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## NATIONAL INNOVATION NETWORK AT THE CROSSROADS – IN SEARCH OF A NEW SUPPORT FORMULA FOR PROINNOVATIVE SERVICES FOR SMALL AND MEDIUM ENTERPRISES

#### **1. INTRODUCTION**

Effective support for innovative entrepreneurship and processes of technology transfer and knowledge commercialisation requires professional institutional infrastructure which comprises proinnovative institutions (innovation centres) acting as a catalyst for knowledge transfer that facilitate the implementation of new solutions into the economic practice and stimulate the cooperation between enterprises and institutions generating knowledge. The Polish Agency for Enterprise Development takes a central place in the support system for innovative entrepreneurship in Poland. The Agency has founded and supervises the operation of a network of consulting and training centres within the National System of Services (NSS) and the National Innovation Network (NIN) formed in 2003. The National Innovation Network established to provide consulting proinnovative services is comprised of regional development agencies, university technology transfer centres, entrepreneurship incubators, public research institutes and foundations. The network currently consists of 22 centres located in 13 Polish voivodeships<sup>1</sup>. The National Innovation Network centres provide services according to the set standard<sup>2</sup>.

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<sup>&</sup>lt;sup>1</sup> Three centres in each of the following voivodeships: Mazowieckie, Podkarpackie and Wielkopolskie; two in: Kujawsko-Pomorskie, Małopolskie and Śląskie; one in: Dolnośląskie, Lubelskie, Łódzkie, Podlaskie, Pomorskie, Świętokrzyskie and Warmińsko-Mazurskie.

<sup>&</sup>lt;sup>2</sup> The standard is set by *Minister for Economy and Labour Regulation of 24 May 2011 on the National System of Services for Small and Medium Enterprises* ("Journal of Laws" 2011, No. 112, item 656) – *Rozporządzenie Ministra Gospodarki i Pracy z dnia 24 maja 2011 r. w sprawie Krajowe-go Systemu Usług dla Małych i Średnich Przedsiębiorstw* (DzU 2011, nr 112, poz. 656). At the time of the study, *Minister for Economy and Labour Regulation of 27 January 2005 on the National System of Services for Small and Medium Enterprises* ("Journal of Laws" 2005, No. 27, item 221) – *Rozporządzenie Ministra Gospodarki i Pracy z dnia 27 stycznia 2005 r. w sprawie Krajowego Systemu Usług dla Małych i Średnich Przedsiębiorstw* (DzU 2005, nr 27, poz. 221) was in force.

The main tasks of this type of centres include: i) animation and organisation of science-business relations; ii) extensive promotion and incubation of innovative entrepreneurship; iii) animation of enterprise clusters and innovative environment; iv) development of flexible forms of financing of innovative ideas, closing the financial gap; v) technology transfer and provision of proinnovative services, vii) wide cooperation with the environment and participation in proinnovative initiatives; viii) intellectual property management in institutions in the R&D sector; ix) image creation and promotion of achievements of scientific institutions<sup>3</sup>.

The number of institutions in the technology transfer and knowledge commercialisation system in Poland (including the ones functioning within the National Innovation Network) indicates that the institutional base has already been created. The question whether it is effectively used remains open. Literature indicates that a low level of system consolidation is a problem. Its particular links operate in isolation knowing little about one another's offer and the needs of other parties. Additionally, the lack of coordination as well as knowledge and experience exchange is noticeable<sup>4</sup>. Moreover, the image of the NIN in the eyes of entrepreneurs is not positive and is not associated with professionalism of the services offered<sup>5</sup>.

The paper is an original contribution to the analysis of the support system for innovative entrepreneurship based on the National Innovation Network offering proinnovative services for small and medium enterprises in Poland. The findings of the nationwide study conducted by the author in October 2010 among companies from the SME sector that are beneficiaries of the NIN services, as well as companies that previously did not avail of these services, constituted the material for this analysis. The paper presents proposals for changes in the system for provision of proinnovative services in the framework of public assistance offered by the NIN centres.

