

## RESEARCH PAPER

## A hand-up or a hand-out? An argument for concierge services for the development of innovation capacity in startups

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### ABSTRACT

This study suggests that a concierge service, provided by governments, can assist startups to gain streamlined access to the services, capabilities and capital required to bring innovation efficiently and cost-effectively to market. It analyses a range of concierge models in five separate jurisdictions to determine best practice. The paper develops a rationale and working definition for a concierge service that will assist public sector managers to help young high-growth SMEs and startups to navigate the increasingly complex innovation ecosystem.

### Introduction

Across the world, governments are aiming to promote technological innovation to enhance national economic outcomes. This is particularly the case in jurisdictions where there is a desire to wean the economy off agricultural and resource-extraction dependence, and move towards a more knowledge-based economy. Traditionally, assistance for large, well-established firms has been at the forefront of these endeavours, with governments developing a variety of programs designed to promote university–industry collaboration (Bozeman and Boardman, 2013). Yet, small and medium enterprises (SMEs) employ a large proportion of any nation's workforce (Rhodes, 2017), and can, according to the Organization for Economic Cooperation and Development, be 'more innovative for developing new products and processes' than larger organizations (OECD, 2019a, p.222). The SME sector represents untapped potential for idea generation, and thus innovation and wealth creation.

Unlike larger and well-established firms, startups (here a portmanteau term for any small or young high-growth SME) generally lack resources, knowledge and time and have a 'shallow stock of reserves' (Sapienza *et al.*, 2006, p.921). These firms find difficulty connecting to the kinds of assistance needed to bring innovation to market (Kehoe, 2018; Patricio *et al.*, 2018). These firms can be squeezed out by more established and better-resourced players (Baldock and Mason, 2015). This disconnect reduces their potential to contribute to the national, regional and local economy. Worse still, scarce public resources intended to promote innovation can be seized by larger, established firms with weak ideas, but the knowledge and experience to navigate the innovation ecosystem and secure public assistance (Hughes and Kitson, 2013). In effect, public sector resources are used in such cases to subsidize incremental improvements, rather than to facilitate the ground-breaking innovation that could lead to broader socio-economic benefits for a national economy (Choi and Lee, 2017).

The startup innovation environment needs to be understood in terms of an ecosystem with complex interactions among multiple players, each contributing to a dynamic and organism-like

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structure (Mason and Brown, 2014; Jacobides, 2019). Because of this complexity, and the likelihood of confusion, public sector managers involved in innovation – the stewards of the broader innovation ecosystem (Wilkins, 2014) – must streamline the means by which small firms with potentially innovative ideas can gain access to the resources they need (PwC, 2013). In particular, the information asymmetry experienced by startups can be minimized through a publicly funded ‘concierge service’ that facilitates entry into the innovation ecosystem and helps these startups develop dynamic links (Mazzucato and Semieniuk, 2017, p.17). Startups that are helped to enter the innovation ecosystem have the potential to develop new products and solutions, outcomes which are crucial for wealth creation and national economic health (PwC, 2013; Mason and Brown, 2014; KPMG, 2017).

The rest of this paper is organized as follows. First, further background to the problem space will be presented to highlight the challenges and opportunities for improvement. Second, drawing from the dispersed literature available on the topic, we will establish a working definition for what, exactly, a concierge service might be. Third, we will describe the approach used to study the phenomenon of concierge services for startups. Fourth, the study will provide an overview and analysis of five concierge models that meet the broad definition established earlier. Finally, some discussion of these various models will follow before we present some recommendations for public sector administrators of innovation programmes.

## Background

Ever since Christopher Freeman’s (1987) ground-breaking study of technology innovation in Japan, systems of innovation within the OECD, and around the world, have gradually become more sophisticated. Early systems of innovation tended to be inspired by market failure theory, driven by the failure of the free market to deliver economically beneficial innovations (Keech *et al.*, 2012). However, innovation resists a linear approach, where input guarantees output. Instead, it is far more iterative, with feedback loops interacting in a rhizomatic and organic way (Hekkert *et al.*, 2007). Far from relying on the free market to generate economically beneficial innovation, governments should establish grand challenges that generate mission-oriented innovation strategies (Mazzucato and Semieniuk, 2017).

