

# DELIVERABLE D.T2.2.7

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ACTION PLAN FOR INTEGRATED ENVIRONMENTAL  
MANAGEMENT FOR KRANJ FUA

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Version 2  
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**Authors:** Barbara Mušič, the Urban Planning Institute of the Republic of Slovenia  
Boštjan Cotič, the Urban Planning Institute of the Republic of Slovenia  
mag. Tomaž Miklavčič, the Ministry of the Environment and Spatial Planning  
Nina Uršič, the Ministry of the Environment and Spatial Planning  
Janez Ziherl, the City of Kranj  
Ana Ahčin, the City of Kranj  
Sanja Kožman, the City of Kranj



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## 1. THE OBJECTIVE

The objective of the D.T2.2.7 is dedicated to the development of the Action plan for FUA Kranj in order to improve the quality of living in functional urban area through the identification of threats and provision of ecological services as part of the decision-making processes in order to make places more liveable.

The findings of the Action plan of the FUA Kranj like identified threats, provisions of services as development potentials of degraded areas together with identified tools and measures should be in the mid and long term perspective directly usable in designing and implementing regional and local municipal spatial and development plans as programmes.

For above mention rationale, the scope of the Action plan for FUA Kranj is dedicated to the development of strategies, plans and instruments of comprehensive management dedicated to sustainable development and environment embedded into the integrative land management in FUA.

The development of the Action plan is based on the multidisciplinary approach where each project partner is focused on individual situation, specific needs and circumstances in the selected FUA. It includes interdisciplinary content, stakeholder processes of elaboration as well as scientific inputs on governance and ecosystem services in the form of decision support tools.

In the case of Slovenian country, the Action Plan for integrated environmental management for the FUA Kranj will focus on the development of the Master Plan for developing industrial zones which are now either degraded or without any communal infrastructure as part of the Functional Area Integrated Environmental Management Strategy. The Action plan of the FUA Kranj have to be understood not as formal instrument but as a steering instrument, an efficient tool used following the interest of the whole scale of stakeholders, first of all municipalities representing public interest.

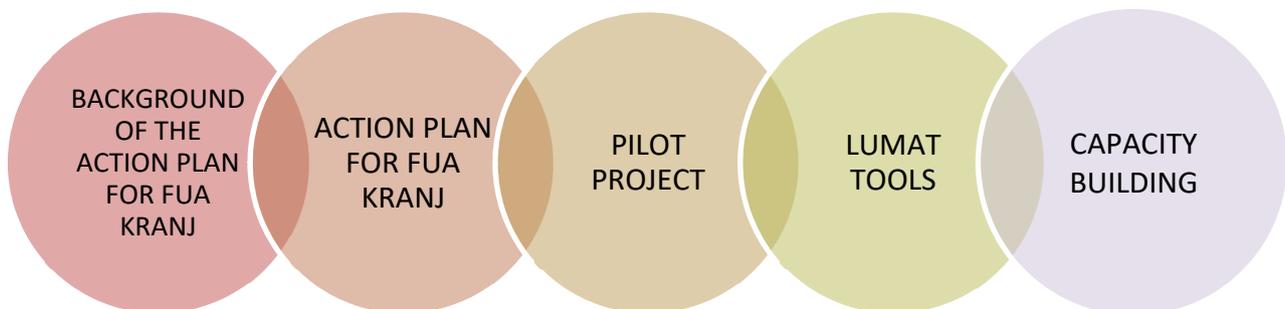


## 2. METHODOLOGY

The methodology of the FUA environmental management plan of Kranj is based on:

- integrated management of urban development in the functional urban area of Kranj understood as a tool for optimization of land-use management overarching sectoral policies,
- incorporation of the concept of ecosystem services as the framework for the integration of different optimization functions representing variety of interests and stakeholders in FUA with the focus on sustainable soil and land use
- polycentric multilevel governance as the basic management model for cooperation management of the city core and its suburban areas and institutional framework for the development and implementation of integrated FUA plan of Kranj.

