

Incubation Nation: The acceleration of UK startup support

Findings from the 2022 UK incubator and accelerator survey

SEPTEMBER 2022



About the Centre for Entrepreneurs

The Centre for Entrepreneurs (CFE) is the UK's leading entrepreneurship charity. We exist to support the entrepreneurial doers and makers who change lives and grow Britain.

Our activities are based on four pillars:

- Researching the state of entrepreneurship to build understanding of the factors that drive success and unlock the potential for all entrepreneurs
- Delivering programmes to develop skills in entrepreneurs and pilot interventions to further new business support
- Building communities of practice to share knowledge
- Engaging and informing policymakers and the public

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Foreword

Entrepreneurs are critical to the UK economy. As we emerge from the difficulties caused by the global Covid pandemic there are new difficulties ahead that will require new businesses to bring products and services to the market for the first time as consumers and customers of all types respond to a rapidly changing environment. Entrepreneurs are the people who make this happen.

I know from my own experiences as an entrepreneur that the right help and guidance in the early stages of a new venture can make a huge difference to the chances of surviving those first few months and years when every problem is being encountered for the first time and every task needs more time and resources than you have in order to complete it. You can benefit hugely from being in an environment with other new businesses in the same position and from training and mentoring that will help you move from being someone with an idea to a business leader.

Business incubators and accelerators can provide that support.

This report from the Centre for Entrepreneurs shows a positive

picture of how the sector has grown dramatically in the last five years and is now not just a niche activity but a major element in the UK's success as an entrepreneurial economy. This is a dynamic and fastchanging sector that shows signs of responding quickly to market demands and the developing needs of start-ups and the people that build them.

We all need entrepreneurs and new businesses to succeed. They create the wealth, pay the taxes, generate the jobs and forge the hope needed across our country. To see the critical new business support structures described in this report flourishing so strongly is undoubtedly good news and I hope the insights offered here will allow us to further grow this important activity.



Timothy Barnes FRSA

Holder of the Queen's Award for Enterprise Promotion

CEO, Centre for Entrepreneurs



incubators



active accelerators



estimated

businesses supported per year

→ View the full directory:

ian.centrefor entrepreneurs.org /directory

Executive Summary

- · This study examines the state of accelerators, incubators and related startup support organisations in the UK. It is intended to help entrepreneurs, programme managers and policymakers understand recent changes in the landscape in order to make more informed decisions.
- The study finds evidence of over 400 incubators, 300 accelerators and a number of other support programmes. Over 100 of these programmes were surveyed, forming a fairly representative sample; this was supplemented further by interviews.
- The total number of programmes represents a near doubling of provision since the last comparable survey was conducted by Nesta in 2017.
- As a consequence of new entrants and new models, we estimate that UK incubators and accelerators now support in the region of 19,600 unique firms per year - around 5% of all new firms created.
- The startup support sector is fast-moving, with programmes opening, restructuring and closing regularly. (The accompanying directory that underpins this research can be found on our website and will continue to be updated.)
- · Models of support continue to evolve, with the emergence of new programmes which defy classification as either accelerators or incubators. At the same time, the space has seen new entrants from unexpected directions (e.g. coffee shops and garden centres becoming coworking spaces).
- · Particularly among accelerators, there is a clear trend towards new entrants being more sector-specialised. However, more specialised programmes need a wider catchment area in order to be viable.
- · While London remains a hotspot for both accelerators and incubators there is now incubator provision in every Local Enterprise Partnership region in England as well as accelerator provision in the overwhelming majority. Similar patterns exist in Scotland, Wales and Northern Ireland, so while there is uneven distribution of support, there is accessible provision across the UK.
- · In many regards, startup support programmes are startups themselves, searching for sustainable business models. The difficulty in finding a sustainable business model contributes to significant churn in the sector, although that may also be a positive sign of a rapidly adapting market.
- Funding for programmes comes from a mixture of sources, primarily corporate sponsorship, EU and UK public grants, quasi-public funding via universities, commercial income, and philanthropic foundations. Public funding constitutes around one third of the funding of both accelerators and incubators – and only 8 incubators reported receiving no public funding at all. Pure equity-based models are now relatively rare.
- Many support programmes have been substantially affected by the pandemic, with at least 81 programmes or organisations closing in the past 5 years. Surviving programmes invariably pivoted to hybrid virtual-physical models, which in many cases also widened their catchment areas.

- Publicly-funded accelerators appear to have fared the worst over the past five years, being less likely to survive than accelerators which were majority corporate-funded or fee-based. Publicly-funded incubators were also less likely to survive than privatelyfunded incubators, but rather more likely than corporate-funded ones.
- There are questions about future public funding: despite significant dependence on EU structural funding in recent years and few UK replacement programmes having launched, relatively few programmes are currently involved in discussions relating to the first round of UKSPF grants, raising concerns about a funding gap in coming years.
- Impact from support programmes remains poorly measured, with only 10% of programmes using a control group in evaluations.
- Around one third of programmes attracted startups from overseas (though the
 percentage of overseas startups within their cohort was typically low). Specialised
 programmes are much more likely than non-specialised programmes to attract startups
 from overseas and from other regions of the UK.
- Incubators with wet-labs (laboratories equipped to handle chemical and biological hazards) were reported as being in very short-supply.
- We recommend that:
 - Longer-term funding be developed for startup support organisations, in order to
 enable continuity and reduce learning losses. This funding should recognise that
 some programmes especially pre-accelerators and generalist programmes in
 less-developed ecosystems are unlikely ever to be self-sufficient, but should
 nevertheless aim to select for better performing programmes and allow the
 evolution of new models.
 - Policymakers should pay close attention to the ultimate UKSPF expenditure, being aware that support programmes developed at the level of individual lead local authorities may be too small to be effective, and hence that collaborative consortia may need to be encouraged.
 - Support organisations should develop more robust evidence of impact, which
 would help various stakeholders make better decisions about attendance, funding
 and services. Policymakers should incentivise such evidence-building, including
 through mechanisms to connect academic researchers with practitioners.
 - Policymakers wanting to use programmes for economic regeneration should pay more attention to the surrounding ecosystem factors, in order to ensure that supported startups are able to scale locally.
 - Policymakers should urgently evaluate the provision of wet-labs for UK biotechs, and investigate whether anything more can be done to speed their construction or to simplify the transformation of other spaces into such facilities.
 - Entrepreneurs should be aware that there are significant differences between support programmes, undertake their own due diligence before joining, and be open-minded as to the types of support which may be beneficial.

1.0 Introduction

1.1 ABOUT THIS REPORT

Startups are an important driver of job creation, productivity and innovation. They not only bring new innovations to life directly, but also exert competitive pressure on established firms, both of which are highly beneficial. However, startups are relatively fragile entities: many otherwise-good firms fail for avoidable reasons, and others fail to scale, resulting in wasted potential.

Fortunately, evidence shows that startup support organisations such as accelerators and incubators can increase firms' survival rates and other measures of success.2 It is therefore very important to understand the landscape of startup support, and to ensure that this matches the needs of entrepreneurs across the UK - and potentially beyond, given that startup support programmes also play a role in attracting overseas founders

This is particularly necessary given that the pandemic caused the net number of private sector businesses to fall by 6.5% between 2020 and 2021 - the most substantial decrease in numbers in over two decades.3

The landscape of support organisations has been studied previously, including through two reports commissioned by BEIS.^{4.5} However, programmes have continued to evolve rapidly, whilst the Covid pandemic has also driven significant change. This study therefore aims to update our understanding of such programmes. It does not specifically examine all types of business support, but concentrates on those which are especially relevant to startups and which provide a higher value-add through services.

This report is intended for three audiences:

- For local and national policymakers, the study is intended to provide a framework for thinking about support organisations; to aid an understanding of gaps in existing support provision; and to help explain how incubators and accelerators fit within the 'policy toolbox' of instruments available for firm development and ecosystem 'levelling up'.
- For managers and practitioners operating support organisations, the study is intended to help identify potential opportunities for collaboration with other support organisations; to highlight trends affecting the sector; and to help programmes advocate their functions more effectively. It may help to identify areas where good practice is needed, but does not aim to summarise the current state of knowledge about good practice in running programmes.
- For entrepreneurs themselves, the study is intended to provide a map of the sometimes-confusing startup support landscape; to improve understanding and identification of the most appropriate support for their particular stage of development; and help signpost entrepreneurs towards relevant support programmes in the UK through a new online database that will follow this report.

- ¹ See, e.g. Calvino, F., C. Criscuolo and C. Menon (2016), "No Country for Young Firms?: Start-up Dynamics and National Policies", OECD Science, Technology and Industry Policy Papers, No. 29, OECD Publishing, Paris, https://doi. org/10.1787/5jm22p40c8mw-<u>en</u>
- ² See, e.g., Hallen, Benjamin L.; Cohen, Susan; and Bingham, Christopher (2019) Do Accelerators Work? If So, How? Available at SSRN: https://ssrn. com/abstract=2719810 or http://dx.doi.org/10.2139/ ssrn.2719810. Also Bone, J., Gonzalez-Uribe, J., Halev. C. and Lahr, H. (2019) The Impact of Business Accelerators and Incubators in the UK, BEIS Research Paper Number 2019/009
- ³ https://www.gov.uk/ government/statistics/ business-populationestimates-2021. It should be noted that most of the decrease in firms appears to be amongst firms with no employees.
- ⁴ Bone, J., Allen, O. and Haley, C. (2017) Business Incubators and Accelerators: The National Picture, BEIS Research Paper Number 2017/7
- ⁵ Bone et al (2019) ibid

1.2 METHOD

The study took a mixed-methods approach, combining a UK-wide online survey of support programmes with interviews of programme founders or managers and related stakeholders. A copy of the survey questions is included in the Appendix.

Via phone or email, we were able to verify the existence of over 750 startup support programmes in the UK. Of these, we received survey responses from 112 organisations; several respondents represented multiple programmes – up to 30, in one case. In addition to disseminating the survey directly to programmes for which we could find contact information, it was advertised via partner organisations (including Beauhurst, Bruntwood, Capital Enterprise, Coadec, NACUE, Founders Forum, the National Enterprise Network, the Scaleup Institute, The Entrepreneurs Network and UKSPA) and via social media. It was also disseminated to the 38 Local Enterprise Partnerships across England, and to contacts in Wales, Scotland and Northern Ireland, and maintained live online for around sixteen weeks.

In addition to this survey, we conducted in-depth interviews with around twelve programme managers, aiming to ensure representation across different regions of the UK and across different types of programme. This provided additional detail, as well as important information about the formation process of programmes.

1.3 CLASSIFICATION

The UK startup support landscape can be confusing for entrepreneurs, policymakers and researchers alike. A contributing factor is inconsistent and sometimes contradictory labelling of programmes, as well as the existence of programmes which don't 'fit' existing labels or models. With over 750 startup support programmes existing in the UK, classification frameworks can thus help reduce the confusion, and enable easier conversations between programme managers, entrepreneurs, investors, policymakers, researchers and other stakeholders. However, classification is made difficult by several things:

First, the startup support landscape is rapidly evolving, as discussed in section 3 and elsewhere; this means that strict definitions can soon become outdated as programmes' characteristics change. For example, Bound and Miller (2011) suggested that provision of pre-seed investment (usually in exchange for equity), was a defining feature of accelerator programmes; however, Bone et al (2017) dropped this requirement since changes in funding models (driven both by corporate sponsorship and public subsidies) made equity-based models less common.⁶

Relatedly, the evolution of programmes has also led to the emergence of hybrid models, which combine features of both accelerators and incubators. (For example, at least one university offered free desk space and business support for aspiring entrepreneurs, with group intakes, but with limited mechanisms to encourage peer-learning).

We have also seen the emergence of new models which defy categorisation based on previous schema. *ConceptionX* and *Deep Science Ventures* are two examples; arguably, these may be better described as 'venture studios' than accelerators, but this label is still rather inadequate. (See case studies).

Business model evolution has also brought entrants from very different directions: for example, driven by the pandemic, some businesses sought to add revenue streams by opening up facilities to remote-workers, thus effectively becoming coworking spaces.

In addition, increased competition in the startup support space has sometimes led to programmes describing themselves in a way which more closely reflects a *desire for*

⁶ Paul Miller and Kirsten Bound (2011) The Startup Factories The rise of accelerator programmes to support new technology ventures, NESTA discussion paper, June 2011

differentiation than actual differences in services. Thus some programmes which fit the working definition of an accelerator above do not want to be referred to as such, whilst some coworking spaces and consultancies prefer to brand themselves as accelerators, possibly since the latter are seen as more 'value-adding'.

Yet other programmes (e.g. Durham City Incubator) refer to themselves as both an accelerator and an incubator, or else use the terms more or less interchangeably.

1.4 WORKING DEFINITIONS

Despite difficulties in classification, we nevertheless need some working definitions. These definitions are imperfect, as we discuss below, but will be helpful in explaining what follows:



Accelerators are startup support programmes which are cohortbased and of fixed duration. Almost all such programmes provide mentoring, peer-to-peer interaction, business skills training, as well as investment readiness training and connections to investors. (See section 2.5 for detailed analysis of services provided). Such programmes are typically selective, based on criteria such as sectoral focus and growth potential. Some programmes are explicitly modelled on YCombinator, the US programme established by Paul Graham in 2005 which is often considered the first accelerator.



Pre-accelerators are short programmes designed for prospective entrepreneurs who are not yet ready for an accelerator. They are typically intended for first-time entrepreneurs at a very early stage. Programmes are shorter in duration than accelerators, and do not aim to take a product to market, but rather are focussed on fostering entrepreneurial awareness and understanding.



Incubators are startup support organisations which provide physical space to startups, along with additional growth-related services, but are **not** cohort-based nor fixed-term (though there may be a maximum residence duration). The provision of services is an important distinction between incubators and coworking spaces: most incubators also provide services such as investment readiness training, connections to investors, IP advice (directly or via third party service organisations), technical support, and peer-to-peer interaction. Programmes are often fee-based (e.g. charging a monthly rent) and tend to be less selective than accelerators – though there are typically still some admission criteria, such as geographic location of firms, university affiliation, stage, or sectoral focus.