In pushing for the funding of a ‘reasonable number of undergraduate scholarships and graduate fellowships’, Vannevar Bush (1945, p.8) recognized that effective research often ‘wells up from below’, and that research in ‘small, vigorous industrial enterprises may yield tremendous returns in the future’ (1945, p.107). However, incorporating small firms, which tend to be geared towards applied research, in national systems of innovation has largely been overshadowed by large-scale research programmes focusing on basic research (Sinnewe *et al.*, 2016). But, as a result of a growing awareness of the important role to be played by smaller firms within national systems of innovation (OECD, 1999), governments in more recent times have focused on this sector in the context of university–industry collaborative research, especially with respect to small technology firms (Foreman-Peck, 2013; Miles, 2015; PwC, 2013). For example, nations have started to incorporate lower-value funding mechanisms, such as innovation vouchers, into their innovation ecosystems (Flanagan *et al.*, 2011). Likewise, in 2016, the Australian government established an offshoot of the cooperative research centres (CRC) programme that focuses on SMEs undertaking applied research (Noble *et al.*, 2019).

However, Bell *et al.* (2015) caution that the provision of financial vouchers or targeted financial incentives alone is insufficient, Startups need access to advice about where to go to receive assistance (Garvin and Margolis, 2015). Such assistance is required to turn ideas or even proofs of concept into a marketable products. Branscomb and Auerswald (2002) have identified various points of vulnerability for startups endeavouring to bring innovative products to market. One particular vulnerability is the so-called ‘valley of death’ (Ford *et al.*, 2007), the ‘Darwinian sea’ (Auerswald and Branscomb, 2003) between proof of concept and product development, a stage

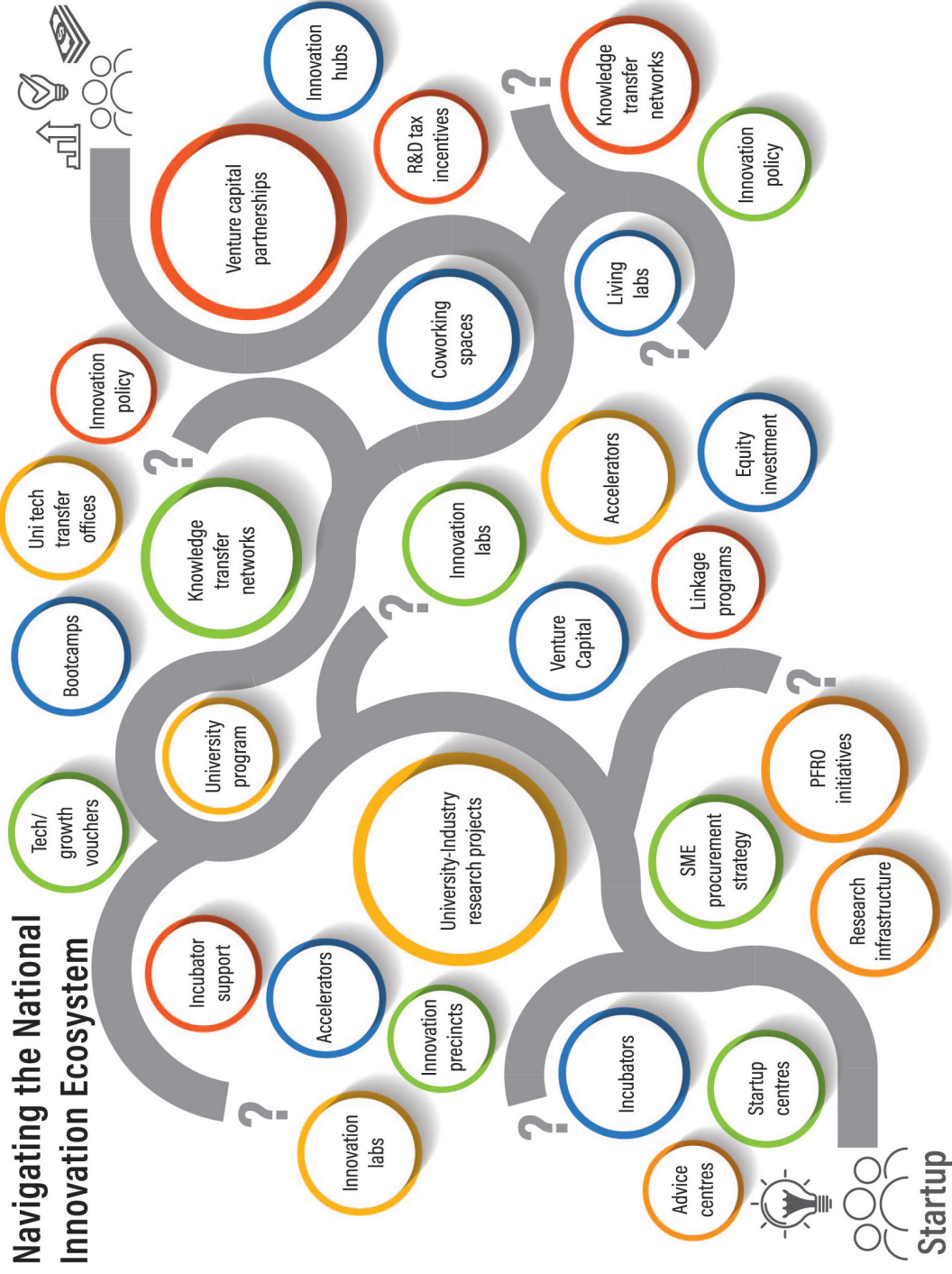
which Miller and Bound (2011) call the ‘fragile days’ of a young firm’s existence. Precisely when this period starts, and how long it lasts, is not clear, despite the notion making intuitive sense. Often, this period of vulnerability involves developing a minimum viable product, which is defined as a demonstration prototype that requires ‘a minimum amount of effort and the least amount of development time. The minimum viable product lacks many features that may prove essential later on’ (Ries, 2011, p.77). It is at this stage that innovative products with potential may fail to progress to the next phase of development, in part because of informational and financial asymmetries, such as the innovator not having access to appropriate advice, networks and, in particular, finance (Agarwal *et al.*, 2018). Auerswald *et al.* (2003, p.19) also note that ‘pressures to deliver near term financial results’ at the ‘expense of earlier stage investment’ result in many potential projects being aborted before the commercialization stage can begin.