The Action plan of Kranj FUA is divided into following main sections:



The **background** as an analytical part of the Action plan for FUA Kranj is dedicated to the analytical phase identifying and monitoring emerging issues and signals of change in the internal and external environment of the FUA Kranj. Beside that it is important also to identify drivers of those changes. The analytical part is not limited just to the state of the art description with collection of background data concerned with the FUA (its functioning and developing including the role of different driving forces, players, affected subjects) but as development trends as well. The development of this part is supported by the data collection tools, comparative methods (e.g. benchmarking), generic visioning techniques and other methods. In the analytical part also strategic environmental assessment in conjunction with the plan development process can start. The information collected contributes to the decision concerning the focus of the Action plan aligned with the sustainable development objectives and identification of key stakeholders involved in the development of the plan and the implementation activities. The main aim of the analytical part is to identify the potentials and definition of the problems in the FAU Kranj leading to the definition of the progress



indicators. In other words: problems and potentials will be used as a part of the SWOT analysis in order to identify the barriers and opportunities of the FUA development.

The vision and strategy for the plan as the most interactive stage of the process is devoted to the development of goals, alternatives how to react to the identified challenges, problems, potentials and problems of the FUA, expected outcomes of the plan and associated objectives and targets should be developed and assessed from the point of their coherence, achievability and responsibilities of actors. usually scenarios are generated, discussed and assessed. the linked interventions should be tested against policy options and identified consequences.

The second part of the planning phase is focused on preparatory work for plan implementation. The main instruments are the action plan, programs and projects, which are in detail described by the programming/operational part of the Action plan. The Action plan involves a series of projects and sub-projects which will include diverse interventions in the form of regulations, investments, physical developments, socio-economic and environmental measures.

## 3. BACKGROUND

### 3.1. Regional Framework

#### 3.1.1. Gorenjska region background

Kranj FUA is a part of Gorenjska development region located in the Northwest of Slovenia. Gorenjska borders Austria on the North, Italy and Gorica development region on the West, the Savinja region on the East and it opens up towards the central Slovenian region on the South.

Gorenjska is an Alpine region with diverse mountainous landscape with high mountains among which Triglav is the highest peak in Slovenia. A large part of the region is protected as a national park. Landscape, nature, cultural heritage and climate make good possibilities for tourism. 70% of the region is a mountainous world, while only 29.8 % lies in the lowland part of central Slovenia. Around 40 % of Gorenjska region lies more than 1,000 metres above the sea level, 60 % of the areas is covered by forests, 26 % by agricultural land and there is 10% of infertile land. Additionally, 44.3 % of the surface area is under NATURA 2000 protection.

With 203,654 (year 2016) inhabitants, Gorenjska represents 9.9 % of the national population. Covering 2,137 km<sup>2</sup> which means 10.5 % of the Slovenia's total surface, Gorenjska is the sixth largest region among Slovenian regions. Population density is under the national average (95.3 inhabitants/km<sup>2</sup>). However, some parts have higher density of population and urbanizing areas like regional centre of the City of Kranj. Gorenjska has favourable geo-traffic position and good accessibility. It borders Italy and Austria and is criss-crossed by well-developed transport infrastructure.



Figure 4: Gorenjska region in Slovenia

Table 1: Facts and figures of Gorenjska region (2016):

Area	2,137 km <sup>2</sup>
Population	203,654
Density of population per km <sup>2</sup>	95.3
Number of companies	19,462
Economically active population	71,017
Registered unemployment rate*	9.5%
Average monthly gross wage	€ 1,702

\*Registered unemployed persons are registered with the Employment Service of Slovenia and are actively seeking for employment.

