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**INNOVATION ACTIVITIES IN LOCAL SELF-GOVERNMENT****Inovačné aktivity v miestnej samospráve****MAROŠ VALACH****MICHAL CIFRANIČ**

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**Annotation**

*The paper deals with the identification, analyses and evaluation of innovative environment and innovation activities of the district town Martin, which is located in the Žilina Region of the Slovak Republic. The objective was to analyse the innovation environment, identify implemented innovations and evaluate funding, as well as institutional context of innovations. Both, primary and secondary data have been used to process the analysis of innovation activities in selected local self-government. To gain primary data we have used the research method structured interview. The town Martin realizes the importance of innovations for increasing the effectiveness of the working process and quality of the provided services, therefore, it tries to create and implement innovations within its financial, personal and organizational capacities. Based on the research results, innovations aimed at providing new services and product innovations dominate within innovative activities. Identified innovations can be classified as incremental innovations.*

**Key words**

*innovations, innovation process, implementation of innovations*

**Anotácia**

*Cieľom príspevku je identifikovať, analyzovať a zhodnotiť inovačné prostredie a aktivity okresného mesta Martin, ktoré je lokalizované v Žilinskom kraji Slovenskej republiky. Dôraz bol kladený na zhodnotenie inovačného prostredia, identifikáciu implementovaných inovácií, zhodnotenie financovania inovácií, ako aj inštitucionálneho kontextu ich tvorby. Pre spracovanie analýzy inovačných aktivít vybraných miest boli použité primárne aj sekundárne údaje. Pri získavaní empirických údajov sme použili dopytovanie ako metódu priameho zberu údajov pomocou riadeného rozhovoru. Mesto Martin vníma dôležitosť inovácií a v snahe o zvyšovanie efektívnosti procesov prebiehajúcich na mestskom úrade a kvality poskytovaných služieb občanom, sa usiluje o zavádzanie inovácií v rámci svojich rozpočtových, personálnych a organizačných možností. Na základe výsledkov výskumu možno konštatovať, že medzi inovačnými aktivitami mesta Martin prevládajú inovácie zamerané na poskytovanie nových služieb. Identifikované inovácie môžeme zaradiť do skupiny inkrementálnych inovácií.*

**Kľúčové slová**

*inovácie, inovačný proces, implementácia inovácií*

**JEL classification:** O31, R50

**1. Introduction**

Innovation was considered as an important development factor already by significant Czech-Austrian economist Josef A. Schumpeter (Jiříček, 2014). According to Adámek et al. (2015) innovation theory has been shifted over time from the linear view on innovation (a straight line from science and technology to innovation) to a non-linear and more dynamic view. The latter requires taking into account interactions between a range of factors in the wider innovation system, such as entrepreneurship, diversity of ideas, cooperation, and marketing, design, attracting and developing human capital, governance and the organization of innovation.

Innovation is an essential element to generate sustained economic growth. But, we cannot speak of innovation without a high level of education (Mihaela, Titan, 2014). Innovation defines something like 'adds value'. In general, innovation is only regarded to have been occurred if it has been implemented or commercialised in some way. This means that innovative activity is not something that can occur separate from the university's core activities; rather it must involve the coordination of various inventive, learning and implementation skills (Hanáčková, Bumbalová, 2016). According to Smeureanu, Isaila (2011) the innovation process is decisive in knowledge society. This is explained by the fact that, this society is based on the knowledge management, new technological knowledge production and their dissemination through more efficient electronic means, including e-learning.

According to the OECD (2014), innovations can be differentiated, based on their character, into technical (innovation of products, services, technological and administrative innovations) and non-technical (marketing and organizational innovations). Based on the motif of origin, technology push and demand pull innovations can be recognized. Types of innovation, in terms of scale of changes, were defined by Mulgan, Albury (2003) as incremental, radical and transformational/system. Widrum (2003) classifies innovation in public services as conceptual, political, and systemic. Franková (2011) further distinguishes innovations according to their content and the degree of originality to imitating and original. Gassman, Enkel (2004) defines three types of open innovation process:

- Outside – in process – it increases the innovation capacity of an organization through integration of knowledge from the external environment with internal knowledge basis,
- Inside – out process – it increases usage of organization's capacity through transformation of internal knowledge towards the external stakeholders,
- Combined process – combination of the two previous processes, it is characterized by creation of lasting alliance with external partners.