<sup>&</sup>lt;sup>3</sup> System transferu technologii i komercjalizacji wiedzy w Polsce – siły motoryczne i bariery, K. B. M a t u s i a k, J. G u l i ń s k i (red.), Polska Agencja Rozwoju Przedsiębiorczości, Poznań-Łódź-Wrocław-Warszawa 2010, p. 16.

<sup>&</sup>lt;sup>4</sup> See e.g.: J. K o r n e c k i, A. K o w a l c z y k, *Badanie potencjału dolnośląskich organizacji otoczenia biznesu w zakresie świadczenia usług proinnowacyjnych. Raport 2010*, Agencja Wydawnicza "ARGI", Wrocław 2010, (research report for the Marshall Office of Dolnośląskie Voivodeship); D. T e k i e l i-B i s i ń s k a, *Analiza potencjału instytucji otoczenia biznesu w województwie świętokrzyskim i możliwości ich zaangażowania w proces tworzenia partnerstwa regionalnego na rzecz rozwoju konkurencyjności i innowacji w województwie świętokrzyskim*, Staropolska Izba Przemysłowo-Handlowa, Kielce 2009, (research report).

<sup>&</sup>lt;sup>5</sup> See A. Sosnowska, S. Łobejko, *Scenariusze rozwoju instytucjonalnego wsparcia przedsiębiorczości w Polsce*, Instytut Technologii Eksploatacji – Państwowy Instytut Badawczy, Radom 2007; P. Czyż *et al.*, *Instytucje otoczenia biznesu wspierane w ramach Sektorowego Programu Operacyjnego Wzrost Konkurencyjności Przedsiębiorstw, lata 2004–2006: określenie wpływu programu na ofertę usługową oraz poziom jakości świadczonych usług*, Warszawa 2007, (research report).

## 2. THE ROLE OF INTERMEDIARIES IN THE PROCESS OF TECHNOLOGY TRANSFER

The dynamic progress of knowledge and technology as well as increasing competition force even the smallest companies to introduce innovations that have become a necessity and a prerequisite for survival in the market<sup>6</sup>. As a rule, small innovative enterprises are not capable of transforming their new ideas and concepts into a market offer. The following factors are quoted as obstacles to transfer of technologies to companies, in particular to SMEs: i) limited access to information and little transparency in the market of new technologies; ii) unwillingness to cooperate and take risks on the part of developers of new technological solutions; iii) high costs of commissioned technical studies; iv) limited protection of intellectual property rights; v) little knowledge concerning patents and international standards; vi) the lack of skills in the area of marketing presentation of new technological solutions to customers; vii) the lack of developed venture capital market<sup>7</sup>.

Each business entity is endowed with a certain innovation capacity (internal and external) that limits the implementation of innovations. The problems connected with insufficient internal innovation capacity force small and medium enterprises to search for the necessary knowledge, financial, technical and other resources in their environment. In order to survive, they need to cooperate with others, operate in the environment where they can make use of others' knowledge and potential. The needs of enterprises may concern different stages of the innovation process, i.e. the creation of an idea and its commercialisation, as well as various issues connected with implementation of an innovation (e.g. reaching the required speed and scale of the new business). The usefulness of enterprises' partners in the area of innovation can be measured by the scale and intensity of services rendered in the area of technology and knowledge, consulting, training, promotion, *etc.*; proinnovative services play a particularly significant role in this case.

### 3. PROINNOVATIVE SERVICES AS AN IMPORTANT ELEMENT OF THE NATIONAL INNOVATION NETWORK OFFER FOR ENTERPRISES

Proinnovative services are specialised forms of support stimulating innovative activities in the SME sector that enable enterprises effective and efficient management of development of new services, products, technologies, marketing models and organisational solutions. Various forms of proinnovative services allow the absorption of innovations by enterprises due to<sup>8</sup>:

<sup>&</sup>lt;sup>6</sup> System transferu..., p. 10.

<sup>&</sup>lt;sup>7</sup> Przedsiębiorczość i transfer technologii, K. M a t u s i a k, E. S t a w a s z (red.), Żyrardowskie Stowarzyszenie Wspierania Przedsiębiorczości, Łódź–Żyrardów 1998.

<sup>&</sup>lt;sup>8</sup> See J. O s i a d a c z, G. O 11 i v e r e, *Budowa pakietu usług proinnowacyjnych w centrach transferu technologii*, Polska Agencja Rozwoju Przedsiębiorczości, Wrocław–Sunderland 2011.

