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Poland's Innovation Policy vs. EU Strategy in Support of Innovation in Services

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Abstract: Service industries hold an increasingly dynamic and pivotal role in today's knowledge-based economies. The importance of services can hardly be exaggerated. For this reason in the European Union great importance is given to the strategy in support of innovation in services. Nowadays many instruments are created to promote innovation in service sector. New European Union member states have a lot to accomplish to reach the level of service innovation policy recommended by European Commission. This paper presents the findings on Poland's policy in service sector.

Keywords: innovation, services, European Union, Poland

JEL Classification: O310

Introduction

The goal of the Lisbon Strategy, adopted by the European Council at the turn of the century, is to restore Europe to the economic power it once had enjoyed. The last hundred years of European history does not inspire optimism. During this period, 'Europe gradually lost its position of global hegemony, not in one, but in all (…) spheres of human activity – political, social, cultural, economic and scientific (Pawłowski, 2006: 120).'

According to the New Cohesion Policy of the EU and the Lisbon Strategy (renewed in 2005), efforts to bring Europe back to its former dominant position are to be founded on a competitive economy based on knowledge and innovation.

In the 'old economy', effectiveness meant effective management of material, 'tangible' assets. In the 'new economy', success depends on the 'creation of new knowledge, which gives rise to ideas that – when implemented – increase the value of economic output.' (Porwit, 2001: 118) If knowledge is the most valuable asset in the

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21st century and the ability to put this knowledge to use will determine the level of competition in a single enterprise, a national economy or the entire world, 'becoming a leader will depend on the production and application of knowledge' (Pawłowski, 2006: 120).

An economy is considered to be 'based on knowledge' if the level of employment in sectors considered to be the drivers of KBE (knowledge-based economy) exceeds 15%. Four of these sectors are service sectors, namely: business services connected with the KBE; services on which the 'information-age society' depends; education; and science/R&D. The fifth sector driving the KBE consists of hi-tech industries.

Services Role in the Knowledge Based Economy

The economic growth, higher disposable incomes, and technological advances have contributed to the rapid growth of service sector enterprises. This trend is predicted to continue (Chapman, Soosay, 2003: 631). The general rule is: the more highly developed the economy of a country, the higher the contribution of the service sector to GDP creation. Growth in services has outpaced overall economic growth in the nations of the Organization for Economic Co-operation. Services also play a major role in European member states in terms of growth and development. 70% of the total value added in EU economies is created in service sectors. It appears that 50% of the value added is generated by 'market services' and 20% by public services.

The Definition of Services

At his point it is reasonable to define the term 'services'. Traditionally the distinction between a 'product' and a 'service' has been the intangibility and simultaneous consumption of services versus the ability to produce the products to stock and to disconnect the moment of creation and consumption of goods (Goldhar, Braunstein, Berg, 2007:1). In traditional services, vendor – customer relationships are characterized by connected organizational and physical links. In traditional production 'situation' - just the opposite is true: vendor – customer organizational and physical links are disconnected. In the case of this double disconnection, a supply chain or a distribution channel is needed to close the sale.

Over the last thirty years, however, the gap between production and services has narrowed. Profesor Levitt developed the idea of the 'Augmented Product'. The augmented product connects physical and service characteristics, for example the 'made – to – fit' shoe (Goldhar, Braunstein, Berg, 2007:6). Many firms are know generating greater sales and profits from products that comprise both services and

goods. Xerox, for example, offers goods (copier, printer and supplies) and services (maintenance contract, configuration and customer support) (Shankar, Berry, Dotzel, 2007: 1).

Classification of Services in Poland and the EU

According to the Polish Classification of Activities (Polska Klasyfikacja Działalności, PKD), business activity can be classified at five levels: sections, divisions, groups, classes and subclasses (cf. Table 1).

Table 1: PKD classification of business activity into basic sections and sectors

Symbol	Section	Sector
A	Agriculture, Hunting, Forestry	Sector I: agriculture, forestry, hunting, fishing
B	Fishing	
C	Mining	Sector II: industry, construction
D	Industrial processing	
E	Generation and distribution of electicity, heating gas and water	
F	Construction	
G	Wholesale and retail trade, repair of vehicles, cars, motorcycles and household and personal appliances	Sector III: services
H	Hotels and restaurants	
I	Transport, warehousing and communication	
J	Financial services	
K	Real estate administration and rental, business services	
L	Public admnistration and national defense, compulsory social insurance and universal health insurance	
M	Education	
N	Health care and social care	
O	Municipal services, communal and individual	
P	Households that hire employees	
Q	Extraterritorial organisations and corporations	

Source: Polish Main Statistical Office

Eleven of these sections (from G to Q) are service sections comprising sector III; sector III (agriculture, forestry, hunting and fishing) consists of sections A and B; sector II (industry and construction) consists of sections C to F.

