Universities and Unicorns project

Report 2 of 4

Mapping Emerging Edtech Trends in the Higher Education Sector: Companies, Investment Deals & Investors

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3 About the report

In this report, we analyse the landscape of education technology ('edtech') companies active in the higher education sector, their investors, and investment deals. With this backdrop, we also outline possible emergent trends in the edtech industry. The report was written to spark debate with higher education stakeholders and experts at forums held during the month of September 2021 as part of Stage 1 of the Universities and Unicorns Project and build on these insights in the project's subsequent stages. The report will thus support our recently commenced case study analyses of edtech companies, investors, and universities. The data underpinning this report was downloaded at the beginning of July 2021, and subsequent investments, legislative changes[1], and mergers and acquisitions,[2] are consequently not included in the analysis. The findings presented in the following pages should be read as indicative of emerging trends. The accompanying text to this report is the Methodological Handbook, in which we explain the steps of data collection and analysis in more detail (Report 4 of 4).

[1] *China's education sector crackdown hits foreign investors,* 26 July 2021, the Financial Times [online].

[2] *Blackboard to merge with Anthology in $3 billion edtech deal,* 13 Sep 2021, Bloomberg [online].

4 Executive Summary

This report aims to map the emerging trends in education technology ('edtech') in higher education (HE). We created and analysed a tailored list of edtech companies, investment deals, and investors, drawing on the data that we downloaded from Crunchbase, a platform providing business information on public and private companies. As part of the analysis, we coded each company along four dimensions that helped us get to analyse what each company offered, how their platform intermediated between various actors, who paid for the related products or services, and who used it. The four dimensions are: the primary offering; service model; primary customer; and end-users.

The data was downloaded at the beginning of July 2021. Therefore, developments after this date, including investments, significant legislative changes, and mergers and acquisitions,are not considered. Though the database is comprehensive, we cannot claim that it represents all edtech companies active in the HE sector, and we recognise that there are limitations to Crunchbase's data. Nevertheless, our analysis represents the first systematic attempt to identify, code, and analyse edtech companies, their deals, and their investors operating in HE. We identified five key trends.

1. Edtech activities are growing

Edtech in HE is expanding fast. Most edtech companies active in HE were founded in the past two decades, while the more substantial growth is noted in the past 10 years. The amount of financial investment in these companies is increasing significantly, particularly since 2015. We noted especially high investment in the first half of 2021 in comparison to previous years. As companies mature and move to the later stages of funding, they raise more investment and attract more capital.

2. Edtech activities are growing in all world regions but unevenly

Edtech activity grew across all world regions. However, the overall intensity of activities is unequally distributed as measured by the number of new companies founded and the money they raised. The money raised by companies headquartered in Northern America was substantially higher (US$8.9 billion) than those from Asia (US$2.1 billion) and Europe (US$2.0 billion), most likely reflecting current differences in valuation practices, market potentials, and industry maturity. Venture capital is the investment funding type that we noted had the steepest growth.

Our analysis also suggests that the gap between Europe and North America is less pronounced than commonly reflected in edtech market intelligence sources and popular discourse. We further found that edtech companies in the USA and Europe had diverse primary offerings. On the other hand, the Chinese edtech companies in HE focused on offering content. This could be driven by a regional focus on pre-secondary education over HE.

3. Rising valuations and the number of mergers and acquisitions indicate a consolidation

While the data indicated that the relative growth in founding new edtech companies might be slowing, the money that companies raised through investment deals is growing rapidly. By way of example, companies had raised almost double the investment by July 2021 (US$4.4 billion) than in all of 2020 (US$2.3 billion), which was already a big jump from 2019 (US$41.4 billion). This suggests that the sector is becoming more capitalised, driven by investment in companies with a proven track record. There is also some indication of consolidation as 12% of the companies we mapped in this report have acquired and/or been acquired. In addition, we noticed a rise in the number of edtech 'unicorns', i.e. companies with more than $1bn valuations[3].

[3] See HolonIQ's list: https://www.holoniq.com/edtech-unicorns/

4. Business to business intermediation is associated with cross-sectoral usage and big investments

HE institutions are key customers for edtech companies, being a key revenue source and conduit for reaching students and staff, who can also be customers. Business to business (B2B) is the primary service model representing half of all the companies included in this study and just over half of the money raised. Business to customer (B2C) models came second as measured by the number of companies and investments. They tend to raise less money per company, which may reflect investors' preference for institutional over individual purchasing power; or that markets targeting individuals are less mature with consequently lower levels of investment. Companies headquartered in Latin America and the Caribbean were a noticeable exception in this trend, as investments leaned more toward the business to customer models.

5. "Data-rich" solutions emerged as a limited and unequally distributed operation

The majority (88%) of the edtech companies on our list did not utilise "data-rich" solutions to generate added value through, for example, artificial intelligence, machine learning, or blockchain technology. This indicates a potential tension between the common discourse around edtech's disruptive potential and its causes on the one hand,[4] and edtech solutions that are in majority data-sparse on the other hand. The companies that claim to offer "data-rich" solutions tended to do so through business to business service models. HE institutions were the most common customer of such companies. This indicates that there seem to be two groups of markets emerging. The first is the edtech companies targeting institutions with platforms in which value seems to lie increasingly in data-rich solutions supporting automation, behavioural nudging and personalisation. The second is the edtech companies targeting individuals with

[4] See the Universities and Unicorns report 3 of 4: *A critical analysis of investors' logic in business discourse*

platforms where the value seems to lie in intermediation between individuals and the scale of operation.

List of abbreviations

B2B2C	Business to business to consumer
B2C	Business to consumer
B2C2B	Business to consumer to business
B2C2C	Business to consumer to consumer
ENT	Enterprise
HE	Higher education
HEI	Higher education institution
IND	Individual
LAC	Latin America and the Caribbean
MOOC	Massive Open Online Courses
OECD	Organisation for Economic Co-operation and Development
T&L	Teaching and Learning
UK	The United Kingdom
USA	The United States
UU	Universities and Unicorns

5 Introduction

A new generation of education researchers is coming to grips with studying the digital economy, education technology (edtech), edtech companies, and their impact on higher education (HE). In this report, we take a step back to get a macro view of the scale and scope of the edtech companies and investors active in HE.

Data available on edtech companies, funding, and investors are provided by commercial market intelligence platforms, accessed by costly subscriptions and providing a holistic overview of the global economy. Although some platforms, such as HolonIQ, focus specifically on education, they tend to present ready-made analyses about the sector. Moreover, these platforms are often constructed with commercial aims in mind and consequently present a particular view of where edtech is going.[5] The information available on edtech from these platforms also covers all levels of education. Consequently, we wanted to create a comprehensive database of the edtech industry-specific to HE with details on companies' primary offerings, service models, customers, end-users, and financial flows.

We created a comprehensive database of potentially relevant edtech firms operating in HE by using data from a generalist and relatively accessible intelligence firm, Crunchbase. We identified companies that are relevant to our research project and coded them for their HE-specific properties. We did the same for edtech investment deals and investors. Taken together, we constructed three databases with information specific to HE edtech companies, investments, and investors. The following summarises our methodological approach. A more detailed account is set out in the Methodological Handbook.

[5] *Education in 2030: five scenarios for the future of learning and talent*, HolonIQ, no date: https://www.holoniq.com/wp-content/uploads/2020/01/HolonIQ-Education-in-2030.pdf

6 Overview: Data collection and the UU classification

The data underpinning this report was downloaded from Crunchbase, a platform that collects and offers information on public and private companies, funding, investors, individuals, news, and industry trends. We created three comprehensive databases relating to edtech companies active in HE, the investment deals they had been investees in, and the investors who had funded these investment deals. Downloading the relevant data from Crunchbase was a multistep process.

First, we ran a broad search of edtech and e-learning companies based on categorisation by the Crunchbase interface.[6] This yielded a long list of 11,958 companies, most of which did not meet our criteria for inclusion in our database.[7] We then manually sorted the long-list for relevance and credibility to create a shortlist of 2,474 edtech companies. The short-list was coded according to the *Universities and Unicorns* (UU) classification system developed for this research project, which we discuss in the following section. This resulted in the further exclusion of 462 companies that did not meet our inclusion criteria. The remaining 2,012 companies make up the companies database. The companies database includes Crunchbase data which is complemented by the UU classification scheme.

Second, we extracted a list of top investors associated with the selected edtech companies using the companies database. This yielded a list of 1,120 investors that we then searched for in Crunchbase for additional information, which we then downloaded. We populated the list with additional geographical information about the investors resulting in the investors' database.

Finally, we conducted an additional search of Crunchbase to identify investment deals associated with any of the 2,012 edtech companies from our companies database. This yielded a list of 1,962

[6] See the methods handbook for a full list.

[7] See the methods handbook for the inclusion and exclusion criteria.

investment deals spread across 825 companies. We then downloaded associated Crunchbase data.

6.1 The UU classification of edtech companies

Crunchbase is a generalist database that holds information on companies across all economic sectors, which means that information available through the database is not sector-specific to education. To better understand what kind of digital products and services exist, we developed our own UU classification scheme consisting of four key dimensions: primary offering, service model, customer, and end-users (Table **1**).

Table 1: The four UU-dimensions with brief definitions

The four UU-dimensions	Brief definition	Categories
Primary offering	The main type of product or service offered via the digital platform.	1. Software Foundation 2. T&L Content 3. Bootcamps 4. T&L Support 5. Learner Service 6. Analytics 7. Financing
Service model	The main type of intermediation that platforms institute between customers, users, and other businesses.	1. B2C (business to customer) 2. B2B (business to business) 3. B2B2C (business to business to customer) 4. B2C2C (business to customer to customer)

The four UU-dimensions	Brief definition	Categories
		5. B2C2B (business to customer to business) 6. B2B2B (business to business to business)
Primary customer	The key customer type, paying for the use of the primary offering.	1. IND (individuals) 2. HEI (higher education institutions) 3. ENT (enterprises)
End users	The user type(s) who engage with the platform and leave data traces.	1. HEI Students 2. HEI Academics 3. HEI Professionals 4. ENT Employees 5. ENT managers 6. IND are individual members of the general population

Note: T&L refers to teaching and learning

We noted in all cases where primary offerings were augmented and depended on data-rich solutions that added value from digital data. Examples include artificial intelligence, machine learning, blockchain technology, cryptocurrency, and cybersecurity.

Please see the Methodological Handbook (Report 4) for a detailed description of categories and an in-depth overview of the UU classification.

6.2 Crunchbase reliability and the purpose of mapping the emerging trends in edtech

Crunchbase emerged out of the online newspaper TechCrunch in 2007 as "a place to track the companies mentioned in their articles" (Ferrati & Muffatto, 2020, p. 343). Today, Crunchbase can best be understood as an intelligence platform used by entrepreneurs and professionals to gauge business information about private and public organisations. In an OECD Science, Technology and Industry Working paper, Dalle et al. (2017) identify several articles in peer-reviewed journals that use Crunchbase data, including leading journals in their fields (e.g., Santana et al., 2017; Tata et al., 2016). This lead them to conclude that "Crunchbase is already accepted as [a] legitimate source for research by many experts" (Dalle et al., 2017, p. 16). At the same time, however, Crunchbase is a data source that influences the type of knowledge claims that can be made when drawing on it as evidence. It is particularly important to understand how Crunchbase collects and verifies data.

Crunchbase collects and verifies data through a combination of four approaches. First, investors update their own accounts on Crunchbase in return for a rebate on Crunchbase services. Second, community contributors can submit information. Third, data is scanned for outliers using machine learning techniques. Finally, data is validated by Crunchbase staff (Crunchbase, 2021; Ferrati & Muffatto, 2020). The lack of a centralised and fully transparent approach leads to potential issues around consistency, reliability, and validity. For example, in a detailed review of Crunchbase, Ferrati & Muffatto warn of a delay between company foundation and registration on the platform and other potential inconsistencies in data points relating to Initial Public Offerings. The researchers warn that analysts should "treat [the] data with caution" (p. 347). One way of doing this is to contextualise and sense check findings with broader literature and expert opinions and recognise the specifics of data collection.

We posit that the key for using Crunchbase in education research lies with how the data is used and with what purpose in mind. In other words, this report does not aim to make authoritative truth claims about the edtech industry in HE. Instead, it tries to map the most comprehensive picture of the industry that we were able to put together using Crunchbase. As potential trends

and insights emerged from our analysis, we shared them with our Academic Advisory Board, which consists of world-leading academics specialising in higher education studies, economic sociology and science and technology studies. Furthermore, we shared the trends with our Stakeholder Forum, which consists of key stakeholders and practitioners who are knowledgeable about edtech in HE. These discussions were meant both to challenge and sense-check our emerging insights and generate further questions for exploration. We incorporated the feedback from both groups in the four associated reports. Finally, we are now taking into account the identified trends and feedback as we move to the next phase of the UU project, i.e. case studies and interviewing experts in the field.

7 Edtech companies

The following provides an overview of the 2,012 edtech companies included in the UU company database. We summarise key information about the edtech companies, such as their geographical location, year of incorporation, revenue ranges, employee numbers, funding status, and more. We discuss emerging findings that come from the UU classification scheme. This section highlights the importance of the T&L Content category, the prevalence of individuals as primary customers, and the importance of HE institutions in reaching a wide array of end-users.

Our companies database reveals a rich diversity in the type of HE edtech companies coded for this mapping exercise. It seems that the big regional economies (Northern America, Europe, and Asia) are the frontrunners in HE edtech, particularly when it comes to attracting funding. We also identify some trends towards consolidation in our database (12% of companies have been acquired and/or have acquired other companies themselves) and fragmentations in terms of the companies offering "data-rich" solutions.

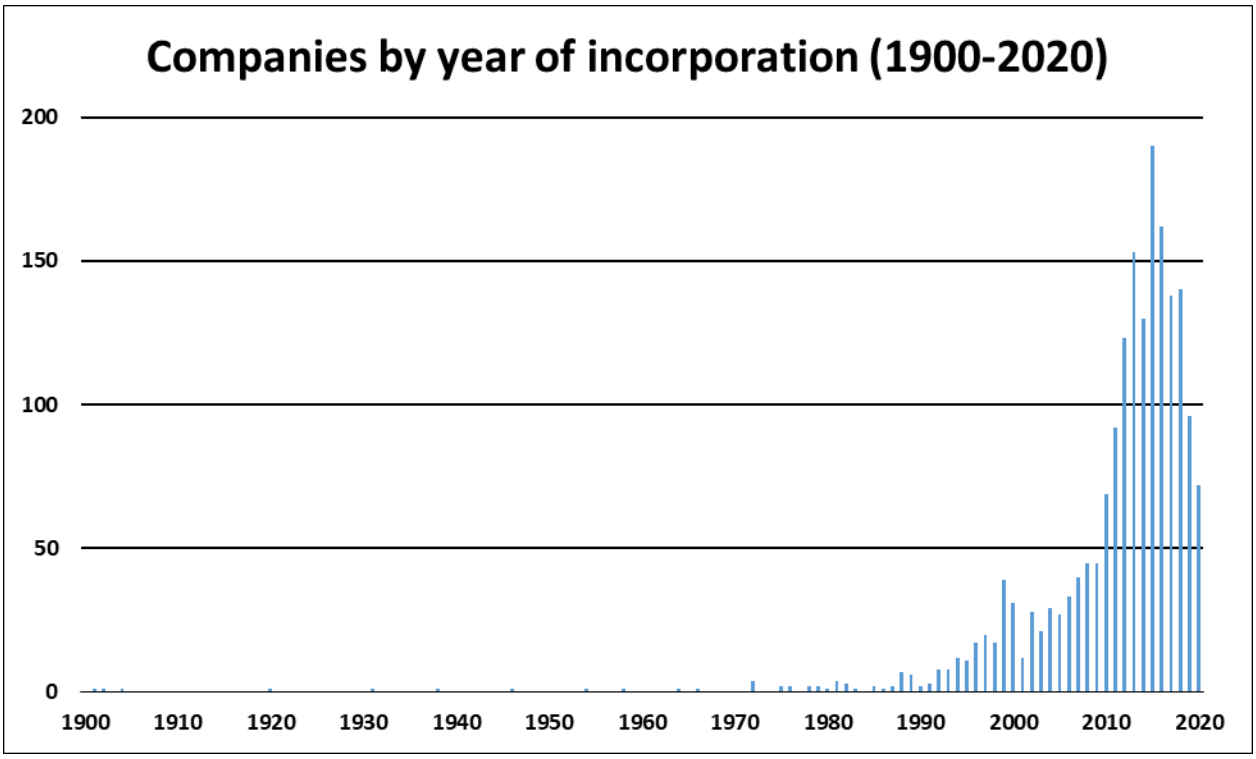
7.1 Overview of the edtech companies

7.1.1 Year of incorporation

It was possible to collect the foundation year for 1,873 of the 2,012 edtech companies in our database, meaning that we could not establish the foundation year for 139 companies. Because we downloaded the data during July of 2021, only ten companies with a 2021 foundation year were included in our list

In the following, we discuss the 1,863 companies with a recorded incorporation date between 1900 and 2020, and for which we have a full data set. Of these, only 187 were incorporated before 2000. The remaining 1,676 companies were founded between 2000 to 2020, which corresponds to 90% of all the companies on our list (Figure 1).

Figure 1: Companies by year of incorporation (1900-2020)



Note: Companies are edtech companies active in higher education. Source: UU analysis of data from Crunchbase.

Our list of edtech companies is limited to those active in HE. Annual incorporation first exceeds 100 in 2012, and tops with 190 companies in 2015. Yearly incorporation levels steadily decline after 2015 and fall below 100 by 2019. While it is not surprising to see a growth in the foundation numbers of new edtech companies over the last two decades, and that this growth has picked up after the 2007-2008 global financial crisis, the apparent slowdown in foundations after 2015 may come as a surprise. More research is needed to determine what is driving this trend. We offer three potential co-determinants: the nature of the Crunchbase data, broader political and economic trends, and dynamics specific to the HE sector.

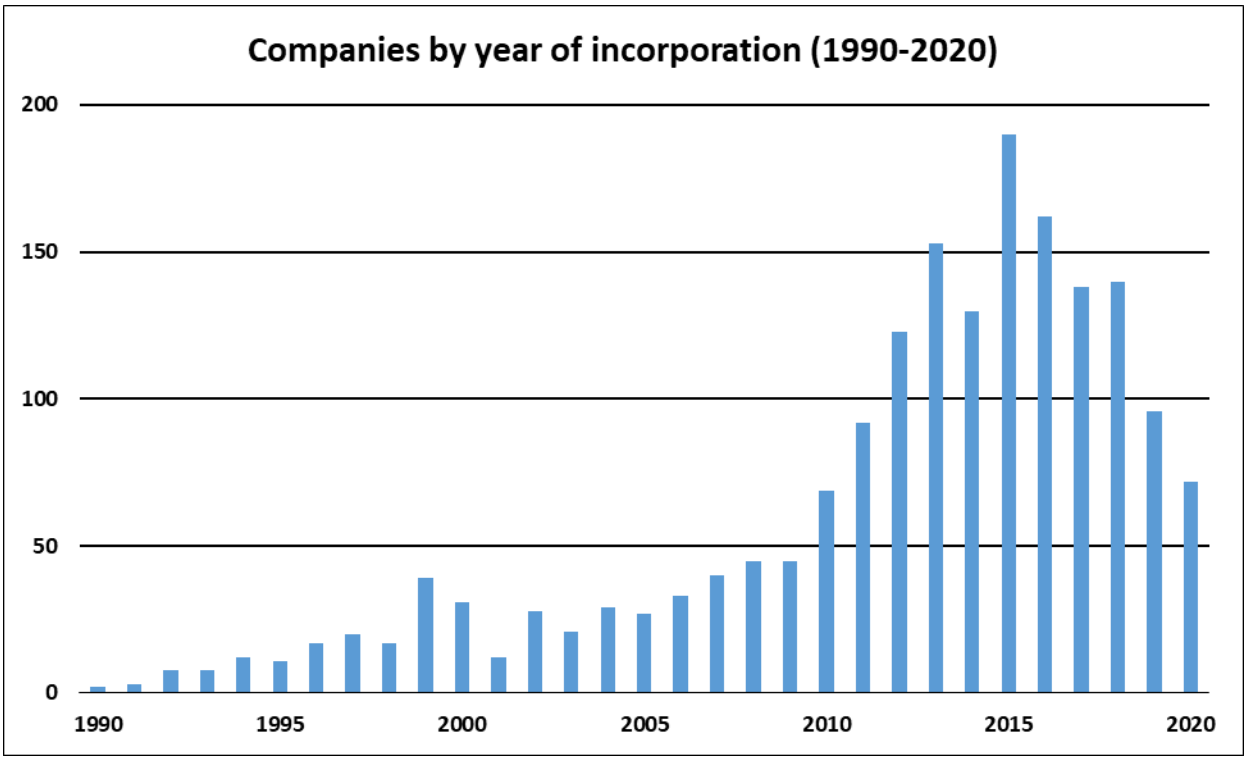
Crunchbase data partially relies on self-reporting, which according to Ferrati and Muffatto (2020), causes "a certain delay between the foundation of the company and its actual registration on Crunchbase" (p. 347). At the same time, Dalle et al. (2017) have compared Crunchbase overall coverage of companies by year of foundation with the OECD Entrepreneurship Financing

Database and conclude that both "are substantially similar across the two data sources" and that "[c]comparisons with other sources at micro-level … also suggest that the coverage is very comprehensive, especially for start-ups located in the USA (p. 8-9). Thus while the Crunchbase data might explain some of this slowdown in the relative growth of new companies on our list, it is not a given that it can explain all of it.

The USA and the UK have historically been the two countries with the most companies represented in Crunchbase (Ferrati & Muffatto, 2020). For both countries, the period after 2015 was associated with some political and economic uncertainty following the election of President Donald Trump in the USA and the UK's referendum result to leave the European Union. This uncertainty was captured by a Financial Time's correspondent who reported on some of the most important numbers for that year, including the number "123", which was "[t]he number of times the words "uncertain" and "uncertainty" appeared in the minutes of the meetings of the Bank of England's Monetary Policy Committee during 2016. This was a 78 per cent increase compared with 2015, even though the MPC had one meeting fewer this year." (Tetlow, 2016). It may be that some of these broader economic and political trends are bleeding into our foundation numbers.

Given that the data collected for this mapping is specific to the HE sector, the apparent slowing of the number of founded companies could also be a phenomenon specific to HE. To say more, we would need to study data from adjacent industries such as, for example, edtech companies active in primary education. Figure **2** displays the same data but only over a thirty-year period. It would be important to ask practitioners and specialists if they also noted a peak in company incorporations in 2015 and, if so, what might have driven it. Furthermore, the edtech industry seems to be maturing and attracting higher investment as start-ups move to later rounds of investment. Perhaps this might impact the investment appetite.

Figure 2: Companies by year of incorporation (1990-2020)

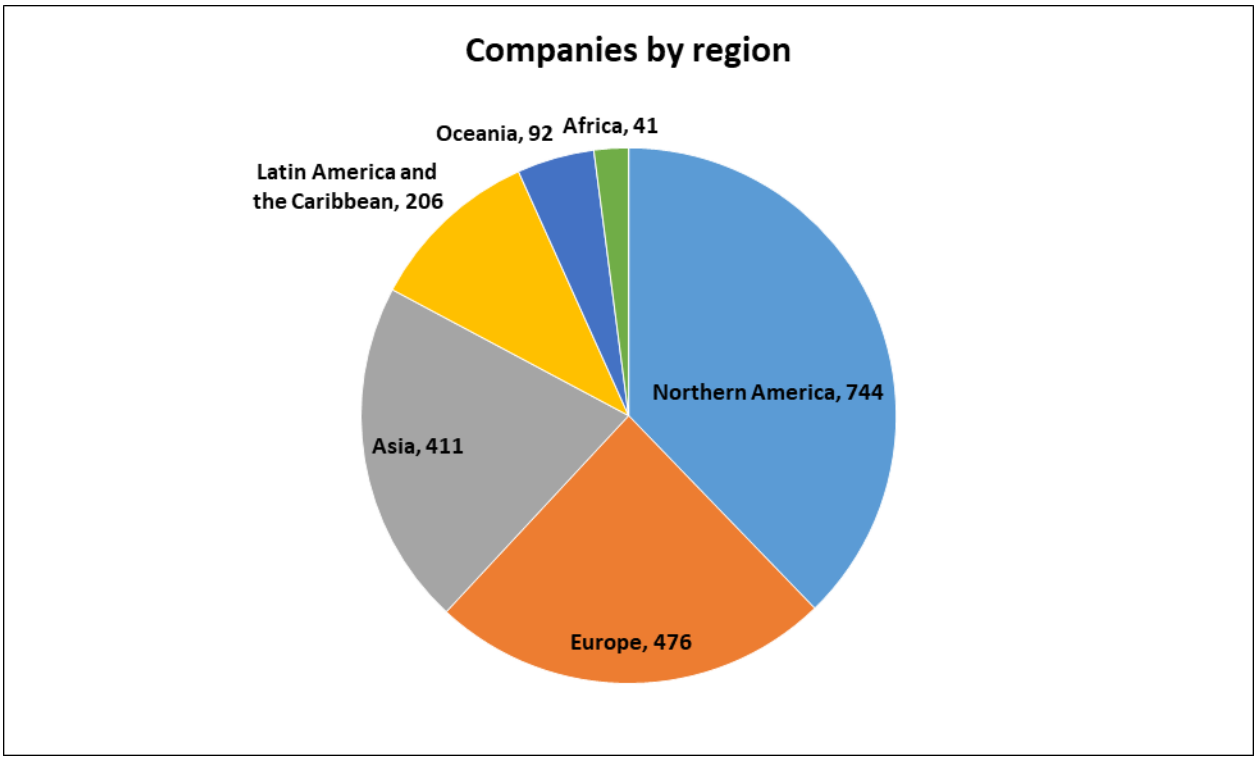


Note: Companies are edtech companies active in higher education. Source: UU analysis of data from Crunchbase.

7.1.2 Location

Most of the 2,012 edtech companies are headquartered in Northern America (744), followed by Europe (476), and Asia (411). Asia has more companies on our list than Latin America and the Caribbean (206), Oceania (92), and Africa (41) combined (Figure **3**).

Figure 3: Edtech companies by region



Note: Companies refer to edtech companies active in higher education. Region is based on company headquarters, n/a (42) is excluded from graph. Source: UU analysis of data from Crunchbase.

Further analysis suggests the link between large national economies and the presence of edtech companies (Table **2**). For example, of 744 edtech companies located in Northern America, 724 can be found in the USA. In comparison, only 20 Canadian edtech companies made it into our database (Table **3**).

Western European countries dominate the European region (151), followed by the UK (134), with a disproportionately large number of edtech companies considering the size of the UK economy. Southern Asia (166) is the largest Asian sub-region by the number of companies, followed by South-Eastern Asia (90). It is noticeable that Latin America and the Caribbean (206) have double the number of edtech companies in our database than Australia and New Zeeland (96). Finally,

Sub-Saharan Africa has 35 companies on our list, whereas only six companies represent Northern Africa.

Only seven countries had more than 50 companies on our list (Table **3**). However, both India (157) and Brazil (145) have more companies on our list than any major economy outside the USA. It would be interesting to examine if these companies cater to the domestic or global markets. While the sizes of regional, sub-regional, and national economies seem to impact the distribution of edtech companies on our list, other factors are also at play.

India and Brazil have more than double the number of edtech companies on our list than Germany. The Indian economy was, according to the OECD's 2017 estimates,[8] about twice the size of Germany's (8.1 trillion versus 4.4 trillion), whereas the Brazilian economy was smaller than the German (3.1 trillion). This dynamic might be explained by different regulatory regimes, different strengths and expectations from public education systems, and the fact that much growth in edtech is recent, which may put some rapidly developing economies at a relative advantage. It will be important to bring these observations to practitioners and experts to learn more.

The fact that China (59) has fewer companies on our list than, for example, the UK may suggest that Chinese companies tend to specialise in other areas of edtech (e.g. primary education and tutoring). It might also indicate that Crunchbase's coverage of the Chinese market is less consistent. More investigation is needed.

Table 2: Companies by sub-region

Region	**Companies**	**Sub-region**	**Companies**
Northern America	744	United States	724
		Canada	20

[8] https://data.oecd.org/gdp/gross-domestic-product-gdp.htm

Region	Companies	Sub-region	Companies
Europe	476	EU Western Europe	151
		UK	134
		EU Northern Europe	66
		EU Southern Europe	61
		EU Eastern Europe	26
		Northern Europe except EU&UK	16
		Non-EU Eastern Europe	12
		Non-EU Western Europe	10
Asia	411	Southern Asia	166
		South-Eastern Asia	90
		China	59
		Western Asia	51
		Eastern Asia	43
		EU Western Asia	2
Latin America and the Caribbean	206	Latin America and the Caribbean	206
Oceania	92	Australia and New Zealand	92

Region	Companies	Sub-region	Companies
Africa	41	Sub-Saharan Africa	35
		Northern Africa	6
Not Available (NA)	42	NA	42

Total regional companies = 2,013

Total sub-regional companies = 2,012

Source: UU analysis of data from Crunchbase.

Table 3: Countries with more than 50 edtech companies in the database

Country	Companies
United States	724
India	157
Brazil	145
United Kingdom	134
Australia	82
China	59
Germany	53

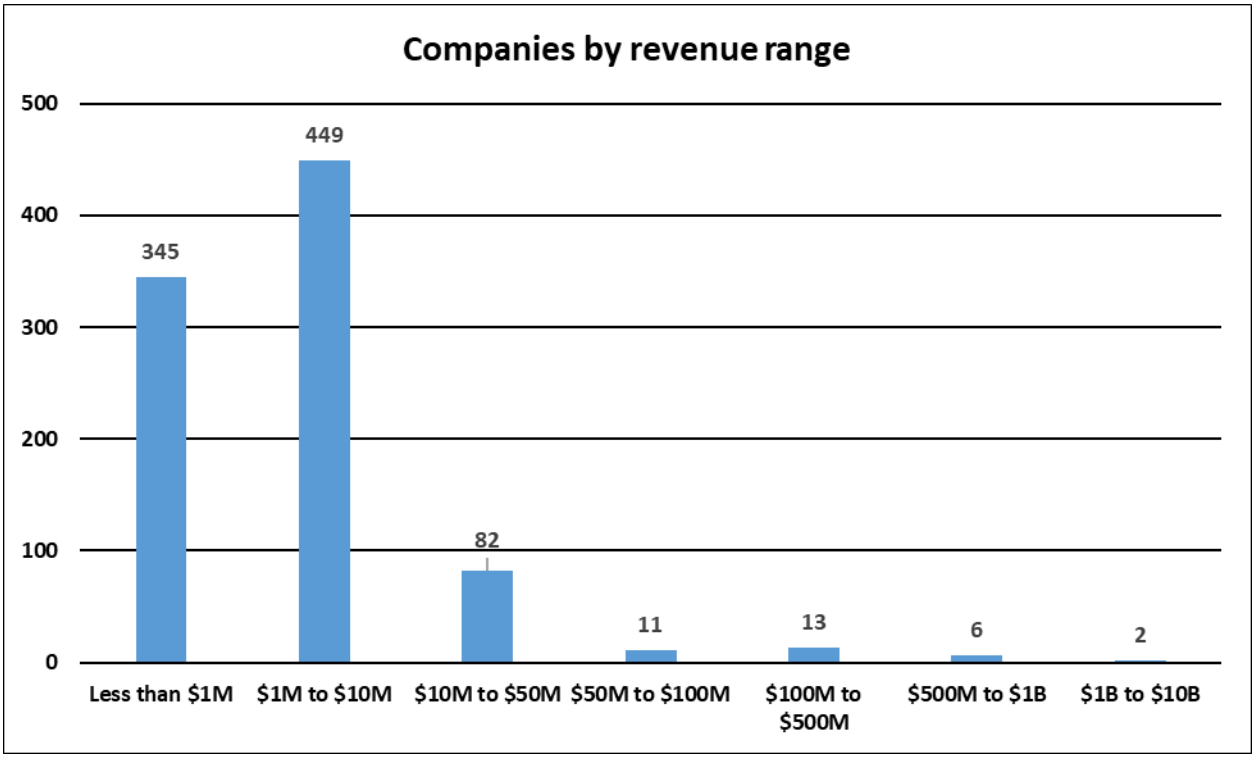
Source: UU analysis of data from Crunchbase.