- the improvement of access to scientific information, initiating science-business relations;

- the identification of innovative features of a product or a technology;

- the creation of the strategy for development and implementation of technology and knowledge;

- positioning a technology or/and new product features;

- the reduction of risk connected with the development and implementation of a technology;

- the identification of the market, volume, capacity and absorption;

- the creation of cooperation, interaction, collaboration networks and experience exchange,

- the provision of financing for absorption and diffusion of innovations.

At the moment of study, consulting services of proinnovative character determined by the NIN standard covered the following<sup>9</sup>:

1) a technological audit service<sup>10</sup> which consists in the assessment of the potential and technological needs of the enterprise, possibilities and needs in the area of development of manufactured products or services,

2) the technology transfer service<sup>11</sup> understood as the process which facilitates the development of an enterprise by improving the existing or implementing a new technological process, product or service consisting in the transfer of information of technical nature or concerning procedures necessary for one entity to copy the work of another entity encompassing in particular: i) preparing an offer or a technology query, ii) placing an offer or a technology query in the NIN database, iii) reviewing profiles of providers and recipients of technologies placed in the NIN database, iv) establishing relations with a technology provider or recipient, v) advisory assistance in technology implementation or assistance with negotiations and conclusion of a contract between a recipient of technology and its provider, vi) monitoring technology implementation or performance of a contract.

At the first stage, the capacity and needs in the area of new technologies, organisational solutions or product development were identified. The analysis was carried out in the form of:

- conducting an onsite visit<sup>12</sup> which results in a completed form summarising the visit;

- preparing an audit report containing at least a business diagnosis, a SWOT analysis, an analysis of technological needs of the company including recommen-

<sup>&</sup>lt;sup>9</sup> See J. O s i a d a c z, *Proces audytu technologicznego w przedsiębiorstwach*, Polska Agencja Rozwoju Przedsiębiorczości, Wrocław 2011.

<sup>&</sup>lt;sup>10</sup> The amount of public subsidy to the technological audit service was 3,500 PLN.

<sup>&</sup>lt;sup>11</sup> The amount of public subsidy to the technology transfer service was 35,000 PLN.

<sup>&</sup>lt;sup>12</sup> In appropriate cases, after the PAED's consent, technological audit can be conducted in another location.

dations concerning the implementation of new technologies and the indication of funding opportunities for the identified technological needs;

- providing the report to the customer preceded by a presentation onsite or in the NIN centre regarding the outcomes of the conducted audit and the resulting recommendations on the possibilities of the implementation of new technologies.

At the second stage of this service, the proper technology transfer occurred serving the development of the enterprise by improving the existing or introducing a new technological process, product or service and constituting in transferring information of technical nature and procedures necessary for one entity to be able to copy the work of another entity. The process encompassed the following sub-processes:

- preparing, in cooperation with the customer, a form based on the results of the technological audit which presents the customer's technological needs concerning the introduction of a new technological process or the improvement of the existing technological process, product or service in the form of a technology query containing no data that allows to identify the service recipient; the developed technology query was introduced at least into the NIN Technology Database;

– searching for available technologies, for example, by reviewing the profiles in the NIN Technology Database, which resulted in finding the appropriate technology meeting the technological need of the service recipient identified in the audit and the relevant technology provider;

- establishing relations between the technology provider and recipient, which resulted in offering (submitting an offer) the appropriate technology to the customer by its provider;

- advisory assistance in the process of negotiations and concluding a contract between the technology recipient and provider, which resulted in concluding a contract of technology acquisition between the technology recipient and provider;

– monitoring of contract execution and/or consulting with technology implementation, which resulted in the implementation of the technology in the recipient's company and providing the customer's employees with consulting services in the area of exploitation of the implemented technology.

