ACCELERATOR OR INCUBATOR?

Enterprise support organisations in Hungary in light of international practice

Anita Lovas – Nikolett Riz

ABSTRACT

Organisations that support the launch and development of new businesses are attracting increasing attention from market players and state decision-makers alike. Following the first business incubators, which merely provided office space, organisations offering a complex range of services have come to the fore today in Europe and the United States. Besides incubators, accelerators have also appeared, offering enterprises more intensive programmes over shorter periods. The aim of this article is to present these organisations and assess the distinctions between them. We carried out an empirical survey in order to analyse the Hungarian market. Our research found that a significant number of Hungarian incubators are still state or local government-owned. In contrast with Western trends, a large proportion of these are still traditional organisations, for which rental fees for physical services still represent an important source of revenue.

JEL codes: M13, N24, O38

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1. INTRODUCTION

Small and medium-sized enterprises (SMEs) represent one of the most important building blocks of the European economy, with almost 99% of businesses belonging in this sector. In the past five years these enterprises have created around 85% of new workplaces, accounting for some two-thirds of employment in the private sector in the European Union (European Commission, 2016).

Thanks to advances in digital technology, the costs of setting up a business today have decreased considerably (WEF, 2016), with an increasing number of enterprises being established as a result. For small enterprises to survive and grow, however, requires financial resources and professional support. Despite the availability of favourable loan constructions in the SME sector in an increasing number of countries, thanks to the universal recognition of their importance in

this sector of the economy, SMEs often lack the capacity to secure the financing that is available to larger companies (HVCA, 2015).

Small and medium-sized enterprises have other possible sources of funding besides loans. Venture capital is the most active force in this sector of the economy, where companies are favoured targets of private equity investments (HVCA, 2015). For this reason, SMEs with significant growth potential are able to secure medium and long-term financing through venture capital by transferring a certain percentage of their ownership and assuming additional obligations (*Aman–Lovas*, 2015). In Hungary, the expression "venture capital" is taken to embrace both venture capital and private equity. However, venture capital investors typically invest in early-stage enterprises with high growth potential, while the goal of private equity investors is to acquire ownership in more mature enterprises (*Karsai*, 2012).

Besides venture capital, an increasing number of organisations – among them incubators, accelerators and angel investors – support the operations of innovative startup enterprises with high growth potential. These organisations are needed because venture capital firms prefer companies that are already on a growth trajectory with professional teams at their disposal. By contrast, incubators and accelerators seek startup and early-stage enterprises with high growth potential, thus helping place ideas and projects on solid foundations. The activities carried out by incubators and accelerators fill a gap, as those with ideas often do not know how to bring their products to market, so that the incubator or accelerator phase can help bridge the period between the research phase and venture capital investment.

The goal of this study is to present incubators and accelerators and to examine the differences between the two forms of organisation. We carried out a survey of the market of organisations supporting domestic enterprises (startups) and assessed their activities in light of international writing on the subject. Presenting the features that are distinctive to Hungary is of key importance since the Western model was adopted here prior to advances made in this area, so that the traditional model remained in place in Hungary for a long time and development has proven slower as a result. Despite this, the past decade has also seen the appearance and spread of incubators established by the private sector.

2. INCUBATORS

Since the appearance of the first business incubators, the way they are perceived has changed – as have the types of such institutions. Initially incubators were born of mere economic necessity, enabling companies renting space in a buil-

ding to share the costs of various office services (*Almubartaki–Al-Karaghouli–Busler*, 2010).

In the 1980s, after the industrial recession in developed countries, the first generation of so-called traditional incubators appeared, focusing on job creation and boosting of local economies (*Adkins*, 2002). These incubators are generally run by national or local authorities.

By the end of the 1980s, specialised second-generation incubators had begun operation, typically established by universities or players in the private sector. These were technology-oriented or specialised in some other branch of industry (*Bruneel* et al., 2012).

The end of the 1990s saw the appearance of an entirely new incubator model, which became widespread in both the European Union and the United States, known as new economy, for-profit or corporate incubators (*Bajmóczy*, 2007). These are profit-oriented organisations established by the private sector, where revenue derives not from rental fees but from the return on investments. They are inclined to focus mainly on high-tech and internet-related activities (*Aerts* et al., 2007), and – contrary to traditional incubators – do not have job creation as their goal. Financial and business services form the principal focus of the services of new economy incubators, in contrast to the physical resources or office buildings that lie at the core of traditional incubators.

Each type of incubator appeared as a response to some specific problem. Today all three of the aforementioned types of incubator operate side by side in nearly every country. Although today's processes are characterised by the increasing role of technological incubators, the transformation of the older types of incubator is a slow process, so that all types have a continuing presence in both Europe and America alike (*Tornatzky* et al., 2003).

