
Accelerating EdTech Start-Ups in Europe

Working with EdTech entrepreneurs, start-ups and SMEs
to maximise educational and economic benefits



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Foreword

From its creation in 1997 by a group of Ministries of Education focused on increasing innovation in schools, European Schoolnet (EUN) has collaborated with leading players in the Educational Technology (EdTech) industry to explore, mainstream and embed innovation in teaching and learning. This has included creating online and physical spaces for experimentation and critical thinking, as well as piloting, evaluation and validation of technology-enhanced learning tools, environments, platforms and practices.

Today, working with support from 34 education ministries in Europe and over 30 industry partners, EUN's [Future Classroom Lab](#) (FCL) initiative demonstrates how public private partnerships can help accelerate the take-up of innovative pedagogical approaches by utilising digital technologies and new approaches to designing flexible learning spaces, to help modernise teaching and learning. Increasingly, the FCL is also regularly bringing together policymakers, school leaders and experienced teachers to test creative prototype ideas and solutions being developed by the growing number of European EdTech start-ups and small or 'micro' companies that are trying to find their place in the market.

Within the recently completed IMPACT EdTech project, for example, EUN has worked with its partners Funding Box and ISDI to set up a European Incubator-Accelerator for EdTech start-ups, co-funded by the European Commission (see Section 1). In February 2023, EUN also began work on EmpowerED, a three-year project that will help to consolidate and amplify the work of current EdTech organisations supporting start-ups and SMEs (including incubators, accelerators, testbeds, investors, Digital Education Hubs etc.) and enable them to engage more directly with policymakers in education and other ministries (see Section 5).

Recognition of the potential of EdTech has been growing across Europe for many years. This recognition increased during the Covid-19 pandemic, which caused an urgent re-assessment of the ways in which we teach and learn in the EU. The response of education ministries to the pandemic demonstrated, not only the power of technology-enhanced learning solutions to overcome short term delivery problems, but also the already widely appreciated advantages for students of enabling more personalised learning, greater accessibility and more immersive ways of learning. Many challenges associated with implementing, integrating and managing EdTech systems were also highlighted.

As the EdTech ecosystem continues to develop, the number of stakeholders involved is also growing. Incubators and accelerators, as well as city, regional and national hubs and testbeds, are supporting EdTech entrepreneurs, start-ups, scale-ups and SMEs in many locations across Europe. However, more support is still required and there is a need for sharing of good practice and increased collaboration to accelerate innovation and grow the sector for the benefit of learners and European economies.

By providing an overview of the current support provided to EdTech start-ups in Europe via incubators, accelerators, testbeds and other organisations, EUN hopes this publication will help readers better understand how the EdTech landscape is evolving.

Marc Durando

Executive Director, European Schoolnet

Executive Summary

The growth of the US EdTech market has been described (Vander Ark T, 2018¹) as “phenomenal” and Europe is recognised as having significant potential as the second largest market for educational spending. Since 2018, partly due to Covid 19, the EdTech market in Europe has grown, with a 45% increase in European venture capital investment between 2019 and 2020. Brighteye Venture’s 2023 report² notes 2021 was “a boom year” and this continued in early 2022 but stalled due to the aftermath of Covid, rising costs of living and Russia’s invasion of Ukraine. However, Europe seems more resilient than other regions as EdTech funding fell by 28% compared with USA (62%), China (89%) and India (45%). In 2023 Brighteye predict “continued funding, consolidation and expansion”.

The European Commission recognises that “Europe’s economic growth and jobs depend on its ability to support the growth of enterprises” and is interested in harnessing technology to improve, and extend the reach of, teaching and learning. This motivated them to co-fund the creation of a European Incubator-Accelerator for EdTech start-ups via the Impact EdTech project (2019-2022). This project, coordinated by European Schoolnet (EUN) and supported by partners ISDI and Fundingbox, helped European EdTech start-ups move from prototypes towards viable products. Equity-free funding was given to 43 start-ups, 1,400+ students took part in testing and the project began to clarify how teachers and schools could collaborate with EdTech solutions providers.

In 2021 EUN commissioned a study to explore the structure and activities of the European EdTech ecosystem, with particular focus on incubation and acceleration programmes and how well these support EdTech entrepreneurs, start-ups and SMEs. Desk research and a survey built on knowledge gained from the IMPACT EdTech project and in-depth interviews were carried out with 16 key stakeholders from 12 different countries. Interviewees included representatives of Ministries of Education, organisations delivering incubator and/or accelerator programmes, venture funds and industry associations as well as founders of EdTech start-ups. This publication summarises the main findings of the EUN study and introduces the EmpowerED project, the design of which was informed by this research. For readers less familiar with start-ups, start-up funding, incubators and accelerators, an introduction to key concepts and terms is provided.

The EUN study found very large number of incubators and accelerators operate in Europe, the largest number in the UK, with substantial growth in the past two decades. To-date only a few of these have focussed on start-ups in Education and most of these are wholly or partly funded by the public sector. However Covid 19 highlighted the potential of technology to support education and lifelong learning and suddenly, in the media, EdTech is being lauded as “the new FinTech”. This has coincided with increasing interest by National, City and Regional authorities and the European Commission in both how EdTech can help address educational problems and priorities and how EdTech start-ups can contribute to economic growth. As a result more organisations and consortia are offering programmes to incubate, accelerate or support EdTech start-ups and SMEs. The research found over 30 incubators and accelerators wholly or partially focussed on EdTech start-ups operating in Europe in 2021 that seemed to be significant players in this area. These are very diverse in their history, mission, focus, partners, funding and services offered. Also 18 organisations or groups providing support, encouragement and advice to EdTech start-ups and SMEs were identified. These included public, private and not-for-profit Clusters, Hubs, Networks, Communities of Practice, Trade associations, Publishers, Labs and Testbeds. As this is a fast moving situation, during the EmpowerED project partners The European EdTech Alliance (EEA) will carry out an annual mapping of the EdTech ecosystem to update an initial version of a European EdTech Map.

The research selected a sample of 12 of key example organisations and consortia and explored the services they provide. Services for start-ups included: Venture Studios; Pre-accelerators; Incubation, Acceleration, Investor Readiness and Step Up programmes; Post-acceleration services; Open innovation programmes, Collaboration Sprints; challenges and competitions; Validation Labs, Growth services; Innovation and development support services and communities; and access to schools and universities. Services for commercial companies wishing to work with start-ups included: matchmaking using venture scouts or digital start-up scouting and screening software and AI; and Innovation Academies claiming to equip employees with the capabilities and to be internal innovators helping corporations “move like a start-up”. Some services aim to bring together companies, including start-ups, universities, colleges and schools in

1 Vander Ark T, “Euro Accelerator LearnSpace Graduates First EdTech Cohort”, Forbes, Aug 15, 2018

2 Brighteye Ventures, “The European EdTech Funding Report 2023”, <https://www.brighteyevc.com/post/the-european-edtech-funding-report-2023>

networking meetings or dinners or to collaborate on proofs of concept or pilots or to join partnerships or national testbeds.

The 16 EdTech Eco-system stakeholders interviewed identified key challenges faced by EdTech start-ups in Europe as: breaking into schools to test, pilot and sell products; identifying who makes purchasing decisions for products; finding good mentors with pedagogical knowledge and education sector experience; expanding into other countries in Europe; interoperability; data protection regulations and local interpretations of these. EdTech start-up founders interviewed provided feedback on incubator and accelerator services. They considered advice and support related to business and management processes and skills particularly important where start-ups have been founded by people more interested in educational and social concerns rather than financial or managerial goals. Interviewees felt that incubators and accelerators should have specific and detailed knowledge of education, including the subsidies landscape, and should provide access to experts in pedagogy, teachers, EdTech investors and other EdTech companies and start-ups for collaboration. However, these things were lacking, or inadequately provided, by some services.

Interviewees reported mixed experiences of working with mentors, some were very helpful whilst others were disappointing and advice provided by university experts can be *“too academic”*. There was a consensus that it is very important to find the right match between start-ups' needs and the specific expertise and experience of mentors. Founders appreciated being able to learn from, and with, other EdTech start-ups and noted that in EdTech there are rarely concerns about competition as products tend to be dissimilar. Many interviewees saw opportunities for testing and piloting their products in schools as the major benefit of participating in programmes; and some were also very pleased to be able to develop ideas and products through a process of co-creation with educators.

