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Content

EXECUTIVE SUMMARY

The city of Kielce has been observing global trends for several years and is aiming for an integrated city model. It realizes that in order to successfully implement the idea of a smart city, Kielce must change its model of functioning from traditional to integrated.

In the program documents, i.e. "Vision of the City of Kielce as an Intelligent City", the City Office understands this idea as a city, sustainable, intelligent, innovative, which uses the achievements of science, including information and communication technologies (ICT) and other methods to improve the quality of life inhabitants, increase the efficiency of management and provision of services and increase competitiveness, while focusing on the needs of present and future generations while respecting highly valued economic, social and environmental values. To effectively move from a traditional to a smart model, the city has taken steps that are supposed to lead to the assumed goal step by step and, in addition to the preparation of the "Smart City Kielce 2030+ Framework Strategy", implement an effective range of solutions in the city to improve the quality of life.

The Kielce Technology Park being the budgetary unit of the city performs activities consistent with the planned activities of the authorities. It is an element of the ecosystem, it supports in the field of economic development and innovation.

As part of the UrbanInno project, it promotes the idea of a smart city, consistent with the city's vision, based on documents prepared by the City of Kielce, actively participating in the sessions, workshops and consultations, and preparing projects and projects that fit the path adopted by the city authorities in this regard.

Photo: Kielce Technology Park area

BACKGROUND – OVERVIEW OF THE URBAN ECOSYSTEM

1 Characteristics of the urban innovation ecosystems – regional background

Kielce City is the capital of the Swietokrzyskie Region based in South-East Poland, which is one of sixteen Polish Regions, therefore Kielce is one of sixteen regional capital cities in the country. With the population of 198 046 inhabitants (as of 31.12.2015) Kielce City is the 17th most populated city in Poland. Women are a slightly bigger part of the city's population[1]. They exceed men by around 12 000. The population density of Kielce City is 1 806 people per sq km. The population's natural increase is negative and amounts to -1,7. Total net migration is also negative and sums up to -3,3.

Kielce City and the Swietokrzyskie Region as a whole are both part of Eastern Poland NUTS 1 Region – one of six NUTS 1 regions in Poland. By itself the whole Swietokrzyskie Region is a NUTS 2 and Kielce City is a NUTS 3 Territorial Unit. Overall area covered by the city sums up to around 109,65 km[2].

Regarding the water and sewage management infrastructure - around 95,9% of households in Kielce City have direct access to water supply system and 90,5% to sewage system. Transport infrastructure is on a relevantly low level in comparison to other big Polish cities. Kielce City and the whole Swietokrzyskie Region have low to average accessibility of external transport. There is no relevant airport and no highway coming through Kielce City Region. In the close proximity there are only two roads qualified as Expressways (S7 and S74). Regarding municipal roads in the City – 41% of them are hard surface roads, 38% improved hard surface roads and 21% are dirt roads. When it comes to county roads – 49% are hard surface, 49% are improved hard surface and only 2% are dirt roads[2].

The main way of transport for the majority of population in the Region is by car. Around 448 cars are registered in Kielce for every 1000 inhabitants. Public transport is also widespread in Kielce City. The city is well connected by railway lines with both - major city agglomerations as well as other municipalities in the Region. Public road transport is covered mainly by 351 passenger transport concessions, of which 230 are internal and 121 are connecting the Region with outer cities (concessions granted, data from 2013). The 351 concessions are concentrated in 62 collective communication lines[3].

Currently, the main sectors of economy in Kielce are construction, production of building materials, electro mechanics, as well as food and processing. To help in the development of regional strengths

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[1] *'Women in swietokrzyskie region'*, publication of General Statistical Office of Poland, http://kielce.stat.gov.pl/publikacje-i-foldery/foldery/kobiety-w-wojewodztwie-swietokrzyskim,4,1.html (accessed 02.12.2016).

[2] *The strategy of Integrated Territorial Investment Kielce Functional Area for 2014-2020*, Kielce City Hall elaboration from 2016; http://um.kielce.pl/strategia-zit-kof/ (accessed 02.12.2016).

[3] Ibidem.

and assets and to efficiently support the implementation of new important sectors, seven key areas in the Region's economy were identified by local authorities. Those fields are of major importance to local development, therefore they are priority areas. Those particular areas are called smart specializations and they are: Metal & foundry industry; Modern agriculture and food processing; Resource efficient construction; Health and health prevention tourism; Information and communication technologies; Trade fair and congress industry; Sustainable energy development. Apart of that, Kielce City has one of the biggest technology parks as well as the second largest trade fair and congress centre in Poland that host one of the biggest military defence fairs in Europe.

Among the main challenges that Kielce City is facing, there are few that are of major importance. First of them is the need of increasing the outer transport accessibility and unification of internal public transport availability. The next challenge is lack of coherent road infrastructure and not enough amount of cycle paths as well as inefficient adaptation of infrastructure for people with vision disabilities. Kielce City also needs to address the problem of insufficient punctuality and reliability of public communication services as well as unsatisfactory condition of public transport, however that is improving on a year to year basis. The major problem that has been identified in the last few years is constant population outflow from the city to suburbs and other municipalities. That are the priority challenge areas that Kielce City will have to address in the following few years.

2   Socio-economic analysis of the urban innovation ecosystem

Main branches of economy in Kielce City are construction, production of building materials, electro mechanics, as well as food industry and processing. Whole region has centuries lasting traditions associated with extraction of building materials. Various important companies from sectors mentioned above have their headquarters in Kielce City. If we consider whole Poland – main sector divisions in economy are: services (64%), industry and construction (31,1%) and agriculture, forestry and fisheries (4,9%).

Kielce City's income per capita was 5.295 PLN and expenditure was 5.557 PLN (data from 2014). Overall income was 1.056,2 mln PLN and expenditure 1.108,4 mln PLN in 2014. Around 26,5% of City's expenditures was transferred to Education and learning and that was the biggest cumulative position in the budget. Second was Social Care and other tasks in the area of social policy with 20,5%. Third biggest was Transport and communication (20,3%). All other positions were smaller than 6%. There were 2.329 economic entities per every 10 000 inhabitants registered in National Official Register of Economic Entities (REGON), as of 2014. The biggest group among those entities was Trade and repair of motor vehicles sector (8470 overall). Most of them were micro companies[4].

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4   Data from Statistical Office in Kielce, Elaboration titled: *'Entities of the national economy in the regon register in świętokrzyskie Region'*, February 2016, Statistical Office in Kielce; http://kielce.stat.gov.pl/opracowania-biezace/opracowania-sygnalne/ (accessed 05.12.2016).

