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New STP funding mechanism based on the development strategy linking public funding with market driven services

Plenary Session 5 "New funding schemes for AOI/STP ecosystems"

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Executive summary

Funding the activity of a science and technology park in a changing global economy is a growing challenge. In order to assure a constant grow of the park and development of its services parks' managers should constantly look for various funding opportunities. Relying only on one source of income could jeopardise the STP sustainable development and mission implementation. STP should find its most suitable financial model and cooperate closely with the other actors of the local innovation ecosystem.

This paper shows a case of a Poznan Science and Technology Park (PSTP) in Poland which is currently implementing its new development strategy foreseen until 2025. Authors analyse the circumstances that led to the decision on the change in the PSTP financial model and present its rationale.

The objective of the paper is to present the new strategy development process, its outcomes, first results of the strategy implementation and changes in funding mechanism.

Poznan case – the background

Since its establishment in 1995 PSTP is a part of the Adam Mickiewicz University Foundation (AMUF) and as such operates as a non-profit organisation. At the same time it is considered a private entity as AMUF was founded in 1990 mostly by private companies in order to support the activities of the university. University still has a prevailing voice in the Supervisory Board of the AMUF, although role of the park is not limited to supporting only the University and its researchers and students. PSTP is very active on a regional, national and international levels with a wide range of partners.

Since the very beginning the idea was to secure enough profit to be able to successfully finance PSTP's activity and at the same time to fulfil its statutory obligations towards the University. It has always been a challenge as PSTP by definition was never supported by public funding, even at the establishment phase. Its main sources of income came initially from research services, especially in archaeology, chemistry and physics and later from a real-estate. To be able to grow and develop new services park joined and led several EU funded projects. They allowed to widen the services offer both to tenants and to the external clients. Most of the services was delivered as part of projects like Innovation Relay Centre (now Enterprise Europe Network), Regional Innovation Strategy, Regional Contact Point for the EU Framework Programmes and ProPlus supporting first business idea development. Thanks to those projects PSTP team has expanded and first business consulting departments have been launched. At that time, end of 1990' and beginning of 2000', all services offered to the clients were actually paid by the projects and delivered to the clients for free.

In 2004 when Poland joined the European Union PSTP was already expanding and planning construction of the first technological incubator in the region. Several years later not only this

incubator was fully operating but also most of the Parks' research centres moved to the new buildings. And in 2014 a new high-tech technology incubator with a specialised well-equipped laboratories was opened. PSTP was significantly growing and opening not only new buildings for rent but especially new laboratories to be used by the Park highly qualified staff as a base for commercial activities – mostly research services for sale. Along with the investments there has always been a wide range of projects on-going, all aiming at supporting PSTP business services development potential. Still, funded by the EU or national programmes.

It was becoming clear that relying on structural funds, framework programmes, INTERREGs and Erasmus programmes, to name a few, as main sources of funding is not possible in the long term perspective. On the other hand real estate with some services being delivered for free or on preferential conditions to the clients, especially start-ups, would never provide enough profit to allow the full implementation of PSTP mission. As a result PSTP started planning to expand its research services by using the best staff expertise and up-to-date research equipment in order to raise the level of income. In addition it has become evident that also business support services should more often be offered for a fee, thus being commercialised.

Looking for new funding mechanisms

According to the European Commission in the period from 2000 – 2012 the central estimate sector of public capital investment into the EU's STPs is circa Euro 4.8 billion alongside private sector investment of Euro 6.9 billion. In addition, revenue grants from the public sector in support of the professional business support and innovation services of these STPs totaled approximately Euro 1.7 billion over the same period, again with a significant private sector input of about Euro 1.3 billion¹. The EU financial perspective 2007-2013 was the time of technology parks and other innovation centers expansion in Poland as the policy makers perceived them as the key factors for regional economy development. The implemented projects included infrastructure construction, research facilities, seed funds, entrepreneurship support services. The culmination of this process was the design and implementation of two flagship programs to strengthen innovation centers, which were Innovative Economy (POIG) and Development of Eastern Poland (PORPW). Both of them supported 25 centers (12 within POIG and 13 under PORPW). Additional support instruments were implemented in every regional operational program. Polish innovation centers gained access to over EUR 400 million. Poznan Science and Technology Park was the beneficiary of about 30 projects for the amount ~ Euro 20 milion during this period. Such a significant financial resources invested in STPs made the stakeholders expectations higher about innovation centers' impact on regional competitiveness. There is a clear demand for providing highly specialised services for the SME sector to facilitate getting innovations into the market.