Source: Statistical Office of the Republic of Slovenia, 2017

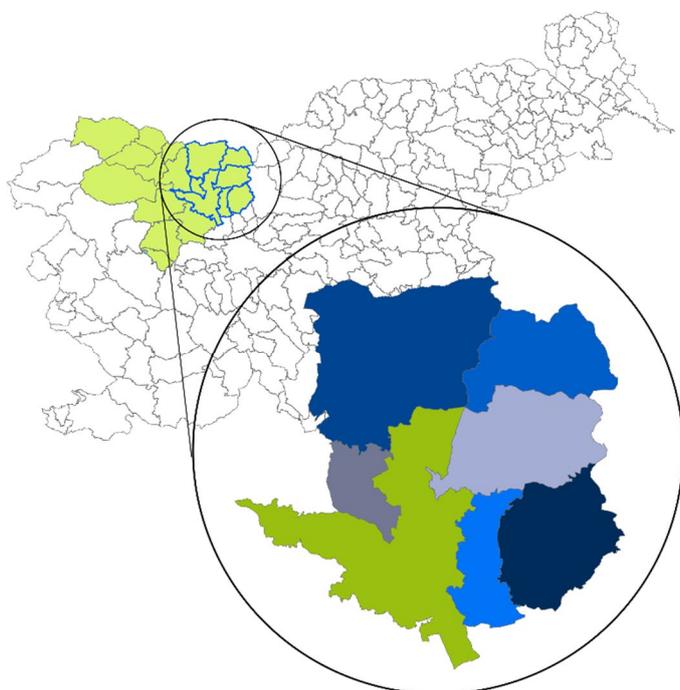


### 3.1.2. Functional Urban Area of Kranj (territorial analysis)

For the LUMAT project, the FUA Kranj was selected as an uninstitutionalised area of intervention located in the lower Gorenjska region, highly industrialized area strongly linked with Ljubljana urban region (same as Osrednjeslovenska statistical NUTS3 region no.8).

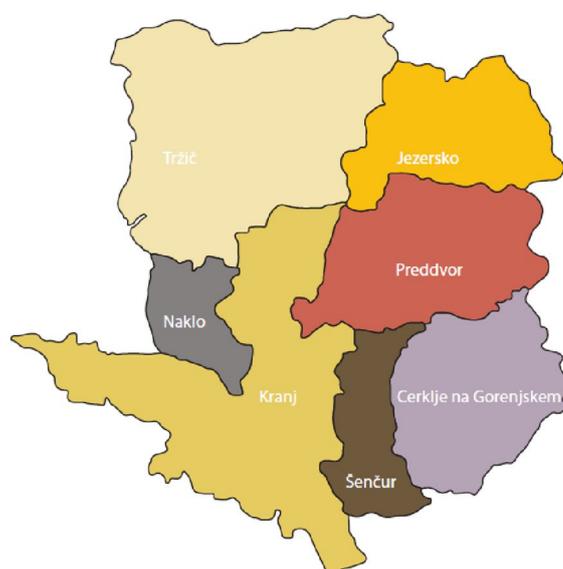
The FUA Kranj area was defined based on OECD criteria and Eco-system services approach. There are several eco-systems with important impact to the quality of life, that spreads across more municipalities, like protected forest of Udinboršt and supply of fresh drinking water as the most important ones.

**Figure 7: Kranj FUO in the Gorenjska region and in Slovenia**



In the FUA Kranj there are the following municipalities:

- City municipality Kranj,
- Municipality Šenčur,
- Municipality Preddvor,
- Municipality Naklo,
- Municipality Cerklje na Gorenjskem,
- Municipality Jezersko,
- Municipality Tržič.



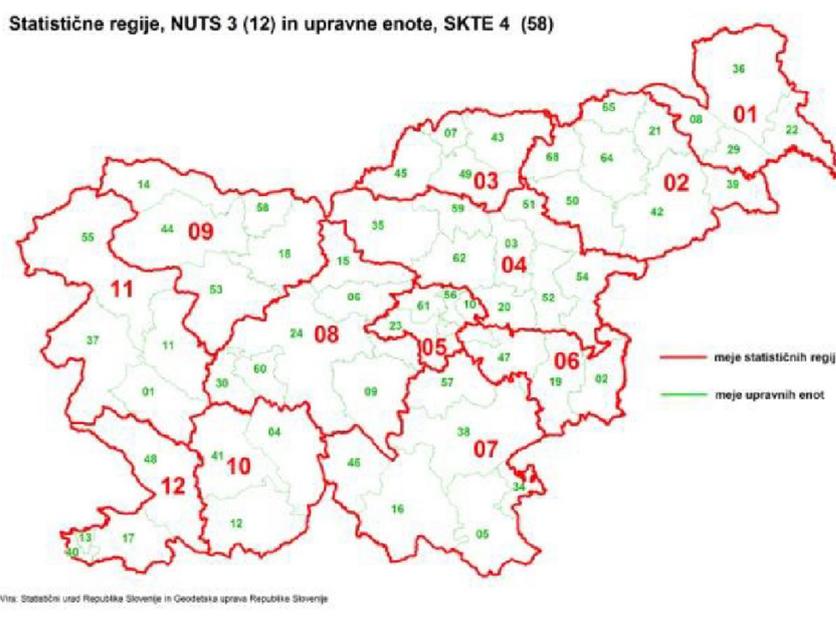
**Figure 8: Municipalities in FUO Kranj**



### 3.1.3. Current sectoral/spatial management framework

At the supra local level the basic territorial unit for planning regional policy in Slovenia is development region. The region consists of the municipalities included in the NUTS 3 territorial unit system within the statistical territorial classification of Slovenia. It is a unified closed spatial entity, connected by the settlement, economic, infrastructural and natural systems. The regions are also units, for which the Statistical Office of Slovenia collects and displays statistics that are mostly used for support of regional development.