When defining business incubators, we can talk about such facilities in either a broad or narrow sense. According to *Bajmóczy* (2004), the broader interpretation of an incubator applies if the given institution provides a purpose-made environment for small enterprises which promotes their more rapid development. On this basis, the range of facilities that can be regarded as incubators is wide, encompassing industrial parks, technology centres, and indeed any specialised organisation that supports small enterprises (*Bajmóczy*, 2004). Incubator space, however, no longer necessarily means an office building or plant, since these days so-called "virtual" incubators are also increasingly common (*Lesáková*, 2012).

In the narrower sense, an institution can be regarded as an incubator if it offers complex services besides the appropriate incubator space (*Bajmóczy*, 2004). Such organisations support the process of creating a business, while also providing the integrated services that are necessary for its successful launch and operation.

The most important among the latter are incubator space, preferential business support services, and clustering and networking opportunities (BENCHMARKING, 2002).

According to another approach (*Carayannis–Zedtwitz*, 2005), we can talk of an incubator in the narrow sense if it provides all of the services listed below. If it only provides four, then we are looking at a more broadly defined incubator; if it provides three or fewer, then the organisation is not an incubator at all. The services are as follows:

- Provision of incubator space (office, furniture, computer network etc.);
- Financial services (including capital investment opportunities);
- Administrative services (secretariat, computer network, handling of postal consignments, accounting);
- "Networking" opportunities;
- Startup business support (organisational, management, legal consulting).

Well-managed and successfully functioning incubators hold advantages for a number of stakeholders (*Lalkaka*, 1997). For *tenants*, incubation increases their chances of success, making it potentially easier for them to access mentors, information and seed capital. For the *government*, incubators help overcome market failures, create jobs, generate taxes and promote regional development; in addition, by supporting incubation, the state can prove its political commitment to small businesses. For *research institutes and universities*, they ensure that research is placed on a suitable business footing, while helping make the most of the capabilities of graduating students. In *local communities*, they create an entrepreneurial culture while generating income for the community; in addition, many businesses will continue to operate in the given area after completion of the incubation programme. For the *international community*, significant benefits may derive from the flow of technology, from better understanding of various business cultures, and from the facilitation of an international exchange of experiences that may come about through associations and alliances. Obviously these are only potential benefits and desirable advantages which incubation may often fail to achieve because of inadequate management or regulation. Despite this, there is growing evidence that the aforementioned advantages can genuinely materialise in the course of the incubation process (*Lalkaka*, 1997).

3. ACCELERATORS

Another type of organisation helping startup enterprises, the accelerator, has become widespread only in the past decade (*Pauwels* et al., 2016). Accelerators are group-based programmes for startups of determined duration which offer their founders education and mentoring support, during which they may receive advice from former entrepreneurs, venture capital investors, angel investors and company directors. The programme ends with a so-called demo day, when "graduating" companies have the opportunity to reach approved investors and secure capital investment (*Cohen* 2013, *Cohen–Hochberg*, 2014). Most accelerators provide not only mentoring support and networking opportunities, but also shared offices and other services for their enterprises. Some accelerators additionally offer larger, guaranteed capital investments to the companies entering the programme (*Hochberg*, 2015). The majority of accelerators are general in nature, although there are also some that specialise in certain individual industries (for example healthcare, energy or digital media).

According to *Christiansen*, five principal elements characterise accelerators:

1) They provide financing for startups, typically at the seed phase.

2) Company founders form small teams, so that the emphasis is not on individual founders.

3) Startups are put into groups in the accelerator programmes, and supported for a determined period.

4) Accelerators offer education to entrepreneurs, focusing on business and product advice.

5) Beyond this, startups are provided important networking opportunities, thereby gaining access to other investors and advisors. Besides the aforementioned five elements, *Christiansen* also mentions as optional extras the provision of free or subsidized office space, as well as a demo day organised at the end of the programme (*Christiansen*, 2009).

It is important to stress how accelerators differ from incubators or other forms of investment:

(1) The application process for accelerator programmes is open to all startups, yet highly competitive.

(2) Accelerators provide very early investment at enterprises, even at the pre-seed stage, in exchange for equity.

(3) The focus is generally on small teams, not individual founders.

(4) Support provided by accelerators is for only a limited period, but comprises pre-planned programmes and intensive mentoring during this period.

(5) Programmes include groups or so-called "cohorts" of startups (*Miller–Bound*, 2011).