To deal with these issues, many actors in the innovation process have established outreach arms to work with startups, often in enterprise labs and co-working spaces. In parallel, accelerators, incubators and venture capital firms can provide startups with the kinds of knowledge, networks, resources and capital required to turn good ideas into a viable commercial reality. Yet, the complex relationships (Pascoal and do Rosário, 2016, p.372) among these actors – programmes that include publicly funded research organizations and schemes offered by various government departments, sometimes even within the same jurisdiction – add layers to the existing ecosystem that can make navigation difficult for startups (Clayton *et al.*, 2018). These structural barriers endure despite consensus that startups are dependent to a greater degree than large corporations on the ecosystem within which they operate (Love and Roper, 2015, p.29).

Figure 1 illustrates the complexity of the innovation system, which comprises ‘members from government, university, and industry’ (Kuratko *et al.*, 2017, p.121). It highlights the diversity of actors and the many pathways to be navigated. Although a great many services exist within an innovation ecosystem that ostensibly aim at encouraging and supporting innovation, the complexity that has evolved within national systems of innovation has often resulted in appropriate entry points being difficult for SMEs to identify. Complications are increased by many actors being in competition with each other (OECD, 2019b). States and provinces vie with one another to attract investment in innovation, while accelerators vie with one another to attract the most promising startups. In addition, universities – even groups of universities – compete to attract as much funding as possible from across the spectrum of business and government sources. The complex levels and layers of competition, combined with lack of transparency and asymmetric information access, add to the difficulty that startups encounter when they seek assistance with finance, business advice or research (Hannig and Potter, 2018).

Stam (2015, p.5) identifies an ecosystem within an ecosystem. That is, within the wider and broader national system of innovation, one might conceptualize an entrepreneurial ecosystem operating within the ‘larger regional, national, international, and perhaps truly global ecosystem’ (Bruns *et al.*, 2017, p.32). This system operates within, although in some ways independent of, broader national innovation. Stam and Spigel (2015, p.1) define entrepreneurial ecosystems as ‘a set of interdependent actors and factors coordinated in such a way that they enable productive entrepreneurship within a particular territory’. Although there may be a degree of coordination generated by the broader system of innovation, there is a more organic and networked element to the concept of the entrepreneurial ecosystem, which is likely to consist of smaller and less-resourced organizations.

Even with advanced knowledge of potential avenues of assistance, the innovation ecosystem is challenging. For new entrants and startups experiencing information asymmetry (Baldock and Mason, 2015, p.61), the very complexity becomes a barrier to entering this ecosystem, and so it follows that governments, which have a clear interest in assisting startups to harness innovation, need to determine the best way to help startups and then develop policy instruments to do precisely this. However, the OECD (2019, p.99) cautions that ‘negative interactions among policy instruments may occur if they contradict each other or result in excessive complexity’. Thus, a large



**Figure 1.** The innovation ecosystem pathway



number of available options may make it harder, rather than easier, for startups to become meaningful players in innovation ecosystems. Taken together, these issues point to the need for a publicly funded (or at least assisted) vehicle, such as a concierge service, that is capable of connecting SMEs to a diverse set of resources and facilitating their navigation of this ecosystem. In addition, it is important to determine the characteristics that a concierge service should have if it is to assist startups most effectively.