Slovenia is divided into 12 regions. Balanced regional development is defined by the state law in which the manner of coordination between the state and municipalities in the planning of regional policy and carrying out regional development activities in the development regions and regional policies. The fundamental strategic and planning document on regional level is Regional Development Programme, whose monitoring and implementation is overseen by the legal entity - Regional Development Agency.



**Figure 9: Statistical region in Slovenia,**  
Source: Statistical Office of the Republic of Slovenia, Statistical regions (NUTS 3) and administrative units (LAU 1); [www.stat.si/dokument/5329/NUTS3\\_UE\\_zaslou\\_EN.jpg](http://www.stat.si/dokument/5329/NUTS3_UE_zaslou_EN.jpg)

Between regional and local level, Slovenia has administrative units as territorial administration bodies with their work areas, responsibilities, functions and management. Their work area is equal to the work of Ministries, which tasks are carried out through territorial administrative units, with functions and responsibilities divided between them. They were set up in 1991, when the state administration was completely separated from the local government.



Nowadays Slovenia has 58 administrative units carrying out all administrative tasks that do not belong in the domain of local government or do not fall into the domain of special administrative units of certain ministries.

The area of Gorenjska statistical region is divided into two parts, managed by two Regional development agencies, RAGOR for upper NW part of Gorenjska region and BSC Kranj for Lower SE part of Gorenjska region. Kranj is a “capital city” of Lower part of Gorenjska region. City of Kranj FUA (by OECD criteria) correlates with the FUA of the City of Ljubljana. This is the case of close proximity of the two cities (around 25 km) and good quality of transport infrastructure, allowing easy access for daily commuters. The main Airport in Slovenia, Airport Ljubljana is in the FUA Kranj area.

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## 3.2 Strategic Development Plans

### 3.2.1 National

#### **National Spatial Planning Strategy**

(Source: [http://www.mop.gov.si/fileadmin/mop.gov.si/pageuploads/publikacije/sprs\\_slo.pdf](http://www.mop.gov.si/fileadmin/mop.gov.si/pageuploads/publikacije/sprs_slo.pdf) )

National spatial policy is defined in the National Spatial Development Strategy (2004). The document is currently in the process of renovation. The objective of the strategy are (among others) rational and effective spatial development and prudent use of natural resources. The rational spatial planning objective underlines the need of ensuring rational land use through appropriate land use planning and multipurpose use of land. The objective prudent use of natural resources is emphasizing conservation of production potential of soil for agricultural production, appropriate use of land for urbanization and enlargement of urban areas as the need for multipurpose use of land and other resources.

The strategy gives directions for the expansion of settlement areas, in cases where expansion can not be avoided due to economic and social needs. Priority to enlargement is given to the internal development of settlements, with particular emphasis on the renovation of degraded or less used urbanized areas.

#### **Indicative Programme for the Transition to the Green Economy**

(Source: [http://www.vlada.si/fileadmin/dokumenti/si/projekti/2016/zeleno/opzg\\_aktijski\\_nacrt\\_in\\_nacrt\\_aktivnosti.pdf](http://www.vlada.si/fileadmin/dokumenti/si/projekti/2016/zeleno/opzg_aktijski_nacrt_in_nacrt_aktivnosti.pdf))

Indicative Programme for the Transition to the Green Economy has been adopted by the Government of the Republic of Slovenia in October 2015. Programme defines the goals as action of transition to the green economy that has to be included to all sectoral development documents on different territorial levels. In the context of LUMAT project focusing on restoration of degraded areas (brownfields) and environmental management in functional urban areas programmes focus to sustainable resource management is utmost



beneficial. Sustainable and efficient use of natural resources is outlined one of the key aspects of increasing economic growth efficiency and environmental protection in the document. Territory is also seen as important development potential and limited natural source. Slovenian cities and municipalities are urged to develop its capabilities through better and more efficient spatial management (planning) and re-use of brownfields. Reuse of brownfields, being degraded due to various aspects (physical structure, buildings, social aspect, environment, abandonment, etc.) and therefore have different development capabilities, also contributes to limiting the expansion of the new soil sealing to ever new agricultural land.