In 2014-2020 financial perspective, Polish STPs have been facing noticeable fewer possibilities for project applications than during last 6 years. What is more the structural funds are more demanding and require higher percentage of own contribution. That is why the STPs' management boards in Poland try to find the balance between the mission and business activities and reorganize the funding mechanisms. An important step into the process of changing the innovation centres approach was also the recommendations of the European Commission, which at the end of 2012 analysed the activities of the centers supported under the European Regional Development Fund in Poland. The main objective of the audit was to assess whether business incubators successfully supported new innovative companies. The main conclusion of the audit was the moderate effectiveness of the support offered to incubators tenants. As a consequence of the audit, the following recommendations were made:

- There should be realistic business plans, including in particular the continuation of noncommercial incubation activities.
- There should be qualified personnel available who can provide the appropriate individual support to the clients.
- There should be a monitoring system based not only on data obtained from the STP/incubator own activities, but also on data provided by the supported clients.
- When selecting ERDF co-financed projects, should pay more attention on the expected results of projects (related to the target group) than on physical project products such as new or upgraded infrastructure.
- As to the mature parks, public funding should be complementary to the commercial activities. It is important to expect the parks to be profitable. The decision to grant funding should be based on the efficiency of using public funds and their outcomes.

To sum up, the current financial perspective still clearly sets the innovation centers as important economic development policy instruments with the potential for fulfilling their tasks and missions. However, in many areas some changes should be done. For instance, in PSTP case the biggest challenge are switching mind-sets from being project based to be more sales based and establishing a professional sales department. As the result of the market changes, PSTP decided to improve the services portfolio or even design the new ones and pay more attention to the analysing clients' needs and change the customer service process. At the same time, in 2016, the process of building new strategy started which results confirmed the need of switching from projects to more business oriented activities.

Strategic switch to sales

In 2015 PSTP initiated the participatory process in order to develop a new strategy for the whole Park until 2025 with clear and detailed objectives for the key first five years. A wide range of stakeholders were taking part in the process with a crucial role of PSTP top management. It was especially important to involve the PSTP staff from all departments to gather the view and input from all possible perspectives and to secure the ownership of the strategy to be acknowledged by every employee. It was a significant challenge having in mind that PSTP hired around 130 people. More than 70 different workshops and meetings were held with a follow-up work resulting in the process lasting the whole year. This endeavour is a very important milestone in the PSTP history and takes the park mission and vision into the different level – the market.

The approach

The process was designed in a way to take into account two-folded nature of the Park's activity. On one hand PSTP is a non-profit organisation with a mission to create public value, on the other to be able to fulfil this mission it has to operate on a market on commercial basis.

One of crucial aspect of the strategy successful implementation was the ownership to be felt by all PSTP employees. That is why the full participatory process was planned. The key elements were: information, consultation, engagement and decision making. At the same time it was important to keep enthusiasm and willingness to actively participate in the process.

In the development of the process John Bryson approach to the strategic planning in public and non-profit organisation was used². The key emphasis was then put on:

- Creating public value for identified target groups;
- Participatory approach in a well-planned process.

For the analytical phase the Strategic innovation methodology³ with SWOT analysis was used as well as strategic map and balanced scoreboard by Kaplan and Norton⁴. The benefits of this approach were:

- Gaining the institutional identity based on values important for the employees;
- Strengthening their feeling of having impact on the whole organisation;

⁷Bryson, John M., *Strategic Planning for public and non-profit organisations*, San Francisco 2011

⁸ *Strategic innovation* is a methodology developed by Raf Sluisman from UNU-MERIT and known to PSTP thanks to bilateral cooperation.

⁴ Kaplan, Robert S., Norton, David P., *Balanced Scorecard: Translating Strategy into Action*, Harvard Business School Press 1996

- Encouraging motivation to implement the strategy;

- Elaborating and accepting the rules of cooperation within the Park to achieve cohesion.

The logical scheme of the PSTP strategy elements:



Resources

The process was mainly performed by PSTP team together with the Management Board whose members came to the conclusion that only direct involvement of the team can motivate everyone to the strategy implementation. However two external experts were hired to enrich the process with the expertise and outside overlook. A special strategy organigram was established to clarify the roles in the process. The main decision making body was the Management Board, the coordinating person was the Chief Advisor to the Board for the PSTP Development. The general working group was securing the constant progress and was preparing the documents to be discusses by the Board. It was done on the basis of work performed by several thematic working groups and tasks forces. Their work concerned such aspects as:

- Main functions of the Park;
- Scope of the Park activity
- Relations with public administration;
- Relations with universities and enterprises;
- Relations with tenants and their expectations;
- Relations with local community;
- IPR, human resources and in-house expertise;

- Infrastructure and equipment;
- Organisation culture and internal communication;
- PSTP structure;
- Management of the Park;
- Analysis of competition;
- External communication.