### **Towards a working definition for concierge services**

Although some sort of one-stop shop for startups might seem a rather obvious idea, there is no agreed definition of what a concierge service might be in either the academic or professional literature, nor has there been any comprehensive study published on the concept. Indeed, the term ‘concierge’ is not in general use in respect of services for startups.<sup>1</sup> The term is not in common use even in the literature on intermediaries. As a result, it is important to establish some sort of definition to guide future practice and ensure common parlance. Dictionary definitions tend to link the term with the hospitality industry, a key component of concierge duties in this context being to assist guests who are unfamiliar with a city to find restaurants, theatres, tours and other facilities (Glushko and Nomorosa, 2013). A United States usage refers to someone who assists executives with mundane, time-consuming tasks, such as shopping (West, n.d.). Common to such definitions is a single point for information, where an organization or an individual brings together disparate sources of information for others to use. In the context of innovation ecosystems, one might imagine a continuum with highly interactive concierge services at one end of the service spectrum, and information-based websites, with low levels of interaction, at the other end.

To illustrate, in Canada, a concierge service designed to be ‘a single point of access to innovation support programs and services for small and medium-sized Canadian companies’ (Government of Canada, 2015) was launched in 2012 and operated until 2017. Elements survive, most noticeably a team of Canada-wide innovation advisers who ‘provide free, one-on-one assistance and use their industry experience and knowledge to help guide clients to the most appropriate innovation programs and services’ (Government of Canada, 2018). At first, demand for these services outstripped the availability of advisers (KPMG, 2017). The original portal for the concierge service was replaced by a digital self-service kiosk, which guides the user through a series of questions (Government of Canada, 2019) to direct the enquiry to the most appropriate government contact. Such digital kiosks are common in hospitals, airports and shopping centres, and are designed to direct patrons efficiently to desired services.

As an illustration of the lack of consistency in the use of the term ‘concierge’, the state of New South Wales operated an ‘innovation concierge’. But the goal in NSW was to provide access for startups to government procurement pathways rather than a full suite of services, including such elements as research support, funding and intellectual property advice. A detailed review reveals a number of descriptors that are used interchangeably, and often in an undifferentiated way, to describe elements of a concierge service. These include:

- boundary spanners – organizations and individuals
- bricoleurs
- innovation brokers
- innovation consultancy services
- innovation intermediary

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<sup>1</sup> A search of the International Business Innovation Association website for the word ‘concierge’ reveals no relevant matches, available at <https://ebn.eu/index.php?lnk=Mnk2VjRUbFQ1U0JPbVQrZFN1N1hQRFlndnRETDVQUghMV0dvekZDRnpPcz0>=(accessed October 2020).

- intermediary (individual/company/institution)
- knowledge brokers
- peer network brokers
- technology brokers
- third party
- value adding connector

These descriptors can apply equally to individuals, organizations and institutions. These terms all tend to suggest the idea of helping someone to cross boundaries into regions unknown, or to help others discover useful information or connections (Frølund and Ziethen, 2016).

The term ‘concierge’ has particular relevance to the startup environment for a number of reasons. Startups tend to experience information asymmetry, particularly in navigating the various innovation ecosystem services. Identifying suitable government and private services can be both difficult and time-consuming. In Australia, for example, there are more than 150 different government support initiatives and accelerators, with the number of innovation accelerators growing by around 50% per annum in recent years. Navigating this complex array of services and incentives can be difficult even for someone well versed in public administration, and can be almost impossible for startups. Nascent entities often lack networks to provide the trigger information needed to act, they lack time and spare resources, and cannot afford scanning activities to help identify potential support.

So, what should a concierge service do? Not only should the service provide information about the innovation support landscape, it should also play a development role. Some of the key functions are likely to be:

- a) in an information role, providing access to research support, research funding (government, angel investor, venture capitalists, etc.), knowledge about services in the innovation ecosystem, and access to mentors;
- b) and in a development role, assisting with business skills development, the management of intellectual property, assisting with networking and navigating the ecosystem.