Significant capacities to redevelopment are also present in existing but underused economic zones, which can be support for the promotion of green investments (smart establishment of activities within zones) and industrial symbiosis also exploited by the LUMAT project.

National environmental action programme

The action programme is under development at the moment and it is expected to be accepted in 2018.

The new national program will give special emphasis to soil protection and to reduce the process of soil sealing. Targets for decrease of soil consumption in accordance to EU directions are going to be set in order to reduce land take.

### 3.2.2 Regional level

The vision of the Gorenjska region development is to become a diverse and easy accessible region (source: Regional development plan of Gorenjska region 2014 - 2020, accepted in 2015). The vision is based on the sustainable development of the Gorenjska region, which it intends to be realized through two main goals:

Objective 1: With smarter use of natural resources to more connected knowledge, jobs and quality of life that we want to live and want to experience.

Goal 2: From the provider of components to the provider of finished products with own brands. This goal promotes the sustainable technological development of Gorenjska region as a motor, as the generator of Slovenia's development in the field of innovation and modern industry.

### 3.2.3 Local

In general, the Spatial development plans in Slovenia use the state's legislation's determination, that settlement's development is to be provided also with DUA renewal and determine renewal for some specific areas of DUA but on the other side, there are very few guidelines for business zones development in spatial development plans in the FUA Kranj.

Apart from Spatial development plans, the City of Kranj and the Municipality of Tržič have documents called Urban Development Strategy, that focus also on treating DUA and business zones development, including objectives and some actions.



### 3.4 Scientific Input - Ecosystem Services and Threats for Land and Soil

#### Threats

- new brownfield creation
- soil sealing
- urban sprawl (loosing agriculture land)
- uncompetitiveness of brownfield areas due to high land prices, dispersed ownership, lack of infrastructure, big investment into infrastructure is needed

THREAT on Soil and Land (alphabetical order)	Specific FUA Relevance (Kranj)	Threat dimension (in LUMAT SLOVENIA)? i.e. minimum limits
Brownfield	YES	Large areas of former textile industry in FUA Kranj, more than 100 ha just in Kranj.
Contamination	YES	
Desertification	NO	
High Water, Flood hazard	YES	Presence of settlement structures in flood zone area
Loss of organic matter	NO	
Loss of soil Biodiversity	NO	
Overwarming	NO	
Over-fertilisation	YES	Intensive farming close to urban areas and on protected areas for drinking water
Soil erosion	YES	Mountainous area and climate change.
Soil salinization	NO	
Soil Compaction	NO	
Urban Sprawl, Sealing	YES	Despite large amount of Brownfields and underused areas, new greenfield developments.



## 4. ACTION PLAN

Action plan for the FUA Kranj is tackling the problem of unsystematic management of brownfield sites and underused business zones. The initial analysis showed also a lack management in those areas at several levels. Consequently, the FUA is facing further degradation of urban environment, higher environmental risks, irrational land management, inefficiency use of infrastructure, all leading to lower competitiveness and lower quality of life in the FUA Kranj and Gorenjska region.

The main objective of the Kranj FUA action plan is focused on inner urban development, preventing greenfield developments and urban sprawl and searching synergies within FUA municipalities with their public and private stakeholders.

Action plan will be used as an expert basis for regional development programme, regional spatial development strategy (new spatial legislation, 2017) and other local development documents. This will ensure sustainability of FUA Kranj action plan after the end of the LUMAT project. Regional development agency of Gorenjska region, who also covers the role of business support centre, was identified an engaged as Management and monitoring organisation for the FUA Kranj Action plan implementation.

### 4.1 Vision/Mission

During the preparation of the FUA Kranj vision, we defined a slogan: FUA Kranj, a generator of circular economy in Gorenjska region.

The vision was an important input for the Development and management strategy for activation of underused business zones and brownfield sited in FUA Kranj (FAIEMS). FAIEMS was developed based on societal challenges and objectives in the EU, national, regional and local level.

### 4.2 Objectives and Priorities

Since the main scope of the FUA Kranj Action plan is efficient management of business zones and encouraging the renovation of degraded and underused areas, following objectives were defined.