4. A COMPARISON OF ENTERPRISE SUPPORT STRUCTURES

As informal participants on the venture capital market, angel investors fulfil a role similar to incubators or accelerators. Angel investors are experienced entrepreneurs, generally financing new small enterprises directly and contributing intellectual capital to the investment (*Kosztopulosz–Makra*, 2006). In our analysis comparing incubators and accelerators, we therefore also present the characteristics of angel investors. Although all three support structures have the common goal of assisting startup ventures, they differ from one another in several aspects. The main differences can be seen in *Table 1.*

Table 1

Comparison of incubators, angel investors and accelerators

	Incubators	Angel investors	Accelerators
Duration	1–5 years	Ongoing	3 months
Cohorts	No	No	Yes
Business model	Rent; non-profit	Investment	Investment, can also be non-profit
Selection	Non-competitive	Competitive, ongoing	Competitive, cyclical
Venture stage	Early, or late	Early	Early
Education	Ad hoc (e.g. legal)	None	Seminars
Mentorship	Minimal, tactical	As needed, by investor	Intensive
Venture location	On site	Off site	On site

Source: Cohen (2013, p. 20)

In *Cohen*'s analysis (2013), incubators and accelerators differ from one another in four main respects. One major difference is in the *duration* of their programmes. The duration of the services offered by accelerators is limited, with programmes typically covering a three-month period, while research shows that enterprises on average belong to incubator houses for 1–5 years. The short length of accelerator programmes means that they speed up a venture's initial growth cycle, but this can also lead to more rapid failure.

Another unique feature of structured programmes of limited duration (accelerators) is their *inclusion in groups*, where the entry and exit of participating ventures is in the form of so-called cohorts. These ventures motivate and assist one another during the programme, and a community identity and unusually strong ties may be formed between companies as a result.

In terms of the *business model* followed, most accelerators are privately owned and their owners generally carry out investments at the companies involved. In addition, many accelerator managers are also angel investors who may be able to provide further financing. By contrast, incubators are largely state-owned institutions that do not offer financing to participating ventures. Some accelerator owners, on the other hand, have considerable experience either as entrepreneurs or angel investors, thus enabling them to pass on their knowledge first hand to startup companies.

The difference in duration of the programmes offered by incubators and accelerators also has an impact on the system of *selection*. While accelerators "take on" enterprises once or twice each year, companies are continuously entering or exiting incubators. The top accelerators accept only a small fraction of applicants to their programmes.

The last but very important difference is the *education and mentoring support* provided by accelerators. Incubators typically offer participating ventures advice – given by professional service providers such as lawyers or accountants – in return for a given fee. By contrast, one of the cornerstones of accelerator programmes is mentoring support, which is often the primary reason enterprises apply to participate. Besides this, accelerators give educational seminars for companies taking part in their programmes.

According to *Christiansen* (2009), one of the big advantages of accelerators is that their incentives adjust and conform to the goals of startups, since an accelerator is viable only if its programme is completed by successful startups. In addition, unlike incubators, accelerators are less dependent on government funding (*Christiansen*, 2009).

Beyond this, *Cohen* (2013) takes the view that the services offered by incubators are often inconsistent with the needs of startup ventures. For example, it may

happen that an incubator enables an enterprise to survive within but not outside the incubator, which is not an optimal outcome for the market. This is why some companies are able to operate longer within an incubator than outside it, and – although "survival" may sound appealing – if a company is doomed to unavoidable failure then this means that the resources of the incubator could be put to better use. At the same time, an incubator shields the enterprises within it, so that they do not necessarily receive the market feedback important for their early adaptation. In summary, incubators protect enterprises and provide them opportunities for growth. By contrast, the goal of accelerators is to speed up interaction between companies and the market in order to help startups adapt to market conditions as quickly as possible. The goal of an accelerator, therefore, is to speed up growth, irrespective of whether this ends in success or failure.

Although the accelerator model also offers immaterial services (mentoring, networking), it has numerous other distinctive features that set it apart from existing incubation models (*Isabelle*, 2013). First of all, it is not the primary goal of accelerators to provide physical resources or office services over a long period. Second, accelerators generally offer pre-seed[1] investment in return for equity. Third, they are typically less likely to target venture capital investors at the next stage in financing, forming closer ties to angel investors and smaller individual investors (*Pauwels* et al., 2015). Fourth, the accelerator model places great emphasis on business development, its goal being to grow startups into enterprises ready for investment, helping achieve all this through mentoring and networking opportunities. The forming of groups or cohorts of startups equal in rank is designed to further strengthen this supportive environment (*Christiansen*, 2009 in *Pauwels* et al., 2015). Fifth, support for accelerator models is tied to time limits (on average 3–6 months), during which time the emphasis is on intensive interaction, mentoring and education, enabling startups to enjoy extraordinarily rapid growth – although some accelerators continue to offer continuous networking support after their programme has been completed (*Pauwels* et al., 2015).

1 Pre-seed phase: The earliest phase in the life of a startup, which deals with verifying the market viability of the idea, target group, solution and product (Cumming–Johan, 2009).