7.1.3 Estimated revenue range

Crunchbase provided revenue ranges for 908 of the 2,012 companies included in our database. From this group, 345 companies had revenues of less than $1 million USD. The most common revenue range was between $1 million to $10 million USD, which applied to 449 companies

(Figure **4**). The estimated revenue ranges – albeit incomplete— echo a recurrent finding of the mappings exercise: the edtech landscape for HE is more than the "big tech".

Figure 4: Companies by revenue ranges



Note: revenue ranges are in USD million and USD billion. Source: UU analysis of data from Crunchbase.

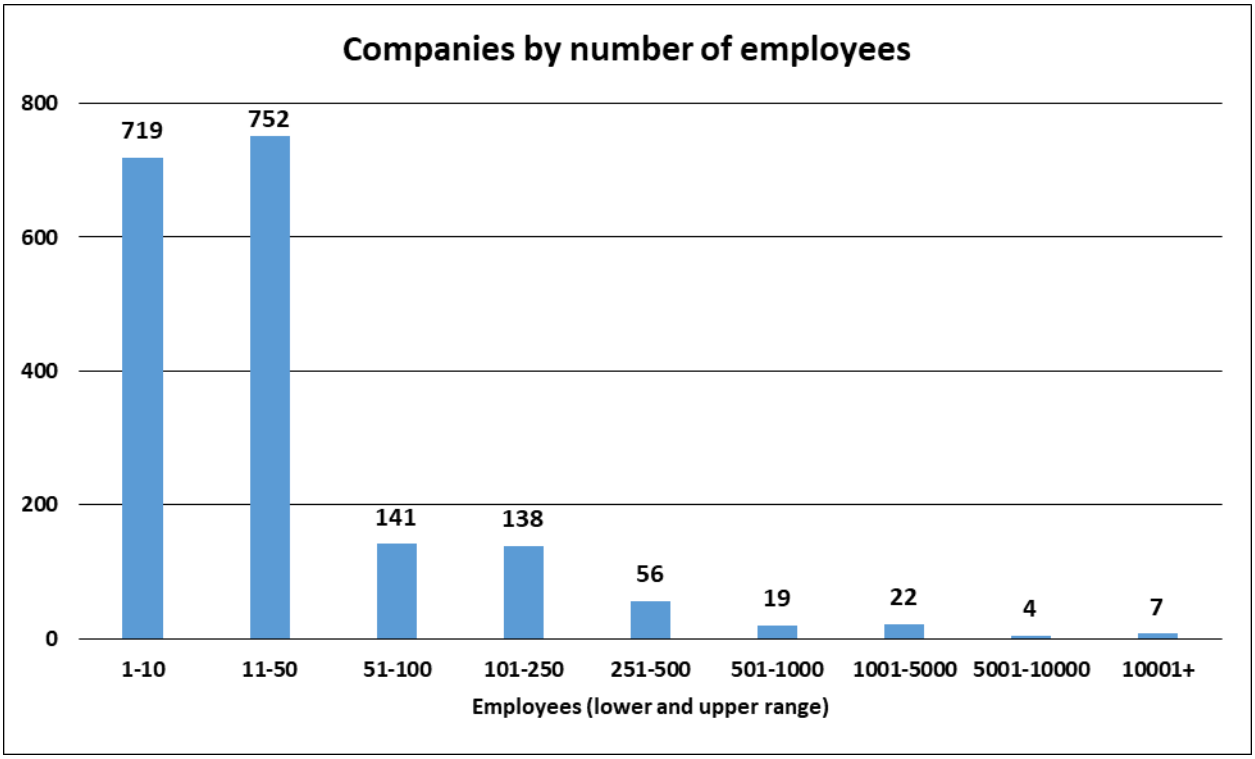
7.1.4 Number of employees

Crunchbase provides estimates for the number of employees for 1,858 companies from our list (Figure **5**). Most of these companies have 50 or fewer employees (79%).[9] It is uncommon for companies on our list to have more than 250 employees (6%). Only seven companies (0.4%) have more than 10,000 employees, as reported by Crunchbase, they are Adtalem Global Education, Job Corps, Kaplan, Kroton Educacional, Pearson, Study Buddy Corporation, and Zovio. This

[9] Percentage calculated by number of companies with revenue ranges available in Crunchbase.

suggests that small and medium-sized edtech companies play an important role in the HE sector overall.

Figure 5: Companies by number of employees



Source: UU analysis of data from Crunchbase.

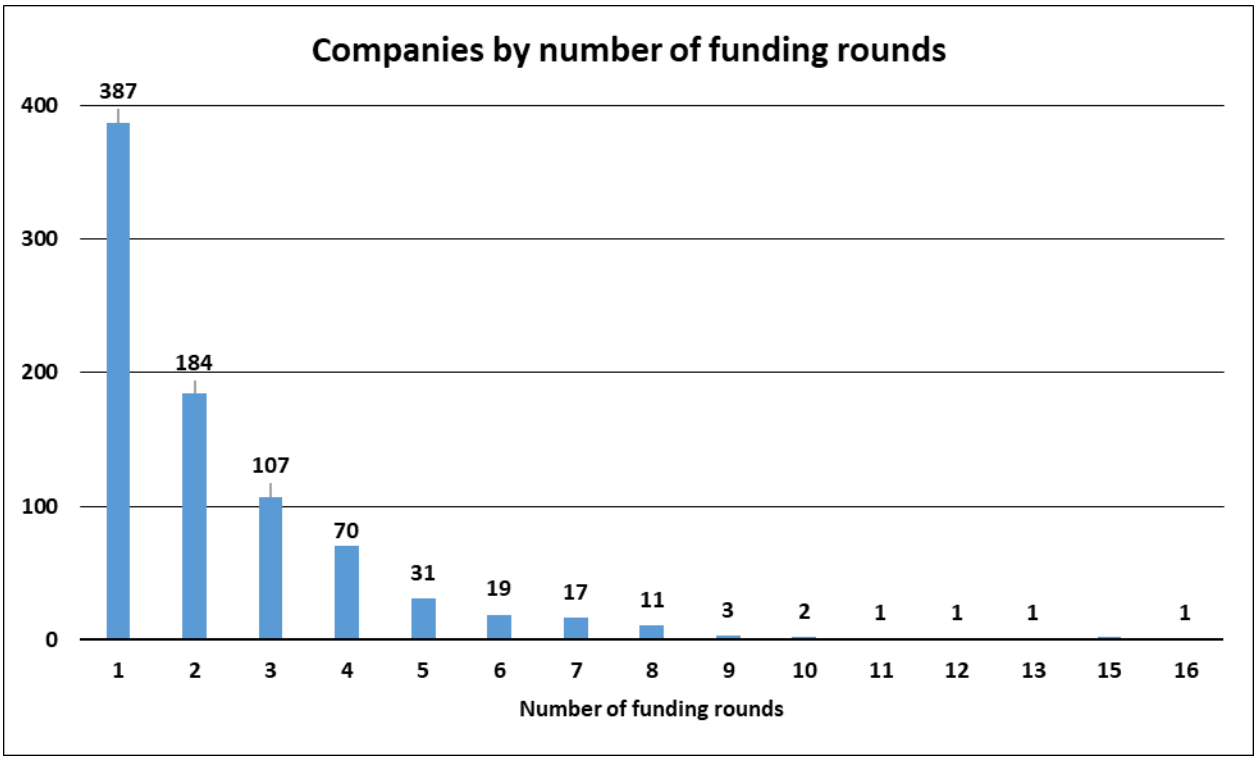
7.1.5 Distribution of funding rounds

Crunchbase has collated information on various types of funding received by the companies in its database. They use the general term "Funding round" to capture anything from a merger to an acquisition, debt financing, seed funding, angel funding, and much more.[10] A company can, in this way, have multiple funding rounds. For example, a company could first receive angel investment (round 1), before selling the company to a private equity group (round 2), and then take it public (round 3). Crunchbase has recorded that 837 companies on our list have raised

[10] https://support.crunchbase.com/hc/en-us/articles/115010458467-Glossary-of-Funding-Types

money by engaging in one or more funding rounds (Figure **6**). In other words, they are investees. Most on this list have engaged in one funding round (387), followed by two funding rounds (184), and three funding rounds (107). This indicates that the industry is still relatively young but maturing as start-ups move into later funding stages.

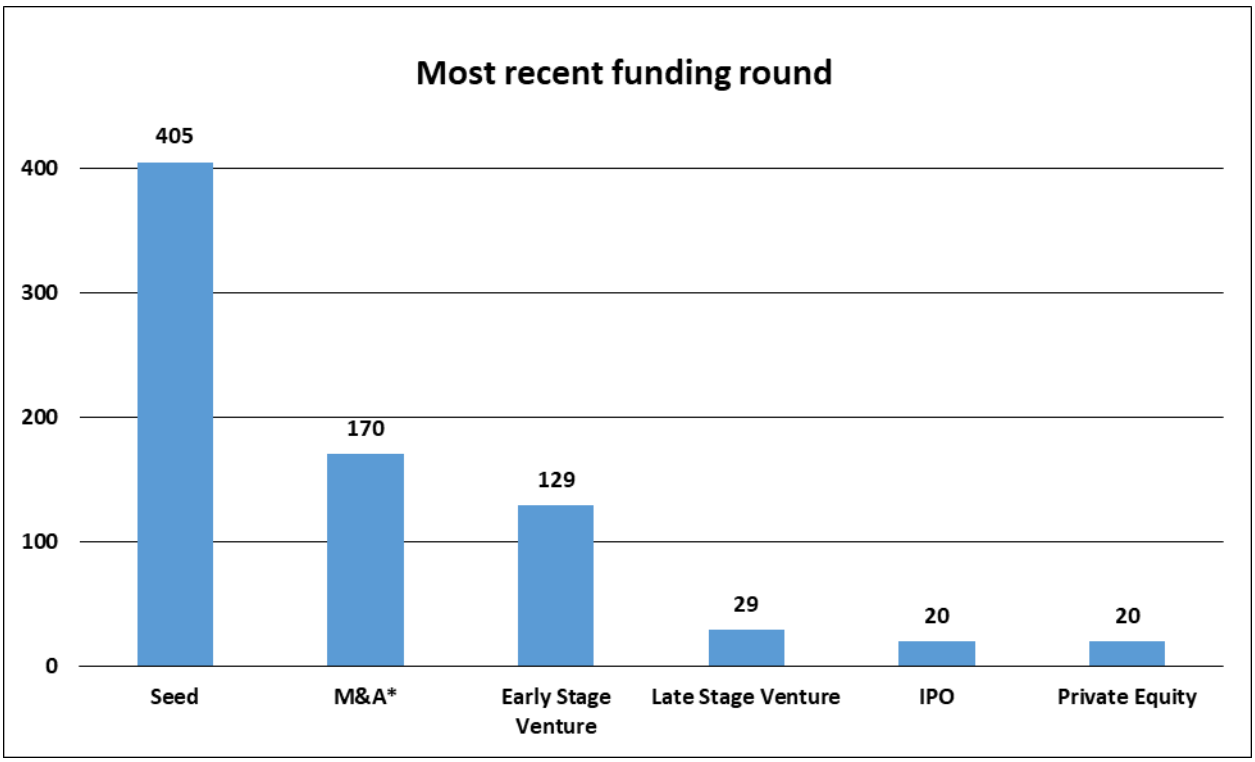
Figure 6: Companies by number of founding rounds



Source: UU analysis of data from Crunchbase.

The most recent funding round a company has completed is recorded intermittently in Crunchbase under the category "Funding Status," and captures only 773 of our investees. In this category, the most frequent funding round was seed funding (405), followed by mergers and acquisitions (170), and early-stage venture funding (128, Figure **7**). The relative prevalence of seed funding might be driven by the relative youth of the edtech companies in our database, with half incorporated within the last decade, but a notable number of companies have moved to later stages of the venture (Figure **1**).

Figure 7: Most recent funding round

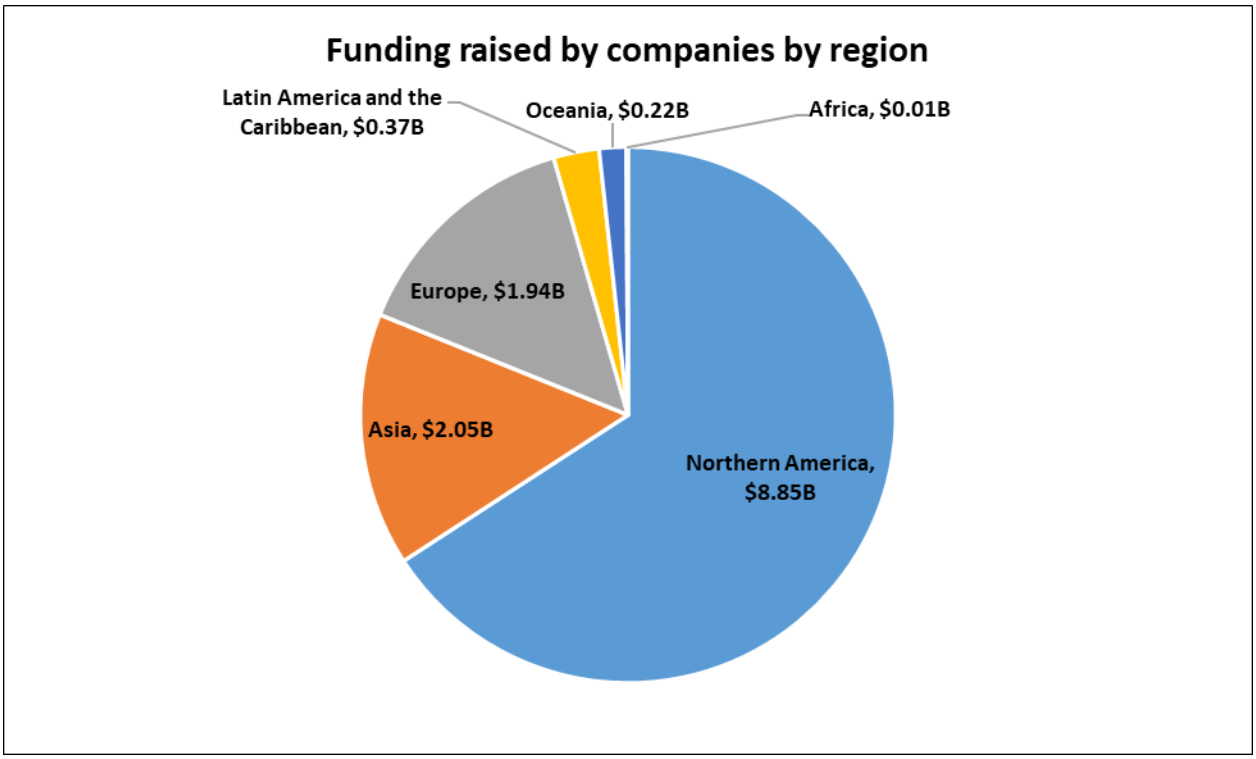


Source: UU analysis of data from Crunchbase. *Crunchbase categorises mergers and acquisitions as a type of funding round.

7.1.6 Distribution of funds raised

Crunchbase provides a count of the total funding allocated across the various funding rounds for 670 companies on our list. The total funding recorded across all these 670 companies is $13.45 billion USD (Figure **8**). Companies located in North America raised most funding ($8.85 billion), followed by companies in Asia ($2.05 billion), and Europe ($1.94 billion).

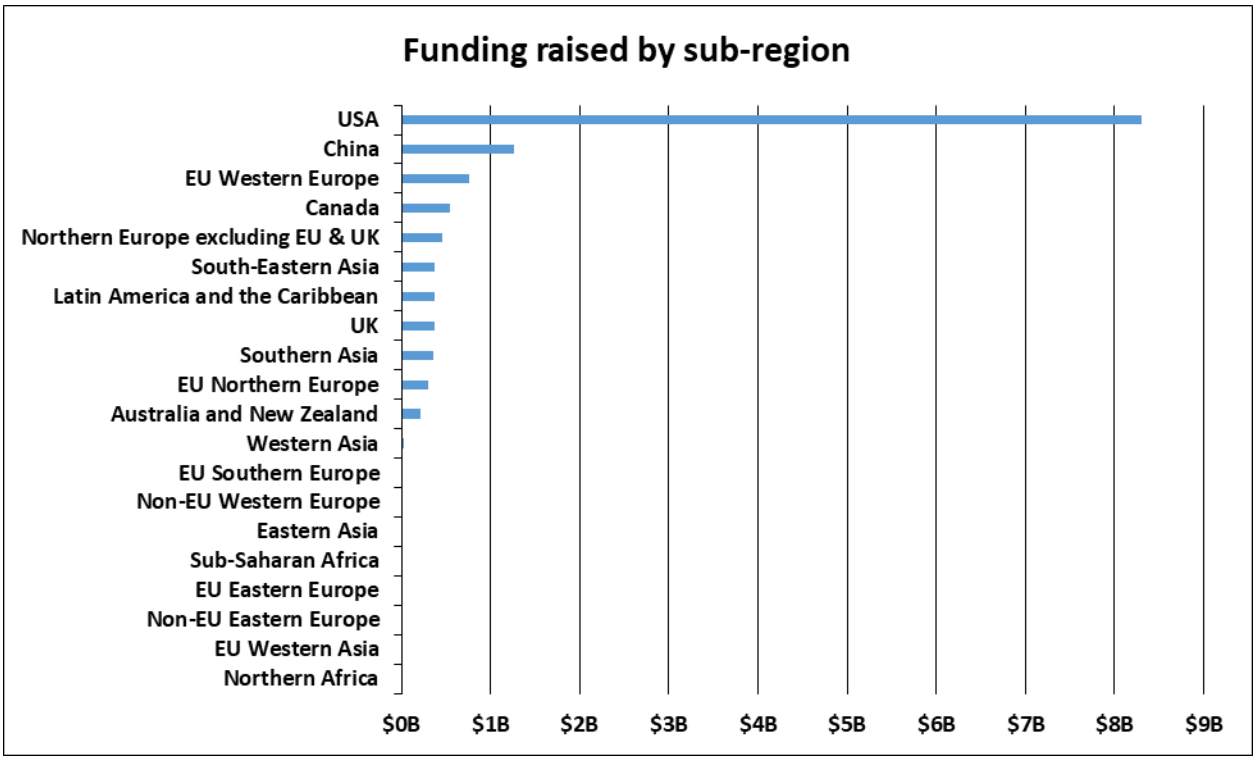
Figure 8: Funding raised by companies by region



Source: UU analysis of data from Crunchbase. Funding sums are in USD billion.

Across our sub-regions, most funding goes to the USA ($8.31 billion), followed by China ($1.26 billion), and EU Western Europe ($0.77B). Of our 20 sub-regions, eight each attract less than $0.02B when looking across the companies in our database. This suggests an uneven development in terms of distribution of finance in HE edtech globally.

Figure 9: Funding raised by sub-regions



Source: UU analysis of data from Crunchbase.

When considering Europe by sub-regions, the top regions of raised funding are EU Western Europe ($0.77 billion), followed by Northern Europe excluding EU and UK ($0.46B), and the UK ($0.37 billion), and EU Northern Europe ($0.30 billion). The combined funding raised in the remaining three regions is $0.03 billion (Table **4**). The relatively high activity in EU Western Europe should not come as a surprise given the strong national economies of France and Germany.

Table 4: Funding raised in Europe by sub-region

Sub-region	Funding raised	Percentage
EU Western Europe	$0.77B	39.55%
Northern Europe excluding EU & UK	$0.46B	23.69%
UK	$0.37B	18.93%
EU Northern Europe	$0.30B	15.46%
EU Southern Europe	$0.02B	0.89%
Non-EU Western Europe	$0.02B	0.78%
EU Eastern Europe	$0.01B	0.54%
Non-EU Eastern Europe	$0.00B	0.16%
Total	**$1.94B**	**100.00%**

Note: all values are in USD billion, rounded to closest 10 million. The actual funding raised in sub-region non-EU Eastern Europe is $3,080,000.00. Source: UU analysis of data from Crunchbase.

7.1.7 Mergers and acquisitions

Crunchbase keeps a record of which companies made acquisitions and which companies were acquired. This results in four possible acquisition combinations (see Table **5**). In this way, a company can:

1. be acquired and make acquisitions;
2. not be acquired and make acquisitions;
3. be acquired without making acquisitions; and
4. not be acquired and not make acquisitions.

Table 5: The four combinations of acquisitions

The four combinations of acquisition	Company count
Made acquisition & was not acquired	69

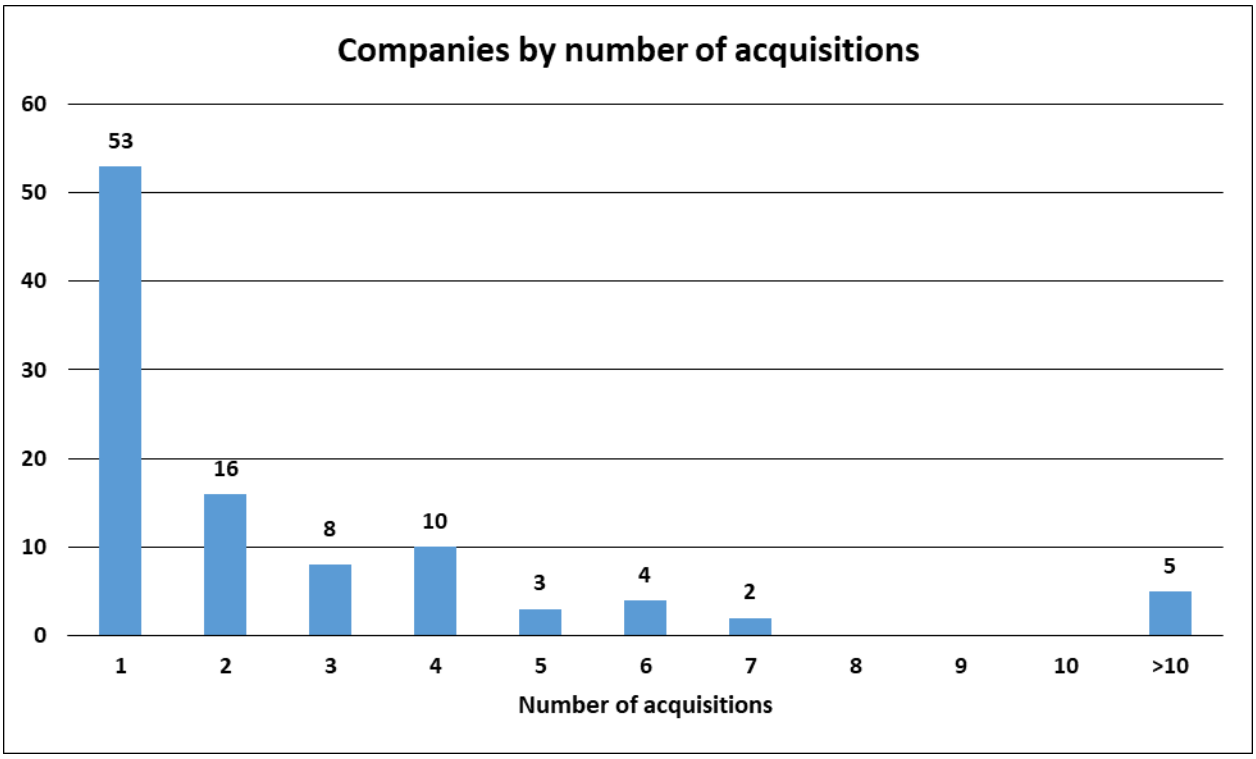
The four combinations of acquisition	Company count
Made acquisition & was acquired	32
Did not make acquisition & was acquired	138
Did not make acquisition & was not acquired	1773

Total company count = 2,012

Source: UU analysis of data from Crunchbase.

In total, 101 companies made one or more acquisitions (this corresponds to the first two types of companies in Table **5**). Of these, most made one acquisition (53), followed by two acquisitions (16). Five companies were recorded to have acquired more than ten other companies (Figure **10**). This means that around 3% of the companies in our database has acquired one or more companies, around 8% has been acquired, and 12% has acquired or been acquired.

Figure 10: Companies by number of acquisitions



Source: UU analysis of data from Crunchbase. Companies with zero or an unknown number of acquisitions are excluded.

The company with the most acquisitions was Pearson (35), followed by Blackboard (21), Chegg (16), and Kaplan (13). Table **6** lists companies recorded for six or more acquisitions. The list is dominated by companies headquarter in counters where English is a national language with the exception of Kahhoot!, a Norwegian game-based learning platform with seven recorded acquisitions.

Table 6: Companies with six or more acquisitions

Name of company	Country	Acquisitions
Pearson	UK	35
Blackboard	USA	21
Chegg	USA	16
Kaplan	USA	13
Learning Technologies Group	UK	11
+Kahoot!	Norway	7
SEEK	Australia	7
Adtalem Global Education	USA	6
Cornerstone OnDemand	USA	6
UpGrad	India	6
Vector Solutions	USA	6
Student Advantage	USA	5
Turnitin	USA	5
VitalSource Technologies	USA	5

Source: UU analysis of data from Crunchbase.

7.1.8 Granted patents

We identified 57 firms that had been granted patents. It was most common for firms to have one patent (29 companies) followed by two patents (10), and three patents (4). Pearson was the company with the most recorded patents (245). This may suggest that it is relatively uncommon for edtech businesses active in HE to apply for patents or that this is a newly emerging practice. It might also indicate that most edtech companies offer platforms with technology not deemed relevant for patent protection.

Table 7: Number of companies by number of patents

Number of patents	Number of companies	Total number of patents
1	29	29
2	10	20
3	4	12
4	1	4
5	1	5
6	2	12
7	1	7
8	1	8
9	1	9
13	1	13
16	1	16
20	1	20
21	1	21
45	1	45
54	1	54
245	1	245
Total	**57**	**520**

Source: UU analysis of data from Crunchbase.

7.1.9 Granted trademarks

Crunchbase also captures trademarks information in its database. The most common number of registered trademarks per company was 1 (118), followed by 2 (77), and 3 (35). Overall, this data suggests that it is much more common for edtech companies to register trademarks than to be granted patents. This might indicate that edtech is scaling brands and services rather than

developing new data-rich technology, or it may indicate that data-rich solutions are yet to become more expansive in the future. In total, 335 companies on our list had registered one or more trademarks, resulting in a total of 1,785 trademarks between them. Pearson was the company with the most registered trademarks (432). Thus, this suggests that Pearson might be quite wealthy in intangible assets, as measured in trademarks and patents, compared to the other companies on our list.

Table 8: Number of companies by number of registered trademarks

Registered trademarks	Number of companies	Total number of trademarks
1	118	118
2	77	154
3	35	105
4	31	124
5	9	45
6	15	90
7	8	56
8	8	64
9	4	36
10	5	50
11	2	22
12	1	12
13	3	39
14	3	42
16	2	32
19	2	38
22	2	44
23	1	23
25	1	25
26	1	26
27	1	27
28	1	28
32	1	32
36	2	72
49	1	49
432	1	432
Total	**335**	**1,785**

Source: UU analysis of data from Crunchbase.

Trademarks are in Crunchbase divided into classes. The most popular trademark class is "scientific and electric apparatus and instruments," followed by "education; entertainment," and "scientific and technological services" (Table **9**). More research is needed to determine the significance, if any, of the trademark classes.

Table 9: Top-5 trademark classes by number of companies

Trademark classes	Number of companies
Scientific and electric apparatus and instruments	114
Education; entertainment	107
Scientific and technological services	58
Advertising; business	39
Paper, cardboard and goods made from these materials	7
Total	**325**

Source: UU analysis of data from Crunchbase.

7.2 Emerging findings on edtech companies from the UU classification scheme

This section discusses emerging insights from the UU classification scheme (i.e., primary offerings, primary customers, service models, and end-users). T&L Content is a prevalent category across all the major service models, whereas Software Foundation is most prevalent in business to B2B2C models. Proportionally, "data-rich" solutions are most common in platforms offering Software Foundation if we disregard the category Analytics, which is data-rich by definition. While it is common for our companies to have individuals as their primary customers (865), organisational customers, i.e. enterprises and HE institutions, are more prevalent (1,131). It seems that HE institutions can help companies in reaching a wide range of end-users. We finally

address “data-rich” solutions, which are less prevalent among the companies on our list than one might have thought. Moreover, companies headquartered in the USA are much more likely to apply “data-rich” solutions than companies headquartered elsewhere, including in China.

7.2.1 Primary offering

This section looks at companies by their primary offering (Table **10**). Most companies were coded as primarily offering T&L Content (1,139), followed by Software Foundation (474) and Learner Services (196). This highlights the important role edtech companies play in digitalising preexisting aspects of HE. The small group of 16 companies that were not possible to categorise by primary offering due to their diversified company structure and product/service offerings are categorised as a Company Group. Nevertheless, we exclude Company Group from our analysis because it was not possible to code these companies along the remaining three dimensions of the UU classification scheme.