Eurostat provides gross value added and employment figures for the following categories:

- agriculture, forestry and fishing,
- industry, energy production and construction,
- trade, transport and communication,
- business and financial services,
- other services.

When comparing data for different countries it is important to pay attention to the definitions of various services. For instance, the category of business and financial services in the Eurostat classification excludes some types of services in section K (real estate administration, rental and business services). According to the Eurostat definition (Lichniak,Godlewska-Majkowska, Bartoszczuk, Komor, Żelazko, 2007: 17), business and financial services include: information technology services, processional services (legal, book-keeping, tax advice, business and management consulting services), marketing, technical (pertaining to architecture, engineering, research and technical analysis), rental (leasing, renting etc.), human resources, support services (security, intelligence, maintenance), other commercial services (secretarial, translation, organisation of trade fairs, exhibitions etc.) (Masłowski, 2004).

According to Eurostat classification, the remaining services include all sections of non-market services. Therefore, they are the counterpart of 'non-market services' as defined by the Main Statistical Office, which comprises three sections: L – public administration and national defence, compulsory social insurance and universal health insurance; M – education; and N – health service. In another classification, these are public services.

Public or non-market services are services provided free of charge or at subsidized prices (not regulated by the market) by the public sector under state or municipal supervision or by non-profit organisations.

An important sub-sector in EU classifications consists of business services; these include a wide range of activities, such as: retail trade and agency services, catering (hotels and restaurants), transport, warehousing and communication, finance and banking, real estate, rental, consulting services and research.

Knowledge Intensive Business Services are playing an increasingly important role. These include: services connected with the computer industry, research and

development, services connected with architecture, engineering and consulting, as well as technical tests and analyses (Commission Staff Working Document, 2007: 9).

The Role of Services in the Economies of Poland and other EU Countries[1]

In 25 EU member countries, services make the greatest contribution to the Gross Value Added (GVA). In 2005, the share of services in the gross value added was 71.9%, or 7 percentage points higher than in Poland. Sectors I and II played a much smaller role in the EU than in Poland.

In 2005, the key components of the service sector in Poland were trade, the catering industry, transport, warehousing and communication; in the European Union, on the other hand, business and financial services dominated the service sector.

During the period under consideration, there were important differences between EU member countries in terms of economic structure. In 2005, Spain was ahead of other countries in terms of the share of agriculture in the creation of the GVA (3.3%). However, the same figure for Poland was even higher (by 1.3 percentage points). A large share of sector II in the GVA characterized Ireland (36%) and Finland (31.4%). Poland was next (30.8%), followed by Spain (29.2%), Germany (28.9%), Italy (26.6%), the UK (23.1%) and France (20.7%).

Service sections G, H and I (put together) played the biggest role in Poland. These services had a slightly smaller – though still exceeding 20% – share in the economies of Spain (25.0%), Italy (23.3%), Finland (22.6%) and the UK (21.6%). Business services and financial services were developed to the greatest degree in France (32%), the UK (31.9%) and Germany (29.7%). In Poland they were developed least among the seven countries under analysis in 2005. The gap between the leader and Poland was almost 14 percentage points.

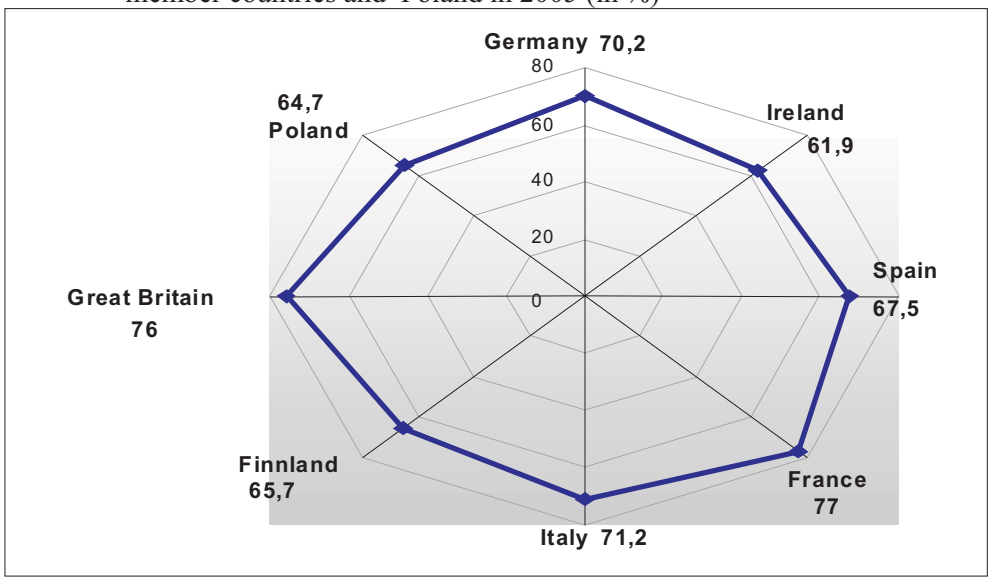
The remaining services (that is, sections L, M, N, O and P) accounted for the largest share in the GVA in France (25.8%). Poland was again last – 6.6 percentage points behind the leader, that is, France.

