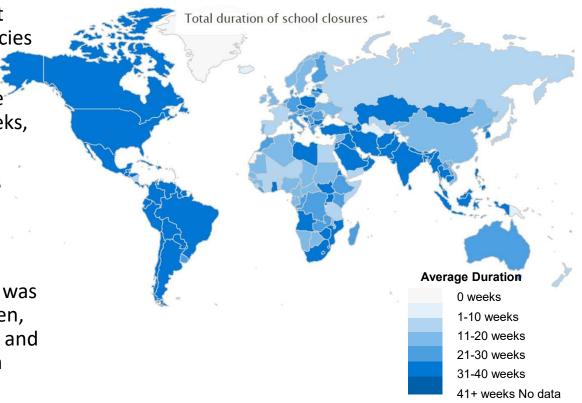
- The rate of change in work including automation will increase going forward.
 - The average person is changing jobs in 2-3 years cycle.
- Corporations end up provided increasing educational solutions to employees
- Investment by employers increases competitive edge
- A rising middle class is ne of the largest areas of opportunity
 - Prevalence of knowledge economy.
 - Lower than any other industry of comparable size in terms of investment.

Advanced Technology

- High rate of change requires integration into the education tech stack
- As more and more digital learning processes are documented more data analysis is possible
- AI in education is currently focus in US & China but is growing all the time with universities leading the way.
- AR/VR, simulations, robotics, gamification and modeling all growing in use
- Blockchain in use to secure certificate

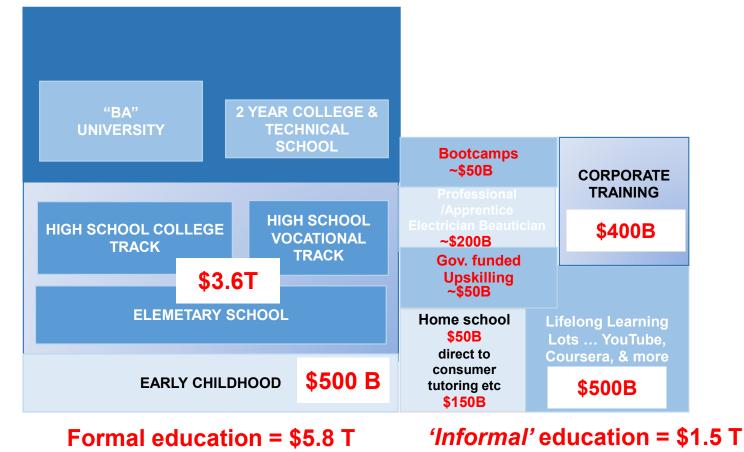
Effect of government policy on education an example - post COVIS school re-openings: around the world

- In general, schools in the Americas were hit harder and imposed harsher lockdown policies during the pandemic
- Since the pandemic began, US schools have been locked down for an average of 62 weeks, Brazil 69 weeks and Canada 51 weeks
- This compares to an average duration of 38 weeks in Germany, 27 weeks in the UK, 12 weeks in France, and just 6 weeks in Switzerland and Iceland
- Despite similar COVID-19 episodes, Europe was generally more inclined to keep schools open, suggesting less exposure to remote leaning and investment in EdTech during the same span

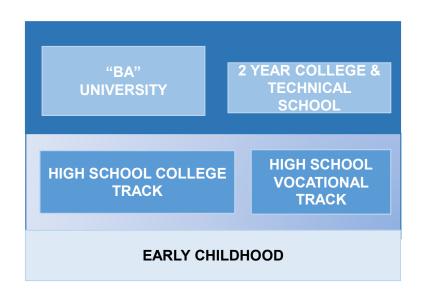


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Global growing markets fueled by population growth and upskilling forces



Formal market structure is similar in all EU jurisdictions



Two major variables for procurement:

- Local vs centralised decision making
- Speed at which of the procurement reoccurs

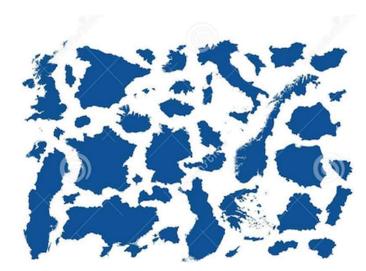
Appendix 1 provides sample cases of Edtech Procurement in Europe

Germany, Poland, Spain and Portugal

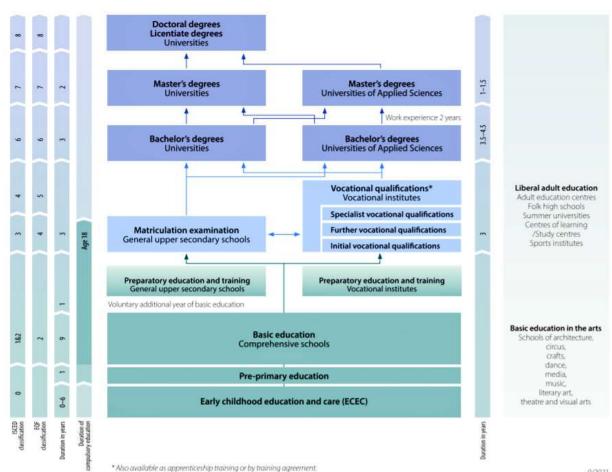
Informal markets are also growing in all countries

1. 1 The EdTech and education market

Europe as a market in education



edtech is based on national systems that vary with their dynamics country to country



EDUCATION SYSTEM IN FINLAND

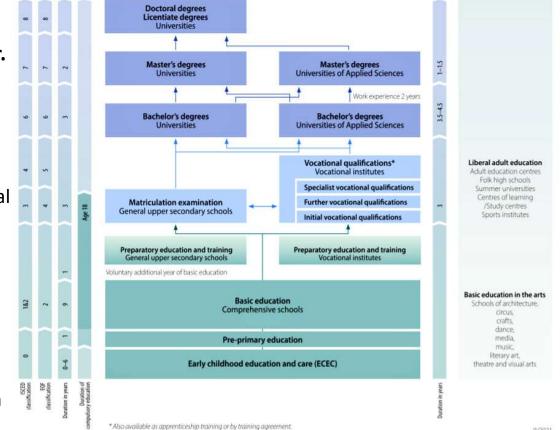
9/2021

Understanding the education system

It is important to understand the education system of the market you are planning to enter.