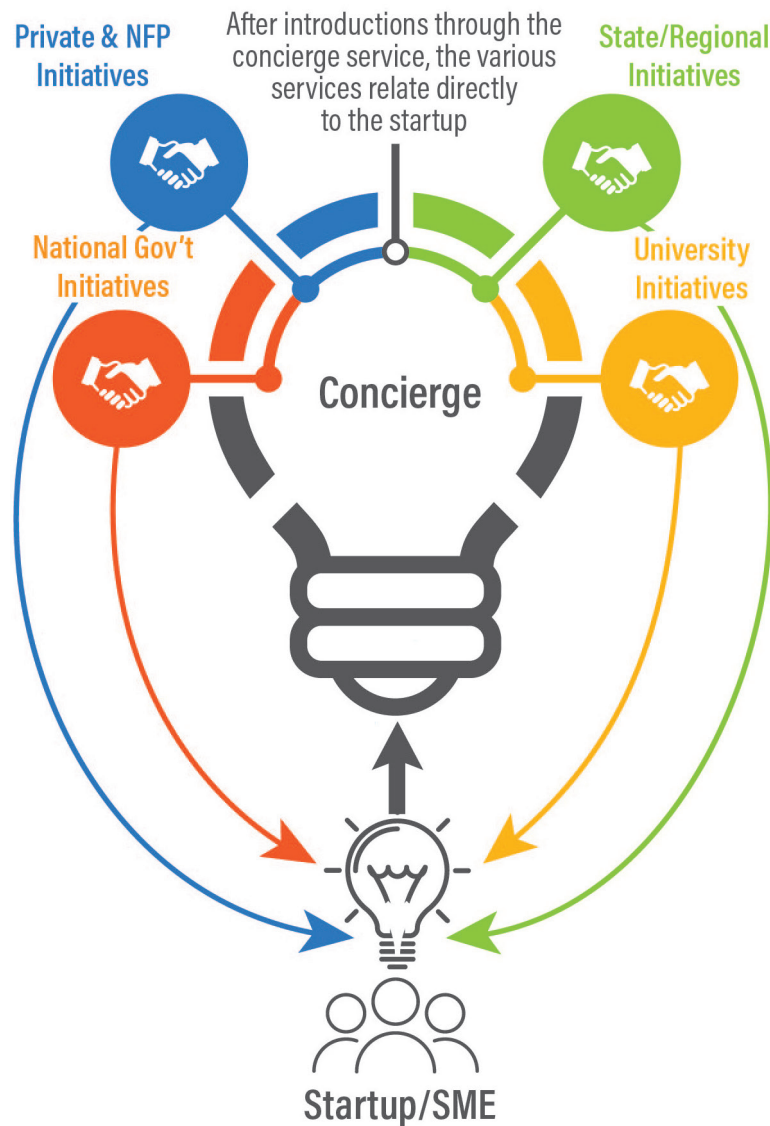
A working definition of a concierge service for SMEs and startups could therefore be:

*A single point of contact with appropriate advisory facilities, and with strong linkages to research and financial support services, to facilitate and strengthen innovative startups.*

In alignment with this definition, a concierge service provides a single entry point for startups. The resources of the concierge service are then available to the startup, enabling it to learn to navigate the various support services. In turn, the startup support mechanisms, either government or private, are able to access the new innovative ideas that the startup brings to the ecosystem. This advanced connection/pathway is illustrated in Figure 2.

## Research approach

We now look closely at concierge models that are already in existence – even if such services do not use the word ‘concierge’ to describe themselves. Mere use of the word does not necessarily indicate a service that coheres with our working definition. This work forms part of a broader project on the embedding of SMEs and startups into national systems of innovation in which a wide scan of services akin to a concierge service was undertaken. A cross-case analysis was conducted on five identified services that most closely cohered with our definition of a concierge service for startups. Desktop research was accompanied by targeted questions to organizational officials on points of detail. In the case of the Scottish concierge service, Interface, research, including formal



**Figure 2.** Concierge model for startups

*Graphic:* Hannah Murphy, Editors Queensland

interviews with users of the service, academic staff and management, had already been undertaken as part of the authors' research on the engagement of SMEs in a national system of innovation. Overall, we looked for common elements within the five services to uncover the core components of concierge services.

### Five global exemplars of concierge service

#### 1. Industrial Research Assistance Program (IRAP) (Canada)

IRAP commenced in 1962 and continues to this day. The focus of the programme is on SMEs, and its mandate is to 'stimulate wealth creation for Canada through innovation'. Its mission is to 'accelerate the growth of small and medium-sized businesses by providing them with a comprehensive suite of innovation services and funding'. The strategic objectives of the organization are to 'help small and medium-sized businesses in Canada develop and commercialize technologies' and to 'collaborate with regional and national organizations on initiatives that support the development

and commercialisation of technologies by small and medium-sized businesses'. The service standards of IRAP include responsiveness to enquiries within two to five business days and confidentiality, while IRAP officials work with clients to develop and structure project briefs. Funding is available from less than C\$50,000 up to C\$10 million. The programme has a wide reach with more than 250 field staff and 130 offices across Canada, either in IRAP dedicated offices or co-located with partner organizations such as universities.

From 2012 to 2017, IRAP ran a concierge service that provided a digital portal to access the various services that IRAP offers. The concierge service was designed to provide 'customized guidance and advice to Canadian small and medium-sized enterprises (SMEs) to help them to access the most relevant programs and services to help them grow. It brought together comprehensive, up-to-date information under a single umbrella to help SMEs innovate with new products, services, or markets' (National Research Council, 2015). In 2018, the original portal was dispensed with and a new digital concierge powered by machine learning was launched to direct enquiries to the most relevant local individual. In addition to the digital funding concierge, there is also a link to innovation advisers who 'provide free, one-on-one assistance and use their industry experience and knowledge to help guide clients to the most appropriate innovation programs and services'. A toll-free number (staffed twelve hours per day, Monday to Friday) is provided, as is an email enquiry form.