Table 10: Companies by primary product or service

Primary offering	Companies	Percentage
T&L content	1,139	56.61%
Software Foundations	474	23.56%
Learner Services	196	9.74%
T&L support	122	6.06%
Bootcamp	29	1.44%
Analytics	19	0.94%
Financing	17	0.84%
Company Group	16	0.80%
Total	2,012	100.00%

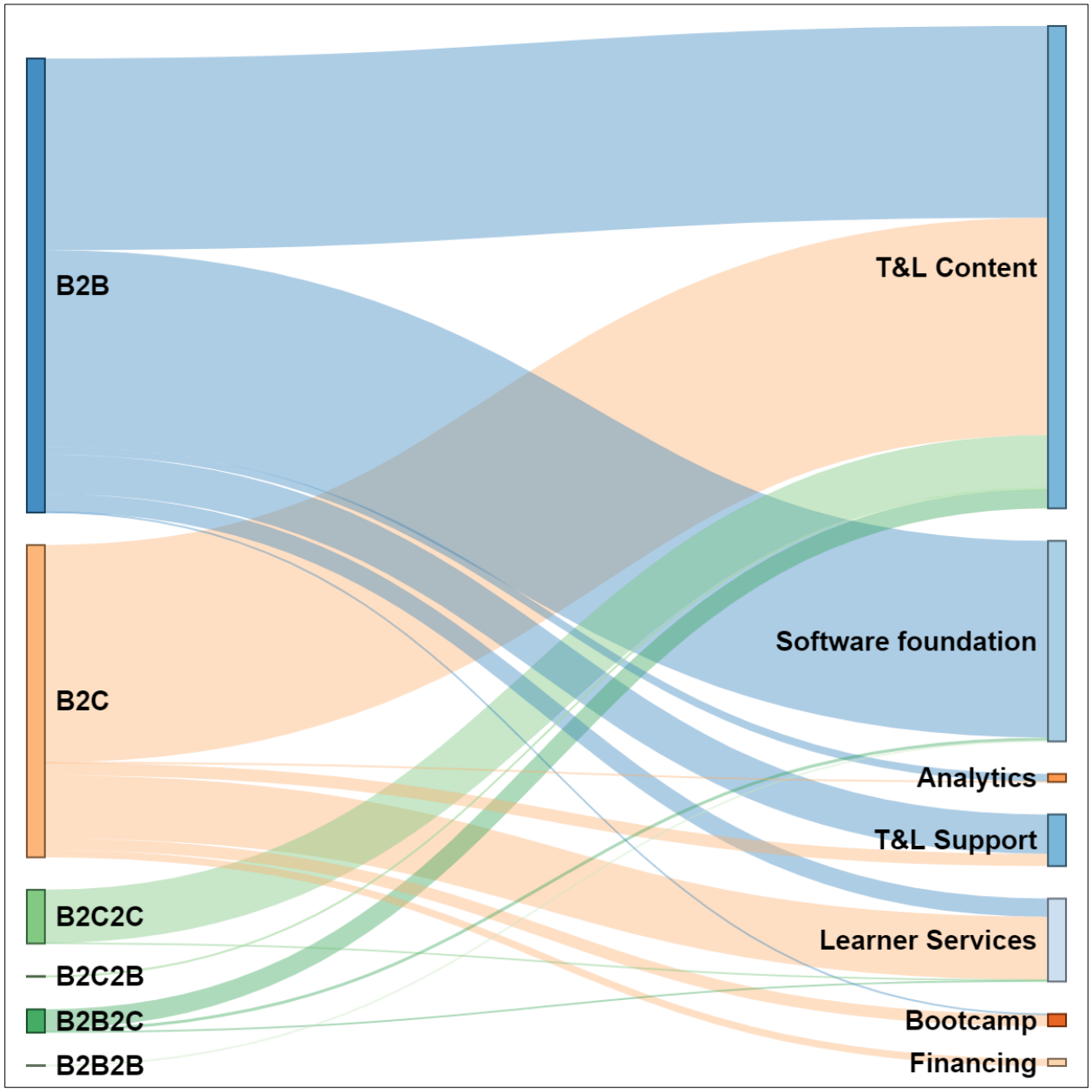
Source: UU analysis of data from Crunchbase.

7.2.1a Primary offering by service model

The distribution of companies by primary offering across the common service models are shown in Figure **11**. The four most common service models are B2B, B2C, B2C2C and B2B2C.

The T&L Content category is the dominant function across three service models (B2C, B2C2C, and B2B2B). Software Foundation is the most prevalent function in the business-to-business model (465), followed by T&L Content (453, Table **11**). Companies specialising in Analytics almost exclusively use a business-to-business model. Business-to-costumer approaches are prevalent in the Bootcamp category and the Financing category.

Figure 11: Primary offering by service models



Source: UU analysis of data from Crunchbase. Company Group excluded. Flow colour matches source code. Coding: UU Team.

Table 11: Primary offering by service model

Service model	Primary offering	Company count	Company Count by service model
B2B	Software Foundation	465	1,073
	T&L Content	453	
	T&L Support	93	
	Learner Services	43	
	Analytics	18	
	Bootcamp	1	
B2C	T&L Content	514	738
	Learner Services	149	
	T&L Support	29	
	Bootcamp	28	
	Financing	17	
	Analytics	1	
B2C2C	T&L Content	126	127
	Learner Services	1	
B2B2C	T&L Content	45	55
	Software Foundation	7	
	Learner Services	3	
B2B2B	Software Foundation	2	2
B2C2B	T&L Content	1	1

Source: UU analysis of data from Crunchbase. Company Group is excluded. Coding: UU Team.

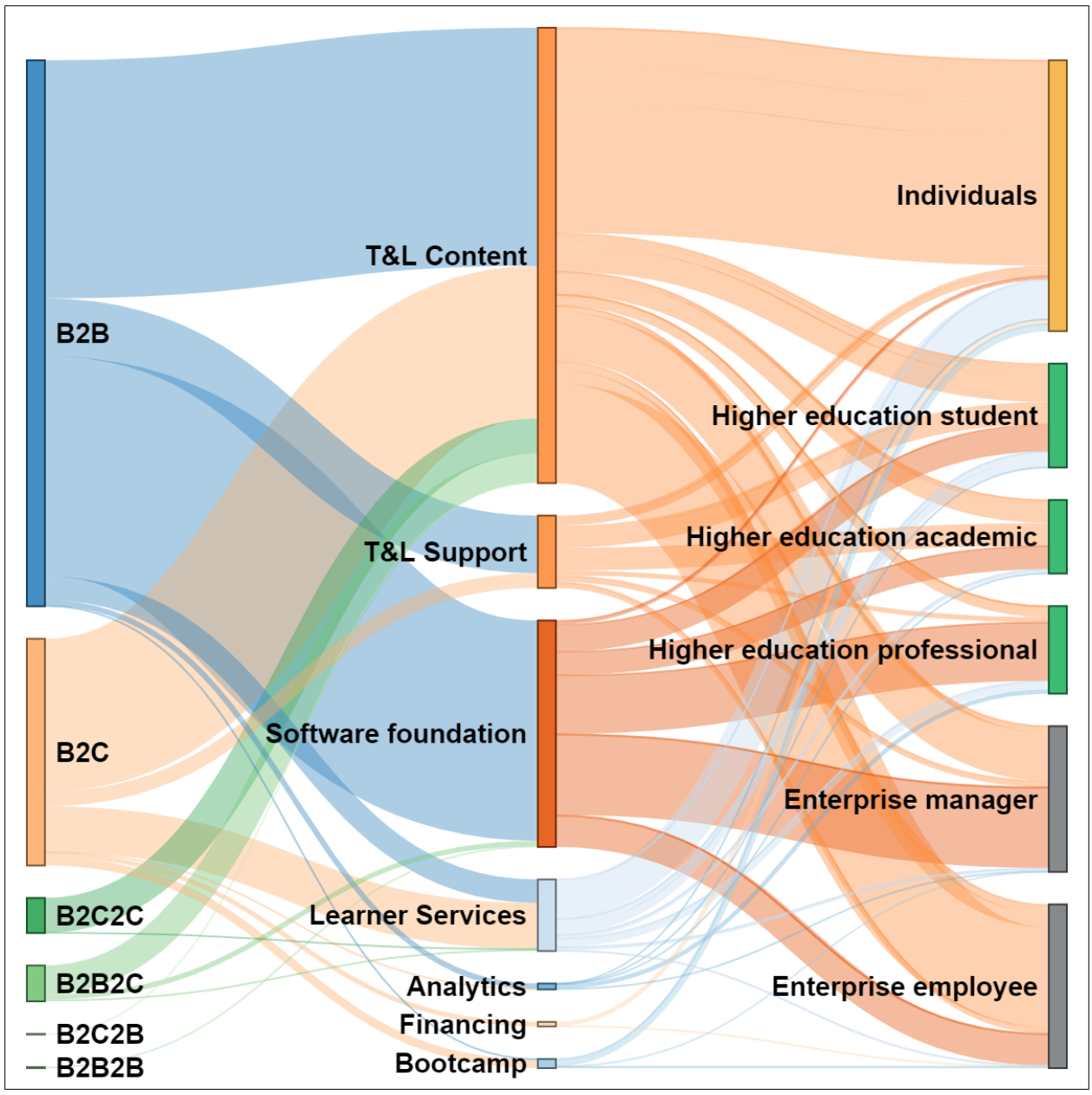
7.2.1b End users by service model and primary offering

We coded for six potential end-users, meaning that each company could be coded as having anything from one to six types of end-users leaving data traces on its platform (see Section 2.1). This allowed us to analyse further the primary offering and service design in relation to the associated end-users (Figure 12). In total, we codded 3,330 end-user groups across the 2,012

companies (Table **12**). The company's average number of end-user types was 3.3, meaning that platforms often offer services to different groups at once.

The Business-to-business model (the top-left blue node, Figure **12**) splits mostly into the T&L Content and Software Foundations. Both offerings reach HE users. Companies primarily offering T&L Content provide more avenues for reaching individuals not necessarily associated with a learning institution. Software Foundation platforms are associated with enterprise managers and employees as end-users. The B2C model (the middle-left yellow node) separates into student-facing offerings such as T&L Content, Learner Services, and T&L Support. The more complex service models (the bottom-left green nodes) are less significant given their relatively low frequency than B2B and B2C service models.

Figure 12: End users by service model and primary offering



Source: UU analysis of data from Crunchbase. Flow colour matches source node. Coding: UU Team.

Table 12: End users by service model and primary offering

Service model & primary offering	End User - Higher education student	End User - Higher education academic	End User - Higher education professional	End User - Enterprise employee	End User - Enterprise manager	End User - Individuals	Total
Analytics	**1**	**2**	**17**	**0**	**2**	**1**	**23**
B2B	1	2	17	0	2	0	**22**
B2C	0	0	0	0	0	1	**1**
Bootcamp	**0**	**0**	**0**	**6**	**1**	**29**	**36**
B2B	0	0	0	1	1	1	**3**
B2C	0	0	0	5	0	28	**33**
Financing	**0**	**0**	**0**	**1**	**0**	**17**	**18**
B2C	0	0	0	1	0	17	**18**
Learner Services	**62**	**15**	**34**	**3**	**12**	**156**	**282**
B2B	35	11	28	2	9	8	**93**
B2B2C	2	1	1	1	1	1	**7**
B2C	24	3	5	0	2	147	**181**
B2C2C	1	0	0	0	0	0	**1**
Software Foundation	**108**	**93**	**231**	**126**	**319**	**15**	**892**
B2B	103	90	229	120	314	12	**868**
B2B2B	0	0	0	2	2	0	**4**
B2B2C	5	3	2	4	3	3	**20**
T&L Content	**151**	**91**	**44**	**484**	**215**	**809**	**1,794**

B2B	100	74	41	393	190	140	**938**
B2B2C	30	9	2	31	11	31	**114**
B2C	16	6	0	55	13	512	**602**
B2C2B	0	0	1	0	1	1	**3**
B2C2C	5	2	0	5	0	125	**137**
T&L Support	**87**	**89**	**19**	**25**	**25**	**40**	**285**
B2B	74	79	19	20	20	15	**227**
B2C	13	10	0	5	5	25	**58**
Grand Total	**409**	**290**	**345**	**645**	**574**	**1,067**	**3,330**

Note: Source: UU analysis of data from Crunchbase. Each platform can be coded as having between one and six end users. Coding: UU Team

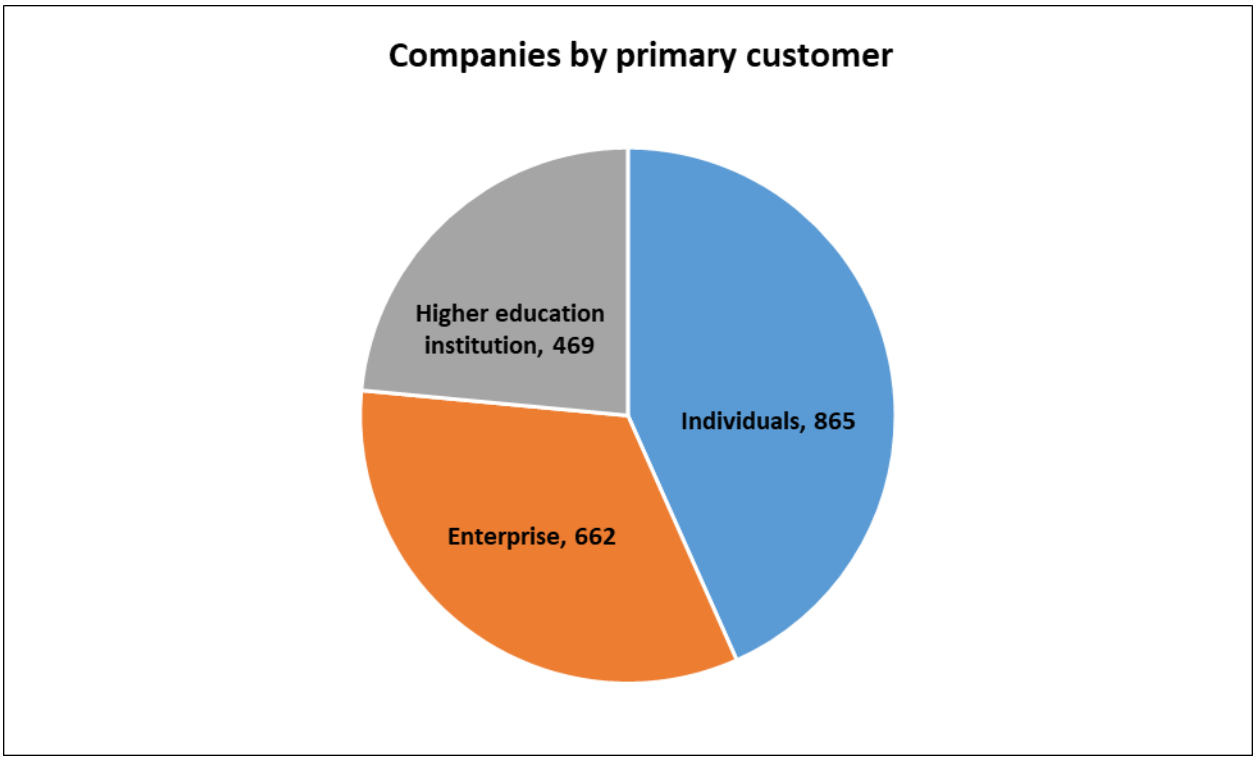
7.2.2 Primary customers

7.2.2a Distribution of primary customers

It was most common for firms to have individuals as their primary customers (865), followed by enterprises (662) and HE institutions (469, Figure **13**). Company Group is excluded in the following discussion as it was not possible to code these along our three remaining dimensions. Organisational customers together made up 57% of primary customers, and individuals made up the remaining 43%.

Even though individuals are the most prevalent primary customer type by company count, we cannot conclude this is also the case as measured by revenue. While Crunchbase collects revenue estimates, more accurate revenue numbers would be needed to explore this relationship further. The end-user dimension also shows how edtech companies, for example, reach university students through HE institutions.

Figure 13: Companies by the primary customer



Source: UU analysis of data from Crunchbase. Company Group excluded (n=16). Coding: UU Team.

7.2.2b Primary customer by end user

The UU classification scheme allows each platform to be coded for multiple end-users but only one primary customer. We summarise the aggregated distribution of end-users across the three primary customer groups by absolute (Table **13**) and relative distribution (

Table 14). The lowest spread is unsurprisingly found in companies with individuals as their primary customer group. This might mean that platforms that target mostly individuals do not tend to work across customer categories. On the other hand, platforms targeting HE institutions seem to work across categories to a slightly bigger extent, while platforms that primarily target enterprises seem to address individuals too. We also notice that the absolute spread in end-users is most significant for platforms that have HE institutions as their primary customers. This suggests that HE institutions are important conduits for reaching a variety of end-user types.

Table 13: End users aggregated by firms' primary customers

Primary Customer	End User - HEI Student	End User - HEI Academic	End User - HEI Professional	End User - ENT Employee	End User - ENT Manager	End User - Individual	Total
Enterprise	39	24	45	490	444	139	**1,181**
Higher education institution	312	245	294	84	109	72	**1,116**
Individuals	58	21	6	71	21	856	**1,033**
Total	409	290	345	645	574	1,067	**3,330**

Source: UU analysis of data from Crunchbase. Company Group excluded. Coding: UU Team.

Table 14: Percentage of end users aggregated by firms' primary customers

Primary Customer	End User - HEI Student	End User - HEI Academic	End User - HEI Professional	End User - ENT Employee	End User - ENT Manager	End User - Individual	Total
Enterprise	3%	2%	4%	41%	38%	12%	**100%**
Higher education institution	28%	22%	26%	8%	10%	6%	**100%**
Individuals	6%	2%	1%	7%	2%	83%	**100%**

Source: UU analysis of data from Crunchbase. Company Group excluded. Not all rows may sum to 100% due to rounding. Coding: UU Team.

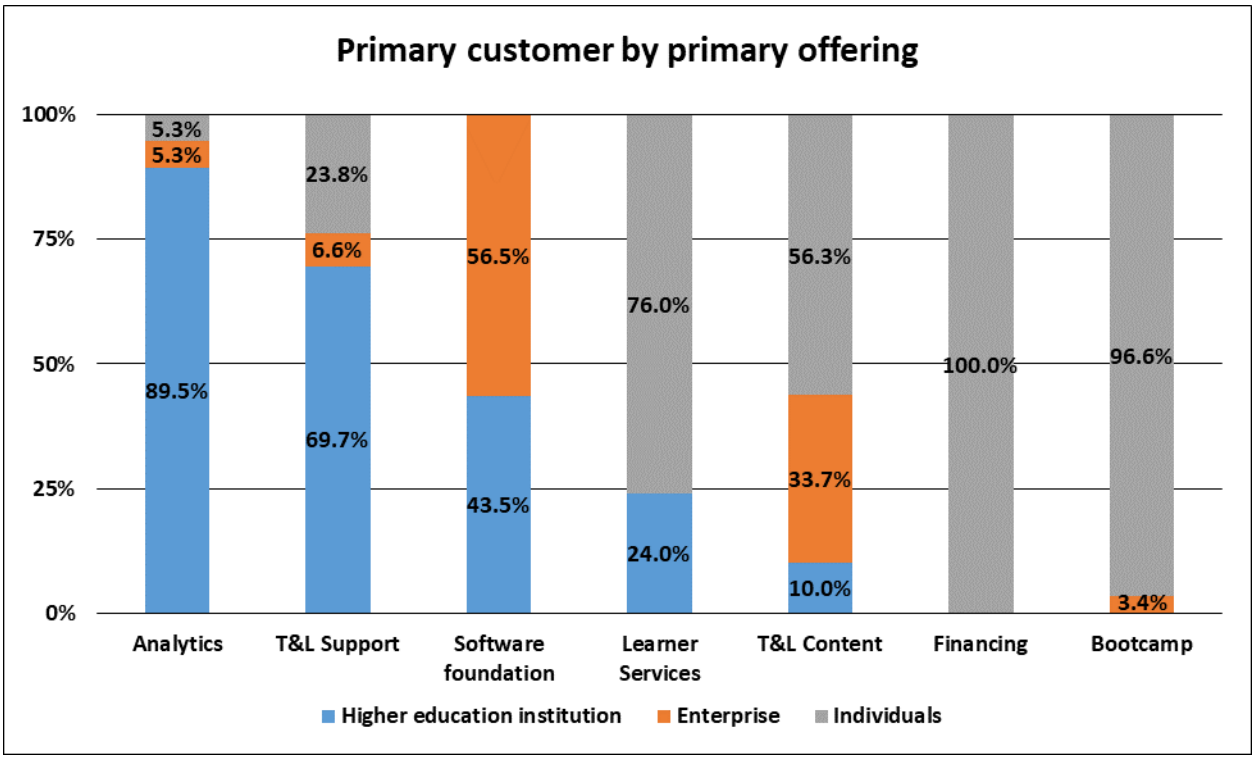
7.2.2a Primary customer by primary offering

HE institutions are the most prevalent primary customer type for companies offering Analytics and T&L Support. Looking from the perspective of HE institutions, most companies provide Software Foundation and Learner Services platforms (Figure **14**). On the other hand, Enterprises mostly use Software Foundation (56%) and the T&L Content platforms (34%). These are also the most prevalent groups by primary offerings (474 and 1,139 respectively, Figure **15**), which explains why enterprise overall remains a salient primary customer category. The categories with a majority of individuals as their primary customer group tended to be less numerous, such as the Bootcamp (29 companies), Financing (19 companies), and Learner Services category (196). But the customer group is represented across all primary offerings with the exception of Software Foundation.

It seems that T&L Content tends to be aimed more at individual customers. In contrast, offerings that can deliver and organise institutional data, events, and activities (including learning activities) are aimed more at HE institutions and enterprises. This should not be a surprise in itself, given the nature of organisations as customers, but it highlights the vital role edtech companies may play in shaping education and learning at a constitutive level. As we do not know

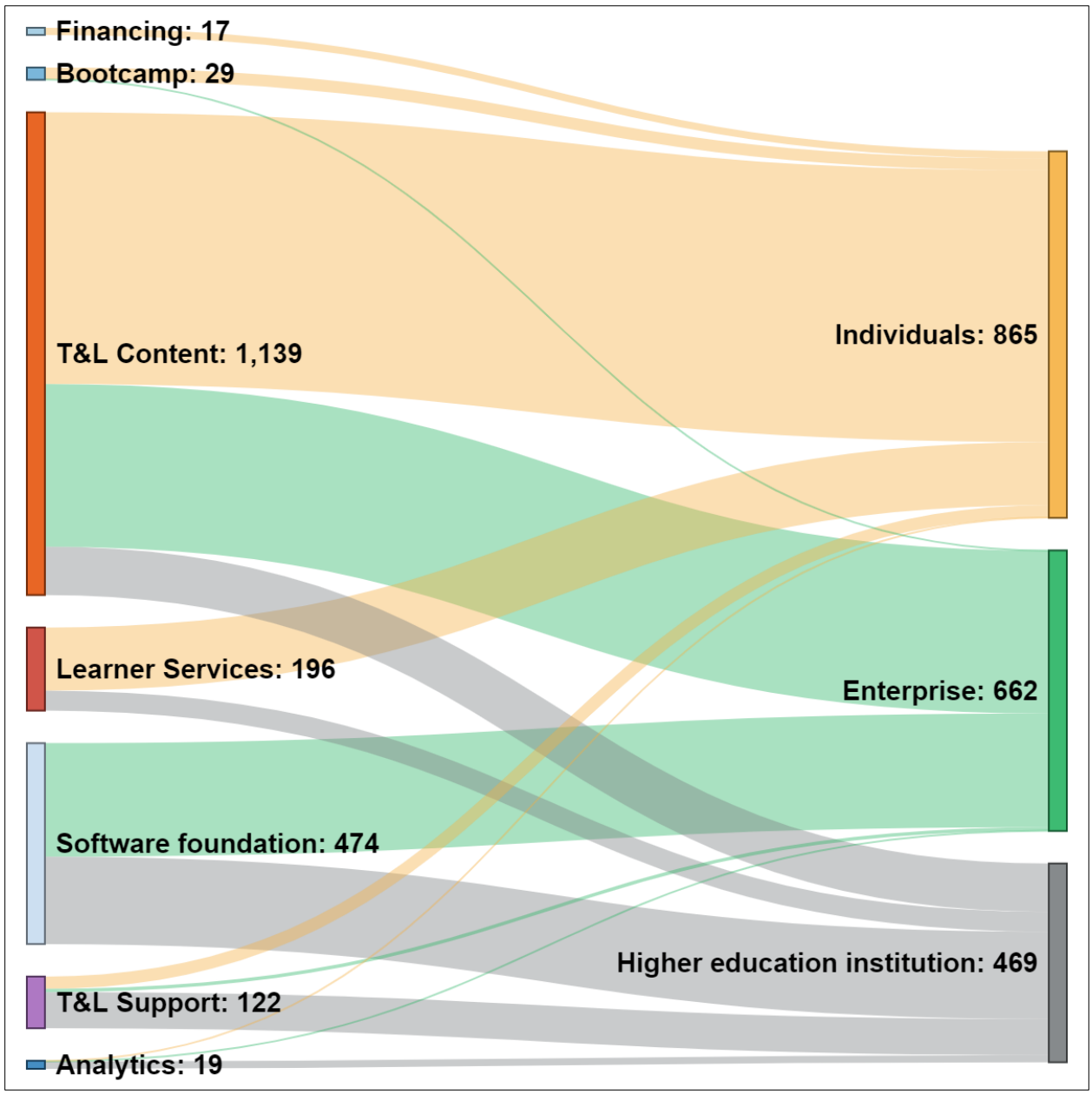
yet what the expansion of edtech platforms means for teaching and learning, we are curious if and how it becomes performative.

Figure 14: Primary customer by primary offering



Source: UU analysis of data from Crunchbase. Percentage may not sum to 100 because of rounding. Coding: UU Team.

Figure 15: Primary customer by primary offering

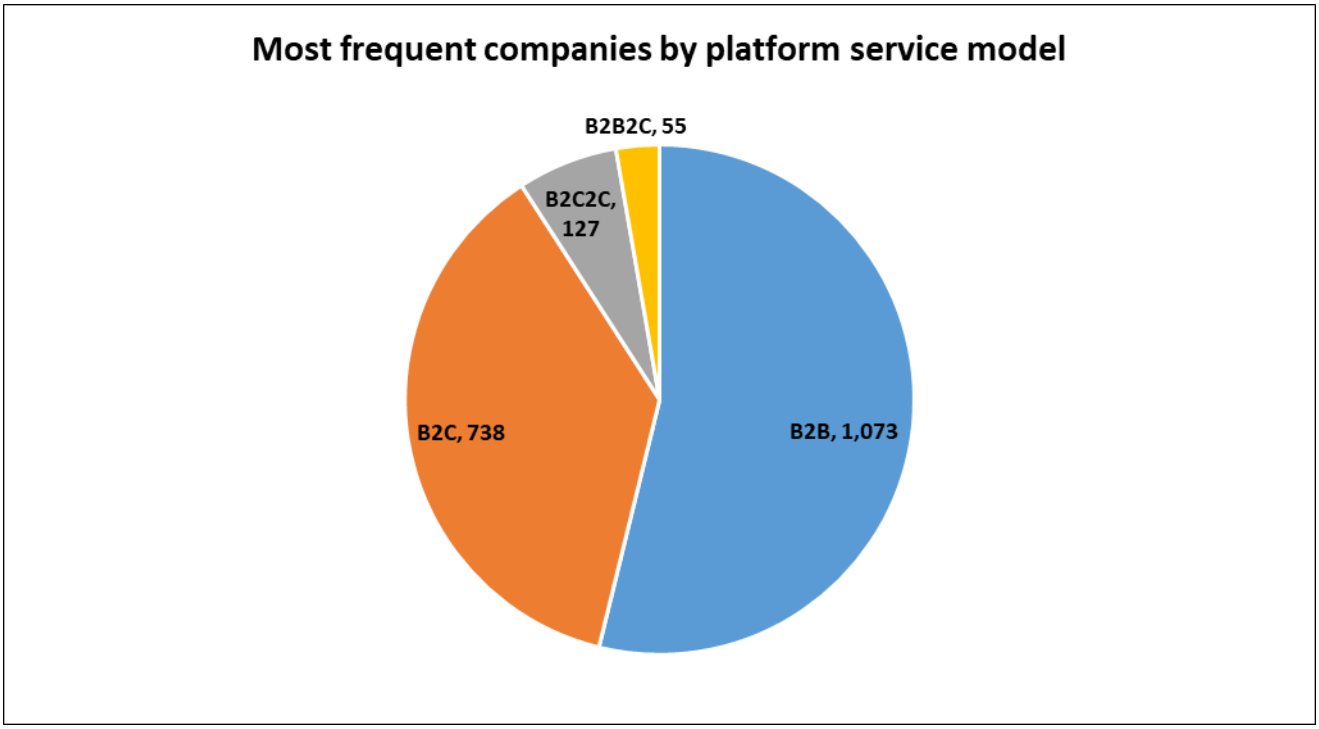


Source: UU analysis of data from Crunchbase. Flow colour matches target code. Coding: UU Team.

7.2.3 Service models

The four most frequent service models are B2B (1,073), B2C (738), B2C2C (127), and B2B2C (55, Figure **16**). For simplicity, the three less prevalent categories (Company Group, B2B2B, and B2C2B) are excluded in the following section.

Figure 16: Most frequent companies by service models



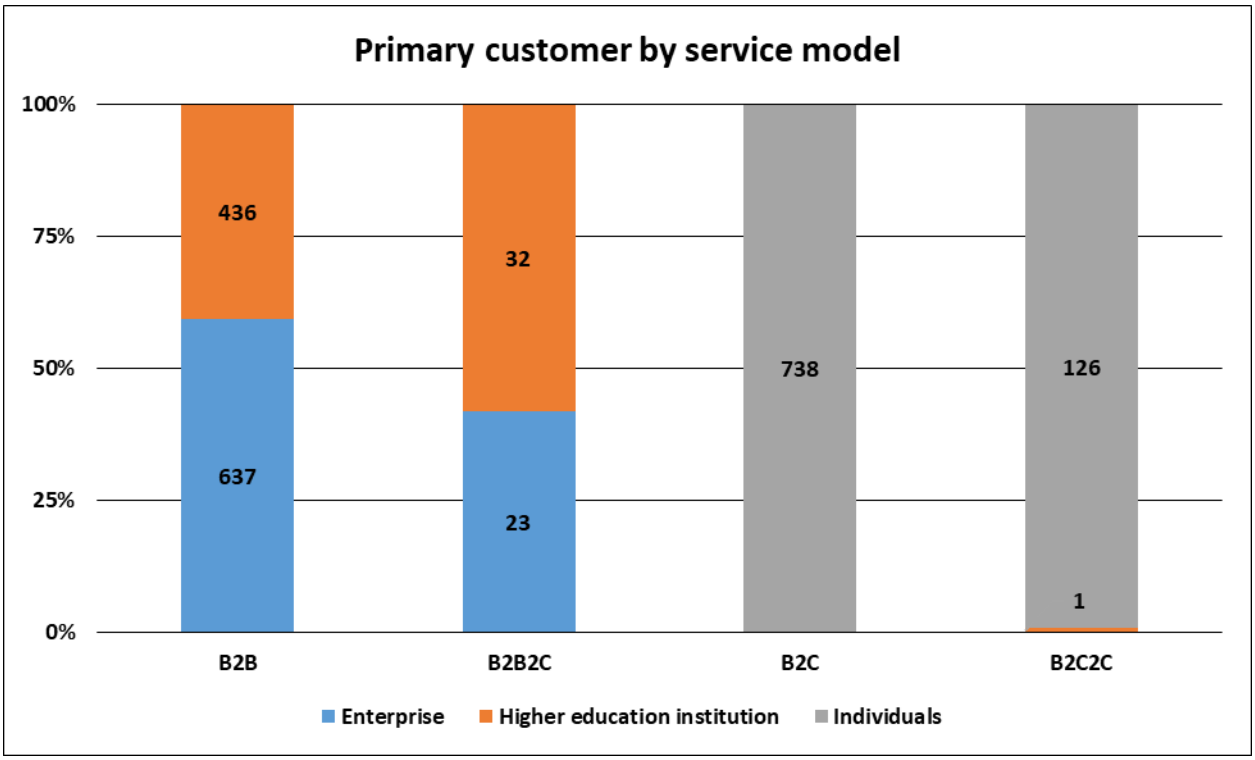
Source: UU analysis of data from Crunchbase. Company Group (16), B2B2B (2), and B2C2B (1) are excluded. Coding: UU Team.

7.2.3a Service models by the primary customer

Service model and primary customer are in some ways internally related categories. It follows that companies belonging to the B2B service model had the most enterprises and HE institutions as their primary customers (637 and 436) followed by B2B2C (21 and 30). B2C exclusively had

individuals as their primary customers. The same was true for B2C2C models except for a London-based company that offers a video editing tool called VEED[11] (Figure **17**).

Figure 17: Primary customer by service models



Source: UU analysis of data from Crunchbase. Company Group (16), B2B2B (2), and B2C2B (1) are not included. Coding: UU Team.