According to Cheah (2016) each innovation process has to start with some specific and creative idea and end by its implementation. Individuals as well as teams are involved to the whole innovation process. The first step involves productive ideas for improvement of existing goods and services or by development of new products and services. These ideas are collected, evaluated, implemented and developed as well. Christensen et al. (2016) add to this issue that understanding of innovation process is a fundamental step in successful innovation management. This process includes basic features such as exploration, choice, implementation and learning.

People assume that creating new ideas is the beginning of the innovation process, but according to Clark et al. (2010) is not a correct and complete statement. Ideation occurs in the middle of the disciplined innovation process. He explains that ideas are indeed the seeds of innovation, but innovation is a core element of our organizations' strategy, so we have to start the innovation process itself with strategic thinking to assure that the outputs of innovation are fully aligned with our strategic intent.

In fact, there is a different approach in implementing of innovative practices in the private and public sectors (Jans et al., 2015), while the practice of the public sector is perceived less dynamically (Christensen et al., 2016). The reason for this may be the fact that the incentives for innovations in the public sector are rather the results of political and legislative efforts than the market forces and, moreover, their implementation is often accompanied by a lack of financial and personnel resources (Rusaw, 2007). By innovations in local self-government, we understand intentional changes that lead to new and better services, processes, or ways of organizing activities at all levels of the organization throughout the whole innovation process (Valach, 2014). In services, innovation is interpreted as a process in which organizations do something new, bring new processes to life, create new goods or services or introduce a new way of interorganizational relationships.

Staroňová et al. (2012) state that in case of the public sector, rather than defining innovation, it is more useful to focus on individual innovation attributes, which they define as follows:

- Change of status quo - innovation is referred to as the introduction of something new,
- Quality change - a change in the structure of an organization that is sustainable, new and large enough to change the nature and functioning of the organization,
- Intentional change - intention is a decisive feature, by which innovation differs from other changes.

The effective direction of the innovation process is based on three main assumptions: the existence of an institutional framework for the innovation process, the identification of prototypes of development systems and the existence of leading actors in the innovation process (Fichter, Clausen, 2013). According to Nijkamp, Siedschlag (2011), the strength of the innovation system depends on links to the whole system, on the government policy and on institutions that support innovation.

## 2. Aim, Methodology and Methods of Research

The aim of the paper, which has form of a case study, was to analyse and evaluate the innovative environment and innovation activities of the district town Martin, which is located in the Žilina Region of the Slovak Republic. Attention was also paid to factors influencing the emergence, promotion and success of innovations, key issues and barriers to the innovation process. Both, primary and secondary data have been used to process the analysis of innovative activities. We have used the method of structured interview to obtain empirical data. The aim of the interview was to obtain quantitative and, in particular, qualitative data and information that allowed us to identify and analyse the state and the level of implementation of innovation to increase efficiency, performance and quality of services provided by local self-government. The observation period was set at 8 years. Structured interviews took place in October 2018, with the superintendent of the municipal office and deputies of the municipal council. The main parts of the interview were focused on:

- Incentives for innovations and types of implemented innovations – for defining the innovation type, the classification stated in the Table 1 was used,
- Education and cooperation in the area of innovations – analysis of forms of education and types of cooperation with institutions in the innovation process;
- Financial resources for innovations – quantifying municipal expenditures spent on innovation and describing sources of funding;
- Institutional context of creation of innovations and transfer of knowledge – a description of entities playing an important role in the creation and implementation of innovation, a description of partnerships and networks with entities and universities within the region, a description of the institutions coordinating the flow of knowledge;
- Summary – defining the strengths and weaknesses of introducing innovation.

**Tab. 1: Classification of innovations**

Classification based on the origin of the initial idea	internal external
Classification based on the place of introduction	innovation at the Municipal office and its organizational units without legal personality innovations in the organizations established by the municipality innovative support of the municipality in the territory, according sectors
Classification based on the type of innovation	innovation of service innovation of process organizational (administrative) innovation conceptual innovation political innovation system innovation
Classification based on the frequency of occurrence	incremental innovation radical innovation system innovation (reforms)
Classification based on the level of novelty	imitating innovation original innovation

Source: Hanáčková, Bumbalová, 2016

## 3. Results and Discussion

Martin town is the administrative and economic centre of the Turiec region and is legally defined as a centre of the national culture of the Slovaks. This town is the seat of various organizations of state administration, cultural, financial and social institutions as well. Martin is an independent territorial self-governing and administrative unit of the Slovak Republic set up by Act No. 369/1990 Coll. about the municipal establishment.