An analysis of the role that services and various service sections played in the creation of the GVA in individual countries indicates that in 2005, as contrasted with 1998, the share of sector I decreased significantly in all countries of Western Europe and in Poland (it remains highest in Ireland). With the exception of France, the share of sector II in the GVA also fell. On the other hand, business services and financial services became more important. This tendency was particularly clear in Ireland, the UK and Italy.

The contribution of the service sector to the creation of the GVA in France and the UK was higher than the average for 25 EU countries. In Italy and Germany this

contribution was slightly lower than the EU average. Only in Ireland the share of sector III in the creation of the GVA was lower than in Poland.

Figure 1: The share of services in the gross value added in selected developed EU member countries and Poland in 2005 (in %)



Source: Lichniak, Godlewska-Majkowska, Bartoszczuk, Komor, Żelazko, (2007), p. 25

In the most highly developed countries (with the highest per capita GVA) the contribution of services to the creation of the GVA was highest. In spite of the lower economic development of Poland in comparison to Western Europe, the country is characterized by a relatively high share of services in the economy. During the 1990s, the service sector was a kind of safe haven for entrepreneurs, who were looking for opportunities to start new businesses without having to invest a lot of capital (Kuciński, 2002). This conclusion is also confirmed by the high contribution of section G to the creation of the GVA.

As regards the development of the service sector, Poland is catching up with the old as well as the new EU member countries. The growth of the service sector was fastest in Poland between 1998 and 2005. Employment in the service sector increased in Poland by 12 percentage points; the same figure for other new members of the EU was: 7 in Latvia, 5 in Hungary, 4 in the Czech Republic and in Slovakia and 3 in Estonia.

Innovation in the Service Sector

For many years the architects of EU innovation policy focused on technological innovation in production. Services were perceived as less innovative. As a matter of fact, services are innovative, but the path of progress is different in their case than in the case of production.

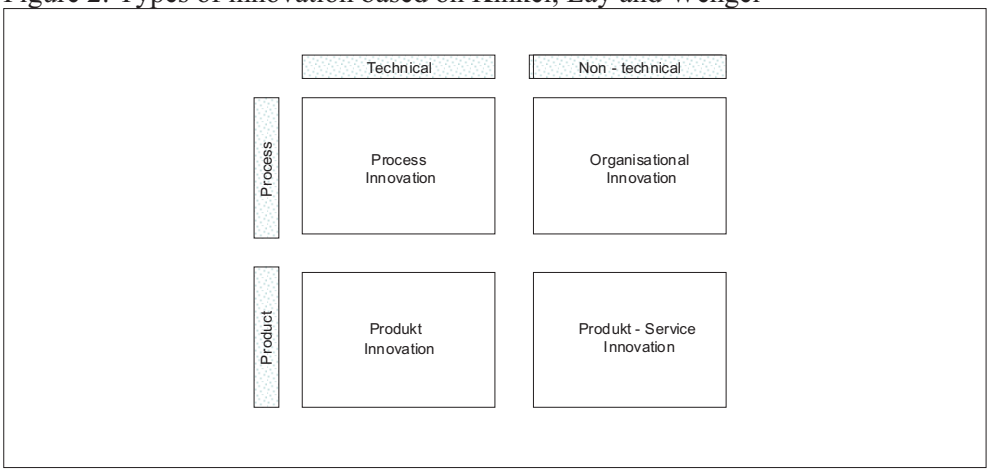
This is a good place to discuss some basic issues concerning the concept of innovation. The purpose of this concise review is not to deal with the very broad and multidimensional problems of innovation exhaustively, but to introduce a few topics connected with innovation that are of particular relevance to this paper.