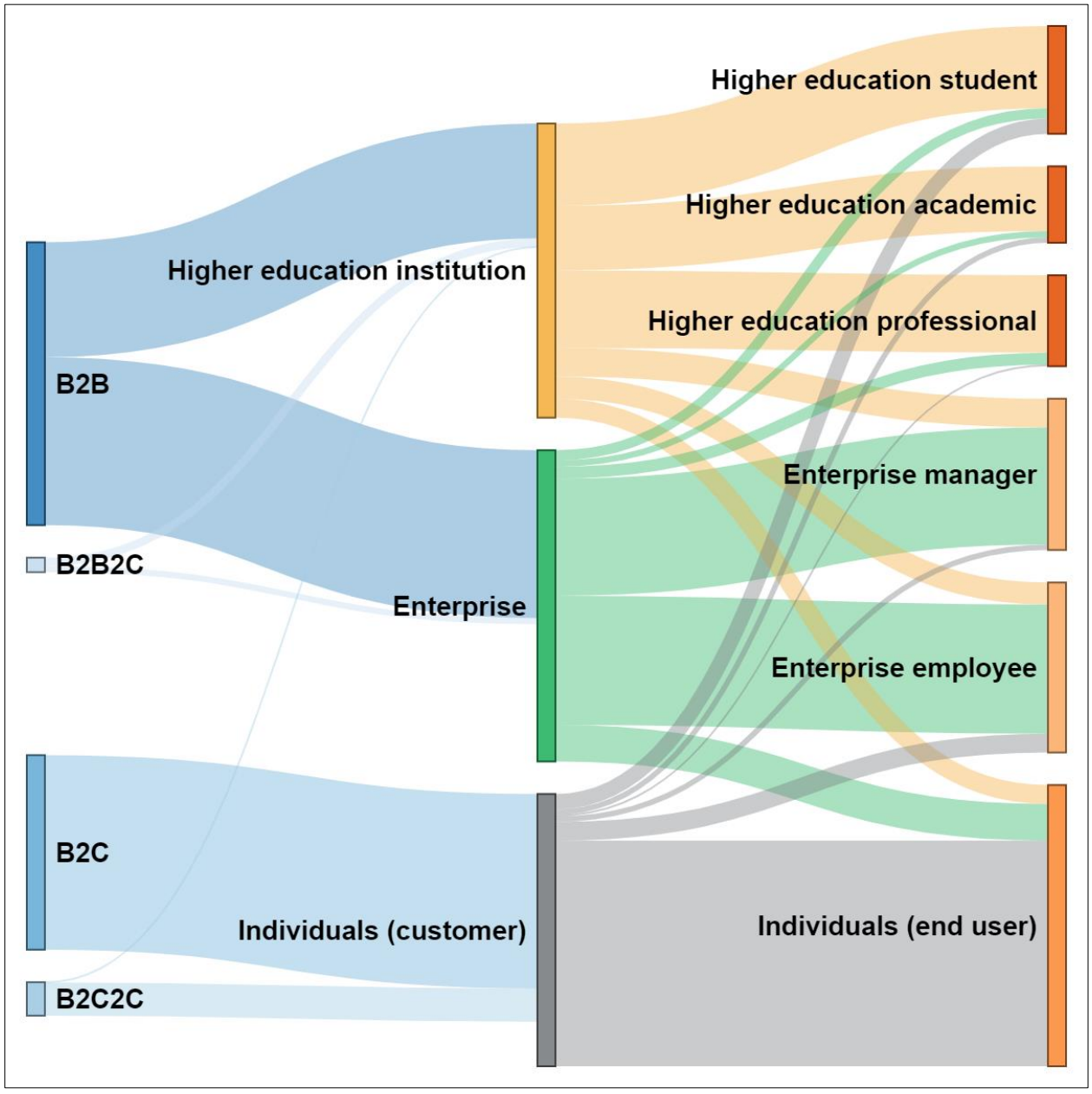
7.2.3b Service models by the primary customer and end user

Further disaggregating service models to include end-users allows us to consider the relationship between popular service models, primary customers, and ultimate end users (Figure **18**). It follows that edtech companies gain insights on HE students and academics through the university

[11] For more information about VEED go to: https://www.veed.io/

institution and B2C models. However, HE institutions remain the most prevalent customer conduit for access to these groups.

Figure 18: End user by primary offering and customer



Source: UU analysis of data from Crunchbase. Flow colours match source nodes. Flows from the left-hand node to the middle node correspond to the total number of companies with the given service model to end customer combination. Flows from the middle note to the right-

hand node correspond to the total number of end-user types, as coded for each customer group. Company Group, B2B2B, and B2C2B are excluded. Coding: UU Team.

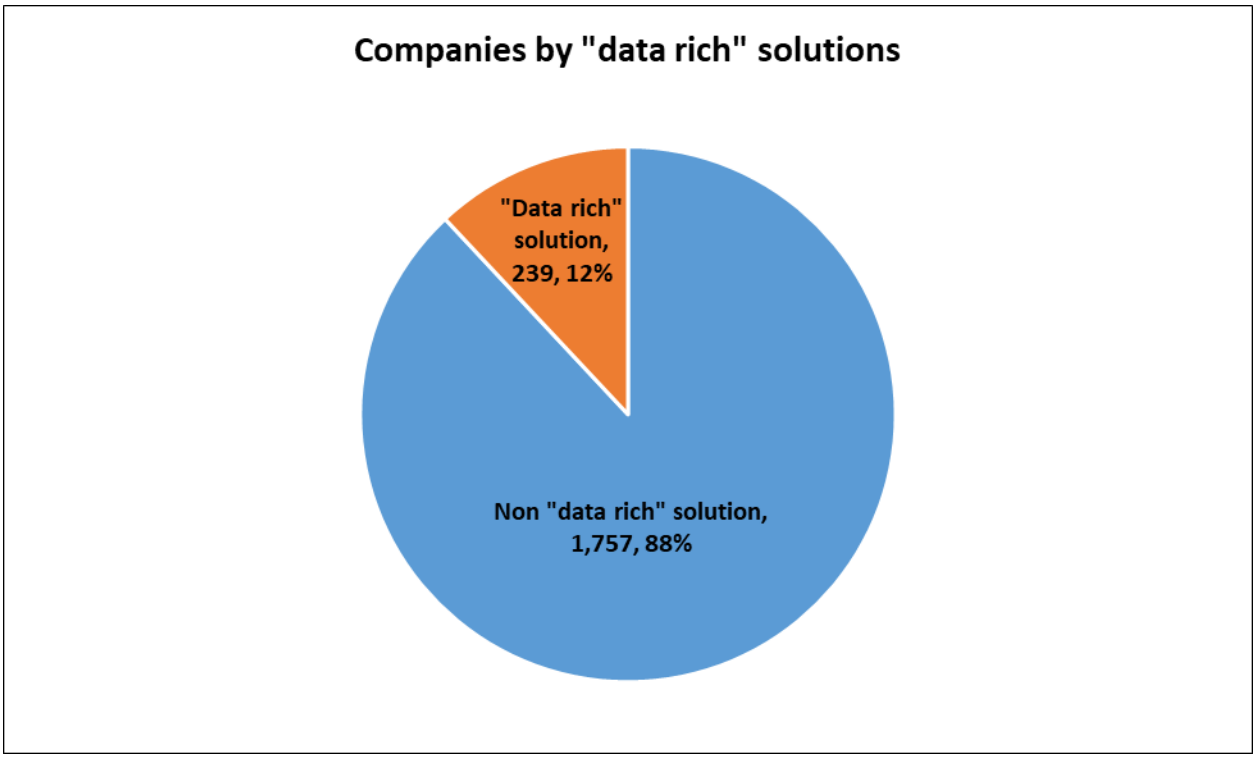
7.2.3c B2C models that highlight potential between the customer and student needs

We identified 18 companies that we suspect might offer services that may not be in the students' best interest as learners, such as companies that provide dissertation writing services. This group of companies all targeted individuals as customers and have all been classified as offering T&L Support functions. Twelve of these companies are based in the UK, two in the USA, and one in Australia, India and Israel. While coding the data, the combination of information included and omitted about these companies in Crunchbase stood out to us. These companies, for example, did generally not provide a business address, and half incorrectly reported that they were established before 1904. In Crunchbase, none of these companies has reported investors, acquisitions, or registered patents or trademarks. Half of them have reported revenue ranges: 6 have a revenue range between $1 million to $10 million USD, and 3 have a reported revenue range of less than $1 million USD.

7.2.4 Data- rich solutions

Most companies did not provide "data-rich" solutions integrated into their offering (88%, Figure **18**). As such, it seems that even though a discourse in edtech focuses on "data-rich" solutions such as artificial intelligence and machine learning, only a few edtech companies in fact, develop and use data-rich solutions in their platforms in a substantial way (as self-reported on their web pages and descriptions in Crunchbase).

Figure 19: Companies by data- rich solutions

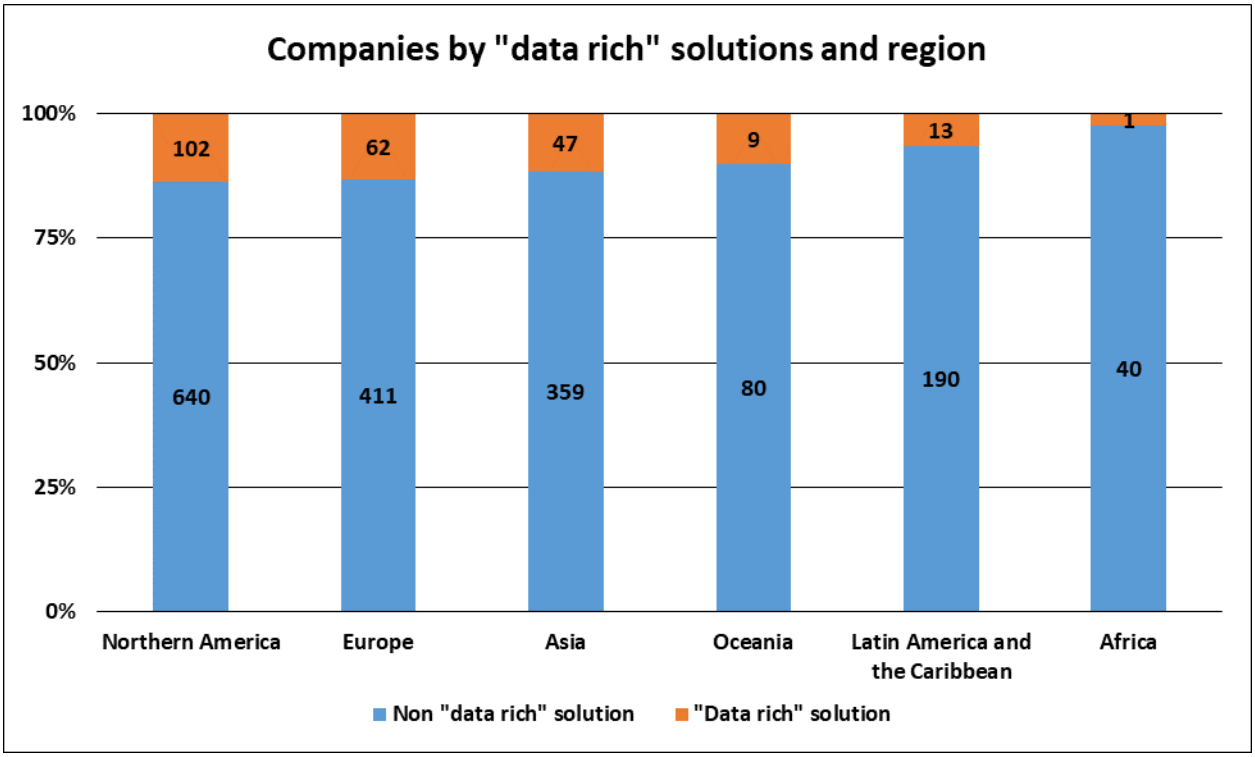


Source: UU analysis of data from Crunchbase. Coding: UU Team. Company Group not included in this graph.

7.2.4a Data-rich solutions by region

Based on our list, it is most common for companies to employ data-rich solutions if they are headquartered in Northern America (102), followed by Europe (62), and Asia (47, Figure **20**).

Figure 20: Data-rich by region



Note: Company Group and n/a are not included in this graph. Source: UU analysis of data from Crunchbase. Coding: UU Team.

Nine countries have more than four "data-rich" companies on our list (Table **15**) with USA leading (101), followed by the UK (21) and India (19, Table **15**). It is worth noting that only 3 Chinese companies were coded as offering "data-rich" solutions. This might suggest a relative weakness among Chinese companies when it comes to using "data-rich" solutions in HE, though more investigation is needed.

Table 15: Number of companies coded for data-rich by top-countries

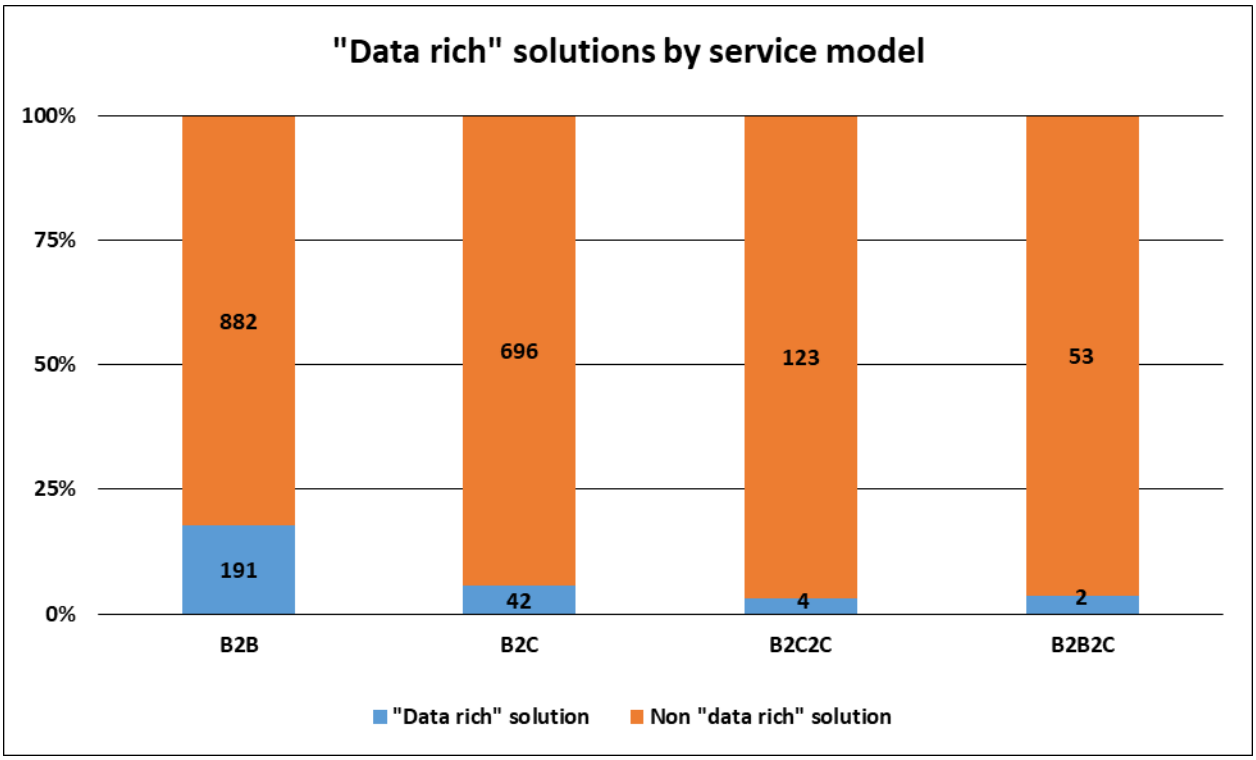
Country	Number of companies coded for "data-rich"
United States	101
United Kingdom	21
India	19
Brazil	8
Australia	7
Israel	7
Spain	6
Finland	5
The Netherlands	5

Source: UU analysis of data from Crunchbase. Coding: UU Team.

7.2.4a "Data-rich" solutions by service models

Our classification suggests that data-rich solutions are most common among companies that rely on B2B service models (191) followed by B2C models (43). This opens interesting questions around what type of problems can be solved with "data-rich" solutions and who is willing to pay for the usage of those solutions at present. This might also indicate that different markets are emerging that differ in the use of such technology.

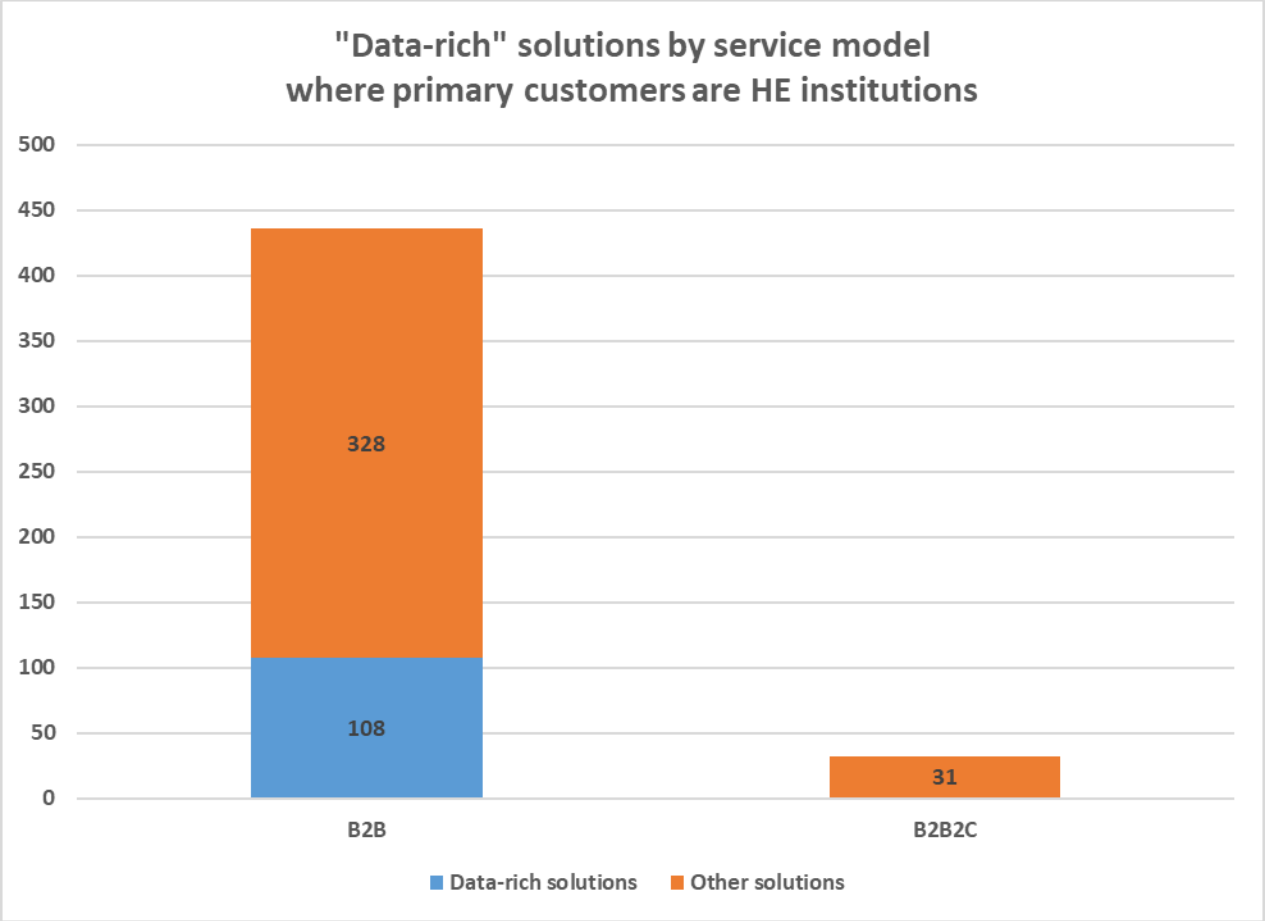
Figure 21: Data-rich solutions by service models



Source: UU analysis of data from Crunchbase. Company Group, B2B2B, and B2C2B are excluded. Coding: UU Team.

The B2B service model includes both enterprises and HE institutions as primary customers. If we focus only on HE institutions, the share of B2B platforms with data-rich solutions is slightly higher.

Figure 22. Data-rich solutions by service models for higher education institutions as primary customers



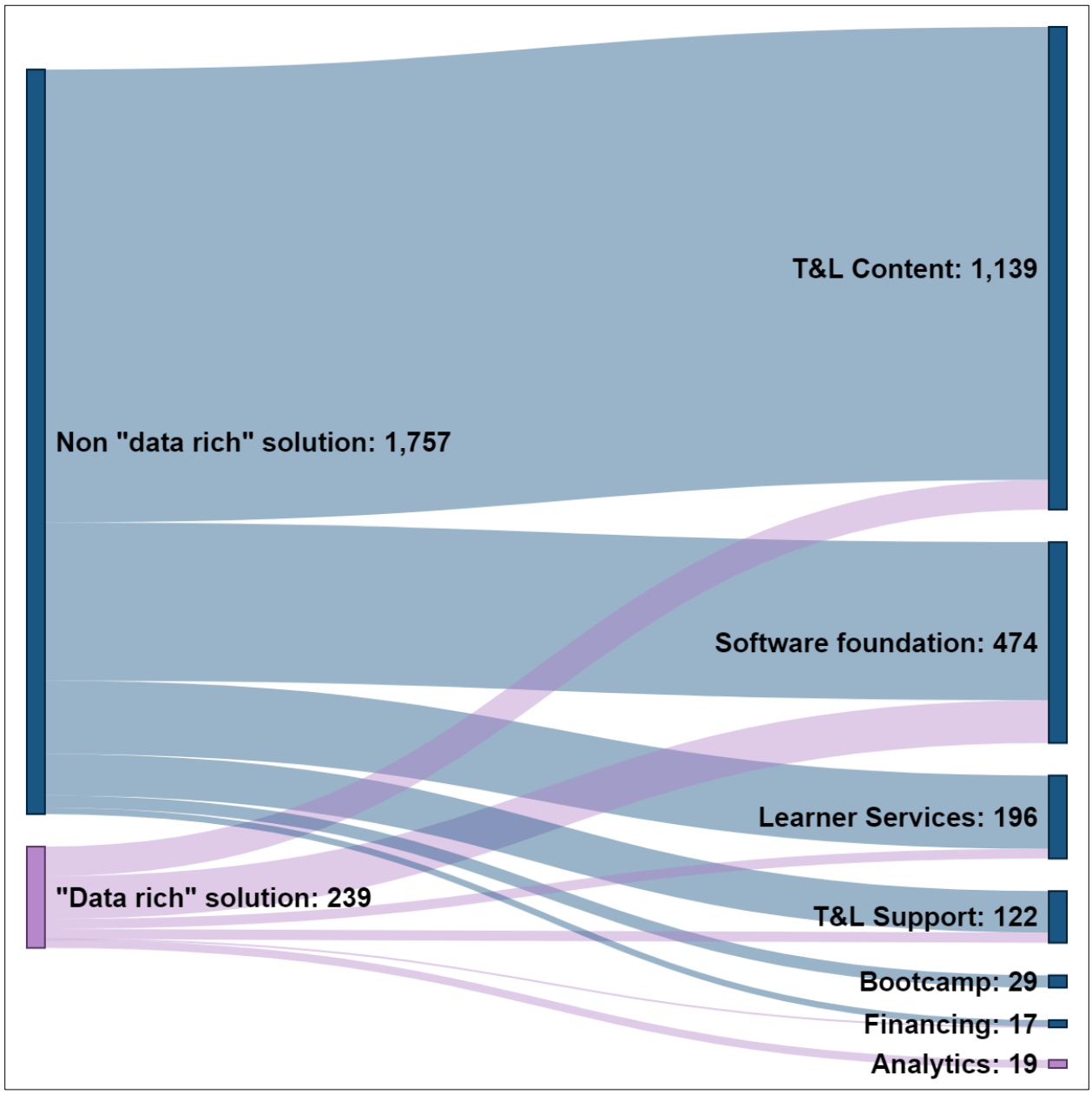
Source: UU analysis of data from Crunchbase. Company Group, B2B2B, and B2C2B are excluded. Coding: UU Team.

7.2.4a Data-rich solutions by primary offering

Overall only 12% of the companies included in our database seem to engage substantially with "data-rich" solutions. "Data-rich" solutions are unequally distributed across primary offerings (Figure **23**). The highest proportional application of "data-rich" solutions can be found in companies offering Analytics services (100%, Table **16**), which is logical since analytics is, by definition, data-rich. At the same time, however, the total number of companies specialising in

Analytics (19 companies) is dwarfed by T&L Content and Software Foundation companies. The data-rich solutions in these two more significant categories amount to less than 22% for each.

Figure 23: Data-rich solutions by primary offering



Source: UU analysis of data from Crunchbase. Flow colour matches source node. Coding: UU Team.

Table 16: Data-rich solutions by primary offering

	Data-rich solutions	Non data-rich solutions	Proportion of data-rich solutions	Proportion of non data-rich solutions
Software Foundation	101	373	21.31%	78.69%
T&L Content	70	1,069	6.15%	93.85%
T&L Support	24	98	19.67%	80.33%
Learner Services	23	173	11.73%	88.27%
Analytics	19	0	100.00%	0.00%
Financing	2	15	11.76%	88.24%
Bootcamp	0	29	0.00%	100.00%
Total	**239**	**1,757**	**11.97%**	**88.03%**

Source: UU analysis of data from Crunchbase. Coding: UU Team.

8 Investment deals

This section outlines key findings drawn from the investment deals database. We start by describing the database. We move on to discussing the main trends by various geographical scales, investment types, and their temporal dimension. We conclude by discussing how the investment deals relate to the investees around categories from our UU classification.

Our analysis of the investment deals reveals a substantial intensification of finance into the edtech companies active in HE. Companies headquartered in Northern America raised the highest number of investment deals, the highest average value per investment deal, and the most money in total. Most money was raised through the T&L Content (the primary offering) and the B2B approach (the service model).

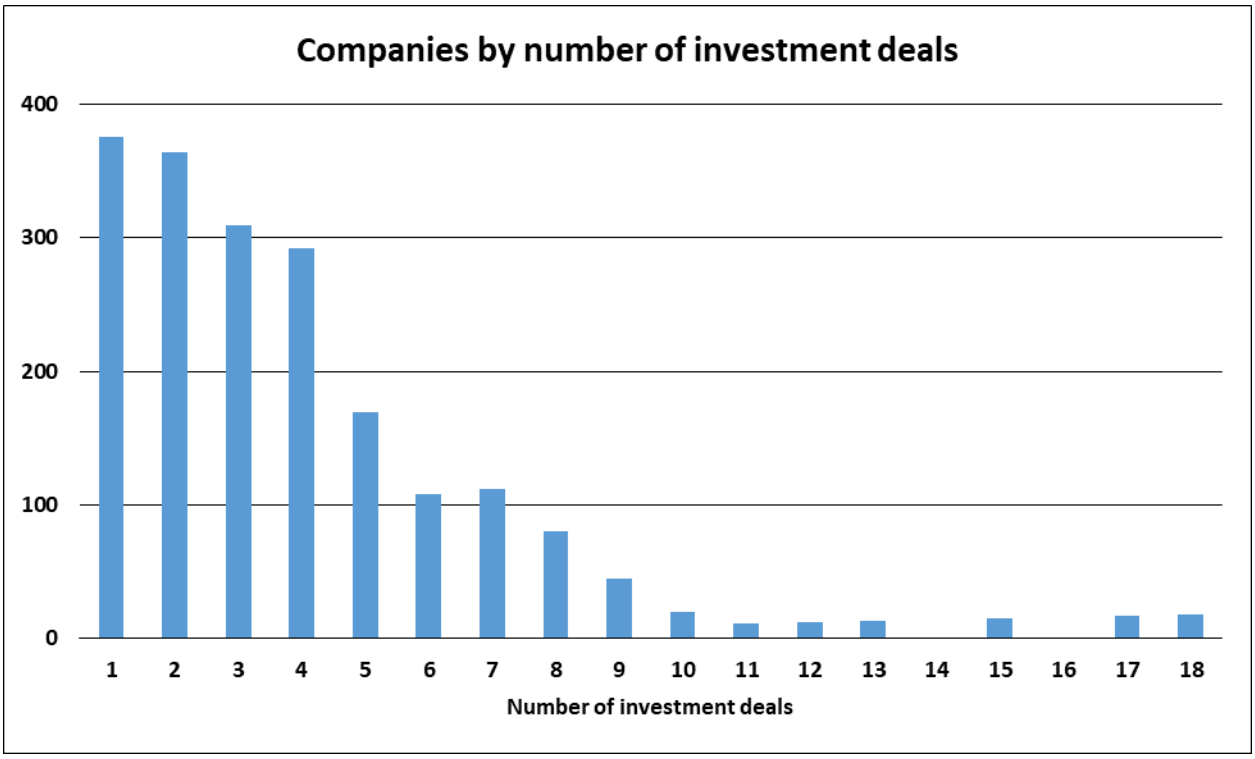
8.1 Investment deals and investment stages

8.1.1 Investment deals by investees

The investment database consists of 1,962 investment deals spread across 825 companies drawn from the companies' database. Most of these companies have one investment deal associated with them (376 companies), followed by two investment deals (364) and three investment deals (309, Figure 24). This indicates that most companies are still in the early stages of investment, which aligns with our previous elaboration of most companies being at the seed level.

Udemy is associated with the most investment deals (18), followed by Coursera (17) and Degreed (15, Table 17). Kajabi is the company recorded for having raised the most money through investment deals ($550 million), followed by ApplyBoard ($483 million) and MasterClass ($461 million, Table 18).

Figure 24: Companies by number of investment deals



Source: UU analysis of data from Crunchbase.

Table 17: Investees with 10 or more investment deals

Investee	Number of investment deals	Money raised
Udemy	18	$311.38M
Coursera	17	$444.90M
Degreed	15	$390.31M
Chegg	13	$227.30M
Echo360	12	$171.75M
Sixup	11	$43.25M
Ruangguru	10	$205.05M
ConnectEdu	10	$61.88M

Source: UU analysis of data from Crunchbase.

Table 18: Investees that have raised $300 million or more through investment deals

Investee	Number of investment deals	Money raised
Kajabi	2	$550.00M
ApplyBoard	7	$483.48M
MasterClass	8	$461.40M
Coursera	17	$444.90M
2U	7	$426.88M
Fenbi	3	$396.96M
Degreed	15	$390.31M
Guild Education	7	$378.50M
Kahoot!	9	$363.89M
GoStudent	7	$345.36M
Cornerstone OnDemand	4	$344.70M
Udemy	18	$311.38M
Huikedu Group	4	$302.20M

Source: UU analysis of data from Crunchbase.

8.1.2 Investment type and stages

Crunchbase categorises funding stages as Early-Stage Venture, Late-Stage Venture, Private Equity, Seed Funding, and more. Each funding stage consists of several funding types such as venture series A, B, C, D, E, and F, Angel funding, Debt financing, and more.

Crunchbase does not always capture the value of the investment deals it records[12]. The value of 1,477 of the deals in our database has been captured in Crunchbase (Table **19**). Most money is raised through Late-Stage Ventures ($5.21B), followed by Early-Stage Ventures ($3.53B). Private Equity has the highest average investment value by investment stage ($80.53M), followed by Late-Stage Venture ($59.25M). We find that the average value of the Late-Stage Venture deals is

[12] Not all investment deals are publicly disclosed. Furthermore, Crunchbase may not always have full coverage.

higher than for Early-Stage Venture deals ($59.25 million versus $11.36 million). At the same time, the number of Early-Stage Ventures deals is larger than Late-Stage Venture deals (310 versus 88). This again indicates that edtech in HE is a relatively young but vibrant industry, increasingly receiving larger investment as companies move towards the later rounds.