- Early childhood market
 - Public vs private vs homecare
- K12
 - Public vs private
 - Public: national purchasing decisions vs local decisions
- Higher education
 - Public vs private
- Corporate market
 - o Government support schemes?
- Consumer market
 - Willingness of customers to use their own money for learning solutions and education in general

EDUCATION SYSTEM IN FINLAND



Transformation towards European Education Area is underway

- EU is taking more role in steering the Europe-wide development
- Governments are digitizing education
- Digital platforms (Microsoft, Apple, Google, AWS) and standards enable easier entry to new markets
- Edtech Industry is getting together in Europe and working eg on standards (European Edtech Alliance)
- Big employers demand corporate-wide learning solutions
- App stores make it easy to have market-scalable consumer learning solutions
- Venture capital is enabling eager startups to enter the market with new innovative solutions and challenge traditional status-quo between governments and education publishers
 - -> ENTER EDTECH



Unit 2 Digital Transformation of Education Market

Objectives

Learners should be able to understand and learn

- how Edtech is involved in a range of functions
- the major Edtech market segments
- how Edtech is growing and digital transforming
- o the Edtech opportunity areas



Source | Pixabay license



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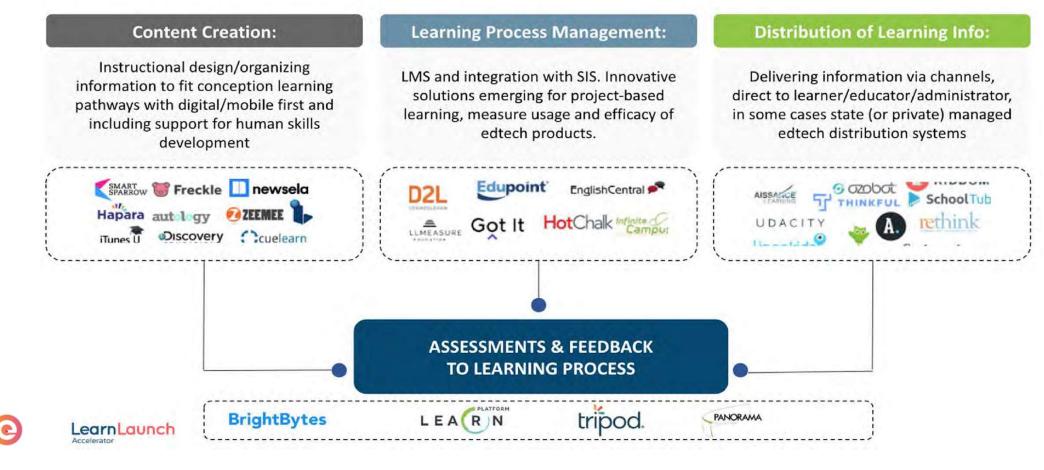
Edtech has been characterized by startup creation of many products

- Education delivered in textbooks resulting in a replacement of books on a 5 to 7 year cycle
- Most textbook publishers were initially been slow to transform into software companies and as a result most early products came from startup companies
- This pattern persists with start up companies developing much of the content, the technology (such as learning experience systems) and innovations in delivery
- Many learners access content on commercial social media systems such as YouTube
- Procurement of education products by almost all purchasers now include larger company offerings and well as those from startups and from startups that have scaled up

What is education technology?

- All of the education industry is undergoing fundamental change.
 - The forces driving changes were in place for years. Access to great education has been a global issue affecting all places in the globe for years
 - But COVID increased adoption by exposing incomplete transitions and access issues
- Edtech started with "book, lecture, & assessment" information into electronically deliverable units (hence the Learning Management System)
 - Now edtech is leaning into emerging tech such as AR/VR, AI, and Web3.
- Until recent, the US has driven funding and investment in edtech innovations
 - As a result, many products over-focus on US submarkets requirements
 - China investments skewed toward informal learners and consumer markets
- Bootcamps (instead of higher ed) is a major global trend and much of the new investment capital in edtech predicts a higher consumer spend.
- Edtech is typically categorized into K-12, Higher Education, Corporate Training, Consumer products

Edtech is involved in a range of functions



1.2 Digital Transformation of Education Market

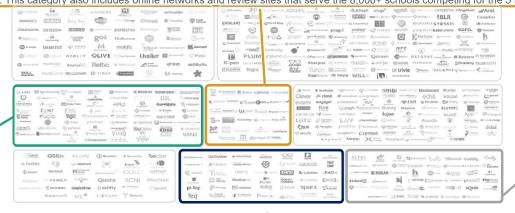
Edtech is involved in a range of functions

Language Learning & International

Tech has always featured heavily in language learning, with related apps often ranking as the most popular category of all apps. There has been significant innovation in technology-led language learning and testing models. Live synchronous tech that makes use of advanced video and audio to connect small groups of language learners and teachers anywhere in the world. This same tech also facilitates language proficiency exams without test centers. International students account for \$40B+ in tuition revenue and 6%+ of total enrollment for US colleges. With restrictions now easing on student visas post COVID lockdowns, the race is on for US schools to attract the best foreign students and visa versa. This category also includes online networks and review sites that serve the 8,000+ schools competing for the 5 million+ students worldwide.

Teacher & Student Resources

Includes hybrid platforms that help teachers take attendance, administer quizzes, engage in games, and share lecture notes regardless of whether students attend in person or remotely by leveraging smartphone technology. Also includes student productivity tools such as note taking apps that also store related handouts, web pages, and whiteboard pictures, scan handwriting, track due dates, and keep coursework and student life in general centrally organized. Lastly, includes direct-toconsumer online platforms for after school tutoring, test prep, and online early learning.



Frontier Tech

These are the new technologies on the horizon that have yet to be fully harnessed but have tremendous implications for improving outcomes in education and learning in general. Extended reality (AR/VR/MR) can breathe new life into the classroom, bringing extra engagement to any subject. AR in particular helps students learn through personalized play experiences, decreasing the time it takes to grasp complex topics. In the work place, XR can lower the costs of training in high precision vocations such as medical and defense as well as "connected" frontline workers in manufacturing. This category also includes programmable robots and STEAM-based educational tools that transform the way kids learn, create and invent through coding, science, music, and the arts, as well as AI-powered chat bots and speech-to-text tools that help students better engage with course materials.