Co-working spaces are flexible, shared office spaces. These are usually available on short-terms contracts. Unlike incubators and hackspaces, co-working spaces usually provide minimal business development services and no technical facilities.



Hackspaces are spaces with shared facilities for physical development of a product or technology. Also called makerspaces or hackerspaces, there is an emphasis on technical workshop facilities, such as 3D printing and rapid prototyping, over office space.



Innovation centres are organisations which support the development of technological businesses, with a focus on the near-market elements of the Re-D process. The term is used quite widely, and many organisations which identify as innovation centres may also identify as another type of organisation as well.7



Science parks are organisations that provide an area for companies involved in scientific work or new technologies. Normally managed by specialised professionals, they aim to increase the wealth of their members by developing a culture of innovation and competitiveness. As well as having incubation and spin-off processes, Science Parks focus on stimulating and managing the flow of knowledge and technology and providing high quality facilities.8



Hackathons or hackdays are events that bring together software developers, entrepreneurs, designers and others to ideate, plan and build a 'minimum viable product', often directed at solving a specific problem. A portmanteau of 'hacking marathons', these events were originally software-related, but are expanding into other areas.



Venture builders, also known as venture studios, are organisations which directly create and scale multiple startups. Such organisations typically develop an idea into a product, and then launch a business using their own resources, expertise and networks – often according to a repeatable internal 'recipe' or methodology.

In this report, we examined not only respondents' self-reported classification (e.g. whether they referred to themselves as an 'accelerator', 'incubator' or something else), but also programmes' characteristics (e.g. whether their service offering was fixed-duration or openended). On occasion, we reclassified programmes on the basis of their characteristics (e.g. if an organisation described itself as an incubator but was cohort-based and time-limited); where we have done so, this is noted in the analysis.

⁷ See Roper et al (forthcoming) 'Powering Physics-based innovation: Exploring the need and role of a Network of Innovation Centres in the UK and Ireland'. Enterprise Research Centre / IoP

⁸ See International Association of Science Parks https://www. iasp.ws/our-industry/ definitions/science-park

2.0 Current Landscape

This section provides an overview of the landscape of accelerators and incubators, and some related startup support, as it currently stands.

2.1 OVERVIEW

The UK startup support landscape remains very diverse, with several hundred different programmes and continually-evolving models. As well as the archetypes defined above, we find numerous hybrids and experimental alternatives.

The objectives and anticipated impact of programmes are quite variable. Although our survey did not specifically aim to measure or understand impact, it is clear that some programmes (particularly privately-funded accelerators) are focused primarily on firm growth, whilst others (particularly public sector programmes) are focused more on ecosystem-level impact and local economic regeneration; yet others are concerned more with impact on the level of individual entrepreneurs and their businesses. This is discussed more in the 'Impact' section.

The pandemic has increased the rate of change in the sector – resulting in the closure of several programmes and the redesign of many. Although 'virtual' accelerators and incubators were already emerging pre-pandemic, there has been a very rapid, sector-wide, change towards hybrid physical-virtual models. This has brought a few benefits – such as broadening geographical access, and potentially reducing costs for a small number of programmes - but has created substantial challenges in terms of lost revenue (e.g. from events and rent) and also in terms of how to maintain the known benefits of peer-to-peer interaction.

The sustainability of many programmes remains in question. As discussed in the 'Funding and Business Models' section below, many accelerators are effectively startups in themselves - that is to say, they fit the Steve Blank definition of young entities in "search for a repeatable and sustainable business model".9 Although business models are very varied, many programmes remain reliant upon corporate sponsorship or public funding to cover their costs. Whilst the sector as a whole has seen a significant increase in the total amount of public funding over the past five years, the post-Brexit withdrawal of EU funding has led to the closure of some programmes and caused others to resort to more short-term funding (which is likely to be more inefficient and risks lost learning). It is unclear whether UK-based funding has adequately replaced funds lost from European Structural Funds such as ERDF, and whether the UK Shared Prosperity Fund will do so.

Interestingly, a significant proportion (45%) of survey respondents did not know the total costs of their programme; this was particularly the case for university-run accelerators and incubators, where space and/or staffing costs were often allocated to other budgets and programme managers had limited visibility of true costs. This potentially makes it more difficult for policymakers and public funders to understand the impact of grants, or to judge what is possible with a certain funding allocation, and underscores the need for better data across the sector.

The competitive dynamics of the sector are subtle. Given that many programmes are funded by public sources (or quasi-public sources such as universities), such programmes do not have to compete with others in a traditional business sense. Moreover, as with many elements of the startup ecosystem (at least, in relatively well-developed startup ecosystems such as the UK), there is a strong collegial attitude, reinforced by the notion of 'giving back' and sharing developing ideas of good practice. Many programmes also refer

⁹ https://steveblank. com/2010/01/25/whatsa-startup-first-principles/ [accessed 14/07/22]

startups to one another, as discussed in the 'Networks' section below. Nevertheless, it is clear that programmes do compete for the best startups and for top-quality mentors, and hence there is a limit to that collegiality. This also means that publicly-funded programmes may, if policymakers are not careful, damage or displace private-sector activity.

2.2 GEOGRAPHICAL DISTRIBUTION

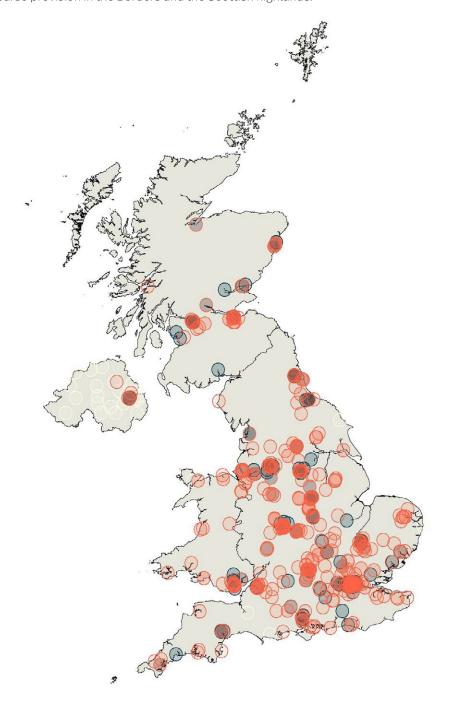
Of the 750 or so startup support programmes which we were able to identify in the UK, we were able to locate most by postcode or telephone area code – although this was not possible for a few programmes that were delivered wholly online.

Mapping the geolocated programmes across the UK (see below), it is clear that there are some relative 'hotspots' as well as some apparent geographic gaps.

In terms of absolute numbers, London remains a hotspot for both accelerators and incubators, with other clusters existing around Oxford, Cambridge, the Midlands, the Glasgow-Edinburgh corridor, and in South Wales. Conversely, there appears to be relatively sparse provision in the Borders and the Scottish highlands:

Figure 1: Location of Accelerators & Incubators

Accelerators (blue) and incubators (orange). Some organisations may be obscured in high-density locations



It is, however, more meaningful to normalise programmes by the business population. On average, England has fewer incubators and accelerators per business than any of the other Home Nations; the presence of more facilities outside England may reflect economic development priorities or other political concerns.

An even finer-grained picture emerges when one looks at the level of Local Enterprise Partnerships (LEPs). When this is done, London still remains a stand-out region for accelerators, with the Tees Valley, Oxfordshire and Cambridgeshire also showing high densities (see below).

The concentrations in London and Tees Valley illustrate some of the different functions or expectations of accelerators: in the former area, programmes are primarily private-sector endeavours attracted by the high per-capita startup rate and influenced by the number of large corporates headquartered in the capital, being driven largely by corporate strategies; such programmes are typically focused on high growth-potential startups. In contrast, the programmes in the Tees Valley appear to be primarily publicly-funded programmes being used for economic regeneration; such programmes are typically focused on slower-growth startups.

When incubators are standardised by business population, London shows average density whilst the Oxfordshire LEP stands-out as a national hotspot, as a result of numerous facilities around the Harwell Science & Innovation Campus and Oxford University.



(standardised by business population)

Figure 2 (left)

Incubators by

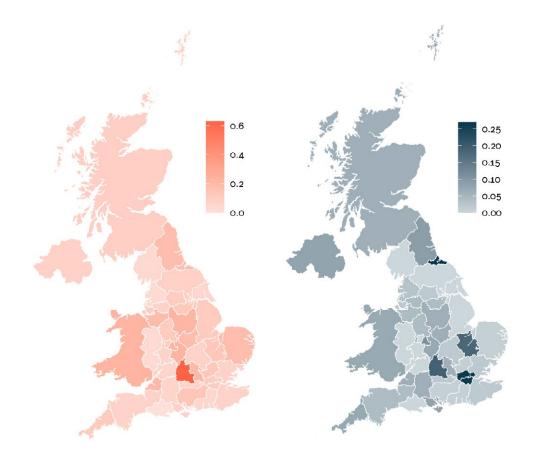
LEP / other

region

Figure 3 (right)

Accelerators by LEP / other region

(standardised by business population)



2.3 CLUSTERS & CATCHMENT AREAS

The location of programmes raises two important questions: is the distribution adequate for the needs of startups (i.e. are there significant gaps), and how optimal is the current distribution (i.e. would the network of programmes be more efficient or effective if it were arranged differently)? Answering these questions properly is beyond the scope of this report, although we can make a number of observations:

First, that sparsely-located programmes are not necessarily a problem if good communication links enable easy access. For example, the relative lack of accelerators in the Coast to Capital, Enterprise M3 and South East LEPs may not be problematic given good road and rail links into London. Similarly, if startups can travel, the low density of incubators in the Thames Valley Berkshire LEP may not be a cause for concern, given that this is adjacent to the high-density Oxfordshire LEP. Conversely, higher per-business density might be needed in areas such as Scotland and Wales where travel is more difficult (even though such programmes would likely be less effective due to reduced peer learning and reduced agglomeration effects, as discussed below). We suggest that this may be a worthwhile topic for further research.

Second, that the effective catchment area of programmes has changed dramatically since the pandemic. Almost every survey respondent reported that they had delivered more services online as a result of the pandemic; this has clearly had the effect of widening potential catchment areas, although it raises some questions about effectiveness of programmes (as potential peer interaction is reduced) and also whether local spillovers might also be affected (see Impact section below).

Third, that various agglomeration effects are known to exist for technology clusters and startup ecosystems. As has been well-studied in Silicon Valley, for example, there are many potential benefits which emerge from related firms being located in close proximity; these include increasing knowledge spillovers, enabling labour market pooling, reducing transportation costs and achieving the critical mass needed to sustain certain service-providers. For this reason, the optimal distribution of accelerators and incubators might not necessarily be a uniform one (thus, to continue the example above, it might be more impactful for a new accelerator or incubator *not* to open within the Thames Valley Berkshire LEP but rather to build on the already-existing Oxfordshire cluster), and regions considering new startup support provision should do so with their local smart specialisation strategies in mind. (See also the comments in 2.4.1 below).

Fourth, that the relationship between supply and demand for startup support programmes is currently very poorly understood. In particular, it is unclear to what extent new supply can actively stimulate demand (as programmes funded for the purpose of economic regeneration hope to achieve), as opposed to simply satisfying a pre-existing, but fixed, demand. (This is discussed further in the 'Ecosystems' section below and is, to a certain extent, in tension with the point above).

Interestingly, survey responses indicate that 38% of accelerators (and 24% of incubators) attracted some startups from overseas, whilst over half of accelerators (and over a third of incubators) attracted startups from other regions of the UK. Overall, accelerators were more likely than incubators to have a wider catchment area – which may be in part a function of greater intensity of sectoral focus (discussed below).

2.4 SECTORS AND SPECIALISATION

One of the broad trends of recent years - for accelerators and also, to a slightly lesser extent, for incubators - has been towards increasing sectoral specialisation. Whilst the first support programmes arriving in an area are often quite generic (the original YCombinator

of accelerators launched since 2019 were specialised compared to 38% launched between 2015-2018 and 29% before 2015

accelerator model accepted broad digital cohorts, and older incubators typically had little sector focus other than 'technology' or possibly biotechnology), increasing competition usually drives increasing differentiation of programmes, meaning that subsequent programmes are more likely to focus on (increasingly narrow) industry verticals.

Excessive specialisation may, however, reduce the number of startups who are attracted to a programme, and thus reduce its viability. Thus, in areas with lower startup creation rates, we may expect specialist programmes to be less viable (although see below for caveats regarding catchment areas).

Moreover, as discussed elsewhere (e.g. Bone et al 2017), increasing sector specialism may affect the peer dynamics within programmes, in two ways: first, narrower verticals potentially increase the possibility of competition between members of the same programme (at least for a place in an investor's portfolio, if not for end-customers); second, a narrower industry focus potentially decreases the likelihood of members of the same programme being at a similar developmental stage, and hence may reduce some opportunities for peer learning (although it may increase industry-related learning). Potentially, therefore, there is a 'sweet spot' of specialisation.

Among survey respondents, slightly over half (55%) reported being sector-agnostic. Selfidentified accelerators were more likely than incubators to report a specialism. Around one third of total respondents reported a focus on digital, including fintech. Health & wellbeing was the next most commonly-reported specialism, followed by biotech, energy & the environment, and the creative economy. Programmes that self-identified as accelerators are much more likely to be specialised than programmes that are more hybrid or not calling themselves accelerators (71% compared to 26%).

The mean age of sector-agnostic respondents (of all types) was 11 years, whilst the mean age of sector-specialist respondents was around 7.5 years; this possibly agrees with the hypothesis that newer programmes may need to specialise as a form of competitive differentiation – although this data is skewed by the fact that older programmes are more likely to be incubators (since accelerators are a more recent innovation than incubators), and incubators are more likely to be sector-agnostic. More illustrative of the trend towards increasing specialisation is the fact that 75% of accelerators launched since 2019 were specialised compared to 38% launched between 2015-2018 and 29% before 2015.

As might perhaps be expected, accelerators describing themselves as sector-focused were significantly more likely than sector-agnostic accelerators to provide technical advice (65% vs 28%); recruitment services (48% vs 31%), demo-days (78% vs 48%) and prototyping facilities (35% vs 14%).