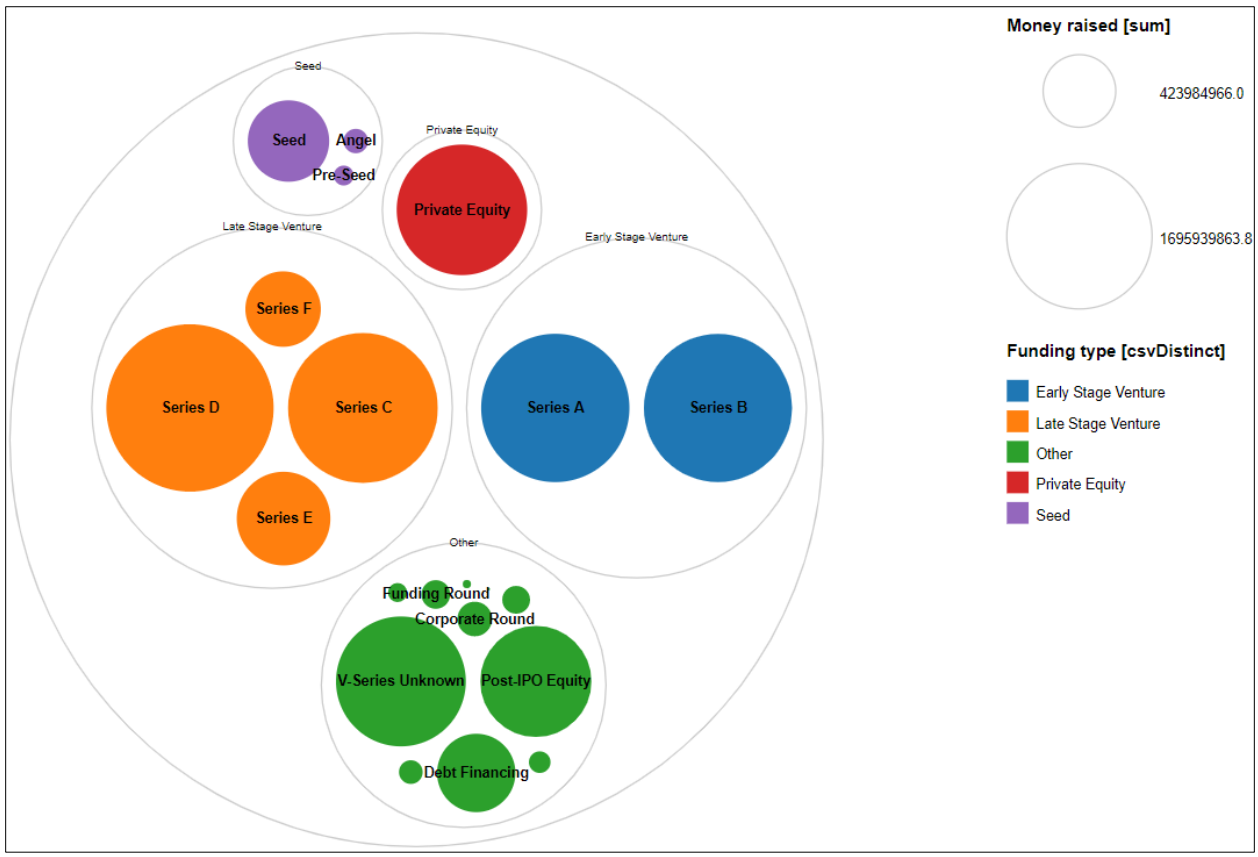
Table 19: Investment deals by stage (where value of investment is available)

Investment Stage	Number of deals	Number of deals with a known value	Number of deals with unknown value	Value of deals	Average value of investment deal by stage*
Late-Stage Venture	104	88	16	$5.21B	$59.25M
Early-Stage Venture	365	310	55	$3.53B	$11.39M
Other	526	370	156	$3.18B	$8.60M
Private Equity	32	17	15	$1.37B	$80.53M
Seed	935	692	243	$0.61B	$0.88M
Total	1,962	1,477	485	**$13.91B**	**$7.09M**

Source: UU analysis of data from Crunchbase. *Calculated using the number of deals with the known value. Investment values are in USD billion and USD million.

We grouped investment deals by investment stages (Figure **25**). The circles represent funding stages in the aggregate, and the bubbles represent funding types in the aggregate. The larger a bubble or circle is, the larger is the associated funding stage or type. The Figure shows how late-stage ventures (orange bubbles) are dominant in terms of total value while, for example, seed funding (purple bubbles) is less so.

Figure 25: Money raised through investment deals by funding type and stage

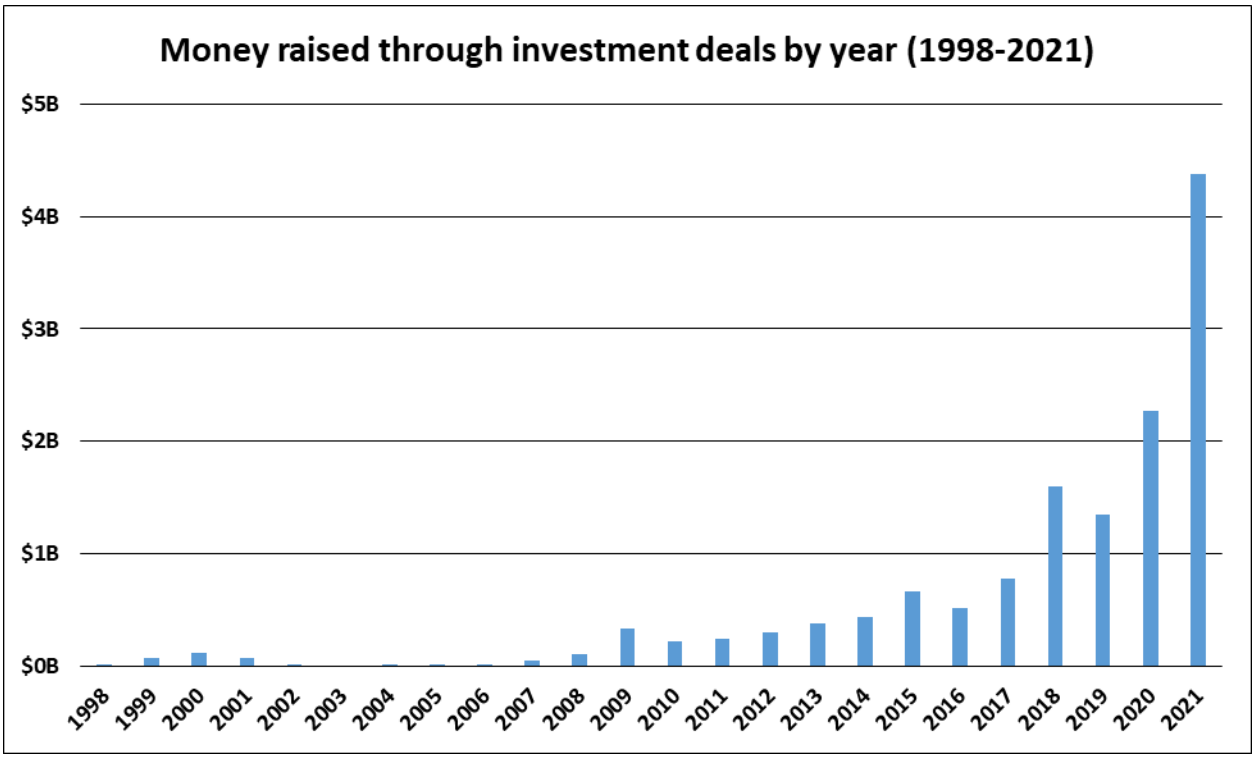


Note: the size of each bubble corresponds to the total value of said funding stage. Each funding stage is grouped by funding type. Source: UU analysis of data from Crunchbase.

8.1.3 Deal value by year

It is commonly acknowledged in the practitioner literature that deals value has gone through periods of increase in edtech more generally. The majority of deals value comes from deals since 2015 (Figure **26**). The total deals' value stayed below $1 billion until 2018 and under $2 billion until 2020. The annual deals' value for 2020 was above $2.27 billion. From January 2021 to the beginning of July 2021 (when we downloaded this database), the deals' value was $4.38 billion. In other words, deals' value has been subject to upward trending growth.

Figure 26: Money raised through investment deals by year (1998-2021)



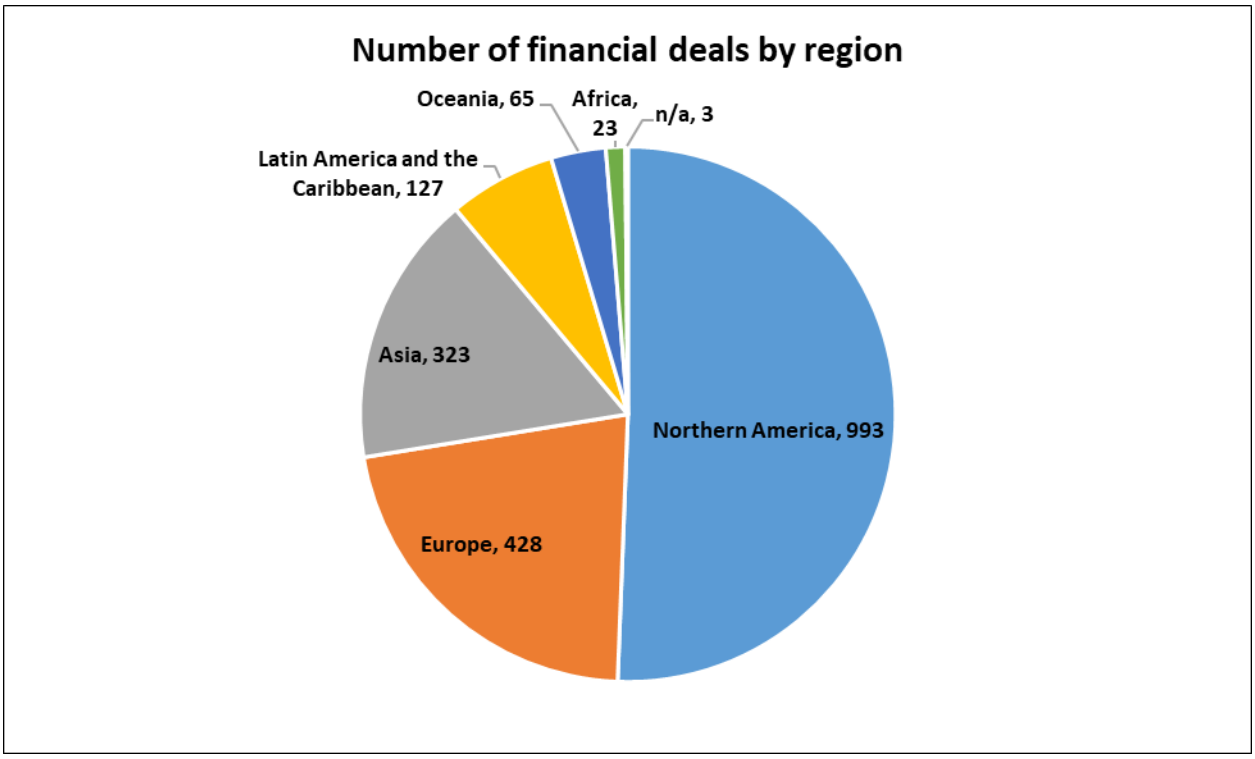
Source: UU analysis of data from Crunchbase. Value in USD billion.

8.2 Location

8.2.1 Region

Our deals database contains 1,962 investment deals. Most of these were raised by investees based in the North American region (993), followed by Europe (428) and Asia (323). The high number of Northern American deals might be related to the size of the American economy and the maturity and reach of the American technology sector. The regions of Latin America and the Caribbean, Oceania, and Africa are each noted for less than 150 deals per region (Figure **27**).

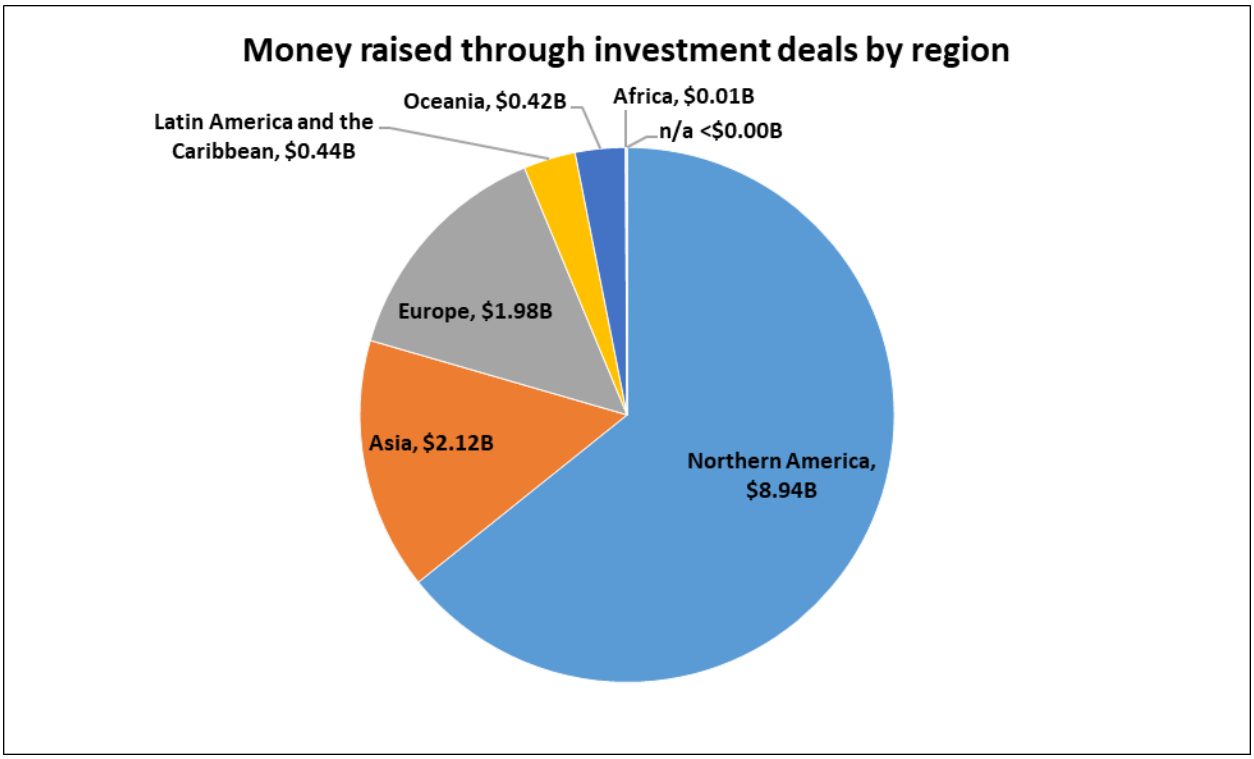
Figure 27: Number of financial deals by region



Source: UU analysis of data from Crunchbase.

The total value of the recorded investment deals across all regions is $13.91 billion; 64% of this is concentrated in Northern America, where the total value of investment deals is $8.94 billion (Figure **28**). The value of investment deals in Asia is $2.12 billion compared to Europe's $1.98 billion. The combined value of the remaining regions is less than $1 billion, suggesting an unequal development across the globe. This also means that while the European region is represented with more deals numerically than the Asian region, the total value of the Asian deals is slightly higher.

Figure 28: Money raised through investment deals



Source: UU analysis of data from Crunchbase. Values in billion USD.

The value of the average investment deal by region is the highest in Northern America ($11.70 million), followed by Asia ($9.46 million), and Oceania ($8.26 million). This suggests that although fewer deals took place in the region of Oceania, these deals have, on average, been of significance. By contrast, the average value of 14 deals recorded in Africa is only $0.93 million, approximately $8.5 million less than the average deal across all regions. Investments in Europe are on average far lower than in Northern America and Asia. This indicates that while there are innovation activities, they are substantially less capitalised.

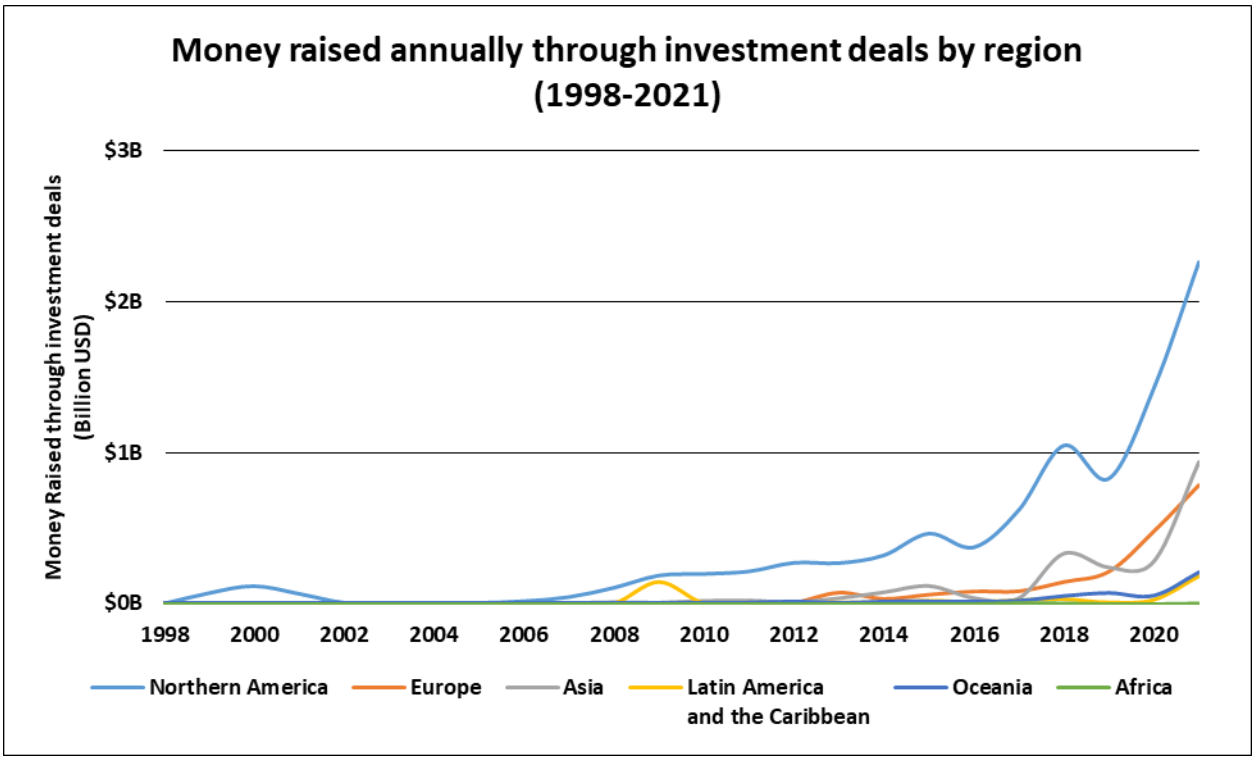
Table 20: Average value of financial deals by region

Region	Number of financial deals*	Money raised	Average value of financial deals
Northern America	764	8.94B	$11.70M
Asia	224	2.12B	$9.46M
Europe	333	1.98B	$5.95M
Latin America and the Caribbean	90	0.44B	$4.86M
Oceania	51	0.42B	$8.26M
Africa	14	0.01B	$0.93M
Total	**1,476**	**13.91B**	**$9.42M**

Source: UU analysis of data from Crunchbase.*the value of financial deals are not always publicly disclosed (see Table 19 for details). Only the deals with known values are counted in column 2. Values are in USD billions and USD millions. $100,000 was raised by one investee whose location is not documented in Crunchbase (n/a). For simplicity, this was excluded from this table.

The primacy of deal value in the North American region is built on deals from 2016 onwards (Figure **29**). While our database captures the annual value of deals going back to 1998, North American activity started steadily increasing in 2006. Furthermore, by 2016, the value of investment deals began growing much faster. However, the European and Asian trend lines also started increasing more rapidly after 2016 at a lower rate than Northern America. The apparent disconnect between Figure **29** (the value of investment deals) and Figure **2** (the number of new companies founded each year) is noticeable.

Figure 29: Money raised annually through investment deals by region (1998-2021)

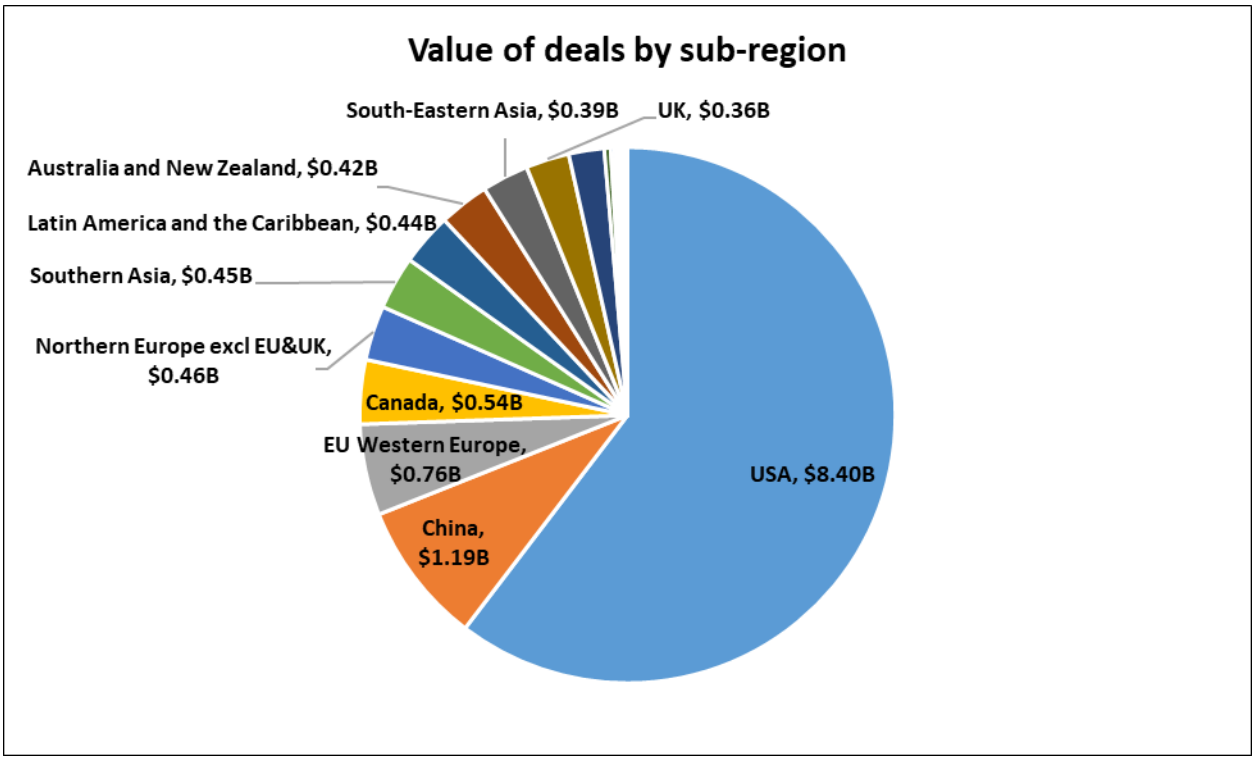


Note: for the year 2021, investment deals until July 2021 are included. Source: UU analysis of data from Crunchbase.

8.2.2 Sub-region

Looking at the money raised through investment deals at a sub-regional and national level reveals the dominance of the USA ($8.40 billion), followed by China ($1.99 billion), and EU Western Europe ($0.76 billion). The remaining 17 sub-regions raised less than $0.5 billion each, and nine sub-regions raised less than 0.06 billion (Figure **30**). This suggests a concentration of investment deals in a handful of key sub-regions, with less intensive investment activity spread across the remaining subregions.

Figure 30: Money raised through investment deals by sub-regions



Source: UU analysis of data from Crunchbase. Only showing data labels for top-10 sub-regions by total deal value. The countries Canada, China, and the United States are considered sub-regions for coding purposes. See the methodological handbook for details. All values are in USD billion.

8.2.3 Country

Between 1998 to 2021, most money was raised by or for companies headquartered in the USA (60 %) followed by China (9%). The value of deals associated with companies in other countries each totalled less than $600 million USD, which is less than 4% of all the money raised (Table **21**).

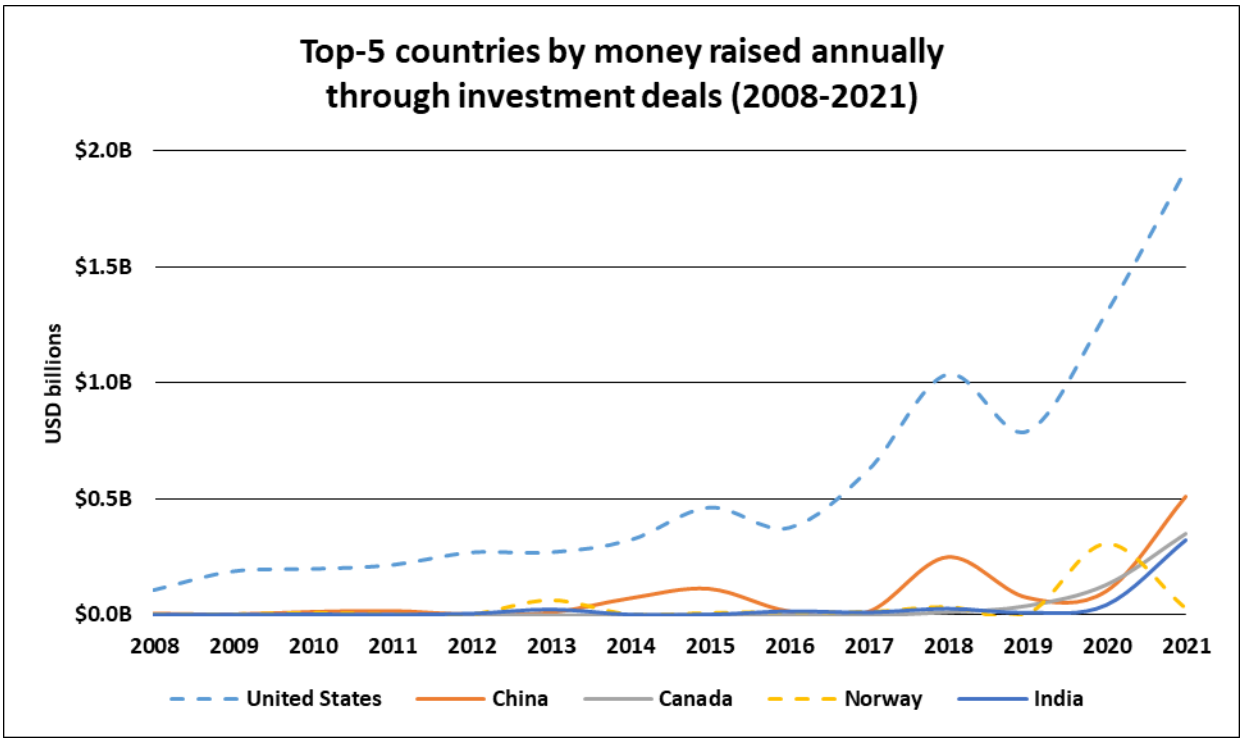
Table 21: Countries that raised more than $100 million (1998-2021)

Row Labels	Number of deals	Money raised	Percentage of total money raised
United States	748	$8.40B	60.38%
China	78	$1.19B	8.59%
Canada	16	$0.54B	3.88%
Norway	13	$0.46B	3.30%
India	76	$0.45B	3.22%
Australia	44	$0.39B	2.84%
United Kingdom	108	$0.36B	2.62%
Austria	10	$0.35B	2.50%
Brazil	43	$0.31B	2.20%
Indonesia	5	$0.21B	1.49%
France	16	$0.19B	1.38%
Denmark	20	$0.19B	1.36%
Singapore	22	$0.18B	1.33%
Germany	31	$0.10B	0.75%

Source: UU analysis of data from Crunchbase.

The top-5 countries by money raised between 2008 to 2021 are the USA, China, Canada, Norway, and India. While the USA has consistently raised more money than these other countries, the gap has widened since 2016 (Table **22**).

Table 22: Top-5 countries by money raised annually through investment deals (2008-2021)

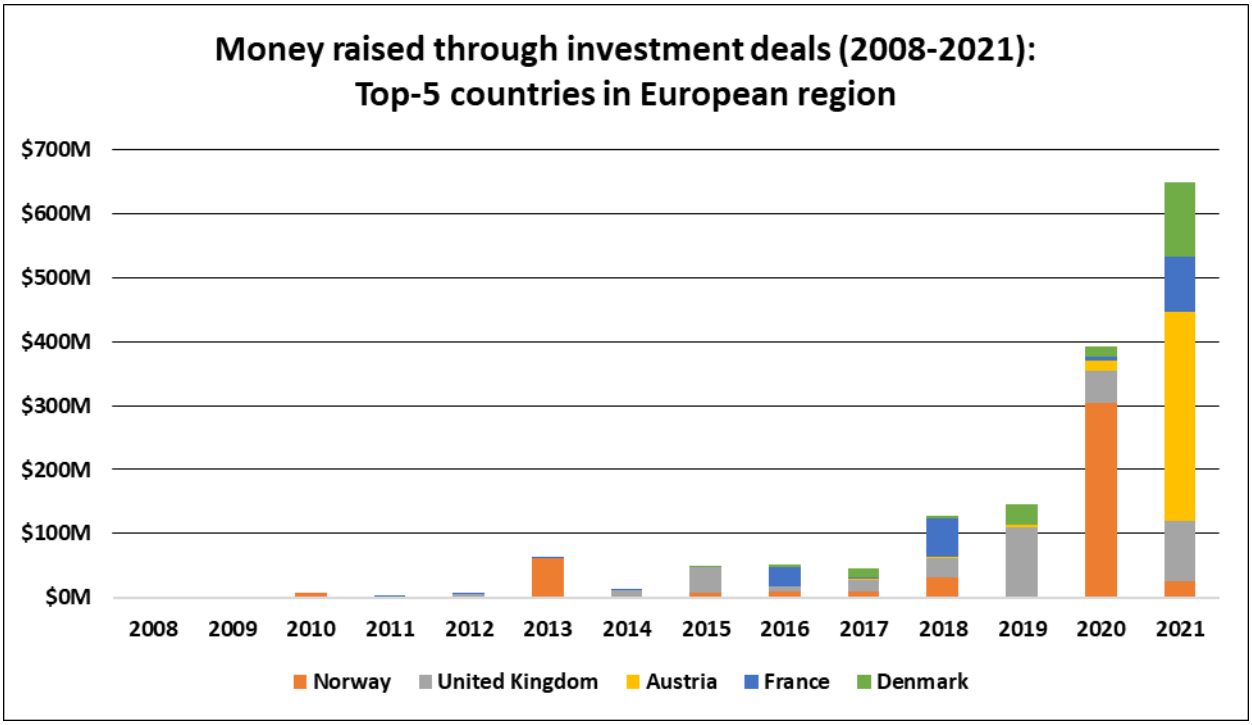


Source: UU analysis of data from **Crunchbase. Top-5 countries by highest aggregated deal value between 2008 and 2021.**

Focusing only on the top-5 countries in Europe, we notice less variation between the countries within the region (Figure 31). Notice that the y-axis is in millions and that the annual sums are the aggregates of all five countries. The orange bars are deals associated with Norway. Notice that in 2020, $305 million of the total $393 million that year was associated with companies headquartered in Norway. These can again be traced back to just one company, Kahoot!, where particularly SoftBank increased its equity share in the learning platform. Similarly, in the first six months of 2021, two funding rounds from the Austrian edtech tutoring company GoStudent,

makes up $327M. Hence, the investment figures are highly impacted by large later-stage investments in a smaller number of particular companies.