Assessment & Grading

Tools that automate the assessment, grading and feedback process for educators, unlocking big productivity gains while improving outcomes. More recently, advancements in AI have enabled grading of advanced written material. This category also includes badging, credentialing and skills verification systems used by job seekers and employers alike. In high demand fields such as software engineering, these tools validate that a candidate has the specific skills required. Blockchain technology provides a permanent and immutable record of credentials that employers can trust.

Source: AGC Partners

Major edtech market segments

There are four major edtech market segments:

- 1. **PreK-12:** Very few norms for edtech adoption, currently huge frenzied adoption. Mostly small point products.
- 2. Higher Education: LMS-based edtech is largely adopted. Each sub-sector continues change but the outcomes do not meet the needs of employers
- **3. Corporate Training:** Basic corporate training has pivoted to digital; In lieu of hiring, some companies plan to utilize gig-workers given the shift to remote
- 4. **Consumer:** Direct (by age or subject)

Edtech selling is hard due to industry structure and behavior. Integration into technology stacks and development of software instrumentation varies in difficulty.

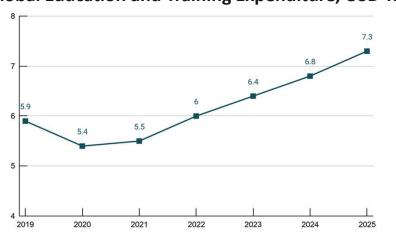
Changes in the teacher/instructor workflow is coming on slowly and continues to inhibit change.

Education markets: digital transformation is underway

- Education is one of the few major industries in the world that has not yet undergone a digital transition.
 - Just over 3% of the total global market in digital spending.
 - At 5% digital spending, the U.S. has been at the forefront of the digital transition.
 - Market analysts agree that the pandemic accelerated edtech adoption by 3-5 years in just over 12 months.
- The biggest cost to educational institutions is payroll (~90% in most cases)
 - Teachers will always be a part of education process
- COVID-19 increased the need for new systems supported by technology.
 - However, it is hard to predict how rapidly new methods can be absorbed by existing systems and augmented with new business models.
 - The rate at which human systems can assimilate to technological change will be a limiting force.

Edtech is growing fast, measured by spend on digital tech

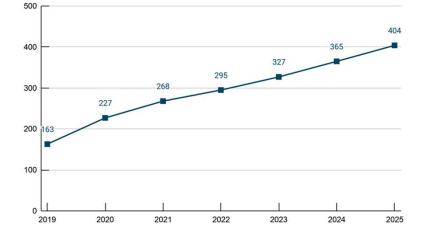
Enormous addressable market driven by transition to higher adoption of online education



Global Education and Training Expenditure, USD Tn

- 1.6tn spent on education in the US, 27% of global spend in 2019
- Disrupted by innovators whom we spot as they emerge

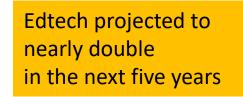
Global Edtech Expenditure, USD Bn

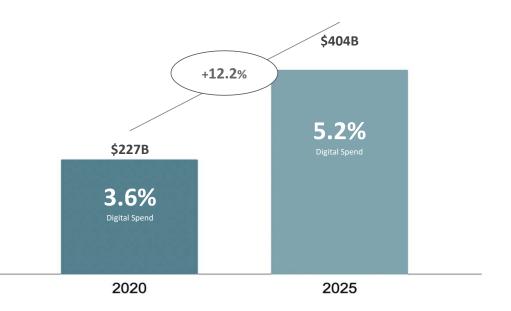


 Edtech spending is accelerating as digital penetration grows

Growing market driven by transition to online

- With <4% penetration globally, education has been a digitization laggard
- Accelerated by pandemic, increase tc
 5.2% digital spend expected by 2025

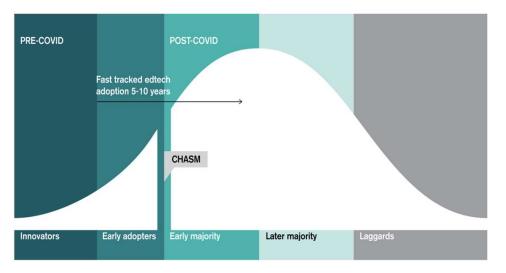




Disruption accelerated digital transformation

- Post-COVID market is hungry for effective products and a new wave of innovative edtech solutions will be entering the market in the next 2-3 years
- School closures due to Covid-19 impacted 1.6 bn learners exposing gaps and causing unprecedented demand for edtech solutions
- Stimulus funding has been injected into most markets and heat up all parts of the market

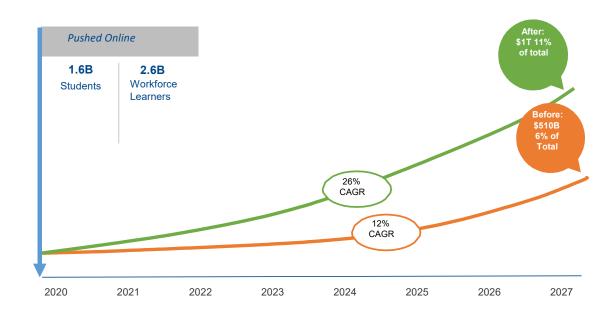
Global pandemics fast tracked digitization of education by 5-10 years



Education markets: digital transformation is underway

- The global pandemic resulted in 20% of the world's population being thrust into a distance or online learning environment, many for the first time
- Schools mobilized to meet the challenge, investing in broadband access, connected devices, digital curriculum and software to store, track, deliver and manage that curriculum in a single location

Global EdTech Growth Forecasts: Before & After COVID



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Education markets: digital transformation is underway

- Now schools own thousands of notebooks and myriad LMS systems that they never had before, all with their own IT life cycles requiring replacement and upgrades
 - Whether or not students fully return to in-person learning and physical classrooms, these IT investments will live on
- Moreover, now that the genie is out of the bottle, a significant number of schools and universities will maintain a hybrid or blended digital learning environment to lower costs and personalize outcomes, and a significant number of parents and learners will seek to opt out of the traditional on-campus school system in favor of online academies
- Some argue that education will experience a disruption similar to retailing seven years ago with e-commerce growing from 3% to more than 10% of total expenditures