Approximately 15,5% of city's overall population (around 198 000 people) is in pre-working age, 61,9% is in working age and 22,5% is post—working age. There are around 62 non-working people per every 100 employed. There were 73.225 employed and 10.514 registered unemployed inhabitants as of 2014. 46,1% of registered unemployed were women (37.173). 43,2% remained unemployed over 1 year. Registered unemployment rate in Kielce City is around 10,1%. That is above the average value in whole Poland (8,2% as of 10.2016) and above that indicator for the whole European Union (9,4% in 2015). According to data from 2014 about 9,9% of all registered unemployed are young people below 25th year of age (1045). There were 2.974 registered unemployed between 25th and 34th year of age; 2.427 between 35th and 44th year of age; 2.145 between 45th and 54th year of age and 1.923 above 55th year of age. Around 24,3% of unemployed were after tertiary education; 24,4% were after vocational education; 10,7% were after secondary education; 22,4% were after basic vocational education and 18,2% with less that secondary education level completed. 1.634 of registered unemployed were without any previous work experience. Around 49% of employees in the Region were employed in services sector, 28% in industry and 22% in agro food sector. The same statistics for the whole country were 58% in services, 30,5% in industry and 11,5% in agro food[5].

Average gross salary in Kielce City was 3.669,64 PLN as of 2014. That particular indicator for Poland as a whole amounts to 4.019,00 PLN, therefore average salaries in Kielce City are below average salaries measured in whole country[6]. If you put that statistic into perspective of average income in the EU the difference becomes even more visible.

Kielce City is located in the central part of the country, relevantly near to big city agglomerations like Cracow, Warsaw and Lodz. The main characteristic of the City is the surrounding of Swietokrzyskie Mountains. The whole Swietokrzyskie Region produces 2,4% of national GDP which is unfortunately below 1/16th. GDP measured per capita in Swietokrzyskie Region was 32.640 PLN in 2014, opposed to 44.686 PLN average for whole Poland. That particular indicator places Swietokrzyskie Region in 12 position out of 16 countrywide[7]. If you consider average GDP per capita of whole EU (which in 2015 was 28.700 EUR) that puts it into even more negative perspective as it is four times bigger.

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[5] Data from Statistical Office in Kielce, Elaboration titled: *'Communication on the socio-economic Świętokrzyskie region - November 2016'*, Statistical Office in Kielce; December 2016; http://kielce.stat.gov.pl/opracowania-biezace/komunikaty-i-biuletyny/inne-opracowania/komunikat-o-sytuacji-spoleczno-gospodarczej-wojewodztwa-swietokrzyskiego-listopad-2016,2,59.html (accessed 05.12.2016).

[6] Ibidem.

[7] Data from Statistical Office in Kielce, Elaboration titled: *'Communication on the socio-economic Świętokrzyskie region - November 2016'*, Statistical Office in Kielce; December 2016; http://kielce.stat.gov.pl/opracowania-biezace/komunikaty-i-biuletyny/inne-opracowania/komunikat-o-sytuacji-spoleczno-gospodarczej-wojewodztwa-swietokrzyskiego-listopad-2016,2,59.html (accessed 06.12.2016).

Main competitive advantages of the Region are: two national universities – Politechnika Swietokrzyska and Jan Kochanowski University, in which the Health Science Department has the highest category granted by Polish Science and Higher Education Ministry. Second advantage is the location of Kielce City in Swietokrzyskie Mountains. That fact provides a good basis for rapid development of the Tourist sector. Kielce City also has a strong construction materials sector.

Among the most important and the biggest enterprises registered and managed from Kielce City few are worth highlighting: Kolporter Sp. z o.o., Rovese S.A., Barlinek S.A., Echo Investment S.A., NSK Bearings Polska S.A. and Vive Group.

- **Kolporter Sp. z o.o.** is a trade company that specializes in press distribution. That particular company is the biggest newspaper distributor in Poland. It offers support for retail outlets and sales network as well as provision of logistic services and advertising. Apart of the press distribution, the company has built the largest network of terminals to sell prepaid top-ups in Poland, located in its retail stores. Terminals also execute payments and electronic services. Around 1.100 people were employed in Kolporter Sp. z o.o. at the end of 2015. Company's income that year was around 2,3 bn PLN, with 30,1 mln PLN net profit. Kolporter Sp. z o.o. is directly connected to Infover Sp. z o.o. – IT company that was a spin-off originated in Kolporter Sp. z o.o. IT department[8].

- **Rovese S.A.** is a Capital Group which consists of eight companies. It is one of the leading manufacturing companies with Polish capital on the European market. Core business of the Group is the production and distribution of products used to finish and equip bathrooms (ceramic tiles, sanitary ware, bathroom furniture, bathtubs, frames and flush valves). Rovese Group operates on the Polish and foreign markets. The main direction of foreign sales are the countries of Eastern Europe (Russia, Ukraine) and the European Union (Lithuania, Latvia, Estonia, Czech Republic, Slovakia, Hungary, Romania, Bulgaria, Germany, France, Great Britain, Ireland, Sweden, Denmark). Rovese Group also reaches with its offer to the markets of Middle East, Central Asia and North Africa. At the end of 2015 all companies gathered in Rovese Group employed 7.364 people. Company's income that year was around 1,7 bn PLN. Unfortunatelly the company reported 226 mln PLN net loss for the 2015, which was mainly caused by the cost of new investments[9].

- **Barlinek S.A.** is one of the world's leading manufacturers of layered wood floors, with potential production of 9m sq m per annum. The group also produces certified flooring for sporting facilities, skirting boards and wood bio fuels known for their high quality —wood pellet and

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[8] *Kolporter Sp. z o.o. webpage,* http://www.kolporter.com.pl/ (accessed 08.12.2016).

[9] *Rovese S.A. webpage,* http://www.rovese.com/ (accessed 13.12.2016).

fireplace briquette. Company's income that year was around 751,2 mln PLN, with 56,9 mln PLN net profit. At the end of 2015 company employed 2.450 people[10].

- **Echo Investment S.A.** is one of the largest Polish development companies which realizes construction projects in the office, retail and residential sectors. Around 200 people were employed in Echo Investment Group at the end of 2015. Company's income that year was around 586 mln PLN, with 514 mln PLN net profit[11].

- **NSK Bearings Polska S.A.** is one of the world's leading manufacturers of bearings, linear technology and steering systems. NSK is the operator of NSK Europe's largest plant, based in Kielce. The plant's main field of work is manufacturing ball bearings. Company's income in 2015 was around 581,2 mln PLN, with 11,5 mln PLN net profit. At the end of 2015 company employed 1.560 people[12].

- **Vive Group** is comprised of five companies.The main and the oldest company of the Group is Vive Textile Recycling which specializes in acquisition, sorting, retail and wholesale trade of the finished sorted product and the raw materials used in making industrial wipers. Apart of that the Group has companies that specialize in real estate management, high capacity transport operations, retail chain of large second hand clothes outlets, optimizing costs in the running of businesses. 1.003 people were employed in Vive Group at the end of 2015. Company's income that year was around 304,3 mln PLN, with 3,6 mln PLN net profit[13].

Two of the main and most important higher education institutions based in Kielce City are Jan Kochanowski University and Kielce University of Technology. Both of those institutions are public.

Social- economic analisys of the Kielce city was conducted by Kielce City Hall and detailed information are uploaded on the website: https://idea.kielce.eu/smartcity/smart-city_droga.html .

3   Summary of the current situation and major challenges

The city of Kielce has been realizing the idea of Smart City - a sustainable intelligent city for several years, but it is the beginning of a road that must be delineated based on a long-term vision worked out together with residents, a common dream of a city in the future but collided with possibilities and objective conditions to find long-term solutions and the use of opportunities for modern technologies.