Priority objectives include:

- Efficient management of business zones, and
- Encouraging the renovation of degraded and underused areas.

(Sub)-objectives include:

- Conservation and efficient management of natural resources,
- Ensuring the quality of the living and working environment,
- Integrated management of business and economic zones,
- Re-activation of degraded and underused areas and prevention of new brownfields,
- Promoting sustainable mobility for business zones,



- Restrictive approach to greenfield developments and supporting approach to brownfields, and
- Supporting the consolidation of ownership structure in zones with fragmented ownership.

## 4.3 Actions

Actions for the Kranj FUA are split into 4 thematic groups:

- management of business zones (pilot project on industrial symbiosis, business support office, ),
- financial instruments (insurance warranty schemes, regional fund for brownfield redevelopment support),
- sustainable spatial development instruments (sustainable mobility of workforce, energy efficiency actions),
- legal instruments (land re-adjustment procedures, enforce pre-emption rights).

### 4.3.1 Policy tools/instruments

Renovation of degraded urban areas as a policy goal is long present in the slovenian spatial as regional development. Urban regeneration was always present although not always straightforward and successful proces. Some tools were developed in the past like:

- Regional spatial plan - new tool introduced, to be prepared and adopted by 2023
- land policy tools (orodja zemljiške politike) - renewed and reinforced with the adaptation of new Spatial planning legislation in 2018
- Land compensation measures - to be studied and tested (not known in slovenian planning practice but would be necessary as soilsealing policy and targets are to be introduced)

### 4.3.2. Regional spatial plan

(Regional spatial plan comprises of mandatory contents that are coordinated and regulated at regional level: certain spatial arrangements of local importance, which extend to the area of several municipalities or influence them (eg. major industrial and economic zones) and coordination of the concepts of spatial regulations of national importance.

The Regional Spatial Plan contains guidelines for the spatial development of the region, in particular guidelines for the development of settlements, for the development of public infrastructure and planning with emphasis on the preservation of landscape identity.

The guidelines are prepared according to important development opportunities or problems in the (development) region. The municipalities take this approach into account in the process of preparation of their spatial acts. The regional spatial plan must be adopted before the regional development program or at the same time.)

### 4.3.3 Land policy tools

encompasses activities and measures for the public benefit that enable the acquisition of land and their efficient management, the development of building plots and the equipping of building plots and financial assets of territorial policy.

DEVELOPMENT OF BUILDING LAND:

- Development stages of undeveloped plots
- Providing basic infrastructure for building plots



- Land consolidation on building plots

#### PROTECTION OF DEVELOPED LAND:

- Changes of construction parcel
- The termination of the construction parcel of the building
- Consent to change the boundary of the parcel

#### SUPPLY AND ACQUISITION OF LAND AND LAND RIGHTS:

- Plans for land provision
- A right to pre-purchase for the state and the municipality
- Expropriation and restrictions on property rights

#### 4.3.4 Action 1: Business support office

The Business support office (Pisarna za podjetja-PzP) was established by the Ordinance on the organization and work area of the Municipal Administration of the Municipality of Kranj. PzP is a new organizational unit operating within the Cabinet of the mayor. The purpose of establishing PzP under the Ordinance is to help existing companies, new investors in order to improve the economic situation of Kranj and the Gorenjska region and to promote entrepreneurship and innovation among young people.

#### 4.3.5 Action 2: The real Estate Exchange

The Real Estate Exchange was established as a tool to support investors and other stakeholders operating in the field of commercial real estate. The project named "Commercial Real Estate Exchange in the Municipality of Kranj" is accessible to broader public through the web portal (<http://www.kranj.si/>).

The aim is to establish opportunities for promoting Kranj as an attractive and excellent location for business and for interested entrepreneurs to facilitate the search for commercial real estate in the IOC area and to accelerate the commercial real estate market in the IOC area (leases, sales). The implementer of the online application of the Real Estate Exchange must, through the execution of the task, support the work of the office for business. The realization of the task is also foreseen in the Sustainable Urban Strategy (TUS) of the Municipality of Kranj, which foresees the following activities related to the operation of the office for companies:

1. Evaluation, vision and plan for activating business locations in Kranj.
2. Establishment of a stock exchange, commercial real estate and premises and an integrated platform for the management and promotion of business locations.
3. Promotion, planning and management of Kranj's business location, including land, commercial real estate.
4. Acquisition of data on existing industry, entrepreneurship in the area of the Municipality of Kranj and information on their raw materials and waste in order to establish a circular economy. The real estate exchange will thus be a tool for the development and management of business activities and the circular economy.