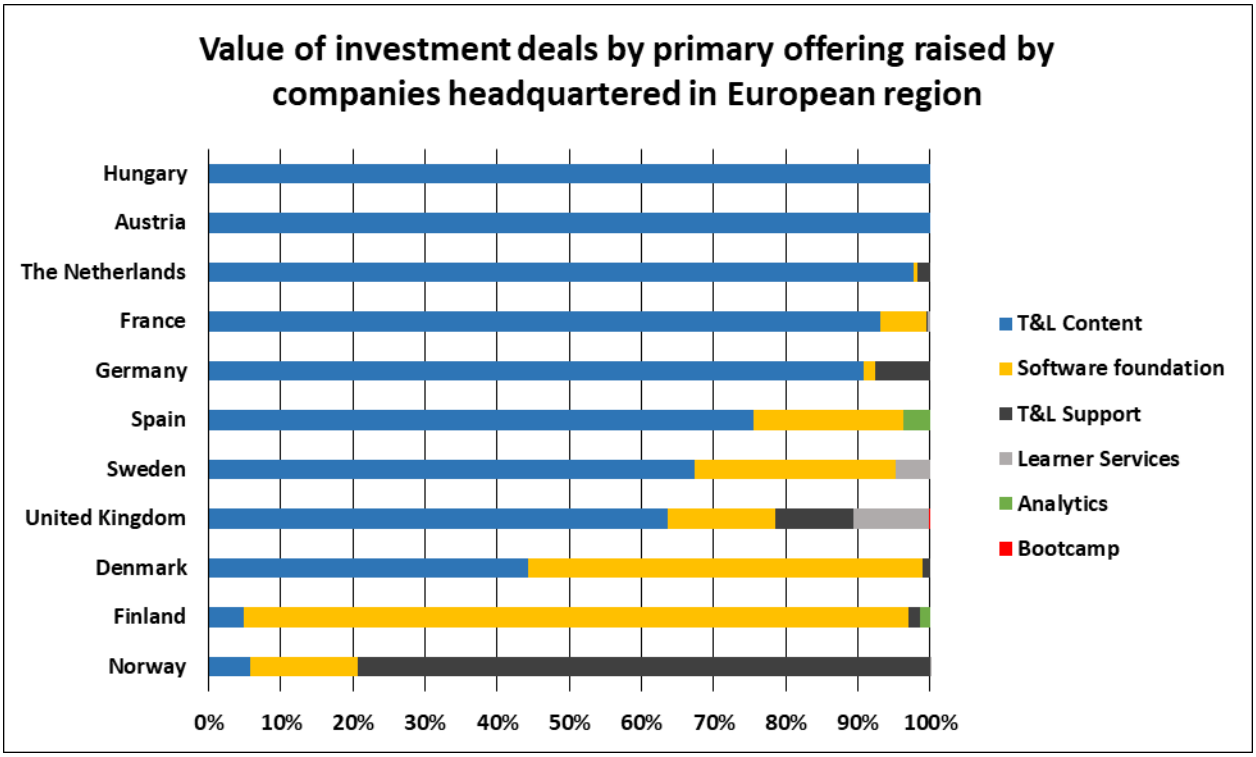
Figure 31: Money raised through investment deals (2008-2021): Top-5 countries in European region.



Source: UU analysis of data from Crunchbase. Top-5 countries by highest aggregated deal value between 2008 and 2021.

We looked closer into European countries with more than ten investment deals in our database by country and the primary offering (Figure **32**). In most countries (Hungary, Austria, the Netherlands, France, Germany, Spain, Sweden, the UK), more than half of the investment money flows into T&L Content companies. Some of the Scandinavian countries are associated with high investment in Software Foundations, such as Finland (92%), Denmark (55%), and Sweden (28%). In Norway, the most prevalent category is T&L Support (79%) which is driven by large funding rounds of Kahoot!.

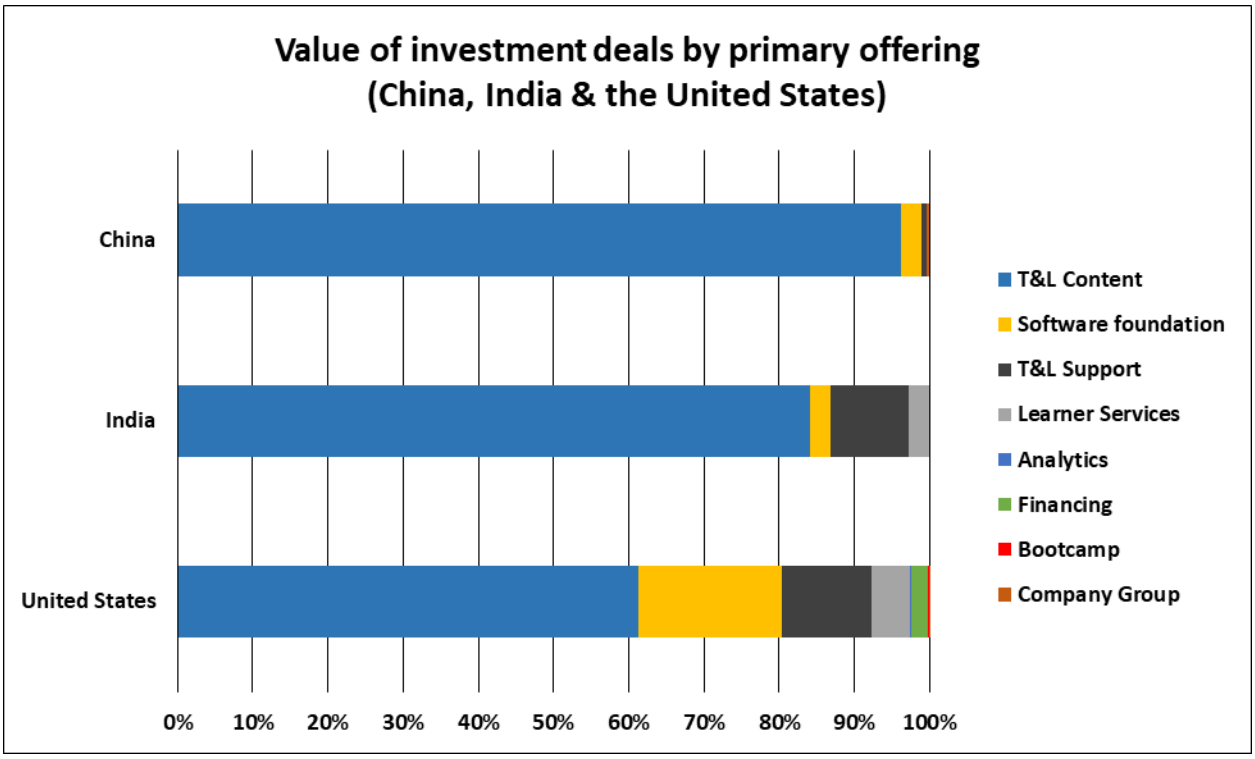
Figure 32: Relative value of investment deals for companies in the European region by country and primary offering



Source: UU analysis of data from Crunchbase. Countries with less than 10 deals were excluded. Coding: UU Team.

Comparing this to China, India, and the USA, we see interesting differences. For China, 96% of investment captured in our deals database has gone to companies whose primary offering is T&L Content. It is also an important category, albeit less dominant, in India (84%), and the USA (61%, Figure **33**). Edtech companies in the USA that are active in HE seem to be more diversified by primary offering when looking at the value of the investment deals they raise. Particularly the area of Software Foundations (19%) looks strong in the USA compared to India (3%) and China (3%). One measure of competitiveness and robustness for national HE edtech industries might be the degree to which industries are diversified across primary offerings. There might also be national differences in private and public finance's role in funding critical Software Foundations.

Figure 33: Value of investment deals by primary offering (China, India & the United States)



Source: UU analysis of data from Crunchbase. Coding: UU Team.

8.3 Investment deals by UU classification scheme

8.3.1 Primary offering

When grouping investees by primary offering, most money was raised by T&L Content companies, followed by Software Foundation and T&L Support (Table **23**). The scope and scale of investments are driven by the Northern American region, which picks up from 2006 forward. (See Figure **34**, the orange bubbles represent investment deals raised by investees offering T&L Content. The larger a bubble, the larger the deal value is. Deals associated with Company Groups had the highest average deal value ($43.96 million), which is understandable as they are larger corporations with several platforms and services across offering categories and catering to several customers at once.

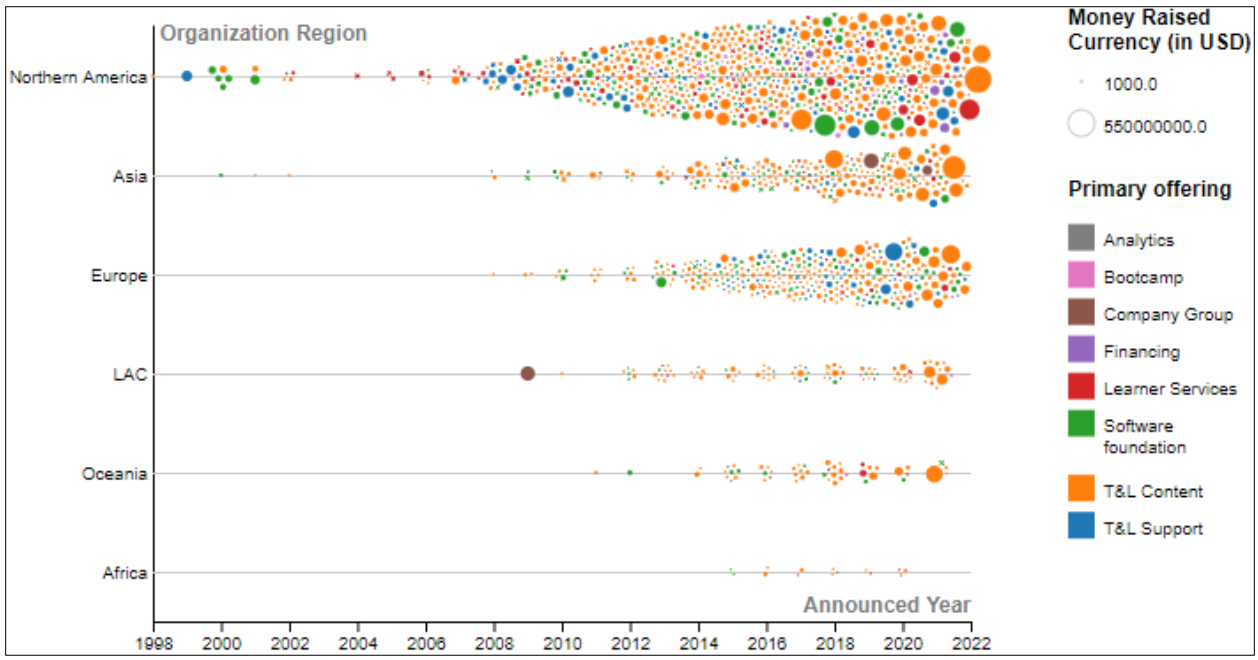
It is noticeable that the average deal value for Software Foundation is $3 million below the overall average. This might suggest a relatively high proportion of early venture or seed funding; or the relative absence of megadeals. However, Software Foundations is also a dominant market sector outside HE specific companies (such as Microsoft, Google, Apple, SAP, Oracle, and IBM). While these are crucial companies for the HE sector, this mapping only included edtech companies that specialise in the HE sector, which may explain the deal value, as these companies typically would be smaller in scale and often try to avoid head-to-head competition with aforementioned technology giants.

Table 23: Investment deals by primary offering

Primary offering	Number of deals*	Sum of money raised	Average value of investment deal
T&L Content	823	8.83B	$10.73M
Software Foundation	313	2.02B	$6.46M
T&L Support	151	1.48B	$9.80M
Learner Services	136	1.00B	$7.32M
Company Group	8	0.35B	$43.96M
Financing	16	0.19B	$11.78M
Bootcamp	14	0.02B	$1.52M
Analytics	16	0.01B	$0.83M
Total	**1,477**	**13.91B**	**$9.42M**

Source: UU analysis of data from Crunchbase. *the value of a funding round is not always publicly disclosed. Only the deals with known values are counted in column 2. Values in USD billion and USD million. Coding: UU Team.

Figure 34: Money raised through investment deals by region and primary offering

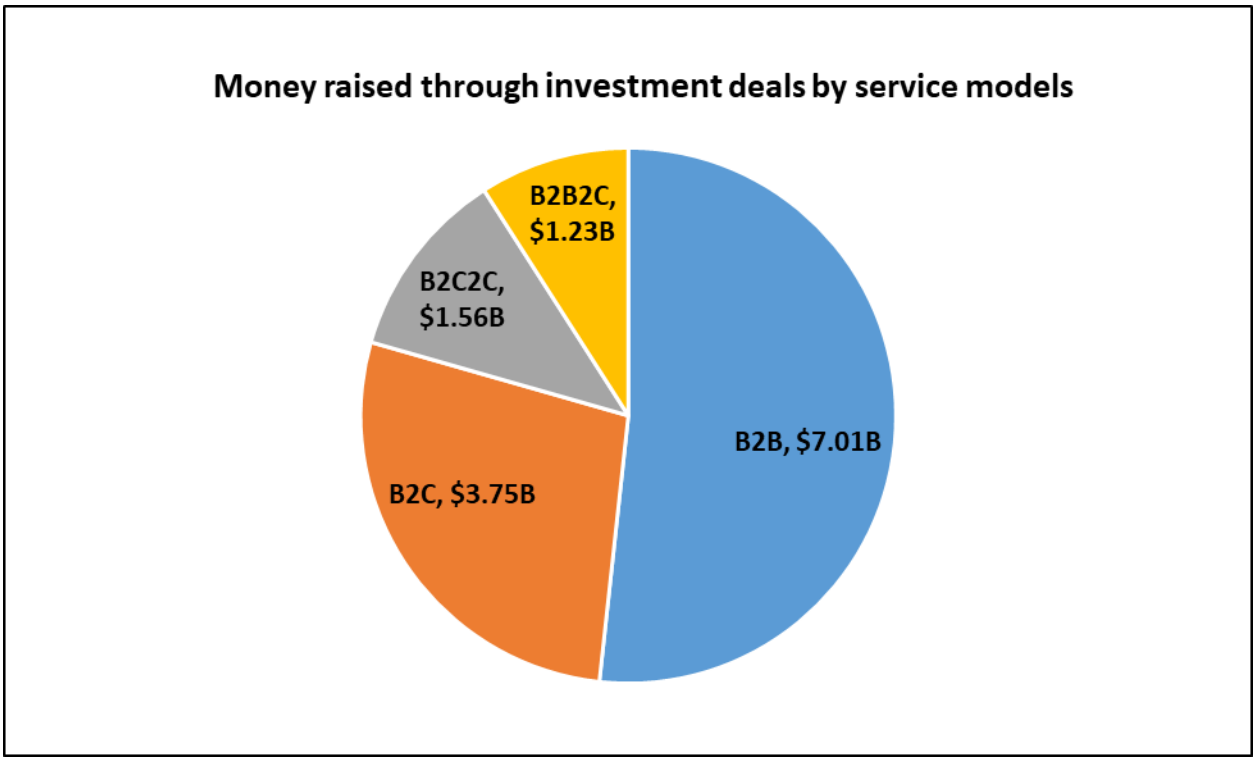


Source: UU analysis of data from Crunchbase. Each bubble corresponds to a deal. The value of a deal is represented by the size of the bubbles. LAC is an abbreviation of "Latin America and the Caribbean." Codding: UU Team.

8.3.2 Service models

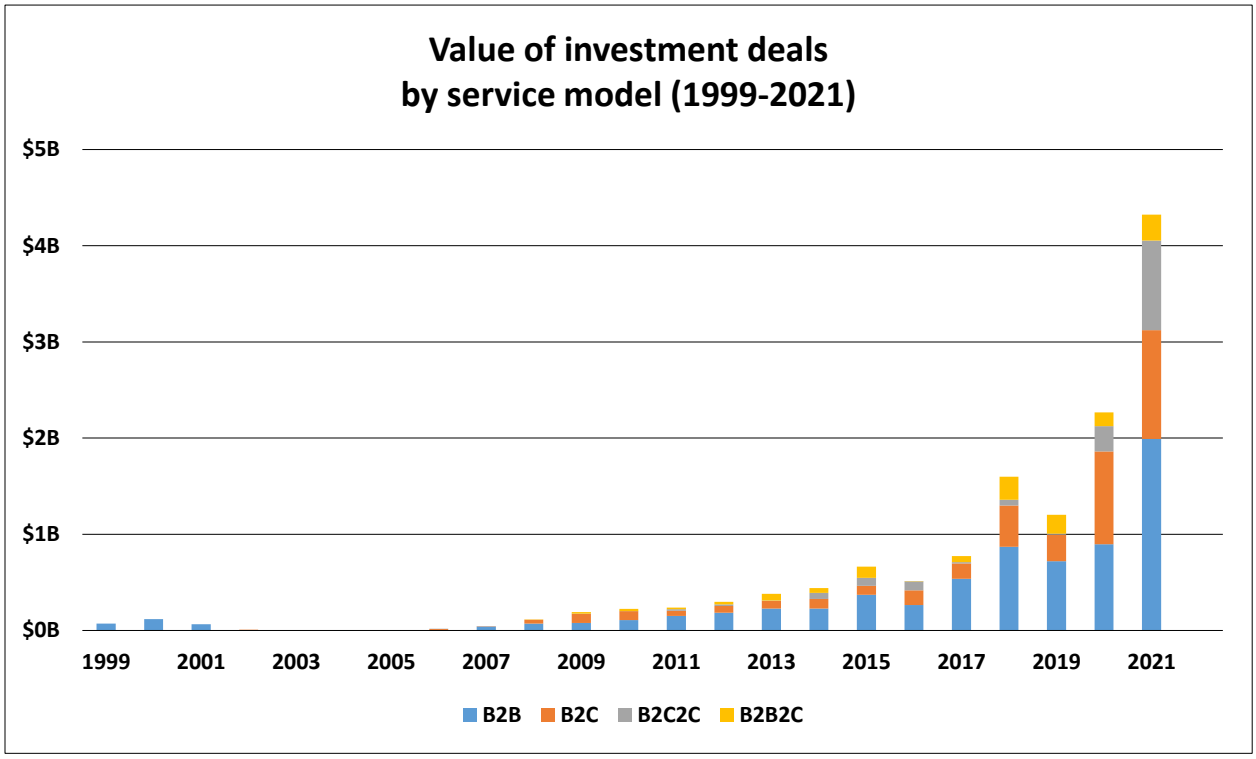
Looking at investment deals by service models reveals that about half of all our investment deals by value fall in the category B2B ($7.01 billion), followed by B2C ($3.75 billion), and B2B2C ($1,56 billion, Figure **35**). There has been a similar proportional growth in deal value across the categories during the recent uptake in deal activity (Figure **36**). Early on, the deals associated with B2B companies were associated with many smaller deals in T&L Content (Figure **37**). The larger bubbles represent larger investments, which first started to become prevalent in 2016. This might indicate more activity among larger professional investors. The experience of B2C companies looks similar to that of B2B companies, although at a smaller scale. For the two remaining service models, investments are driven by a few large investments in the area of T&L Content.

Figure 35: Money raised through investment deals by service models



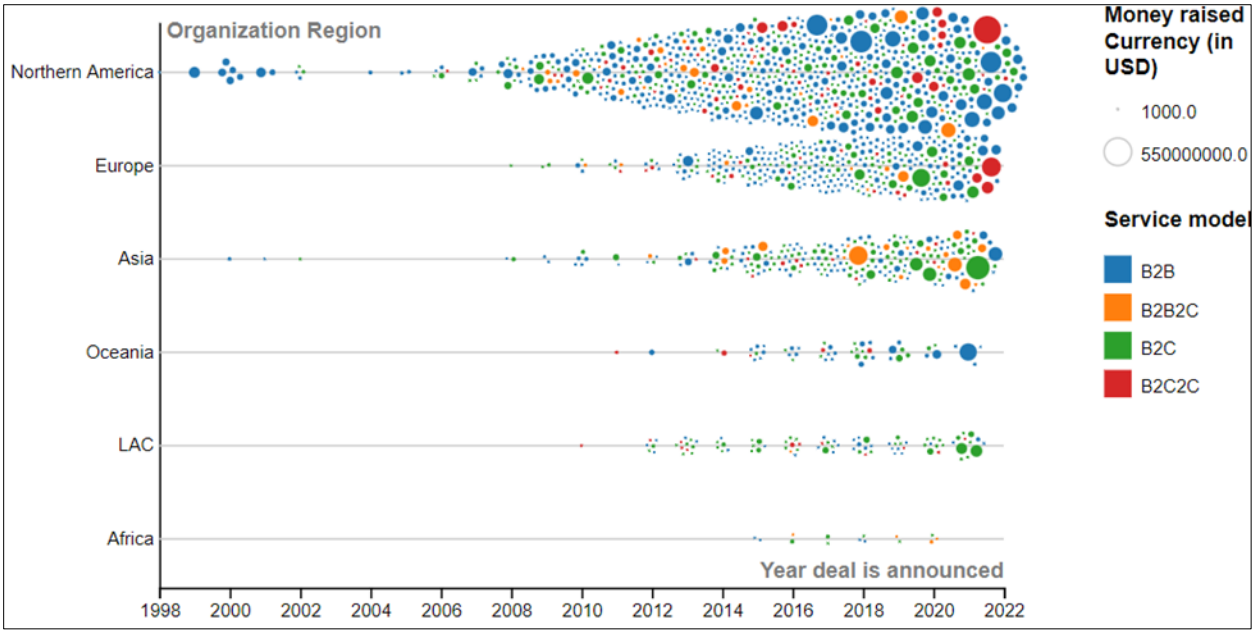
Source: UU analysis of data from Crunchbase. All values are in USD billion, rounded to nearest $10 million. Company Group, B2B2B, and B2B2C are excluded.

Figure 36: Money raised through investment deals by service model (1998-2021)



Source: UU analysis of data from Crunchbase. Company Group, B2B2B, and B2C2B are excluded. Coding: UU Team.

Figure 37: Money raised through investment deals by region and service model (1998-2021)



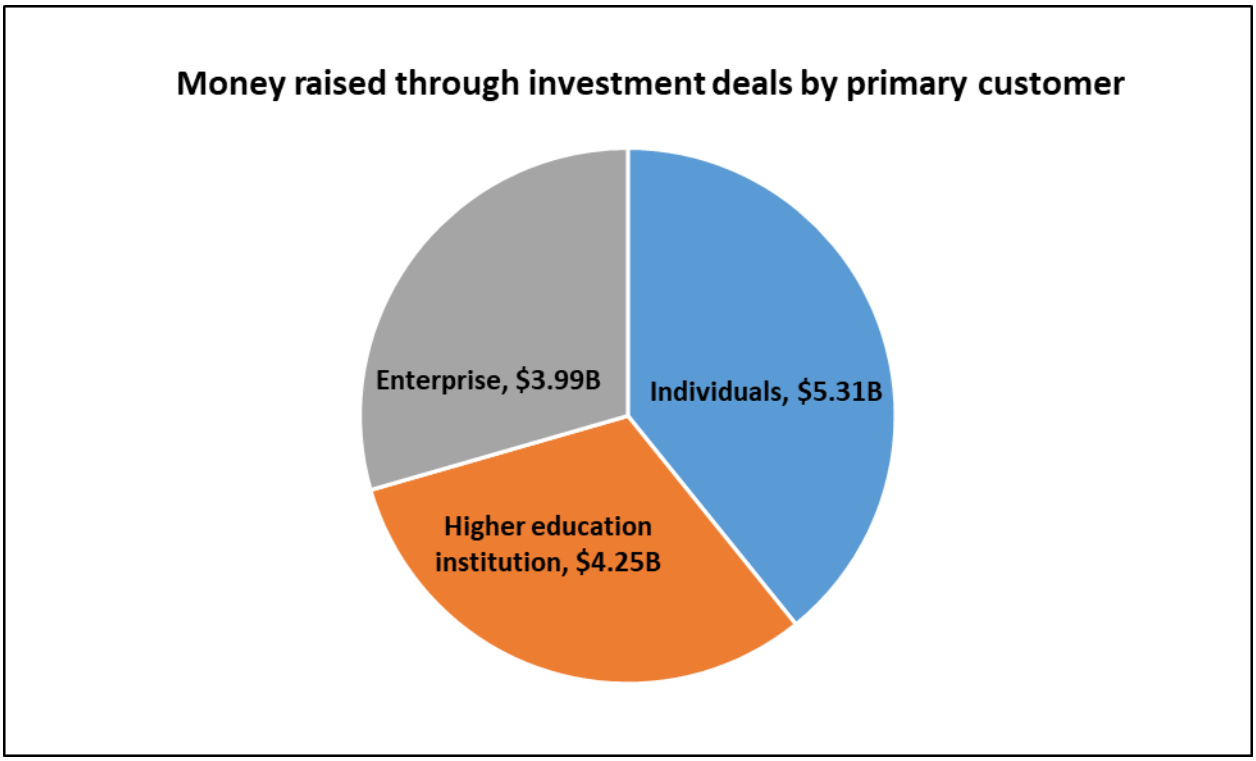
Source: UU analysis of data from Crunchbase. Each bubble corresponds to a deal. The value of a deal is represented by the size of the bubbles. LAC is an abbreviation of "Latin America and the Caribbean." Company Group, B2B2B, and B2C2B have been excluded for simplicity. Coding: UU Team.

8.3.3 Primary customer

Looking at investment deals by primary customer reveals a spread across the three main categories. The top category is individuals ($5.31 billion), followed by HE institutions ($4.25 billion) and enterprises ($3.99 billion). The combined value of organisational customers (i.e., HE institutions and enterprise) makes out 61% of deal value.[13]

[13] Company Group excluded.

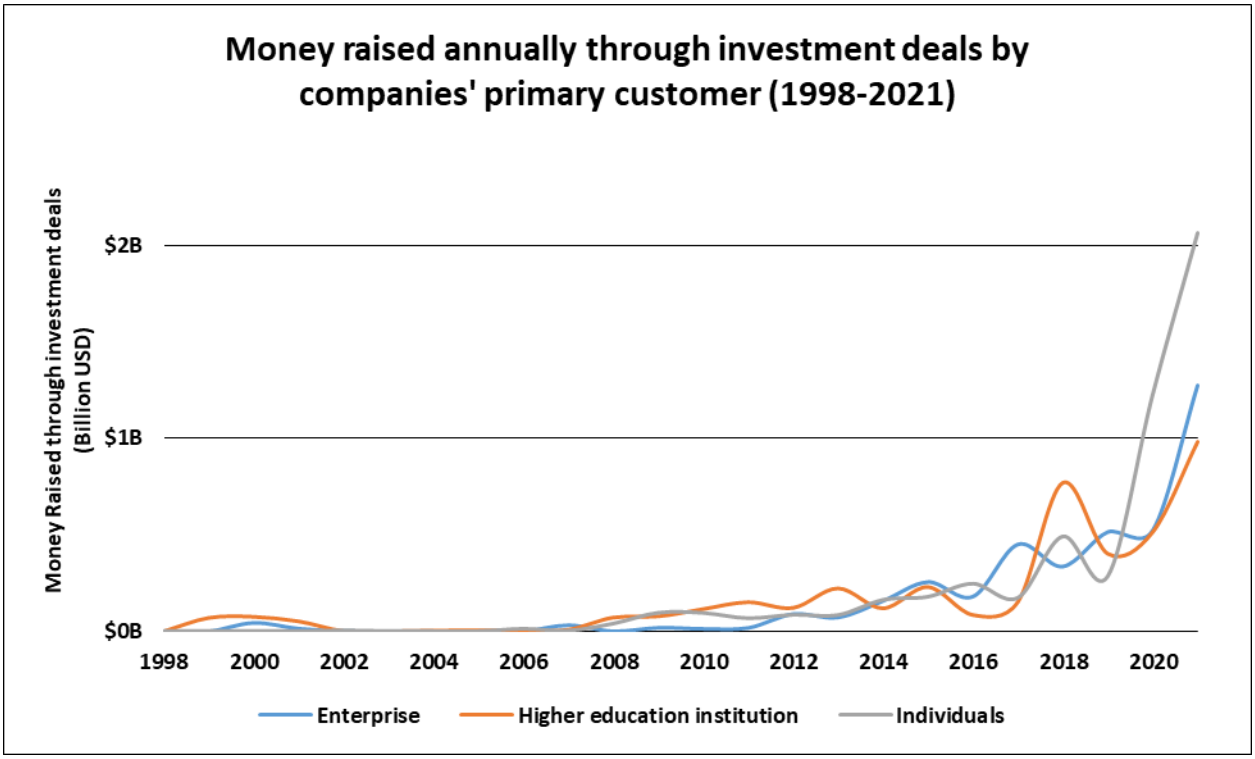
Figure 38: Money raised through investment deals by primary customer



Source: UU analysis of data from Crunchbase. Company Group excluded. Coding: UU Team.

Most increases in money raised via investment deals from 2019 were driven by companies with individuals as their primary customers (Figure **39**). Before 2019, investment deals by the three primary customer were more closely aligned.

Figure 39: Money raised annually through investment deals by companies' primary customer (1998-2021)

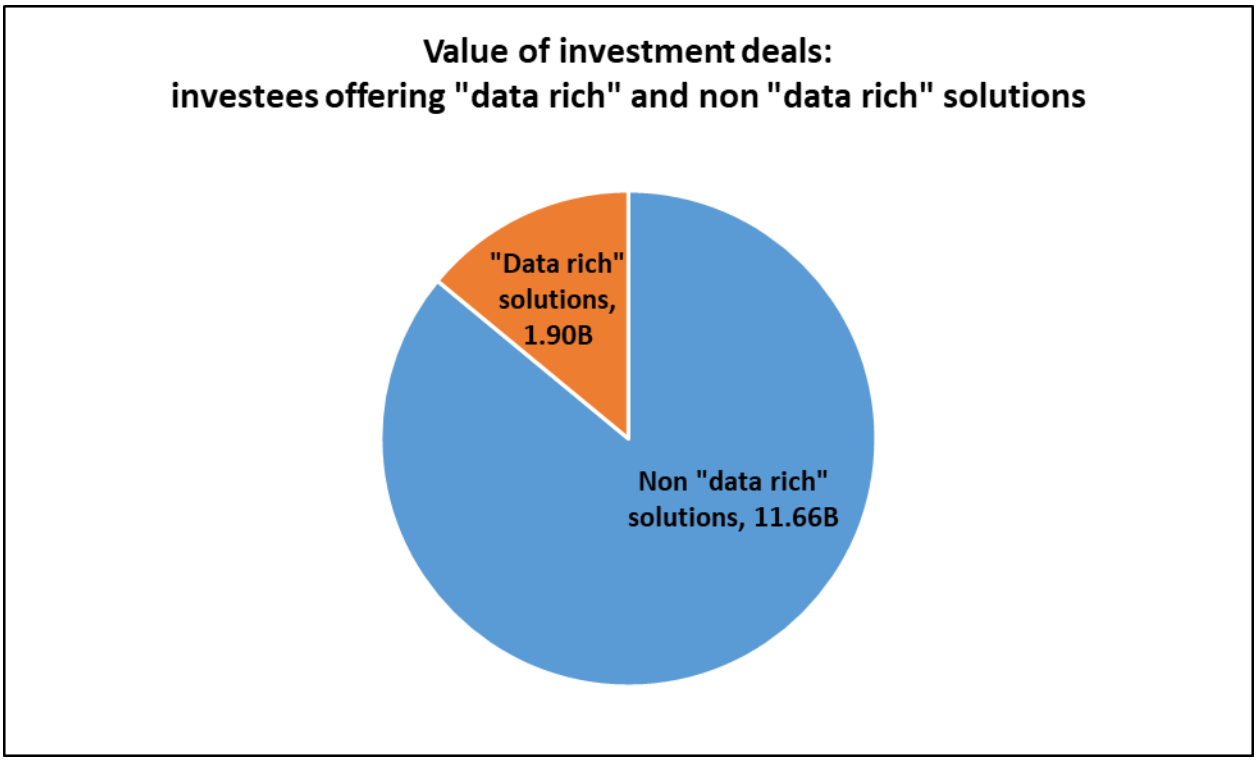


Source: UU analysis of data from Crunchbase. Company Group excluded. Coding: UU Team.