Edtech Opportunity Areas

Innovation openings for driving access, equity & outcomes in K-12, higher-ed, workforce training and life-long upskilling

Access

Outcomes

New Learning Environments & Approaches:

- Learner centered design
- Next gen of life-long, re- & upskilling, alternative pathways & surrounding support services
- Immersive learning, incl. AR/VR, simulations, & gamified learning
- Whole child, incl. SEL / Emotional Wellbeing

Consumer & Enterprise Solutions:

- Quality & efficacy in consumer-focused products, especially targeting parents
- Alternative school models
- Teacher and college lecture roles redesigned, with learning science
- Learner selected environments for skills enhancement
- Next gen of corporate training models & enablement

Skills & Competency-Based Learning:

- Training & measuring collaboration, critical thinking, communication & other human skills
- Anti-bias skill assessment
- Alignment of skills with labor market demand
- Filling the gap in the last mile towards employability

Data, Analytics, Personalization:

- 21st Century efficacy assessments
- Bridging data across silos for student success
- New assessment approaches and benchmarks including brain and learning science attributes
- Role of AI in making data actionable and enabling deeper personalization

Source: LearnLaunch Accelerator

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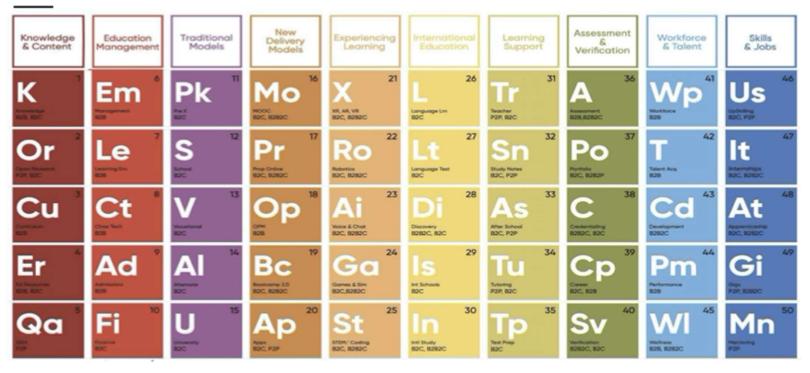
1.2 Digital Transformation of Education Market

Edtech Opportunity Areas

HOLONIQ. EDTECH IN 10 CHARTS

There is no white space in edtech, either products or humans fill every space, but there are a lot of examples of product innovation, delivery innovation and business model innovation, everyday.

2021 Global Learning Landscape



Source: HolonIQ

Unit 3 Learning Science, Social Forces, Regulatory Forces

Objectives

Learners should be able to understand

- the Edtech product and market differences
- the edtech product design trends and emerging technology, and
- o the edtech market forces



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Developing an edtech product benefits from understanding research

There are a number common methods of organizing understanding of learning and teaching.

Learning science is usually understood to be how a memory is set in the brain.

This interdisciplinary field to design and implementation of learning innovations, and the improvement of instructional methodologies. Cognitive based including neuron analysis.

An example, of these studies proposes that 15 minute learning cycles including reinforcing content and rest periods as most effective in learning.

Pedagogy, as an academic discipline, is how knowledge and skills are imparted in an educational context, Pedagogy is often described as the act of teaching.

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Process of product development and implementation is different

- Edtech product and company development is hard
 - This industry is huge, each piece is complex (content, method and context)
 - Each sub sector, each community and each country is different
- Edtech is changing quickly, (compared to a very slow moving underlying industry, this is especially true of the buyer perception of where is the pain and also tech stack into which integration is needed
- Edtech learning journey is different
 - In edtech, the buyer is different than the users. This makes it more difficult to hear from the buyer what is important and is the reason while pilots are needed to understand usability for all users and efficacy for the learner to master the subject

Edtech: different in multiple dimensions

Product Differences

- Defining the steps in the student learner journey can be complex, this is not just user experience
- content (curriculum) products usually require a theory of change, a logic model and efficacy testing plan (especially K-12)
- products are increasingly combining content and learning environment (artificial reality/ virtual reality/ immersive environments, hands-on-projects)
- understanding learning science can and should influence product design, evidence shows cognitive pathways can be trained
- all products need to support learning differences with UDL

Market Differences

- the buyer and the user are 'usually' different product market fit research needs to be buying structure aware
- pilots almost always needed, during market entry



Edtech: different in multiple dimensions

Trends in edtech product design in 2022

- products with content and learning environment (artificial reality/ virtual reality/ hands-on-projects) need new ways to measure effectiveness
- both SEL (see CASEL) and mental health are relevant in all education sub-markets
- how to measure 21st century skills (with fidelity) is a key issue, what do employers value?
- all the ways you can instrument your product and other data available,- to support learning engineering and other big data (AI) plays
- data privacy and data sharing is often complex
- consumer plays continue to grow but marketing costs can be very high
- efficacy testing required
- Building a product that works for *'have some disabilities'* learner, offend called Universal Design for Learning (UDL)
- funding plan is ALWAYS an issue for startups

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Emerging technology in edtech in addition to digital transition

Technology	Impact Area		
AR, VR & Immersive Technology	Medical & workforce w headsets 3D tablets coming for k-12		
AI, Machine Learning, Data	Increased instrumentation of all learning environments, w 60% AI growth US & China		
Robotics	Work automation some w robots affects all workplace training		
Blockchain & 'Web3'	Transportable credentials & future skills verification		

Advanced Technology Growth in Education. Growth in Advanced Technology Expenditure in \$12.6B Global Education in USD (2018-2025) Holon IQ \$6.1B \$3.1B \$1.8B \$1.3B \$0.8B \$0.6B 2018 \$0.1B 2025 2018 AR/VR AI Robotics Blockchain Source: HolonIQ

HOLONIQ. EDTECH IN 10 CHARTS

Source: HolonIQ

www.holonia.com

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Evidence-based edtech companies show VC returns ... with longer ramp