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[10]   *Barlinek S.A. webpage* http://www.barlinek.com.pl/pl/ (accessed 13.12.2016).

[11]   *Echo Investment S.A. webpage* http://www.echo.com.pl/ (accessed 14.12.2016).

[12]   *NSK Polska Sp. z o.o. webpage* http://www.nskeurope.pl/ (accessed 14.12.2016).

[13]   *VIVE Textile Recycling Sp. z o.o. webpage* http://www.vivetextilerecycling.pl/ (accessed 15.12.2016).

There is now a need to focus activities for the development of an intelligent city through development of Strategy Smart City 2030+, based on a shared vision of innovative development of Kielce. Through its co-creation with the city's community, social potential can be created that activates joint inspirations and implementation activities for improving the quality of life in the city.

For each of the thematic areas of smart city Kielce, a SWOT analysis was carried out. It was included in the document called Comprehensive diagnosis of the city of Kielce in terms of transformation into a smart city (Smart Factor)

Based on the SWOT analysis carried out by the city, the following picture of the current situation in particular areas is presented, a few selected from each area were selected.

Photo: Investment area of Kielce Technology Park

S	Digital City	Digital City	W
	▪ Obtaining Platinum Certificate ISO37120 - "Sustainable development of communities - Indicators of urban services and quality of life", which confirms the significant availability of data sets, documentation and monitoring of activities and the ability to integrate data. ▪ From 2008, Kielce City Hall meets the requirements of PN-EN ISO 9001: 2015, PN-ISO / IEC 27001: 2014 and Requirements of the Corruption Prevention System in the scope of integrated management ▪ Functioning of the Department of Management Systems and IT Services, which carries out key tasks from the point of view of integrated management and the use of modern technologies and has the potential to act as an integrator of strategic management with digital technologies. ▪ Operation of the organizational unit at the Kielce City Hall, the purpose of which is to coordinate the implementation of the Smart City idea in Kielce, ie the Office for Intelligent Management of Sustainable Development. The office has key competences in the implementation of the Smart City idea.	▪ Outdated City Information Strategy (year of development 2017) ▪ Lack of an open, service-oriented, all-city IT architecture. ▪ IT systems and data analytics are used to a limited extent to optimize infrastructure management (eg road). Individual cases of data usage to seal the local fees system (regarding the property tax system). Lack of use of data analytics to seal charges for attachment of the belt (advertising, road lane activities). ▪ No open data portal, including real-time data sharing via the API.	
S	Society	Society	W
	▪ A high degree of identification with the city of permanent / indigenous people, as well as those who are newcomers at various stages of their lives. ▪ Residents of the city, being arrivals from other regions of Poland, have smaller mental prejudices and higher trust in the community activities with others. ▪ Interesting, fresh perspective and greater involvement in the affairs of the city of immigrant residents, bringing with them other experiences, from other regions of the country (greater independence and courage in action). ▪ Lack of anonymity as a value expressed in personalized relations and readiness to provide help / services, which manifests itself in the homely, friendly, mutual social relations resulting from the scale of the city (relational capital)	▪ Identification with the city more rarely concerns the city as a whole - it is more often focused on the closest surroundings (housing estate, street). Wages in the city and recruitment for vacancies, especially in local and government administration, are a barrier to full identification. ▪ Bad habits and habits, and mental barriers historically shaped in the consciousness of the permanent residents of the city and the region, weakening the possibilities of effective action in the group. ▪ Schematic perception of the city by indigenous people, generating passive attitudes and claiming attitudes.	

S			W.
	Environment and spatial order	**Environment and spatial order**	
	▪ The Kielce development vision takes into account the location of a special emphasis on the natural environment and the natural and cultural landscape of the city.	▪ Sub-optimal use of available data resources and analytical tools in the spatial planning and environmental management process.	
	▪ The technologically advanced and consistently expanded MSIP, which is being built as a sustainable city development management system.	▪ Lack of faith in the city's success in improving the spatial development and environmental conditions of the city.	
	▪ The readiness of the inhabitants to participate in deciding about the city	▪ Insufficient preparation and conviction of all stakeholders about the need to integrate activities focused around Smart City Kielce 2030+.	
	▪ Functioning in the city that fits in with the Smart City idea in the area of environment and spatial order (Idea Kielce, Municipal Spatial Information System, projects in the field of ecological education, implemented plans and environmental programs, eg. Low Emission Reduction Program).		
S	**Economy and innovation**	**Economy and innovation**	W.
	▪ There are public and private universities in the city.	▪ Non-adjustment of the educational offer to the needs of the labor market - lack of staff	
	▪ The high position of Targi Kielce on the national and international arena.	▪ Insufficient offer of high-quality educational, vocational and business guidance, including world-class mentoring, which would help young companies in the process of product and service development.	
	▪ The business environment in the city, for example Kielecki Park Technologiczny, Świętokrzyskie Centrum Innowacji i Transferu Technologii Sp. z oo, etc.	▪ Dispersion of institutions supporting investors and residents who wanted to start a business, which reduces their efficiency. Insufficient communication and cooperation of business environment institutions. Lack of institutional support for innovation brokers.	
	▪ Experience of some of the city's organizational units related to the development and implementation of projects and initiatives that fit into the area of innovation (Urbanlnno, DiFens, Cetralab).	▪ Excessive websites and information portals of business environment institutions in place of integrated and easily accessible information.	
	▪ Initiatives are created aimed at education in the field of programming (including schools and the Kielce Technology Park).	▪ Migration of young people and specialists, people with rich professional experience.	
S	**Security**	**Security**	W
	▪ There is a District Crisis Management Plan, which is comprehensive and good implementation of related risk prevention procedures	▪ Low level of communication, cooperation and coordination of activities between Departments, municipal organizational units and services responsible for security.	
	▪ Existing city monitoring system and public transport	▪ The initial stage of measuring management effectiveness in an inter-faculty approach. For now, only the	
	▪ Coordinating systems and data collection between Kielce city units are implemented		

		Development Strategy is constantly monitored with context indicators, result indicators, etc.	
		▪ Inadequate consideration of safety issues in the spatial planning process (eg allowing localization of settlements near industrial plants where hazardous substances are used that do not meet the road safety standards)	
S	**Transport** ▪ A constantly modernized fleet of buses (low-emission buses, hybrid buses), ▪ New stop infrastructure (sheds, platforms, information boards of variable content) improving the comfort of using public transport ▪ The development of bus-belts and network minidworców. financial support for the implementation of ITS.	**Transport** ▪ Occurrence of bottlenecks and missing links in the road network ▪ A high degree of wear of transport infrastructure, including roads and pavements. Insufficient adaptation of the infrastructure to disabled people and prams ▪ Lack of modern record of the road lane and inventory of the road lane developed with the use of photo-scanning methods.	**W**
S	**Municipal infrastructure and energy efficiency** ▪ It is ensured that the city is supplied with electricity, heat and gas fuels ▪ A plan is prepared to supply Kielce with heat in the event of a breakdown (minimum heat supply plan) ▪ MPEC has implemented a telemetry and remote reading system for heat meters and water meters, thermal node automation and weather automation ▪ A good waste management management system - automated and managed electronically	**Municipal infrastructure and energy efficiency** ▪ Lack of a common, long-term smart city strategy in the field of municipal and energy infrastructure ▪ Lack of cooperation between communal units and lack of joint investments in the implementation of the closed-circuit economy assumptions ▪ The lack of a superior unit managing the cooperation of municipal enterprises ▪ Lack of cooperation with the business sector and lack of public-private partnerships in the field of municipal infrastructure and energy ▪ Public-private in the field of municipal infrastructure and energy	**W**