Innovations Types

There are plenty of ideas what innovation means, especially in the business context. Goffin and Szwejczewski distinguish four types of innovation (Armbruster, Korner, Lay, et. al., 2006: 70):

- new products,
- new services,
- manufacturing processes, what means improving manufacturing or service delivery processes and
- business processes, that facilitate doing business with the organization.

Figure 2: Types of innovation based on Kinkel, Lay and Wengel



Source: Armbruster, Korner, Lay, et. al. (2006), p.22

Accordingly to Kinkel, Lay and Wengel there are product or process innovations and technical and non-technical innovations (Armbruster, Korner, Lay, et. al., 2006: 22). Product and process innovations. are defined as technical innovations. Product-service and organizational innovations represent non-technical innovations.

Product innovation means the development of new products and technologies supported by companies R+D. Service – product innovation is defined as delivery of new services alone or combined with physical products (e.g. maintenance or operating services). Process innovation is aimed at finding new process technologies that make it possible to produce more cheaply, faster and in higher quality. Organizational innovations deal with development and implementation of new organizational structures and processes. They may include the centralization of central departments or team work in manufacturing. Organizational innovations are implemented in order to offer customers more flexibility and efficiency.

The European Union Innovation Policy in Services

Due to the importance of services for the economic growth of developed countries, the EU decided to design a policy that would promote innovation in the service sector.

This is not a simple task, as the service sector itself is highly heterogeneous. Another source of difficulty is the problem of how to separate production from services. Until recently, there was no way to measure – and therefore to manage – innovation in the service sector. The European Innovation Scoreboard (EIS), which has been perfected over the past 6 years and which plays an important role in comparisons of innovation in various EU countries as well as globally, makes no distinction between products and services.

The first report on innovation in the European business services industry appeared in 2006. The authors of the report defined new indicators, which are more appropriate for measuring innovation in service sectors. The SSII (Service Sector Innovation Index) is available for 25 EU member countries, as well as for Bulgaria, Romania and Norway (Kanerva, Hollanders, Arundel, 2006). The SSII required a new approach to the measurement of innovation. Only 4 out of the selected 24 indicators have been retained from EIS in an unchanged form. The 24 indicators cover seven areas: human resources, demand for innovation, technical expertise, non-technological change (e.g. organizational innovation), sources of knowledge, commercialisation and intellectual property (http:// cordis.europa.eu).

The availability of indicators designed exclusively to measure innovation in services must be considered an important step towards developing a policy that

would support innovation in the service sector. The indicators need more work, but they already provide an important management tool.

Other important components of an EU policy to support innovation include the assessment of the current level of innovation in the service sector, the formulation of conclusions concerning necessary adjustments and the proposal of a comprehensive strategy to promote innovation in the service sector. The strategy is based on four elements:

1. The need to better understand the specificities of innovation in services.

The Fourth Community Innovation Survey (CIS-4) is a source of information on innovation in business services. The measurement of innovation in the service sector will require further efforts to design better instruments of measurement and comparison of innovation in services and production.

2. The need to support all forms of innovation, not only technological innovation.

The majority of efforts to support innovation is focused on technology. This approach should change to reflect the unique character of the service sector.

3.The need to develop specific support mechanisms for innovative services with growth potential.

Existing innovation support schemes favour more often industrial over service sector Small and Medium Enterprises (SMEs). Therefore better instruments for promoting and developing innovative services should be prepared, tested and implemented. The role of Community policies is to support innovation in services area, to develop new policy aimed at this and to disseminate good practice in this field.

4.The need to foster trans-national cooperation on 'better policies' in support of innovation in services in Europe.

Many projects whose purpose was to support innovation were expanded to include services in their scope, but they had not been designed with services in mind. Due to this factor, they are often imperfect and fail to take into account the specific nature of services. International cooperation and exchange of experience between various states should speed up the creation of a system to support innovation in services (Commission Staff Working Document, 2007: 5-6).

An agenda for the next few years will be an important aspect of European policy to support innovation in services. In addition to the above-mentioned elements of a strategy to support innovation in services, the following guidelines have been published[2]:

- Improving internal service market regulations, including the removal of barriers to market entry and support for new forms of innovation in services.