### 4. THE ASSESSMENT OF PROINNOVATIVE SERVICES PROVIDED BY THE NIN IN THE LIGHT OF THE RESULTS PROVIDED BY THE CONDUCTED STUDY OF ENTERPRISES – SELECTED ISSUES

The analysis of the results of the conducted study of enterprises<sup>13</sup> indicates that the service of a technological audit is often seen by enterprises as only

<sup>&</sup>lt;sup>13</sup> The study was commissioned by the Polish Agency for Enterprise Development in the framework of the project entitled "Conducting market research of selected services supporting

organising the issues related to running a business enterprise, without much value added. In numerous cases the audit report comes down to a general description of the enterprise and the market on which it operates. However, it merely reflects the knowledge concerning the condition and development prospects of the company and market possessed by the customer who is the main source of information in this area for the service provider.

For many companies, the relations with the NIN centre end when the technological audit service is completed. Companies not always know that there is a possibility of continuing consulting services and making use of the technology transfer service. It seems that at least some of the NIN centres are not vitally interested in promoting information regarding the technology transfer service which is more difficult to carry out and whose outcomes are more uncertain. Thus, they limit themselves to offering a highly standardised tool in the form of a technological audit. This approach may stem from poor expert base of these centres, which makes them incapable to meet the requirements connected with providing the technology transfer service.

Companies encounter a significant barrier in access to information. Many companies come across the information about the NIN and its offer by accident. The most common source of the information about the existence of a NIN centre and its offer is the Internet (54.2% responses). Relatively rarely, however, the information about a NIN centre reaches an entrepreneur via another business environment institution (only 7.2%), which indicates a high level of atomisation of network activity and at the same time a low level of networking and cooperation between centres operating currently in the support system for entrepreneurship and innovativeness in Poland. The PAED is blamed for this state of affairs as, according to the NIN centres, the agency introduces no mechanism to create this network. Additionally, as it was indicated above, companies are not informed

the development of entrepreneurship and innovativeness in Poland" ("Przeprowadzenie badań rynku wybranych usług wspierających rozwój przedsiębiorczości i innowacyjności w Polsce"). The study encompassed two groups of respondents. The first group was comprised of entrepreneurs representing enterprises from the SME sector (excluding companies employing fewer than 5 people) (hereinafter referred to as entrepreneurs), the other - recipients of the proinnovative service provided by the Polish Agency for Enterprise Development in the framework of the systemic project financed by 5.2 Operational Programme Innovative Economy (hereinafter referred to as customers). The study of both groups was conducted with the use of the CAPI method (Computer Aided Paper Interview). In the study of all entrepreneurs, the test sample encompassing 1,100 SMEs was constructed on the basis of random quota sampling, maintaining stratification based on the size of the company, type of business activity (acc. to the Polish Classification of Activities) and voivodeship. In the case of the other group of enterprises – service recipients – the invitation to participate in the study was extended to all 728 existing customers of the proinnovative service, 381 entities provided responses to the questionnaire. See J. K or n e c k i, Badania rynku wybranych usług wspierających rozwój przedsiębiorczości i innowacyjności w Polsce. Transfer technologii, Warszawa 2010, (research report, unpublished material).

about the possibility of availing of the more advanced, technology transfer service. The results clearly indicate the existence of an information gap.

The companies expect from the NIN centres more initiatives and indications regarding opportunities to undertake new business initiatives. The companies perceive the current NIN service offer, most often resulting only in a technological audit without any continuation in the form of more advanced support, as too narrowly identified, clichéd and not "innovative" enough. The companies expect for the technological audit to be just a prelude to close cooperation (almost partnership) with the NIN centre, which should result in defining and validating new directions for the company development and monitoring the execution of the measures taken.

The entrepreneurs differ significantly in their expectations concerning support. Many are satisfied with the services currently provided in the framework of public assistance. The equal number of entrepreneurs, however, approach the innovation centre in search of assistance in solving a difficult business problem and expect an advanced service which will allow them to outline a plan for future actions or determine specific instruments to carry it out. It seems that the service as it is today cannot meet the expectations of more demanding customers.

The adaptation of the offer of the service provider to a company's needs and the capacity of the service provider to determine the needs of a company raised the most objections on the part of the entrepreneurs in their assessment of individual elements of this consulting service. The strongest deficiency was perceived in the lack of consulting proinnovative services in the area of assistance for the protection of industrial property, advisory assistance in implementing research projects encompassing technical, technological or organisational undertakings leading to the creation of a prototype, assistance in developing industrial designs, assistance in implementing new technologies in an enterprise and mediation in the process of knowledge transfer.