Looking to the future EmpowerED, starting in 2023 and coordinated by EUN, brings together 11 partners and an expanding group of Associated Partners, to support closer collaboration in the digital education sector in Europe including schools, higher education, vocational education and training. It will leverage existing but loosely coordinated EdTech ecosystem groups to establish a new European EdTech community for exchange, dialogue and collaboration involving diverse actors from at least 15 countries. The project will help consolidate and amplify the work of current EdTech organisations supporting start-ups and SMEs, including incubators, accelerators, testbeds, investors, Digital Education Hubs etc., and enable them to engage more directly with policymakers in education and other ministries. It will also provide new databases, training modules, events and open source guidelines to support, strengthen and grow this community.

1. Background

The rise of EdTech and accelerating growth in Europe

The increase in the value of the USA EdTech market in recent years has been described (Vander Ark T³) as phenomenal “.. rising from almost nothing in 2009 to over \$700 million in the first half of 2018”. The author also observed that, “As the second largest global market in educational spending, Europe has an undeniable potential role in the development of the edtech market” but noted “Despite 3,000 edtech companies [in Europe] ... the continent receives just 8% of worldwide investments”.

Since 2018, partly due to the impact of the Covid 19 pandemic, the EdTech market in Europe has been growing. A report on European EdTech funding⁴ published in February 2021 noted that “For all the sadness and disruption that 2020 brought, it generated a systemic shift in the education landscape that opened the door to startups across the globe to impact the future of learning, at every age... demand for EdTech products grew significantly, online learning became the new normal for consumers, educational institutions underwent a radical step change in technological adoption, and investors across the board were alerted to the potential of the sector”.

The report authors found that there was **45% growth in European venture capital investment in EdTech** between 2019 and 2020, and commented “2020 has been a record year for investment into European Tech more broadly, with potential to surpass \$41bn when adjusted for reporting lags. With dramatically reduced barriers to customer adoption, increased appetite for impact investments, and the ever growing interest of US investors in European markets, we see a prosperous trajectory for the entrepreneurs capitalising on these trends”.

Similarly optimistic was a 2020 report on the Advanced Learning Technology market⁵, which predicted that this market in Western Europe “is expected to see a growth rate of about 29%” between 2020 and 2025.

Brighteye Venture’s 2023 report⁶ notes that “**2021 undoubtedly represented a boom year**” and this continued in the first few months of 2022 with European EdTech start-ups securing 40% more funding in H1 22 than in H1 21. However they observe that “when pandemic-related public spending cuts and rising costs of living combined with Russia’s invasion of Ukraine, optimism ebbed away” but note “European Edtech showing more resilience than other major Edtech regions ... with funding falling by 28%, relative to 62% for the US, 89% for China and 45% for India”. During 2023 Brighteye predict “continued funding, consolidation and expansion” for EdTech infrastructure and software companies serving the K12 schools sector and expect \$USD 50 million of funding to be raised by companies in this space with at least five trans-national acquisitions of such companies.

The European Commission has stated that “Europe’s economic growth and jobs depend on its ability to support the growth of enterprises” as “Entrepreneurship creates new companies, opens up new markets, and nurtures new skills” and stated an objective “to reduce the burden of administrative procedures and encourage more people to become entrepreneurs, create new jobs, and improve Europe’s economic performance”.⁷ This understanding of the importance of encouraging start-ups, as well as an interest in harnessing technology to improve and extend the reach of teaching and learning, motivated the European Commission to co-fund the creation of a European Incubator-Accelerator for EdTech start-ups via the Impact EdTech project.

The IMPACT EdTech European Incubator-Accelerator⁸

The [IMPACT EdTech](#) project, coordinated by European Schoolnet with the support of two partners, ISDI and Fundingbox, was a start-up/SME incubator-accelerator programme which aimed to support

European start-ups as they moved from promising prototypes towards viable products for schools. With funding of €5.5 million provided by the European Commission’s H2020 programme, IMPACT EdTech

3 Vander Ark T, “Euro Accelerator LearnSpace Graduates First EdTech Cohort”, Forbes, Aug 15, 2018

4 Brighteye Ventures, “The European EdTech Funding Report 2021”, <https://www.brighteyevc.com/post/european-edtech-funding-report-2021>

5 Adkins S S, “The Worldwide 2020-2025 Advanced Learning Technology Market: Edtech in a Period of Profound Innovation”, Metaari, July 2020

6 Brighteye Ventures, “The European EdTech Funding Report 2023”, <https://www.brighteyevc.com/post/the-european-edtech-funding-report-2023>
https://ec.europa.eu/growth/smes/sme-strategy/start-up-procedures_en

8 If you are unfamiliar with the concepts of ‘incubation’ and ‘acceleration’, Section 1 provides an introduction to these.

started in 2019 and closed its last acceleration round in summer 2022. The focus was on developing new solutions that: contribute to extending personalised, inclusive educational models; and/or supporting the development of the skills relevant in today's world; or facilitate remote and mobile learning aimed at ensuring educational continuity for schools or other learners during periods of severe educational disruption.

IMPACT EdTech operated a programme consisting of Inception, Incubation and Acceleration stages.

The Inception Stage (Stage 0) enabled shortlisted companies to develop their ideas whilst engaging with education experts, following a 'pedagogy-first' approach. During 'Pitch Training' and at a 'Jury Day' founders pitched their solutions to a panel of experts. The most promising projects took part in pre-acceleration activities and received feedback on market interest and pitch presentation to investors.

Participants who were successful in the inception stage continued to the four month **Incubation** or MVP (Minimum Viable Product) **stage (Stage 1)**. During this stage founders, supported by business and educational mentors and other digital learning specialists, defined their solutions and developed a validation and testing roadmap. Incubation started with a four day intensive business acceleration online bootcamp including the first mentoring sessions with their matched mentors. The mentors evaluated the attractiveness of the participants idea or prototype from the perspectives of a business, learning professionals and target users (Proof of Concept). Teams then worked with their mentors for one month to define an Individual Mentoring Plan (IMP) and a 'Validation and Testing Roadmap', comprising the Key Performance Indicators (KPIs) and Deliverables that were used to evaluate performance at the end of Stage 1. Participants continued maturing the prototype/early MVP and incorporating learning content or guidelines that would make it ready for testing. At the end of Stage 1, developed MVPs underwent MVP Live Testing by a group of Digital Learning mentors during a two-day online event. During the incubation stage, in addition to working with their allocated mentor, the start-ups/SMEs were able to request sessions with other mentors on specific topics.

The companies with the best performing MVPs at the end of Stage 1 moved to **Acceleration** or Proof of Market **stage (Stage 2)**. During this five month period they received additional support to test materials and assess the impact and performance of their solutions. This stage included short cycle piloting in real educational environments. School education solutions were tested by teachers and practitioners from three different EU countries in real educational environments, either via classroom pilots or by co-

creation and evaluation with and by teachers. Developers of other types of learning solutions had access to different testing environments including an "expert-in-residence" testing environment.

The programme also included: a bootcamp for testing, marketing and partnerships; interaction with investors and potential partners; support from specialised business mentors; with mentors reassessing KPIs and, selecting new areas of focus during planning sessions and analysis of the outcomes of the piloting phase.

Each Stage 1 start-up/SME received a lump sum grant worth €87,388 and up to €20,000 in the form of vouchers to access business and educational mentoring support services as well as other specific resources and services. Each Stage 2 start-up/SME received a lump sum grant worth €110,000 and up to €20,000 in the form of vouchers to access business and educational mentoring support services as well as other specific resources and services.

As well as providing **43 EdTech start-ups** with critical seed/development funding, IMPACT EdTech began to clarify for European Schoolnet how **teachers and schools could collaborate with EdTech solutions providers**. Some educators were involved as mentors and provided different forms of educational mentoring to the EdTech start-ups (on national policies and curricula, procurement practices, pedagogical approaches and learning scenarios etc.). Some educators also joined co-creation squads to develop new features and prototypes with the EdTech start-ups. Other educators were involved as prototype testers and provided their critical feedback of the EdTech prototype they evaluated. IMPACT EdTech also provided pilot opportunities for start-ups to test their solution in a classroom with students, with the aim to challenge their solution to real users and ultimately better align with classroom and school needs. **Over 1,400 students in Europe participated in the testing activities**. During the project, to help determine 'next steps' and how best to build on the emerging IMPACT EdTech findings, EUN also took a decision to conduct some independent research in order to explore how to move forward once the project came to an end in 2022.

An EUN study of the EdTech Start-Up Ecosystem in Europe

In 2021 EUN commissioned a study to explore the structure and activities of the European EdTech ecosystem, with particular focus on incubation and acceleration programmes and how well these were supporting EdTech entrepreneurs, start-ups and SMEs. In addition to desk research and a questionnaire survey, which built on existing knowledge gained through co-ordination of the IMPACT EdTech European Incubator-Accelerator for EdTech start-ups, EUN carried out in-depth interviews with representatives of **16 key stakeholders from 12 different countries**. Interviewees included: representatives of Ministries of Education, organisations delivering incubator and/or accelerator programmes, venture funds and industry associations as well as founders of EdTech start-ups.

