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Opportunities For Funding Innovation

Abstract

*This article is based on the view that firms' competitiveness lies in their ability to innovate. It points out the incentives that make firms more innovative and the outcomes of implemented innovations. The main focus is given to the sources of innovation funding, in particular **leasing, venture capital, private equity, business angels and the NewConnect market**, and describes the possibilities of using them. The article stresses that firms seeking capital to grow through innovation can use a wide range of financing options as long as their projects are underpinned by solid documentation, have a specified time horizon, and are attractive for investors.*

Keywords: *innovations, leasing, venture capital, private equity, business angels, NewConnect market*

1. Introduction

Knowledge has always been behind the wealth of economies, regions and the world, but today this fact attracts special attention. Knowledge, embodied in modern techniques, better technology, and competitive products is always a source of competitive advantage. The level of competitiveness depends on how effectively knowledge is applied to all areas of activity. In the information

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societies of knowledge-based economies (KBEs), knowledge diffusion gains a new dimension.

The accelerated pace of world economic development, globalisation, increasing knowledge resources and the expanded possibilities of turning them into innovations, as well as the growing significance of products combining knowledge with high technology, are the main factors that call for new uses of and approaches to knowledge.

Competitive advantages are mainly sought by firms which make efforts to develop their key competencies and skills, including technical and technological knowledge, that distinguish them from their competitors and enable them to continuously develop new technologies and products capable of coping with global competition. It is innovative firms that make national economies innovative. A new growth programme for the EU Member States, known as 'Strategy 2020'¹, leaves no doubt about the truth of this conclusion. Innovative firms play a major role in advancing the internal cohesion of the European Union, stimulating economic growth and successfully confronting global competition. Strategy 2020 brings into focus the need for the creation of enterprises based on knowledge, cooperation, and innovation.

The present economic circumstances create new challenges for European firms, including Polish firms. Contemporary firms are completely different economic organisations from those we used to know. They are dynamic, constantly evolving, living organisms that derive their position in the local and international markets from their knowledge, information, experience and steadily improved competencies, and that focus on innovation as an inherent factor of their growth. The transition from traditional to learning organisations and thereafter to so-called 'smart' organisations (founded on knowledge and innovation) has become almost an evolutionary model (Lewandowska 2011, p. 248). Centres of technological excellence, R&D institutes, and clusters are organisational forms that have emerged under the pressure from the Asian "tigers". Their economic effectiveness depends on better cooperation between business and science, higher amounts of R&D outlays, improved access to sources of funding and the availability of unconventional solutions for financing innovative projects, as well as the establishment of channels enabling technology diffusion.

Transfers of knowledge from science to business and the establishment of R&D infrastructure serve the purpose of stimulating the continued growth of innovative firms. According to entrepreneurs, it is not a lack of ideas that

¹ Europe 2020. A strategy for smart, sustainable and inclusive growth, Communication from the Commission, EC, Brussels, 3 March 2010.

prevents the creation of innovative products, processes, IT and organisational solutions, but a lack of necessary resources. This same scarcity of resources prevents entrepreneurs from participating in fairs and economic missions and from promoting their brands.

The Europe 2020 strategy requires business, science, financial institutions and national governments in the EU to develop their strategic capacity for innovation, which is defined as the ability to create and implement innovative strategic products and innovative business models. These activities are inherently risky and require capital that is not always certain to yield satisfactory rates of return.

J. Schumpeter defines innovation as a process of creating new combinations of the available factors of production, the outcomes of which are difficult to predict (Nowak-Fara 2000, p. 17). Raising funds for a risky undertaking is a complex and difficult process. Innovation funding can be obtained from many sources, but the terms on which it is made available are always fairly restrictive in order to minimise the exposure of both the investor and the investee. Fortunately, contemporary financial institutions serving the knowledge-based economy (also known as the 'digital economy', 'smart economy', 'network economy', and 'new economy') are developed well enough to enable the financing of particular scientific and business projects, and to remove the financial barriers restricting the growth of organizations involved in the creation of a knowledge-based economy.

Innovating organisations that meet the pertinent criteria, particularly those capable of demonstrating that their innovative projects have a strong chance of success, can choose from a whole range of funding sources. such as private equity, venture capital, business angels, leasing arrangements, NewConnect, EU funds, etc. Unfortunately, to many entrepreneurs these words have little meaning or in some cases none at all. A possible solution to this problem could be cooperation between entrepreneurs and scientists.

The 'Poland 2020' strategy, which essentially calls for making the knowledge-based economy more innovative and for commercialising the outcomes of scientific research, also provides guidelines on its implementation. Under the strategy, in order to be eligible for EU funding entrepreneurs will have to submit joint applications with scientists. This solution is based on the assumption that cooperative efforts ensure a higher level of innovation and competitiveness. While the global crisis of 2008 has made it more difficult for the world to function, it has not drained all capital from the market. Capital is still there, but those in charge of it have become "more wary". Investors are still willing to contribute financially to ambitious innovative projects that offer an opportunity for high returns.