Table 2:
Distinctions between incubators and accelerators from the perspective of respondents to a Canadian survey

Incubator	Accelerator
For early-stage startups	For next stage, for high-growth firms
Long-term process	Short-term process
Sectors with longer time to market	Sectors with shorter time to market
An institution	A programme within an institution
Building sustainable firms	Short-term horizon, cohort-based
More focused on economic development	More focused on growth and ROI
Generally not-for-profit	Generally for-profit

Source: Knopp (2012, in *Isabelle* (2013), p. 19

Based on the results of a survey carried out in Canada in 2012, an incubator is an institution, while an accelerator can be regarded as a programme within an institution. Accelerator programmes are shorter in duration, while the time that may be spent in an incubator is considerably longer. According to answers given to the questionnaire, incubators place greater emphasis on economic development, while the focus among the goals of accelerators is on rapid growth and a return on investment. It also emerged from the survey that early-stage startups may enter incubators, while accelerators prefer firms at the next level with high growth potential (*Knopp*, 2012).

Examining a number of specialised studies on the subject, the main differences between incubators and accelerators can be summarized as follows. While the duration of programmes offered by accelerators is limited, the time typically spent in incubators is significantly longer. Incubators generally operate on a non-profit basis, while most accelerators are profit-oriented. It follows from this that their goals also differ: the goal of incubators is to help develop the economy, in contrast to accelerators, where the emphasis is on rapid growth. In our opinion, however, this statement no longer holds entirely true. When they first appeared, the goal of incubators was indeed to develop local economies and create jobs, but over the intervening decades the incubation model has transformed and evolved, so that many incubators today are also profit-oriented (for example independent or private incubators within organisations). In the case of accelerator programmes,

the most important added value is provided by immaterial services such as mentoring and networking opportunities. This intensively supportive environment is further strengthened by the close ties that are formed within individual cohorts. An additional very pertinent finding of the Canadian survey is that while an incubator is an institution, an accelerator offers a programme within an institution. The only aspect that proved inconsistent when reviewing the specialised literature on the topic was the finding in some studies that accelerators also provide pre-seed investment, meaning that they also invest in ideas or concepts. This contradicts the assertion that incubators tend to favour enterprises in the early stage, while accelerators prefer to adopt startups already in a later phase of development. This aspect may depend on many factors (such as, for example, the sector-specific orientation of organisations supporting enterprises); however, a look at the websites of the biggest international accelerators, and thus an assessment of their practices, permits us to state that a large proportion of accelerators invest in a single concept, the most important thing for them being to ensure that a good idea is allied to a committed team.

5. INCUBATION IN HUNGARY

The practice of incubation in support of enterprises began in Hungary in the 1990s, following the change of political system. The first incubator house was created with local government support in Nyíregyháza in 1991, and the same year also saw the establishment of the Association of Business Incubators (*Bajmóczy*, 2007). When incubators appeared after the change of regime, we adopted a still evolving Western model (*Bajmóczy*, 2004), and this traditional model remained in place for a very long time, and indeed survives today in many local government or state-sponsored incubators.

In Western Europe, classical incubation already began to fade into the background in the 1990s, to be replaced by the growing spread of business and technological incubators. In Hungary this transformation only began in the 2000s with the appearance of innovative enterprises applying new technologies. These companies not only needed help with basic services, but also demanded technological support for their activities (*Fábián*, 2012). The process of development is slow, but incubators financed from private capital with the aim of building markets have also become increasingly popular.

This process was further intensified with the launch of the JEREMIE Venture Capital Programme in 2010, whereby the European Union set up venture capital funds jointly with private investors, thus extending financing to startup enterprises in the form of capital raises (*Karsai*, 2014). This development kick-

started growth in domestic venture capital investment and provided impetus to startup ventures (*Lovas–Rába*, 2013), in turn impacting the programmes of incubators and accelerators. Under the programme, a total of 28 venture capital funds (JEREMIE funds) were set up in four tendering rounds, with some HUF 130 billion in investment funding at their disposal.

The supply of venture capital investment increased, as ever-growing demand arose for companies with high growth potential and scalable projects. Startup enterprises, however, were often not yet ready for venture capital investment. A gap was thus observed in the supply of financing, since venture capital funds tended to invest less in startup ventures, endeavouring more to finance enterprises at later stages of their life cycle.

In response to this, in summer 2013 the state announced a tender through the National Development Agency under the title "Technological startup ecosystem building" (Start-up_13 – commonly known as the Gazella tender), under which sub-programme I. aimed to establish and support the launch of four technological incubators (NKFIH, 2013a). The number of applications received far exceeded the advertised allocation, with 20 new entrants appearing on the market as a result. The winners were announced in October 2013, when the National Incubation Office selected four accredited technological incubators, namely ACME, Aquincum Inkubátor, Digital Factory and iCatapult (NKFIH, 2013b). Market players, however, did not insist upon state support, it emerged from a BDO survey. With several of the other tender candidates also beginning activities in 2014, a total of 11 business and technological incubators began operations in Hungary, ensuring startup applicants not just office space, but complex services, investment and a global network of contacts (*Kristóf–Kristóf–Miklós*, 2014). Several venture capital funds also launched their own incubator houses or accelerator programmes, for example PBG FMC's Traction Labs Zrt.