### 3.1 Incentives for innovations and types of implemented innovations

The main incentive for innovation in the town Martin is above all the need to improve the quality of life of inhabitants. Further, it is the need to meet their growing demands, to increase the efficiency of employees, to make the work process at the municipal office more efficient, as well as the need for technological advancement and the need for self-governments to follow new trends, to introduce change and to innovate mainly through ICT with an emphasis on efficient management of public resources. Ideas for innovations come mostly from the internal environment, which means from the employees of the municipality. Town Martin has few examples of innovation

that arose thanks to its own ideas and vision. For example, Martin was the first town in Slovakia, which has its own virtual tour of the municipal office. Another example is mobile application, called Stafino, because this is also application, which Martin town introduced on the market, as the first in Slovakia.

When acquiring external stimuli for innovations, town Martin receives key incentives through training, Internet, informal contacts and peer relationships. Representatives of the town also use professional consulting from external companies and in many cases; the town uses its networks and organize an excursion directly into an inspiring environment. Various innovations that are being used in the town Martin inspired people and authorities abroad. For instance, multiscard was introduced in Martin thanks to the idea in Žilina region and SMS notifications about crisis occurrence, cultural events or weather were taken from Czech Republic, etc.

Innovations in services, process innovation and organizational innovation dominate in terms of types of innovation. The willingness and effort of municipal employees are important aspects in the process of transforming the idea into a concrete form. However, not all employees are seen as innovators. In some departments (e.g. registry, economics, etc.), whose competencies are mainly given by the state, the employees act more as administrators. Contrary, in areas such as environment, culture, transport, or investment development, employees are expected to bring new solutions and proposals.

### 3.2 Education and cooperation in the field of innovations

Education of municipal employees is a very important part in case of innovation. Education process has few steps and depends on the kind of project. This process includes many types of courses, trainings, various forms of preparation, studying and observation of another institutions in terms of innovation, etc. Cooperation with other municipalities and companies in case of innovation is also essential for town Martin. The importance and power of cooperation depends on specific project and could be used in many forms. Each project needs different form of cooperation, various people and organizations as support as well. Town Martin is trying to cooperate with every institution in the process of innovation. Quality of the informal relationships within the institutions in the region and outside of the region is also on the same level. Work performance and all kinds of relationships are based on ethical codex, which means that formal and informal relationships are equal and do not influence work in municipal office.

### 3.3 Financial resources for innovations

The town Martin does not have specific financial funding allocated for innovation every year. However, the town is able to allocate required amount of money for particular innovation, which is needed. In the following Table 2, we can see specific financial sources, which were used for creation and implementation of concrete innovation.

**Tab. 2: Financing of innovation**

Specific Innovation	Year of implementation	Financial Amount in €
SMS info channel	2010	17 309,00
Electronic guard of seniors	2011	17 000,00
Town card	2012	Free of charge
Non-traditional forms of education	2013, 2014, 2017	35 748,00
Bike trails	2012	1 041 737,00
Activities at the Registry office	2014	Ministry of Interior
Centre for City Legal Counselling	2015	Free of charge
Social informant	2015	2 860,00
Virtual municipal office tour	2015	950,00
Community centre	2016	245 312,31
Interactive panels	2017	89 492,61
<b>TOTAL</b>	8 years observed period	1 450 408,92

Source: own processing

From these data we can summarize that Martin town invested financial sources in amount of 1 450 408.92 euros to the area of innovation during our observed period.

### 3.4 Institutional context of innovation creation

In Turiec region exist a few developed partnerships and networks and Martin town is one part of it. For instance, many forms of civic associations, foreign partnerships with 8 towns or regional organization of tourism, etc. Martin town can boast stable relationship with universities in the region. One of the most frequent relationship is with

Comenius University, specifically Jessenius Medical Faculty, which is situated right in the centre of Martin. Municipal office supports students of this University in many forms, like subsidies, grants, courses, various discounts, different forms of research, etc. There are many foreign students studying at this Faculty, mainly from Norway, but also Czech Republic, Hungary, Poland. In Martin, there is no person or institution that coordinates the flow of knowledge and innovation in this region.