The entrepreneurs are generally positive about the level of their satisfaction with the consulting service received (60% of them are satisfied and very satisfied). It seems, however, that at least in the case of the technological audit service, the main measure of whether the expectations are met is the execution of the objective that the service is for and this objective often remains in the realm of purely pragmatic non-economic purposes. For instance, it takes the form of an additional asset supporting the company's efforts to obtain financing. It can be assumed that as long as the level of financing for this service is kept at 100%, the reception of the service will remain positive despite the fact that – as it was stressed previously based on the respondents' opinions – it does not bring anything new to the sphere of market activities of an enterprise.

Nearly half (44.4%) of the NIN customers are not yet capable of assessing the effects of the proinnovative advisory service provided. The remaining respondents were split quite evenly in their opinions. Every fourth beneficiary indicated gaining real benefits resulting from the service provided whereas an equal number negated gaining such benefits. The advantages that were mentioned included obtaining a higher note in a funding application, less often improving a technological process through implementation of a new technology. It is quite symptomatic that in the assessment of service benefits, the lack of advantages gained from the service was often identified with the lack funding, which clearly reveals the true purpose behind using this type of services by many customers, i.e. obtaining extra credits in the evaluation of their investment application. Other voices of criticism concerned most often the lack of new information useful for the development of a company.

The customers' responses concerning their intentions to avail of proinnovative services offered by the NIN over the next three year should be interpreted rather negatively. Less than half of the respondents intend to use its services again, which due to the fact that they are free of charge may suggest the lack of complete satisfaction with the assistance received.

## 5. PROPOSALS OF CHANGES IN THE SYSTEM OF PROVIDING PROINNOVATIVE SERVICES BY THE NATIONAL INNOVATION NETWORK

Based on the situation existing in the system of proinnovative services provided by the centres of the National Innovation Network which was diagnosed as a result of the study, certain changes in the system of public assistance for SMEs can be proposed. They are divided into three categories: 1) the "philosophy" of assistance, 2) the scope of assistance and 3) the character of the applied support instruments.

## 5.1. Recommendations concerning the "philosophy" of assistance

5.1.1. Determining the place and role of the National Innovation Network in the support system for entrepreneurship and innovativeness in Poland

The need for further existence of the National Innovation Network seems to be irrefutable. Public assistance for innovative measures is required particularly by small companies (micro and small ones), with smaller financial and human capital compared to larger firms. The resignation from public assistance for proinnovative measures could exclude some of them completely from access to such measures.

It seems extremely important that the institutions responsible in Poland for the policy of support for entrepreneurship and innovativeness should determine, particularly in respect to companies from the SME sector, the place and role of the "revamped" NIN network in the national system of support for entrepreneurship and innovativeness by defining precisely the objectives of network activity and connecting them with support instruments on the national level. In this context, it is important to link the objectives set for the National Innovation Network with the objectives realised in the framework of operational programmes.

## 5.1.2. The implementation of the policy of unlimited access to services

The argument of realising the objectives of the national innovation policy could be a good a reason for the choice of the selective approach to setting the subject (sectoral, based on strategically selected directions, *etc.*) access to proinnovative services. Nevertheless, it seems that at the present stage of the development of the innovation policy in Poland, as well as the institutional system of its support, the market should be used as a selection mechanism.

## 5.1.3. The introduction of partial payment for pro-innovative services

The natural evolution of the institutional support system towards the commercial offer is inevitable, the question only remains about the timing of introducing measures stimulating the transformation of public assistance into the assistance offered on a commercial basis. It seems that – as the entrepreneurs declare – the market is ready to participate in the costs of providing these services. Based on the statements made by the entrepreneurs, it can be assumed that the financing level for the costs of providing these services could be set at the level of 20-25%. While declaring the willingness to cover part of the costs connected with the service provision, the entrepreneurs expect the opportunity to influence the scope of the services which they will receive (what?) and the choice of the service provider (who?). The necessity to partially participate in the costs will probably bring an additional positive effect in the form of increased perception of the value of these services in the eyes of customers.