2. Innovation as a tool for creating competitive advantages

The OECD² defines innovation as "... the implementation of a new or significantly improved product (good or service), process, new marketing method or a new organisational method in business practices, workplace organisation or external relations". The term 'innovation' that J. Schumpeter introduced to economic theory in 1911 was meant to represent a new way of thinking about the role of an enterprise, now viewed as an organization actively contributing to the development of its brand and the global economy. J. Schumpeter's definition of innovation is very broad (Schumpeter 1960, p. 104). Other authors have been more specific³, but the complexity and multi-faceted character of innovation still prevents the adoption of an ultimate definition.

Innovations occur in all economic, social, political and cultural activities. Their importance of being competitive has been noted by P. Drucker, who has also provided the theoretical underpinning of the phenomenon.

The success stories of firms deriving their strength from innovation confirm the accuracy of P. Drucker's prescient scientific views. Innovative organizations either create a new basis for their competitiveness or improve the competitive resources they already possess. These firms achieve competitive advantages and become leaders, first in the local markets and then worldwide (Simon 1999, p. 202). Many entrepreneurs and managers have realised that the ability to create and implement innovations is the hallmark of modern organizations. Knowledge "...makes action and the prediction of its outcomes

² Oslo Manual, "The Measurement of Scientific and Technological Activities, Proposed Guidelines for Collecting and Interpreting Technological Innovation Data", wyd. III, OECD/European Communities 2005.

³ See, for instance, Richard R. Nelson, *Systemy wiedzy i innowacji* [in:] *Zarządzanie wiedzą w społeczeństwie uczącym się*, OECD/Ministerstwo Gospodarki, Warszawa 2000;
J. Bogdanienko, *Innowacyjność przedsiębiorstw*, Wyd. UMK, Toruń 2004;
K. Poznańska, *Innowacje jako źródło rozwoju MSP* [in:] *Zarządzanie organizacjami gospodarczymi w zmieniającym się otoczeniu*, J. Lewandowski (ed.), Wyd. PŁ, Łódź 2004;
A. Pomykański, *Innowacje*, Politechnika Łódzka, Łódź 2001;
P. Niedzielski, K. Rychlik, *Innowacje i kreatywność*, Uniwersytet Szczeciński, Szczecin 2006;
M. Strużycki, *Innowacyjność w teorii i praktyce*, SGH w Warszawie – Oficyna Wydawnicza, Warszawa 2006;
A.H. Jasiński, *Innowacje i transfer techniki w procesie transformacji*, Difin, Warszawa 2006;
E. Okoń-Horodyńska, A. Czachorowska-Mazurkiewicz, *Innowacje w rozwoju gospodarki i przedsiębiorstw: siły motoryczne i bariery*, Instytut Wiedzy i Innowacji, Warszawa 2007;
P.F. Drucker, *Innowacja i przedsiębiorczość: praktyka i zasady*, PWE, Warszawa 1992;
M. Golińska-Pieszyńska, *Polskie praktyki innowacyjne*, Oficyna Wydawnicza SGH w Warszawie, Warszawa 2011.

more effective than data or information can.” (Jashapara 2006, p. 25). It is the use of knowledge that provides firms with competitive advantages⁴. This is a feedback process, because innovative firms create and apply knowledge, which strengthens their capacity for learning and makes it more effective. Breakthroughs accompanying the introduction of innovations that Toffler, the sociologist and futurologist, termed “the third wave” (referring to the theory of technological waves) are now ensconced in economies which increasingly stress the role of knowledge (Toffler 2006).

According to the Schumpeterian definition of innovation, “creative destruction” and “creative accumulation” are phenomena that can be found in both theory and practice (Berschi, Malerba, Orsenigo 2000). Creative destruction takes place when entrepreneurs and new firms expand their innovative platforms, thus making other firms less competitive, i.e. destroying their economic utility. Creative accumulation applies to large, dominant, innovative firms that have accumulated enough knowledge, R+D competence and funds to be able to operate in markets with high entry barriers.

The process of innovation development needs both the firm’s own and exogenous knowledge, the knowledge of the producer and of the scientist, of the entrepreneur and of the workforce, i.e. of everyone that can contribute a new perspective on the state of things. In other words, organizations need integrated knowledge to innovate, particularly so-called ‘tacit knowledge’ that other firms do not have and cannot copy - because it sits in the inventor’s mind - to achieve competitive advantages that will ultimately drive the growth of the national economy.

Innovation, or rather the ability to innovate, **underlies effective action (competitiveness)** that leads to the well-being of nations (Porter 2001, p. 3). In the contemporary world, this ability is the main source of competitive advantages. This fact increases also the role of innovations that indirectly contribute to the competitiveness of economies, e.g. those improving the organization of basic and applied research systems and the financing of innovative projects.

Since the 1990s Poland’s R+D spending has been less than 1% of its GDP annually (the present rate is 0.57%). The summary innovation index (SII) provides an overview of factors that boost firms’ activity and of the outcomes of implemented innovations. The SII comprises:

- human capital
- finances and support

⁴ See L. Lewandowska, *Teoretyczno-empiryczny koncept rozwoju innowacyjnej firmy w regionie łódzkim* [in:] L. Lewandowska (ed.), *Innowatorzy, innowacje a konkurencyjność regionu łódzkiego*, Wyd. PTE, Łódź 2011, pp. 265-287.