Incubators describing themselves as sector-focused were significantly less likely than sector-agnostic incubators to provide support for business model refinement (43% vs 88%); less likely to provide investment advice (21% vs 75%); less likely to provide grant support (14% vs 50%); and less likely to provide mentoring (57% vs 75%). However, they were much more likely to assist with press and PR activities (79% vs 58%). The reduced mentoring is puzzling and warrants further understanding, especially since other research suggests that founders value advice from industry specialists more highly than various other types of advice; conceivably it is a consequence of firms in specialised incubators tending to be slightly later stage (see 2.8 below).¹⁰

Some interviewees also commented that, in their view, industry-specific programmes were much more likely to add value by making deep industry connections (including with regulators) than by connecting founders with VCs or supporting business model development. However, survey responses indicate that although specialist incubators were less likely than non-specialist to provide investment advice and connections, there was relatively little difference between specialist and non-specialist accelerators.

¹⁰ See Bone et al (2019) for discussion of mentor types and perceived value.

Whether detrimental peer dynamics arose from specialisation was unclear: some interviewees felt that these effects were very much present, but this was not a unanimous view and was not illuminated by the survey data.

2.4.1 HOW SPECIALISM AFFECTS LOCATION AND CATCHMENT AREAS

How does specialism affect programmes' catchment areas? Intuitively, one would expect that more specialised programmes (e.g. an accelerator focusing on a narrow industry vertical) must have a wider catchment area than non-specialised programmes because demand for is likely to be lower and more diffuse.

Indeed, this is what the survey data shows. In the table below, 'specialised' programmes are those reporting a specific sector focus, whereas 'non-specialised' have no specific sectoral focus. The columns show the percentage of all programmes which attracted some of their startups from overseas, versus other regions of the UK, versus elsewhere within the same region (but it does not show the percentage of attendees, hence the rows do not sum to 100%). Specialised programmes were slightly more likely than non-specialised programmes to attract startups from overseas and from other regions of the UK:

Table 1: Catchment areas by programme type

	OVERSEAS	OTHER REGIONS	SAME REGION	NO RELOCATIONS
Accelerator specialised	39.1%	56.5%	26.1%	21.7%
Accelerator non specialised	37.9%	48.3%	27.5%	37.9%
Incubator specialised	28.5%	43%	43%	14.2%
Incubator non specialised	16.7%	29.2%	25%	50%

As ecosystems mature and more startup support organisations arrive, later support programmes will have to compete – and if they compete on the basis of specialisation (rather than, say, competence and reputation) then they will need to consider a wider catchment area and the ease with which startups can relocate or commute to that region.

In addition, this survey data confirms initial findings from Bone et al (2017) that accelerators in general have a wider catchment area than incubators. This may suggest that entrepreneurs may see incubators as more substitutable or interchangeable than accelerators; alternatively, it may be a function of the fact that attendance within an accelerator is typically for a shorter period than an incubator (and that entrepreneurs may be willing to relocate for a few months but not for a few years), or otherwise requires a lesser commitment to physical attendance. As discussed below (see Covid and Online Services), we also note that accelerators were substantially more likely to deliver more of their services remotely, compared with incubators.

In addition, notwithstanding the comments elsewhere about greater virtualisation of programmes, proximity clearly still matters for some functions. All else being equal, we would therefore expect specialist programmes to locate where there is greatest demand from startups (and/or proximity to customers and mentors of those startups), which is likely to mean alignment with regional smart specialisation strategies - e.g. fintech accelerators being based near the City of London, many specialist engineering programmes being located in the Midlands, etc. Conversely, more generalist programmes might be expected to be more evenly distributed.

2.4.2 WET-LABS

A related question is whether there may be specific industry sectors which are currently under-represented by startup support programmes. (Bone et al (2017) noted that this appeared to be the case for some sectors such as retail and construction, which have since been filled by new programmes). Unfortunately our survey data was insufficient to determine whether this was still the case.

That said, interviewees repeatedly raised the question of lack of wet-lab space for **biotechs** – laboratory facilities which are equipped to handle chemical and biological hazards - both within incubators and elsewhere. Many interviewees described how, in their view, the UK provision of wet-lab space was not keeping up with demand even prior to the pandemic (with the closure of some relatively high-profile spaces such as the Sheffield Bioincubator exacerbating the shortage). 11 Given that the pandemic has driven a surge of interest and investment in UK biotech, the shortage of wet-lab space has become especially acute. The lack of suitable accommodation was considered by several interviewees as a barrier which was becoming a significant hurdle to young UK biotechs, and a threat to the sector as a whole. This concern has also been raised by other organisations recently.12

At the same time, it is clear that the pandemic has caused a substantial shift in commercial property, significantly affecting demand for certain uses. Conversion of some commercial space to wet labs would therefore likely be beneficial both to biotech startups and property owners, but unfortunately is very difficult: although use-class planning restrictions have now eased, there remain significant practical problems in refitting buildings (e.g. aside from cost, there are specific requirements such as ground-floor space for delivery and storage of bottled gases, restrictions on ceiling height, etc.). Some interviewees did suggest, however, that planning processes could be further improved (for instance, through the use of local development frameworks which fast-track research & development related proposals).

Interestingly, one UK startup Opencell has begun to address this shortage by creating modular wet-labs in shipping containers which can be 'daisy-chained' together and which can be installed on-site much more rapidly.¹³ At the time of writing, these units are being used at Imperial College White City, at Kings College London, in the State of Jersey, and other locations.

2.5 SERVICES

The charts below show the services offered by accelerators and incubators. The illustrations show the percentage of survey respondents who directly offered a particular service themselves, or did not offer it themselves but provided it via a third party, or did not offer a service at the present time yet planned to do so in the near future. (Some respondents offered services both directly and indirectly; however, the charts below only show a third party service where that service was not offered by the programme itself).

Based on the survey responses received, it is clear that (self-identified) accelerators placed a heavy emphasis on mentoring and investment readiness (which were offered directly or indirectly by 100% of programmes) as well as networking with peers and investors, business model improvement and skills training (present in around 96% of programmes). Advice concerning IP or legal matters were also components of most programmes, but was largely provided via third parties:

- 11 See, e.g.: https:// www.jtomlinson.co.uk/ case-studies/universityof-sheffield-refurbishmentof-ella-armitage-building/
- 12 E.g. Peter Foster 'Lab space shortage threatens life science boom in Oxford and Cambridge' Financial Times, 1st August 2022. Available online at: https://www.ft.com/ content/397a75aa-3047-432e-8664-d1974fbb05df

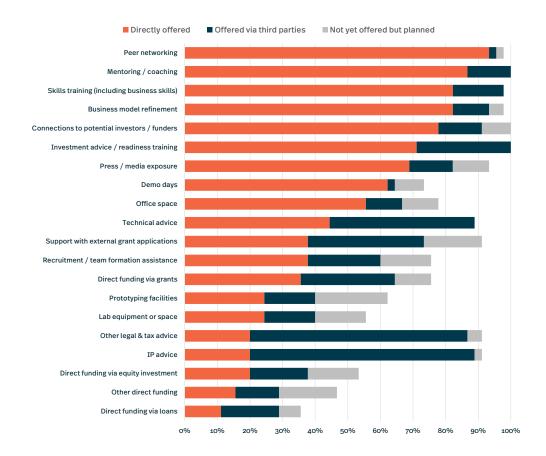
¹³ https://www.opencell.bio/

Figure 4:

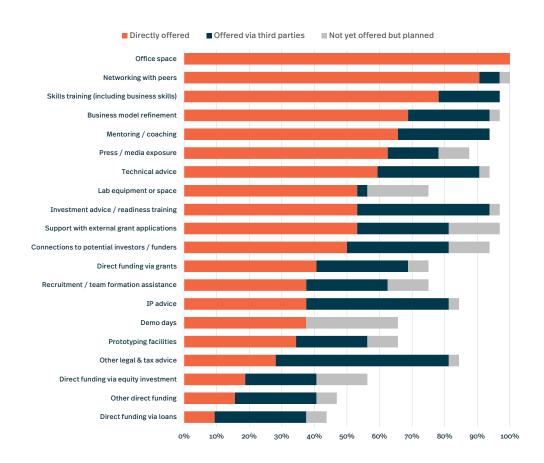
Services provided by self-identified accelerators



incubators



In contrast, the most common service offered by (self-identified) incubators was physical office space, provided directly by every organisation, followed by peer networking, skills training and business model refinement. Incubators were slightly less likely than accelerators to provide investment advice and connections to investors, and slightly more likely directly to provide technical, IP and legal advice:



2.6 FUNDING AND BUSINESS MODELS

Previous studies have typically suggested that funding models for accelerators and incubators are based on four main sources:

- Return on equity from startups: This is arguably the 'original' accelerator model as per YCombinator and the first generation of programmes which were formed in imitation of this.
- Corporate sponsorship: This includes independent programmes which receive sponsorship from a company (e.g. NEF+) as well as programmes commissioned by corporates (e.g. the former Barclays Accelerator run by Techstars).
- Service fees (rent, etc): This includes not only rent but other commercial operations such as facilities hire, venue hire, etc,.
- Public funding (local, national or European sources): This includes local / regional government funding, central UK government funding and European funding. We also included in this category quasi-public funding from universities.

Survey respondents were asked to report the percentage of income from these types of sources, and also allowed for other sources to be included. The total funding for those programmes reporting their sources is as shown below. Note that there are important caveats for this data: first, this is based on survey responses only and contains several approximate numbers; second, some respondents reported funding for operating expenses only, whilst others included capital expenditure (it was not uncommon for programmes to have initial facilities paid from sources such as growth deals with LEPs, or EU funding, but then rely on others for ongoing costs); third, the data is based on a 'weighted mean' mix, meaning that it is programme's responses are weighted according to total size of their programme – which more accurately reflects the total funding going to each programme type across the UK, but means that it is dominated by the funding mix of the largest programmes or organisations.

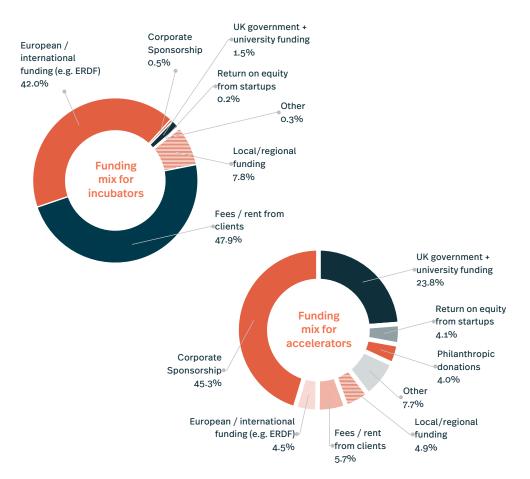


Figure 6 (left): Funding mix for incubators

Figure 7 (right): Funding mix for accelerators

Caveats aside, this data strongly suggests that equity-based income, whilst significant for a few privately-run accelerators, is now a small proportion of the overall mix (contra Miller & Bound 2011). Indeed, only 11 of 113 respondents reported taking equity for participation (although a further 12 programmes offered the possibility of equity-based investment). Public bodies reported that it was often legally difficult for them to hold equity, whilst some corporate programmes had decided against holding equity for strategic reasons.

Interestingly, not one respondent reported being fully-funded via equity; the maximum reported was 70% of income, and the mean substantially lower, meaning that - at least among the UK respondents - there were no 'pure' equity-based programmes. We suggest that this may partly because equity-based models have been driven out of the market by 'free' (zero-equity) models, and partly because equity-driven models have largely struggled in making suitable financial returns from equity in the UK.

There was a common view amongst interviewees that those equity-based programmes which survived in the UK would have to be the 'top-end' programmes – that is, featuring very high-quality mentors, delivering outstanding results for entrepreneurs, receiving numerous applications from high-potential startups or scaleups, and consequently able to be very selective in their admission. There was some limited evidence of VC firms moving 'upstream' into this space in order to help secure dealflow.

For accelerators, around 45% of total funding now originates from corporate sponsorship, followed by UK government funding (including quasi-governmental funding via universities). More than half of self-identified accelerators reported receiving some funding from corporates, with several being wholly-reliant upon this source. Corporate sponsorship (or subsidies from a parent company) appears to have largely supplanted the equity-based model for accelerators. The reasons for corporate sponsorship of accelerators are varied, and may range from the need to solve specific internal innovation challenges to less specific goals such as internal cultural change.14

The dominance of corporate funding among accelerators raises a question. There were some concerns amongst interviewees that corporate accelerators might not be delivering on their intended objective, or that some corporates were effectively "moving the goalposts", in changing their mind about what they wanted from an innovation programme (potentially exacerbated by the fact that some corporate accelerators may have been created initially for relatively intangible reasons, such as promoting exposure to innovation and driving internal cultural change).

Certainly there have been some high-profile changes with corporate accelerators in recent years: Telefónica's Wayra programme, for instance, has moved away from early-stage acceleration in broad areas, towards companies at series A stage which may help solve specific internal problems. One expert commented that "corporates are moving away from innovation theatre towards sensible business cases"; another interviewee was of the belief that corporates were moving towards later-stage startups and towards other (nonaccelerator-based) mechanisms of engagement, such as more innovative procurement. This is partially supported by the data on survival discussed below, although we suggest that further research is needed to determine if there has indeed been a more substantial shift in attitudes amongst corporate accelerators, and how these attitudes might be affected by co-funding with public money. However, if other firms follow Wayra in moving later-stage, this may create a substantial gap in early stage acceleration support.

Philanthropic donations contributed 4% of the total funding into accelerators, but were mostly absent from incubators. This source included grants from healthcare charities and hospital foundations, as well as some high net-worth individuals. One interviewee commented that the tax relief for qualifying charitable donations made to startup support organisations may be a bigger (and certainly more reliable) incentive for funders than investment returns; this was not explored in depth but warrants further consideration.

¹⁴ E.g. Mocker, M, Bielli, S and Haley, C (2015) Winning Together: A Guide to Successful Corporate-Startup Collaborations London: Nesta

Service fees are important for incubators, with around half of total funding being derived from rent or other commercial service fees such as equipment rental. Several incubators reported being wholly fee-funded, whilst no accelerators reported this. Perhaps unsurprisingly, programmes which derived income from service fees were slightly less likely to work with very early (ideation-stage) firms, and also slightly less optimistic about their growth prospects in the next 1-2 years.