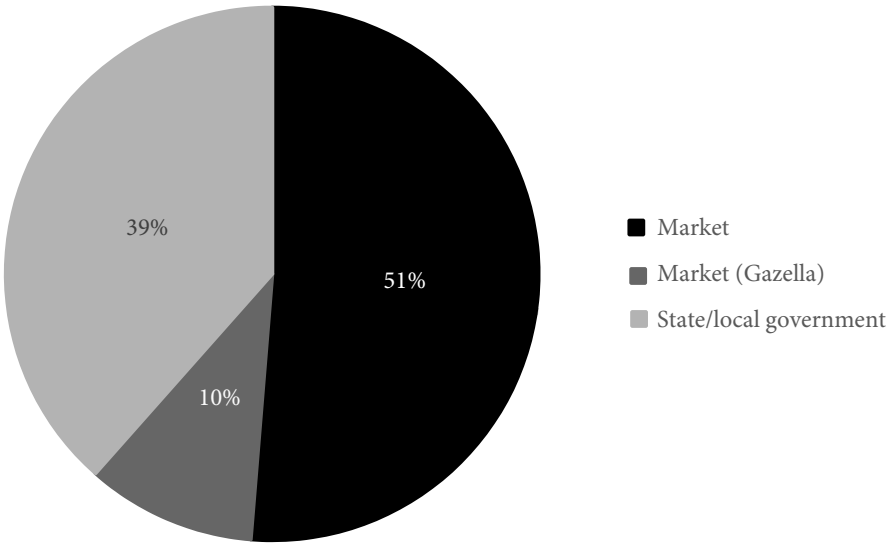
Two years later, in December 2015, a fresh incubator tender was announced within the framework of the "Innovation ecosystem building" GINOP operational programme. The tender offered HUF 600 million of non-refundable support, targeting the development of innovation centres in Hungary's regions (NKFIH, 2015). Of more than 40 applicants, projects planned in eight provincial cities received positive assessments from policy-makers and thus won state support (NKFIH, 2016). The goal of most of the programmes was to cultivate an innovation ecosystem in the given region. However, there is no focus on specific sectors at these incubators, their primary goal being to develop industry as a whole in the given geographical (provincial) region.

In the course of our empirical research, we compiled a list of domestic incubator houses and accelerator programmes. Based on internet news portals and the organisations' own websites, we determined that 39 such institutions operated in

Hungary in 2016.[2] *Figure 1* reveals that the majority are owned by market players and function on a market basis, although the state's role – particularly taking the Gazella tender into account – is also significant in Hungary.

Figure 1

Breakdown of Hungarian institutions by ownership in 2016.



Source: own collated data

As the second part of our research, we carried out a survey among institutions at the beginning of 2016, in which 18 organisations completed our questionnaire. In terms of ownership structure, the distribution of the sample (*Table 3*) is similar to the complete list of organisations, since nine owners are market participants, i.e. neither state bodies nor local governments.

2 We completed the database of our empirical research in spring 2016.

Table 3
List of organisations participating in the survey

Name of institution	Owner (market or state/local government)
Innonet Centre of Innovation and Technology Non-Profit Public Company	state/local government
Agora Office Construction Industry Incubator House Cegléd	market
Digital Factory	market (Gazella)
iCatapult	market (Gazella)
Innopark Nonprofit	state/local government
Kitchen Budapest	market
Lakits Villa – Business and Virtual Incubator House	market
Makó Industrial Park	state/local government
Marengo Real Estate	market
Nagykanizsa Incubator House and Innovation Centre	state/local government
Nógrád County Regional Enterprise Promotion Foundation	state/local government
Oxo Labs	market
Ózd Enterprise Centre and Incubator Foundation	state/local government
Paks Industrial Park	market
Primom Enterprise Incubator House and Innovation Centre	state/local government
Rézgombos Services and Incubator House	market
Somogy – Flandria Incubator House and Enterprise Promotion	market
Traction Labs	market

In their own opinion, six organisations regard themselves as accelerators, while the other 12 respondents look on themselves as incubators. Two of the accelerators (Kitchen Budapest and the accelerator operated by the town of Makó) function on a non-profit basis, while the other four are profit-oriented. Five of the incubators are non-profit, while the other seven operate in profit-oriented form.

Consequently, we can say that while both forms of profit orientation appear in both groups of organisations in Hungary, profit-oriented activity is beginning to predominate.