Tell the 'why' of your product and prove efficacy and impact

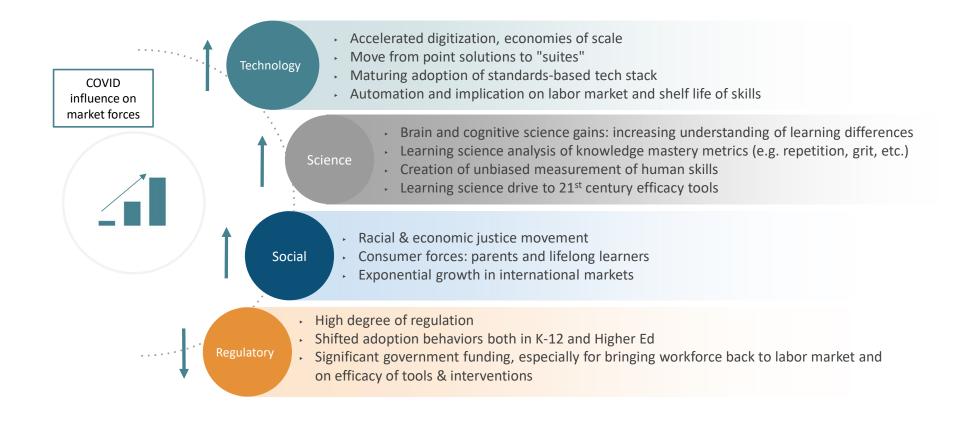
- Designing a theory of change from the beginning
- Planning for and implementing required integration of UDL, singlesign-on, tech stack issues
- Development of first level efficacy data and tests programs
- Full product efficacy testing
- Developing marketing material to convince buyers of importance measurable results in category or establishing a new category

Customer support is an edtech super power

- Scheduling, completing & evaluating pilotsslow
- Implementation decision making and implementation delays
- Training users can slow product uptake
- Getting permission to publish case studies

Powerful Market Forces

Market growth is driven by powerful technology, science, social and regulatory market forces accelerated by pandemic



Unit 4 Funding for edtech

Objectives

Learners should be able to understand the

- Capital gaps
- Edtech investment ecosystem
- Private equity
- o Edtech IPOs

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• Edtech VC funding in US, Europe, China



Source | Pixabay license



Funding from others



Challenges Debt warrant coverage

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Still lots of capital gaps

More "later stage" capital with consistently fewer players for "pre-institutional" rounds

- Alternative paths each come with issues & immature capital instruments / markets
 - o Revenue debt requires revenue
 - Crowdfunding brings a mix of issues and requires sophisticated marketing campaign
 - Grants including SBIRs are a big support
 - Slow market is an issue
- VC path requires highly scalable market/product & good timing of capital needs
 - Increasing average deal size due to "mega-rounds" and most specialized newcomers focus on later stage
 - "New money" from generalist VCs targeting mostly consumer focused & workforce companies
 - Bottleneck moves to early stage

Edtech investment ecosystem: young, changing and not balanced

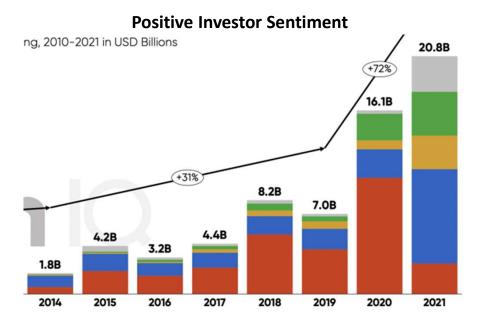
Investment systems are unbalanced

Industry is characterized by small number of "specialist" investors Investing systems in edtech are uneven, high growth in late stage not matched with early stage capacity

- For the very early stage companies, there is some use of revenue-based debt and crowdfunding equity is slowly growing
- Huge number of companies created in 2020/2021, most are have trouble with growth and funding
- Message has gotten through, total number of new startups is down
- Scalable workforce edtech companies are finding some funding
- Globally M&A in edtech is close to an all time high. Most acquirers are PE backed. They are buying large companies, small companies and everything in between. IPOs are still rare.

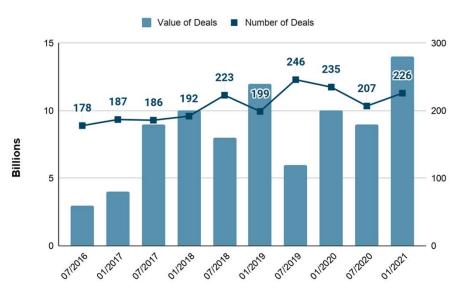
Funding interest driven by transition to online

Positive investor sentiment and increasingly robust exit environment



- VC volume in edtech grew 40x+ since 2010 globally
- Fundraising for edtech specialists exploding, workforce edtech drawing "traditional" funding and multiple companies reaching IPO level

Global M&A Market Dynamics 2016-2020



Growing number of edtech M&A transactions

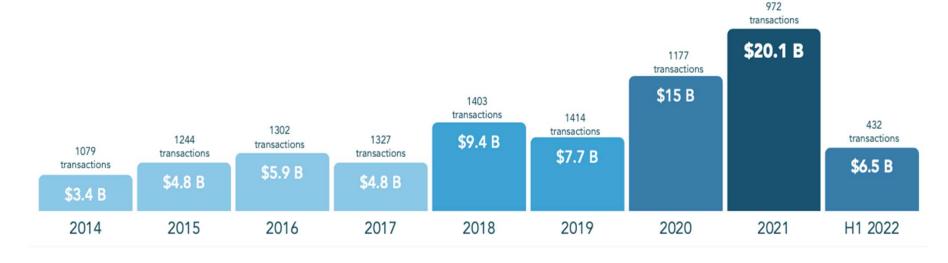
Multiple roll-up players & examples of early exits, consolidation

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Edtech markets: funding influx

- This explosive potential of the edtech market is not lost on investors and M&A buyers
- Global edtech investments grew 6-fold in seven years 2014-21
 - Likewise, M&A activity is very active

Private capital investments to edtech; global figures 2014-21



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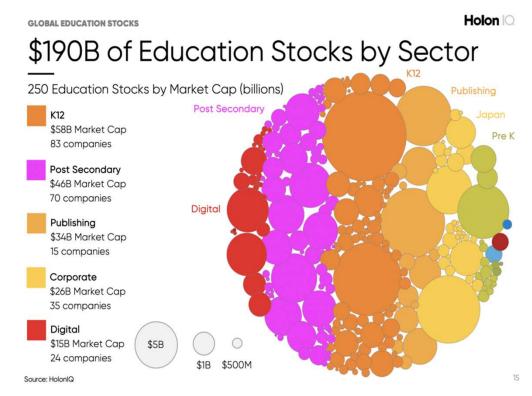
Private Equity: driving significant edtech M&A activity