- investment activity of firms
- cooperation networks and enterprise
- selected outcomes of innovation process
- innovators
- economic effects of innovation

Based on its values, the EU Member States have been divided into four groups of countries, i.e.⁵:

- innovation leaders (mainly Sweden, Finland, Germany, UK and Denmark),
- innovation followers (9 countries with Austria as the leader),
- moderate innovators (10 countries, led by the Czech Republic, with Poland ranked next to last in this group, just above Lithuania),
- modest innovators (Romania, Latvia, Bulgaria).

Poland's SII of 0.317 ranks it 23rd among the 27 Member States, where the average SII stands at 0.478 (ranging from 0.636 in Sweden to 0.231 in Bulgaria). Polish R+D spending is no higher than the R+D spending of many international firms. Most of it comes from the state budget; private R+D expenditures represent only a small fraction. While innovation is known to be costly and risky, taking appropriate risks to develop novel solutions that close specific technological, process or organisational gaps is the only way forward, apart from the purchase of technological innovations available in the market. In order to best use scientific achievements a system of financial incentives is necessary, including tax relief, stronger financial commitment of firms aspiring to be innovative, the promotion of cooperation between R&D institutions and business, and a more pronounced role of the government as an advocate of innovation.

As a beneficiary of EU innovation funds, Poland lags behind Finland, Estonia, and the Czech Republic. These countries use financial incentives rather than direct financial allocations to promote innovation. Stronger innovation activity is mainly impeded by the shortage of resources. Large enterprises do not suffer from this (see the discussion of "creative accumulation" above) as much as the SME sector does.

Those who want to finance their innovative projects through leasing arrangements, venture capital, business angels or NewConnect not only need business contacts, but also the knowledge of how these solutions work. Research shows that many entrepreneurs and managers either have not heard about them at all or do not know the rules and practices for using them. This means that an

⁵ EIS 2009 PRO INNO Europe, p. 63 and Onet.biznes of 8 May 2012.

effective innovation policy, aimed at providing modern ways of managing and financing innovative projects, should pay more attention to the educational needs of the society it aims to improve.

3. Leasing as a source of funding for technological innovations

The innovative potential of a firm lies in the knowledge, competencies and entrepreneurial skills of its staff, in its own or commissioned R+D projects, and in the technology embodied in modern equipment. This last type of assets can be purchased by firms with their own funds or through leasing.

Leasing is a special, economically attractive solution, where the lessor (the financing party as defined by the Polish Civil Code) gives the lessee (the financed party) a right to use a fixed asset for a specified period of time in return for a fee, usually paid periodically, on terms that the parties have agreed on. A lessee choosing a **finance lease** can also acquire a right to use an asset serving business purposes, with the agreement containing a unilateral promise of the lessor that the asset will be sold to the lessee not later than at the expiry of the agreement, for a price fixed in the contract.

Leasing as a method of acquiring technological innovations is particularly important for small and medium-sized companies that struggle with capital shortages, but are determined to have modern machinery to create innovative products.

In the beginning, leasing was mainly used to finance the procurement of the means of transport, machines, and devices that firms needed to carry on their business. The range of leasable assets has been extended over time and now it includes also real property (e.g. warehouses and logistic centres enabling organizational innovations).

Sale-and-leaseback is a type of lease that allows real property owners to release their “locked-up capital” while retaining the occupancy of the property (e.g. a lessee signs a financial lease agreement for property with a purchase option and, having exercised it, sells the property to the lessor to lease it back). This lease agreement may include a clause allowing the lessee to buy the leased property at the lease’s end. The advantage of this solution is that, although the lessee’s ownership over the property is waived for a time, its right to use it for business purposes is retained. As the unlocked capital improves the lessee’s liquidity ratios, other innovative projects can be funded.

Leasing, sometimes called a lease-in-kind because the lessee acquires the necessary asset, offers many benefits. The most important of them are the following:

- accessibility to innovative technologies
- the optimisation of the lessees' tax burdens (the principal amount and interest repaid under an **operating lease** are treated as deductible business expenses)
- the lessee can negotiate the schedule of payments to make it maximally convenient (seasonal instalments, etc.)
- the on-going financial burden is minimized, because instalments become due on fixed dates
- leasing companies expect lower collateral than banks offering investment loans
- legal and tax security
- leaseback releases the "locked-up" capital
- relatively simple procedures

The lessor can be either a **leasing company** or a **franchisor**, the latter providing its franchisees with process lines, single machines, equipment, means of transport, etc. Franchise leases are particularly frequent in relation to **cross-border franchising**, where a foreign franchisor often brings from abroad expensive modern machines that the lessees cannot acquire at home, to ensure the same standard of service across the chain and/or to enhance its image.

According to the GUS data (the Central Statistical Office), in 2010 leasing services were provided in Poland by 84 companies. Most of them were established between 1991 and 1999 (42), with 28 established in the period 2000-2005 and the remaining 14 coming into being in the years 2006-2010. As far as the legal status of the companies is concerned, 62 were limited liability companies and the other 22 were joint-stock companies.