## 5.1.4. The introduction of an expert system based on centre specialisation

The currently offered consulting assistance does not fully satisfy the entrepreneurs' expectations. In respect to the relatively simple services (the technological audit service), this assessment is not very negative. The system of consulting requiring specialist knowledge and competencies which is currently in operation, however, does not work. The vast majority of the centres are not able to provide a full range of advisory services.

The panel discussions with the entrepreneurs as well as the NIN centres indicate that good results may be achieved due to the introduction of an expert system of advanced services provision based on centre specialisation. The centres belonging to the network would offer a basic range of simple services, standardised at least to some extent. Each of the network centres would also define the scope of specialisation based on the competencies of their own experts, which would be the reference point for entrepreneurs seeking specialist assistance. In order to function effectively, the system should be a) characterised by high transparency (i.e. universal and easy access to information concerning the centres in the network and their specialisation), b) endowed with credibility characteristics (e.g. by notification of particular centres to provide services in this area) and c) defining the framework and conditions for service provision (e.g. including in the catalogue of qualified costs an expert's visit at the company premises as extra expenses increasing the cost of a service). The system of notification of centres according to their set specialisation would secure the network against the uncontrolled influx of centres of unconfirmed range of competencies and would increase the confidence of entrepreneurs in the NIN. Such a system would also probably require regular inspections on the part of the network administrator to verify the quality of the service from the perspective of both the set standard for this service and the customer's satisfaction.

## 5.1.5. The inclusion of commercial companies in the innovation support system

The inclusion of commercial companies in the innovation support system in Poland seems fully justified. As a result, it should foster the realisation of three objectives: 1) the creation of a positive image of the network as a group of entities providing professional services, 2) more rapid transformation of the system currently in operation into the target system based on services provided solely for a fee, 3) improved functioning of an expert system complemented by commercial companies with unique competencies.

# 5.1.6. The introduction of the demand distribution model for proinnovative services

Poor recognition of the National Innovation Network resulting from the defectively functioning system of promotion and communication, as well as the necessity to meet the requirements of the contract for the provision of proinnovative services, leads to the situation that nowadays service providers are the ones searching for customers for services provided. Thus, the customer is "captured" by this particular centre and has a limited possibility to choose a different one, better suited to the realisation of activities undertaken.

There should definitely be a change of the distribution model from the supply model into the demand one and the possibility of a free choice on the part of an entrepreneur regarding their service provider should be introduced. The success of these measures is contingent upon an efficiently functioning system of communication and promotion.

### 5.2. Recommendations concerning the scope of assistance

## 5.2.1. Extending the scope of advisory services and freedom of their development

Expectations and needs of entrepreneurs from the SME sector definitely extend beyond the currently offered scope of proinnovative systemic services. The target advisory service ought to encompass various measures stimulating innovation activity of enterprises, including the cooperation in initiating innovative concepts, their market and economic validation, implementation support and monitoring of the measures taken. Extending the scope of advisory services is also a requirement – according to the entrepreneurs' opinion – for a wider acceptance of the necessity to participate in the costs connected with the provision of this service. Only such a scope of services will enable a response to a strong diversity of SMEs in terms of their need for a variety of services and will contribute to creating the appropriate image of the network as a group of entities providing a wide (and complete) range of high quality services.

Providing entrepreneurs with the possibility of shaping freely the scope of advisory services they avail of seems equally important. It should be fostered by the functioning of an expert system which provides the possibility of choosing services in accordance with the actual needs of entrepreneurs. In this situation, pre-screening of the customer's needs by the potential service provider and presenting the results with subsequent recommendations concerning services for the acceptance of the PAED or a PAED accredited, independent verification unit seem justified.

Maintaining the currently functioning support model based on the standardised services in many cases brings no value added for SMEs and often results in disappointment on the part of entrepreneurs or serves only their immediate purposes. Moreover, it creates a negative image of the support institution in the eyes of entrepreneurs as the one unable to meet the customer's needs.

### 5.3. Recommendations concerning support instruments

## 5.3.1. Closing the information gap

It seems necessary to launch a major campaign to promote the "revamped" National Innovation Network. The current system shows clear deficiencies which result in poor recognition of the National Innovation Network and the offer of individual centres by entrepreneurs. A massive, large-scale promotion campaign is a prerequisite to reaching entrepreneurs from the SME sector with a new message concerning the reformulation of the logics behind the way the network functions.