Section 4 and Section 3 of this publication summarise the main findings from the EUN study, with insights from the stakeholder interviews, and Section 5 provides an introduction to the new three-year, EmpowerED project, the design of which has been informed by this EUN research. For readers who are less familiar with start-ups, start-up funding and start-up incubators and accelerators, Section 2 provides an introduction to key concepts and terminology. Readers who are very familiar with the territory may wish to jump to Section 3.

2. An introduction to start-ups, incubators and accelerators

What is a Start-up?

A start-up is a new company founded by one or more entrepreneurs who want to develop a product or service for which they believe there is a demand.

In the case of EdTech the entrepreneurs may be, but often are not, teachers, academics and other educationalists.

Six types of start-ups⁹

Lifestyle Business	Started by freelance professionals who prefer a self-employed lifestyle.
Small Business	Small businesses e.g. grocery stores, hairdressers, carpenters, electricians, started to provide a family income with no plans to expand.
Scalable Start-up	Started by entrepreneurs planning something new that will grow very big quickly using innovative business models.
Buyable Start-up	Started by developers of web solutions or mobile apps aiming to make millions when their start-up is bought by a large company.
Corporate Re-start	Companies reinventing themselves with new innovative products for new customers in new markets in response to changes in the landscape related to customer preferences, new technologies, legislation or new competitors.
Social Start-up	Founded by people who are not motivated by money but rather wish to address social problems or to support particular groups of people.

A Start-up is in the early stages of determining what it is developing, for whom and how they will make a return. When the company has validated its product in a market and proven their business model is sustainable but is still in the relatively early stages of development it may be referred to as a Scale-up. It has been suggested¹⁰ that European venture capitalists are generally more risk averse than those based in the USA and therefore tend to be more attracted to investing in Scale-ups rather than start-ups.

A variety of metrics have been suggested for gauging whether a start-up has moved beyond being a start-up. This may be when the company: employs more than a certain number of employees; exceeds a certain revenue level; is able to raise money for expansion from external sources; can pay employees a good salary and benefits; is attracting other companies interested in partnership; is able to invest in other companies; and/or is able to buy other companies.

The very earliest funding for start-ups usually comes from the entrepreneur's own savings, family members or friends. This is sometimes referred to as **FFF funding** or **"family, friends and fools"**.

The next stage after this is **"seed" funding** which may be provided by an incubator or accelerator or by venture capital companies, wealthy private investors, endowment funds and/or public sector investors. These investors may have been introduced to the start-up during an incubation or acceleration programme.

Venture capital companies or funds provide private **equity financing** to start-ups, and to early-stage and emerging companies that they believe have high growth potential or which have demonstrated high growth. Private investors, seed investors, angel investors or angel funders are wealthy individuals who have funds available to provide financial backing for

⁹ Adapted from Blank S, "Why Governments Don't Get Startups—Or, Why There's Only One Silicon Valley", <https://xconomy.com/> Opinion 01/09/2011
¹⁰ Rocketspace Tech Start-up Founders Blog, <https://www.rocketpace.com/tech-startups/7-key-differences-between-startups-and-scale-ups>

start-ups or entrepreneurs, typically in exchange for ownership of equity in the company.

When an individual or small group of entrepreneurs build a company from scratch using just their personal savings and cash coming in from their first sales, this is called **Bootstrapping**. Also the term “a bootstrap” is used to mean a business that an entrepreneur launches with little or no external funding or other support. Most start-ups and new businesses go through several “rounds” of fundraising en route to, and after, becoming an established, stable business ¹¹.

Funding Round	Stage of company development or maturity
FFF	Developing concepts and ideas
Seed	Minimum Viable Product (MVP) or prototype development
Series A	Establishing Product-Market fit
Series B	Working at scale
Public	Diverse revenue streams established

What are start-up incubators and accelerators?

A European Commission/OECD¹² briefing has defined Incubators and Accelerators as “types of business development support programmes that provide a range of support services to entrepreneurs in business creation and during the early stages of the business lifecycle”. The following sections include separate definitions of Incubators and Accelerators. However, it should be noted that some organisations or consortia offer both incubation and acceleration services to start-ups and small businesses. Also the terms Incubator and Accelerator are often used interchangeably, definitions of both of these vary and programmes focussed on business incubation or acceleration

often describe themselves in some other way. It has been observed¹³ that “Y Combinator, the world’s first, most successful and most influential Accelerator does not use the word “Accelerator”. Universities, local government, angel investors, large corporations and cooperatives are founding true Accelerators, and just as many are using the same expression to describe organisations that are clearly not Accelerators”. Many organisations and consortia in the public and private sectors, and public/private partnerships, offer Incubator or Accelerator programmes in addition to their other activities and the content of these programmes varies considerably.

Start-up Incubators

Business Incubators are interested in **early-stage start-up companies**, or ideas, that may be worth investing in. They aim to **help companies to establish themselves and to survive**. Incubators provide consulting services and assist entrepreneurs with resources, services, access to networks and to contacts. Office space and business support services are often provided in a location shared with other start-ups and may include providing some seed funding. Seed funding is typically used for market research, product development and business expansion. The entrepreneurs may be required to give the incubator a small stake in the company, typically 3 to 7%. This varies dependent upon the services, and the amount of any seed funding, provided. If no stake, or only a small stake, is taken by the incubator the start-up may be charged a fee (at the beginning or monthly).

Alternatively, an incubator may be **where an initial product idea is developed**. Participants in the programme and corporate backers work together to identify problems in the sector of interest, build and

test prototype solutions and validate products. A team is then formed to create and manage a start-up business. This approach is typical of incubators described as **Venture Builders**. Venture Builders (which may also be described as Start-up Studios, Start-up Factories, Venture Studios, Tech Studios or Venture Production Studios) work with the business they have helped to create until it is well established or is acquired by a larger company¹⁴.

In some fields, including EdTech, development work in the incubation stage can involve **co-creation** with academics partnering with technical and business experts on **product definition**.

Incubators operating at national or regional level usually require companies to be established in the area where the incubator operates and to be co-located with other companies undergoing incubation there. The duration of Incubator programmes can be one or two years, or there may criteria for evaluating

¹¹ Adapted from diagram in <https://crowdwise.org/crowd-investing-101/equity-crowdfunding-terminology/>

¹² Halabisky D et al, (2019), “Policy Brief on Incubators and Accelerators that Support Inclusive Entrepreneurship”, OECD/European Union

¹³ Fowle Michael, (2017), “Critical Success Factors for Business Accelerators: A Theoretical Context”, British Academy of Management Conference, Warwick Business School.

¹⁴ Informed by Kar Sin Ng, 2019, “Venture Building 101: The Rise of a New Business Model for Entrepreneurship and Innovation”.

success, or whether or not to continue, rather than a defined timeline.

Six types of incubator¹⁵:

Pre-incubators	Focus on the pre start-up phase offering coaching, business advice and facilities, e.g. workspace and equipment, to support development of business ideas and elaboration of business plans.
Academic incubators	Based in universities/research centres providing support for business ideas elaborated by students or academic personnel or spin-offs of university R&D activities including those undertaken in collaboration with companies.
General incubators	Support any start-up with sufficiently innovative ideas or products.
Sector incubators	EdTech (Education), FinTech (Finance), MedTech (Medical), etc.
Enterprise hotels	Physical space, especially in metropolitan areas where lack of production/office space impedes start-ups, workshops, networking etc.
Corporate incubators	Corporate venture capital units which invest in start-ups/SMEs and integrate successful ones into their corporate portfolios.

Start-up Accelerators

Accelerators are organisations or consortia that offer accelerator programmes to start-up companies or SMEs. Accelerators may be funded by venture capital investors, public bodies or large companies. Investment management companies involved seek to **identify the most promising companies at a very early stage and invest in them in the hope of making substantial profits later**. Governments, or regional authorities, may seek to influence innovation by supporting accelerator programmes that can bring in new companies to their countries or regions and to encourage the development of entrepreneurial ecosystems.

An accelerator programme is an **intensive business and personal development programme** that supports people who have a business idea and may already

have set up a small company. Accelerators also support established start-ups with an idea and a business model in place and help them to accelerate their growth. The support typically includes intensive mentoring, affordable office spaces and investment. Accelerators provide or arrange **funding to help start-up businesses to develop their products in return for an equity stake in the company**. There is usually a very competitive application process for companies wishing to join an accelerator programme. Programmes focus on supporting small teams of company founders and operate for a limited period of time, which may be a few months or, in some cases, just a weekend. Programmes end with a final event or “*demo day*” during which start-ups pitch their ideas to an audience of potential investors in order to raise their first substantial funding.