Twenty one companies provided only leasing services, while for 50 companies leasing was their primary business, and 13 firms treated leasing as a secondary business.

Leasing companies use a variety of methods to find clients (see Table 1).

Table 1. Methods used by leasing companies to find clients

Specification	0 – 30%			31 – 50%			51 – 90%			91 – 99%			100%		
	2008	2009	2010	2008	2009	2010	2008	2009	2010	2008	2009	2010	2008	2009	2010
Services provided at the company's own offices	11	17	20	13	21	10	17	11	14	1	1	-	6	15	19
Contacts through banks	12	13	11	4	5	4	7	5	5	1	3	4	-	1	2
Contacts through a supplier	15	19	16	10	11	11	8	8	5	4	5	2	4	3	9
Brokers	5	21	21	-	2	4	1	4	2	-	-	-	-	-	1
Others	30	13	7	2	2	1	1	1	3	1	2	1	2	4	3

Source: GUS, Działalność przedsiębiorstw leasingowych 2008, 2009 i 2010 (pages 10, 7-8).

The most popular types of leasing arrangements have recently been financial leasing, indirect leasing, PLN-denominated leasing, investment leasing and traditional leasing. Table 2 presents the different types of leasing arrangements according to selected criteria.

Table 2. Types of leasing agreements

Type of leasing Criterion	No. of leasing firms		
	2008	2009	2010
Ownership of the leased asset			
Finance leasing	53	66	68
Operating leasing	49	54	59
Mixed leasing	5	5	5
No. of parties involved in a leasing agreement			
Direct leasing	25	36	39
Indirect leasing	47	47	52
Currency of lease payments			
PLN-denominated leasing	62	73	77
Forex-denominated leasing	37	39	36
Currency leasing	32	34	40
The manner of asset delivery			
Build-and-lease	60	68	77
Tenant leasing	-	1	1
Sale and leaseback	44	52	53
Termination of the leasing agreement			
Traditional leasing	63	73	79
Renewable leasing	15	14	13
Consumer leasing	10	8	7

Source: GUS, Działalność przedsiębiorstw leasingowych – 2008, 2009, 2010.

According to the table, the most popular forms used by leasing companies are finance lease agreements, agreements denominated in the Polish zloty, indirect lease agreements, build-and-lease agreements, and traditionally terminated lease agreements.

Excluding mixed leasing, the total values of lease transactions by asset type (described in Table 3) decreased in the two other categories in 2010 compared to 2008 and 2009, but not for all types of assets. The value structure of assets covered by new leasing agreements shows differing totals.

Including mixed leasing, the total value of new leasing agreements increased between 2009 and 2010 by 1.16%.

Table 3. New leasing agreements concluded between 2008-2010, thousands PLN

Specification	Finance leasing			Operating leasing			Mixed leasing		
	2008	2009	2010	2008	2009	2010	2008	2009	2010
Total	19,230,345	16,390,115	15,773,480	3,862,297	863,760	478,481	999,796	4,177,859	7,670,207
Road transport	11,874,016	9,618,781	9,296,030	2,597,009	211,653	161,484	429,474	2,886,853	5,849,637
- motor cars	4,563,313	4,587,836	3,312,842	1,120,231	44,628	20,807	79,840	1,697,516	3,217,231
- lorries and vans	5,002,908	3,966,798	3,499,690	772,034	145,654	121,264	313,812	763,452	1,774,713
- buses	265,603	270,119	265,961	90,361	14,029	3,543	25,115	97,630	67,655
- other road	2,042,191	794,028	2,217,537	614,384	7,343	15,871	10,707	328,254	790,037
Other means of transport (air, water and rail transport)	253,608	337,984	382,036	112,940	73,449	28,882	12,823	116,508	32,341
Industrial machines and equipment	5,734,522	4,907,899	4,683,358	866,053	497,640	262,364	287,698	943,738	1,533,258
Computers and office equipment	270,410	420,055	387,025	50,244	33,905	3,008	69,212	41,767	84,241
Real property	924,539	852,024	836,869	214,365	23,822	16,888	184,870	144,760	149,388
Others	173,250	253,372	188,163	21,686	23,290	5,855	15,719	44,234	21,342
Total values of new leased agreements									
2008	2009						2010		
24,092,438	21,431,734						23,922,168		

Source: developed by the author based on the GUS report: Działalność przedsiębiorstw leasingowych 2008, 2009 i 2010 r.

The new leases show that means of transport are the most frequent object of leases, followed by industrial machines and equipment made available under finance and operating leases. For mixed leasing the situation was reverse (see Table 4).

