SMOLYAN MUNICIPALITY

INTEGRATED ACTION PLAN FOR INTELLIGENT DEVELOPMENT OF SMOLYAN MUNICIPALITY

Project SmartImpact, URBACT III Programm

2018 г.

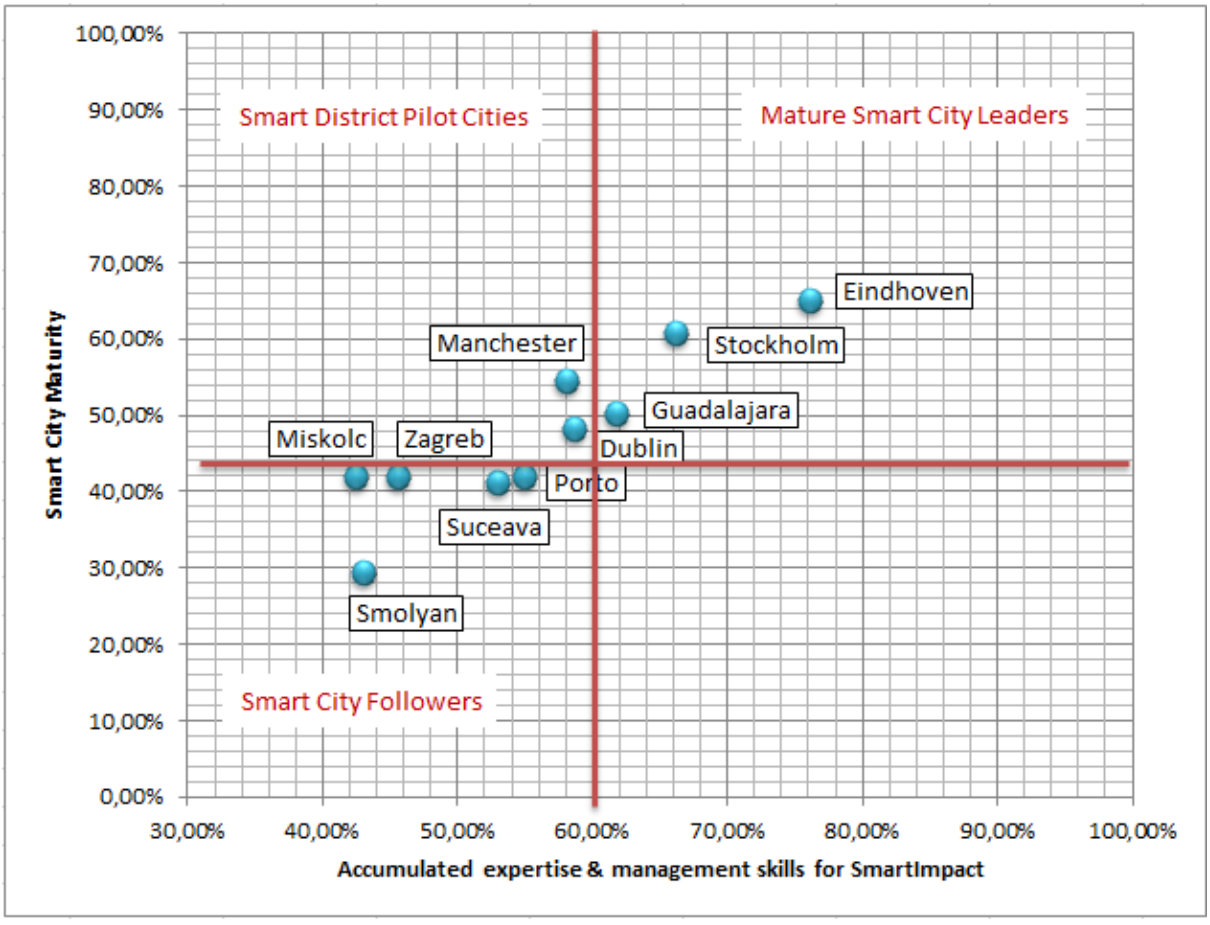
CONTENT

1. Forewords

The proposed document INTEGRATED ACTION PLAN FOR INTELLIGENT DEVELOPMENT OF SMOLYAN MUNICIPALITY was created under the SmartImpact project, program URBACT III. The aim is to develop a methodology for the selection of appropriate innovative management tools through which the municipality of Smolyan will be able to meet the specific requirements for managing a "smart city".

In SmartImpact, Smolyan is just starting into the discussion of how to solve local problems based on smart solutions and smart processes taking the chance to build on significant learnings from SmartImpact partners.

The diagram below shows the SmartImpact member cities in terms of their maturity to deploy smart solutions and working with smart processes. It gives an overview over the allocation of the partner cities, allowing to distinguish between cities that are pretty mature and leading the way, cities that are successfully piloting smart districts, but have not yet established supporting structures and follower cities that are just starting the journey towards becoming a smart city like Smolyan.



SmartImpact has given the opportunity for Smolyan to explore and develop the Innovation-Management tools for municipalities, which are necessary to finance, build, manage and operate a smart city.