The process

The process was planned for 9 months with additional 3 months reserve for consultations with the stakeholders. It was divided into 5 steps:

Step 1 Initial	Step 2 Values,	Step 3 Analysis	Step 4 Framework	Step 5 Activities
agreement	mission, draft vision		of the strategy	plan
Rules of the process and declarations of committment Ideas for the strategy Stakeholders analysis	Common values of employees on the basis of which they build relations with clients <i>Mini-missions</i> of the departments <i>PSTP mission</i> <i>PSTP vision in</i> 2025	Diagnostic reports in 10 fields - key conclusions and main challenges for PSTP. SWOT analysis - key elements for PSTP development	Problem tree (reasons and effects of problems). Goals map - main objectives, strategic goals, activities	KPI (measurable) for goals and activities and expected final delibverables Balances Scoreboard (BSC)

It is worth mentioning that key values shared by most of the employees make PSTP a desirable workplace to develop their professional careers. Those values are the foundation of the whole organisation:

- **Common good** the sense of common mission, job with a social meaning, satisfaction of making a change in the world, respect for the clients;
- **Good relations and cooperation** respect, openness, trust and understanding shall be the basis of relations with clients, stakeholders and employees;

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- Innovation and creativity supporting the growth of clients through openness to change, creative thinking and flexible approach as well as conditions for the development of career paths of the employees;
- **Professionalism** high level of competences; engagement of knowledge and energy on the everyday basis; responsibility, reliability, high quality of services; clear rules of operation;
- Prestige whole team cares for the image of PSTP, values over 20 years of legacy and experience gained; at the same time PSTP desires to be known and appreciated among the local, national and international co; PSTP stays opened to the constructive criticism.

The process undertaken was based on those values as the motivation of the team involved in a process relies on them. The grand challenge facing the whole team – switch to sales could only be faced while keeping those values as a reference point throught the strategy implementation period.

The newly elaborated mission and vision of the Park was widely discussed with the team and finally accepted by the Management Board. They both show high ambition of the Park, not only to become an important research and innovation services provider, but also a leader on the regional and national level.

The mission

PSTP mission is knowledge and technology commercialisation, especially in the field of chemistry, physics, biotechnology and IT, employing our research and the nationwide unique and specialised infrastructure.

We render professional services for the innovative business and science making creativity friendly environment for the young talents. We support management competences and help scientists and entrepreneurs to build relationships and achieve market success.

Thanks to high quality services, selling and external financing we are attractive working environment, where the employees can develop and achieve professional satisfaction.

Motto: DEVELOPMENT THROUGH KNOWLEDGE

The vision

In 2025 PSTP is the key knowledge and technology hub in the region and one of the most important actors in the national innovation system, sets new trends for the business support institutions, clients who search for support of their innovation project preferably use our offer.

Thanks to attractive service portfolio and internal synergies PSTP enables international expansion of companies and enhance their capacity to generate innovation.

In the finances structure the income from services prevails over public grants and generates profit ensuring own infrastructure and capital investments.

PSTP is a very good employer for high level competence specialists.

The objective

The main goal of the strategy is to raise the PSTP income out of the research and specialised business development services to 75% of total one in a five year timeframe to be able to fully implement the Park's mission.

Its background lays in a need to reverse the proportion between publicly funded activities and services offered commercially on the market. It takes into the account the changing, more innovation friendly environment and growing market demand to both, research and pro-innovative services. The idea is to wisely use and link the non-profit activities with market driven ones in a way that allows the sustainable development of both of them, thus the whole Park. PSTP is now engaging itself in a publicly funded projects only when they have potential to enlarge the park offer and enhance its staff expertise to be then used also on the market. At the same time commercial activities of the Park are also undertaken with a view to offer additional services still delivered by the publicly funded projects.