2.6.1 CONTINUITY OF FUNDING

Public funding is clearly also crucial, contributing around one third of the funding of both accelerators and incubators. Moreover, public funding is also important in leveraging much of the private funding. However, many interviewees expressed frustration that public funding was too short-term, with a lack of continuity. There were many examples of apparently impactful programmes closing because of gaps in funding – only for public bodies to launch a new funding scheme a year or so later. There was evident frustration among some interviewees that this led to a wasteful and time-consuming dissolution and reforming of organisations and their networks.

There appear to be multiple reasons for this. One is that public funding for startup programmes is, in many cases, driven by political cycles that are limited to a few years. Another is that (as discussed in the *Evidence for impact* sector below) many programmes may not gather sufficient evidence of impact in order to make a convincing case for ongoing funding.

Arguments in favour of public funding, including the role of spillovers, are discussed in more detail in the 'Recommendations for Policymakers' section below, along with a suggested solution to the issue of continuity of funding.

2.6.2 UKSPF

European funding (especially ERDF) is very significant for incubators, and UK government funding (including quasi-governmental funding from universities) also plays an important role. Many incubator respondents reported being fully dependent upon public funds, and several more reported that the majority of their funds were derived from such sources. Only 8 incubators reported receiving no public funding at all.

The heavy reliance upon European funding is a cause for concern. Some interviewees reported that withdrawal of EU funding, post-Brexit, had already led to the closure of programmes, and they were unclear whether UK-based funds, such as the UK Shared Prosperity Fund (UKSPF), which launched in April 2022 to replace EU structural funding, would adequately address these gaps. In addition, it is notable that many EU funding programmes were multi-year, and replacing this mechanism with an annual cycle risks creating additional inefficiencies and losing learning from programmes.

Accelerators and incubators are explicitly described as eligible intervention mechanisms for the UKSPF, in order to grow local businesses and talent. ¹⁵ However, there is no mechanism in the UKSPF for existing startup support programmes to apply directly for grant funding, meaning that accelerators and incubators are reliant upon local authorities recognising their existence and their value.

More importantly, UKSPF funding is delegated to numerous 'lead local authorities', which includes borough councils; many of these authorities are themselves too small to generate significant numbers of startups, and their budget allocation too limited to fund an accelerator or incubator alone. Collaboration between authorities is the obvious means by which to overcome these objections, but imposes an administrative hurdle which may not have been overcome in the relatively short time period between fund launch and the deadline for investment plans (around three and a half months). Geographic-based collaboration may also hinder the funding of sectoral-based programmes (e.g.

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Replacing multiyear funding mechanisms with an annual cycle risks creating inefficiencies and losing learning from programmes

¹⁵ See intervention E24 of the UKSPF Prospectus: https://www.gov.uk/ government/publications/ uk-shared-prosperityfund-interventionsoutputs-and-indicators/ interventions-list-for-england

accelerators focusing on a specific industry), unless local authorities are well-informed of the business mix of their area and able to identify similar specialisations in other areas.

It also raises the question of which organisations, if any, have strategic oversight of the mix of programmes in a given area, and how to achieve the optimal combination of support for different stages (e.g. pre-accelerators, accelerators and incubators) and specialisms (e.g. generalist programmes plus specialist ones). From our interviews, few cities or regions appeared to have a portfolio view of startups support, and the lower-level of delegation of UKSPF funding might exacerbate this further.

Based on our research, very few programmes were involved in active conversations with local lead authorities about UKSPF funding. This does not necessarily mean that local lead authorities will not fund such programmes in due course, although we suggest that this warrants monitoring.

2.7 ENTRANCES AND EXITS

All support organisations undertook some activities to advertise themselves to startups, even if only (in the case of university-run organisations) to signpost relevant members of their community towards them.

Several interviewees described how accelerators in particular were keen to secure quality dealflow, which would enable them to pick higher-quality candidates, thus potentially enabling greater benefits from peer interaction as well as more interest from investors.

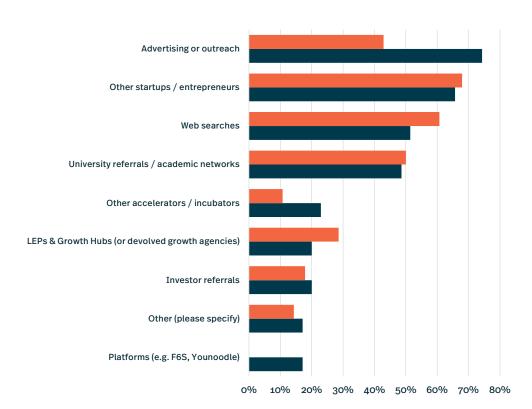
Amongst self-identified accelerators, deliberate advertising or outreach was the most commonly-reported mechanism by which startups found the support organisation concerned. This was followed by referrals from other entrepreneurs, then web searches, academic networks and referrals from other accelerators. The 'other' category included social media and word-of-mouth from non-entrepreneurs and business partners (such as IP lawyers, accountants, etc).

Incubators, in slight contrast, reported being less reliant on deliberate advertising or outreach, less reliant on referrals from other incubators or accelerators, and slightly more reliant upon LEPs. None reported significant use of platforms such as F6S.

Figure 8: Channels through which support organisations were found by startups

(Percentage of respondents nominating channel in top three options)

(Self-identified accelerators in blue; incubators in orange)



Multiple interviewees commented that, in their experience, entrepreneurs were discouraged from applying not only by lengthy legal contracts and complex access conditions, but also if they thought that their startups "didn't fit" the profile of the typical firm - whether by virtue of stage, sector, ambition or some other characteristic - or didn't understand what a programme entailed. This emphasises that the simplicity of the offering of a programme is important, and that programmes may benefit from advertising the diversity of startups that participate.

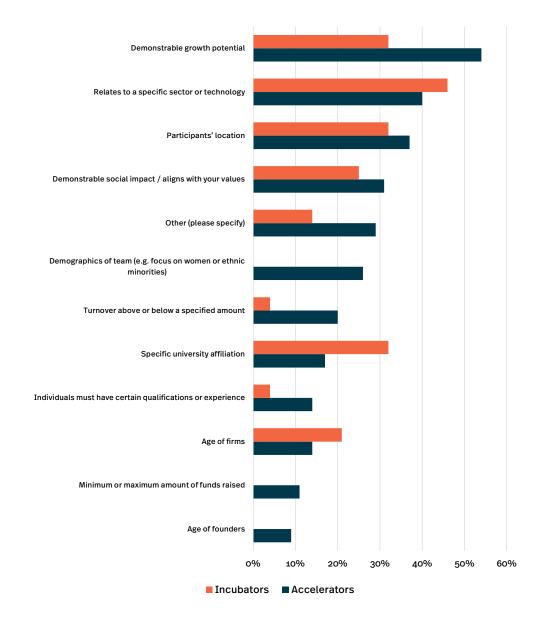
Every programme reported some kind of selection or filtering criteria. As might be expected, these criteria varied significantly between (self-reported) accelerators and incubators. Accelerators, for example, were on average significantly more likely than incubators to report considering the growth potential of a startup as one of their admissions criteria; much more likely to select on founder demographics; and more likely to examine the funds already raised by a startup (possibly as further evidence of growth potential). 'Other' criteria often included team composition, founder mindset and a willingness to learn.

In contrast, incubators, on average, imposed fewer entrance criteria overall - presumably as a consequence of more fee-based models. The criteria that were imposed most often related to a firm's sector or technology, location, growth potential and university affiliation; again, it seems likely that several of these criteria are the consequence of funding deriving from local public or university sources. No incubators restricted access on the basis of funder demographics or funds raised.

Figure 9: Entrance Criteria

(Percentage of respondents mentioning a criterion)

(Self-identified accelerators in blue; incubators in orange)



At the other end, how and why do startups leave a programme? Amongst incubators, the two most commonly-reported reasons for startups leaving were because they outgrew the available space, or had reached the maximum time limit set by the incubator (often a policy established in order to encourage firms to find more permanent residence and free-up incubator space for younger startups). Firm closure accounted for roughly 10% of exits from incubators. A minority of incubators reported firms leaving because they needed facilities that the space could not offer, or because they wanted lower costs.

Among accelerators, programmes typically reported 75%-100% of startups leaving because they graduated from the programme; of the remaining firms, a number had closed before the programme's conclusion (often because entrepreneurs had concluded that the business model was not viable), whilst a minority left because they needed facilities which the programme could not offer, or outgrew the space that was available. Some university programmes reported startups leaving as students failed their degree or became otherwise ineligible; a few programmes had to remove startups for non-compliance with the programme's conditions.

2.8 STARTUP STAGE

The table below shows what percentage of organisations, by type, contained startups at different stages. It shows, for example, that just over three-quarters of accelerators housed startups at the pre-revenue stage, but that just under 15% of accelerators contained established firms.

Organisation type	Ideation / concept development	Pre-revenue	Initial market offering / scaling	Established
Accelerator	53.8%	73.1%	59.6%	15.4%
Incubator	44.7%	68.4%	60.5%	26.3%
Business Centre / Science Park*	20.0%	20%	60%	20%
Hybrid*	50.0%	83.3%	50%	16.7%

The survey shows that accelerators were slightly more likely to accept firms at a lessdeveloped stage than incubators, and slightly fewer at later stages. This contrasts slightly with Bone et al (2017) which found that accelerators were actually more likely than incubators to report housing 'late stage' startups; however, it should be noted that the terminology of stages used in this study was slightly different, and so the results are not strictly comparable. In addition, 'late stage' was not well-defined in Bone et al (2017), so there remains a possibility that accelerator and incubator managers each interpreted the term differently in that study.

When breaking down the accelerators and incubators further, by funding model and by sector specialism, a more heterogeneous picture emerges. This breakdown suggests that more generic (i.e. non-specialised) programmes are rather more willing to accept earlier-stage startups, whilst specialised programmes are slightly more focused on scaling firms; this might reflect the fact that the purpose of generic programmes is sometimes to help entrepreneurs identify their market niche, whereas startup have presumably already identified this in order to apply to a sector-specialised programme.

Table 2: Support programmes' clients by stage (Categories marked * received few responses. so the results should be interpreted with caution)

Tables 3 and 4

Support programmes by type, versus their clients by stage († Very few incubators reported corporate funding, so the results are not statistically significant in this table)

Organisation type	Ideation /	Pre-	Initial market	Established
Organisation type	concept development	revenue	offering / scaling	Established
Accelerator – fees	83.3%	91.7%	41.7%	8.3%
Accelerator – public	48.5%	72.7%	60.6%	15.1%
Accelerator – corporate	56.3%	75%	75%	0%
Incubator – fees	40%	65%	70%	30%
Incubator – public	50%	71.5%	60.1%	25%
Incubator – corporate†	N/A	N/A	N/A	N/A

Organisation type	Ideation / concept development	Pre- revenue	Initial market offering / scaling	Established
Accelerator – specialised	39.1%	65.2%	73.9%	13%
Accelerator – non specialised	65.5%	79.3%	48.3%	17.2%
Incubator – specialised	28.6%	50%	64.3%	42.9%
Incubator – non specialised	54.2%	79.2%	58.3%	16.7%

Note this study did not address the question of demand from founders, and so unfortunately cannot determine whether there is sufficient provision of support at different stages. However, given comments about later-stage support in section 3.4 below, we suggest that this would warrant monitoring.

2.9 COHORTS & DURATION

Most (all but four) programmes which described themselves as 'accelerators' reported being cohort-based, with the median number of cohorts per year being two. Conversely, most (all but ten) programmes which described themselves as 'incubators' reported being not cohort-based. Examining their services and other characteristics, we were of the view that five of the ten cohort-based incubators better met our definition of an accelerator; however, the remaining five were hybrid incubator-accelerator programmes which defied classification as one type or the other.

Median residence time within an incubator was 91 weeks, with responses typically ranging from 6 months to over 5 years. Median residence within an accelerator programme was 32 weeks (i.e. 9 months), with responses typically ranging from 6 weeks to 18 months.

The median number of startups supported by an accelerator programme per year (across all cohorts) was 40; similarly the median for incubators was also 40. If representative, this would suggest that the total number of startups supported in a year by UK accelerators and incubators is over 29,000 firms. However, especially in the case of incubators, firms



the number of unique firms supported per year is likely to be around 19,600

16 For this calculation, we followed Bone et al (2017) in assuming that incubators with multi-year residents would interpret the question 'Approximately how many firms do you typically support per year (in total)?' as reflecting the incubator's total capacity at any time, whereas accelerators and shorter-term providers would typically report total unique firms per year; multiyear occupancy in incubators. was thus adjusted for by dividing the annual capacity by average residence time in years (so an incubator with a capacity of 30 firms and an average residence time of 3 years would support, on average, 10 unique firms per vear) Sub-vear programmes were not treated in this way (i.e. if an incubator reported supporting 30 firms per annum with an average residence time of 0.5 years, we assumed a total of 30 unique firms rather than 60). Note that the calculation does not include large-scale programmes such as digitalboost (which was not classified as either an accelerator or incubator, but which estimates that it supports 4000 firms per year).

¹⁷ https://www.gov.uk/ government/statistics/ business-populationestimates-2021

> Figure 10: Perceived benefits of network membership

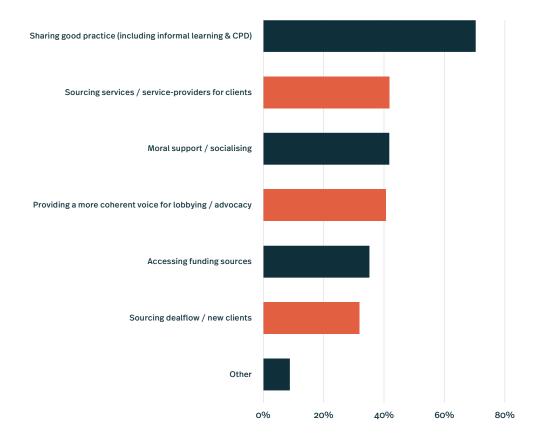
may be resident for more than one year, meaning that over a multi-year period the average number of *unique* firms supported will be lower; correcting for this multi-year occupancy, we estimate that the number of unique firms supported per year is likely to be around 19,600. This is significantly higher than the estimated 7,110 reported by Bone et al (2017), and seems caused by a growth in programmes as well as an increase in 'lighter-touch' programmes and virtual delivery which have enabled an expansion in cohort size. Note that this figure ignores any 'accelerator hopping' or other movement between programmes which might give rise to double-counting; if this phenomenon were to be substantial, it may suggest that the total would in fact be rather lower. For comparison, the new business formation rate in the UK was 358,000 firms in 2020, so these figures suggest that around 5% of new firms receive support from an incubator or accelerator. 17

2.10 NETWORKS AND SHARING GOOD PRACTICE

The significant majority of survey respondents (82%) reported being a member of at least one formal or informal network - such as the CFE's Incubator & Accelerator Network, the Sheffield Incubator and Accelerator Network (SIAN), the UK Science Park Association (UKSPA), BioIndustry Association (BIA), the European Bioscience Network (EBN), Enterprise Educators UK (EEUK), Capital Enterprise, Local Enterprise Partnerships, Chambers of Commerce and others.