Despite some exeptions in service sector such as: financial services, telecommunications and broadcasting the Internal Market for services is not doing well. Barriers to trade in services are especially negatively affecting small and medium sized enterprises (SMEs). They are more likely to be prevented from developing cross-border business activities than bigger players are. Taking into account that SMEs are predominant in the service sector it becomes obvious that the restriction to national markets for services makes investments in service innovation less profitable.

- Helping service companies to protect their IPRs (patents, trademarks and registered designs). Due to their unique features, services are characterized by a high information content and intangible nature. Hence, many service innovations do not meet the criteria for patent protection.
- Encouraging public procurement of innovative services. Public procurement plays an important role also for services. That is why public procurement should be more innovation-friendly and it should be used to drive demand for innovative goods and services.
- Promoting the right skills and innovation management capabilities. Usually the managers and entrepreneurs do not receive any training in innovation management. Especially important for the innovation managers in service industries is the knowledge of organizational changes, competencies and motivation of service workers and types of new working structures that can enhance the skills.
- Better alignment of R+D and innovation with the specific requirements of service innovation. Service firms should be better linked with the science and knowledge base. The heterogenity of services should be taken into account. Some of them such as computer services, telecommunications, R+D and engineering services invest a lot in R + D. In case of others kinds of services , innovation is rather driven by organizational changes and new business models. This should be better reflected in research projects,.
- Paying special attention to the specific needs of fast grooving innovative firms in the service sector. The support should include: public support, public innovation programmes, incubation phase, financing,
- The development and testing of new tools and instruments in support of innovation in services will be supported by the European Commission. The new mechanisms are aimed to be less bureaucratic and more integrated than existing ones,
- Facilitation of identification and dissemination of good practicesin the field of services by European Comission,
- Establishment of European Innovation Platform for Knowledge Intensive Services (KIS –platform) scheduled for the beginning of the year 2008.

Poland's Innovation Policy

Innovation in the Polish Economy in Comparison to other European Countries

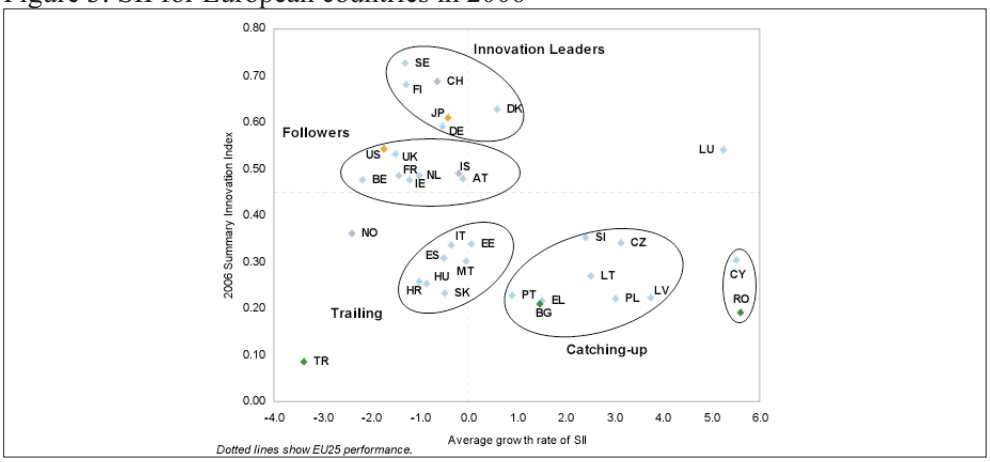
As yet, Poland's economy does not qualify as knowledge-based, since the sectors that drive a knowledge-based economy are not sufficiently developed in our country. Nevertheless, the rate of development processes testifies to its high potential.

Factors that limit the level of innovation in Poland include:

- low employment in KBE sectors (9.3% in 2000),[3]
- insufficient cooperation between business and research institutions,
- small number of new technology implementations,
- small number of enterprises founded on new technologies (The Ministry of the Economy, 2006),

International research (European Innovation Scoreboard, 2006) indicates that innovation in the Polish economy has grown significantly since 2005. The Summary Innovation Index (SSI) for European countries included in the survey is shown in Figure 3.

Figure 3: SII for European countries in 2006



Source: Inno Metrics, European Innovation Scoreboard, Comparative Analysis Of Innovation Performance 2006.