The majority of the organisations (13) indicated rental fees as their primary source of revenues, while additional income from other services offered to incubated enterprises (for example, hiring out conference rooms or HQ services) is also typical. Two organisations functioning on a non-profit basis cited European Union support as a prominent element. Although profit-oriented, winners of the Gazella tender (e.g. iCatapult) or those financed by JEREMIE funds (e.g. Traction Labs) indicated state support as an important source.

By way of a comparison with international findings, we also looked at how many projects incubators and accelerators handle on average, as well as the duration of each project. We must approach our results with reservations, however, since the sample is small and broad discrepancies were observable among the responses.

Based on the answers given by accelerators, it can be seen that they typically handle 10–20 projects at once. Half of the respondent accelerators also stressed that the duration of the programmes they offer is limited to 6–9–12 months, while the remaining three organisations mentioned no such limitation. Differences were also observed at incubators, with four organisations placing a limit on the time that can be spent in the incubator (3 months, 3 or 5 years), while others stated no fixed duration. This is interesting because international literature on the subject concludes that a fundamental difference between incubators and accelerators is the duration of the programmes they offer. While accelerators are programmes of fixed, typically short duration (of a few months), the time usually spent in incubators is appreciably longer (1–5 years). The Hungarian practice does not therefore reflect the characteristics described in the literature, since half of the respondent accelerators stated no time limit. Of the four incubators with fixed periods of participation, three conformed to the accepted definition (with 3 or 5 years spent in the incubator). The incubator specifying a 3-month limit was Digital Factory, one of the winners of the Gazella tender, which begs the question of why they did not describe themselves as an accelerator.

During our survey we also touched on the main criteria for the selection of startups. Almost without exception, organisations stated that they seek efficient teams. In addition, the quality and validation level[3] of startups' ideas is also seen as essential when making decisions. Thirteen organisations responded when asked what level of validation they expect. Three organisations said they invest in

3 We distinguished three levels of validation of ideas. Some accelerators are prepared to invest in an idea or concept, while others expect the startup to have a prototype ready. At the third level of validation, startups are expected to have a marketable product or project.

an idea or concept, six expect to be handling marketable projects or products, and four expect startups to have some kind of prototype ready.

Of the examined incubators, only Digital Factory provides funding to startups (which qualifies it as an accelerator according to the accepted definition), while none of the other incubators offers its enterprises financing. Four of the examined accelerators provide funding, while two do not. Here we deem it important to stress that, in our opinion, the latter two self-described accelerators – Makó Industrial Park, and Rézgombos Services and Incubator House – cannot actually be regarded as accelerators under the professional definition. Besides the fact that they do not provide funding, neither of the organisations limits the time that can be spent in the accelerator. The amount of funding offered by accelerators also varies considerably based on the responses, with Kitchen Budapest providing the least (EUR 20,000), while iCatapult offers the largest sum (HUF 120 million).

The main geographical focus of the examined incubators' target markets is Hungary (Digital Factory again proving an exception here), while the accelerators cited Western Europe and the United States. Almost without exception (two local government incubators aside), all organisations provide the opportunity to reach other investors and business angels. In the view of the surveyed incubators and accelerators, the key factors in the success of incubation or acceleration are primarily the motivation of entrepreneurs and close harmony between the team and its mentors. This shows that although a good idea is important, it is not the most critical factor. Three incubators also mentioned the existence of a business plan as an important factor in the success of the incubation progress.

The questionnaire responses reveal that the concepts of incubators and accelerators are not entirely clear-cut in Hungary. This is not at all surprising given that even in the United States and Western Europe these concepts are not self-evident. The survey reveals that the four accredited technological incubators clearly have the characteristics of accelerators, despite the fact that Digital Factory describes itself as an incubator. Based on the duration of their programmes, international focus and financing opportunities, Traction Labs and Kitchen Budapest also qualify as accelerators among the respondents to the questionnaire. Thanks to state support (under the JEREMIE programme and Gazella tender), several profit-oriented organisations listed state support among their main sources of revenue. In addition, little publicly accessible data can be found on incubators and accelerators (regarding survival rates, for example), while several characteristics or classifications cannot really be interpreted. An example of the latter is the distribution of incubators by sector, since most organisations in Hungary are mixed-use (except, for instance, the Agora Construction Industry Incubator).