The direct result is the drafting of an Integrated Action Plan to serve as the basis for the implementation of local "smart cities" policies, i.e. a framework of activities for enhancing the capacity of Smolyan to become a smart city and to support it on the way to create a thriving innovation ecosystem.

The document provides an overview of the project and the idea of a smart city, in the context of Smolyan municipality, the Municipal Development Plan, the Integrated Plan for Urban Development and Regeneration and the Innovation Strategy for Smart Specialization of Bulgaria 2014-2020 and the European best practices shared in the project.

The Integrated Action Plan for Intelligent Development of Smolyan municipality takes into account the five SmartImpact key thematic areas that represent the main learning needs of all partners, which will serve to push all cities more to the upper right corner of the diagram above.

1. Organisational Development within the city administration: how to adapt our organization in order to meet the new demands that working with smart solutions impose on us. Introduction on organizational innovations that are able to respond to the new challenges of smart cities.
2. Financing and procurement of innovative & connected solutions - Financing "smart solutions" require new ways of understanding how value is created in smart cities, which ultimately leads to co-investment strategies with costs and benefits for public and private actors.
3. Activating the local Innovation-ecosystem for smart districts - One key question in the process of becoming a smart city is how to create a thriving innovation ecosystem – a local network of innovators, citizens, researchers and innovation driven companies that builds on close ties with the city and supports a sustainable growth model based on innovation and digital assets.
4. Supportive Regulations & Incentives - there are various barriers that prevent investments into smart solutions from taking off. Local regulations and incentives can play an important role in overcoming some of these barriers.
5. Data Integration & E-Government - Urban data platforms have the potential to integrate several kinds of urban data-sets for enhancing the delivery of urban services and improve the efficiency of the city administration and the e-government processes.

2. Smart Smolyan

Smolyan is a small city with peripheral mountainous geographic position, struggling with challenges on many levels in a reality where citizens have increasing expectations on municipality services.

Infrastructure is getting older and investment needs are increasing.

Technology development is rapid and it becomes a must to keep up with, while digitalization is transforming many sectors. As our societies and industries change in light of digitalization, innovation more and more becomes an underlying principle of local development. The shift towards digitalization leaves no one untouched: no industry, no citizen no public sector organization. All of us are taking part in an overarching and rapidly evolving transformation towards a knowledge- and service based economy.

Municipal government is challenged to balance the gap between what it needs and wants to do, and the available resources. To close that gap new forms of working within the city administration, and new forms of collaborations and co creation of solutions in collaboration with other stakeholders in the city are needed.

The intelligent specialization capacity of Smolyan Municipality according to the Innovation Strategy for Smart Specialization 2014-2020 is considered in the thematic area of "Healthy Living and Bio-Technology Industry" and "Mechatronics and Clean Technologies". By the

Innovation Strategy for Smart Specialisation (IS3,ISSS, the Strategy) Bulgaria declares its vision for a policy change and overcoming of the existing socio-economic challenges:

- Low labour productivity;
- Low share of high-tech production;
- Demographic crisis -aging of population;

IS3 is based on the concept of a broader understanding of innovation going beyond investment only in research or only in the manufacturing sector; it is also based on building competitiveness through design and creative industries, innovation in the social sector and services, new business models and innovation based on practice.

All that said, when we talk about a small town in mountainous area like Smolyan, we need to take the specifics of the town and the area. Smolyan is considered to be a town in the so called deprived area, struggling with restrictions, specific for the small towns - depopulation of the municipality and the district, especially leaving of young and / or educated people, not as attractive for business and investment as bigger towns, not enough entrepreneurial initiative, but in the same time the town is attractive for its calmness, low crime, very good conditions for preschool and high school education, peacefulness, preserved culture and traditions, beautiful nature, which makes it one of the leading tourist destinations in the country and makes the tourism a main economic sector in the area.

3. Why Smolyan needs an Integrated Action Plan for Smart Development

For the last 10 years Smolyan has achieved a lot in its development through projects in different areas that resulted in:

Improved educational and social infrastructure – involving measures for energy efficiency and instalment of renewables

Improved sports infrastructure

Municipal roads and streets repaired

Renewed urban and park surroundings

Renewed with EE measures residential multifamily buildings

Prevention the risk of flooding and Landslide

Creation of new tourist attractions and implementation of innovative cultural events

Development, marketing and advertising of tourist destination

Opening of new social services and improvement of the existing

4 projects implemented in partnership with Municipalities of the Republic of Greece in the sphere of:

Biodiversity – the connection between the natural resources, the tourism and the local economic development

Cultural-historical heritage

Creating conditions for training and entrepreneurship development

Improved water supply and sewerage infrastructure

At the moment within the implementation of the Integrated Plan for Urban Regeneration and Development are running projects for improvement of the urban environment with instalment of video surveillance system, as well as project for energy-effectiveness and modernization of

educational infrastructure. A project for new social infrastructure is in evaluation and a project for energy-effectiveness and modernization of the Smolyan Planetarium is in preparation.

All these projects are the steps to achieve the overarching goal of the local government to achieve high quality living for its citizens, by making the city safe, attractive for living and for investments, more aesthetic, economically and socially viable, sustainable and future proof.