8.3.4 Investment deals raised by companies offering data-rich solutions

We made a note in all cases where primary offerings were augmented and depended on data-rich services that generated an added value from digital data. Examples include all artificial intelligence, machine learning, blockchain technology, cryptocurrency, and cybersecurity. These offerings were marked as contingent on offering data-rich solutions. From our investments deals database, $1.90 billion is raised by investees who offer data-rich solutions and $11.66 by those who offer no data-rich solutions (Figure **40**). Company Group platforms ($0.35 billion) do not lend themselves easily to be categorised in this way. Company Groups are therefore excluded in the following discussion.

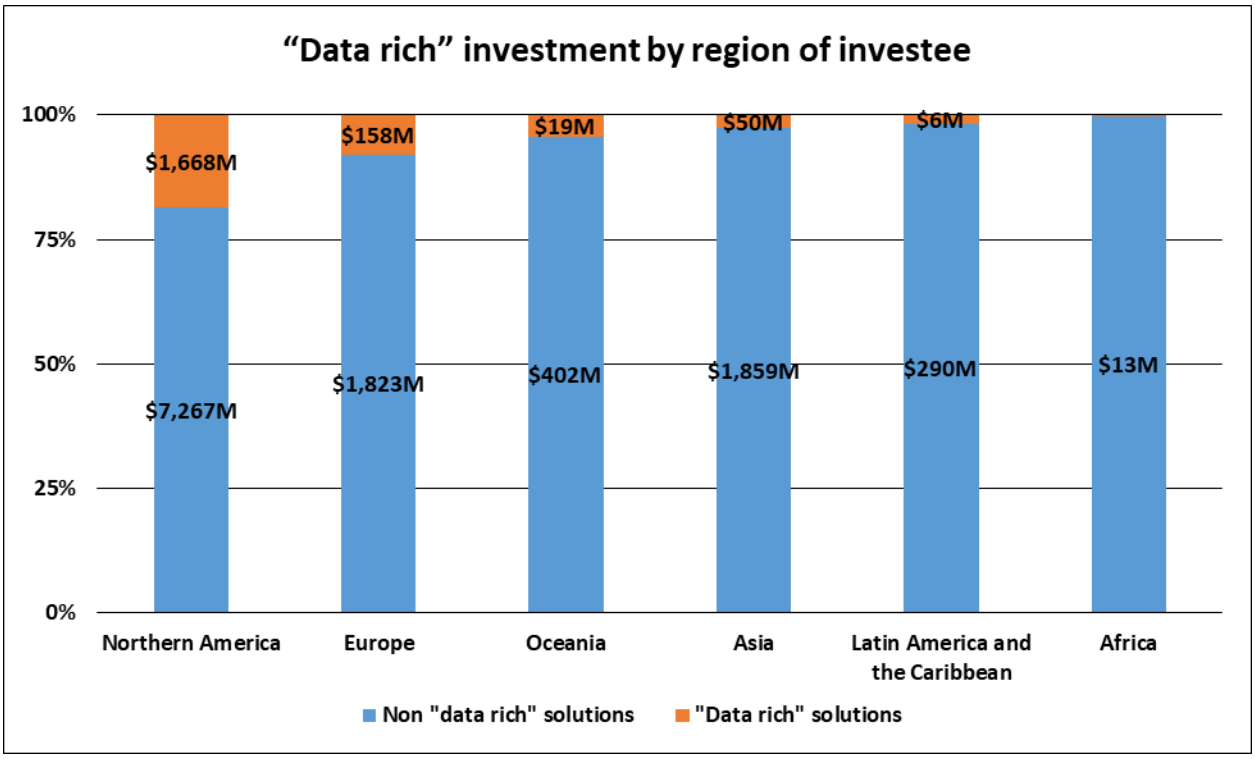
Figure 40: Value of investment deals: investees offering data-rich and non data-rich solutions



Source: UU analysis of data from Crunchbase. Company Group is excluded. Values are in USD billion. Coding: UU Team.

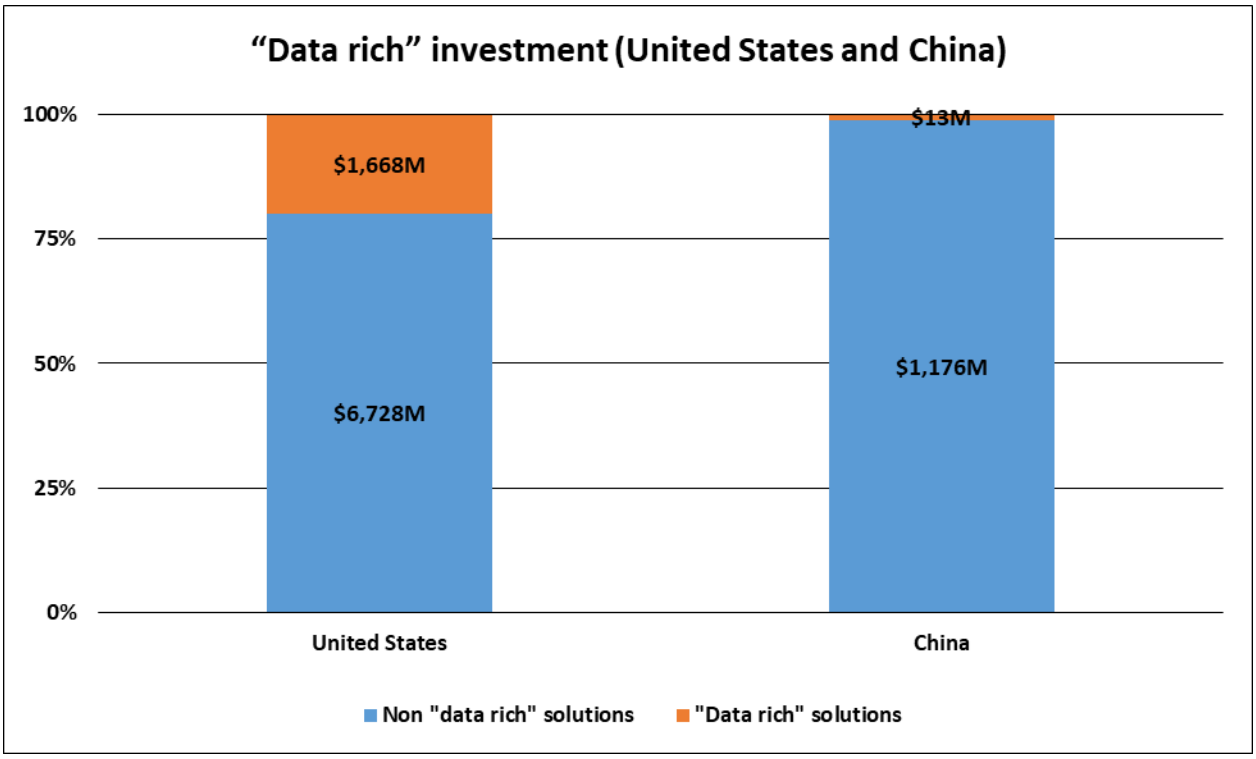
Most money raised for data-rich solutions is in Northern America (Figure **41**); this is also the region with the highest absolute and relative investment in the data-rich category ($1.67 billion), followed by Europe ($158 million) and Asia ($50 million). The difference between Asia and Northern America is driven by the two main economies at the national level: China and the USA (Figure **42**). This might suggest that American companies operating in the HE edtech sector have some advantage over Chinese edtech companies active in HE.

Figure 41: Data-rich investment by region of investee



Source: UU analysis of data from Crunchbase. Values are in USD million, rounded to nearest million. An investment is seen as data-rich if the investee is coded as offering data-rich solutions. Regions are based on where investees are headquartered. Coding: UU Team.

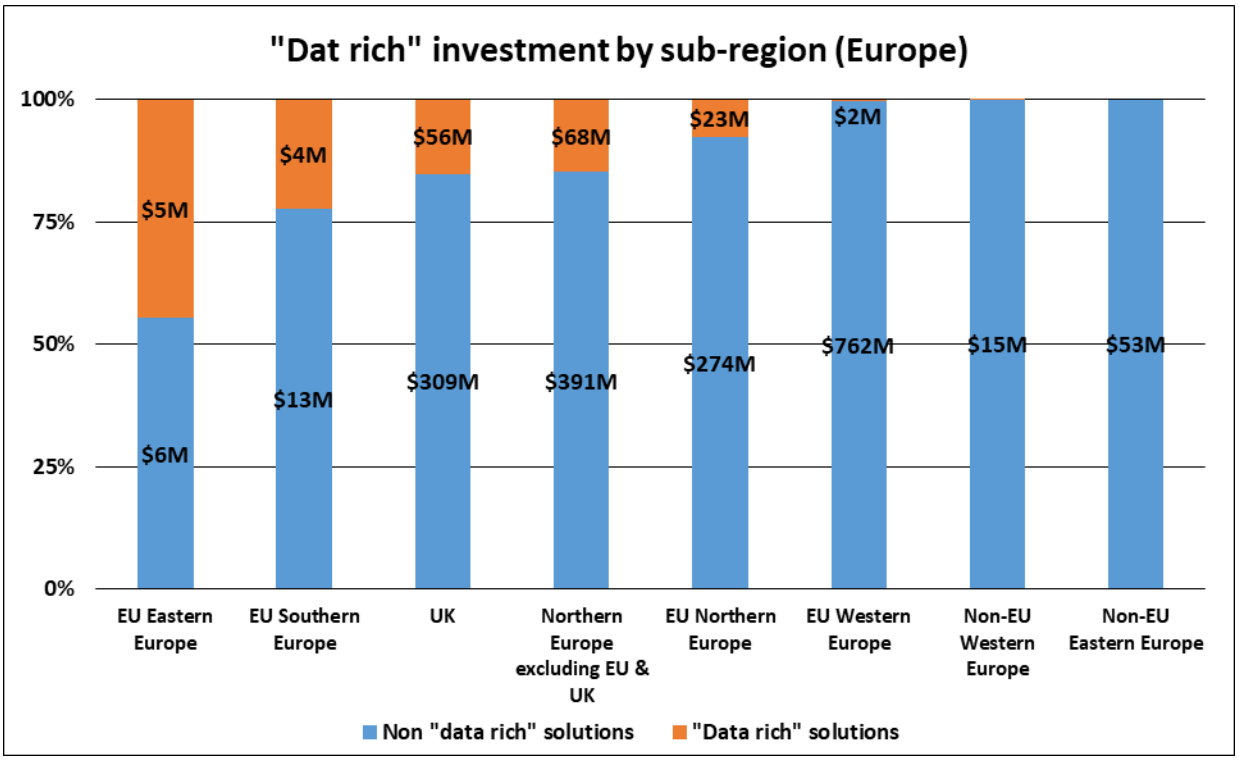
Figure 42: Data-rich investment (United States and China)



Source: UU analysis of data from Crunchbase. Values are in USD million, rounded to nearest million. Investment is seen as data-rich if the investee is coded as offering data-rich solutions. Coding: UU Team.

Taking a closer look at Europe, we find that most investment in data-rich platforms happens in companies based in Eastern and Southern EU countries, as well as the UK (Figure 42). Surprisingly, companies based in Western and Northern countries of the EU seem not to focus as much on data-rich solutions.

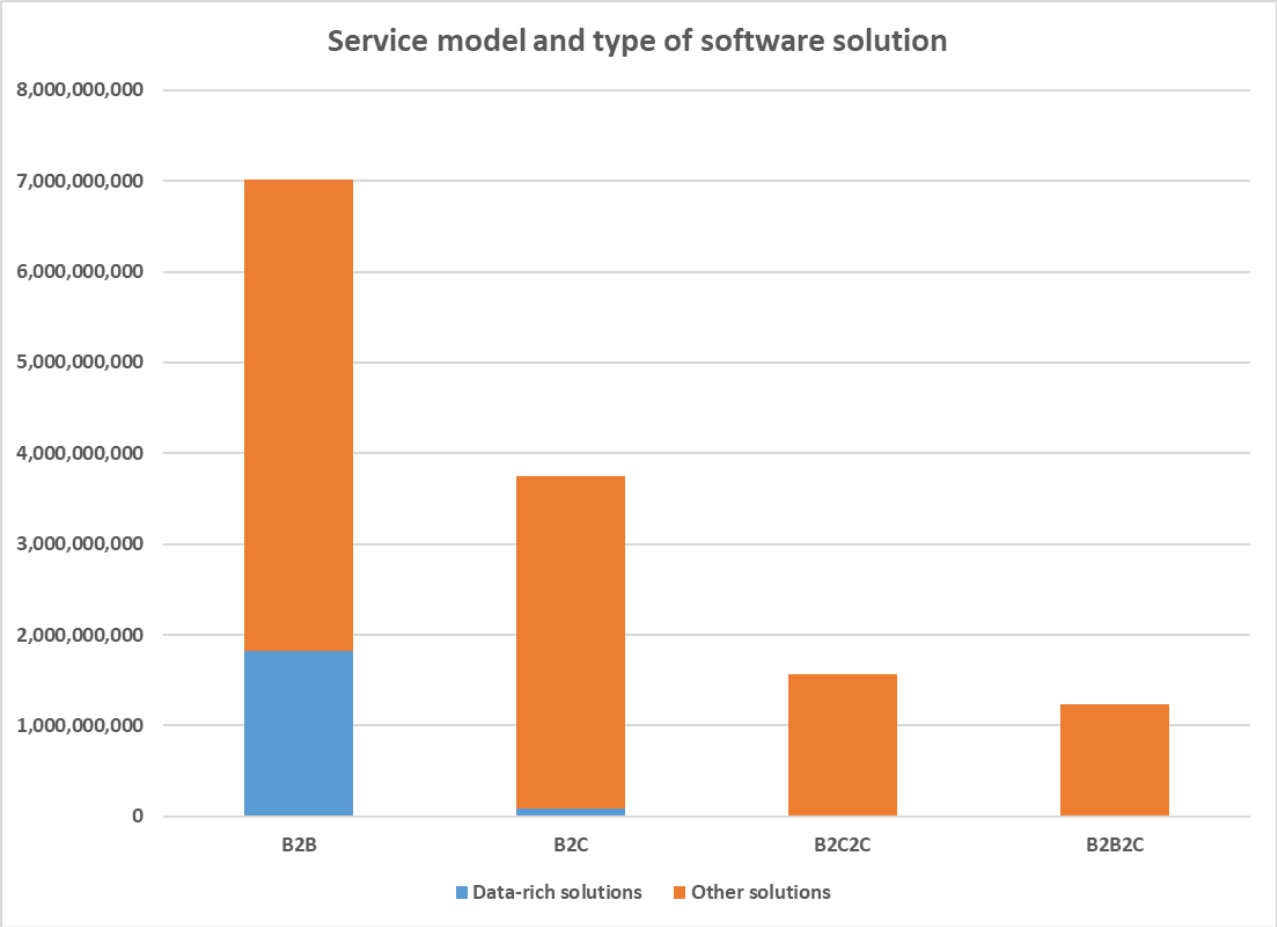
Figure 43: Proportion of data-rich investment in Europe by sub-region



Source: UU analysis of data from Crunchbase. Values are rounded to the nearest million USD. Investment is seen as data-rich if the investee is coded as offering data-rich solutions. Data-rich coding: UU Team.

Looking at the service model, we notice that most investment in data-rich solutions is in companies engaging in the B2B model. 25% of investment in B2B is in data-rich solutions (Figure 44). This includes both enterprises and HE institutions as primary customers.

Figure 44. Raised investment in data-rich solutions by service models

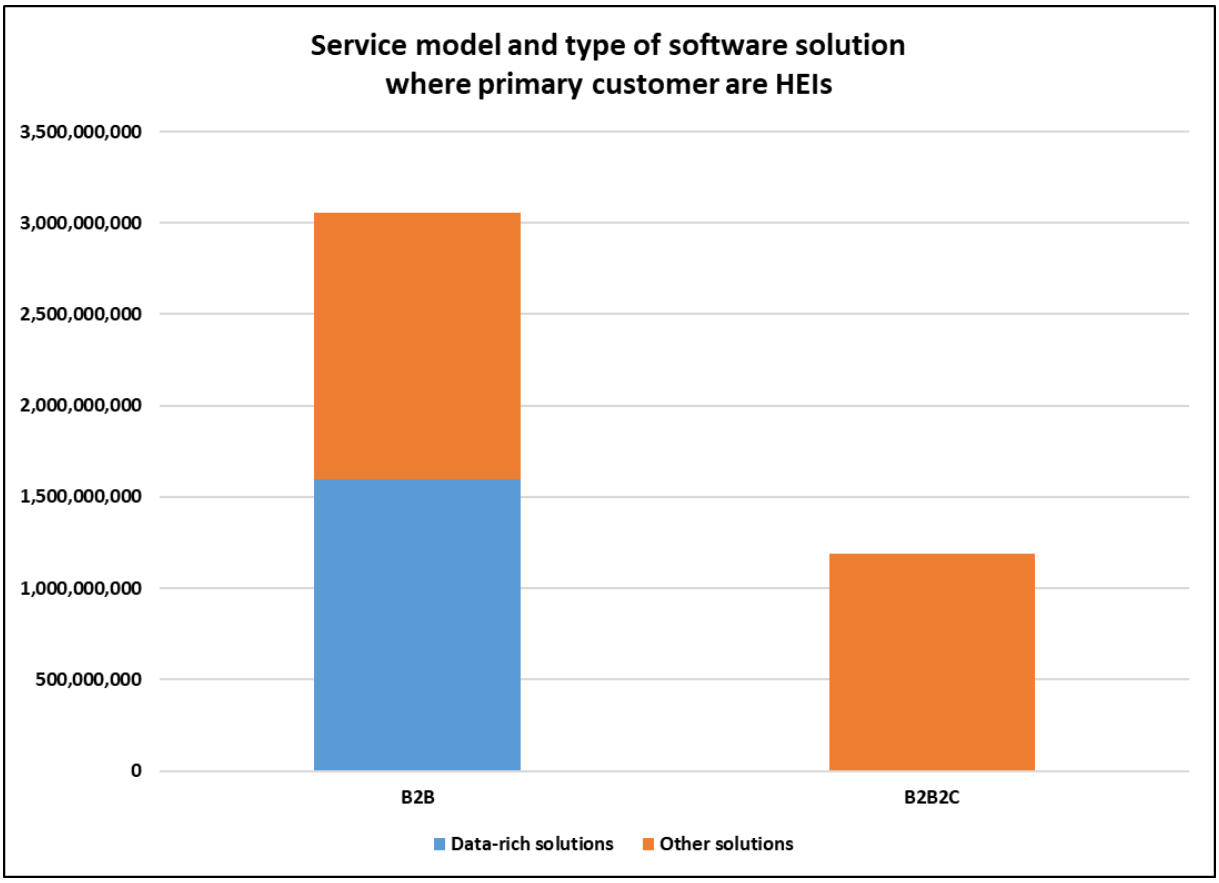


Source: UU analysis of data from Crunchbase. Values are in USD. Investment is seen as data-rich if the investee is coded as offering data-rich solutions. Data-rich coding: UU Team.

If we look only at HE institutions as primary customers, 50% of B2B investment is in companies that include data-rich solutions in their offerings (Figure 45). The other relevant service model is B2B2C, which mostly does not engage data-rich solutions. It seems that different dynamics are happening. In the first, platforms that target institutions include data-rich solutions that can change and target pre-existing practices via processes like tailored education, automation and behavioural nudging. The second dynamic might focus on producing value via intermediation and scale and less so via data-rich operations.

Out of the investment into platforms that target HE institutions as primary customers, 30% goes into data-rich supported software foundation platforms, 12% into data-rich supported T&L Support platforms, and 5% into data-rich supported T&L Content. This indicated that most of the data-rich operations at HE institutions happen via the basic digital backbone to which other platforms and applications connect.

Figure 45. Raised investment in data-rich solutions by service models for higher education institutions as primary customers



Source: UU analysis of data from Crunchbase. Values are in USD. Investment is seen as data-rich if the investee is coded as offering data-rich solutions. Data-rich coding: UU Team.

9 Investors

This section summarises some of the emerging findings from our investors' database. The key areas covered are the location of investors, type of investors, investments stages, and top-10 investors in edtech in HE. In addition, we investigate the critical role of the American investor community. Finally, we also discuss the prevalence of education or learning specific investors relative to more generalist investors.

9.1 Location

The investment database consists of 1,120 investors, who are individuals and organisations (Table **24**). Most investors are based in the region of Northern America (488), followed by Europe (266) and Asia (266). However, the location of 67 investors from our list is not known.

Table 24: Number of investors by region

Row region	Number of investors
Northern America	488
Europe	266
Asia	217
Latin America and the Caribbean	44
Oceania	27
Africa	11
n/a	67
Total	**1,120**

Source: UU analysis of data from Crunchbase.

The USA is the biggest sub-region by the number of investors (472), followed by China (107), and EU Western Europe (88). Nine sub-regions have between 1 and 10 investors on our list.

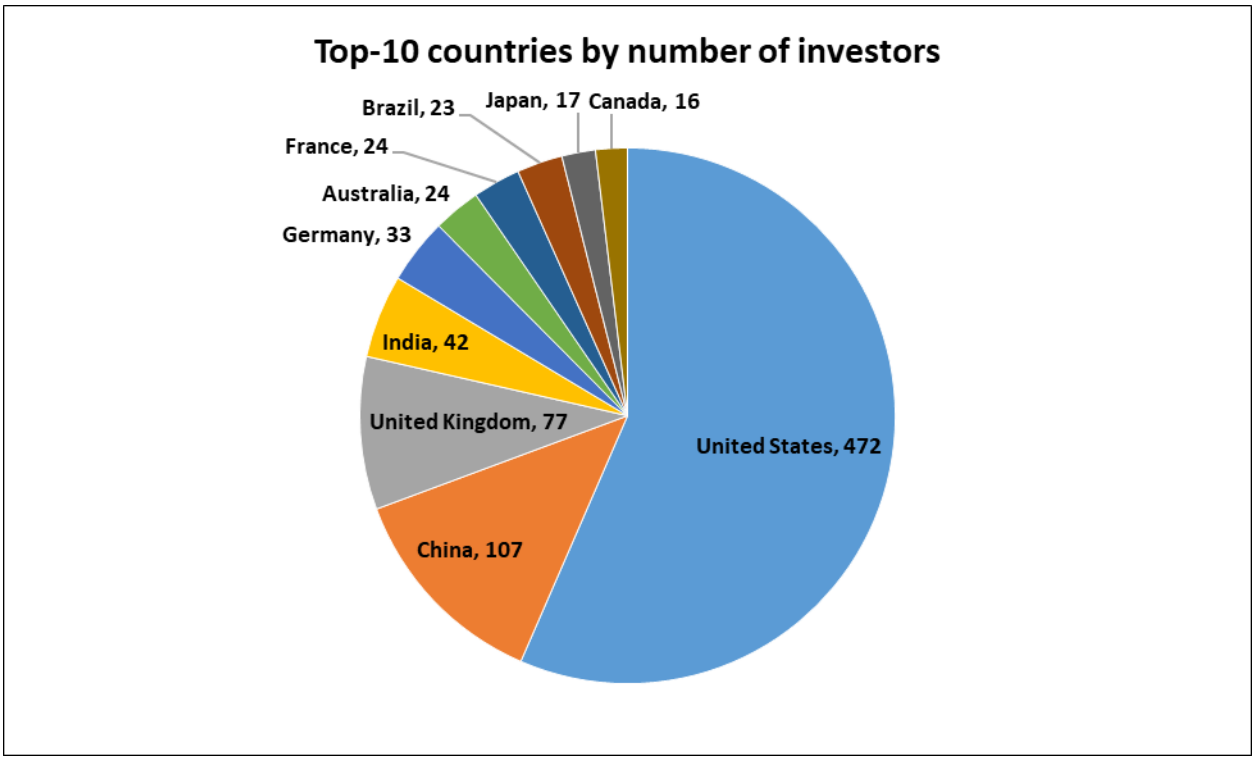
Table 25: Number of investors by sub-region

Sub-region	Number of investors
USA	472
China	107
EU Western Europe	88
UK	77
Latin America and the Caribbean	44
Southern Asia	43
EU Northern Europe	35
Eastern Asia	31
EU Southern Europe	30
Australia and New Zealand	27
South-Eastern Asia	19
Western Asia	17
Canada	16
Non-EU Western Europe	13
EU Eastern Europe	12
Sub-Saharan Africa	10
Non-EU Eastern Europe	7
Northern Europe excluding EU&UK	4
Northern Africa	1
n/a	67
Grand Total	**1,120**

Source: UU analysis of data from Crunchbase.

At the country level, the prevalence of investors based in the UK (77) is noticeable. Only the USA and China have more investors on our list (Figure **46**).

Figure 46: Top-10 country by number of investors

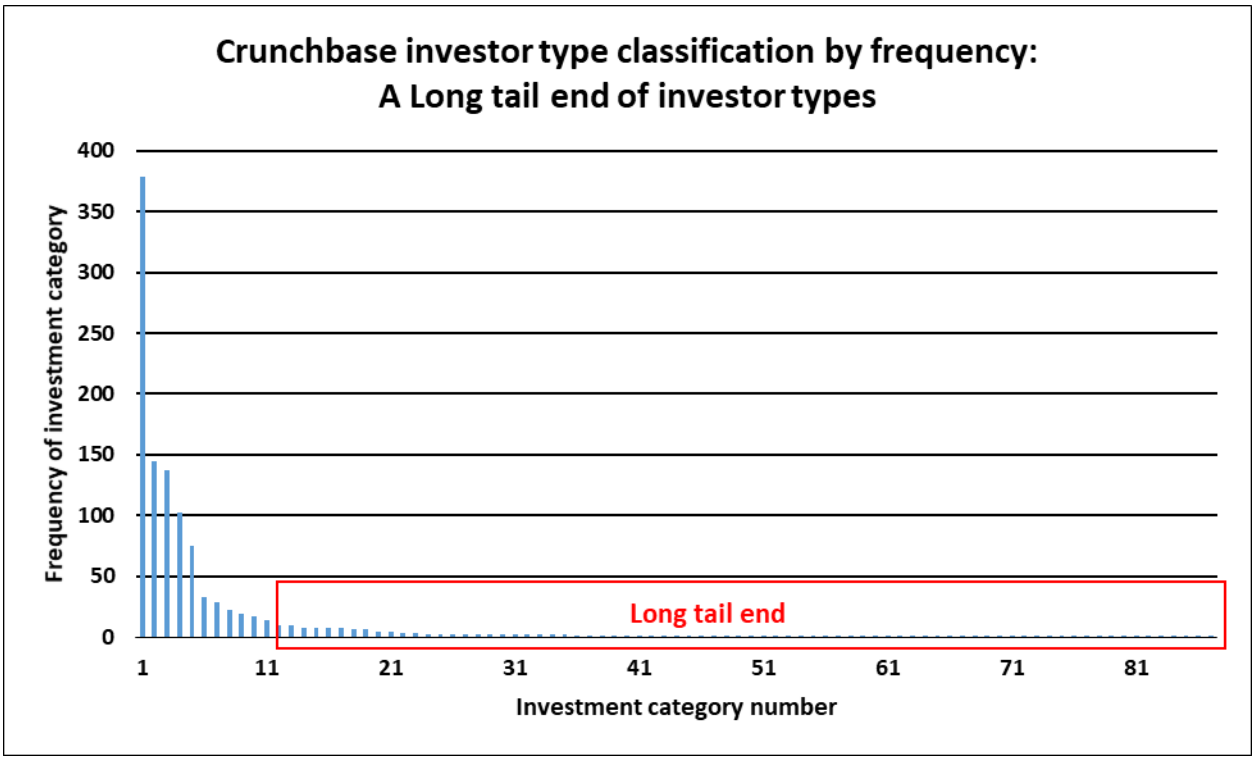


Source: UU analysis of data from Crunchbase.

9.2 Investor type

Many investors are in Crunchbase classified by combing several different categories. The reason could be, for example, because one investor might have engaged in a variety of investment activities. This causes a long tail-end of investor categories where, for example, an "Accelerator, Angel Group, Incubator" is seen as different to an "Accelerator, Angel Group, Incubator, Syndicate." As a result, our investor database has a tail-end of 75 different investor types categorised less than ten times in our database (Figure **47**).

Figure 47: Crunchbase investor type classification by frequency: A long tail-end of investor types



Source: UU analysis of data from Crunchbase.

To simplify the mapping of investors type, we only show the 11 most prevalently investor types that have been used 10 or more times in our database, covering 75% of our investors (Table **26**). The most common investor type is Venture Capital (379), followed by Private Equity Firms (102), and Accelerators (75). We see how, for example, Venture Capital and Micro Venture Capital are broken into different groupings when investors engage in both.

Table 26: Most prevalent investor types

Investor type	Number of investors
Venture Capital	379
Private Equity Firm	102
Accelerator	75
Micro VC	74
Micro VC, Venture Capital	63
Private Equity Firm, Venture Capital	33
Angel Group	29
Investment Bank	22
Incubator	19
Accelerator, Venture Capital	17
Corporate Venture Capital	14
Family Investment Office	10

Note: classification as per Crunchbase. The list only includes investor types with 10 or more investors. Source: UU analysis of data from Crunchbase.

9.3 Investment stage

Crunchbase classifies investment stages in a way that is similar to their investor type classification. Most investor stages are classified under several categories simultaneously (such as “Convertible Note, Early-Stage Venture, Seed, Venture”). This could mean that an investor that, for example, is categorised as an “Early-Stage Venture” and a “Seed” has engaged in both types of investments, according to Crunchbase’s records. Table **27** includes investment stages with 10 or more investors on our list and covers 55% of investors in our database.