Main objective	To increase the income from sales of research and specialised services to the level of 75% of total income, to be reached within 5 years, in order to facilitate the fulfilment of the mission				
Operational goals	1. To update services offer in order to generate more enquiries	2. To elaborate and implement sales and clients relations management processes in order to raise total pool of clients (incl. key ones) and their satisfaction level (as well as percentage of returning clients)	3. To ensure synergies of the commercial and non- profit activities for the realisation of the PSTP mission and vision	4. To establish implementation and monitoring system in order to achieve all results foreseen	
Activities	1.1. To implement marketing plan based on the market needs analysis	2.1. To set sales goals and to implement sales organisation model	3.1. To define catalogue of non- profit activities of strategic meaning for the development of the Park and create public value	4.1. To implement systematic reviews d od the strategy realisation	
	1.2. To introduce tailor- made portfolio of services	2.2. To implement an effective sales model	3.2. To set criteria for new project applications, both commercial and non- commercial supporting PSTP mission and vision implementation	4.2. To introduce evaluation system of employees and managers	

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	1.3. To implement the model for costs calculation and costs monitoring per single service	2.3. To implement an efficient process of services delivery and reporting	3.3. To constantly communicate with key stakeholders in order to identify their needs and assure the acceptance of the PSTP mission and their recognition	4.3. To update the strategy on the basis of the monitoring results
	1.4. To continuously benchmark services with leading providers (offer and costs)	2.4. To introduce clients relations management system (CRM) and cross- selling procedures within different departments	3.4. To manage clients relations in order to achieve mission results and via appropriate commercial and non- commercial activities	4.4. To introduce risk assessment mechanism for the decision making process as it comes to financial and investments decisions
	1.5. To identify specific branch needs	2.5. To monitor the quality of the process from the client perspective	3.5. To measure and communicate public value generated by the PSTP	4.5. To engage stakeholders in the innovation generation in a systematic approach
	1.6. To adjust competences and			4.6. To introduce the change management system
	technologies to offer and processes 1.7. To direct			4.7. To manage
	employees to clients' needs action and sales			knowledge

Strategy implementation

2016 was a first and pilot year of the PSTP strategy implementation. First conclusions are now being driven on the basis of the balanced scoreboard regular evaluation system. The overall monitoring result proves the rightfulness of the goals set in the strategy. Focusing on proper design of the new services, one stop shop approach in the delivery of the innovation related services and changing PSTP's staff mentality from project oriented to market oriented seem to be the right direction to achieve its objectives. At the same time, STP managers cannot forget about the active cooperation with other entities like accelerators, seed funds or big companies to satisfy the needs of the client and to ensure sustainable development of the park and its own services portfolio.

Main challenges identified are:

- To establish diversified service portfolio for tenants and external customers;
- To sell more research services, especially in chemistry, physics, biotechnology and IT fields;
- To reach informal leader status among the business support organisations in Poznan and Wielkopolska region;

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- To focus on PSTP key customers group (tenants);
- To enhance selling skills;
- To establish long lasting relations between customers and suppliers;
- To structure internal processes in the organisation;
- To practice permanent benchmarking.

The strategy implementation is monitored on a regular basis with conclusion being driven in order to react in cases of problems in reaching the annual goals. The main tool used for this purpose is the aforementioned balanced scoreboard with a set of indicators to be reached by different departments and by PSTP as a whole. Selected targets for 2016 as examples are listed below:

- 1 standardised (predefined) service in each field of activity;
- 4 unique (region scale) services. 1 in each: chemistry, biotechnology, waste management, technology transfer consulting;
- 25 new key clients per year (over 20 k euro sale 2 or more service type);
- Max 1 day reaction for every: full offer/quote for standardised service;
- Max 3 days for consulting service quote;
- Max 7 days for research service quote;
- Implementation of efficient client management procedure for enquiries (max 1 internal signpost rule, max 3 clicks to reach the information form the website);
- Systematic increase of selling of research and TT consulting services to tenants.

2016 as the transitional period was also the time of verification and validation of the strategy. Most of the planned activities were performed and targets reached. Number of clients is growing and it is a good perspective for the future. At the same time there are still areas for the improvement. Some of the initially foreseen indicators proved to be inappropriate and some actions needs different approach. 2017 as the first regular year of the strategy implementation will show if the overallobjective is achievable within time and resources foreseen. Adjustments still can be made as it comes to indicators but there is no way back from a path to more effective sales of services on the market.

Synergies of non-profit and business activities (projects vs commercial services)

As well as EU projects and commercial services are very important part of PSTP activities. However, at present, there is the moment of finding the appropriate balance between those two areas. This balance should be as well as cost effective and the comprehensive support service scheme to help entrepreneurs in becoming self-confident in their ability to engage in innovation projects.