Yet Smolyan needs to find its own tools to create the right innovation ecosystem in order to be more successful in generating powerful, long-lasting and sustainable enterprises and solutions for the city.

4. SmartImpact project

For Smolyan Municipality, participation in the SmartImpact project is a major step in the modernization of the city and its transformation into an attractive place for young people, as well as a favorable environment for future investments.

After the successful completion of the project "Commercialization of Intelligent Urban Areas", with CSCD acronym under the URBACT III Program, the second phase of its implementation under the new project - SmartImpact under Priority Axis 1 "Support for Integrated Sustainable Urban Development" was launched, Specific Objective 1 "Improving the capacity of cities to manage sustainable urban policies and practices in an integrated and engaging manner". The both phases form a common process of creating Action Plan Networks. They are the main instrument for achieving the objective of the URBACT III program, namely to increase the capacity of cities in their integrated development in the areas, they have identified as key. Smolyan Municipality participates in the Action Planning Network, along with nine other European municipalities within the framework of the both CSCD and SmartImpact projects. The partnership is made up of the following cities: Manchester (UK) - Lead Partner, Porto (Portugal), Smolyan (Bulgaria), Suceava (Romania), Zagreb (Croatia), Miskolc (Hungary), Guadalajara, Dublin, Eindhoven (Netherlands), Stockholm (Sweden).

The aim of the SmartImpact project is to develop innovative governance tools that will enable municipalities to meet the specific requirements of managing "smart cities". The direct result of this activity is the elaboration of Integrated Action Plans to serve as the basis for the implementation of local policies for "smart cities". In order to be as effective as possible, the URBACT program provides for the setting up of a local Urbact group, including representatives of the local administration and other stakeholders (NGOs, educational institutions, private sector, civil society). The group will take an active part in the preparation of the Local Action Plan and will hold regular meetings. Seven international meetings are planned, where partners will share their practical experience in the sphere of smart city development, as well as their plans in this direction. In this sense, the project represents a unique opportunity for the municipality to draw on experience from partners who implement in practice intelligent solutions for management and development of cities. For Smolyan, participation in the SmartImpact Action Plan Network is key to its partnership with Lighthouse cities ("Lights-cities" that develop and test integrated innovative solutions on a large scale and which should become the most advanced cities in Europe in terms of Smart urban policies).

The total project budget is 750,000 Euros. The budget of the Municipality of Smolyan amounts to 54 299 Euros, of which 85 % are financed by the Urbact III Program and 15 % are national co-financing. The project has a duration of 24 months - from 03.05.2016 to 03.05.2018.

5. SmartImpact in Smolyan- Background for setting the priorities:

Smolyan should act smart in all the areas of its development, but its first steps should be in where we already have plans, have achieved certain success and we need to develop further in an intelligent way and in areas where certain problems should be addressed.

1. According to the monitoring of SEAP around 80% of the final energy consumption of the city belongs to buildings and facilities having biomass (44%) and electricity (26%) as a primary energy sources. The buildings and facilities sector account for 81% of the CO2 emissions, with the electricity accounting for 72% of the CO2 generated. The city does not have a district heating plant so the production of heat and domestic hot water is decentralized through electrical boilers for the residential buildings, biomass boilers and/or solar thermal collector for the public buildings. The ambition is most of the public buildings to be renovated to high energy efficiency standards and are equipped with self-sufficient RES installations.

2. The problem with the parking in Smolyan is a long standing one and it has reached its point when the local authority has to take quick and smart steps to address it and to ensure non congested, well maintained central parts of the town, with an intelligent parking system, satisfied citizens and guests of the town, which nonetheless will also provide income in the municipal budget.

3. The tourism as main economic sector in the area needs to meet the contemporary requirements of the citizens and the guests of the area. In the past 7 years the municipality has worked hard to open new tourist attractions through restoration and socialization of cultural - historical monuments and natural landmarks. This has led to increase in the tourists flow and has placed Smolyan firmly on the map of the sought after tourist destinations. In the same time it is a noticeable need of applying new intelligent approaches for attraction of tourists and installing innovations in the already existing attractions. A new intelligent approach is needed for managing the tourist destination.

Therefore the priorities for smart development of Smolyan have been set at:

- continuing to create good conditions for living for the citizens and pointing out the sustainable energy policy as leading for the development of the town (due to its long heating period and still the wide use of wood and coil for heating which also affects the quality of the air) – fostering the use of RES in public and private buildings, and introduction of e-mobility through a project for increase the self-sufficient energy production and bring it to prosuming level forming a PEB – further called the Positive Energy Block Pilot
- improvement of the transport system in the town as a major project but to start with introduction of a smart parking zone in the central parts of the town – a necessity that has to be addressed in a very short term and in a smart innovative way – further called Smart Parking Pilot project
- introduction of smart tools in tourism – pilot project for development of an online application for tourists in Smolyan and improvement of the functionalities of the tourist centre, as well as introduction of smart technologies in the Smolyan main attractions – Planetarium and History Museum – Tourism Pilot.