Edtech IPOs are historically rare, but pace is increasing

- Globally, there are 250 Education Stocks
 - Total market cap of \$190B, generating \$80B of revenue and \$10B of EBITDA powered by 668,000 teachers and professionals.)
- Each year more edtech companies list for IPO

Experts predict over 100 traded stocks each with over a \$1B+ market cap by 2025

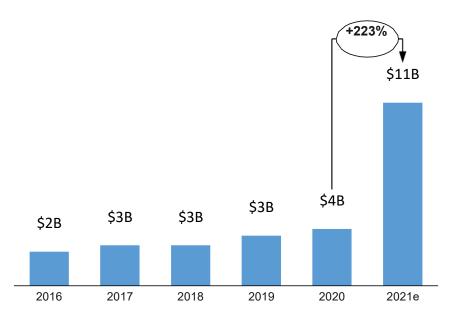


Source: HolonIQ & CrunchBase Pro

Edtech markets: overall funding influx

- This explosive potential of the edtech market is not lost on investors and M&A buyers
- In the US and European markets, funding for EdTech start-ups has surged by over three-fold, and is on track for a record of \$11 billion in total capital raised
 - Likewise, M&A activity is very active





Source Dealroom.co & Brighteye Ventures

China's investment is slowing while US & Europe growing

- Edtech VC funding to companies based in the US in 2021 has jumped to 46% of the global funding total (\$9.3B), from 22% (\$3.3B) in 2020.
- In 2020, China saw 54% (\$8.1B) of global Edtech VC, compared to 9% (\$1.9B) in 2021.
- Political factors contributed to the stall in Edtech investment in China in 202, highlighted by broader regulatory risks in the Chinese tech sector.
- A stalling Chinese Edtech scene, combined with a booming European market saw Edtech VC funding in Europe exceed the level in China for the first time, a great landmark, though still 27% of the amount being invested in the US. This said, the trend of diversification of funding across global regions appears here to stay, evidenced by the leap in funding seen in regions labelled 'Rest of Asia' with India an increasingly advanced Edtech hub (India secured \$4.0B in VC investments in 2021), and 'Rest of World' with Australia seeing the minting of its first Edtech unicorn (Go1).

"The change in the regulatory landscape in China has resulted in a shift of focus for public market investors in two directions. First, we have seen a shift from East to West, with much more focus on Western Europe and US/ Latam opportunities. Second, we have seen a corresponding shift from K-12 to adult/professional learning. It is interesting to see a similar phenomenon in VC funding."

Tom Singlehurst, Global Head of Education Research at CitiBank

Sources: Dealroom.co and Brighteye Ventures

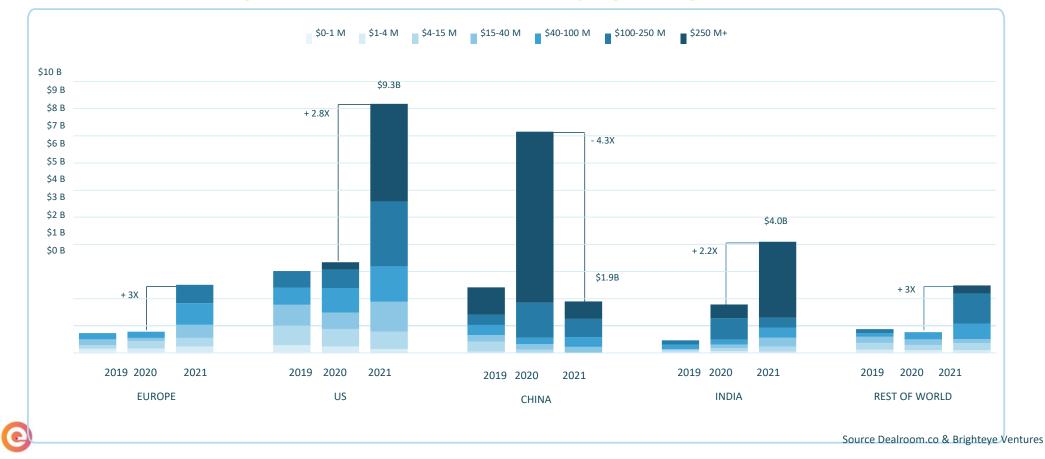


EU and other European countries are experiencing edtech funding growth

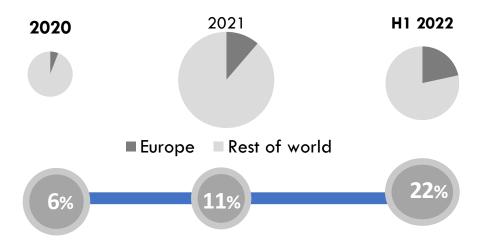
The continent's ecosystem is becoming more robust as well — **the number of edtech deals in Europe accounted for 31% of all deals in the sector**, up from 21% in 2019. This growth wasn't restricted to the usual geographies: Six European markets raised more than \$100 million in 2021, compared to only one in 2020.



Edtech VC funding ... China slows and US & Europe growing



The portion of global Edtech VC funding received by European companies is increasing



- European Edtech ecosystem is proving its resilience in the face of significant macro headwinds observed in other sectors. China changes affect persentages. Europe is the anomaly in the set of regions we have considered.
- This represents a maturing of the sector in the global context- European Edtech can no longer be considered a sleeping giant.
- This said, it's important to recognize that this funding trend towards Europe isn't exclusive to Edtech but to VC funding overall.
 Sources: Dealroom.co; (1) Tech.EU



Comparing Europe to US & Canada

- VC investment in Europe and US/ Canada markets grew 3X between 2020 and 2021.
- However, there remains considerable room to grow for Europe's Edtech market, with VC investments into US & Canada Edtech circa. 3.5X investment for European Edtech investment.
- It's possible that more deals will be done in Europe than in the US & Canada for the first time in 2022, as deal count falls in the US & Canada and remains stable in Europe. The European ecosystem is developing nicely.