## *2. Interface (Scotland)*

In 2005, the Scottish government agreed to establish a 'single point of access [that] will provide businesses with a service which answers initial enquiries about expertise and commercial opportunities in the research base and then directs and filters such enquiries' (Scottish Executive, 2005). In response, the Scottish universities, higher education funding council and government agreed to establish an organization to provide a brokering function between the SME sector and university researchers. Interface, as it became known, has operated over the last decade and a half and provides this link. Interface reportedly contributes £64 million per annum to the Scottish economy through the promotion and brokerage of university–industry collaborative research in the SME sector.

Interface currently operates with a team of 25 staff, including business and sector engagement executives, marketing staff and back-office support. It works with the 23 higher education and research institutes in Scotland, in addition to eight innovation centres. Interface administers a number of funding vouchers, including standard and student placement innovation vouchers to the value of up to £5,000; follow-on vouchers of up to £20,000; and Horizon 2020 vouchers of up to £5,000. These vouchers are designed to cover research costs and are paid to the research institution involved in the collaboration. The SME is expected to match the funding with cash or in-kind contributions, depending on the value of the grant. The organization is also able to facilitate access to a number of other funding opportunities administered by the UK and the Scottish governments. Interface's free service facilitates partnerships between startups, and SMEs generally, together with the research sector. In addition to building networks for innovators, Interface also advises about finance and intellectual property rights. A number of partnership and IPR agreement templates are available for SMEs and research organizations.

## *3. Jihomoravské Inovační Centrum (JIC – South Moravian Innovation Centre, Czech Republic)*

JIC in South Moravia emerged from a regional innovation strategy developed in 2011 and was intended to coordinate and support entrepreneurs in the region. It is owned by a regional government, a city council and four universities. Since inception, more than 200 startups and even larger companies have used JIC's services. In 2008, JIC expanded to include a biotechnology incubator, and in 2009 introduced a voucher programme for entrepreneurs. In 2010, JIC introduced 'speed dating' to introduce technology entrepreneurs to one another while, in 2012, open innovation



sessions were introduced where companies find technology partners, and JIC representatives stimulate discussion about innovation. In 2015, to alleviate the pressure on startups to rely on private funds or international grants, JIC set up a subsidiary company, JIC Ventures, to assist promising companies to grow faster by investing in them in exchange for a stake in the company. JIC also introduced an entrepreneur in residence scheme that same year to coach startups and support the development of startup ideas.

JIC runs three levels of programmes. The first is aimed at new startups that require assistance with setting up a business and developing an innovative idea. Participants in this programme pay CZK1,500 per month for the services of consultants and mentors, workshops and a co-working space for up to three people. The second level of service is aimed at those startups and SMEs that currently have a product, but need help to develop a growth strategy. The third level of service is targeted at established firms that may have stagnated and need new energy.

Startups and SMEs that use the JIC service receive consultation with an internal JIC team, which will tailor programmes to meet the specific requirements of the individual firm. In addition, access is provided to experts in the field, as well as key investors and other entrepreneurs who assist the firm by taking an idea forward to market. Finally, there is access to lawyers and accountants who can advise the young firm about agreements and business matters. A range of services, including advice about business strategy, intellectual property rights, marketing, research and investment, is also provided.

#### *4. Business West (Southwest England)*

Business West is a not-for-profit company operating under the combined chambers of commerce in Bristol, Bath, Gloucestershire and Wiltshire, all located in the south-west of England. Business West is funded through a combination of commercial income, fees from chamber members, as well as a variety of government funding contracts covering innovation, startups and skills. In its current form, Business West has operated for around ten years. The organization's website reports that the company employs more than 200 people and has a turnover in excess of £10 million. Over the last six years, Business West reports that it has helped start more than 740 businesses, provided more than 500 startup grants and 30 scale-up grants, and invested more than £150,000 in business coaching. In the same period, more than £4 million has been spent on low-interest startup loans of £25,000 each.

Business West matches startups with business advisers, who provide support to startups for 12 months and help them through the funding options, as well as providing resources and assisting business owners to create business plans and financial forecasts. Business West's business advisers work individually with business owners to identify business strategic strengths, weaknesses and potential new opportunities. The business advisers also provide advice on new markets, potential partners and technologies. The service is funded by Innovate UK and the European Union. In addition to these services, Business West also administers the innovate2succeed programme, which is part of the enterprise Europe network and is administered in the UK through Innovate UK. Brexit will involve some change to these arrangements.