Table 4. The value structure of assets covered by new leasing agreements in the years 2009-2010, in %

Types of leased asset	Finance leasing			Operating leasing			Mixed leasing		
	2008	2009	2010	2008	2009	2010	2008	2009	2010
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Means of road	61.7	58.6	58.0	67.2	69.1	76.2	42.9	24.6	33.6
— motor cars	23.7	28.0	21.0	29.0	40.6	41.9	8.0	5.2	4.3
— lorries and	26.0	24.2	22.2	20.0	18.3	23.1	31.3	16.9	25.3
— buses	1.4	1.6	1.7	2.3	2.3	0.9	2.5	1.6	0.7
— other road	10.6	4.8	14.1	15.9	7.9	10.3	1.1	0.9	3.3
Other means of transport (air, water and rail transport)	1.3	2.1	2.4	2.9	2.7	0.5	1.3	8.5	6.0
Industrial machines and equipment	29.9	29.9	29.7	22.4	22.6	20.0	28.8	57.6	54.8
Computers and office equipment	1.4	2.6	2.5	1.3	1.0	1.1	6.9	3.9	0.6
Real property	4.8	5.2	5.3	5.6	3.5	1.9	18.5	2.8	3.5
Others	0.9	1.6	1.1	0.6	1.1	0.3	1.6	2.6	1.5

Source: developed by the author based on the GUS report: Działalność przedsiębiorstw leasingowych 2008, 2009 i 2010 r.

Industrial machines and equipment account for around 1/3 of finance lease transactions and operating lease transactions, and for more than half of mixed lease agreements; this implies that the leases served the purpose of innovative, technical projects (e.g. industrial machines, equipment, and process lines).

Lessees increasingly acquire innovative fixed assets such as modern industrial machines, equipment, and real property (e.g. modern logistic centres). This trend is shown in Table 5.

Table 5. Lessees and the assets leased between 2009 and 2010

Leased item	No. of lessees			No. of leased items		
	2008	2009	2010	2008	2009	2010
Including:	302,449	381,830	373,616	745,513	979,932	890,921
Means of road	254,410	290,043	284,770	501,773	540,470	529,512
Other means of transport	303	892	434	3,632	4,242	3,567
Industrial machines	65,739	68,600	73,398	156,248	160,241	173,150
Computers and office	10,757	8,541	9,116	74,225	127,283	96,870
Real	393	361	381	918	702	741
Others	2,324	754	890	8,716	5,933	1,700

Source: developed by the author based on the GUS report: *Działalność przedsiębiorstw leasingowych 2008, 2009 i 2010 r.*

The statistics generally show that both the leasing market and firms' interest in leasing arrangements are growing. The data is not satisfying, though, because leasing can be used to obtain many more items, particularly modern fixed assets that quickly lose their economic value. Moreover, leasing allows assets to be acquired without any harm to the creditworthiness of the lessee, who can then use other sources of funding to create other innovative projects.

4. Venture capital, private equity and business angels as potential providers of funding for innovative projects

While the source of innovation funding chosen is greatly determined by the entrepreneur's knowledge and skill in the art of financial management and marketing, the main determinant remains the nature of the project itself.

Among the major sources of funding that can be used to finance ambitious innovations are **venture capital** and **private equity**.

Venture capital is a medium-term and long-term investment where the investor buys interests in an unlisted company to sell them after the company has been successful (the process of recovering the principal amount and realising profits is called disinvestment). Because venture capital involves high risk, the investors also expect considerable return on their investment.

Venture capital (VC) is used to fund early phases of innovative projects or enterprises, which are respectively called seed, start-up, or early development. Most venture capital funds are closed-end funds, meaning that the investors are not allowed to dispose of their shares during the entire period of the investment. Because it is the investor that incurs the most risks, investment agreements are usually drawn up in such a way as to secure the investors' interests to the maximum possible extent. Should the investment be recognised as having lost its potential for growth, measures are undertaken to terminate the agreement. At the end of a successful investment, investors' capital can be repaid via:

- initial public offering (IPO) on a stock exchange
- the sale of the investee company to a strategic investor
- management buyout (MBO), or
- the sale of the investee company's shares to a venture capital fund specialising in later stages of company development

According to statistics, the IPO is the most profitable in cases where it is applied.

Venture capital supply in Poland is inadequate, because potential investors are not willing to take on the high risk nor the relatively long time until disinvestment occurs. The main problem, though, is the **lack of economically attractive, ambitious, innovative projects**, whose owners are able to:

- prove their market orientation and mobilisation in the face of competitors
- demonstrate that the market will accept the project
- guarantee to the maximum extent that the investor's capital will be repaid
- demonstrate their right to the project or product (patents, copyright, brands, etc.)

Failure to meet these requirements reduces the demand for venture capital in Poland below the level that VC managers might find acceptable. This situation is quite unfortunate, because venture capital stands for much more than money alone – it also involves managerial know-how, business contacts, and a vision of future development.

It should be noted at this point that, in contrast to venture capital, which mostly seeks to invest in the early stages of promising projects or firms, **private equity** focuses on the later stages in their development. The range of its objectives include managerial buyouts, investments in companies intending to enter the stock exchange, and bridge (or mezzanine) financing. However this paper is concerned with early-stage innovative projects.

Early-stage innovative projects may also be funded by private investors known as **business angels**. In the decade 1999-2009, the number of business angels' networks in the EU increased 4.6 times, from 66 to 303⁶.