The advantages and disadvantages of using incubators and accelerators

The participation of start-ups and SMEs in incubation or acceleration programmes has been well documented in recent decades. Although only a very small number of start-ups are successful in gaining entry to the most prestigious programmes and, having done so, there is no guarantee of their success in the marketplace.

Which programme to apply to, and whether to apply at all, partly depends on the stage entrepreneurs

have reached in developing their idea or company and, therefore, what their support needs are. A report (Miller P and Stacey, 2014)¹⁶ published by NESTA (originally the National Endowment for Science, Technology and the Arts and now a “*socially focussed, innovation agency*” independent of the UK Government), describes a set of “*archetypes*” of entrepreneurs based on the support they look for from

¹⁵ Adapted from Halabisky D et al, (2019), “*Policy Brief on Incubators and Accelerators that Support Inclusive Entrepreneurship*”, OECD/European Union

¹⁶ Miller, P., & Stacey, J. (2014). *Good Incubation: The Craft of Supporting Early-stage*

Social Ventures. Nesta.

incubators or accelerators. These archetypes are summarised in the following table.

Archetype	Entrepreneurs are seeking	Incubators help by
Team formers	Co-founders to fill knowledge gaps in team.	Opportunities to meet co-founders and to learn about running a business.
Proposition seekers	Help turning ideas into fully developed propositions.	Training in product design and understanding customer needs; testing propositions, rapid prototyping with feedback from mentors and potential customers.
Customer hunters	Their first customers.	Help with making first contacts with customers.
Model clarifiers	Support in working out and testing their growth model.	Providing advice and training on expansion strategies, intellectual property, finance, accessing working capital.
Scalers	Advice on challenges e.g. changing team relations and culture due to growth.	Help with accessing finance for scaling, legal and recruitment advice and flexible office space.

When accepted for incubation or acceleration programmes, some start-ups/SMEs find the experience to be positive and the outcomes worth the commitment. However some researchers and commentators have found that there are disadvantages as well as advantages to using these services. Also aspects of programmes that may be appreciated by some entrepreneurs may not suit others.

The following table summarises key pros and cons identified in research and other on-line sources.

Advantages	Disadvantages
Working, meeting and demonstrating spaces may be provided.	Location of working space may not be most convenient for founder and/or their family.
Basic business systems and services may be provided.	Maturing businesses need to develop independent, secure internal systems and this can be impeded by the easy availability of systems, support and advice from an incubator or accelerator.
Peer-to-Peer learning from co-location with other start-ups/companies/researchers in a stimulating environment.	Co-location can be distracting and close proximity may create tensions concerning privacy, protection of intellectual property and competitive strategies.

Advantages	Disadvantages
Intensive programme focussed entirely on starting up or growing a business.	If an entrepreneur still needs to work and has a family to support they may be unable to commit to a programme for many weeks.
Introduction to network of potential investors.	No guarantee that investors will invest.
Seed funding.	Often a percentage of equity in the business is required in return for funding.
Access to capital.	Dilution of equity as more funding is raised.
Coaching/mentoring by experienced and relevant experts and entrepreneurs.	Time commitment for mentoring may distract from development of company/products. Allocated mentors may lack sufficient directly relevant experience. Risk of conflicting advice from different mentors.
Workshops and events.	Some training and events are less necessary, depending on founders' existing knowledge, and can feel like poor use of time.
Opportunities to learn from connection to a network of relevant experts.	Risk that acceptance by a programme can result in a false sense of achievement.

Despite to identification by some studies of potential issues when start-ups are co-located (see table above), some founders interviewed by EUN in 2021 commented on the value of groups of EdTech start-ups being able to learn from and support each other. They reported that there are generally no concerns about being in competition as their products and not usually very similar. They noted that **Incubators/Accelerators facilitate peer-to-peer learning** and that start-ups also communicate in informal networks.

Dilution of equity is a key reason why some entrepreneurs are reluctant to participate in acceleration programmes. A small percentage of equity in the new venture is common in return for acceleration services and seed funding. However every time money is raised the percentage of the business owned by the original founders is reduced. Eventually, after several rounds of fund raising the founder of a start-up may no longer own a controlling interest, i.e. 51% or more of the shares, in the company. Also, if the company's product succeeds to the extent that the company is bought by a larger organisation, the original founders share of the profit could be less than that enjoyed, collectively, by other shareholders.

Studies which asked start-ups for feedback on their experiences of taking part in incubation or acceleration programmes have identified problems with the services offered by some organisations. Key messages from research reported in Technology Innovation Management Review¹⁷ included:

"General workshops, courses, and lectures about entrepreneurship are not considered valuable"

One start-up interviewed said it was a waste of time to participate in general workshops when the company needed financial resources to develop a minimum viable product to demonstrate their proof-of-concept. They reported that despite spending one year in a university-based incubation programme they had not succeeded in developing a functional prototype.

"Start-ups received low commitment from program mentors and advisors"

Half of the start-ups interviewed reported low commitment and one said they had not received any support from mentors and advisors. A start-up that had participated in a university-based business incubation programme reported that the mentors were professors and that a greater variety of mentors would have been more appropriate.

"The incubation program's network was not aligned to the start-up's product"

Start-ups who joined a general incubation programme (i.e. with no specific sector of focus) reported that the programme was unable to help them with connections to strategic partners.

¹⁷ Lukosiute K et al, "Is Joining a Business Incubator or Accelerator Always a Good Thing?", Technology Innovation Management Review, July 2019 (Volume 9, Issue 7)

Another study¹⁸ reported a similar finding i.e. general business incubation environments are “insufficient on their own” and have to be “aligned with other businesses characteristics” such as technology, number of employees and sector. The study recommended “Startups looking for strategic partners in order to commercialize their product should join sector-based incubation programs” that target a specific market and are integrated into that market.

Researchers¹⁹ focussed on technology business incubators as support mechanisms for economic, as well as company, development have observed that “successful incubation activities need to be integrated in the regio-context” and, from a regional perspective, are likely to be unsuccessful if they are “not embedded into the overall development policy of a region”.

18 Mas-Verdú, F., Ribeiro-Soriano, D., & Roig-Tierno, N. “Firm Survival: The Role of Incubators and Business Characteristics. *Journal of Business Research*”, 2015

19 Dietrich Franz, Harley Barbara and Langbein Joachim (2010) “Development Guidelines for technology business incubator”

3. Supporting EdTech Start-Ups in Europe

An overview of EdTech Incubators and Accelerators in Europe

There are a very large number of incubators and accelerators operating in Europe, the **largest number operating in the UK**, with enormous growth in these types of organisations starting up, or becoming active in Europe in the past two decades. A study carried out just a few years ago identified over 900 operating in the UK alone. Much of this growth has been driven by venture capital companies and wealthy investors aware of the potential to reap significant returns from the so-called unicorn start-ups that become very successful.

To-date only a small percentage of these incubators and accelerators have focussed on start-ups operating in Education markets and most of these have been wholly or partly supported by public sector funding.

However the **Covid 19 pandemic has highlighted the enormous potential of technology to support education and lifelong learning** and suddenly, in the financial media, EdTech is being lauded as *“the new FinTech”* and more investors are becoming interested in EdTech start-ups and SMEs.

At the same time Governments, City and Regional authorities and the European Commission are very interested in how EdTech solutions can help address educational problems and priorities and how EdTech start-ups can contribute to economic growth.

These developments have resulted in large, and increasing, numbers of organisations and consortia offering programmes to incubate, accelerate or otherwise support EdTech start-ups and SMEs. The ownership, structure and funding of these varies a great deal, as do the services they provide. In addition to the organisations and consortia fully focussed on EdTech, many generic incubators and accelerators are now more interested in, and more likely to accept applications from, EdTech start-ups

To the generic definitions of types of incubators and accelerators discussed elsewhere in this report can be added types of other organisations and consortia found to be supporting EdTech start-ups/SMEs in Europe (see diagram below).



It should be noted that the definitions in this diagram are not mutually exclusive. For example a not for profit professional association may offer incubation/acceleration programmes in partnership with an EdTech industry association or individual private

sector companies, or a City Hub may incorporate an Academic incubator or a Testbed, etc.