Table 27: Investors by investment stages they have engaged in

Investment stage	Number of investors
Early-Stage Venture, Seed	222
Early-Stage Venture, Late-Stage Venture, Seed	82
Early-Stage Venture	80
Seed	74
Early-Stage Venture, Late-Stage Venture	45
Early-Stage Venture, Seed, Venture	29
Private Equity	26
Early-Stage Venture, Late-Stage Venture, Private Equity	22
Late-Stage Venture, Private Equity	15
Early-Stage Venture, Late-Stage Venture, Private Equity, Seed	13
Debt, Early-Stage Venture, Late-Stage Venture, Seed	10

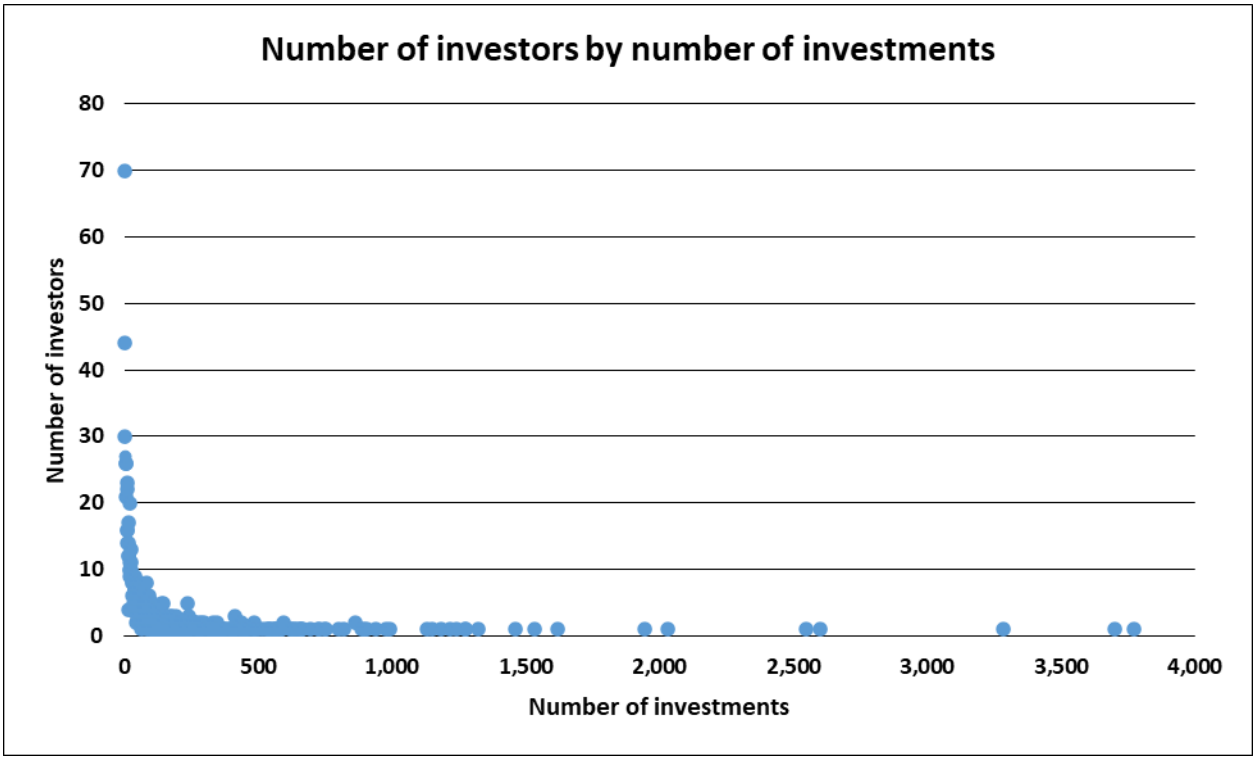
Source: UU analysis of data from Crunchbase.

9.4 Number of investments made

Most of the 1,120 investors on our list are only recorded for a small number of investments. The most common number of investments is one deal (70), followed by two deals (44). Three-quarters of our investors are recorded for more than ten deals. Only 18 investors have been recorded for more than 1,000 (Figure **48**).

These investment deals are not limited to HE and, in total, amount to 139,501 deals. The median number of investments is 35, the lower whisker is 1, the 1st quartile is 9, the 3rd quartile is 114, and the upper whisker is 268 (Table **28**). Even though these investment deals are not specific to the HE, it gives us a sense that several of the investors active in edtech HE are large professional investors (Figure **49**).

Figure 48: Number of investors by number of investments



Source: UU analysis of data from Crunchbase. Two investors on our list do not have portfolio organizations associated to them in Crunchbase. They have been omitted from this graph.

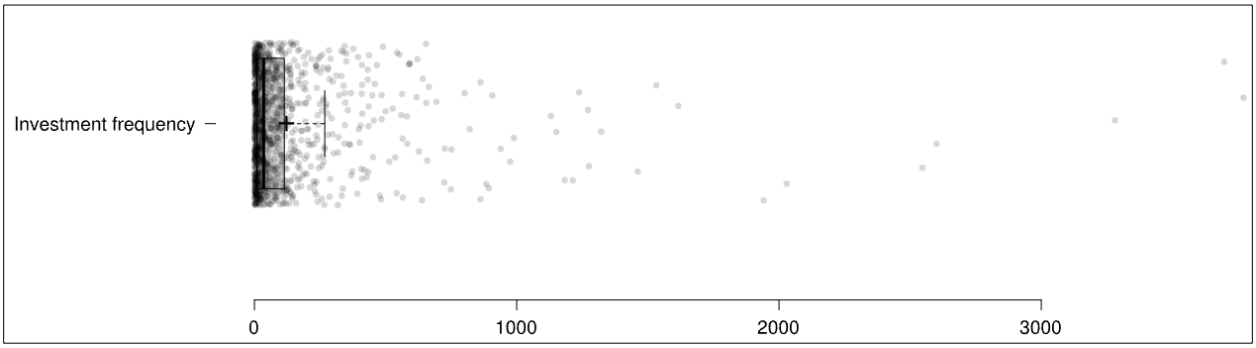
Table 28: Box plot statistic by investment frequency

Box plot statistics	Investment frequency
Upper whisker	268
3rd quartile	114
Median	35
1st quartile	9

Box plot statistics	Investment frequency
Lower whisker	1
Number of data points	1,118
Mean	124.78

Source: UU analysis of data from Crunchbase. Two investors on our list do not have portfolio organizations associated to them in Crunchable. They have been omitted from the box plot statistics. Calculation: UU Team.

Figure 49: Investment frequency box plot



Source: UU analysis of data from Crunchbase.

9.5 Investor frequency by number of organisations invested in

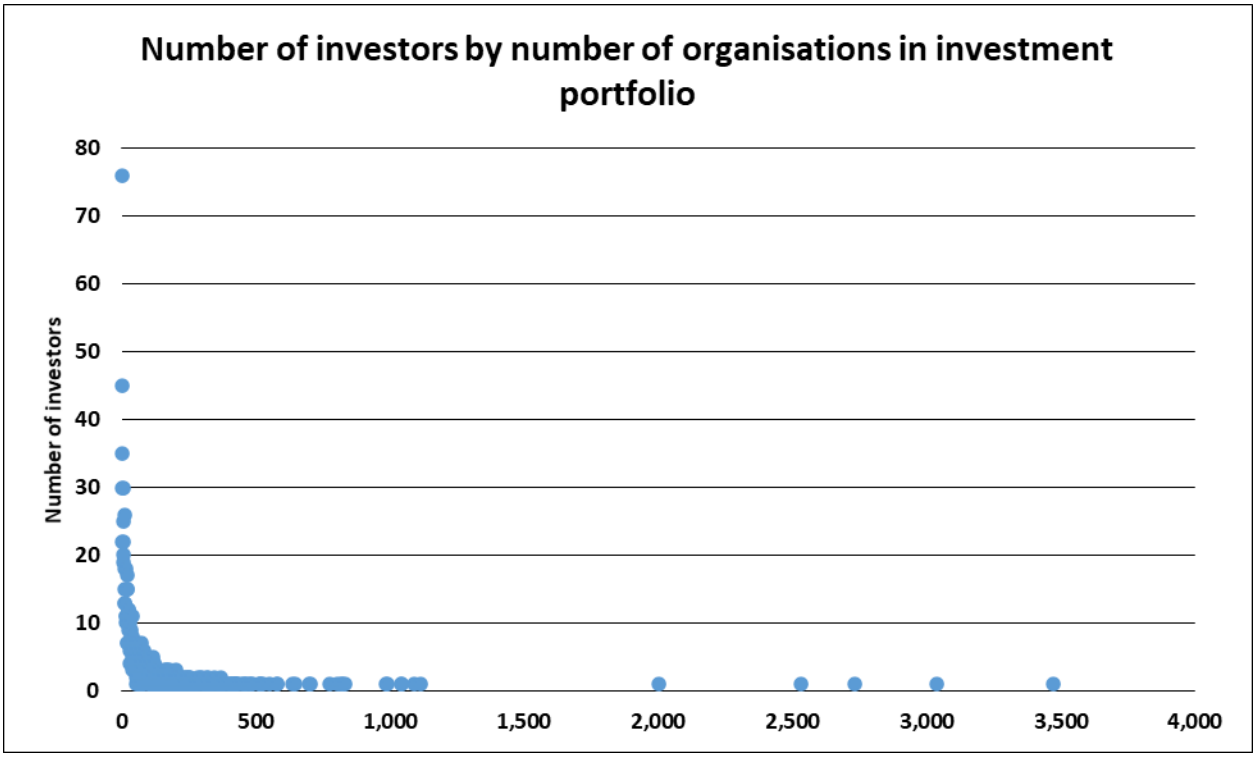
Crunchbase defines its category "Portfolio Organizations" as "…Organisations who are in the investment portfolio."[14] The category thus allows us to gauge the number of organisations that each investor has invested in recorded by Crunchbase.

[14] https://www.crunchbase.com/search/principal.investors/field/hubs/org_num_investors/document-management-companies

Crunchbase has captured a total of 101,132 organisations in which 1,120 investors have invested. Most investors only have a few numbers of organisations in their portfolio (Figure **50**). The distribution of the number of investors by investment portfolio echoes that of investors by investments. Overall, we see more of a skewing towards the left and some slightly smaller portfolio sizes than the number of investments. The median number of investments is 28, the lower whisker is 1, the 1st quartile is 9, the 3rd quartile is 87, and the upper whisker is 203 (Table **29**).

The investor with the most organisations in its portfolio is The Executive Agency for Small and Medium-sized Enterprises (EASME), an agency under the European Commission, with 3,471 portfolio organisations. The investor with the second most organisations in its portfolio is Y Combinator, a seed money start-up accelerator based in Massachusetts, USA.

Figure 50: Number of investors by number of organizations in investment portfolio



Note: two investors on our list do not have portfolio organizations associated to them in Crunchbase. They have been omitted from this graph. Source: UU analysis of data from Crunchbase.

Table 29: Box plot statistic by number of organisations in investment portfolio

Box plot statistics	Number of organisations in investment portfolio
Upper whisker	203
3rd quartile	87
Median	28
1st quartile	9
Lower whisker	1
Number of data points	1,118
Mean	90.46

Source: UU analysis of data from Crunchbase. Two investors on our list do not have portfolio organizations associated to them in Crunchable. They have been omitted from the box plot statistics. Calculation: UU Team.

9.6 Top 10 investors in edtech by number of investments

Investors with five and more investments in our list of edtech companies were coded for whether they are learning or education-specific (Table **30**). Out of the 26 investors, 7 are learning or education-specific, and 19 are not. Some of the non-learning specific investors do, however, have education as one among several areas of foci. City Light Capital, for example, focuses its investments in the areas of education, safety and care, and the environment.

Table 30: Investors with 5 and more investments in edtech companies from companies database

Investor	Number of investments	Investor country	Education or learning specific investor?
Y Combinator	24	USA	No
Learn Capital	19	USA	Yes
500 Startups	17	USA	No
Techstars	15	USA	No
GSV Ventures	14	USA	Yes
Rethink Education	13	USA	Yes
MassChallenge	11	USA	No
Reach Capital	11	USA	Yes
LearnLaunch Accelerator	9	USA	Yes
Wayra	9	Spain	No
Owl Ventures	8	USA	Yes
Emerge Education	7	UK	Yes
Start-Up Chile	7	Chile	No (public accelerator)
Village Capital	7	USA	No
Accel	6	USA	No
IDG Capital	6	China	No
Insight Partners	6	USA	No
Salesforce Ventures	6	USA	No
Bessemer Venture Partners	5	USA	No
City Light Capital	5	USA	No
Dreamit Ventures	5	USA	No
EASME	5	Belgium	No (public agency)
GGV Capital	5	USA	No
GV	5	USA	No
Kapor Capital	5	USA	No
Ulu Ventures	5	USA	No

Source: UU analysis of data from Crunchbase on 'top-5 investors' per company

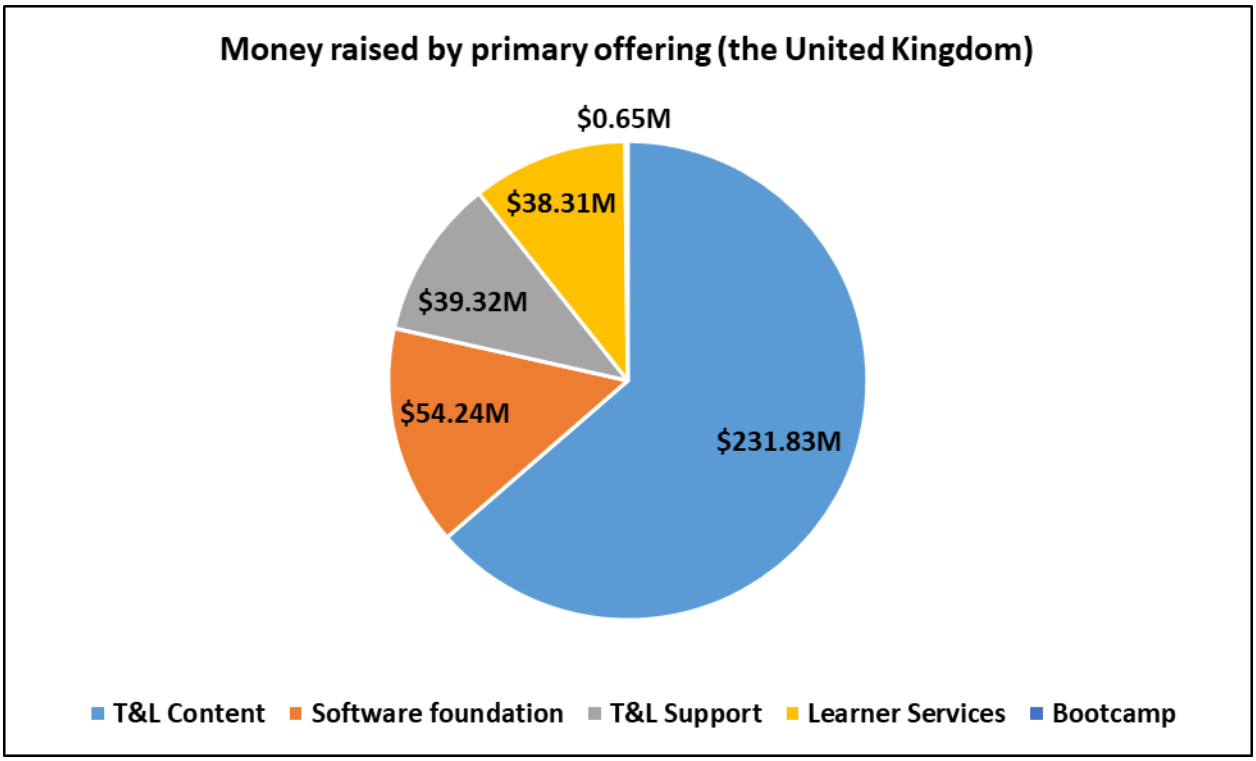
10 Selected data points for three countries

The following section outlines some noteworthy data points from the UK, the USA, and China. The reason for choosing these country profiles is that the UK is the central focus of the UU Project, while the USA and China are the biggest competitors based on money raised and the number of companies.

10.1 The United Kingdom

While the UK is a strong actor in the HE industry, its edtech industry is still developing. By primary offering, most money was raised in the category T&L Content ($231.83 million), followed by Software Foundation ($54.24 million), and T&L Support ($39.32 million, Figure **51**).

Figure 51: Money raised by primary offering (the United Kingdom)



Source: UU analysis of data from Crunchbase. Funding sums are in USD billion.

FutureLearn is the investee from our companies' list that, according to Crunchbase, has raised the most money through investment deals ($64.66 million). FutureLearn is an education platform that offers online courses together with institutional partners. According to FAME (October, 2021), Open University holds a 45.80% stake in the company, and the Australian human resource company SEEK holds a 50% share (see Appendix B, **Error! Reference source not found.** for an overview). The second investee from our companies list is Multiverse, which describes itself as a startup that delivers apprenticeship programmes. Current programmes offered include Digital Marketing, Software Engineering, and Data Literacy. The company was founded by Euan Anthony Blair, the eldest son of former British Prime Minister Tony Blair. The third top investee from our companies list is Unibuddy. It is a peer-to-peer student recruitment platform that has managed to secure cooperation with the Universities and Colleges Admissions Service (UCAS) in 2019.

UCAS is a public agency that described this partnership as "a first of its kind collaboration between UCAS and this high growth start-up"[15].

Table 31: Top companies by money raised through investment deals (the UK?)

Company	Primary offering	Total deal value
FutureLearn	T&L Content	$64.66M
Multiverse	T&L Content	$64.00M
Unibuddy	Learner Services	$32.00M
Macat	T&L Content	$30.00M
Knoma	T&L Content	$27.96M
CENTURY Tech	Software Foundation	$19.18M
Synthesia	Software Foundation	$16.60M
BibliU	T&L Support	$16.25M
Perlego	T&L Support	$14.98M
Quipper	T&L Content	$10.06M

Source: UU analysis of data from Crunchbase. Investees are drawn from the companies list, which according to Crunchbase's records, have raised more than $10 million between 1998 to July 2021.

From our companies list, 18 Software Foundation companies have raised money through investment deals. Century tech has raised the most ($19.18 million), followed by Synthesia ($16.60 million) and Obrizum Group ($4.42 million). Notice that organisations are the primary customer type for all these companies.

[15] See UCAS notice: https://www.ucas.com/corporate/news-and-key-documents/news/ucas-and-unibuddy-launch-peer-peer-service-connecting-prospective-and-existing-students

Table 32: Top UK based investees offering Software Foundation

Company	Primary customer	Money raised
CENTURY Tech	Higher education institution	$19.18M
Synthesia	Enterprise	$16.60M
OBRIZUM Group Ltd.	Higher education institution	$4.42M
GeckoLabs	Higher education institution	$4.00M
Learnerbly	Enterprise	$2.09M
Looop Online Limited	Enterprise	$2.00M
Construct	Higher education institution	$1.61M
Oxademy Technologies	Higher education institution	$1.25M
Mykro	Enterprise	$1.00M
Near-Life	Enterprise	$0.89M
VRtuoso	Enterprise	$0.65M
Coracle Online	Higher education institution	$0.26M
Potential.ly	Higher education institution	$0.20M
Unitu	Higher education institution	$0.08M

Source: UU analysis of data from Crunchbase.

10.2 The United States

Companies from the USA raised the most money from our list. Most money was raised in the category of T&L Content ($5.15 billion), followed by Software Foundation ($1.59 billion) and T&L Support ($1.01 billion, **Error! Reference source not found.**). Most of this money was raised by companies headquartered in California, followed by New York (**Error! Reference source not found.**). When zooming in only to include the value of those investees who offer data-rich solutions, we notice what appear to be a relative specialisation in the District of Columbia and Maryland. This is driven by 2U (Lanham, Maryland) and Blackboard (Washington, DC, **Error! Reference source not found.**). It highlights that when it comes to edtech companies active in the

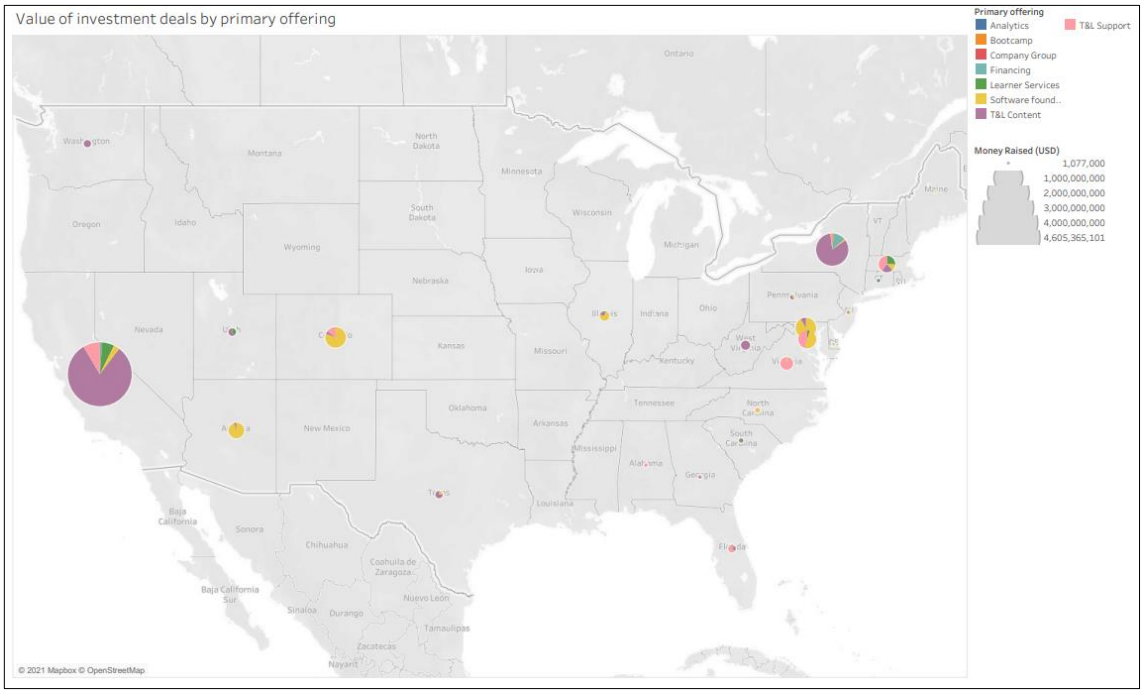
HE sector, America is more than Silicon Valley, but financial flows do seem to bifurcate to the East and West coast.

Table 33: Money raised through investment deals by primary offering

Primary offering	Money Raised
T&L Content	$5.15B
Software Foundation	$1.59B
T&L Support	$1.01B
Learner Services	$0.43B
Financing	$0.19B
Bootcamp	$0.02B
Analytics	$0.01B
Total	**$8.40B**

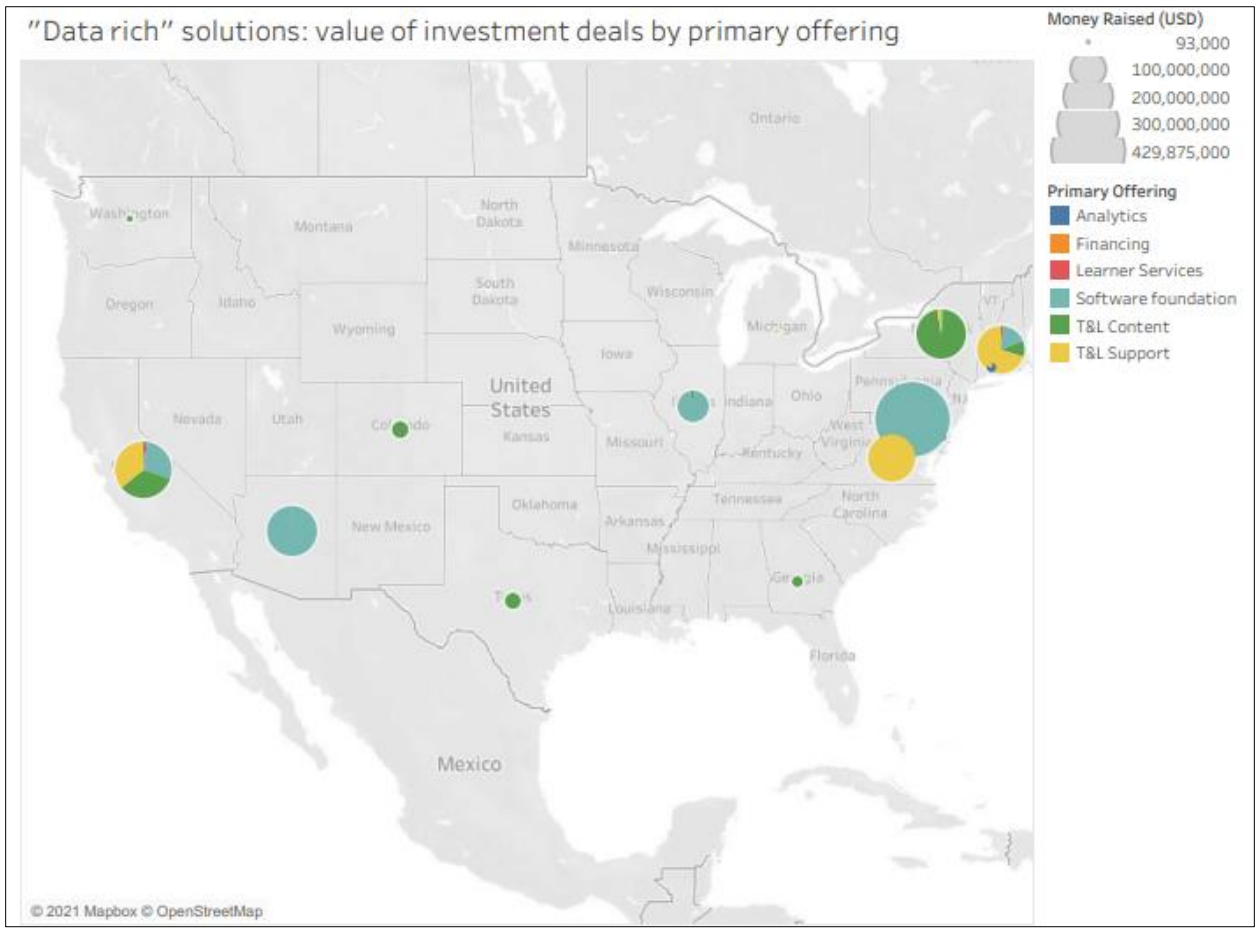
Source: UU analysis of data from Crunchbase. Company Group excluded.

Figure 52: Value of investment deals by primary offering by state



Source: UU analysis of data from Crunchbase. Value of all investment deals raised by investees based in the United States.

Figure 53: "Data-rich" solutions: the value of investment deals by primary offering



Source: UU analysis of data from Crunchbase. Value of investment deals of those investees that are based in the United States and coded as offering "data-rich" solutions.

10.3 China

Most of the money raised by investees headquartered in China is in T&L Content, making up more than 96% of all deals' value recorded in our database (**Error! Reference source not found.**). This is mostly driven by investees headquartered in Beijing ($0.98 billion) followed by Shenzhen ($0.15 billion). Companies headquartered in the reaming cities all raise less than $20 million by city. Hangzhou and Guangzhou were noticeable as they both raised the highest proportion of funding

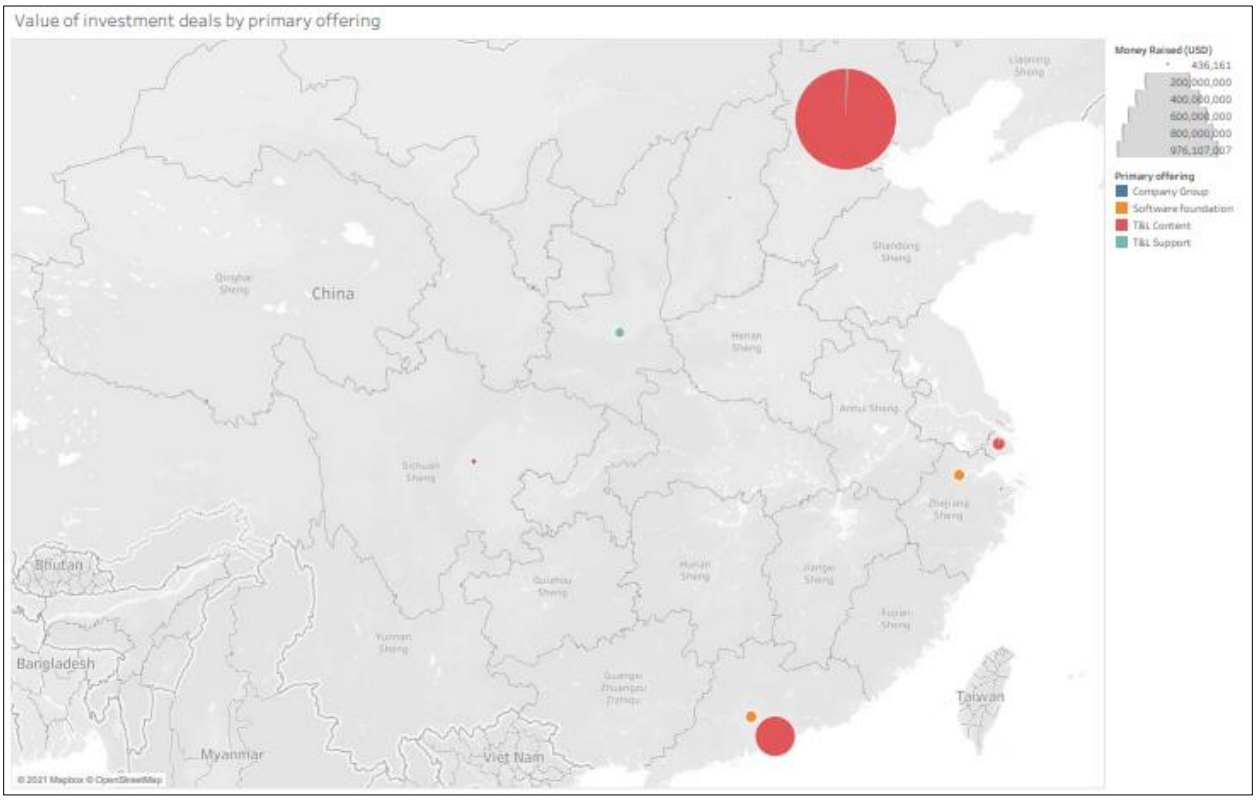
in the category Software Foundations (orange coloured charts, **Error! Reference source not found.**).

Table 34: Money raised through investment deals by primary offering

Primary offering	Money Raised
T&L Content	$1,148.41M
Software Foundation	$33.67M
T&L Support	$7.16M
Company Group	$5.32M
Total	**$1,194.55M**

Source: UU analysis of data from Crunchbase.

Figure 54: Value of investment deals by primary offering



Source: UU analysis of data from Crunchbase.

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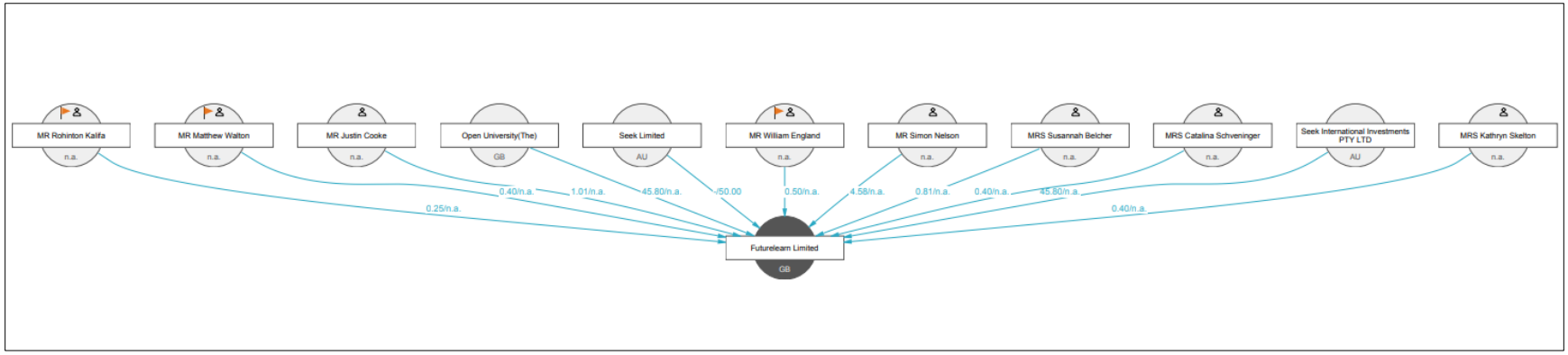
Appendix A: FutureLearn shareholders

Figure 55: FuterLearn shareholders



Source: Fame (October, 2021)