Source: Comprehensive diagnosis of the city of Kielce in terms of transformation into a smart city

For individual thematic areas, an expert assessment of the city was carried out in accordance with the methodology of the "Smart Cities Maturnity Model". This method allows classifying the city (as a whole) and individual areas of its functioning (Society, Environment and spatial order, Economy and innovation, Security, Infrastructure and transport, Digital Kielce) on a scale of five levels from the lowest based on a silo approach to the highest optimized and effective activities under integrated systems and data. **The assessment of particular thematic areas of the city of Kielce was between levels 2 and 3, which means that the basic activities have already been undertaken, and the current initiatives are aimed at improving data exchange and stimulating cooperation between stakeholders and integrating both organizational and systems and data activities at the tool level.**

ACTION PLAN

4 Mission statement and objectives[14]

The vision of Kielce as a sustainable city 2030+ is a desirable image the future of a city operating in accordance with the idea of smart cities, ie a city that uses science achievements, including information and communication technologies (ICT) and other methods in order to improve the quality of life of residents, increase the efficiency of management and the provision of services and increased competitiveness, while focusing on the needs of present and future generations while respecting highly valued values economic, social and environmental.

4.1 Overarching mission statement and objective(s) for the UICN

Source: Vision of Kielce as an intelligent city, Smart Factory, 2018

The vision of Kielce Smart City 2030+ was worked out during the workshops focus groups with representatives of the City of Kielce, municipal units organizational, municipal companies, external institutions - Municipal Headquarters Police, Municipal Headquarters of the Fire Brigade, universities and organizations local governments and entrepreneurs as well as during workshops with residents.

In the process of formulating the vision, the proposals of residents and city representatives reported during online surveys. The vision presented in this document was developed with reference to seven thematic areas:

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[14] Wizja miasta Kielce jako miasta inteligentnego, Smart Factory, 2018

- Digital City
- Society
- Environment and spatial order
- Economy and innovation
- Security
- Infrastructure and Transport, wherein Y due to the broad s Tick is divided into n sub-areas and:
- Transport
- Infrastructure and utilities and energy

4.2   Strategic and operational objectives

In the work process, the identified priorities are thematic areas that require specific expenditure and development. Within each of them, a number of activities are planned to bring the City of Kielce closer to achieving the goal of creating an integrated intelligent city.

Individual features of the thematic areas and comprehensive visions of the smart city for each of them are presented below.

Digital City

Digital technologies and competencies are the foundation of the Kielce Smart City 2030+ operation. They are a key infrastructure supporting the functioning of the city, but they are also fulfilling an important role in stimulating social engagement, innovation and development. City of Kielce together with residents, non-governmental organizations, universities higher, research and development units, enterprises and institutions business environment co-create a digital ecosystem that enables:

- the use of digital technologies to provide high quality services for residents and other city users,
- increase of digital competence of city residents and elimination of exclusion digital,
- development and modernization of enterprises, in particular through the use of new business models and digital technologies.

The city of Kielce focuses its resources and efforts on three main priorities:

- Providing high quality public digital services and involving residents,
- Effectiveness of city management,
- Efficiency and optimization of the work of city administration.

Society

Kielce Smart City 2030+ is a modern and friendly place to live, which is constantly improving their services to meet the growing needs of their residents. It's open to creativity and residents' initiatives. Conscious and constantly developing inhabitants they constitute the largest development potential of the city.

The main priorities of the city are:

- Supporting social involvement and civic life, developing culture cooperation and advantageous sharing (some goods, spaces, etc.),
- Ensuring well-functioning social communication,
- Social innovation.

Environment and spatial order

The city of Kielce is a model of innovation in the field of space management and shaping and environmental protection. Residents and entrepreneurs, thanks used digital technologies, they are real co-hosts of the city and they feel responsible for the space and the environment, and also actively they use their digital competencies in a conscious and responsible way co-deciding about the quality of the urban environment.

The city of Kielce focuses on:

- Creation and implementation using digital technologies,
- Permanent modern and effective education of residents in the field,
- co-responsibility for spatial order and environmental quality,
- Effective management of natural resources with due respect non-renewable resources and biodiversity,
- Online information on the state of the urban environment.

Economy and innovation

The city of Kielce is leading in the region in terms of industrial and innovative and business. It concentrates its resources and efforts on the four main priorities that allow it consistently to implement the strategy and adopted action plan:

- Access and exchange of information,
- Professionalisation of the education system for the needs of the labor market,
- Creating attractive offers and jobs,
- Social entrepreneurship.

Security

Modern technologies and existing and actively developed digital competences are the foundation of the Kielce Smart City 2030+ operation in the security dimension. They allow for integration of the risk prevention system, better allocation of funds, coordination of activities and a significant increase in the level of Kielce security. The City of Kielce together with residents, non-governmental organizations, universities, research and development units, enterprises and business environment institutions co-create a digital ecosystem that enables:

• using digital technologies to build a network to protect residents, infrastructure, local industry and education and cultural institutions and companies against a variety of threats,
• increase of digital competence of city residents and elimination of digital exclusion.

The Kielce city in the area of security focuses its resources and efforts on three main priorities:

• The provision of high quality public services in order to build a safe environment to live, work, education,
• Effectiveness of city management in order to ensure the highest possible level of security in its area at the lowest possible costs,
• Efficiency and optimization of the city administration work in order to ensure the highest possible level of security in its area at the lowest possible costs.

Transport

Smart City Kielce 2030+ effectively uses transport infrastructure. Functional infrastructure and transport, without impediments and barriers, also for people with disabilities, constitute the economic and social development of the city. System transport, both in the planning, management and operational layers, is subjected to a continuous monitoring and optimization process, is friendly to pedestrians and disabled. The city of Kielce, thanks to its activities, through a number of implementations, has achieved the development in the field of infrastructure and transport characterized by the following features:

• safe, convenient road infrastructure that creates a coherent urban network, through which it is easy to implement transport policy (accessibility),
• integrated, safe and low-emission transport system (urban and suburban public transport , bicycle, pedestrian communication) throughout Kielce Functional Area,
• intelligent transport system: transport management, improvement of safety, mobile management and control capabilities,
• availability of infrastructure using information and communication technologies,
• city's accessibility to / from the outside world,
• accessibility of transport infrastructure for disabled people and families with children.

Municipal infrastructure

Municipal and energy infrastructure in the City of Kielce Smart City 2030+ is modern, highly developed and well-managed. This creates opportunities for the economic and social development of Kielce and other municipalities belonging to the Kielecki Functional Area. Municipal services are adapted to the needs of entrepreneurs, industrial plants and residents from various age groups. Thanks to the use of intelligent technologies in municipal and energy infrastructure, the recipients have the ability to control and manage the consumption of energy, water and the amount of waste generated. Intelligent municipal infrastructure translates so for a smart society.