A snapshot of the main actors and structures in Europe

EUN research identified over **30 incubators and accelerators operating in Europe in 2021** (see map below) which are focussed on supporting EdTech start-ups, or will support these in addition to start-ups operating in other sectors, and seem to be significant players in this area. As this is a fast moving and fluid situation this should not be considered a definitive picture.

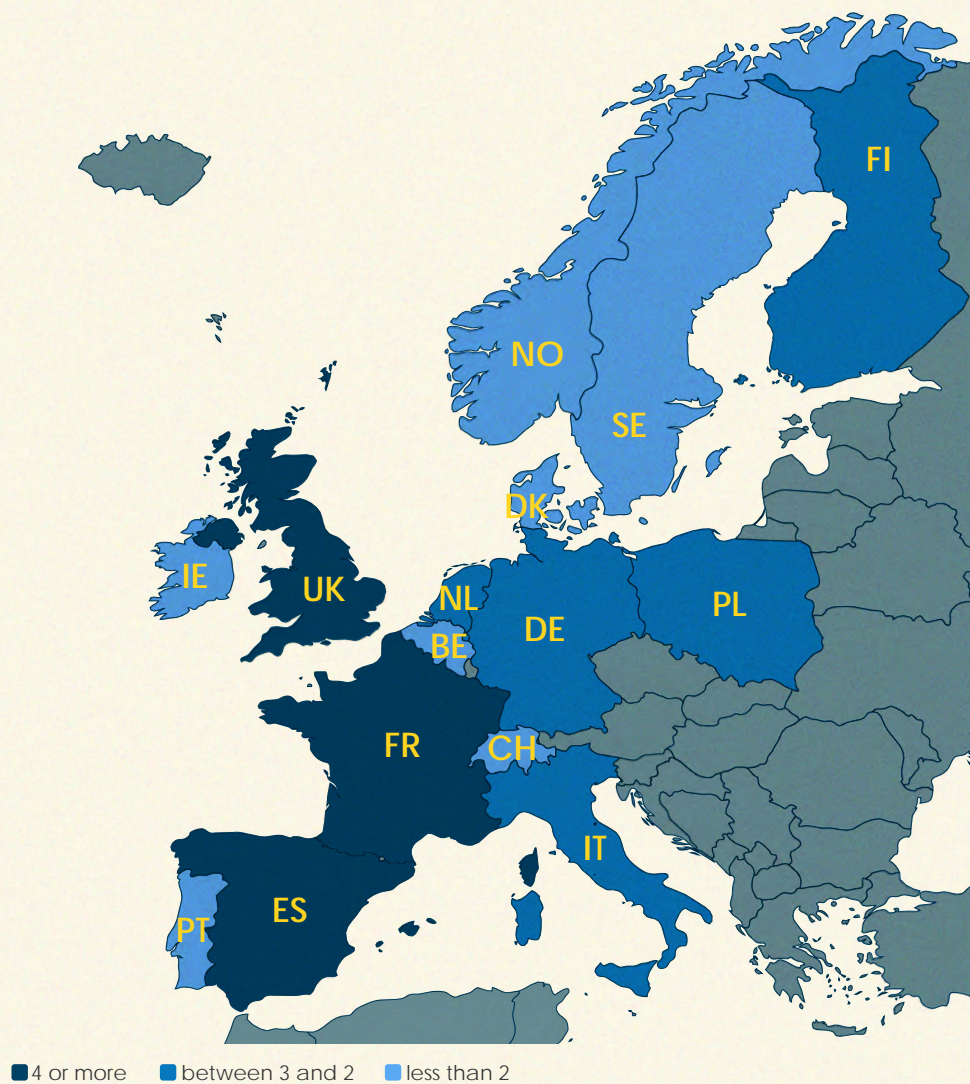
During the EmpowerED project (see Section 5), the European EdTech Alliance (EEA) partner will carry out an annual mapping of the EdTech ecosystem

to update their initial version of a European EdTech Map²⁰.

Whilst the main actors identified all offer incubation and/or acceleration programmes, the example organisations and consortia are not very similar. They are **very diverse in terms of their history, mission, focus, partners, funding and services offered**, which makes them difficult to categorise into types but they might be summarised as including:

- Commercial accelerators interested in good prospects in growing markets including EdTech.

UK	EdTech UK, Edtech Incubator, Emerge Education, Founders Factory, Step Up Programme, Super-charger ventures, UCL EDUCATE Digital
ES	Edtechcluster Spain, Open Education Challenge, SEK Lab EdTech Accelerator, Technova PreAccelerator
FR	Ed21, EdTech France, Learnspace, NEOMA EdTech
PL	Digital Knowledge Observatory, EdtechHub, Edulab
FI	Oulu Edulab, Sparkmind.vc, xEdu
DE	European Pioneers, Eduvation
NL	Lumo Labs Eindhoven, Yes!Delft
IT	H-FARM, Zanichelli Venture
DK	Accelerace
PT	Startup Lisboa
IE	NRDC
SE	Edtech Southeast
NO	Oslo Edtech Cluster
BE	IMPACTEdTech
CH	Kickstart Zurich



20 <https://www.edtecheurope.org/european-edtech-map>

- Endowment, Charity or Angel funds offering incubation/acceleration programmes for start-ups.
- Commercial, private/public partnership or not for profit accelerators focussed specifically on EdTech and helping start-ups and SMEs move from promising prototypes to viable products.
- Accelerators attached to a business school or a university/group of universities.
- Private/public hubs or clusters with offices/workspace on a campus or in a knowledge village or business/science park.
- Not for profit or private/public partnerships engaged in building EdTech ecosystems as well as incubating start-ups.
- Lab-type pre-incubator/incubator partnerships creating start-ups from specification of educational need, to product development to start-up acceleration.
- Venture builders/accelerators which identify problems, build and test prototypes, validate ideas, form founding team and then accelerates start-ups.
- Accelerators linked to specific European projects or initiatives with access to EU funding.
- Commercial accelerators/matchmakers helping start-ups to find collaborators and testers in universities and schools.
- Government supported accelerator/venture capital company partnerships linked to public sector research centres.
- Public/private partnership incubators with validation labs and/or school testbeds.
- Public/private funded challenges with winners joining incubation/acceleration programmes. Start-ups may be incubated in one country and graduate to acceleration programmes in others.
- On-line Accelerators for start-ups wanting to expand into Europe.

- Accelerator initiatives of textbook publishing companies supporting EdTech start-ups.

In addition to the incubator and accelerators, a further 18 examples of **organisations or groups that provide a variety of support, encouragement and advice to EdTech start-ups, SMEs and companies** were identified by EUN research in 2021. Again this is a fast moving area and lists quickly become out of date but the diverse actors identified can be summarised by the following types:

- Not for profit associations supporting development/transformation of education with technology and/or increased innovation
- Government supported organisations promoting economic development
- Communities and forums of EdTech entrepreneurs for peer-to-peer learning and support
- Clusters or Hubs of companies and educational institutions promoting innovation in education
- Professional networks of individuals and organisations in EdTech ecosystems
- Communities of practice for educators deploying or using EdTech solutions
- Trade associations, and consortia of trade associations, working in EdTech
- Business associations supporting the development of local EdTech developers and exporters
- Publishers of on-line information and organisers of events focussed on EdTech start-ups
- Communities of governments, companies and investors focussed on growth
- Labs bringing together universities and companies to develop and test EdTech solutions
- Testbeds operated by national/city authorities in partnership with companies and schools to co-create, improve and/or test EdTech solutions

A summary of services provided by exemplar support organisations and consortia in Europe

The EUN desk research carried out in 2021 selected a sample of 12 of the key actors in Europe to find out what services are provided. The example organisations and consortia were:

- Accelerace, a Danish commercial seed accelerator which focusses on supporting start-ups in several sectors including EdTech.

- EdTech Southeast Sweden, a regional innovation ecosystem including science parks, incubators, schools, companies and municipalities.
- Emerge Education, a UK seed fund that offers acceleration services to start-ups and acts as a validator of new technologies and ideas for universities.
- Founders Factory, a start-up accelerator and venture studio operating in Paris, New York, Johannesburg and London.
- H-FARM, an Italian innovation hub/ecosystem that combines investment, business consulting and digitally enhanced educational programmes in one place.
- Kickstart, a Swiss ecosystem innovation platform bridging the gap between start-ups, corporations, cities, foundations and universities to accelerate partnerships and innovation.
- Learnspace, a French training and consultancy company with an accelerator programme connecting start-ups with researchers, educators and mentors to help them to scale up.
- NDRC, the national start-up accelerator programme for globally ambitious tech entrepreneurs in Ireland.
- SEK Lab EdTech Accelerator, an initiative of a Spanish educational institution for the development of technology-based innovation models that promote educational and social entrepreneurship.
- Startup Lisboa, a not-for-profit incubator for early stage start-ups jointly funded by the municipality Lisbon, the Portuguese Government and Montepio, a financial services group.
- XEdu, a Finnish national accelerator that encourages a culture of cooperation between start-ups, corporations and public sector educators and to create greater social impact.
- Yes!Delft, a not-for-profit incubator/accelerator/hub, located near Delft University of Technology and in The Hague, supporting start-ups in EdTech and other sectors bringing innovations to market.