#### *5. Flanders Innovation and Entrepreneurship (Belgium)*

The Flanders Innovation and Entrepreneurship (FIE) agency provides support for startups and entrepreneurial firms and individuals in Flanders and is described as a one-stop shop. In addition to being an initial starting point for firms wishing to exploit innovation, FIE seeks to contribute to a favourable business climate within the region to stimulate growth and innovation. FIE works with local organizations, the Belgian government, and within European Union frameworks, such as Horizon 2020. FIE has a number of initiatives to support startups. These include grants, one-to-one support for young companies, the development of clusters and networking opportunities. In 2016, FIE had 369 employees, a turnover of €30 million, and administered more than €500 million in grants.

Visitors to the FIE website are presented with four major links. These are: ‘Information, support and advice for entrepreneurs’; ‘Subsidies for entrepreneurs’; ‘Information for foreign investors’; and ‘Innovation clusters in Flanders’. Enquirers who select the first option will find information about the services delivered by FIE, ranging from licensing businesses through to starting a new business. The second option, subsidies, provides information about no fewer than 18 different funding initiatives, from relatively small €10,000 subsidies through to funding to establish incubators. The link to innovation clusters provides information about two government initiatives. The first is a large programme involving university–industry collaboration, and the second focuses on smaller inter-firm collaborations over three-year periods. The link for foreign investors directs the enquirer to a dedicated team within FIE. A noticeable feature of the FIE website is the absence of a self-service information kiosk. Rather, enquirers are encouraged at every point in the site to call FIE’s toll-free number. The enquiry line is staffed five days per week during business hours, and the caller is directed to the most appropriate staff member.

### Overview of cases

Each of the case studies has its own characteristics, but there are significant similarities. All the cases share an emphasis on a single point of contact, face-to-face consultative service, access to both funding and research, and networking, or providing opportunities for facilitating connections. The JIC service has established an accelerator, while the other four organizations are yet to do so. A concierge service would not normally provide an accelerator or incubator capacity, but would rather put startups in contact with providers of services that match the requirements of an innovation. The characteristics listed above are core components of any concierge service aiming to support startups within an innovation ecosystem. The component that is not common – accelerators or incubators – appears to be an optional extra.

It will be useful to see how these ventures evaluate their activities, and therefore provide an assurance of their efficiency and utility. There does not appear to be a single suite of evaluation measures across the case studies surveyed, although there are some similarities. Some of the evaluation mechanisms are easily identifiable from the organization’s website or published annual reports. However, in some instances, it was rather more challenging to uncover how the

**Table 1.** Evaluation measures identified in case studies

Measure	Organizations
% client enquiries via free-call number compared with web enquiries	Flanders
Client satisfaction	Interface; Flanders
Funding leveraged through other sources	Business West
Increasing involvement of women in client startups	Interface
New to repeat clients	Flanders; Interface
Number of new jobs as a result of interaction	Business West; Interface; JIC
Number of startups commenced	Business West
Response times to queries	Flanders
Revenue growth of startup client	JIC
Startup longevity	JIC
Startup/SME revenue invested in R&D as % of turnover	JIC
Turnover additionality	Interface

organization evaluates its success. Where it was not possible to identify evaluation measures from the website or published reports (e.g., Business West), the authors contacted the organization directly, and the information was provided by a senior manager.

Quite apart from the various self-evaluation methods of the concierge services are economic indicators of efficacy. Self-reporting by the concierge services suggests that additionalities accrue to the nation or the region in which the concierge service operates. For example, a report commissioned by Scotland's Interface suggests that, for every pound invested in Interface, there is a £6.33 return in the immediate future, and £19.27 over the long term (Biggar Economics, 2017, p.2). Similarly, Business West claims to have helped 700 firms generate over £650 million of export sales. These economic benefits are not insignificant, and thus provide a rationale for governments to invest in services that enhance the capacity of the SME community, and ultimately the broader economy.

## Findings

A number of findings emerge from this study. The first confirms the complex ecosystem that currently confronts startups in most countries. The many services available create a morass through which the startup – already time and information poor – must wade to determine the best funding or support mechanism to apply for. A time-poor startup may do insufficient research and select an inappropriate service. It may seem counterintuitive to suggest the addition of another service, but the additional service provides a coordinating mechanism, and provides an entry point into what might seem a confusing system.