The city of Kielce together with the municipalities belonging to the Kielce Functional Area thanks to well organized and managed cooperation with residents, universities, research and development units, enterprises, non-governmental organizations and business environment institutions co-create a municipal ecosystem that allows:

- use of the city's local resources and potential in the field of water and energy supply, waste treatment and wastewater treatment;
- providing cheap heat and electricity to residents, partly from local generation sources (including renewable energy sources);
- running a closed-circuit economy that does not adversely affect the environment;
- continuous development of implemented smart technologies for municipal and energy infrastructure;
- achieving high energy efficiency in residential and public buildings;
- provision of municipal services tailored to the needs of individual groups of residents;
- increase in inhabitants' activity and taking actions contributing to reduction of energy and water consumption as well as generation of waste.

5   Major initiatives and projects to be implemented

All major initiatives and projects are included as recommendations for the implementation of the City of Kielce Vision as an intelligent city. They are developed during workshops and consultations in the work on the Vision and are included in the recommendations. They have been developed from the bottom up by the residents, businessmen, office workers, academics and NGO consultations concerning each obszaru theme. Detailed descriptions of the characteristics of individual thematic areas as well as an analysis of strengths and weaknesses can be found in the document entitled Vision of the City of Kielce as an Intelligent City.

5.1 Strategic area 1 – Digital City - Planned actions and key projects

Kielce Digital City

5.1.1 Providing high quality public digital services and involving residents

- Municipal Contact Center (enabling full information to be obtained by the Municipal Office and municipal units, reporting problems that should be found in municipal services using various access channels, eg portal, mobile applications, social media);
- E-office (a common interdisciplinary system of public e-services enabling full settlement of matters by electronic means, including the implementation of payments using CRM, individual accounts of residents using various access channels, eg portal, mobile applications);
- Idea Kielce, which is part of the Smart City Platform, which will provide the highest quality e-services for social participation (a city-wide system for social consultations, collecting opinions and ideas of residents, serving civic budgets, eg a portal, mobile applications);
- Open Data Portal (a system providing accessible urban data resources using open standards);
- Geoportal Smart City .

5.1.2 Effectiveness of city management

- Strategy management system, programs and processes;
- Asset Management System (urban infrastructure management system);
- Smart City platform based on the Municipal Spatial Information System (a system used to collect, analyze, visualize and share spatial data);
- System supporting the cooperation ecosystem. City - Universities - Entrepreneurs (communication and analytical system supporting cooperation and analysis of the labor market and education);
- Bussiness Inteligence (analytical system for the needs of city performance management).

5.1.3 Efficiency and optimization of the work of city administration

- Municipal Knowledge Management System (eg within the official wiki, e-learning systems);
- Electronic Document Management System;
- Dedicated mobile applications for handling cases in the field;
- Integrated, open ERP system (integrated system supporting budget, reporting, finance and accounting, debt collection and execution, human resources and payroll).

5.2 Strategic area 2 – Society - Planned actions and key projects

Society in Kielce Smart City 2030+

1. Intensification of actions aimed at building a civil society. We should strive to maximize the activation of local social potential through the deliberate impact of the local government, as well as the intense development of the sphere of institutions and non-governmental organizations that can be allies and partners in the promotion and implementation of the Smart City idea in Kielce.

2. Improvement of the functioning of the City Hall in social aspects: satisfying the collective needs of residents, social communication, promoting social participation, participation and innovation, as well as applying all measures aimed at disseminating the activities of the Office as a local self-government body.

3. Intensifying impacts in the fight against unemployment in order to reduce as much as possible the scale of this harmful phenomenon, which is the basis and cause of other social problems.

4. Applying various forms of assistance and incentives to entrepreneurs operating on the local market, with particular emphasis on the category of young businessmen and companies located in the IT sector.

5. Dissemination of the Internet in all social categories and institutions of the functioning urban community, with particular emphasis on older age groups of residents as well as children and young people.

6. Cultural activation of the inhabitants through the use of various forms and means of cultural activity, with greater attention and effort directed to phenomena and areas that are more difficult, even niche.

7. The continuous development of ecological awareness, which entails the growth of pro-ecological activities and the treatment of nature as a partner and the condition for global development.

8. Increasing the number of relaxation and leisure places in the city as a result of public consultations and adjusting their character to the real needs of residents.

9. The desired model of social consultations.

5.3   Strategic area 3 - Environment and spatial order - Planned actions and key projects

Environment and spatial order in Kielce Smart City 2030+

1. Intensification of activities related to social participation, in particular:
   a. raising awareness and training of employees of various departments and organizational units of the city in terms of methods and benefits resulting from the involvement of residents already at the early stages of planned projects.
   b. more efficient use of existing existing municipal tools and institutions (including Idea Kielce, Design Institute).
   c. implementation of a systematic and cyclical survey of residents' opinions on the quality of life in the city.

2. A specialized urban analytical and research unit, which would be responsible for the independent preparation of strategic documents and programs for the city, including in particular the area of the environment, spatial planning and development with the maximum use of urban data and the involvement of city residents.

3. Developing the program and implementing, in cooperation with the Jan Kochanowski University and the University of Technology, a comprehensive and integrated program for monitoring the environment and the urban climate based on a high quality network of sensors connected by the Internet of Things in accordance with the reference methods together with the automated analysis and response tools.
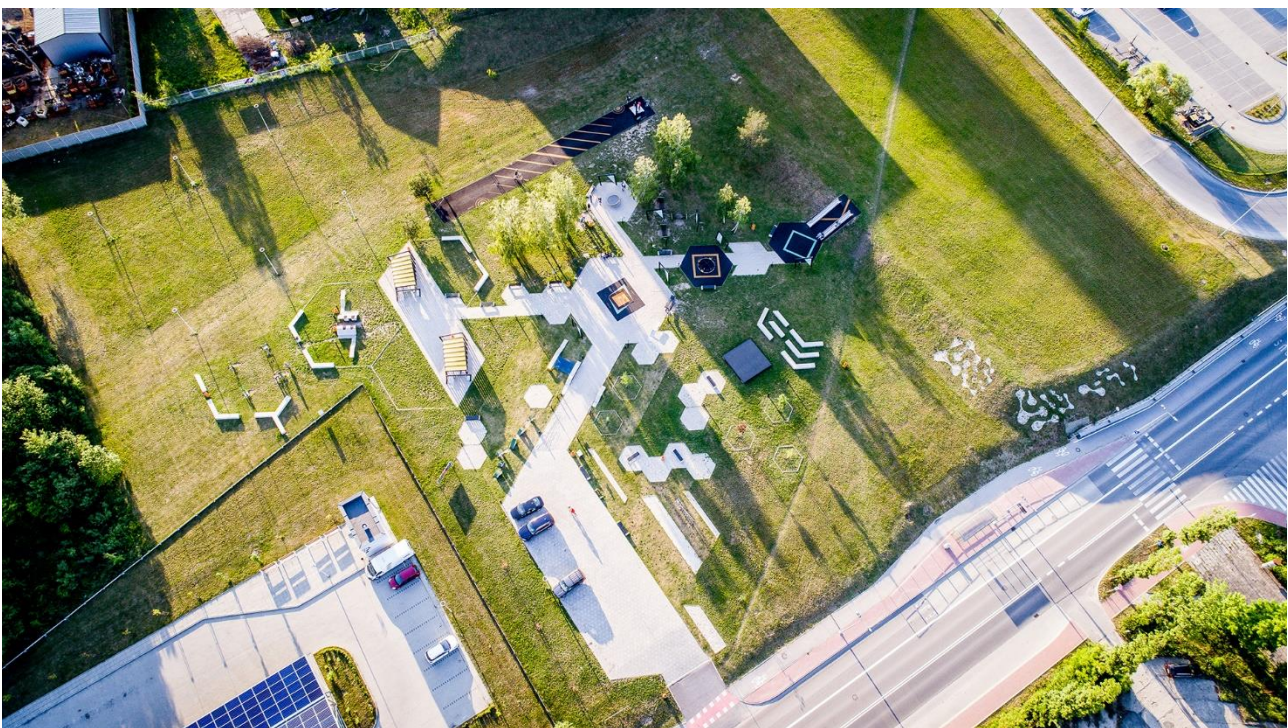