### 3.5 Summarization of strengths and weaknesses

Martin town considers all kinds of its innovation as strengths, for instance mobile applications, multiscard, messages notification about city's events, or instruction visual boards for visitors, virtual tour of the municipal office and many more. Other strengths in this town are: development of parking spaces for disabled people, high recycling level of municipal waste, standardized anti-corruption measures in many sectors and reconstruction of road communication. Among the weaknesses belong a lot of parameters, for instance lower level of financing sources for innovation, insufficient support of innovation in self-government or failure to meet targets within specified deadlines. The most crucial weakness of Martin town was receivership that caused suspending less important functions for the functioning of self-government and slowing down the process in many areas, and in the field of innovation and new projects as well.

### 3.6 The most important innovations implemented in town Martin

#### SMS info-channel

Since November 2010, town Martin has been informing its citizens about crises, meteorological warnings or other important events in the town by SMS info-channel. These info - notifications are used by more than 5 000 citizens. It is free service of this town, which is covered from municipal budget. This new and modern information system replaced obsolete way of informing citizens via broadcast and radio in the past. Citizens, who are using this free news service, are always informed about crises, in the case of flood threat, meteorological alert, road closures, but also information about meeting of elected representatives with citizens, specific events organized in Martin town or waste collection. Financial costs for this type of innovation are different each year. These costs are used for activities of info channel in form of annual fee for updating of software, regular monthly fees for administration and network management and payments for SMS messages which were sent to users. The financial costs in the last 4 years were:

- Year 2014 – 4 810 euros;
- Year 2015 – 5 068 euros;
- Year 2016 – 6 262 euros;
- Year 2017 – 1 169 euros.

#### Electronic guard of seniors

This innovation won a few prizes and IT awards, such as „Innovation of the Žilina region“ in 2011 or „IT project 2011“ and Martin town was the first self-government that put it into practice. It is communication and localization system for elderly people using modern telecommunication technologies for their help and emergency situation. Electronic guard of seniors is small mobile device with SIM card. Seniors can call an operator of the operating centre by pressing the button. Thanks to GPS technology, the device exactly knows where the senior is located. The advantage of this device was that it works not only in household but also in the exterior, which means that seniors can take it everywhere with them. Automatic alarm was another service connected with this device, in case of rapid change of seniors' position - fainting. This project of Martin town was created in cooperation with Orange - provider of mobile network, YMS Group - provider of yLocator and Falck Záchranná, which is the largest rescue service provider in Slovakia. Each of these companies provided their technology and services free of charge to this project.

#### Town card

This multifunctional card was introduced in 2012. It is card used primarily as a transport card for traveling in public transport. Apart from cheaper travelling, the card also offers more favourable purchases of goods and services in almost 140 facilities not only in the region of Turiec. This card is significant and useful mainly for its users, but on the other hand, it has a few benefits for entrepreneurs who enter this discount system, too. Examples of these advantages are as follows:

- Saving the costs in case of managing their own card system;
- Saving the costs in specific form of promotion and marketing tool;
- Free publication in the list of entrepreneurs who offer the discounts;
- Simple and single salutation for all cardholders in the form of e-mails;
- Acquisition of satisfied and favoured by discounts customers.

This card can be used for purchasing goods and services, in field of tourism, accommodation, gastronomy and even at sport, entertainment and free time activities. Financing of town card is based on the agreement about cooperation between Multicard, joint-stock company, Žilina and Martin's self-government. Innovation was introduced free of charge and monthly administrative fee is paid by users of this card.

### **Centre for City Legal Counselling**

Residents of Martin town have been able to use free legal and mediation services since 2015. Legal advice is provided by Martin's specialists from the legal services department and is focuses primarily on civil, administrative and social law. Basis of this legal service is in providing guidance or advice in case of solving individual's problems, but also information which institution is responsible for resolving their issues. In the case of serious issue, which has to be solved by the court, experts and professionals recommend clients to contact a lawyer or mediator who will provide competent legal assistance and help them with the documentation necessary for further action, such as proposals, suggestions, etc. The town does not provide service for processing of these documents or legal aid provided by lawyers. This service is focused only on free legal advice and information needed for solving citizens' issues and is provided every Wednesday for 2 hours.