A very important goal in the context of the strategy implementation and the mission of the PSTP is the combination of non-profit and commercial activities. In order to achieve the balance between those two areas key performance indicators must be defined by taking into account needs of the stakeholders, mission and vision of the Park. At the very beginning non-profit, strategically important and creating public value activities will be defined and regularly updated. The second action is criteria defining for the EU projects selection. These criteria will be linked to the strategic activities (first step) and at the same time, they will provide for the mail goals in Park strategy. The third step assumes the constant communication of the Park's activities and success stories to the key stakeholders group. It will be important for this action to identify the individual stakeholders' needs and most desired effects of the Park activities. Then the value proposition for each stakeholder (both internal as well as external ones) will be built. The next point will focus on enhancing customer relationship management in order to be more perceived as the professional, not only noncommercial or EU project oriented institution. It will be important as well as to acquire new customers through non-profit activities and encouraging commercial clients to use the non-profit services. The target group in this approach are mainly the Parks' tenants. To achieve the expected results, this action needs to be analyzed on a regular basis. The important tool of this action is CRM, that lets for monitoring of the process and effects of cooperation with customers.

Regarding the projects, PSTP deals with such areas as research, technology transfer, pre-incubation, incubation, public innovation support policy. PSTP having the status of a science entity (the only STP in Poland) implements research projects in the field of chemistry, aimed at, among others, patent applications or develop new technology. PSTP is also the beneficiary of the EU projects to support the development of relations between universities and business that is transfer of innovation and technologies at national and European level. Park employs specialists in IPR strategies, technology transfer, and research funding and project management. PSTP as the partner of Enterprise Europe Network and European research programs national contacts points helps the clients to participate in the process of knowledge commercialization and offers free incubation and technology transfer

services. Thanks to numerous training courses, young entrepreneurs have acquired skills needed to run their own businesses. The Park's seed fund is the other example of undertaking intended for those who conduct research in the field of chemistry, biotechnology and IT, have an idea and unique know-how. As part of the project, it offers a service that makes it possible to receive financial subsidiary and help from experts in order to support original and modern undertakings. By working on various projects PSTP may match international players, provide international expert support and prepare the companies to international expansion. On the other hand, PSTP's core business is research and IT services. The board of experts, who can use unique research equipment, is able to provide a technological solution improving the product or the manufacturing method for customers from various lines of business (food industry, cosmetics, chemical industry, etc.). Each solution is developed individually, in a close cooperation with the partner. Comprehensiveness of the service is ensured by specialized laboratories for chemical, biotechnological, process in supercritical CO2, photovoltaics and bioremediation work as well as the support for laboratories located at the Poznan Science and Technology Park (Chemical Technologies Incubator, Waste-Cluster research laboratory,

Poznan Radiocarbon Laboratory). As it was mentioned above the biggest challenge of the strategy is increasing the sales income of research and specialised services over the 5 years so that it makes 75% of overall PSTP income and ensures fulfilling of PSTP mission. In 2016, after one year of strategy implementation, research and specialised services make 63% of overall PSTP income. In PSTP case, such a funding mechanism is crucial as the Park needs to be financially self-sustainable (gain no support from the public budget).

Conclusion

Crisis periods, decreasing public sector support of STPs and new market challenges are creating a constant incentive for the STP managers to look for the new funding mechanisms and operational models. STPs are the institutions which offer the commercial services and on the other hand need to realize it's not always profitable mission. Without any doubts there should be some funding mechanisms provided by public authorities oriented on pre-incubation or incubation co-financing.

Parks are the parts of the innovation ecosystem that facilitate the local economy new innovation-led businesses and knowledge commercialization. By working with others they also strengthen the local innovation ecosystem, promote the culture of entrepreneurship in knowledge based sectors and stimulate greater numbers of higher added value employment opportunities. A science park also depends on a close relationship with a knowledge base partner; without such a link, it is difficult for the park to distinguish itself from an ordinary rental company. In many cases, such a kind of activities need the help of public sector funds to achieve the above outcomes. STPs which are the beneficiary of public support should be entrusted and proof their effectiveness. On the other hand Park should not rely on public money but develop the commercial offer to secure its sustainability.

PSTP by building new strategic plan decided to switch the mindsets from projects into professional services and, at the same time, keeping its mission and strong links to academia. It is also crucial for the mature STP to gather regularly the information about the clients, services' quality and socioeconomic outputs in order to improve its performance, adjust the activities to the market changes and provide the feedback to authorities responsible for public support of STPs.