The above priorities are In line with the Smolyan Municipal Development Plan 2014-2020:

Priority 1: Fostering the grouth of the municipal economy and creation of uality tourist product, Specific objective 3: Development of tourism – destination for all year round tourism; Action: Support for the innovation and investment activities for increase of the competitiveness.

Priority No2– Improvement of the transport accessibility, infrastructure and environment,

Specific objective 2.2. Improvement of the transport scheme; Action: Installment of contemporary parking system for regulation of the congestion;

Specific objective 7.2. Provision of Sustainable and effective energy resources; Action: Fostering the use of RES in buildings of municipal and state

In support to this at the moment within the implementation of the Integrated Plan for Urban Regeneration and Development are running projects for improvement of the urban environment with instalment of video surveillance system, as well as project for energy-effectiveness and modernization of educational infrastructure where 3 schools and one kindergarden are involved. A project for new social infrastructure is in evaluation and a project for energy-effectiveness and modernization of the Smolyan Planetarium is in preparation.

6. The Smolyan Innovation District – is it possible, how, where, when:

The proposed actions are to be implemented in two areas in Smolyan – the old city centre and the new city centre. The areas are chosen to comply with the specifics of the spatial lay of the town.

The City of Smolyan covers considerable area along the city's length representing public, culture, educational, business and residential buildings. Historically, the city has evolved as a merge of nearby towns and due to its high mountainous terrain it has grown to be one of the longest cities in Bulgaria with a total of 15 km length. The two areas are situated in the old and new city center of Smolyan and are located along major transport connections of the city connecting its major neighborhoods as a spine.

A1: Old City Center - Smolyan

The A1 Old City Center covers around 282 000 m2 including residential, public and business buildings.

The area is chosen so that it focuses on an area in the central part of the city, close to the Old City Center, visited by many citizens, with already implemented EE and RES measures and high readiness to accomodate additional advanced EE/RES measures with only little additional investment. The rationale for choosing sports buildings (the swimming pool and the sports hall) as a major intervention area is that they have dynamic occupancy, with specific energy demands, especially heating, cooling, temperature control, hot water, ventilation, lighting, and also of the use of sport equipment. The energy impact of sport facilities is growing due to the developing sport and leisure community and the increasing number of sport-oriented people highlighting the demand for the sport buildings to have better energy performance. So far the buildings have EE measures introduced, including RES installations. The aim is to increase the self-sufficient energy production and bring it to prosuming level forming a PEB, covering the demands for electricity for lighting in both sports buildings and for the surrounding training playgrounds as well as the domestic hot water in both buildings and for the swimming pool. The whole area needs to have smart metering in place and its lighting refurbished and upgraded to smart, autonomous city lighting, with the option to add Wi-Fi and sensors to it.

Sites where the action will take place:

1. The Sports Hall is a 2611 m2 sport hall for football, basketball, volleyball, weightlifting, fitness, table tennis and other sports visited by students and citizens. It is equipped with solar thermal installation covering the demand for hot water in the building. It could accommodate PV installation to generate electricity for the lighting demands of the buildings.

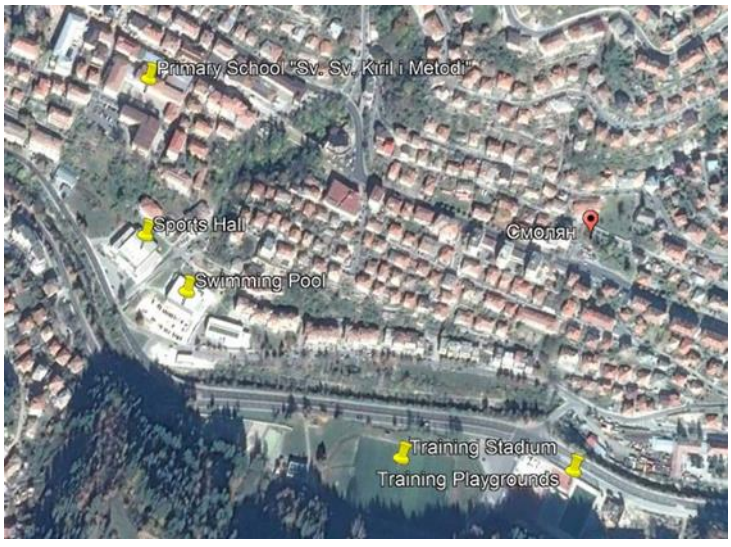
2. The City Swimming Pool is a 2284 m2 sport facility visited by students and citizens, working on a non-stop schedule throughout the year. Its high energy demands in terms of hot water make it imperative part of it to be produced by solar thermal installation, backed up with electrical boilers. It could accommodate both solar thermal and PV installation to generate heat and electrical energy for the swimming pool.

3. Training Stadium is a 28264 m2 sport facility for soccer training of students, the local soccer team, and citizens. It is in demand of autonomous street lighting, with battery storage, to enable training sessions at dusk and in the evenings as in the winter season daylight time is relatively short.