These organisations and consortia offer a wide range of services and sometimes very similar services may be described by different names. In particular there is a great deal of cross over between services described as incubators and those described as accelerators. Also some organisations or consortia offer stand-alone services that others offer as part of a larger programme. The services listed under the following headings are not necessarily always offered by all actors or programmes.

Services for entrepreneurs, start-ups and scale-ups

Venture Studio programmes: bring together entrepreneurs and corporate backers to identify problems in a sector e.g. Education and collaborate to build and test prototype solutions and validate business ideas. Then they become or create a founding team for the start-up company.

Pre-accelerator programmes: support first-time entrepreneurs with ideas who are gearing up to join an acceleration programme, or seeking seed investment, but are not yet ready. They focus on the pre-seed funding stage, taking participants from initial idea to fully formed team and raising the quality, and chances of survival, of start-ups. Pre-accelerator programmes can be on-line courses and may be modular and on-demand presenting a “toolbox” of support for founders to select from as required. Modules may, for example, include “how to obtain product-market-fit”, “how to enhance the value of your product”, “how to get funding” and “how to make a killer 2-minute pitch”.

Incubation Programmes: usually provide entrepreneurs and very early stage start-ups with office and/or work space, with office systems and services, typically for one to 3 years. Founders work on developing

early prototypes and test products and the market. Residential accommodation may be available on campus especially where there is co-location with a university, companies or schools. Workshops focusing on topics such as marketing, sales, financing, pitching, networking and leadership are offered together with coaching and mentoring. Demo Days enable founders to present to potential customers and funders and support is provided to raise further funding.

Acceleration Programmes: include evaluation of start-ups’ strengths, potential and specific needs. The founders are matched with relevant mentors and provided with business development support and support to solve strategic and operational challenges. Start-ups may be provided with opportunities for research and experimentation and master classes in developing strategy and products. Workshops, modules and 1-to-1 expert sessions may be available focussing on various aspects of creating and growing successful products and businesses including: business models, leadership, legal matters, fund raising, recruitment and retention of staff, sales, marketing, public relations, product design, graphic design, engineering, technology, data science, partnerships, achieving growth. Mentoring or coaching is provided

by practitioners, academics, successful EdTech entrepreneurs, EdTech investors, heads of corporate training, etc. Cooperation or collaboration services can include loans of Interns and use of CEO in residence time. Networking and collaboration opportunities can include privileged access to industry leaders within a network of industry partners or access to researchers in fields such as education, technology enhanced learning, cognitive development and neuroscience. Programmes include opportunities for interaction and collaboration with other start-ups, companies, professionals, students, mentors and investors and may include office space. Advice on seeking additional investment is also provided.

Post-acceleration services: may be part of a programme or standalone. They can include support with capital transactions, investor relations activities, monitoring of Key Performance Indicators, researching and analysing strategic partnerships and advice on mergers and acquisitions.

Open innovation programmes and “Collaboration Sprints”: facilitate partnerships between start-ups and corporations, foundations and institutions in the public and private sectors. Collaboration Opportunities are published annually, naming sponsoring industrial partners and technologies of interest. Applications are invited from start-ups with products or ideas addressing these opportunities. Office space and facilities are offered as well as 1:1 support in e.g. market entry, legal matters, intellectual property, branding and communications. Founders are matched with a personal advisor, gain access to their professional network and are connected with a network potential of investors. Networking and community events are organised plus media exposure.

Investor Readiness Programmes: are specifically focussed on funding and financial matters including masterclasses, workshops and coaching sessions about investments, funding and finance. They help start-ups to build a strong investment case which can be used to introduce the company to potential investors at an Investor Day. The outputs of such programmes include a funding plan, financial statements, investor material e.g. “pitch deck” presentation and “one pager pitch”.

Validation Labs: are for starting or experienced entrepreneurs looking for the right customers and markets for their business. The services are tailored for each focus area and include their own ecosystems of relevant mentors and partners.

Growth team services: may be part of an acceleration programme or a stand-alone service. Experts assess start-ups performance against a “Series A scorecard” and work with them to identify key metrics they will

need to achieve to maximize their chances of securing funding.

Start-up or scale-up challenges and competitions: enable entrepreneurs with business ideas to compete for investment prizes and places on incubation or acceleration programmes. They can be sponsored by private and public sector partners.

Step Up programmes: In the education sector these programmes are designed to make it easier for start-ups to sell their products to colleges and universities.

Innovation and development support services and communities: offer membership, meetups, newsletters, events, collaboration opportunities and support from teams of business designers.

Events: Face-to-face events, stand alone or part of a programme, include Hackathons or Boot Camps where product ideas can be initiated and explored, Evaluation Workshops in which entrepreneurs can evaluate and develop their initial business and Masterclasses or Deep Dives on important topics delivered by experts. Short events include Founder Weekends for entrepreneurs to meet each other and potential co-founders, as well as experienced mentors, and explore start-up ideas and what it takes to move from idea to reality. Office Hours programmes can easily be fitted into a busy schedule e.g. weekly 25 minute sessions in which early-stage founders can discuss their ideas, receive feedback and get help connecting with the wider start-up ecosystem.

Networking: is a vital part of incubation, acceleration and other support programmes for entrepreneurs, start-ups and scaleups and is an important activity outside these structures too. Networking may include corporate matchmaking for advice, feedback, meet ups and access to user groups for product trials. Some communities bring together new founders, experienced entrepreneurs and networks of learning professionals that advise start-ups on pedagogical issues and education markets. These may include senior academics from universities, Heads of Learning and Development at large employers and successful education entrepreneurs.

Access to schools or networks of schools and universities: introducing start-ups to schools and universities for collaboration, co-creation of products, prototyping, testing and evaluation is an extremely valuable service offered by ecosystem actors supporting EdTech start-ups. Many interviewees questioned by EUN considered opportunities for start-ups to test and pilot their products in schools to be a major benefit of participating in accelerator programmes.

Services for commercial companies wishing to work with start-ups

Some organisations and consortia offer services to companies wishing to work with start-ups. These include **company/start-up matchmaking sometimes using digital start-up scouting and screening software and AI**.

Venture scouting helps large companies find start-ups to help develop innovative new products to contribute to sustaining corporate growth.

Innovation Academies aim to equip corporate employees with the capabilities and mindset to become internal innovators and to help corporations to embed new ways of working in order to “*move like a start-up*”.

Services and initiatives for companies/start-ups/universities/school collaboration

Across Europe many services and initiatives aim to support and improve opportunities for companies, including start-ups, to communicate and collaborate with universities, colleges and schools.

Networking meetings include opportunities for EdTech start-ups and other companies to join discussions and present solutions. Some organisations organise networking dinners where company representatives can meet university and college senior management and discuss informally the problems they face and how technology can help to solve these.

Eco-system accelerators bring together entrepreneurs with industry partners, schools and universities, to collaborate on **proofs of concept, pilot projects, commercial partnerships** and other innovation opportunities.

National Testbeds allow EdTech entrepreneurs and companies **to test, and to co-create, products and services with students and teachers** in volunteer schools in specific areas, regions or countries.

EdTech Test Beds

EdTech Test Beds have been defined as “*An environment to test and experiment with EdTech in a real-world setting*”, are “*a way to improve this situation by generating and sharing evidence of what works in practice for those who need it*” (Batty R et al, 2019²¹).

Batty R. et al describe the reason testbeds are needed as “*Educational technology (EdTech) has the potential to transform education but too often it fails to live up to expectations. Cycles of hype and disappointment are common features of the field, and teachers and schools find it difficult to know which EdTech to buy and how best to use it. Conversely, EdTech suppliers often struggle to gain access to schools to test and refine their products*”.

These researchers developed four EdTech Test Bed models which they suggest can be stand alone or combined.

EdTech Testbed Models²²

Co-design

EdTech suppliers, researchers, teachers, and students work together to identify educational needs and opportunities, and to develop a combination of technology and pedagogy to address these.

Test and learn

EdTech suppliers work with schools to rapidly test their product in a school setting so they can improve it.

Evidence hub

A space for schools and policymakers to work with EdTech developers and researchers to generate evidence about impact, synthesise it, and disseminate evidence-based advice to guide adoption and scaling.