Respondents that reported not being members of such networks were much more likely to be 'non-standard' accelerators or incubators, and were also slightly more pessimistic about their future growth, compared with organisations that reported network membership.

Amongst network members, the most common reported benefit was sharing good practice (including both informal learning and formal Continual Professional Development). This was followed by sourcing service-providers for client startups (e.g. finding patent attorneys, tax lawyers, accountants, etc) and social benefits, then advocacy. 'Other' reasons included finding partners for shared funding applications (note the Recommendations to Programme Managers below), and sourcing talent for startups.



Interestingly, the majority of respondents felt that there were additional opportunities for collaboration with other programmes, which were not currently being realised. In particular, a number of respondents wanted closer links between accelerators and 'preacccelerators' and easier ways to 'refer-on' startups that had outgrown or were otherwise unsuited to a particular programme. (Referrals from other organisations are already one of their top three sources of startups for 20% of respondents; however, there would appear to be scope to increase this further). Other suggested opportunities for collaboration are summarised in the 'Further Questions' section below.

That said, several interviewees acknowledged that collaboration was "easier said than done". Many were conscious that collaboration could lead to multiple organisations "claiming the same impact" - the success of a given startup, for example - which was undesirable because programmes often had to compete for funding, and funding was contingent upon impact.

The World is a very different place than when **YCombinator** started

Figure 11:

Proportion of respondents verses share of services delivered online

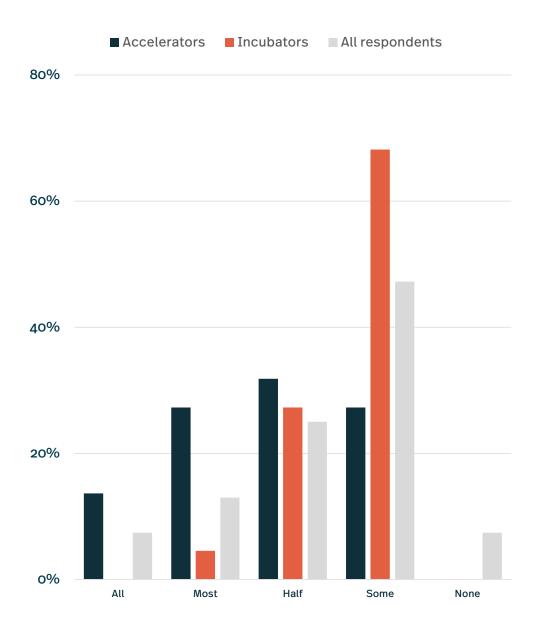
(NB: Selfidentified categories, with 'all respondents' including hybrids and other types)

3.0 Trends and **Evolution of Models**

The previous section described the state of the startup support landscape. This section describes trends or particular changes which have been observed over the past few years. Overall, the picture is one of rapid evolution of models. As one interviewee put it: "The World is a very different place than when YCombinator started".

3.1 HYBRID SERVICES

One of the most obvious changes in recent years has been a shift towards online services, driven by the pandemic. The majority of respondents reported that the pandemic had driven them to provide more services online. 93% of respondents reporting that at least some of their offering was provided this way. Only 7% of respondents (none of which selfidentified as an incubator or accelerator, but typically as innovation centres or business centres) reported that none of their services were virtual:



"Covid made us put everything online. We had to think creatively, and it showed us a few holes"

Self-declared accelerators were clearly more able to deliver services remotely than incubators. Given that - according both to our working definition and to the survey results - incubators are fundamentally more space-focused than accelerators, this is perhaps unsurprising. Perhaps more unexpected is that 27% of self-declared incubators reported delivering half of their services remotely.

As mentioned above, the accelerated move towards virtual services was perceived as bringing some benefits - such as widening catchment areas (often allowing overseas startups to participate); reducing costs for some programmes (some respondents reported that it cost 'about half' to deliver courses remotely); creating economies of scale (i.e. allowing a much larger cohort) and widening the pool of potential mentors. In a few cases, it helped organisations identify other opportunities to improve their offer. One interviewee reported: "Covid made us put everything online. We had to think creatively, and it showed us a few holes"

However, there were also clear disadvantages reported – such as reduced revenue from events and rent; reduced peer-to-peer interaction between entrepreneurs; supply-chain disruptions affecting startups; reduced applicants to some programmes; and increased cautiousness in some instances.

Other changes reported included organisations placing greater attention on wellbeing and mental health of founders. Several reported having reconfigured their internal spaces for different uses (e.g. incubators removing 'writing up' spaces in order to maximise wet-lab space, and some venues replacing their event spaces with other facilities) - although, at the time of the survey, a few programmes were waiting to see whether demand for physical facilities such as event-space would pick-up again. Some programmes opted to subsidise founders' travel to specific meet-ups, in order to ensure that in-person interaction between peers was maintained.

3.2 NEW ENTRANTS AND MODELS

As noted in section 1.3 above, many established firms have had to adapt their business models in order to compensate for revenue streams lost as a result of the pandemic. This has seen a variety of business premises opening their facilities to remote-workers, thus effectively becoming coworking spaces; new entrants into this field have included rather unexpected firms such as cafés and garden centres – which are probably unlikely to consider themselves as 'startup support organisations'.

Some coworking spaces - many of which were hard-hit by pandemic lockdowns have sought to move into the accelerator space by providing additional value-adding services. Just as workspace provider Huckletree previously opened a 12-week in-house accelerator for resident firms (The Alpha Accelerator), so other spaces have followed suit. Interviewees were generally cautious about this development, however, with one accelerator manager commenting that "some of these are quite dangerous: they are not necessarily experienced in this space and some of the advice is very questionable". This underscores the need for founders to undertake their own due diligence and understand the difference between programmes.

In addition, interviewees reported some VC firms opting to provide additional support to startups, in what is sometimes called a "venture plus" model. Whilst this is not an entirely novel development - Forward Partners, for example, was founded in 2013 specifically to provide a mixture of investment capital and growth services - it is interesting to see some VC firms being more active participants and attempting to add value in new ways.

The past few years have also seen the emergence of alternative venture-builder models. The 'venture studio' model has now existed for some time, as exhibited in organisations

such as Mint Digital (2004-2018), Rocket Internet (founded in 2007), Betaworks (2007), Science Inc (2011), eFounders (2011), and Pioneer Square Labs (2015). However, these organisations have now been joined by newer 'venture creator' organisations such as Post Urban Ventures, Deep Science Ventures and ConceptionX – which have notable differences, such as a focus on creating individual 'venture scientists', or adopting a 'problem-first' approach (see case studies). In addition, 'founder-centric' programmes such as Entrepreneur First (founded in 2011 by Matt Clifford and Alice Bentinck, to help potential founders find co-founders) and NEF+ (see case study), continue to thrive.

Undoubtedly, we will see continued experimentation with new models. We anticipate that we will see a variety of place-focused organisations (e.g. co-working spaces and incubators), training-focused organisations (e.g. pre-accelerators, accelerators, courses), team-focused organisations (e.g. Entrepreneur First and some venture studios) and capital-focused organisations (e.g. venture capital-plus) – potentially also joined by models focused around other critical dimensions such as navigating complex regulation or experimenting within real-world testing environments.

3.3 OTHER TRENDS

One further trend observed in interviews and in survey responses is towards ongoing support for firms graduating from an accelerator or incubator. Many programmes already have 'alumni networks' of some kind. However, there appears to be a movement towards more formalised alumni programmes. The Royal Academy of Engineering is one example, where members of any of their support programmes receive lifetime membership of their Enterprise Hub - providing ongoing access to the Royal Academy of Engineering's expertise and networks. Similarly, Start Codon has an active programme of alumni events, social meet ups and other activities intended to help develop the networks of alumni.

A second trend identified in interviews is organisations applying a 'stage-gated' admissions process in place of an 'in-or-out' decision. Such models typically start with a very large cohort, including perhaps over 300 firms, all of whom receive some level of support; after a period, this initial cohort is then filtered down to a smaller cohort which receive more intensive support. This has the potential benefit of permitting a lighter-touch admissions process and screening a much larger pool of startups.

A third trend perceived by interviewees is more support for established firms. One example is the Royal Academy of Engineering's Shott Scale Up Accelerator, which is only open to firms that have already raised at least £1 million.

3.4 FAILURE OR SURVIVAL OF SUPPORT PROGRAMMES

Some data exists concerning the survival rate of the startups supported by accelerators, incubators and other programmes. Much less data exists concerning the survival of the support programmes themselves, although it is clear that there is a fairly high churn rate.

Amongst survey respondents, the mean age of programme was 11 years (i.e. established in 2011) and the median age was 7 years (i.e. established 2015). However, there was a significant churn detectable between the 2017 study (Bone et al 2017) and our 2022 data, with a number of programmes having closed in the past five years, and a number of new programmes opening. Closure is difficult to determine definitively, since organisations may disappear without announcement. Based on email or phone calls, we estimate that at least 81 programmes mapped by Bone et al (2017) have definitely closed, and potentially as many as 164.

Unfortunately, very few managers of closed or failed programmes were willing to share their experiences. Given that many people working with startups acknowledge that failure is an integral part of early-stage company formation and hence that learning from failure is desirable, this is rather ironic and hampers learning for the sector.

Of the programmes known to be operating in 2017, it is of interest that the survival rates appear to be somewhat variable with funding source. The 2017 programmes known still to be operating at time of 2022 survey were as follows:18

By primary funding type Total **Accelerator** Incubator Corporate (91) 61.5% 62.3% 59.1% Public Funding (182) 68.1% 59.2% 73.9% Fees-Based (84) 79.8% 64.3% 82.9%

As discussed in section 2.6, some interviewees were of the view that corporates were shifting to later-stage programmes, or to different modes of collaboration entirely. The fact that, overall, corporate-funded programmes are more likely to have closed than publicfunded or fees based programmes might perhaps reinforce this hypothesis; however, the picture is unclear, since when splitting into programme types, corporate accelerators are actually slightly more likely than publicly-funded accelerators to have survived. We suggest that this is an area which warrants further research and monitoring.

Interestingly, programmes which were predominantly fees-based (which, as discussed above, are more likely to be incubator-like than accelerator-like) appear to have been even more resilient than predominantly grant-funded programmes; this is slightly surprising, given the widespread drop in revenue-streams which occurred during the first two years of the pandemic as a result of lockdowns and other travel restrictions. However, it might possibly reflect the ending of EU structural funding discussed in 2.6.

Table 5:

Survival rate of programmes compared with 2017 survey

¹⁸ For comparison, the average five-year survival rate of new UK firms is around 41% [Source: ONS data cited in 'The State of Small Business. (Sage / Nesta 2017) http://stateofsmallbiz. com/downloads/the-stateof-small-business.pdf

Case Study

Programme Type: Venture Creator

(founder-centric)

Year Established:

Website:

conceptionx.org

ConceptionX

ConceptionX is a 9-month intensive venture programme that emerged from a pilot programme launched at UCL by Riam Kanso. Kanso viewed the project initially as an experiment in public service innovation and, in particular, as a test of her hypothesis that a university could be an incubator with students' theses forming the basis of startups. Since then, the programme has been transformed into an independent nonprofit and continues to grow in both its geographical scope and commercial ambition. The programme is now running in over 30 universities, with a recent expansion into the North East of England. Having raised upwards of £25 million, the organisation does not rely on taking equity for its funding model, thus allowing it to experiment with riskier ideas.

The programme functions by transforming PhD students into "venture scientists". Candidates are selected on the basis of their background in deeptech and a willingness to explore how their academic work can be practically applied and commercialised. The programme is split into two tracks: the first focused on developing the entrepreneurial skills of the students and the second providing technology and business coaching to transform their prototypes into fully-fledged start-ups. The training modules are designed by academics across elite universities and are built to look at entrepreneurship from a science and engineering perspective with unique materials focused on the technology ecosystem, tech readiness and deeptech.

While ConceptionX is closer to an accelerator than an incubator by our own classification, the organisation views itself as neither and has some unusual features. First, the programme differs from most accelerators and incubators in that it doesn't require students to stop studies – aiming instead to compliment students' PhD studies and fit alongside academic schedules. ConceptionX is also unusual amongst the offerings in the university ecosystem with its singular focus on deeptech. Their project remains firmly rooted in its scientific roots, and the team is keen to emphasise that they are developing PhD students into "venture scientists" instead of changing their identity from scientists to businessmen. The team ultimately see themselves fitting outside the accelerator / incubator paradigm, as more of a national deeptech institute that works with universities across the entire ecosystem.



Programme Type:

Venture Creator (opportunity-centric)

Year Established:

2016

Website:

deepscienceventures.com

Deep Science Ventures

Deep Science Ventures was established in 2016 by Mark Hammond and Dominic Falcao, who met whilst working at Imperial Innovations. DSV is closer to a venture studio than an incubator or accelerator: it has developed a venture creation methodology which it applies to four broad sectors-agriculture, computation, climate change and pharmaceuticals.

In each of these sectors, the team has systematically identified specific desired changes which they believe will create maximum social impact. Starting with these desired outcomes in mind, the DSV team then scouts for specific technological opportunity areas, industry partners, and an appropriate potential founder - typically an entrepreneuriallyminded scientist with knowledge of the area – before ultimately forming a company. "DSV starts with the social outcomes that we want to achieve and the systems which prevent these, or which hold incumbent processes in place", said cofounder Dominic, illustrating how the organisation is neither a conventional accelerator nor incubator.