## 5.3.2. Ensuring the network's good image

It is extremely important to create a new, positive image of the National Innovation Network which will be associated with a high degree of professionalism of activities undertaken. Positive results achieved in this area will facilitate the evolution of the support system towards services provided on a commercial basis.

## 5.3.3. "Networking" stimulation

Strong atomisation of the network is clearly noticeable as individual centres conduct their activities mostly in isolation. It is to some extent the result of the existence of standardised, narrowly defined services which do not allow for the centre specialisation to emerge and hinder the stimulation of cooperation between centres to acquire the missing competencies or to redirect customers to the centres characterised by a sufficient level of competencies in the particular area. The lack of network cooperation creates barriers to the provision of the highest possible quality services based on an expert system. Meanwhile, at least in the sphere of declarations of the NIN centers, such cooperation is possible and even desirable. Thus, one of the important objectives of instrumental measures should be stimulating the cooperation of entities operating in the National Innovation Network. The Polish Agency for Enterprise Development should take over the role of the animator of these networking activities. This way, setting objectives and indicators for the whole network and not only individual centres will become possible.

### 6. CONCLUSION

Worldwide experience indicates that innovation centres have found their place in the contemporary logic of economic and social development constituting infrastructure for a knowledge-based economy by bringing science closer to business. In addition to their quantitative development, which has already taken place in Poland, the qualitative development reflected in the offer of services supporting the development of innovative activities adequate to meet the needs of entrepreneurs is also extremely important. The study conducted by the author indicates that the offer of proinnovative services for entrepreneurs provided by innovation centres, constituting an element of the institutional, public support system, leaves much to be desired. The main concerns raised by SME entrepreneurs regard the passivity of these centres in building cooperation and partnerships, the capacity to recognise the real needs of the enterprise – including the needs of more demanding clients – and to adapt the offer of services in response to these needs.

The author recognises the need to introduce changes in the system of public support for proinnovative activities of small and medium-sized enterprises. The recommended changes include the necessity to clarify the place and role of the National Innovation Network in the system of support for entrepreneurship and innovation in Poland, easier access to a wide range of high-quality proinnovative services for entrepreneurs by incorporating commercial firms in the system of public assistance, freedom to determine the scope of consulting services provided by innovation centres, the introduction of the expert system based on centre specialisation, the implementation of the demand-driven model of distribution of proinnovative services, stimulating cooperation between centres and creating a positive image of the whole network by means of a wide information campaign.

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### KRAJOWA SIEĆ INNOWACJI NA ROZDROŻU – W POSZUKIWANIU NOWEJ FORMUŁY WSPARCIA USŁUG PROINNOWACYJNYCH DLA MAŁYCH I ŚREDNICH PRZEDSIĘBIORSTW

Celem artykułu jest analiza jakościowa systemu wsparcia innowacyjnej przedsiębiorczości opartego na Krajowej Sieci Innowacji oferującej usługi proinnowacyjne dla małych i średnich przedsiębiorstw w Polsce. Formułowane wnioski oparte są na wynikach ogólnopolskich badań przeprowadzonych przez autora wśród firm sektora MŚP, będących zarówno beneficjentami usług KSI (ogółem zbadano 381 podmiotów), jak i firm niekorzystających wcześniej z tych usług (próba badawcza liczyła 1100 podmiotów). Podstawowe zastrzeżenia zgłaszane przez małych i średnich przedsiębiorców dotyczą pasywności tych ośrodków w budowaniu partnerskiej współpracy, zdolności do rozpoznania rzeczywistych potrzeb przedsiębiorstwa oraz umiejętności dostosowania oferty usług w odpowiedzi na rzeczywiste potrzeby przedsiębiorstw. W artykule zawarto rekomendacje zmian w systemie świadczenia usług proinnowacyjnych w ramach wsparcia publicznego oferowanego przez ośrodki Krajowej Sieci Innowacji w odniesieniu do "filozofii", zakresu i instrumentów wsparcia.