4. Multifunctional Training playgrounds are a set of 5 Newly built small playgrounds, with a total area of 7357 m2, aimed at students and local players to warm-up or have small sport sessions. The facility is refurbished and equipped with LED lighting which needs to be upgraded to autonomous.

Potential Additional demonstration sites in the area are:

1. High school "Sv. Sv. Kiril I Metodi" is a nearby school which could serve as a promotion and raising awareness area for the students who train at the sport facilities. The scholl has the basic energy efficiency measures installed as change of windows and insulation. There could be specialised sessions on EE and RES education among the school staff and students alike to promote self-sufficient energy production and the environmental and climate benefits of it. Its area is 8748 m2; annual energy consumption is around 356 MWh (electricity and heating oil).



	
Sports Hall "Velichko Cholakov"	**Swimming Pool**
	
Training playgrounds	**Training stadium**
	
High School „Sv. Sv. Kiril I Metodi"	

These buildings are in close proximity to the pedestrian area of the so called old city centre where the citizens of Smolyan go for shopping and dining. There are also a number of public buildings like the District Police, post office, many banks and offices. The problem with the parking in the area has escalated in the past years. Due to its public function the place is highly visited by the citizens and also the guests of Smolyan. New organization of the parking system is planned as well as instalment of smart parking meters.

A2 – New City Center

The A2 New City Center covers around 630 000m2 including residential, public and business buildings. The area forms the new urban center with refurbished urban environment and elements, highly visible to local and tourists. It is in close proximity to A1. The buildings are built

in the period 1975-1985 and represent the typical for that time features of the socialist architecture and being landmarks of the town we need to make them futureproof.

The A2 is chosen to represent highly visited buildings, recognised by locals and tourists alike. The buildings in this area are planned to have major EE and RES improvements introduced in the period 2018-2021 within the implementation of the Plan for Urban regeneration and development, with high readiness to accomodate new, innovative solutions and showcase intelligent smart technologies. The buildings have approved work designs for renovation and some of them even have issued construction permits. The rationale for choosing public buildings in this area is the significant visitor flow through them throughout the year – the Municipality Building is a place where more than 200 people work everyday as it accomodates the municipal administration, the administration of the Territorial office of the National Revenue Agency, the Social Service and is visited by significant number of people anually, the Planetarium, the Regional History Museum, the Art Gallery, The Regional Library and the City Theatre are major tourist locations gathering more than 50 000 visitors annually, the School is an education spot for pupils to learn about innovation, smart techology and eco-friendly measures. In A2, it is imperative to raise awareness on the actual energy costs and potential savings in these public buildings to the building managers and wide audience. Also, they could be inspiring examples for innovative transformation of space, because no considerable changes to them have been made to their initial conditions. In A2, the major task within is to identify, design and upscale innovative interventions which will showcase the area as an inspirational PEB for locals and visitors. Apart from the Municipality the other buildings are also tourist sites and some of the most recognized landmarks of the city. Therefore they are suitable for showcasing innovatins in the tourism – specifically the Regional History Museum as the museums undoubtedly are attractions which every tourist has as a point in their travel plan. It is the easiest and the fastest way to learn about culture, customs and traditions of the area and about its history. Nonetheless museums play important role in general education. And in time when people can easily get all the necessary information by pushing buttons on a PC, it is of vital importance to upgrade the museums and revitalize their expositions so that they can meet the requirements and the needs of the new generation. Being our legacy for the future the plan aims to implement a modern, interactive museum display - combination between a real presentation of the cultural heritage of the Middle Rhodopes, including recent studies on different thematic sections of the existing expositions and the latest trends in the museums display in the sphere of interactive technologies.

Potential buildings are:

1. The Planetarium is a landmark city building covering 2188 m2 , with an annual energy consumption of ar. 656,8 MWh (electricity and heating oil). The building is planned to have major refurbishment and improvements introduced in 2019-2020 including insulation, change of windows, etc. and new modern equipment – construction permit is issued. Being the largest planetarium in Bulgaria, its transformation with innovative solutions will bring highly visible impact to visitors and tourists. The building is included in the Investment programme of the Municipality to be financed under the PA1 of OP “Regions in growth” (ERDF). The preparation of the project is in progress.

2. The Municipality building covers 36 000 m2, with an annual energy consumption of 588 MWh (electricity and natural gas). The building’s key location makes it a good location for

raising awareness among citizens and public building managers. The building has partial EE measures – changed windows.

3. The Regional Museum covers 6264.11 m2, with energy consumption of 673 MWh (electricity, wood and coal) and is planned to have renovation in 2019-2020 with energy efficiency measures implemented - insulation, change of windows, roof, etc. A new interior with instalment of innovative museum technology has been planned in the past years.

4. The Regional Library covers 3776 m2 with annual energy consumption of 1705.1 MWh. It is planned to total renovation with instalment of energy efficiency measures within the frame of the Integrated Plan for Urban regeneration and development, but does not have secured financing at this moment – it is in the reservers list of the Investment programme. There is a construction permit for the planned EE measures.

5. The Art Gallery covers 2594 m2 with annual energy consumption of 1377,6 MWh. The building is in the reserve list of the Investment programme of the Municipality for the implementation of the Integrated Plan for Urban regeneration and development. There is a construction permit for the planned EE measures.