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1.4 Funding for edtech

Funding 2019-2021 (\$B)

Fundings	\$9.3 B
Funding in 202	1
\$2.5 B	
Europe	US & Canada

	2019	2020	2021
Europe	\$0.73 B	\$0.79 B	\$2.5 B
US & Canada	\$3.0 B	\$3.3 B	\$9.3 B

Number of deals 2019-2021

	2019	2020	2021
Europe	304	273	299
US & Canada	535	470	355

Average deal size 2019-2021

	2019	2020	2021
Europe	\$2.4 M	\$2.9 M	\$8.4 M
US & Canada	\$5.6 M	\$7.0 M	\$26.2 M

Source Dealroom.co & Brighteye Ventures

Europe investment areas in 2021; where does the money go to?

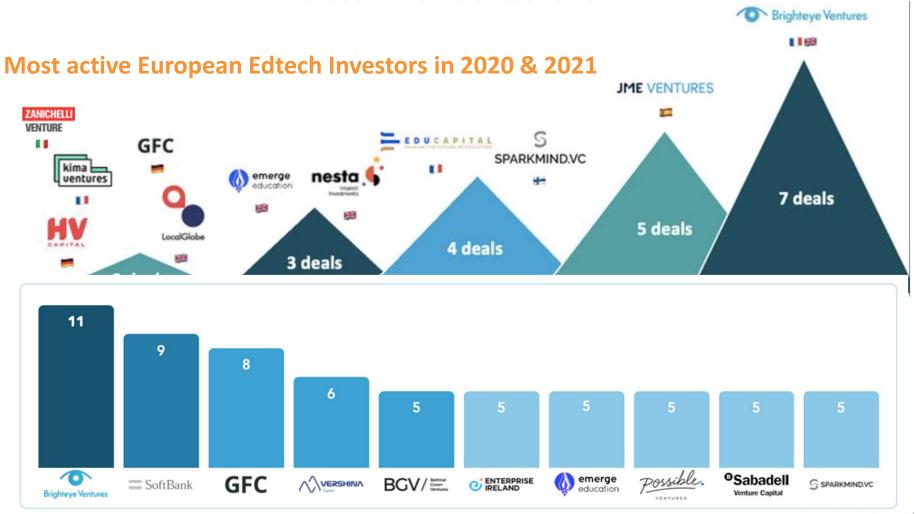


Source Dealroom.co & Brighteye Ventures

Sources: Dealroom.co; Minimised double-counting across groups, though the funding figures used in the chart total: \$2.662B.

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1.4 Funding for edtech



source Dearroom.co & Brighteye Ventures

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Europe has succeeded in getting bigger VC deals

In 2021, 6 deals exceeded \$80M compared to 1 deal in 2020

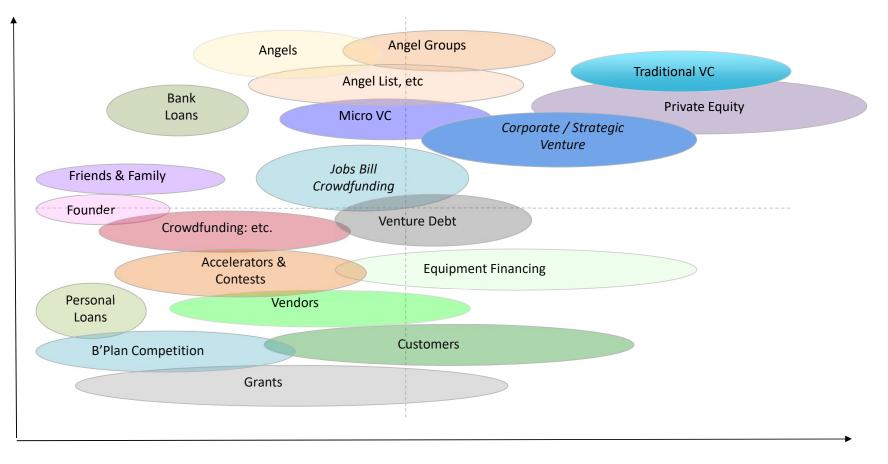
IPO & M&A transactions excluded

Company	HQ	Cluster	Recent raise	Investors*	Valuation*
🗑 GoStudent	Austria 🖴	Tutoring	\$244M	DN Capital, DST Global, Tencent, Coatue	\$1.5B
360Learning	France 💶	Corporate learning LMS	\$200M	Silver Lake Partners, Xange, Bpifrance, Softbank	\$800M
иultiverse	UK 🏴	Vocational training	\$130M	Lightspeed Venture Partners Index Ventures, GV	\$875M
=ornikar	France 💶	Driving education	\$120M	Elaia Partners, KKR, BPIfrance, Brighteye Ventures	\$750M
CoachHub	Germany 🟴	Coaching and mentoring	\$80M	Molten Ventures, HV Capital, Partech, RTP Global	\$480M
OPENCLASSROOMS	France 💶	Vocational training	\$80M	Alven, General Atlantic, BPIfrance, Salesforce	\$400M
	UK 🏴	Cybersecurity training	\$75M	Insight Partners, Goldman Sachs Citi Ventures, Menlo Ventures	\$375M
%Lingoda	Germany 🏴	Language learning	\$65M	Summit Partners, Cornelius, Boersch	\$315M
Labster	Denmark 🏴	AR/VR	\$60M	Balderton Capital, Northzone Swisscom Ventures, Andreeseen Horowitz	\$300M
elcomi	Denmark 📁	HR software	\$55M	Great Hill Partners	-

Source Dealroom.co & Brighteye Ventures

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Early entrepreneurs usually build a personal path



2022 Edtech investing market growing and more steady

Overall Growth

- K-12 investing is varies but M&A activity is strong
- Higher-ed is actively adding a few AI based systems
 - OPMs continue to dominate new course development
 - Investing in workforce upskilling mostly not matched with revenue growth
 - but most government are releasing more funds
- Corporate training continues growth but quality sometimes an issue



Unit 5 Edtech Procurement in Europe

Objectives

 The learners will understand the different processes of Edtech Procurement in European countries.



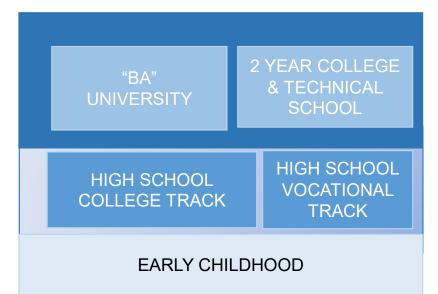
Source | Pixabay license





Formal Market Structure is similar in all EU jurisdictions

- Two major variables for procurement:
 - Local vs centralised decision making
 - Speed at which of the procurement reoccurs
- This unit provides sample cases of Edtech Procurement in Europe
 - o Germany,
 - Poland,
 - Spain and
 - Portugal





GLOSSARY

For consistency purposes, the terminology below is used to describe educational levels across countries. When a particular type of school/education level is not easily translatable, the original term is used in quotes.