If we compare the services offered by Hungarian incubators and accelerators to those provided by the best-performing incubators in international practice,

then major differences are discernible. Many traditional incubators still operate in Hungary, providing only essential administrative (0) and facility-based (1) services to participating enterprises. This is especially true of incubators in the provinces, for which rental fees thus comprise their principal source of revenue (if they function on a profit-oriented basis). The most significant source of revenue for non-profit – mainly local government and provincial – incubators is state support. Beyond the traditional incubators, incubators with a relatively broad range of services may also offer other essential business services (2) or help access various financing opportunities (3). The other three services (networking, education, brand-building) are scarcely or not at all typical of Hungarian incubators. Exceptions to this are the accredited technological incubators (Digital Factory, iCatapult, ACME Labs and the Aquincum Technology Incubator), as well as Kitchen Budapest and Traction Labs. Based on their characteristics, however, these are clearly to be regarded as accelerators, so that in their case it is certainly not physical resources that are the most important for applicants, but the financing provided by accelerators or the opportunity to access it (3), as well as close mentoring relationships, networking opportunities (4) and access to knowledge (5). Brand-building and the "brand" of the offered programmes does not yet carry great significance in Hungary, thanks to the comparatively small number of accelerators and their low level of recognition.

6. SUMMARY

Hungarian practice lags significantly behind Western Europe and the United States. Many traditional incubators still operate in Hungary, primarily offering administrative services and office space to participating enterprises. In addition, state support has played an important role in the stimulation of the startup ecosystem, so that a number of enterprise support organisations maintain themselves from state revenues. The past few years have seen the sector embark on significant growth through accredited technological incubators, the operation of which conforms to international practice. Accelerators are gaining in recognition and, provided their growth continues, startups with good ideas will be able to apply to an increasing number of organisations that offer genuine mentoring and financing opportunities.

REFERENCES

Acemoglu, D. (2002): Directed Technical Change. *Review of Economic Studies*, 69(4), pp. 781–810.

Adkins, D. (2002): *A Brief History of Business Incubation in the United States*. National Business Incubation Association, Athens, Ohio.

Aerts, K. – Matthyssens, P. – Vandenbempt, K. (2007): Critical role and screening practices of European business incubators. *Technovation*, 27(5), pp. 254–267.

Almubartaki, H. M. – Al-Karaghouli ,W. – Busler, M. (2010): The creation of business incubators in supporting economic developments. http://www.researchgate.net/publication/228457195_The_Creation_of_Business_Incubators_in_Supporting_Economic_Developments (downloaded: 30. 11. 2015.)

Kosztopulosz, Andreász – Makra, Zsolt (2006): Az üzleti angyalok vállalkozásfinanszírozó és -fejlesztő tevékenysége [The Enterprise Financing and Development Activity of Angel Investors] in Makra, Zsolt (ed): A kockázati tőke világa [The World of Venture Capital]. Budapest, Aula Kiadó.

Pauwels, C. – Clarysse, B. – Wright, M. – Van Hove, J. (2016): Understanding a new generation incubation model: The accelerator. *Technovation*, Vol. 50-51, April-May, pp. 13–24.

Aman, Sejla – Lovas, Anita (2015): Információs aszimmetria kezelése a kockázati tőkés finanszírozásban – Elméleti megközelítés és a hazai tapasztalatok értékelése [he Management of Information Asymmetry in Venture Capital Financing – A Theoretical Approach and Assessment of Domestic Experiences]. *Külgazdaság*, 59(5–6), pp. 80–99.

Bajmóczy, Z. (2004): Az üzleti inkubáció szerepe a vállalkozásfejlesztésben. [The Role of Business Incubation in Enterprise Development]. *Közgazdasági Szemle*, LI. (12), pp. 1132–1150.

Bajmóczy, Z. (2007): *A technológiai inkubáció elmélete és alkalmazási lehetőségei hazánk elmaradott térségeiben*. [The Theory of Technological Incubation and the Possibilities for its Application in the Underdeveloped Regions of Hungary]. Doctoral thesis, University of Szeged, Doctoral School of Economics, Szeged.

BENCHMARKING (2002): Benchmarking of Business Incubators. Final Report. Center for Strategy & Evaluation Services. European Comission; http://www.cses.co.uk/upl/File/Benchmarking-Business-Incubators-main-report-Part-1.pdf (letöltve: 2015. 11. 10.).

Bruneel, J. – Ratinho, T. – Clarysse, B. – Groen, A (2012): The Evolution of Business Incubators: Comparing demand and supply of business incubation services across different incubator generations. *Technovation*, 32(2), pp. 110–121.

Carayannis, E. G. – Zedtwitz, M. (2005): Architecting gloCal (global–local), real-virtual incubator networks (G-RVINs) as catalysts and accelerators of entrepreneurship in transitioning and developing economies: lessons learned and best practices from current development and business incubation practices. *Technovation* 25, pp. 95–110.

Christiansen, J. D. (2009) COPYING Y COMBINATOR: A framework for developing Seed Accelerator Programmes, MBA Dissertation / Individual Project, Judge Business School & Jesus College, Cambridge, University of Cambridge, https://www.scribd.com/doc/19982837/Copying-Y-Combinator# (downloaded: 07. 01. 2016.).