6. The City Theatre covers 18962 m2 and is planned to be renovated with energy efficiency measures introduced within the Integrated Plan for Urban regeneration and development until 2020. The theater has two-halls; Hall1 with a capacity of 680 seats and Hall 2 with a capacity of 100 seats. The annual energy consumption is 4140,03 MWh.

The Theatre, the Museum, the art gallery and the library form the cultural complex of the town and are situated next to each other.

7. The Secondary school “Paisii Hilendarski” covers 11935 m2 and has an annual energy consumption of 382 MWh (electricity and heating oil). Energy efficiency measures have been installed. The school has a swimming pool and solar panels installed for heating the water in the pool, but some upgrade will be useful. The place could serve as raising awareness and promotion spot for the young students to learn how energy efficiency interventions and renewable energy sources along with behavioural change could have an impact on climate and environment.

	
Municipality Building - Smolyan	**Planetarium Building**
	
Regional History Museum and Art Gallery	**City Theater Smolyan**
	
The Secondary school "Paisii Hilendarski"	**The Regional Library**

A2 is the second area to be implemented a pilot project for smart parking due to its high demand of parking spaces as a highly visited public and tourist zone.

"STAKEHOLDERS" MAP

1. PEB PILOT:

Primary and secondary Stakeholder	Why are they involved	Ways to be involved	Stakeholder Goal
The local administration management body	Problem owner. Take the decisions	Responsible for the development of the area. Takes the decision.	To reduce CO2 emission, to become positive energy city.
The Construction Department	Have the necessary capacity to design and implement	Provide the technical specifications and participate in the whole process. Provide and deliver solutions.	To deliver the project in its full operational capacity.
The projects department	Have the necessary capacity to plan, prepare and deliver the project	Provides necessary expertise for planning, preparation and delivering the project	To deliver the project in its full operational capacity.
Legal department	Advisor and process support	Supports the whole process	Ensure legislation compliance
The staff of the sports infrastructure	Provides support along the process, provides data and information	Provides data and information	
The local business	Beneficiaries and contributors	Business is possible consumer of the results and also provides technology solutions	Uses the service (the excess energy for charging their e-cars)
The users of the infrastructure – stud ents, citizens	Beneficiaries	Test the results, feedback	Enjoy the improved conditions

2. SMART PARKING SYSTEM PILOT:			
Primary and secondary Stakeholder	Why are they involved	Ways to be involved	Stakeholder Goal
The local administration management body	Problem owner. Take the decisions	Responsible for the development of the area. Takes the decision.	To provide parking regulation for the congested area and to reduce cars in the central parts

The spatial planning department and chief architect	Provide the necessary expertise	Responsible for the spatial regulations on local level, will provide the tools for the implementation of the action	To impose the change
The legal department	Advisor and process support	Supports the whole process	Ensure legislation compliance
The financial department	Advisor and process support	Will provide the necessary calculations	To have the right taxing procedure
The police department -	Regulates the traffic and the rules for driving along the streets.	Will help with the necessary signaling and to monitor the implementation	Safe environment
The citizens	Beneficiaries	Test the results, feedback	Enjoy the improved conditions

3. THE TOURISM INNOVATION PILOT:

Primary and secondary Stakeholder	Why are they involved	Ways to be involved	Stakeholder Goal
The local administration management body	Problem owner. Take the decisions	Responsible for the development of the area. Takes the decision.	Improved service for the tourists with innovative solutions
Economic development and tourism department	Problem owner. Takes the action	Responsible for the development and implementation of tourism strategy.	Improved service for the tourists with innovative solutions
The legal department	Advisor and process support	Supports the whole process	Ensure legislation compliance
The regional tourist association	Advisor and process support	Supports the whole process and proposes solutions	Enriched tourist destination
The tourist union	Advisor and process support	Supports the whole process and proposes solutions	Enriched tourist destination
The management and staff of the regional museum, gallery, theatre	Provides expertise and advise	Proposes the right solutions	Improved services, adopted new competitive solutions.
The local business – service providers, hotels, guest houses	Beneficiaries and contributors	They could contribute to the development of the smart solutions with data and advise as well as to use the results.	More opportunities for the business

INTEGRATED ACTION PLAN TABLES:

Pilot 1: PEB					
Expected result:		Prototype field trials and impact analysis			
Action, title and short description	Lead Actor or Agency	Key partners	Intended outputs	Timescale	Resources
Elaboration of new energy audits of the buildings and	Municipality (investment department)	Technologists/audtors; development team	Energy audit and perscription of needed RES	Dec 2018	Municipal experts/funding
Elaboration of technical documentation and permit for construction	Municipality/chief architect/designers	Development team	Complete readiness for starting the action	Dec 2018	Municipal experts/design contract/funding
Elaboration of business plan for exploitation	Municipality/development department/financial expert	Energy company, business, technologists	Cost-benefit analisys and business plan	Dec 2018	Development team/financial and technical experts
Application for funding	Municipality-development	National operational programmes, ecofund; EEA funds	Appropriate funding scheme	Dec 2018	Development team
Procurement of the works	Municipality/legal department	Development team	Contract for carrying the works	March 2019	Municipal experts/legal department
Implementation of works and exploitation permit	Contractor/municipality/energy company	Energy company	Ready for exploitation RES system	Dec 2019	Investment department experts/funding
Instalment of energy monitoring system	Contractor/municipality/energy company	Energy centre – Plovdiv	Monitoring data	March 2020	Investment department/funding
Operation and scale up	Municipality/energy company/business		Successful project	Dec 2020	