#### 4.3.6 Action 3: Change of the planned land use

Action takes place on the land intended for the construction of business zones. It was developed because, actual use of planned built land was, for example, lawn, field, forest, but owners often have no intention to build or they do not start the construction process, nor sell the land for construction to the interested investor.



If, after a certain period of time since the introduction of building land for the purpose of constructing commercial facilities for this land, the procedure for obtaining a building permit has not been initiated, the intended use of the original agricultural or agricultural land is changed.



## 5. PILOT PROJECT DESCRIPTION

The goal of the pilot area of the Municipality of Kranj is to develop a plan for managing industrial zones in greenfield and brownfield areas with the aim of improving the development of business and industrial potentials in Kranj.

Kranj is the third largest, in the past, a prominent industrial city in Slovenia. Large factories have collapsed over time, leaving large degraded areas behind. The Municipality of Kranj is aware that only active participation in the development of industrial zones can lead to their successful revitalization. Therefore, it decided to develop an action plan for the development of industrial areas, which is currently degraded or without communal infrastructure, as part of the strategy for managing functional urban areas. The biggest problem is the fragmented own structure of land in degraded areas, which is a challenge for proper management and development of these areas.

The pilot action of the international Lumat project explores the non-systematic management of degraded urban areas (DUOs) and business zones in the Municipality of Kranj and adds to the purpose of the Lumat project, which is to strengthen integral land management in functional urban areas (FUO) with special emphasis on sustainable use land and the development of ecosystem services. The latter can be achieved by directing development within already urbanized areas, limiting interventions in greenfield areas, and finding spatial solutions outside the administrative borders of municipalities and regions, all due to the goal of implementing sustainable land use. The objective of the pilot project is to stimulate industrial symbiosis (IS) based on management of industrial sites. At the same time, the pilot project implements the Action Plan of the Functional Urban Region of the Municipality of Kranj.

The pilot action steps are:

- Selection of the most important materials and activities in IS in Slovenia, including an overview of established networks, European projects and programs, published documents, surveys of the topic, consultations, cases of circular economies in cities, study projects dealing with IS issues, and research and discussion articles on IS in Slovenia. The key finding of the review is that the understanding of the IS process is still nascent in Slovenia. The connection between IS and spatial indicators has still not been worked out.
- An overview of basic concepts and definitions of IS, based on a decision by private stakeholders motivated to exchange (waste) resources for economic reasons. IS defines the integration of traditionally separate industries into a common approach involving the physical exchange of materials, energy, water, and/or byproducts to achieve a competitive advantage. The paradigmatic example of IS is the link between companies that have spontaneously begun to develop in Kalundborg, Denmark since 1961.
- An overview of production, services, and waste from these activities in the Municipality of Kranj.
- A list of major companies in the Municipality of Kranj in terms of the type and quantity of waste generated by business activities, and the manner in which it is handled.
- The presentation of possible IS scenarios between companies in the Municipality of Kranj with regard to waste resources and demand for raw materials and energy. A questionnaire will be prepared to gather these data for selected companies.
- The presentation of possible IS scenarios between selected companies in the Municipality of Kranj, depending on the location of the companies and DUO sites. The purpose of this part of the pilot action is to check the location interaction of DUO and possible IS cases on the assumption that the key to a successful IS is based on collaboration and synergies offered by geographical proximity.



- Educating stakeholders about IS. This envisages informing companies about IS, where cooperation between different industrial partners is essential in order to achieve common economic and environmental benefits. The minimum criterion for an IS process is that at least three companies share at least two different sources; the IS process and relations thus become complex (circular) and are no longer linear.

## 6. LUMAT TOOLS

In the LUMAT regions, the management of soil and land in functional urban areas can as of currently only reference a limited set of data and tools. In this context it is necessary to develop further methods and tools through the collaborative efforts of the partner consortium. In the context of LUMAT, these include the following two tool types.

### 6.1 InViTO

The development of the LUMAT Action plan of the FUA Kranj was supported by the use on the open source web GIS based platform called InViTO. The Interactive Visualisation Tool (InViTO) is offering interactive visualisation of the territorial analysis, exploration and at the same time can be used as a communication tool among different actors. The tool is not offering the solution but facilitating the policy and decision-making among different stakeholders.