A second finding is that the terminology used by agencies and accelerators may be different from the way in which startups describe their own ideas and businesses. Just as multiple descriptors for intermediaries are used in an undifferentiated way (see Table 1), organizations often see themselves as one mode of startup assistance (e.g., incubator), when the way in which they operate is more like another (Dempwolf *et al.*, 2014). Research elsewhere has demonstrated that problems arise from this lack of shared language (Mandell *et al.*, 2017). For instance, a startup manager may be confronted with a digital self-service kiosk and asked to answer questions, often with a poor understanding of the terminology in use, and with incomplete information. The spillover effect of such a situation can lead to dissatisfaction and disengagement.

A third finding is that there is a variety of service levels across the government-led and not-for-profit initiatives surveyed. The range of services offered to startups in the innovation ecosystem is a continuum from information-only websites directing enquirers to external service providers, to self-service digital kiosks designed to analyse, at a high level, the enquirer's requirements and direct them to the most appropriate agency, through to agencies that deal with clients personally. As is illustrated in Figure 2, information-only services constitute the low-service end of the innovation ecosystem service-delivery spectrum, while on the right-hand side of the continuum lies the idealized version of a concierge service for startups.

The final finding is that there are several successful models from which public administrators desiring to smooth the entrance of startups into the innovation ecosystem can learn. However, research cautions that there is no superior policy mix model, and that various policy models can yield wildly different results in similar situations (Izsák *et al.*, 2014, p.50). This sentiment is echoed by the OECD (2019a, p.87), which advises that 'the same types of instruments with the same characteristics are not suitable in all cases'. So, it is necessary to create a fit-for-purpose concierge service that is specific to the needs of the innovation ecosystem rather than merely duplicate from elsewhere.

Table 2, drawn from the cross-case analysis, provides four potential pathways for public administrators. Although the first option, maintain the *status quo*, may appear to be the least-cost approach, there is good reason to believe that it can result in the inefficient utilization of public

**Table 2.** Potential options for public administrators in the field of innovation

	Advantages	Disadvantages
<b>Maintain <i>status quo</i></b>	Low cost; only maintenance required for current system	Startups find difficulty navigating innovation ecosystem.
<b>Information repository</b>	Locates information in one place; links to various initiatives possible	Information quickly becomes dated; maintenance issues; startups may still find difficult navigating innovation ecosystem
<b>Digital self-service site</b>	Low cost; initial screening may assist startups to locate potential funding or partners	Startup may be unsure where it fits into defined categories owing to unfamiliarity with terminology
<b>Concierge service</b>	Provides personal, targeted service based on on-to-one diagnosis of needs	Establishment and operating costs; requires buy-in across multiple actors; potentially subject to partisan policy

resources. Startups may waste time in bringing innovation to market (or not succeeding at all), or else they may use publicly funded resources that are not fit for purpose. Pursuing one of the other three options may be advisable.

The report on the evaluation of the information concierge programme in NSW looked at government procurement – an incentive which does not, of course, meet the present study’s definitional requirements (Department of Finance Services and Innovation, 2018). Even so, the report refers to reliance on a self-service digital kiosk, and notes that the demand for this digital kiosk declined sharply quite soon after its launch, and continued to decline to just a few hits per month. The digital kiosk model did not meet the needs of the clients, ‘who demand quick access to information’. The concierge service partially resolved visitors’ needs for information by increasing the amount of information and links on the website. This resulted in an increased load for other government agencies, and the disaffection of some clients owing to a lack of response from these agencies. This aspect of a concierge service needs to be considered: unless other agencies within the innovation ecosystem buy into the concierge concept, client experience may be dismal, and public money wasted.

This study suggests that significant additionalities may be achieved through a personal concierge service, even though the personal option may require more up-front and ongoing investment by public agencies. Reliance on technological interventions, such as digital self-service kiosks, is likely to be less effective.

### Concluding remarks

This paper has highlighted the complexity and messiness of innovation ecosystems, and also the potential benefits of intermediary organizations to facilitate the entry of startups into these innovation ecosystems. We have proposed a working definition of a concierge service for public sector managers of innovation programmes, and have provided some examples of what functions a best-practice concierge service should include.

A concierge service, according to the definition set out in this study, provides a diagnostic service that assesses a startup’s needs, and connects it with the most appropriate services. Once introduced, the startup relates to these services directly and the concierge retreats. In some cases, there may be a post-project role for the concierge service to assess the efficacy of the service and provide further diagnostic tools to assess the startup’s future needs. A formative process occurs as the startup begins to interact with the innovation ecosystem, with feedback loops developing as the startup learns to navigate the ecosystem and ideally develops its own networks.



Given that the innovation ecosystem of most nations is a fragmented and complex environment for startups to navigate, the provision of a publicly funded concierge service, at least on a state, provincial or regional basis, would reduce this complexity and enhance the efficacy of other publicly funded services for startups. It would also provide additionalities in terms of greater export potential, additional taxation revenues and more jobs.

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