Interestingly, the DSV team takes a holistic approach, aiming to create not just individual startups, but groups of startups which have potential complementarities within the sectors in question - whilst also being sustainable in their own right. As Dominic explained: "We typically build sets of companies which are synergistic together. In trying to solve certain social issues, we often encounter vicious circles and 'wicked problems' which cannot be solved by one company, or one single technology."

The organisation does not receive any grant funding, but is primarily funded by industry partners who have a strategic interest in the potential outcomes and yet are agnostic about the technology or route by which these outcomes are realised. To date, it has built 35 companies.

Case Study

Programme Type:

Accelerator (Founder-centric)

Year Established:

2012

Website:

centrefor entrepreneurs.org/nef

NEF+

NEF+ is focused on developing entrepreneurial talent rather than a portfolio of business investments. It is described as an entrepreneurial leadership programme that is targeted at ambitious early-stage founders and entrepreneurial talent in high-growth businesses.

The format is based on two cohorts recruited annually and delivered inperson over six months through fifteen workshops. It is delivered in London but participants have taken part from across the UK.

The "personal development programme for entrepreneurs" approach develops skills, connections and mindset. In this study it has been classified as an accelerator given the cohort nature and recruitment model but care is taken to emphasise the focus on the individual entrepreneurs beyond their current business propositions, recognising that good people will likely go on to develop second, third and further businesses over time so enhancing their capabilities can see significant impact.

NEF+ has an innovative learning methodology that combines material entrepreneur-practitioners, peer-topeer challenges and access to worldclass executive coaches and business mentors. The mentoring is seen as a particular strength but current and previous participants and while not unique, the depth of the development components of the programme are a differentiator.

The programme is delivered by the Centre for Entrepreneurs (CFE) and has operated for over ten years. It started as an independent organisation, the New Entrepreneurs Foundation (NEF), and merged with the CFE in 2018. It has morphed considerably over time to reflect changes in the needs of entrepreneurs and emerging teaching and learning techniques.

It has maintained consistently high satisfaction ratings from participants, also reflected in high alumni engagement, with a community of some 400 leading over 200 live businesses that have raised over £220m of funding between them.

The programme places a great deal of value on diversity among participants in the belief that variation in business sector, participant age, background and experience, adds significantly to the peer-led elements of the learning process and the long-term value of the alumni network. The programme is majority funded from charitable donations with a charge to participants although recruitment is needs blind.

Case Study

Programme Type:

Corporate Accelerator

Year Established: 2015

Website: labs.uk.barclays



Barclays Eagle Labs

Barclays Eagle Labs provides a network of coworking spaces, growth programmes, specialised industry programmes, mentors and learning tools, and events for entrepreneurs and businesses to help them scale and succeed.

Formed in 2015, Eagle Labs was initially Formed in 2015, Eagle Labs was initially set up using under-utilised Barclays branches and offices. The organisation converted these buildings into hubs that are tailored to the needs of the local business ecosystem, with the goal of sharing best practice and spreading ideas through collaborations and innovation.

There are more than 30 Eagle Labs across the UK, which are a mix of programmes set up solely by Barclays and others developed in collaboration with universities, local authorities and like-minded partners with a strong track record of supporting entrepreneurs and helping them grow. Each Lab is managed by a dedicated Ecosystem Manager who supports members and

connects them with the wider network and mentors. The Labs are set up to give members access to the resources, expertise and opportunities to scale their businesses with bespoke educational growth programmes and workshops that are delivered in-person and virtually. In addition, Eagle Labs also specialises in positively disrupting key industries by bringing together key corporate players, industry bodies, leading universities and startups to enable rapid innovation and investment by giving them the tools to collaborate and currently have dedicated LawTech, HealthTech, EnergyTech and AgriTech industry-aligned programmes.

The organisation estimates that, across all its Labs, it currently supports around 2,000 firms per year and has benefited over 7,000 firms to date.

Case Study

Programme Type:

Umbrella organisation

Year Established:

Website:

bruntwood.co.uk/ scitech



Bruntwood Scitech

Bruntwood SciTech is the UK's leading property provider dedicated to the growth of the science and technology sector. Formed in 2018, Bruntwood SciTech is a 50:50 joint venture between leading property company Bruntwood and Legal & General, providing high spec office and lab space, scientific services and business support across a network of innovation districts and science and technology campuses in Manchester, Cheshire, Leeds, Liverpool, Birmingham, Cambridge and Glasgow.

This network includes thriving sector specialist clusters at Alderlev Park. Manchester Science Park, Innovation Birmingham, Birmingham Health Innovation Campus (BHIC), Citylabs, Platform, Circle Square, Melbourn Science Park and most recently announced, they will be creating a new scale-up tech hub in Glasgow. It is already home to over 600 of the UK's most disruptive and innovative businesses.

Bruntwood SciTech provides comprehensive support to customers comprising business support by connecting customers to over 150 partners including universities, NHS, skills providers and specialist advisors. A range of programmes are run across the centres for start-ups, high growth businesses, corporates seeking to access innovation and international businesses landing in the UK. Bruntwood SciTech works closely with the investment and grant funding communities to facilitate access to finance. The Bruntwood SciTech network is rapidly expanding and is set to create over 40,000 highly skilled jobs over the next 15 years.

4.0 Impact

4.1 TYPES OF IMPACT

This report was not a specific impact evaluation, nor did it attempt to determine how impact arises (e.g. which services are of greatest benefit to which types of firm). However, it is worth making some comments about the impact of programmes.

As previous research has shown, there are multiple different objectives for startup support programmes (such as financial return, economic regeneration, social impact) and multiple levels of impact (e.g. on an ecosystem level, on a firm level, and on the level of the entrepreneurs themselves in the form of increased skills, motivation and network). 19,20 Moreover, within a given level, there may be multiple types or dimensions of impact (e.g. on a firm level, the impact might be that firms may survive longer, raise more funding, become more innovative, increase R&D intensity, employment or turnover, etc.).21

It was clear from interviews that there were widespread differences in objectives between programmes, which it is important for policymakers and entrepreneurs to recognise, and that these different objectives are likely to lead to different types of impact. In particular, publicly-funded programmes appeared to be more likely to define success in terms of their impact on local economic regeneration and job creation, whereas privately-run programmes were more likely to define success in terms of their impact on individual startups and/or the ability of such startups to benefit the parent company (in the case of corporate programmes). University-run programmes – like universities themselves – are more likely to use a wider notion of impact which includes a variety of social measures (e.g. lives affected by a new product).

On occasion – particularly where programmes are funded from multiple sources – these aims may come into conflict. Most interviewees felt that such conflicts were generally wellmanaged, but it is a potential issue which programme managers and policymakers should bear in mind.

4.2 VARIABILITY OF IMPACT

Aside from the types of impact, it also seems clear that the magnitude of impact of accelerators (and to a lesser extent, incubators) is very variable – that is to say, there is both variable quality of programmes (i.e. some add more value than others) and variable impact on startups (i.e. some entrepreneurs benefit more than others from the same programme).

Identifying 'bad' programmes (which have uniformly lower impact) is not simple, but almost all interviewees acknowledged that some programmes created less impact than others, and were possibly even detrimental to startups on occasion. Interviewees commented that "sometimes these entities exist to serve themselves" and that there was "a question mark over how much value some of these programmes really deliver for companies". It is important for entrepreneurs to recognise this and not assume that all programmes are equal (see Recommendations below).

In principle, variable impact at the firm level might arise because some entrepreneurs are more 'mentor-able' than others, or because there happens to be a better fit between a startup's needs and the services which a programme provides, or for some other reasons. However, understanding such variability requires further research which is beyond the scope of this report.

- 19 E.g.Bart Clarysse, Mike Wright and Jonas Van Hove (2015) 'A Look Inside Accelerators'; London: Nesta, available online at https://media.nesta.org. uk/documents/a look inside accelerators.pdf:
- ²⁰ Nicola Dee, David Gill, Caren Weinberg, Stewart McTavish (20150 'Startup Support Programmes: What's The Difference' London: Nesta, available at https://media.nesta. org.uk/documents/ whats the diff wv.pdf

²¹ Bone et al (2019)

²² E.g. J. Gonzalez-Uribe (forthcoming)

²³ https://whatworksgrowth. org/resources/thescientific-maryland-scale/

²⁴ Puttick, R. and Ludlow, L (2012) 'Standards of Evidence for Impact Investing.' London: Nesta

Figure 12:

Standards of Evidence from Puttick. R. and Ludlow, J. (2012) 'Standards of Evidence for Impact Investing'. London: Nesta

4.3 EVIDENCE FOR IMPACT

Evaluating impact robustly is not always straightforward (see Bone et al 2019); this is complicated by the multi-faceted nature of impact and by a paucity of data. In addition, as others have noted, successful accelerators enable good firms to scale faster whilst also encouraging entrepreneurs to abandon bad ideas more quickly - and thus tracking the mean performance of a cohort can sometimes be misleading.²²

However, evidence for a programme's impact is important because it allows entrepreneurs to make a more meaningful evaluation of which programmes to join; allows policymakers to decide on funding; and permits programme managers to determine whether changes to content and services has an effect, as well as supporting marketing of their offer to startups.

That said, not all evidence is the same. One way to understand this is through the Maryland Scientific Methods Scale (SMS), which proposes a five-point scale ranging from level 1, for simple correlations, up to level 5 for randomised control trials.²³ However, even the lowest level of evidence on this scale may not be suitable for programmes that might have been created relatively recently and hence might not yet have accumulated any impact data whatsoever. Therefore, for our survey, we adopted a similar scale proposed by Puttick and Ludlow (2012), on which the lowest level is not actually evidence at all, but rather a 'logic model' or 'theory of change' which describes why what a programme does should create impact, unsupported by data.²⁴

On the Puttick and Ludlow scale, the second level of evidence is basic data which suggests impact, but cannot be shown to have arisen causally. Causality is typically demonstrated through the use of a control group, which takes the evidence to the third level. Beyond this are independent evaluations which agree on the evidence for impact, and finally a set of formalised processes which ensure consistent replication and impact. (See diagram below)

Level 5



Level 4



Level 3



You can demonstrate causality using a control or comparison group

Level 2

You capture data that shows positive change, but you cannot confirm you caused this

Level 1

You can describe what you do and why it matters, logically, coherently and convincingly

only 10% of programmes reported using a control or comparison group in their evaluation

Most survey respondents (86%) reported that they had either a convincing theory of change (level 1) and/or some basic data showing change (level 2). However, only 10% of programmes reported using a control or comparison group in their evaluation. (Interestingly, some 33% of programmes reported having received independent evaluations of their impact – although the majority of such evaluations appear not to have used a control).

This lack of quality evidence is concerning. Previous research (e.g. Bone et al 2019) has demonstrated robustly that accelerators and incubators can have significant impact – although this does not mean that all do have impact (or indeed that 'impactful' programmes affect all startups equally). Given the sector's strong dependence on public support, policymakers may legitimately ask whether public funding is delivering results for specific programmes, and it is not unreasonable to ask organisations in receipt of public funding to demonstrate their impact causally – which typically means an analysis using a control group of some kind.

Of course, one counter-argument to this is that the day-to-day operations of accelerators and incubators mean that staff are typically too busy to undertake robust analyses, or else may not be qualified to undertake such research themselves. In response, we would point out that the academic community is often very willing to undertake such analysis on behalf of programmes, so that this does not need to be undertaken internally. More important is the decision of programmes to track certain data over time, especially that of potential control groups; such data can often be gathered relatively easily at the start of a programme (for example, by asking to retain basic data about applicants to selective programmes, even if they are not successful in their application). We discuss this further in the Recommendations section below.

Some organisations used the Net Promoter Score methodology as a way of determining whether entrepreneurs perceived value in their service offerings. However, the link between NPS and actual impact is unclear.

4.4 ECOSYSTEM-LEVEL IMPACT

Research shows that programmes can generate 'spillover effects' within the local ecosystem, such as increasing venture capital funding to nearby startups who are not part of the programme.²⁵

Exactly how such spillovers occur remains slightly unclear, but all interviewees agreed that the startup support organisations with which they were engaged played an important role as 'ecosystem nodes', connecting actors (e.g. founders and co-founders, angel investors, VCs, patent attorneys, other skilled talent) who might otherwise not meet. It seems very plausible that this function as an 'ecosystem connector' benefits startups outside the programme itself. Such spillovers provide an additional justification for public funding.

However, this prompts the question of whether the value of this 'ecosystem connection' changes over time as the ecosystem develops. In principle, one would expect the spillover effects of the first startup support organisation within an ecosystem to be much more significant than later organisations, and for this effect to be more noticeable in less mature ecosystems (i.e. less well-connected, or more difficult to navigate) than in high-density ecosystems such as London. Put another way, we might expect that the relative impact on the wider ecosystem (and hence one of the rationales for public funding) versus the impact on startups themselves might decrease over time as an ecosystem develops. Whether this in fact happens, and whether this effect might partially be offset by agglomeration effects (see above), is unclear; however, we suggest that it may warrant further research.

In addition, it should be recognised that the ecosystem-level impact of programmes may be very dependent on external factors. Specifically, it is important to consider the

²⁵ See, e.g. Fehder, Daniel C., and Yael V. Hochberg. 2015. "Accelerators and the Regional Supply of Venture Capital Investment." Working Paper no. 2518668, Social Science Research Network. http://papers. cfm?abstract_id=2518668. Also Bone et al (2019).

"If you drop into a region without any support, you're going to fail."

degree to which the local ecosystem is 'sticky' for startups - that is, sufficiently attractive for startups to remain in the local area and 'put down roots' there after leaving a support programme. Many programme managers reported having helped grow successful local startups, only for the firms to relocate elsewhere in search of talent, funding or customers. Whilst this may not be a problem for privately-funded programmes, programmes funded by public funds for the purpose of economic regeneration should pay particular attention to the post-programme 'stickiness' of the ecosystem. This may mean, for example, ensuring that there is sufficient access to venture capital or other finance, infrastructure, access to talent, and access to markets (which may include public procurement opportunities or assistance with exporting); without these, there is a risk that local or regional funds may be used to help grow firms which scale elsewhere.