Photo: Energetic Garden for Experimentation, Olszewskiego Street Kielce

5.4 Strategic area 4 – Economy and innovation - Planned actions and key projects

1. Entrepreneurship Support Program - improving the investment attractiveness of Kielce.
2. Entrepreneurship Education Program - building entrepreneurial attitudes among children, youth, students, city residents.
3. Vocational Education Program - education in terms of selected specializations in accordance with the current situation on the labor market.
4. Quick path for the Investor - streamlining administrative procedures for investors.
5. Strengthening startups - facilitating startup activities.
6. Selection of ideas, supporting the creation and implementation of the export brand "made in Kielce".
7. Program that support the creation and implementation of solutions dedicated to the city and residents.
8. Program for implementing innovations to local enterprises:
    a. Sales of startup services to local enterprises.
    b. Drawing up a research and development agenda / innovation needs by enterprises.
9. Program for professionalization of the education system for the needs of the labor market:
    a. Expansion of the local engineering staff (attracting companies in the field of modern technologies).
    b. Leaving talent within the city's administrative boundaries (remote work).
10. Program for creating attractive job offers for young and / or active people.
    a. Program for creating attractive job offers for young and / or active people.
    b. Cooperation with academic units (project based learning).
11. Innovation panels - cyclically meeting working groups, with the participation of representatives of the city, universities and non-governmental organizations during which the existing and planned activities of the city in the field of stimulating innovation would be discussed.

5.5 Strategic area 5 – Safety - Planned actions and key projects

5.5.1 Road safety

- Strategy for improving road safety based on the analysis of road accident. Better allocation of resources will improve road safety (both real and perceived).
- Constant and systematic analysis of the road infrastructure using the photo / registration method.
- Further modernization of street lighting to obtain positive environmental and ergonomic effects and the use of smart lighting solutions, eg light sensors adjusting street lighting to illuminate space, in order to reduce electricity consumption. Adjusting the density of street

lighting networks to the needs of residents - a dense street lighting network also significantly increases the sense of security for residents and serves as a preventive measure for offenses such as unacceptable behavior in a public place and drinking beverages in a public place or disturbing the quiet hours. Greater visibility at night means fewer offenses and crimes.

- Further investments in increasing the number of traffic lights, in order to reduce the possible places of car accidents, and thus reduce the number of potential victims.
- Intelligent Transport System (ITS), whose priority is to ensure road safety.
- Using the ITS system to optimize the response of traffic lights to the traffic, to improve pedestrian traffic and increase their safety when crossing communication routes.
- Development of a public transport system in line with the needs of residents in order to reduce traffic, which in turn will lead to a reduction in the number of traffic accidents and increase safety.
- Training program for children (schoolchildren, preschoolers) on the knowledge of traffic regulations, use of public transport and security while using communication routes).
- Traffic towns where children can learn traffic rules in practice.

5.5.2 Floods and violent atmospheric phenomena

- Permanent electronic monitoring of water status in rivers, in particular Silnica, Bobrza, Sufragańca and Lubrzanka.
- Urban application that facilitates the reporting of elevated water status, flooding or flooding by residents, including online and using a smartphone app.
- System for early notification of residents about possible violent atmospheric phenomena.

5.5.3 Fires

- A constantly updated digital fire hazard map, including technical condition of buildings, which is used for planning activities (preventive and operational).
- Increasing the number of fire alarm systems, especially in particularly sensitive regions and buildings, and directing collected data to the central system with which the fire brigade is connected.
- Increasing the number of carbon monoxide detectors and gas leakage and including them in the general urban response system.
- Permanent monitoring of forest litter humidity using a sensor network and a higher frequency of patrols of municipal services during the drought period as well as close cooperation with the Forest Service.

5.5.4 Construction and technical catastrophe

- Digital database of objects potentially at risk of a construction disaster.
- Installation of sensors measuring vibrations, wall stresses and deviation from the vertical in key objects at risk of building disasters, directly and immediately sending data to the State Inspectorate of Building Control and Fire Brigade.
- Implementation of a mass system of sensors monitoring the gas concentration in flats and in the event of a threat notifying the residents and the Fire Brigade.
- Facilitation for residents in reporting the poor technical condition of the building, gas leakage and perceptible vibrations in buildings, including an online option and using a smartphone app.

5.5.5 Terrorism and hate crimes

- Designation of a list of key sensitive objects and their inclusion in the intelligent urban monitoring network.
- Extensive program of activities for youth in cultural centers, museums, sports facilities available to all interested parties.
- Cooperation with specialized non-governmental organizations to train officials and employees of municipal institutions on the problem of terrorism.
- Cooperation with specialized non-governmental organizations for the purpose of broadly educating young people about the risks and consequences of engaging in extremist activities.
- Cooperation with specialized NGOs to educate young people in a spirit of respect for diversity, ethnic, religious and sexual minorities.

5.5.6 Security in schools and public institutions

- Implementation of one key system - Master Key key - general key system.
- System of pilots and panic buttons (stationary and portable, cooperation with Agencja Ochrony or Police).
- A system of electronic building folders containing information such as floor plan, evacuation plan, installation plan, technical information about the windows and doors used, as well as roof and surrounding photographs. It is the development of a database for the purposes of the services (Police, Fire Brigade).
- "Safe envelope" system, thanks to which, in the event of threat to life or health, emergency services receive sensitive data about people at risk (eg chronic diseases, drugs, allergies).
- Establishment and continuous training of Object Safety Coordinators. Objective Safety Coordinator should be a teacher (or teachers if the school facility is large and one person is unable to fully secure it), which initiates activities in the area of safety improvement and

constantly analyzes the needs of the school in terms of improving safety. In addition, he deals with the assessment of the safety of the facility and cares for the development and adherence to school safety procedures. Objective Safety Coordinator should be equipped with a reflective vest that would be used in an emergency situation (visible outfit builds - subconsciously - authority among evacuees and allows security services to quickly identify a person who can be helpful while providing emergency assistance), whistle, panic pilot, Master Key, means of communication (mobile phone, radio station) and megaphone (it is important to be able to transmit recorded messages).