Pilot 2: Smart Parking system for the city centre					
Expected result:		Prototype field trials and impact analysis			
Action, title and short description	Lead Actor or Agency	Key partners	Intended outputs	Timescale	Resources
Identifying conflict areas	Municipality/chief architect/	Citizens/police	Defined areas for intervention	Jan 2018	Municipal experts

Elboration of plan for reorganization of the parking	Municipality/chief architect/	Citizens/police	Plan for reogranization	May 2018	Municipal experts
Communication of relevant regulations for the parking in the city centre	Municipality	Citizens; police; ngo-s; institutions in the target area	New regulation to support the intended change	September 2018	Municipal experts/cross departmental work
Acceptance of the regulation by the municipal council	Municipality	Municipal council	New regulatory ordinance	October 2018	Municipal experts/cross departmental work
Procurement of service/delivery of smart parking technology	Municipality/legal department	Police/technical experts	Contract for provision of the technology	October 2018	Municipal experts/cross departmental work/municipal budget
Instalment of new technology for smart parking in two areas	Municipality/investment department and municipal property dep	Police/technical experts	Exploitation of the system	March 2019	Municipal experts/cross departmental work/municipal budget
Data collection and Monitoring the implementation	Municipality	Police/technical experts	Data available and results evaluation	June 2019	Municipal experts/technical

Pilot 3: Tourism Innovation Pilot					
Expected result:		Prototype field trials and impact analysis			
Action, title and short description	Lead Actor or Agency	Key partners	Intended outputs	Timescale	Resources
Outline of the necessary innovative solutions in support to tourism development and reorganization in the area to form a cosice project	Municipaity/ tourist information centre/tourism consultative council	Cultural intitutions/museum gallery, planetarium/, regional tourist associations, business (local hotels), university	Outlined action	Dec 2017	Municipal and other experts , consultative process through the implementation of the tourism programme
Techncal specification for online	Municipaity/ tourist information	Cultural intitutions/museum gallery,	Available sound technical	August 2018	Municipal and other experts, consultative process

tourist application	centre/tourism consultative council	planetarium/, regional tourist association, business (local hotels), university	specification ot meet the needs		
Concrete actions for improvement of the buildings of the cultural instututions (being also main tourist attractons in town – museum, gallery, planetarium)	Municipality/development deparment	Cultural intitutions/museum gallery, planetarium/,	Technical designes, construction permit, estimated bills of quantity and cost	Ready	Municipality/legal deparment/investment department/cultura institutions experts/ inclusion in the investment programme of the Integrated Plan for Urban development and regeneration
Preliminary cost-benefit analysis for establishing a tourism enterprise	Municipality/financial deparment	Cultural intitutions/museum gallery, planetarium/, regional tourist association, business (local hotels), university	Estimation of the feasibility	Dec 2018	Municipality/legal deparment/investment department/financial deparment/cultural institutions experts

7. Who is Involved:

The current plan and the setting of the priorities have been done with the consultation and help of the Smolyan's Urbact Local Group. The municipality has invited representatives of different institutions, who are anyhow related to the city's development and whose expertise was needed in order to define and develop the elaboration of a substantial Integrated Action Plan. The reason to invite such a wide range of experts is that we needed to consult widely the possible ways of intelligent development for Smolyan and in the same time these people have been previously involved in the elaboration of the long term strategies for development and have the view of the current state of art in all different areas and the implementation of the strategies in force. We considered the plan for intelligent development of Smolyan as integral part of the current strategies, but evolving in concrete projects in defined areas.

- Representatives of the Local and Regional Administrations
- Representatives of other state institutions
- Representatives of the business sector
- Representatives of the non- governmental sector
- Representatives of Universities, Schools, Scientific Organizations:

When we created the group we aimed at continuity with our current plans and we aimed at people who are in position to be able to assess the situation, to take decisions and to have a quick access to necessary information and data in different areas.

8. Action Plan Methodology and Approach

Smolyan Local Action Plan is developed to serve as a policy instrument and useful tool that addresses the 3 main problems for the city and builds on the learning gathered through the transnational exchange activities in our network. The Local Action Plan is a result of a participative process: it is developed with the stakeholders involved in our URBACT Local Support Group.

The plan will be implemented through development of different projects.The projects will be developed by the International Programmes and Projects Department of the Municipality which at the moment has the role of a development unit. The projects are implemented through cross departamental project teams where the relevant experts are included.

The three ares where the plan intervents are related to each other and the different actions will have cumulative impact on the development of the city.