Moreover, there was a widespread view among interviewees that most startup support programmes, particularly accelerators, required a set of 'minimum conditions' to operate successfully. One of these minimum conditions was sufficient demand from startups within the local catchment area (as one interviewee put it: "in the regions, there generally aren't enough companies at the same stage to run through a structured programme at the same time"). One possible way to overcome this is through the use of a very early-stage pre-accelerator or grant scheme (which one interviewee credited as having created a "sea change" in the startup formation rate in Northern Ireland).

Other 'minimum conditions' mentioned by interviewees typically included the presence of sufficient mentors, lawyers, accountants, angels and VC investors nearby (as well as support services and talent for recruitment). Several expert interviewees felt that there was a "massive" shortage of good quality advisors - especially lawyers, accountants and mentors - in regional ecosystems. Thus programmes which operated successfully in one ecosystem might sometimes fail when expanding or moving to another ecosystem.

Relatedly, several interviewees felt that one of the critical success factors of a startup support programme was the involvement of a local expert or 'superconnector' who had existing networks and who could identify the local ecosystem components upon which to draw.

For all these reasons, it is important for policymakers to understand that support programmes, and accelerators in particular, are not 'silver bullets' which can create a thriving, sustainable startup ecosystem from nothing; rather, attention needs to be paid to other ecosystem factors as well. Particularly in under-developed ecosystems, it may also be necessary to fund pre-accelerator programmes.

5.0 Recommendations

5.1 RECOMMENDATIONS FOR ENTREPRENEURS

5.1.1 UNDERSTAND LIKELY FIT

There is significant variance in programmes. Clearly, not all accelerators or incubators are equal, and the value obtained from a specific support organisation depends not only on the overall quality of the services provided, but also on how well these services fit with the startup's characteristics and challenges.

However, one of the paradoxes of early-stage support is that inexperienced entrepreneurs are very often poor at identifying their needs, and hence are prone to undervaluing some types of support. This is supported by academic research which suggests that allowing entrepreneurs to tailor the content of a programme, rather than receive a standardised set of services, may actually be detrimental.²⁶ Thus, even if entrepreneurs are aware of the differences between programmes, choosing the most appropriate support may be very difficult. Entrepreneurs might, for example, seek a sector-specific accelerator because they believe that the major factor limiting their growth is connections into that industry, yet overlook flaws in their communication, business model or team composition which might be better addressed within a sector-agnostic programme.

This problem is difficult to solve, but is potentially reduced by being aware of likely biases (for example, other academic research suggests that inexperienced entrepreneurs are particularly keen to take action and so may under-prioritise learning) and keeping an open mind concerning the value of different services.

Entrepreneurs should also seek to understand the intensity of support which will be provided, particularly in the case of accelerators: 'light-touch' accelerators are more likely to focus on network access, whereas 'high-touch' programmes are more likely to provide intensive mentoring.

5.1.2 EVALUATE QUALITY OF PROGRAMMES

In order to evaluate overall quality, entrepreneurs would ideally look at the track record of programmes and speak with entrepreneurs who have spent time there, in order to determine whether programmes do indeed have a positive impact on supported startups. Unfortunately, this is often impossible – either by virtue of programmes being too new, or otherwise having not gathered evidence. In such instances, we recommend looking at the track record of the individuals behind the programme - that is, the managers and the mentors – and to understand how they are incentivised. Forums such as Capital Enterprise can be helpful to judge the reputation of local programmes and understand their differences

Entrepreneurs should also take care to understand not only who is delivering mentorship and advice, but also what are the expected outcomes of the programme (e.g. business model refinement, attracting more investment, gaining links to potential customers, etc.). We also recommend that entrepreneurs understand what time commitment, and other demands, which will be required of them.

"What sets accelerators apart is the quality of their mentors" experienced accelerator manager

²⁶ Cohen SL, Bingham CB, Hallen BL. The Role of Accelerator Designs in Mitigating Bounded Rationality in New Ventures. Administrative Science Quarterly. 2019;64(4):810-854. doi:10.1177/0001839218782131

5 1 3 APPROACH PROGRAMMES WITH THE RIGHT MINDSET

Finally, to obtain value from programmes (particularly accelerators), it is important for entrepreneurs to remain 'mentor-able': several interviewees commented that, whilst self-confidence is often a requirement for entrepreneurs to embark on the entrepreneurial journey, this needed to be tempered with humility in order to learn from mentors and other founders. This is supported by survey data showing that mindset was often a critical criterion used by accelerators.

5.2 RECOMMENDATIONS FOR PROGRAMME MANAGERS

5.2.1 ARTICULATE A COHERENT RATIONALE FOR SUPPORT

Many startup support programmes are dependent or partially dependent upon public funding. However, the arguments for public funding are often confused or unclear, contributing to inconsistent funding. (Cynically, one might argue that in the absence of a convincing rationale, funding is more likely to be linked with political cycles and the desire for positive press stories than with long-term planning.)

The fact that startups are beneficial is not, in itself, sufficient justification for government funding. However, one can potentially make at least four slightly different arguments for public support:

- 1. That public support is required because private-sector investment is inhibited by various market failures – such as co-ordination problems between different ecosystem actors and asymmetric information about startups, which are intrinsically linked with young firms. (This argument seems pretty convincing, although it raises the question of whether the market failures concerned are permanent or temporary? There may be reasons to believe that some coordination problems will decrease as an ecosystem matures.)
- 2. That public support is warranted by the creation of public goods from programmes - such as the ecosystem-level spillovers discussed above, or the systemic benefits of a more diverse business base. The fact that positive spillovers cannot be fully captured by private firms is a common justification for public funding of 'frontier' research and development. (This argument is again pretty convincing, but also raises questions of time-dependence: as discussed above, ecosystem-level spillovers might be expected to wane as more programmes appear.)
- 3. That the subsequent tax paid by startups provides a return on investment to the public purse – and hence that there is a purely economic rationale for support. (This argument may be less convincing: whilst it might be true in aggregate, it would seem increasingly unlikely to be true within the smaller portfolios that would accompany locally-funded programmes.)
- That incubators and accelerators are more cost-effective tools than other instruments for achieving higher employment and other local economic regeneration (Again this is a purely economic rationale. Unfortunately, there is currently little evidence upon which to base this argument - although we believe that it may be a valuable avenue for future research.)

We believe that it would be beneficial for programmes seeking public funding to be clearer about the rationale for public intervention, and about whether they anticipate programmes to become sustainable in the long-run. (Certainly, like startups themselves, some support programmes do appear to transition from a reliance upon external grants to sustainable business models. However, in other cases, this appears to be much more difficult.)

In addition, many interviewees also commented that policymakers were often confused about different types of startup support, and what exactly programmes did. It is therefore important for managers to explain clearly what their organisations do, and how their activities support political priorities such as regional innovation & recovery plans, net zero targets, and so on.

5.2.2 GATHER DATA AND BUILD EVIDENCE

Related to the above is the need to improve data gathering and evidence of impact. As discussed in the Impact section, the current quality of evidence for most programmes is poor, which makes it difficult to attract and persuade funders (as well as entrepreneurs).

Many academic researchers are willing to analyse data about impact, so such analysis does not necessarily have to be undertaken by programmes themselves. However, it does require a commitment from programme managers to gather the appropriate data. (As discussed above, this is usually much easier if it is considered early during the programme's creation, so that longitudinal data can be collected and issues of dataretention are raised with applicants).

We suggest that it would also be helpful for programmes to track startups (or request that startups agree to be tracked) for some time after exiting. Understanding how many programmes remain in the local area provides evidence of the ecosystem's 'stickiness' and what resources it might lack.

5.2.3 FORM COLLABORATIONS

As discussed in the funding section above, the transition from EU Structural Funds to UKSPF may present some co-ordination problems: there may be a greater requirement for lead local authorities to segment and understand the needs of their local business populations, and for support organisations to collaborate with a wider range of organisations (such as a range of public authorities and potentially other support organisations) in order to demonstrate how these needs can be met effectively.

UKSPF guidance explicitly encourages authorities "to review the interventions...that are best delivered at a larger scale in collaboration with other places"; this could mean, for example, multiple local authorities collaborating to co-fund an incubator, accelerator, or a group of support organisations.²⁷ However, since there are not (yet) clear mechanisms for programmes to apply for funding, we recommend that programmes take the initiative to make themselves visible to LEPs and local authorities, including those outside their immediate area.

Given that startup ecosystems do not necessarily match administrative boundaries, it may be important for startup support organisations to seize the initiative in explaining to local authorities what is the most appropriate geographic resolution (e.g. city-wide, regional) and forming collaborative partnerships across such areas. For sector-specialised programmes, it may be advantageous to identify which regions of the UK have relevant sectoral strengths, and ensure that the lead local authorities are aware of the programme concerned

5.2.4 SHARE GOOD PRACTICE

As discussed in the Networks and sharing good practice subsection above, there was a widespread perception that networks had a valuable role to play in disseminating good practice, but that more could be done.

This study did not specifically aim to uncover and discuss what good practice looks like. However, there may be value in exploring the topics discussed in the Networks and sharing

²⁷ https://www.gov.uk/ government/publications/ uk-shared-prosperity-fundprospectus/uk-sharedprosperity-fund-prospectus

good practice subsection (such as smoother 'passing on' of startups), along with the issues discussed in 6.3 -especially where these are non-competitive (in the sense that they may affect many programmes and unlikely to be affected by any competitive dynamics).

Greater willingness to discuss failed programmes would also help the sector as a whole to develop and learn from previous mistakes.

5.3 RECOMMENDATIONS FOR POLICYMAKERS

5.3.1 BUILD ECOSYSTEMS NOT JUST PROGRAMMES

Accelerators and incubators have an important role in helping startups to start and scale, as well as in coordinating the surrounding ecosystem. However, they are not 'silver bullets' for tackling unemployment or economic regeneration: if the local ecosystem does not also contain sufficient venture capital and business support services (e.g. accountants and lawyers familiar with the issues affecting startups and high-tech firms), then support programmes are unlikely to have lasting impact, since scaling firms will relocate to other areas. Regions must therefore provide an integrated offer to startups, which may entail supporting the development of other ecosystem components. In addition, it is necessary for policymakers to understand the relative development of their ecosystem and the necessity of different support types (e.g. the use of pre-accelerators where there are low levels of startups) as well as the basis for any local specialism.

5.3.2 INCENTIVISE EVIDENCE-BUILDING

As discussed in the *Impact* section above, there is a paucity of robust data concerning outcomes. This hinders learning and makes it difficult to judge whether public funding is generating value for money, and whether the interventions are the most cost-effective.

We recommend that public bodies which fund startup programmes require and incentivise the production of robust evidence of impact (which is likely to include a suitable control group). This might be further supported by grants to connect academic researchers with practitioners, in order to assist with good-quality analysis.

It may also help to develop a common framework for evaluation, which guides organisations and allows some comparison between them, whilst also acknowledging the diversity of objectives and the different types of impact which they may generate.

Furthermore, we recommend that this is a topic which warrants further publicly-funded research (see section below).

5.3.3 REMEMBER THAT THE SECTOR IS YOUNG AND RAPIDLY EVOLVING

Policymakers should also remember that the 'startup support sector' is a broad and rather indeterminate sector. Organisations are often young, rapidly evolving and short-lived. This means that there is often no coherent, unified view of how policies and regulations might affect support organisations, nor a single umbrella organisation which can represent the needs and wishes of all support organisations (although CFE's Incubator and Accelerator Network, UKSPA and some other networks are moving in this direction).

As with other emerging sectors, this therefore means that policymakers should take extra care with changes that may affect accelerators, incubators and related support organisations. Consultation processes for proposed changes should pro-actively seek the involvement of relevant organisations (rather than assuming that interested parties will make their views known); be well-advertised; have sufficient time periods for responses; and have clear mechanisms for engagement.

5.3.4 CREATE LONGER-TERM CONTINUOUS FUNDING

Many startup support organisations have precarious business models. Especially in the case of generalist programmes in less-developed ecosystems, they are likely to depend upon public funding. A common theme amongst interviewees was that funding for support programmes was too short-term and sporadic. Programmes widely recognised as highquality were sometimes forced to close by the withdrawal of public funding, only for funders to invite new tenders a short-time later. The intervening periods without funding were often damaging to programmes and their networks, and resulted in lost learning.

This could potentially be addressed by the creation of a longer-term continuity fund, potentially created by pooling some UKSPF allocations. On one model, this might fund a number of programmes (say, ten) for a period, with a commitment to fund the top three of these for a further period beyond that. This would incentivise organisations to generate robust evidence of impact, which is currently lacking.

We also recommend that policymakers examine what proportion of UKSPF funding is allocated to startup support, and consider collaboration between authorities in order to engage early, ahead of the next UKSPF budget cycle.

5.3.5 AVOID HARMING PRIVATE SECTOR PROGRAMMES

However, funders must avoid harming private programmes. As discussed, there is potential competition between programmes for quality startups, mentors and other resources, and so public programmes can potentially damage private ones.

When co-funding private programmes, public funders should be aware of the possibility of conflicting success outcomes (e.g. startups remaining local and contributing to economic regeneration versus moving to areas more conducive to rapid growth).

5.3.6 SUPPORT EXPORTING

Nearly 40% of accelerators (and around 25% of incubators) attracted some startups from overseas – with higher percentages for specialised programmes. There is an opportunity for the Department for International Trade (DIT) to build on this. We recommend that accelerator and incubator managers are included on international missions to promote the export of startup support services more widely.

5.3.7 FAST-TRACK WET-LAB CREATION

We suggest that policymakers need urgently to evaluate the provision of wet-labs for UK biotech startups, and investigate whether anything more can be done to simplify their construction, or support the transition of other commercial spaces into these facilities. This may include promoting the wider use of local development frameworks in order to fast-track planning for R&D schemes.

5.3.8 FUND FURTHER RESEARCH

As per the following section, there remain a number of important unknowns concerning startup support. Some of these questions will hopefully be answered in time as a result of programmes gathering better data. However, we encourage national policymakers to support the development of this evidence base, and to fund additional research into this important area.

6.0 Further Questions

This section is divided into priority questions (which we consider should be addressed as soon as possible); other questions which are of lesser urgency (but remain important to understand); and possible areas for collaboration (which include suggested topics from survey responses).