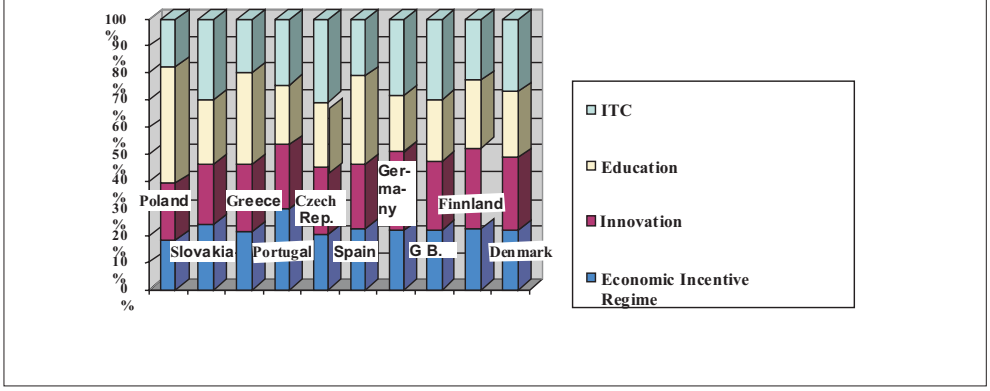
As shown in Fig. 3, Poland was grouped with countries that are 'catching up': Portugal, Lithuania, the Czech Republic, Latvia, Greece and Slovenia. This marks a change, since in the previous year Poland was listed among countries that are 'losing

ground'. Most of the components of the SII have increased in Poland significantly. Notwithstanding the fact that the Polish economy is growing fast relative to EU-15 countries, it ranked last but one in the survey. It scored lowest in applications and export of hi-tech products (47) and in intellectual property rights (44). In knowledge creation and diffusion of innovation Poland ranked 39th and 38th, respectively.

Similar conclusions transpire from World Bank's K4D statistical database, which enables a comparison of the Polish economy and other EU countries by using a measure of the Knowledge Economy Index. KEI is the average of a set of measures describing the state of the four pillars, on which a knowledge-based economy rests: the economic incentive regime, education, innovation and ICT.

Poland's KEI (3.02) turned out to be lowest among the countries under investigation. Another interesting piece of data is the share of each pillar of a knowledge-based economy in the economy as a whole; the ratios for the countries included in Fig. 3 are presented in Fig. 4.

Figure 4: The structure of knowledge-based economies in terms of their four pillars for selected EU countries according to Knowledge Assessment Methodology 2006 and data current on 15 Dec 2006



Source: Dzierżanowski, Rybacka, Szulika (2007)

Fig. 4 shows that, in contrast to other European countries, education in Poland (understood as a well-educated and highly skilled population) ranks highest in terms of its share (43.41%). Trailing behind education are the effective system of innovation in companies, research institutes, universities, consulting groups and other organizations engaged in the creation of new technologies (20.55%); the economic incentive regime, which stimulates the effective utilisation of existing and

new knowledge (18.65%); and ICT, or the technology that enables the effective creation, dissemination and processing of information (17.48%). The disproportion between the above-mentioned areas should be considered as a negative factor. The lack of opportunities for the creation and utilisation of new knowledge may lead to an outflow of human capital. In countries with a higher KEI, the development of the pillars is more balanced, which creates better conditions for a sustainable economic growth (Dzierżanowski, Rybacka, Szulika, 2007: 7-9).

An Assessment of Poland's Innovation Policy

The stimulation of innovation has received top priority in Poland's economic policy. The government adopted the 'Increasing innovation in Poland to 2006' plan in 2000. It has now been extended in a document entitled 'Directives for increasing innovation in the economy during 2007-2013', which contains an assessment of innovation in the Polish economy, as well as policy recommendations for the future (The Ministry of the Economy, 2006: 7).

The Operational Programme 'Innovative Economy 2007-2013' is one of the key instruments of the national strategy, which will mobilize EU Regional Development Funds of EUR 7 billion and an additional EUR 12.2 billion from domestic public sources. This programme includes the following priority axes:

- Research and Development of New Technology,
- R & D infrastructure,
- Capital for Innovation,
- Investments in innovative undertakings,
- Diffusion of innovation,
- Polish Economy of the International Market,
- Information Society Establishment and Development,
- Technical Assistance.

The National System of Innovation plays an important role in supporting innovation in the economy. According to Metcalfe's definition adopted by the OECD, the National System of Innovation (NIS) is a group of institutions that work together and individually to develop and disseminate new technology and create a foundation, on which governments can build their policy designed to stimulate innovation. In other words, it is a system of mutually linked institutions, whose purpose is to create, store and transmit knowledge and skills that support new technologies (Metcalfe, 1995).