### 6.2 Environmental Management and Compensation “CEM-Tool”

A tool for improved environmental management in the context of compensation measures is being developed under work package 2 by the Saxon State Office for Environment, Agriculture and Geology. The tool shall assist users in the steering of soil and land management decisions in functional urban areas. The goal is to bring about the sustainable use of these resources through the interdisciplinary observation, mapping and evaluation of “threats” to the provisioning function of ecosystem services. For example, the identified threats in the German pilot region currently include brownfields/soil sealing, areas of overwarming (due to for example urban sealed areas) and the over-fertilization of land parcels. The partners will be asked to contribute to this list of threats based upon the needs of their regions. Once agreed upon, the next step will entail the mapping of threats in the LUMAT pilot regions. This will also take into consideration the local information technology systems of the future tool users. Further, the tool establishes a base for data homogeneity within and among FUAs to ensure the comparable evaluation of threats. This will potentially enable the application of LUMAT goals, action plans etc. on the Central European wide scale. This is to be achieved through the establishment of a grid with squares 100 meters long by 100 meters wide (1 ha total area). For example the LUMAT pilot region of Green Belt of Leipzig has a total of 78,000 1 hectare cells (INSPIRE grid). The threats will then be mapped into these grids, with each type of threat receiving its own layer. After the data collection phase, the various threat layers are to be overlain one another and given points to assist in the parcel specific evaluation. These points are used to derive a prioritisation of the measures to be taken for the improvement of local ecosystem service provision and mitigate the identified threats. The CEM-Tool will allow for the inclusion of potential new LUMAT threats which may arise in the future (e.g. climate change or new brownfields). The stakeholders responsible for implementing the tool will be offered training material and support (within the frame of the LUMAT project). The LUMAT partners are called upon to incorporate either existing or similar tools from their respective regions into the partner consortium.

### 6.3 Participatory tools

- Workshops



- Participiraj.urs.si web portal for public participation
- Interviews (industrial symbiosis)
- Online questionnaire (for industrial symbiosis)

## 7. CAPACITY BUILDING AND INSTITUTIONAL APPROACHES

The project is based on the interweaving of strategies and instruments that go beyond existing practices and beyond the administrative borders (municipalities, regions). One of the most important results of the project will be the establishment of communication and cooperation between individual stakeholders at different levels. By raising awareness and sharing experiences, the project will build on the acquired new knowledge and build trust among stakeholders. At the same time, comprehensive action and management plans will enable a balanced and economically efficient development of new economic zones and reactivation, revitalization of existing degraded areas. The desire is to raise interest and offer a tool that will stimulate the participation of stakeholders and enable the successful and comprehensive development of functional urban areas. During the project we will test this in selected pilot areas of seven European FUOs - also in the functional urban area of Kranj. The goal is to establish a methodology that can be applied to each FUO depending on the specific areas of the space.

Slovenian partners of the LUMAT project, the Urban Planning Institute of the Republic of Slovenia, The Ministry for Environment and Spatial planning, And the City of Kranj already identified the key stakeholder, the Regional Development Agency of Gorenjska Region, BSC Kranj, responsible for the implementation of the Action Plan for the FUA Kranj. In April and May 2017 two meetings were organised where the agency expressed the interest and the need of the LUMAT project results supporting the revitalisation and activation of the brownfield industrial areas not only in the City of Kranj but in the entire Gorenjska Region.

There are two workshops planned in spring 2018. The workshop in April will present possible measures from the fields of land policy, regional incentives... Workshops will include contributions from representatives of bodies and services that deal with economic regional and spatial development, environmental protection and rehabilitation of degraded areas, representatives of municipalities who have successfully implemented such measures or are facing similar problems. After the workshop, a workshop evaluation will be performed and, if necessary, amended and supplemented the process plan and materials for the participants. A report on a workshop will be prepared to include recommendations for continuing activities - workshops in other regions, municipalities and similar.



## REFERENCES

- <http://www.bsc-kranj.si/stran/o-gorenjski>
- <https://www.investslovenia.org/locations/gorenjska-region/>
- [www.stat.si/dokument/5329/NUTS3\\_UE\\_zaslon\\_EN.jpg](http://www.stat.si/dokument/5329/NUTS3_UE_zaslon_EN.jpg)
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