6.1 PRIORITY RESEARCH QUESTIONS

- Business models: Can more support organisations develop sustainable business models, especially given more online delivery, or will it always be necessary to subsidise programmes? If subsidies are necessary, is there an optimum level? What structures should be developed to ensure that good-quality programmes are promoted over poor-quality ones, whilst also allowing for experimentation and development of new models? These questions appear to be core to the healthy development of the support landscape.
- 6.1.2. Competition and failure: Related to the above, do programmes (especially accelerators) fail because there are too many for the market to support, or for reasons of market failure (such as startups having incomplete information about their offer; poor signposting, etc)? Under what conditions are publicly-funded programmes likely to harm private ones (e.g. through competition for good quality startups, mentors, etc)? Better understanding these questions will help policymakers decide when to intervene.
- Supply and demand: How can we determine supply and demand for startup 6.1.3. support on an ecosystem level? What is the elasticity of demand, and can new programmes actually stimulate new demand? Understanding this better will help policymakers better judge when and where new programmes will support economic regeneration, and help programme managers judge whether there is sufficient demand (as part of the 'minimum conditions') within an area for a programme to survive.
- 6.1.4. Cost effectiveness: how do accelerators and incubators compare with other possible interventions, in terms of cost-effectiveness? Although there is evidence that accelerators and incubators can be effective tools for increasing a variety of firm-level outcomes, there is less evidence to compare value-for-money (although it may be possible to determine this through an analysis of data about EU-funded projects.)
- 6.1.5. Ecosystem-level spillovers: Previous research has shown that there may be substantial ecosystem-level benefits from programmes; how might programmes and policymakers seek to maximise these? When do they tail off? Are there conditions where the benefits are more likely to be displacement activity (i.e. one ecosystem benefitting at the expense of neighbours)? Understanding these questions will help policymakers develop a clearer rationale for support.
- 6.1.6. Ecosystem 'stickiness': How can programmes and policymakers improve the attractiveness of an ecosystem for graduates of local accelerators and incubators? Should programmes be used specifically to target ecosystem factors (e.g. local connectedness) within an under-developed ecosystem? Are there specific components (e.g. law firms that understand R&D tax credits, etc) which

should be considered in parallel with any local public funding of accelerators? Understanding these questions will help local policymakers ensure that their regions benefit from investment in local support programmes.

- 6.1.7. Measuring impact: Measuring the impact of a given programme can be difficult and time-consuming, and rarely captures all the dimensions of impact. How can this be improved? Can data capture, sharing and analysis be increased through suitable incentives? Are standardised data gathering or assessment tools needed? Would initiatives to connect programme managers with academic researchers be helpful? As discussed in the *Impact* section, development of this area would benefit entrepreneurs, programme managers and policymakers alike, through being able to identify the more impactful programmes or activities, and the relevance of these to their own needs.
- 6.1.8. Fit with startups' needs: How can one improve the fit of programmes to individual startups? What are the specific types of problem for which accelerators and incubators are well-suited? Can fit be determined in advance, and can we understand why programmes have variable impact on a firm level? If we understand these questions, we may be able to improve the benefit received by firms, and make programmes significantly more impactful.
- 6.1.9. Entrepreneurs' self-awareness: Related to the above, how do entrepreneurs identify their needs and how can this be improved? One of the paradoxes of selecting support programmes is that entrepreneurs often have low selfawareness of their gaps and hence are often unable to judge correctly what type of support is needed.

6.2 OTHER RESEARCH TOPICS

- 6.2.1. 'Accelerator hopping': A number of startups move from one accelerator to another (or, in some cases, may even attend programmes concurrently). Why does this happen? At first sight, this would appear to be a waste of resources, or indicative of a failure in post-programme support for alumni – but is this the case? Do 'accelerator hopping' firms ultimately perform better or worse than others? Understanding this may help programmes develop better alumni support as well as policies for how to treat 'hoppers'. It would also allow a more accurate calculation of total firms supported.
- 6.2.3. Service exporting: If we wanted to entourage more overseas firms to relocate to the UK in order to attend a programme, how should this be done? What are the best channels through which to advertise programmes? What factors ultimately persuade young startups to move location? Should support programmes treat them differently? Anecdotal evidence suggests that personal motivations of entrepreneurs play a large role (e.g. moving to attend university, or other personal factors); better understanding this would help build startup support as an export sector. In addition, a variety of evidence suggests that firms' local relationships are important, and hence firms which relocate may need additional support in establishing new connections within the local ecosystem.
- 6.2.4. Differences in performance between publicly- and privately-funded programmes: Direct comparison of programmes is often difficult because of differences in objectives (e.g. local economic regeneration vs internal problem solving or return on investment). However, particularly given the prevalence of mixed funding sources (as discussed in 2.7), further research would be helpful in understanding whether certain types of impact are better created by privately funded programmes, and if so, how this might be incentivised.

6.2.5. Demand by stage and sector: Are there specific unmet needs in certain sectors or at certain stages of development? If such sectoral gaps exist, are there good reasons why the market is not providing this support? Conceivably, accelerators are less able to flourish in certain sectors (e.g. rail transport) where markets are more encumbered by regulation and complexity of major inhibitors to innovation

6.3 POSSIBLE AREAS FOR INTER-ORGANISATIONAL COLLABORATION

- Sector-specific networks: Is there a need for sector-specific incubator and 6.3.1. accelerator networks in order to develop and share sector-specific good practice? Many survey respondents felt that such networks would be beneficial, although these may risk duplicating other sectoral networks (e.g. the BIA).
- 6.3.2. Regional networks: Are more regional networks needed, like the Sheffield Incubator & Accelerator Network (SIAN)? Again, many survey respondents felt that these would be useful.
- Skills development: Several respondents wanted more in-depth discussion 6.3.3. of specific topics and skills which were likely to be of relevance to many organisations (e.g. customer acquisition via social media). This is potentially an area where UKSPA or the CfE's IAN can assist.
- Learning across programmes: Multiple respondents suggested that there may be 6.3.4. unrealised opportunities for entrepreneurs in different programmes or facilities to learn from each other, not only through cross-organisation peer interaction but also through the incorporation of specific modules (e.g. research skills) into other programmes or facilities. In practice, this seems to be prevented by competitive issues and unclear incentives. However, these issues might be soluble by a thirdparty network.

7.0 Appendix: Programme counts and density

Local Enterprise Partnership	Identified Accelerators	Identified Incubators	Other support*	Accelerators per 10k businesses	Incubators per 10k businesses
Black Country	0	4		0.0	1.0
Buckinghamshire	2	8		0.6	2.4
Cambridgeshire & Peterborough Business Board	14	14		1.7	1.7
Cheshire & Warrington	2	10		0.4	1.9
Coast 2 Capital	1	5		0.1	0.5
Cornwall and Isles of Scilly	2	3		0.7	1.1
Coventry and Warwickshire	3	10		0.7	2.3
Cumbria	0	1		0.0	0.4
Derby, Derbyshire, Nottingham, Nottinghamshire	6	18	1	0.7	2.1
Dorset	0	1	2	0.0	0.3
Enterprise M3	1	7		0.1	0.8
G First	0	2		0.0	0.6
Greater Birmingham	7	20	1	0.8	2.3
Greater Lincolnshire	0	6		0.0	1.3
Greater Manchester	8	11	1	0.6	0.9
Heart of the South West	3	7	1	0.4	0.8
Hertfordshire	1	7	1	0.1	1.0
Hull and East Yorkshire	0	2		0.0	0.5
Lancashire	2	3		0.3	0.5
Leeds City Region	2	13		0.2	1.0
Leicester & Leicestershire	3	9		0.6	1.9
Liverpool City Region	1	7		0.2	1.3
London	153	60	31	2.7	1.1
New Anglia	1	13	2	0.1	1.7
North East	6	12	1		1.8
Oxfordshire	8			0.9	6.6
Sheffield City Region	8	24	3	2.2	
		10	4	1.2	1.5
Solent	4	7		0.8	1.4
South East	1	15	1	0.1	0.8
South East Midlands	2	7		0.2	0.7
Stoke-on-Trent and Staffordshire	1	5		0.2	1.1
Swindon and Wiltshire	2	7	1	0.6	2.0
Tees Valley	6	4		2.7	1.8
Thames Valley Berkshire	1	3		0.2	0.6
The Marches	0	1		0.0	0.3
West of England	2	13	1	0.4	2.4
Worcesterhire	0	4		0.0	1.2
York and North Yorkshire	0	5	1	0.0	0.8
Scotland	23	35		0.6	1
Northern Ireland	5	5		0.8	0.8
Wales	8	26		0.8	2.5

^{*} Other includes pre-accelerators, business centres, enterprise agencies, innovation centres, venture studios and co-working spaces. The survey did not aim to map these categories exhaustively, so this data is likely to be less complete.

8.0 Appendix: Survey Instrument

- 1. What is the name of your organisation or programme?
- 2. What is the name of your parent company or organisation?
- 3. Which label best describes your organisation? [SINGLE CHOICE OF FOLLOWING OPTIONS]

Pre-accelerator	Makerspace
Accelerator	Business centre
Virtual accelerator	Innovation Centre / Science Park
Incubator	Venture Studio
Virtual incubator	Other (please specify)

4. What best describes your parent organisation? [SINGLE CHOICE OF FOLLOWING OPTIONS]

University / other education institution	Investment firm
Social enterprise, non-profit or charity	SME
Local authority	Large firm or corporation
Central government department, agency, public body or similar	N/A or Other (Please describe)
Science park	

- 5. Where is your organisation headquartered (postcode)?
- 6. If you have other facilities or locations, where are these (postcodes)?
- 7. What is your website address?
- 8. What year was your organisation established (approximately)?
- 9. How is your organisation funded? (If multiple sources, please allocate approximate percentages from each source)

Local/regional funding	Corporate Sponsorship
UK government funding (including Research councils)	Return on equity from startups
European / international funding (e.g. ERDF)	Other (please specify)
Fees / rent from clients	

- **10.** What is your approximate annual turnover?
- 11. If you take equity from startups, what is the approximate percentage and how is this structured? (e.g. investment, convertible loan etc)
- 12. Please indicate which of the following services you currently provide (either by yourself or with third parties) and which you are considering offering [FOR EACH SERVICE, MULTIPLE CHOICES ALLOWED OF 'we offer directly', 'we offer through third parties', 'we don't offer but would like to', 'we don't offer and we don't plan to'):

Business model refinement	Direct funding via grants
Networking with peers	Direct funding via equity investment
Press / media exposure	Other direct funding
Office space	Recruitment / team formation assistance
Technical advice	Mentoring / coaching
Lab equipment or space	Skills training (including business skills)
Prototyping facilities	IP advice
Investment advice / readiness training	Other legal & tax advice
Connections to potential investors / funders	Demo days
Support with external grant applications	Other (please specify)
Direct funding via loans	

- 13. Are there any services which are regularly requested but which your organisation doesn't/cannot provide?
- 14. Do you focus on specific sectors? [MULTIPLE CHOICE]

No particular sectoral focus	Health & Wellbeing
Digital (including Fintech)	Creative Industries & Design
Energy & Environment	Other (please specify)
Lifesciences	

15. How much of your services are delivered remotely or online?

All	Some
Most	None
Half	

16. How do you expect your programme to change in size over the next 1-2 years?

Shrink	Grow
Remain about the same	

- 17. What do you think are the long-term effects of Covid on your organisation?
- **18.** Approximately how many firms do you typically support per year (in total)?
- 19. If you are cohort based, how many cohorts per year do you typically manage?
- 20. What is the typical duration of your programme or services (approximately how long do startups stay with you)?
- **21.** Since you started, approximately how many firms have you supported?
- 22. What stage of development are most of your startups?

Ideation / concept-development	Initial market offering / scaling
Pre-revenue	Established

23. Approximately what percentage of your clients relocate to participate in your programme? (in the following we define UK regions as Scotland, Wales, Northern Ireland, North East, North West, Yorkshire, West Midlands, East Midlands, East of England, London, South East, South West)

Relocate from overseas %	Relocate from within same region %
Relocate from other regions of UK %	Did not relocate %

24. How do startups typically find your organisation? (Please select UP TO THREE answers)

Web searches	Investor referrals
Platforms (e.g. F6S, Younoodle)	LEPs & Growth Hubs (or devolved growth agencies)
University referrals / academic networks	Advertising or outreach
Other startups / entrepreneurs	Other (please specify)
Other accelerators / incubators	

25. What are your entrance criteria? (Select all that apply)

Participants' location	Demographics of team (e.g. focus on women or ethnic minorities)
Demonstrable social impact / aligns with your values	Demonstrable growth potential
Relates to a specific sector or technology	Specific university affiliation
Age of founders	Turnover above or below a specified amount
Age of firms	Minimum or maximum amount of funds raised
Individuals must have certain qualifications or experience	Other (please specify)

26. Why do clients typically leave your programme? (please allocate percentages)

Finished (fixed duration)	Needed facilities we couldn't offer
Company closed	Wanted lower costs
Company outgrew space	Other

- **27.** Is your organisation a member of any formal or informal networks?
- 28. If yes, which do you consider the most important?
- 29. In your opinion, what are the main benefits of such networks? (Please select UP TO THREE answers)

Accessing funding sources	Providing a more coherent voice for lobbying / advocacy
Sharing good practice (including informal learning & CPD)	Moral support / socialising
Sourcing dealflow / new clients	Other (please specify)
Sourcing services / service-providers for clients	

- 30. Are there opportunities for collaboration with other accelerators & incubators which you want to pursue? If so, please describe
- 31. What impact measures do you track?

32. How confidently can you demonstrate your impact?

You can describe what you do and why it matters, You have independent evaluation(s) that confirms logically, coherently and convincingly your impact You capture data that shows positive change, but You have manuals, systems and procedures to you cannot confirm you ensure consistent replication and positive impact caused this N/A You can demonstrate causality using a control or comparison group

- 33. If you want to receive an update about this project or related content from the CFE, please enter your email here
- 34. Finally, if you have any further responses, or feedback about this survey (either about content or process), or would be willing to have a follow up conversation by phone please reply here

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²⁸ https:// centreforentrepreneurs. org/about/donors/



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