The institutional infrastructure required to support innovation and transfer of technology to enterprises is relatively well developed, though large regional discrepancies do exist and it is both under funded and insufficiently integrated into one efficient system. This infrastructure includes higher education institutions, research institutes of the Polish Academy of Sciences, research and development institutes, support institutions, such as the Polish Agency for Enterprise Development, the Industrial Development Agency, the FIRE Centre for Innovation, a network of supra-regional institutions and regional organisations: centres for technology transfer, enterprise support organisations specialising in technology, brokerage companies and patent offices with a focus on technology transfer and protection of intellectual property.

Polish NIS has often been described as fragmented. Many analysts point to a lack of horizontal coordination at ministerial level. There are three alternative models of governance of innovation in Poland (Walendowski, Miedziński, 2006: 2, 12):

- several ministries are involved in NIS coordination,
- appointment of one of the present Ministries to perform the role of coordination,
- coordination by a high Level Innovation Council.

The current model is based on the first solution. However the idea to establish the high level Innovation Council has been resurrected. This is an opportunity as it may lead to an improvement of the services of business intermediaries.

The number of innovation and entrepreneurship centres has been on the rise since 1990, when only 27 entities of this kind existed. The largest increase in their number occurred between 1993 and 1996, when many projects financed from domestic and foreign sources and designed to support the development of infrastructure for business and technology transfer were implemented. By the end of 2000 (Katedra Ekonomii Uniwersytetu Łódzkiego, 2001), 266 centres provided training and consulting services, financial assistance, technology transfer services and rental of premises to small and medium-sized enterprises. Within the space of four years the number of institutions supporting innovative entrepreneurs increased significantly; by the end of 2004 (Instytut Ekonomii Uniwersytetu Łódzkiego, 2004), there were 507 organisations of this kind, namely:

- 280 centres providing training and consulting services,
- 29 technology transfer centres,
- 76 local financial institutions providing loans to businesses,
- 57 loan underwriters,
- 53 enterprise support organisations,

- 12 technology parks.

Despite a significant increase in the number of innovation and enterprise centres in Poland, a proportional increase in the level of innovation in the Polish economy did not occur. These centres are mostly engaged in training activity, which has only limited potential to stimulate business innovation. Furthermore, the quality of the services provided is less than satisfactory. This situation is probably caused by financial difficulties experienced by these centres and by multiple barriers to their development, such as economic difficulties in a given region, lack of funds for growth and expansion of services and poor cooperation with local and regional institutions. Another reason for the poor quality of services provided by these centres is the shortage of experts with experience in innovation support, particularly technology transfer and commercial application of new technologies (The Ministry of the Economy, 2006).

As far as institutions supporting innovation are concerned, there is a structural gap in relation to EU and other highly developed countries, since there is a lack of organisations to support the implementation of innovative projects that have already emerged from the research and development phase but have not yet entered the implementation phase.

Policy benchmarking (comparing innovation performance, policy making and delivery processes and methods) is not carried out systematically and no specific benchmark countries or regions have been defined. This does not mean that there is a lack of exchange of information with other foreign institutions, but there is still lack of bilateral or multirateral programmes on innovation (Walendowski, Miedziński, 2006: 11).

As we can see the polish innovation policy is not the perfect one and possesses many shortcomings. The following recommendations to improve Poland's innovation policy mix have been proposed:

- strengthen the science and technology base, focus on excellence and critical mass,
- improve the incentives for business R&D and innovation,
- foster industry – science linkages,
- strengthen human resources for science and technology
- improve the governance of the innovation system[4].

The Role of Services in Poland's Innovation Policy

Polish innovation policy is conditioned by development guidelines adopted by the European Commission. However, as with any member country, the economic conditions peculiar to Poland are superimposed on general EU policy guidelines.

As yet, Poland cannot boast of any great achievements in service innovation. The above-mentioned 2006 report on innovation in the business services sector in Europe ('Can we measure and compare innovation in services?') omits to mention the General Service Sector Innovation Index (SSII) for Poland. However, the report for the subsequent year did include the SSII for Poland. It was estimated at 0.33, giving Poland the fourth worst place. In this group of countries the SSII ranged from 0.15 (Bulgaria) to 0.89 (Luxembourg).

As far as the SSII in Business Services with High Knowledge Content is concerned, Poland achieved the lowest score (0.26). The highest score in the group was 0.72.