Centre for City Legal Counselling is financed according to mutual agreement between Municipal office and mediator. Mediator provides mediation services free of charge for citizens in concrete day and on the other hand, Martin town provides office premises for free for a mediator. Legal counselling is provided by employees of Municipal office.

### **Social informant**

Social informant of Martin town provides complex information for citizens in social sphere. It is a communication channel which informs citizens about social services and social care provided in the town. Social informant was published in PDF form in 2015 where people can find many useful information in this field. It includes the list of social institutions, advice in case of any issues, contact information for the specific departments, possible social benefits for health and socially disadvantaged citizens, etc. It contains complex, actual and useful information without unnecessary waiting in the offices for each piece of advice.

### **Virtual municipal office tour**

Martin town is the first self-government in Slovakia, which has its own virtual municipal office tour. It was created in 2015 thanks to the collection of many pictures from Municipal Office. This virtual tour provides view and outlook for everybody who is interested in how this office looks like. It brings people better and easier orientation in this 6-storey building with more than 10 departments. This building is also the seat of the District Office; therefore, virtual tour is so useful and necessary for its inhabitants but foreigners as well.

### **Interactive panels**

From the innovation classification point of view we can include this type of innovation to the product innovation. Basis of this innovation are interactive panels localized at the National Cemetery in Martin town. The main objective of this innovation is promoting and propagation of the National and Cultural Heritage - The National Cemetery in this town. Providing information about individual objects with monumental nature in area of this cemetery thanks to modern, information, interactive and communication technologies. Interactive panels were officially put into operation in November, 2017. This innovation and all processes are co-financed by additional sources of Ministry of Culture and Ministry of finance of Slovakia. The amount of the costs of this innovation consists of the following items:

- Costs for creating a database of the text and graphical information;
- Costs for creating a website with presentation of the National Cemetery, including interaction with a map;
- Costs for creating a mobile application (in the future);
- Costs for creating a QR codes including installation (in the future);
- Costs for purchasing electronic panels including internet connections;
- Costs for construction of furniture – benches and waste bin;
- Operating costs - electric energy, internet, technical and service support of website, webhosting, application updates, updating of the editorial system, data backup, maintenance and repair of technical facilities, camera and protection system.

In the following Table 3 we can see specific items and concrete financial amounts of this innovation in the National Cemetery in Martin town.

**Tab. 3: Financing of interactive panels**

Item name	Amount in euros
3 informational panels	49 826,00
Construction works and connections	25 984,81
Projects (software and hardware)	6 216,00
Protected web browser for content management - sites, screensavers, operating mode settings, etc.	1 850,00
Furniture (2 benches and waste bin including installation of equipment)	1 228,80
Creation of website (www.narodnycintorin.com)	2 390,00
Technical and service support of website, webhosting, data backup, updating of the editorial system (for 1 year period)	447,00
Processing of a digital map of the National Cemetery for website use and an information panel	1 400,00
Creation of graphical files for screen savers on the information boards	150,00
Total costs	89 492,61

Source: Internal document of Martin town, own processing

Additional monthly costs for operation of interactive panels are financed from municipal budget of Martin town. These costs include care and treatment of graves, protection and camera system performed by municipal police and updating of information performed by municipal employees as well.

## Conclusion

Nowadays, the importance of innovation is on extremely high level. Innovation has the power for improvement of processes in many scientific disciplines. Innovations are seen as an important issue not only in the private sector, but also in the public sphere. Self-governments are aware of the importance of innovation and in order to increase the efficiency of the work process and the quality of the services, they seek to create and implement innovations within their financial and personal capacities.

The main incentive for innovation in the town Martin is to improve the quality of life of inhabitants. Further, it is the need to increase the efficiency of employees, to make the work process at the municipal office more efficient, as well as the need for technological advancement. Ideas for innovations come mostly from the internal environment, which means from the employees of the municipality. Representatives of the town also use professional consulting from external companies and in many cases; the town uses its networks. Martin town does not have specific financial funding allocated for innovation directly in the budget. However, the town is able to allocate required amount of money for particular innovation, which is needed.

Innovations in services, process innovation and organizational innovation dominate in terms of types of innovation. When implementing innovations, municipalities have to also cope with problems and shortcomings. Not all employees are innovators and want to bring something new to the municipality or to change the work processes.

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