Most **business angels** use their private resources to contribute to innovative projects in return for intellectual satisfaction, a chance to be part of the team, the possibility of fulfilling their passions, appreciation, etc. rather than financial gains. However, some business angels invest in innovative, medium- or short-term projects for a share in profits or a block of shares (usually accounting for around 30-40% of a project's worth). These business angels do not make any major decisions in the beneficiary company. Business angels are interested in all stages of innovative projects with high growth potential and can span a period of 3-7 years.

In addition to the necessary funding, business angels also contribute their experience, knowledge and professionalism, business contacts, passion and commitment. Interestingly, they frequently prefer to remain anonymous.

The results of surveys aimed at determining how much Polish entrepreneurs know about this source of innovation funding are unsatisfactory. Only around 10% of the respondents were found to know about the role of business angels, which however indicates that the unused amount of funding they can offer is still substantial. Business angels typically engage in early project stages, at a time when neither banks nor institutional investors find them interesting.

Business angels want their prospective beneficiaries to be competent, professional, focused in the face of competition, ready to confront challenges, and willing to engage in high-quality cooperation.

An analysis of business angels' preferred industries (Matusiak 2009) shows IT, knowledge-intensive service, environmental protection and ecology to be at the top, while media and multimedia, biotechnologies, cosmetology and pharmaceuticals are ranked slightly lower. Below these, there are healthcare, automatics, robotics, and the fuel and energy industry and chemical industry. Within these broad categories, particular business angels tend to pursue different aims. Some believe that new business areas that will come into focus over time are worth exploring, and that the most important thing is that the project is solid and the staff is willing to cooperate in a constructive manner. Business angels like to choose predictable projects with clearly defined rules of cooperation, and frequently diversify their risks by targeting different industries.

⁶ European Business Angel Network, op. cit.

Business angels associate themselves into networks. In 2009, 300 networks of business angels operated in the European Union⁷. Most of them (around 65%) were non-profit organisations.

The most developed markets with networks of business angels are the UK, Sweden, Germany, Belgium, Italy and the Netherlands. EBAN (the European Business Angel Network) is an independent, non-profit organization based in Brussels that cooperates with the European Union on extending the scope of operation of business angel networks, seed capital funds, and other organisations that commit themselves to the development of early-stage projects or firms in the Member States. EBAN works with 20,000 private investors in 32 countries, including Poland. Its data show that the average funding per project ranges from 20,000 to 50,000 €, but in the case of projects financed jointly by several investors the amount may be larger. The Polish business angels account for around 4% of EBAN membership, which ranks Poland among Belgium, Italy, Portugal, and Sweden. In 2010, Poland had 7 networks of business angels, of which 3 were EBAN members.

Serious obstacles to a wider use of the funding offered by business angels include the following:

- lack of knowledge about how business angels finance projects
- unclear knowledge / technology transfer procedures
- insufficient funding in the early stage of a project
- projects not being ready for commercialisation
- lack of support from local institutions
- entrepreneurs' low trust in this model of financing innovative projects.

Business angels may not only contribute their money to a project, but also their vision of its development, a new approach to project financing, and the knowledge that is necessary to expand into new markets, manage finances, conduct marketing activities, and commercialise innovations.

Most importantly, however, business angels are 'persuadable' and can be convinced to support a project, particularly when the future owner of a start-up has no choice but to seek the assistance of a private investor.

Project owners considering the involvement of a business angel should be aware of the kind of an investor they need: one offering money alone (a passive business angel), or one that will bring in a cooperative attitude combined with knowledge, mobility, experience, business contacts, acceptance of risks and the strength to recover from failures. The high competencies of business angels

⁷ European Business Angel Network (EBAN) – Activity Report 2009.

associated in the networks are enhanced by their cooperation with tertiary education institutions, technology parks and incubators, seed capital funds, venture capital funds, private equity funds, and employers' organizations.

5. NewConnect – a platform for raising innovation funding

An entrepreneurial attitude to innovation may give a firm the competitive advantages it needs to function in the markets, but it also frequently generates a demand for funding. In the small and medium-sized enterprises that lack the assets that large companies have (competence, resources, capital) the need for external inputs – not only capital – is particularly strong.

NewConnect is the right market for new, promising firms that seek capital, because it is friendlier and less expensive than banks.

According to PKPP Lewiatan⁸ – 55.6% of SMEs making financial projections earmark funds for innovation⁹, thus showing that they are aware of the need to innovate and that innovation is an integral part of their future growth. This awareness causes them to either create and implement their own innovations, or to purchase innovative solutions in the market.

NewConnect allows funds to be raised for either or both of these purposes. The market was opened on 1 Aug. 2007, which unfortunately coincided with the economic crisis that dented investors' trust in financial institutions. In the next five years, 418 companies entered NewConnect with the hope of increasing their value, of which 387 remained listed by mid-2012 (18 advanced to the Warsaw Stock Exchange, and 3 were withdrawn after they went bankrupt)¹⁰. Their total value is estimated at around 8 bln PLN. About 56% of NewConnect companies have capitalisation below 10 million PLN, another 25% have capitalisation between 10 and 25 million PLN, in almost 15% of companies it is under 100 million PLN, and 4% of NewConnect companies have capitalisation in excess of 100 million PLN¹¹.

NewConnect companies represent almost all industries. Table 6 shows the percentages of the 15 industries that are represented by NewConnect Companies.