Cohen, S. G. (2013): What Do Accelerators Do? Insights from Incubators and Angels. *Innovations: Technology, Governance, Globalization*, 8(3-4), pp. 19–25.

Cohen, S. G. – Hochberg, Y. V. (2014): Accelerating Startups: The Seed Accelerator Phenomenon. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2418000 (letöltve: 2015. 11. 02.).

European Commission (2016): SMEs, http://ec.europa.eu/growth/smes/ (downloaded: 2016. 02. 16.).

Fábián, B. (2012): *A magyarországi inkubátorházak működésének jellemzői és működési tapaszta-*

latai [Characteristics of the Operation of Incubator Houses in Hungary and their Operational Experiences]. Thesis, University of Miskolc, Faculty of Economics, Miskolc.

Hochberg, Y. V. (2015): Accelerating Entrepreneurs and Ecosystems: The Seed Accelerator Model. http://www.nber.org/chapters/c13584.pdf (downloaded: 06. 11. 2015.)

Isabelle, D. A. (2013): Key factors affecing a technology entrepreneurs's choice of incubator or accelerator. *Technology Innovation Management Review*, http://timreview.ca/sites/default/files/article_PDF/Isabelle_TIMReview_February2013.pdf (downloaded: 08. 03. 2016.)

HVCA (2016): Magyar Kockázati- és Magántőke Egyesület: Magántőke [Private equity], http://www.hvca.hu/hu/tokekalauz/mag%C3%A1nt%C5%91ke/ (downloaded: 21. 02. 2016.)

Karsai, Judit (2012): *A kapitalizmus új királyai* [The New Kings of Capitalism]. Közgazdasági Szemle Alapítvány, Budapest.

Karsai, Judit (2014): Fából vaskarika? Az állam mint kockázatitőke-befektető. [An Iron Ring from Wood? The State as Venture Capital Investor]. *Külgazdaság*, 58(9-10), pp. 3–34.

Knopp, Linda (2012): *State of the Business Incubation Industry*. NBIA Publications.

Kristófné, Gungl Rita – Kristóf, Péter – Miklós, Márton (2014): Inkubátor jelentés 2014 [Incubator Report 2014]. BDO Hungary, http://www.inkubatorjelentes.hu/

Lalkaka, R. (1997) Lessons from International Experience for the Promotion of Business Incubation Systems in Emerging Economies. UNIDO Small and Medium Enterprises Programme Paper, 3.

Lesáková, L. (2012): The Role of Business Incubators in Supporting the SME Start-up. *Acta Polytechnica Hungarica* 9(3), pp. 85–95.

Lovas, Anita – Rába, Viktória (2013): Állami szerepvállalás a start-up vállalatok finanszírozásában [The Role of the State in Financing Startup Companies]. *Hitelintézeti Szemle*, 12(5), pp. 353–370.

Miller, P. – Bound, K. (2011): The Startup Factories. The rise of accelerator programmes to support new technology ventures. http://www.eban.org/wp-content/uploads/2014/09/14.-StartupFactories-The-Rise-of-Accelerator-Programmes.pdf (letöltve: 2016. 01. 07.).

Cumming, D. – Johan, S. (2009): *Venture Capital and Private Equity Contracting: An International Perspective*. Oxford, Academic Press.

Tornatzky, L. – Sherman, H. – Adkins, D. (2003): *Incubating Technology Businesses: A National Benchmarking Study*. Athens (Ohio), National Business Incubation Association.

NKFIH (2013a): Technológiai start-up ökoszisztéma építés (Start-up_13) [Technological startup ecosystem building (Start-up_13)], http://nkfia.kormany.hu/start-up-13 (downloaded: 10. 10. 2016.)

NKFIH (2013b): Akkreditált Technológiai Inkubátorok [Accredited Technological Incubators], http://nkfia.kormany.hu/akreditalt-technologiai-inkubatorok (downloaded: 10. 10. 2016.)

NKFIH (2015): Innovációs ökoszisztéma – GINOP-2.1.5-15. [Innovation ecosystem – GINOP-2.1.5-15], http://nkfih.gov.hu/palyazatok/europai-unios-forrasbol-tamogatott-projektek/palyazati-felhivasok/2015/ginop-215/innovacios-okoszisztema (downloaded: 10. 10. 2016.)

NKFIH (2016): Támogató KFI szakpolitikai véleményt kapott projektjavaslatok az Innovációs ökoszisztéma építése (GINOP-2.1.5-15) felhíváshoz [Project proposals receiving supportive KFI professional policy opinion for the Innovation ecosystem building (GINOP-2.1.5-15) tender], http://nkfih.gov.hu/palyazatok/tamogato-kfi-szakpolitikai-velemenyek/tamogato-kfi (downloaded: 10. 10. 2016.)

World Economic Forum (2016): Klaus, Schwab (ed.): *The Global Competitiveness Report*