9. Action Plan Summary

The Municipality of Smolyan has a long road to go in its smart development and the SmartImpact Project has given the unique opportunity to learn from the best, to analise and evaluate our current state of art, to give a deep thought in the theme of smart development and the capacity and resources that we need in order to achieve this, to build a capacity as planners of a city that is future proof and sustainable.

The participation in the SmartImapct Action Planning Network has given us the insight of the key components of a smart city development and management in terms of organizational capacity, financing and procurement of smart solutions, incentives and regulations to support the innovation, development of a successful innovation ecosystem and data integration as an immediate prerequisite for smart development.

Smolyan needs to take numerous actions in order to evolve as a developed smart city, but based on what we have already achieved in our endeavours to become a desired place to live, work and spend time with high quality of life, including culture, health, security and tourist attraction, efficient use of energy, and effective, safe and convenient transport system, we have focused the plan in three areas: energy efficiency as one of our main priorities, instalment of smart solutions for parking spaces in the central parts of the town as one of the main problems in the last years and development of smart tourism, for tourism is one of the main economic sectors for our area.

With this we aim to achieve our goals set up in the Sustainable Energy Action plan and to reduce the CO2 emmisions with at least 20 % by 2020, and in longer term perspective to become a positive energy city. The ambition is most of the public buildings to be renovated to high energy efficiency standards and to be equipped with self-sufficient RES installations, thus also contributing to the diminishing of the pollution of the air.

By introducing smart parking system in the central parts of the town, the Municipality aims to achieve reduction of the use of cars by at least 20 % thus also contributing to the inner-urban air quality and reducing fine-particle and noise pollution. This will have positive effects by increase of municipal income, better utilization of public spaces and more attractive inner city.

By taking action for introducing innovations in the tourist service provided by the municipality and the municipal institutions like museum, art gallery, planetarium and other main tourist attractions we will increase the attractiveness of those which will bring additional value to the tourist product offered in the area and will increase the number of tourists. The aim of the administration is to offer uptodate tourist services and provide energy efficient, modernized, well equiped and accessible public buildings.

The smart development in the tourism is a complex project that involves a number of stakholders and different actions that are interwoven.

The document provides an overview of the project and the idea of a smart city, in the context of Smolyan Municipality, the Municipal Development Plan, the Integrated Plan for Urban Development and Regeneration, Sustainable Energy Action Plan, The Tourism Development strategy and the Innovation Strategy for Smart Specialization of Bulgaria 2014-2020 and the European best practices shared in the project.

10. Smolyan Action Plan and five SmartImpact Themes

SmartImpact Theme	Integrated action plan impact
Organizational Development -- how to adapt our organization in order to meet the new demands that working with smart solutions impose on us. SmartImpact has provided a deep insight into the theme of organizational development and the innovative solutions that are possible to introduce in order the administration to be able to respond to the new challenges of smart cities.	- The implementation of the projects provide for improvement in the way our organization will work in the energy management of public buildings, will improve the organization in the management of the parking spaces and will provide new tools for better tourist services. Promotion of Smolyan Municipality as a tourist and business destination on national and European tourism and business forums -Implementation of pilot actions within the regional specialization: - New technologies in creative and recreational industries - "smart" tourism: eco and rural, eco-paths, "smart" culture: tours, events, cinema-pictures through mobile applications and geographic location on an online cards;
Smart Financing and Procurement -Financing “smart solutions” require new ways of understanding how value is created in smart cities, which ultimately leads to co-investment strategies with costs and benefits for public and private actors.	Enriched experience in financing and procurement of smart solutions.
Local Innovation Ecosystem - a local network of innovators, citizens, researchers and innovation driven companies that builds on close ties with the city and supports a sustainable	New opportunities for collaboration with the local business and introduction of innovative solutions in three different areas.

growth model based on innovation and digital assets.	
Supportive regulations and incentives - Local regulations and incentives can play an important role in overcoming some of the barriers that prevent from introducing smart solutions.	New supportive regulation will be introduced regarding parking in the city centre.
Data Integration- Urban data platforms have the potential to integrate several kinds of urban data-sets for enhancing the delivery of urban services and improve the efficiency of the city administration and the e-government processes.	Support for the digitalization of cultural, educational and scientific resources and creation of electronic libraries based on the knowledge about them and applications for their use - virtual museums, etc; Improvement of the information system and introduction of an Emissions database regarding the pollution in the region of Smolyan Provision of data for the number of cars in the city centre and improvement of the parking system

11. Monitoring

The Plan for smart development of Smolyan will become integral part of the Municipal Developent plan through the forthcoming intermediate evaluation and update of the MDP.

Thus the implementation will be monitored annually according to the methodology for monitoring and evaluation of the municipal development plan which is done by the municipal administration (the Development unit) and the group that is set up for this purpose with Mayor's order.

The implementation of the result indicators set out in the Plan is monitored and measures for their correct implementation are identified in case of established problems and delays`.

Progress indicators for project implementation are tracked and they assess the progress of the Plan implementation.

12. Appendices

Appendix 1: Results Framework

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Projects	Specific Goals and expected results	Result Indicators	Progress Indicators (output indicators)	output data