⁸ The Polish Confederation of Private Employers Lewiatan.

⁹ <http://ww.fabres.pl/artykuly/sekcje/wydarzenia/polscy-przedsiębiorcy-inwestują-w-innowacje>, 227 98, 1 [2 Jan. 2013].

¹⁰ Grant Thornton, Raport: 5 lat NewConnect, sierpień 2012.

¹¹ *Ibidem*, p. 7.

Table 6. NewConnect companies by industry as of 20 Jan. 2013

No.	Industry	Percentage share
1.	Telecommunications	2%
2.	Recycling	2%
3.	Recreation	3%
4.	E-commerce	3%
5.	Eco-energy	3%
6.	Investments	5%
7.	Real estate	5%
8.	Healthcare	5%
9.	Technologies	8%
10.	Construction	8%
11.	Financial services	9%
12.	Media	9%
13.	IT	9%
14.	Other services	13%
15.	Trade	16%
		100%

Source: developed by the author based on: <http://www.newconnect.pl>

As a result of foreign companies' rising interest in NewConnect, eight companies from five European countries (the Czech Republic., Bulgaria, UK, Ukraine and Sweden) entered the market by April 2013.

A company seeking to be listed on NewConnect must have the status of a joint-stock company or a partnership limited by shares, its shares must be transferable without limitations, it may not be involved in liquidation or bankruptcy proceedings, and it must produce an informational document (either a prospectus or an information memorandum). It is required that the company be assisted by an **Authorised Advisor** and a **Market Maker**¹². The Authorised Advisor is responsible for assessing the company's readiness to enter the NewConnect market and for leading it through the process – it acts as a substitute of the Securities' Exchange Commission. The Market Maker acts in the capacity of a brokerage firm, whose contractual obligation is to ensure that its client's shares remain liquid after they are floated. This function is

¹² For more on this subject, see A. Jagielnicki, *NewConnect – nowa szansa na duże zyski*, Wyd. Helion, Gliwice 2009 r., pp. 97-100.

particularly important in the case of companies that are less attractive or when smaller issues of shares are involved.

For investors, a NewConnect company (an issuer) is a product, so they look at it from the perspective of their potential earnings. The innovating issuers should therefore bear in mind that the innovations they are designing must increase their value and strengthen their market position. This is the approach most likely to increase their value for investors.

The Warsaw Stock Exchange (WSE) guide reads as follows: “NewConnect was conceived with young, dynamic Polish companies in mind, for whom a capital injection will open an opportunity to exploit the potential of their innovativeness and, what follows, offer them a chance for development crowned by a promotion to the circle of big and valuable Polish companies”¹³. Despite the multitude of problems that NewConnect has had to overcome over the last six years, the market still draws many new issuers and investors, and the number of IPOs makes it an unquestionable leader in Europe. Its attractiveness for new entrants derives from the relatively low costs of IPOs in NewConnect (compared with the WSE), fairly relaxed information requirements, and its aura as a market where companies can quickly raise expansion funds without having to present complicated reports (Kowanada 2012, p. 42). Practice shows that this “business kindergarten” is a good testing ground for NewConnect firms planning to enter the main market of the WSE. Many of them have made good use of their time and moved forward, proving that NewConnect helped them increase their value. It is true that not all firms were successful, but business is a market game where the better players win.

6. Conclusions, suggestions, reflections

- There are many unconventional sources of funding that firms can use to finance innovative projects. They help firms grow stronger and richer, while offering investors the opportunity for satisfying returns on their investments.
- The changing socio-economic circumstances make it necessary for firms to base their activity on knowledge, innovation and cooperation with scientists. A strong partnership between business and science furthers the development of civilisation, innovation and competitiveness.

¹³ NewConnect, rynek akcji GPW, przewodnik dla inwestorów, Giełda Papierów Wartościowych w Warszawie S.A., Wydawnictwo ART., Warszawa, sierpień 2007.

- As early as in 1525 Nicole Machiavelli wrote in his treatise “The Prince” that the successful ones are those who move with the times. There is no choice; we all constantly need to learn, so that we know things better and earlier than our competitors. Yet, the knowledge of around 50% of entrepreneurs about leasing, factoring, franchising, venture capital, private equity, business angels, and NewConnect is either none at all or alarmingly superficial. This situation calls for change.
- Being innovative means being competitive. The necessary capital is already available, but it’s not simply there for the taking. Innovative project funding is subjected to specific restrictions that protect investors from exposing themselves to many risks.
- The sources and forms of innovation funding presented in this article were mainly selected with regard to their usefulness for small and medium-sized enterprises with growth potential.
- As a beneficiary of EU structural funds earmarked for the development of innovation, Poland lags behind Finland, the Czech Republic and Estonia. Perhaps Poland should consider following in the footsteps of these countries and replace direct financial allocations with financial incentives.
- Because globalization can be neither controlled nor stopped, we have no choice but to move on with the times. The globalising political, economic, social and cultural relations call for innovative business concepts financed from equally innovative sources.