- K-12 education: includes all grades from Kindergarten through the end of high school (ages 5-18)
 - Primary schools: post Kindergarten, approx. ages 6-11
 - Middle schools: approx. ages 12-15
 - High schools: approx. ages 16-18
- Higher education: colleges and vocational schools (ages 18+)
- Continuing education: adult education (ages 22+)



1.5 Edtech Procurement in Europe



Source:

The Trade Council, 2021. "Sector Analysis: Edtech in Germany, Poland, Portugal, and Spain."



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General characteristics of the German education system

The German education system is decentralized and follows the federal structure of the country. Each of the 16 federal states forms and governs their educational systems independently.

German education in numbers

- Total number of students in K-12: 8.3 million
- Total number of students in higher education: 3 million

Public vs. private

- 95% of primary schools are public; 5% are private
- 90% of middle and high schools are public; 10% are private
- 70% of higher ed institutions are public; 30% are private

Edtech procurement processes in Germany

- When it comes to purchasing edtech, the decision-making power in Germany lies within municipalities and "school operators." They are responsible for approving budgets and equipment plans from schools.
- Currently, there are two main procurement processes followed by K-12 schools in Germany:
 - Per single request: A school reaches out to their "school operator" requesting funds for a specific digital tool, and
 - Public tendering contract: Public tendering offers at the municipality level for the purchase of hardware and software.
- Research on a case-by-case basis is necessary when considering the German market. For example, federal states have introduced their own Learning Management Systems (LMS).



1.5 Edtech Procurement in Europe

Poland

Sources:

- 1. ELab: The Education System in Poland
- 2. The Trade Council, 2021. "Sector Analysis: Edtech in Germany, Poland, Portugal, and Spain."



General characteristics of the Polish educational system

Polish education in numbers

- Total number of students in K-12: 4.6 million
- Total number of students in higher education: 1.3 million

Public vs. private

- 80% of K-12 schools public; 20% are private
- 80% of higher ed institutions are public; 20% are private

Whereas public K-12 schools follow a national curriculum, private schools are not required to do so and can develop their own.

Big private higher ed players include the Cosinus Higher School chain and the Żak chain.

Edtech procurement processes in Poland

Poland is divided into regions (voivodeships), counties (powiat), and municipalities (gmina).

- Municipalities are responsible for kindergarten and primary schools.
- Counties run middle and high schools.
- The Ministry of Education and Science is responsible for higher ed.
- Medical universities are administered by the Ministry of Health.

Companies wishing to participate in public school tenders should look online for more information. Schools and local government authorities often post relevant information.

- Top publishers: Nowa Era, WSiP
- Top distributor: Librus



1.5 Edtech Procurement in Europe



Source:

The Trade Council, 2021. "Sector Analysis: Edtech in Germany, Poland, Portugal, and Spain."



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General characteristics of the Portuguese educational system

Portuguese education in numbers

- Total number of students in K-12: approx. 1.4 million
- Total number of students in higher education: 400,000

Public vs. private

- Approximately one-third of K-12 schools are private, serving around one-fifth of students.
- Private schools are more common in the "first cycle" of primary and "upper secondary" education.
- Top private schools: British School of Lisbon, Lycée Français Charles Lepierre, Deutsche Schule Lissabon, Redbridge School, Astoria International School

Edtech procurement processes in Portugal

In Portugal, multiple ministries are responsible for education:

- The Ministry of Education defines the curriculum, guidelines for national examinations, teacher recruitment as well as the budget for K-12.
- The Ministry of Labour, Solidarity and Social Security and the Ministry of Education are jointly responsible for vocational schools.
- The Ministry of Science Technology and Higher Education is in charge of higher education.

When it comes to edtech in K-12, the Ministry of Education coordinates purchasing and public tenders. The Ministry is also responsible for creating a list of approved reading and textbooks in accordance with the curriculum.

Top publishers: Grupo Porto Editora, Grupo Leya, Areal Editores, Raiz Editora

Top distributors: Servensino Lda, Europress Editora Lda



1.5 Edtech Procurement in Europe

Spain

Sources:

- 1. Leticia Lafuente López, 2016. "Educational Legislation Guide To ICT Suppliers In Spain." eLearning Industry
- 2. Study in Spain: Spanish Education System
- 3. The Trade Council, 2021. "Sector Analysis: Edtech in Germany, Poland, Portugal, and Spain."



General characteristics of the Spanish educational system

Spanish education in numbers

Total number of students in K-12: 8.3 million

Public vs. private

70% of K-12 schools in K-12 are public; 30% are private

K-12 schools teach students in the Spanish language, with occasional exceptions when regional languages Catalan and Basque are used.

Universities offer degree programmes taught mostly in Spanish, but there are also options where classes are offered in English.



Edtech procurement processes in Spain

The Spanish education system is decentralized and educational powers are shared between national and local levels:

- The State General Administration and specifically the Ministry of Education and Vocational Training, the Ministry of Universities, and the Ministry of Employment and Social Economy are responsible at the national level.
- Autonomous Communities (Departments for Education) control resources at the local level.

Top publishers: Santillana, Grupo Anaya, Grupo SM, Vicens-Vives, Edelvives Top edtech providers: Odilo, Cybee

Additional Resources

 Introduction of 1:1 devices: <u>How the British School of Barcelona is implementing</u> <u>new technology</u>

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Today's Presenters



Jean Hammond Founder, General Partner Focus on early stage edtech investing & entrepreneurship

- Serial entrepreneur
- Co-founder, LearnLaunch Accelerator & Edinno
- One of New England's most active angel investors, active board member -30+
- 2014 Hans Severiens Award Angel Capital Assoc.
- 2015-20 MIT Corpor., Sloan Dean's Advisory Bd.
- Founder of Golden Seeds Boston, member of Launchpad Venture & Hub Angels
- Founded AXON Networks, Quarry Technologies





Congratulations! You have completed this module!