Polish regulations concerning innovation are also deficient in comparison to EU status quo. The 2006 document ('Directives for increasing innovation in the economy during 2007-2013') evaluating the level of innovation in the Polish economy and formulating policy recommendations fails to accord services a prominent place. It does mention services, but only en passant, as it were. There is no separate section devoted to services. The same is true of another document, namely 'The Operational Programme Innovative Economy'. Services are again relegated to the background entirely.

While this treatment of services does not eliminate solutions in this sector of the economy that might stimulate innovations, it also does nothing to foster them. Key documents devoted to innovation in Poland fail to highlight the importance of services in an innovative economy. Under such circumstances, one can hardly expect entrepreneurs working in the service sector to feel encouraged to implement innovative solutions.

Conclusion

There is a huge gap between the European Commission recommendations towards innovation policy in services, and Poland's current innovation policy in this sector. It seems that this is mainly caused by the lack of appreciation of the importance of services among legislators who design innovation promoting regulations.

A set of policy frameworks and mechanisms should be considered to more effectively harness service innovation to stimulate growth and competitiveness of

Poland's economy. The typology of systemic failures, described in the table 2 could be helpful to examine the reasons of poor results of Poland's innovation policy in services.

Table 2: Capability, institutional, network and framework failures in service activities.

CAPABILITY FAILURES	FAILURES IN INSTITUTIONS
Inadequacies in potential innovator's ability to act in their own best interest • Applied to service activities for example: • Service firms and their employees that might lack the right knowledge, skills, information and contacts to realize technological and non-technological innovations • Service firms that are not capable of identifying the actual needs of their clients • Service firms that are not capable to articulate their knowledge needs	Failure to (re)configure institutions so that they work effectively within the innovation system Applied to service activities for example: • Schools that do not 'produce' enough future employees/employers students with the right set of capabilities for service firms • Innovation management courses that are biased towards manufacturing • Tax credit schemes that discriminate against service innovation • Statistics that do not record services and service innovations properly
NETWORK FAILURES	FRAMEWORK FAILURES
Failures related to the interactions among actors in the innovation system Applied to service activities for example: • A public knowledge infrastructure that primarily caters for the needs of manufacturing firms. How come that in quite a few innovation systems the creation of new intermediary centers of excellence that are seldom about ' service' technologies? • Government purchasing policies that do not challenge service firms (innovation is quite often not rewarded) • An appropriate system for knowledge management and structural capital could be highly useful to cope with the non-technological innovations so network infrastructures such as technological centres, scientific parks and other business services centres may continue to a large extent to deal with this type of network failures • An industry-science relationships (ISR) debate that is strongly biased towards high tech industries, but pays hardly attention to the role of ISRs between the science base and services	Failures in the regulatory frameworks, health and safety rules, etc.,as well as other background conditions, such as the sophistication of consumer demand, wider culture and social values Applied to service activities for example: • All sorts of regulation that do not provide the right incentives for innovation in services (trade policies, spatial planning, environmental regulation, market regulation, etc.) • Consumers that are not prepared to pay for innovative services • Foresight & road mapping exercises that are aimed almost exclusively at high tech and manufacturing industries • Governments tat are not investing (enough) in innovative public services (which can act as 'role models') • Innovation debates dominated by technological innovation • A lacking services innovation culture

Source: Fostering service innovation. The role of research. Thematic report for the Expert Group on Innovation in Services. Dialogic innovative & interactie (2006), p.17

- Educational programs should be introduced to promote the idea of innovativeness in services both in business and government circles.
- Some actions at the government level should be undertaken to facilitate the financial support for innovation in services.
- If these points are incorporated into Poland's innovation policy, then it seems likely that EU models will quickly take root in our country and innovation in the services sector will soon come to occupy central position in the concerns of institutions responsible for implementing policy supportive of innovation and allocating EU funds.

NOTES

[1] Prepared on the basis of : Lichniak I.,Godlewska-Majkowska H., Bartoszczuk P., Komor A., Żelazko B., Procesy zmian strukturalnych w polskiej gospodarce.Perspektywa tworzenia gospodarki usług, SGH, Kolegium Nauk o Przedsiębiorstwie, Instytut Przedsiębiorstwa, Warsaw, October 2007.

[2] Prepared on the basis of: Commission Staff Working Document, Towards a European strategy In support of innovation In services: Challenges and key issues for future actions. Commission of the European Communities, Brussels, 27.07.2007,p. 13-17,22-28, 34

[3] An economy is considered to be „knowledge-based" if this figure exceeds 15%.

[4] Policy mix for innovation In Poland – key issues and Policy recommendations, Directorate for science, technology and industry, 27 June 2007, Warsaw, p. 4.

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