References

- Berschi S., Malerba F., Orsenigo L. (2000), *Technological Regimes and Schumpeterian Patterns of Innovations*, ‘The Economic Journal’ no. 4
- Bogdanienko J. (2004), *Innowacyjność przedsiębiorstw*, Wyd. UMK, Toruń
- Drucker P.F. (1992), *Innowacja i przedsiębiorczość: praktyka i zasady*, PWE, Warszawa
- Europe 2020. A strategy for smart, sustainable and inclusive growth, Communication from the Commission, EC, Brussels, 3 March 2010
- European Business Angel Network (EBAN) – Activity Report 2009
- European Business Angel Network-Activity Report 2009
- Golińska-Pieszyńska M. (2011), *Polskie praktyki innowacyjne*, Oficyna Wydawnicza SGH w Warszawie, Warszawa
- Grant Thornton, Raport: 5 lat NewConnect, sierpień 2012

- <http://ww.fabres.pl/artykuly/sekcje/wydarzenia/polscy-przedsiębiorcy-inwestują-w-innowacje>, 227 98, 1 [2 Jan. 2013]
- Jagielnicki A. (2009), *NewConnect – nowa szansa na duże zyski*, Wyd. Helion, Gliwice
- Jashapara A. (2006), *Zarządzanie wiedzą*, PWE, Warszawa
- Jasiński A.H. (2006), *Innowacje i transfer techniki w procesie transformacji*, Difin, Warszawa.
- Kowanda C., Infinity, Selenity, Trinity..., 'Polityka' No. 39(2876) 2012
- Lewandowska L. (2011), *Teoretyczno-empiryczny koncept rozwoju innowacyjnej firmy w regionie łódzkim* [in:] L. Lewandowska (ed.), *Innowatorzy, innowacje a konkurencyjność regionu łódzkiego*, Wyd. PTE, Łódź
- Matusiak K.B. (ed.) (2009), *Ośrodki innowacji i przedsiębiorczości w Polsce, Raport 2009*, Łódź/Warszawa
- Nelson Richard R. (2000), *Systemy wiedzy i innowacji in: Zarządzanie wiedzą w społeczeństwie uczącym się*, OECD/Ministerstwo Gospodarki, Warszawa
- NewConnect, rynek akcji GPW, przewodnik dla inwestorów, Giełda Papierów Wartościowych w Warszawie S.A., Wydawnictwo ART., Warszawa, sierpień 2007
- Niedzielski P., Rychlik K. (2006), *Innowacje i kreatywność*, Uniwersytet Szczeciński, Szczecin.
- Nowak-Far A. (2000), *Globalna konkurencja*, PWN, Warszawa
- Okoń-Horodyńska E., Czachorowska-Mazurkiewicz A. (2007), *Innowacje w rozwoju gospodarki i przedsiębiorstw: siły motoryczne i bariery*, Instytut Wiedzy i Innowacji, Warszawa
- Podręcznik Oslo (2005), *Zasady gromadzenia i interpretacji danych dotyczących innowacji*, wyd. III, OECD/European Communities
- Pomykański A. (2001), *Innowacje*, Politechnika Łódzka, Łódź
- Porter M.E. (2001), *Innovations and Competitiveness: Findings on the Netherlands*, Organizing Innovation Based Economy, The Hague, The Netherlands
- Poznańska K. (2004), *Innowacje jako źródło rozwoju MSP w: Zarządzanie organizacjami gospodarczymi w zmieniającym się otoczeniu*, J. Lewandowski (ed.), Wyd. PŁ, Łódź
- EIS 2009 PRO INNO Europe and Onet.biznes of 8 May 2012
- Schumpeter J.A. (1960), *Teoria rozwoju gospodarczego*, PWN, Warszawa
- Simon H. (1999), *Tajemniczy mistrzowie*, Studia przypadków, PWN, Warszawa
- Stos-Roman A., *Innowacje – podstawą rozwoju przedsiębiorstwa w: L. Lewandowska (ed.), innowatorzy, innowacje a konkurencyjność regionu łódzkiego*, PTE – Oddział w Łodzi, Łódź 2011
- Strużycki M. (2006), *Innowacyjność w teorii i praktyce*, SGH w Warszawie – Oficyna Wydawnicza, Warszawa
- Toffler A. (2006), *Trzecia fala*, Wyd. Kurpisz S.A., Poznań

Streszczenie**SZANSE ZDOBYCIA KAPITAŁU NA INNOWACJE**

W artykule zaprezentowano pogląd, że konkurencyjność firmy należy upatrywać przede wszystkim w zdolności do bycia innowacyjnym. Wskazano na stimulatory aktywności firm i efekty z tytułu realizacji innowacji. Przede wszystkim zwrócono uwagę na źródła i formy pozyskiwania kapitału na ich urzeczywistnienie. Szczególną uwagę poświęcono leasingowi, venture capital, private equity, aniołom biznesu i NewConnect. Podkreślono, że istnieje szeroka paleta tych ofert dla firm potrzebujących kapitału na rozwój poprzez innowacje. Jednakże pod warunkiem, że projekty te będą dobrze udokumentowane, określony będzie horyzont czasowy ich wykonalności i będą stanowiły atrakcyjne wyzwanie dla inwestorów.