EdTech network

A network of schools, researchers, and suppliers that share their experience and insights. As well as networking, this may involve training and professional development.

²¹ Batty, R., Wong, A., Florescu, A., and Sharples, M. (2019). Driving EdTech Futures: Testbed models for better evidence. London: Nesta.

²² Adapted from Batty, R., Wong, A., Florescu, A., and Sharples, M. (2019). Driving EdTech Futures: Testbed models for better evidence. London: Nesta.

The aims of public investment to support EdTech start-ups in Europe

In Europe, when investing in support for start-ups of all kinds, especially technology start-ups and including EdTech start-ups, public authorities at national, regional and city levels are usually aiming to increase economic growth and employment. There is also a desire to ensure that EdTech products are developed that cater for speakers of European languages and are appropriate for European ethics and core values, including those related to privacy and data security.

A report²³ published by the European Start-ups Project, supported by the European Commission and European Parliament, asked, among other things, *“Why should [European] cities care about start-ups and unicorns?”*. They gave the answer that *“Start-ups have become a leading source of job growth”* saying that *“In cities analysed by Dealroom, start-up jobs grew by about 10% annually, or 2 to 3 times faster than the wider local economy. Tech is also more resilient to external shocks (e.g. pandemic, Brexit). Today, 1% of European jobs are at start-ups ... In the US, where venture capital has been around for much longer, it is estimated that venture-backed companies are responsible for 10% of all jobs”*. They also say that, *“Entrepreneurial ecosystems are increasingly borderless, as start-up teams can be distributed and venture capital is being invested remotely. This new reality means it’s important to embrace and foster entrepreneurship more than ever”*.

The same report includes a quote from Norbert Herrmann, who is responsible for Start-up Affairs in the Berlin Senate’s Department for Economy, Energy and Businesses, saying Berlin’s *“innovative start-up ecosystem was and still is playing an important role to make Berlin shine and move ahead”*.

Whilst Anne Gousset, Deputy Director General of Paris & Co, the economic development and innovation agency of Paris, says *“Innovative start-ups actively contribute to the economic and sustainable development of the territory. Through their concrete solutions, they respond to major urban challenges: improving the daily lives of citizens, solving the needs of businesses, communities, or public services. Also creating jobs, they are helping to transform a more inclusive and resilient city!”*.

For this publication EUN interviewed a representative of the Estonian Ministry of Education and Research who spoke of their belief in the importance of EdTech start-ups for both transforming education and growing the Estonian economy saying *“we want to see huge growth, we hope to see growth of hundreds of millions of euros in this field, we have looked at what Finland has done and we want Estonian companies doing this”*.

An interviewee from the City of Helsinki emphasised the importance of investment and of collaboration between ecosystem players and different European countries saying *“It is very important for this to happen to enable the EU to catch up with the USA and China in EdTech whilst developing solutions that suit our ethics and core values”*.

23 Dealroom.co and Sifted, *“Startup cities in the Entrepreneurial Age”*, European Startups, July 2021

4. EdTech Start-Ups' feedback on challenges and support in Europe

Key Challenges for EdTech start-ups in Europe

The 16 stakeholders interviewed by EUN, including representatives of Ministries of Education, organisations delivering incubator and/or accelerator programmes, venture funds and industry associations as well as founders of EdTech start-ups, identified the following challenges faced by EdTech start-ups:

Breaking into schools to test, pilot and sell products

Some interviewees reported that it can be difficult for EdTech start-ups to get into schools, especially public sector schools. Reasons given for this included teachers and other school staff being extremely busy, a general distrust of commercial companies by some educators and the dominance of large suppliers of text books and EdTech.

A Spanish EdTech start-up founder commented *"as a start-up you are always told 'don't bother to try to sell to schools it's impossible'. Sometimes to break into schools you need to go direct to municipalities but sometimes you are not sure who to talk to"*.

Identifying who makes purchasing decisions for products used in schools

Public sector schools in many countries do not make the purchasing decision and start-ups can find it difficult to find out who to try to sell to.

A counsellor at the ICT Industry Association in Norway noted *"In Norway you need to know how the system works in order to be a supplier... some companies are starting to go more directly to adults and parents perhaps partly because selling to schools or local education authorities is difficult"*.

Finding good mentors with pedagogical knowledge and education sector experience

It is not uncommon for teachers to leave the classroom to join or found EdTech start-ups. Their experience as teachers is clearly helpful as they know how to talk to

other teachers and are familiar with the education sector landscape and culture in their country.

Where EdTech start-ups lack this experience, it is important that incubators and accelerators have the capacity to provide high quality education sector and pedagogical mentoring and support as well as business development support.

It has been suggested that such support may still be needed where ex-teachers are directly involved in founding an EdTech start-up as this alone is not a guarantee of success. A small study by the digital news and research magazine EdSurge²⁴, involving 14 EdTech companies, found that where EdTech companies had former educators in high-level leadership positions on average they had last worked in education about 11 years ago. EdSurge quote Bart Epstein, CEO and founder of the EdTech Evidence Exchange, saying *"Simply having some former teachers is not a magic bullet that means a product is going to be great"*. He suggests it is necessary for there to be on-going *"robust authentic engagement with teachers"*.

Some interviewees told EUN they were disappointed to find that even incubators and accelerators who promoted themselves as specialising in Education were not always able to provide all the support EdTech start-ups expected from them; including matching them to mentors with pedagogical knowledge. One start-up founder, who had signed up with an incubator in The Netherlands, found that although the incubator claimed Education was one of their specialist areas, *"it turned out they didn't have much education knowledge"*.

The table of Advantages and Disadvantages for start-ups of working with incubators and accelerators in Section 2 of this publication includes the potential for time involved in mentoring to distract founders from developing their company and products.

24 Tamez-Robledo N, "Which Edtech Companies Are Listening to Teachers?" Edsurge, 2022

This possibility underlines the need for all mentoring to be absolutely relevant and matched to the needs of individual start-ups. Further comments on advice and mentoring can be found in the feedback from start-ups on incubator and accelerator services.

Expanding into other countries in Europe

- There was a strong consensus that it is difficult for start-ups to gain the detailed knowledge they need to expand from their country into other countries within Europe and that help with this is very valuable.
- The co-founder of a Finnish EdTech start-up commented *“You find out what reality is in other countries and realise you have lots of misconceptions. You find out that things you thought were facts were assumptions, and they were wrong, internationalisation is very tricky for start-ups”*.
- The co-founder of a Spanish start-up agreed and decided to try a different route to grow before attempting expansion into other European countries, she said *“We started in Spain and we target Spanish speakers so we are expanding to Latin countries first, including Columbia and Mexico ... It is not easy to find out the details about how education works outside Spain, we really don't know what is the best way to penetrate other European countries.”*
- A spokesperson for The European EdTech Alliance which currently (February 2023) brings together 2,600 Edtech organisations and provides data on 1250 companies and support organisations via the European EdTech Map that was launched at the end of 2022, emphasised that *“Start-ups need*

local knowledge, it is not good enough to just search for general information on-line, lots of start-ups go to other countries to die”.

Interoperability

- This issue is linked to international expansion and possibly also to the domination of the market by larger companies that offer one-stop-shop services for schools EdTech needs. Schools often need new products to be able to be integrated with existing systems.
- The European Education Alliance say *“interoperability can be very difficult for companies operating in different countries as systems used in education institutions are very, very, different e.g. there are many very different Learning Management Systems ... if start-ups are not aware of these issues in the infancy of their product they need to go back and completely rewrite for different countries”*

Data protection

The General Data Protection Regulation (GDPR) and its varying local interpretations, both between and within European countries, causes a significant administrative burden for EdTech companies.

The interviewee from the French Ministry of Education and Youth explained that the General Data Protection Regulation (GDPR) was seen as a big issue for the EdTech sector. They indicated that the Ministry is supporting the development of a GDPR code of conduct for EdTech companies to make it easier for them to respond to public tenders.

European EdTech start-ups' feedback on incubator and accelerator services

Business and management advice and support

Advice and support related to business and management processes and skills may be particularly important for EdTech start-ups. This is because they are often founded by people who are more focussed on, and interested in, educational and social concerns rather than financial or managerial goals.