5.6 Strategic area 6 – Transport - Planned actions and key projects

5.6.1 Effectiveness of municipal infrastructure management

- The City of Kielce has a road infrastructure that enables the implementation of a mobility strategy.
- The City of Kielce has implemented an intelligent transport system that integrates many subsystems, which allows you to efficiently manage traffic and technical infrastructure.
- The ITS system is integrated with the city's IT system to obtain and provide mobility data.
- The City of Kielce uses a traffic model powered by current data from ITS system detectors for planning operations, the model uses the resources of other urban systems, eg cadastral or geographical data.
- Road infrastructure management system (support for road inventory and inventory, road condition analysis, repairs planning, process support).

5.6.2 Solutions introduced to promote public transport and alternative means of transport

- The city has integrated public transport (buses, railway, airport, etc.) and the Communication Center.
- In the area of the Kielce Functional Area, there are transfer centers (P & R, railway, bus, airport etc.).
- Public transport in the city has priority in crossings.
- The City of Kielce has implemented a program for the promotion of bicycle and pedestrian transport, including, among others, a functioning city bike and the infrastructure of bicycle paths.
- The City of Kielce has an implemented Park & Ride system - integrated with a system of discounts in public transport.
- The City of Kielce has implemented a program for the promotion of alternative low-emission means of transport, including electric vehicles.

5.6.3 Introduced information solutions for the traveler

- The traveler has access to a traffic information system in the form of a travel planner taking into account all means of transport.
- Information is available for individual traffic participants at every stage of the journey (decision on the choice of the measure, planning, information during the journey) through the integrated information system.

5.6.4 Availability and safety of mobility

- The City of Kielce is implementing the adopted program to reduce the number of road accidents.
- The City of Kielce has implemented a program to eliminate barriers for people with disabilities in transport infrastructure.

5.7 Strategic area 7 – Infrastruktura komunalna i energia - Planned actions and key projects

5.7.1 Cooperation between municipal enterprises

- Establishment of the Municipal Municipal Service Center (MCUK), whose purpose is to coordinate the cooperation of municipal and related enterprises operating in Kielce and communes belonging to the KOF.
- Regularly organized meetings in which representatives of municipal enterprises from Kielce and other municipalities belonging to the KOF can participate. During the meetings, participants can get acquainted with the current activities of individual units and development plans for the near future.
- MCUK created an online platform available to all employees of companies belonging to MCUK. The platform provides information on all currently implemented and planned investments.

5.7.2 The economy of closed circuit

- Coherent development and increasing the share of installations using renewable energy sources.
- Construction of a municipal waste thermal treatment installation (ITPOK) to obtain energy from waste.
- Creation of at least one cluster covering the area of 5 communes. Energy in the cluster obtained from: RES (photovoltaic installations, use of biogas and biomass, solar collectors, wind turbines with vertical and horizontal axis of rotation), sewage sludge, thermal treatment of waste, local generation sources, waste heat. Energy storage is used.

- Secondary use of waste, eg through an organized collection of electrowaste, creation of a charity shop in which you can buy items used in good condition, and the money goes to charity.

Photo: Kielce Technology Park incubators; SKYE Inc and ORANGE Inc.

5.7.3 Limiting low emissions

- Conducting comprehensive thermo-modernization of existing buildings.
- Installation of the energy management system (BMS) in newly built and modernized buildings.
- Building new public utility buildings in accordance with the standards of passive buildings and energy-efficient buildings. Installation of devices using renewable energy sources such as solar panels, photovoltaic panels, heat pumps and heat recovery from ventilation thanks to recuperators.
- Increasing the number of stations monitoring air quality in municipalities belonging to the KOF and creating a pollution map to be able to locate the emission sources.
- Consolidate Low Emission Reduction Plans in municipalities that are part of the KOF.
- Expansion of the gas network in communes owned by the KOF, connecting new customers and changing coal-fired furnaces to gas furnaces.

- Advisor service in the area of optimization of investment and construction projects in terms of optimizing energy efficiency, minimizing the carbon footprint, and implementing smart solutions.

5.7.4 Increasing the involvement of residents

- Providing open city data, including data on municipal and energy infrastructure.
- Providing inhabitants with an accessible form of data on water and energy consumption and waste generated on the basis of measurement data and the use of smart meters.
- Access for residents to analyzes and summaries presenting water and energy consumption. In the case of excessive consumption, residents receive simple tips that help reduce consumption. Tips are provided based on a comparing algorithm.
- A large offer of e-services, which is easily available and collected on one website.
- Increased functionality of the *Dweller Portal*:
    - payments for all municipal services;
    - information on failures in the field of municipal infrastructure and energy thanks to infrastructure and telemetry monitoring systems;
    - information on energy consumption, water and amount of waste disposed (individually or as a multi-family house) thanks to the use of smart meters;
    - information on air quality in the area of residence;
    - a subpage dedicated to education, where the content is adapted to adults from various age ranges.
- Educational activities for children and adults matched with form for different age groups.

5.7.5 Cooperation with Kielce universities and local entrepreneurs

- A platform for joint purchase with municipal electricity units for local entrepreneurs.
- Pilot projects with the participation of academic staff and students. Cooperation should include, inter alia work on the air quality monitoring station based on the reference methodology, work on a waste container with a press powered by solar energy, processing of digital measurement data.
- A municipal organizational unit whose aim is to stimulate and coordinate cooperation with universities and research and development units, implementation of partnership support programs and projects on the city - universities - research and development units and entrepreneurs.

IMPLEMENTATION – MONITORING AND EVALUATION

6 Management structure

Works related to the supervision and coordination of activities on the Smart City Kielce 2030+ Strategy are carried out by two complementary committees: the Steering Committee and the Project Committee.

Steering comittee

The Steering Committee is the body responsible for the strategic management of the project, the general supervision over the work carried out and the removal of organizational obstacles and the approval of final acceptance.

Project Committee

Project Committees are the bodies responsible for co-ordination of operational works, cooperation with external Contractors, participation in ongoing works, for the flow of relevant and complete information and for reporting remarks to the products submitted by the Contractor and submitting recommendations to the Steering Committee for final acceptance of the project's products.

For each thematic area, project committees are established, which include both office employees and public entities. All other stakeholders from the urban ecosystem are included in the work based on the competences held in the given thematic areas.

The Kielce Technology Park is part of the committee in the area of: Economy and Innovation

The document "Vision of the City of Kielce as an Intelligent City" proposes the creation of a permanent Program Board Kielce Smart City 2030+ consisting of the Steering Group (equivalent to the existing Steering Committee) and the newly appointed Team of Experts as an advisory body. Experts should be invited to external experts dealing with various aspects of the smart city, including representative of the Kielce University of Technology, Jan Kochanowski University, representatives of non-governmental organizations and business. The basic objective of the Program Council is to set the directions of activities aimed at consistent implementation of the value of a smart city, including optimization, development and improvement of the quality of urban services. The Program Council should be responsible for monitoring the implementation of the Smart City 2030+ Framework Strategy Kielce and giving opinions on initiatives that are part of the Smart City concept. The activities of the Program Council, including expected activities, frequency of meetings and reporting, should be regulated by the President of Kielce.

At the same time, it is recommended to implement activities aimed at increasing the involvement and intensification of cooperation between individual Teams by organizing study trips, regular trainings, meetings and workshops, and ensuring that the Team members are properly informed about the course of work.

Work on the Smart City of Kielce 2030+. The Strategy Committee for the Steering Committee and the Project Committee.

Photo: Kielce Technology Park area

7   Communication

7.1   When should develop a plan for communication?

As soon as cluster begins planning its objectives and activities, it should also begin planning ways to communicate them; successful communication is an ongoing process, not a one-time event.

Communication is useful at all points in cluster development - it can help get the word out about a new organization, renew interest in a long-standing program, or help attract new funding sources.

One way to look at planning for communication is as an eight-step process.

The steps are:

- Identify the purpose of communication
- Identify audience
- Plan and design message
- Consider resources
- Plan for obstacles and emergencies
- Strategize how you'll connect with the media and others who can help you spread your message
- Create an action plan
- Decide how you'll evaluate your plan and adjust it, based on the results of carrying it out

There are many different ways to think about audience and the ways they could best be contacted. First, there's the question of what group(s) to focus on. Group people according to a number of characteristics:

- Demographics. Demographics are simply basic statistical information about people, such as gender, age, ethnic and racial background, income, etc.
- Geography. You might want to focus on a whole town or region, on one or more neighborhoods, or on people who live near a particular geographic or man-made feature.
- Employment. You may be interested in people in a particular line of work, or in people who are unemployed.
- Health. Your concern might be with people at risk for or experiencing a particular condition – high blood pressure, perhaps, or diabetes – or you might be leveling a health promotion effort – "Eat healthy, exercise regularly" – at the whole community.
- Behavior. You may be targeting your message to smokers, for example, or to youth engaged in violence.
- Attitudes. Are you trying to change people's minds, or bring them to the next level of understanding?

Another aspect of the audience to consider is whether you should direct communication to those whose behavior, knowledge, or condition you hope to affect, or whether communication needs to be indirect. Sometimes, in order to influence a population, message should be aimed at those to whom they listen – clergy, community leaders, politicians, etc.

7.2 Channels of communication

- Posters
- Fliers and brochures - These can be more compelling in places where the issue is already in people's minds (doctors' offices for health issues, supermarkets for nutrition, etc.).
- Newsletters
- Promotional materials - Items such as caps, T-shirts, and mugs can serve as effective channels for message.
- Comic books or other reading material - Reading matter that is intrinsically interesting to the target audience can be used to deliver a message through a story that readers are eager to follow, or simply through the compelling nature of the medium and its design.
- Internet sites - In addition to your organization's website, interactive sites like Facebook, Twitter, and YouTube are effective mediums for communication
- Press releases and press conferences
- Presentations or presence at local events and local and national conferences, fairs, and other gatherings
- Community outreach
- Public demonstrations
- Word of mouth
- Music
- Exhibits and public art
- TV - TV can both carry straightforward messages – ads and Public Service Announcements (PSAs) – and present news and entertainment programs that deal with your issue or profile organization

And there's really a ninth step to developing a communication plan; as with just about every phase of health and community work, you have to keep up the effort, adjusting your plan and communicating with the community.

8 Monitoring and evaluation

Strategy monitoring system, including the definition of a system of context indicators (ie indicators illustrating important aspects of the socio-economic situation), strategic indicators (ie indicators whose value is or should depend on the activities of the self-government) and performance indicators (ie indicators that show execution of planned tasks, their cost, etc.).

The Strategy monitoring system should be based on proven and recognized methodologies, eg on ISO standards from the "Sustainable cities and communities" family. The city of Kielce has already implemented and certified the ISO37120 standard "Sustainable development of community services and quality of life" - "Sustainable social development - Indicators of urban services and quality of life", which should be an important component of monitoring. However, it is also recommended to use, among others currently designed ISO37122 standard "Sustainable development in communities - Indicators for Smart Cities". The works should be carried out using the participatory and expert method.

The main challenge at this stage of the UIAP is to get closer to the preparation of the Framework Strategy Kielce S mart C ity 2030+ by the city of Kielce. It is only when this action is implemented that it will be possible to define the monitoring principles, numerical indicators and concepts of evaluation of the actions taken.

At the moment, such data contain other strategic documents, whose actions are consistent with the vision of an intelligent city are:

- "Kielce City Development Strategy for 2007-2020. update "
- "Development Strategy of the Świętokrzyskie Province until 2020"
- "Research and Innovation Strategy (RIS3). The absorption of the results - potential of the province Świętokrzyskie 2014-2020 + "
- Entrepreneurship support program for the city of Kielce.

EXPECTED IMPACT FOR THE TERRITORY

10. Expected impact

UIAP is consistent with the "Vision of Kielce as an intelligent city". The Kielce Technology Park is part of the framework of municipal units for the construction and development of the Framework Strategy Kielce Smart C ity 2030+, and its activities must fully fit into the mission and vision of the City Hall of Kielce in this regard. KPT is an element of the ecosystem and carries out activities in the field of Economy and Innovation, participates in consultations of activities on the Framework Strategy Kielce smart city 2030+.

KPT strives to lead the Project Committee in the area of e Economy and Innovation in the work on the strategy smart city Kielce 2030+. Actions undertaken for this purpose as part of the UrbanInno project, construction of the ecosystem, signing the Memorandum of Understanding, give the opportunity to implement further plans and implement innovative projects in the city through the technology park.

The goal pursued by the city, including KTP and the expected impact of actions is discharged transformed that the traditional model of the city in an integrated model.

Smart cities strive for an integrated model of functioning. In this model, urban services are focused on improving the quality of life of residents. Service management, current business management and management of technology and digital resources will be integrated. This will be mainly due to the adaptation of the organizational structure, the release of urban data from individual departments and organizational units and the constant building of models of cooperation between the cells with the involvement of the local community or entrepreneurs. In such a model, the provision of urban services will be streamlined and the city's operation will be optimized. The cities of Kielce will have the ability to quickly respond to changing conditions, and external entities can build innovative services and products based on open city data.

A key element of the smart city's vision is the list of selected smart city solutions that were indicated in particular thematic areas. The most important of them include:

- Integrated public transport and interchange centers operating within the framework of the Kielce Functional Area.
- The City Contact Center enables obtaining full information provided by the City Hall and municipal units, reporting problems that urban services should use, using various access channels, eg a portal, mobile applications, social media.
- E-office is a common interdisciplinary system of public e-services enabling full settlement of matters by electronic means, including payment processing, using CRM, individual accounts of residents using various access channels, eg portal, mobile applications.
- Quick path for the Investor to streamline administrative procedures for investors.

- Implementation of an advertising management system in the city based on the advertising resolution developed in the participatory formula and the IT tools enabling the verification and enforcement of its findings, including based on cyclically carried out street space inventories using mobile photo registration.