The founder of a start-up in The Netherlands commented that founders of EdTech start-ups typically *“don't go into it for the quick win of loads of money. Many want to improve education, perhaps as a result of their own experiences at school or their children's experiences ... they are more likely to be building for the long term instead of aiming to exit by selling out to a bigger company.”*

A Finnish start-up co-founder suggested that *“The best part of the Impact EdTech acceleration programme (see section 1) was we were forced to set goals and agree on schedules and deliverables, which led to a whole host of different questions and developments.”*

A UK-based start-up coach, who has founded several start-ups himself, commented *“there is an awful lot for founders to do in a short time and they need help because a founder is a value creator with a vision but they usually do not make good CEOs”. He added “If incubators and accelerators are any good they provide the ‘resources thinking’ that compliments the skills and vision the founder already has”*.

Education advice and support

It has been suggested that sector specific incubators and accelerators can provide a more relevant service to start-ups than generic ones who are interested in founders with good business ideas irrespective of their field of interest.

The founder of a start-up in the Netherlands commented *“EdTech start-ups expect incubators and accelerators to have contacts with schools and pedagogy experts as well as with EdTech investors, to know the subsidies landscape and to know other companies and start-ups they could work with in Europe, but often they don’t”*.

Some interviewees felt that, in EdTech, having a founder or co-founder who was a teacher, or had worked in education, is necessary or, at least, very helpful. The co-founder of a Spanish EdTech start-up said *“coming from the start-up ecosystem with no background in education I realised I needed a co-founder with education experience. I found a primary teacher with experience in STEM. This was essential, we needed that expertise otherwise the product would be just a toy and no more than that. The co-founder didn’t have to be a teacher but they did need to be someone with expertise in pedagogy and experience of working with children. They would have knowledge of what is appropriate for children of specific ages, what hand sizes we should design for, likely reading abilities for instructions – I wouldn’t have known any of this”*.

Other interviewees suggested that previous Education sector experience is needed if a product is intended to improve an existing educational model. However, they felt, it might not be required if the product is intended to transform or disrupt existing education systems. An interviewee added that one start-up recruited a former school principal as an advisor but found *“he mostly told them what they could not do within the existing system”*.

Some start-ups developing products for schools have found that if educational advice is provided by *“university researchers who are experts in pedagogy and psychology”* this is not always as helpful as incubators and accelerators anticipate as *“their mindsets can be too academic”*.

Mentoring

The table in Section 2 of “archetypes” of entrepreneurs, based on the support they look for from incubators or accelerators, indicates that many founders of start-ups are seeking *“help turning ideas into fully developed propositions”*. Also that the help they need includes *“training in product design and understanding customer needs; testing propositions,*

rapid prototyping with feedback from mentors and potential customers”.

From its experience in the IMPACT EdTech, project EUN also recognises that incubators and accelerators in Europe may need further help in order to be able to offer high quality educational/pedagogical mentoring and that this is as critical to the development of viable EdTech solutions as being able to offer effective business mentoring. Within the new EmpowerED project (see Section 5), therefore, EUN aims to work with the consortium’s partners to develop sustainable strategies that enable incubators and accelerators to more easily identify and engage with experienced pedagogical mentors and schools who can help turn innovative ideas into fully developed solutions that reflect the reality of teaching and learning in Europe’s classrooms and schools.

The founder of a Spanish start-up emphasised that with mentors *“It is very important to find the right match with your company and what you need compared to what they can offer”* and this is not always easy to achieve. Interviewees who spoke to EUN reported both good and disappointing experiences.

A Finnish start-up had a very positive experience and one of their co-founders said *“They were invaluable every time we spoke to one we saved several weeks due to the things we learnt in just one hour ... One mentor was an expert in the Italian education market and we found out so much about that system, it was really, really, useful”*.

The founder of a Portuguese start-up reported that the mentoring provided by Impact EdTech and a specific accelerator was helpful and added *“In education lots of people are eager to help to make education better and so there are lots of people with knowledge who are keen to help EdTech start-ups. I’m not sure if applies in other sectors, but in education there is a lot of good will”*.

The experience of a start-up founder in The Netherlands was, *“Some mentors were more relevant than others, they were always doing their best, were helpful and are one of the most valuable parts of a programme. Even if they are not very expert in education they do understand start-ups. However they rarely brought about a direct lead or improvement.”*

The Spanish start-up had a mixed experience and their founder said *“I’m not really a fan of mentors, some just want to call themselves mentors but don’t really help. For me one of our three mentors didn’t add any value, one wanted to but didn’t help much, but one was amazing putting things into perspective and helping us to be strategic”*.

Peer-to-Peer Learning

Several founders interviewed commented on the value of being able to learn from, and with, other EdTech start-ups and to support each other. They noted that there are generally no concerns about being in competition as their products and not usually very similar.

A Finnish start-up co-founder commented *“EdTech start-ups are very rarely in direct competition as all the solutions are so different. Therefore people are very happy to share and we have had spontaneous exchanges with other companies during and following the programme. We are now peer-to-peer learning with a company who have quite a similar product that we met via Brighteye Ventures’ EdTech Garage, an informal network of start-ups. This is very useful”*.

The founder of a start-up in the Netherlands said that it is useful that a leading EdTech accelerator puts start-ups in touch with other companies *“for peer to peer learning or at least cry on each other’s shoulders”*.

In Spain EdTech start-ups work very closely together and one founder commented that *“Joining an accelerator programme is a way of connecting with other EdTech founders ... The start-up ecosystem is huge but the EdTech part is very small and in general very supporting. We all have the same pains but we are at different stages and we don’t share co-working space which helps”*. He added *“We all want to change the world for the better, there are no concerns about competition, it is not aggressive like a FinTech environment”*.

Co-creation, testing and piloting with schools

Many interviewees saw opportunities for start-ups to test and pilot their products in schools as the major benefit of participating in accelerator programmes.

For example, a Portuguese start-up was able to carry out pilots in Spain, France and Sweden with Impact EdTech and pilots in international schools in Spain with a local accelerator, and the founder commented that this was *“the most useful aspect of these programmes”*. A Spanish start-up founder agreed, stating that *“The access to schools and universities [...] was of uncountable value”*.

In some cases start-ups work with schools not only test ideas and prototypes but help develop ideas and products through a process of co-creation. A Finnish co-founder said *“Coming up with the original idea was a co-creation process during the hackathon. The team involved included teachers and support staff working in schools”* and added *“Even now we interview student support staff and school leaders when designing new aspects of the product. It is the only way to create an EdTech product”*.

The Estonian Ministry of Education and Research found a problem with co-creation; after the initial matchmaking and enthusiasm, some teachers lost motivation. The MoE’s solution was to fund a contact person in each school who is paid just a small amount but enough to keep them motivated and feeling appreciated for participating. Testbed Helsinki find it is important for teachers to feel that a product is specifically relevant to them, their representative said *“If the company suggests a pilot and we think co-creation is doable we think about which schools would be a good fit and then we contact the teachers or schools and invite them to participate”*.

5. Moving forward - the EmpowerED project (2023 – 2026)

As indicated earlier, the rationale and objectives for the EmpowerED project emerged out of the work carried out by EUN and its supporting education ministries in the IMPACT EdTech project co-funded by the European Commission (see Section 1) and the study conducted by EUN in 2021 of the Edtech ecosystem, the main findings from which are summarised in this publication. Recent studies and work by the European EdTech Alliance (EEA), a major partner in EmpowerED, have also been important in the design of this new project.

Starting in February 2023, EmpowerED is coordinated by European Schoolnet and brings together 11 partners and an expanding group of Associated Partners, to support closer collaboration in the digital education sector in Europe between all levels and sectors including schools, higher education and vocational education and training. This EU-funded project will leverage existing but still loosely coordinated EdTech ecosystem groups in order to establish and animate a new European EdTech community for exchange, dialogue and collaboration involving diverse ecosystem actors from at least 15 countries.

The project will not only help to consolidate and amplify the work of current EdTech organisations supporting start-ups and SMEs (including incubators, accelerators, testbeds, investors, Digital Education Hubs etc.) and enable them to engage more directly with policymakers in education and other ministries, but will also provide new databases, training modules, events and open source guidelines to support, strengthen and grow this community.

The work of the project will include: an annual mapping by the European Edtech Alliance of the EdTech landscape in Europe identifying good practice; and continuous updating of a Knowledge Base that reflects the current state of play in the EdTech sector, which will be used to inform development of networking and exchange activities and the project's deliverables.

By increasing the sector knowledge and critical thinking on appraising and understanding trends linked to new schooling models and innovative education solutions, EmpowerED will also produce a roadmap towards a European EdTech ecosystem promoting European excellence in educational innovation. This important report will both inform the evolution of the European Commission's Digital Europe Programme and also provide policymakers with a clearer understanding of how they can better support and work with start-ups and SMEs in the fast expanding EdTech ecosystem.

The project partners will also propose a variety of economic models via which the EmpowerED community services and tools can be sustained long-term.



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