

# ***Green infrastructure and urban resilience in Central Europe:***

***A solution for environmental and spatial challenge  
in the inner-city of Ljubljana***

**Nataša Pichler-Milanović**

**Mojca Foški**

University of Ljubljana  
Faculty of Civil and Geodetic Engineering  
Spatial Planning Chair  
Jamova 2  
SI-1000 Ljubljana

[natasa.pichler-milanovic@fgg.uni-lj.si](mailto:natasa.pichler-milanovic@fgg.uni-lj.si)

[mojca.foski@fgg.uni-lj.si](mailto:mojca.foski@fgg.uni-lj.si)

University Faculty  
of Ljubljana of Civil and  
Geodetic Engineering





## Research aims:

- to address some ***innovative aspects of collaborative planning and community participation towards building green infrastructure and urban resilience*** of Ljubljana, the capital city of Slovenia, in order to sustain urban viability and improve the quality of life for all.
- to analyse some projects in the ***inner-city neighbourhood Tabor with top down and bottom up revitalisation activities at the time of limited availability of (public and private) resources***. New community-led schemes are drawing together environmental, social, and economic actions that are spatially applied in particular local contexts.



# Urban Resilience and Sustainability

## 7 FP TURAS (Collier et al. 2013):

- ..... as **the ability to adopt and change** .... to enable flexible governance, collaborative decision-making and behavioural change towards resilient and sustainable cities....
- .....as **a driver of (new) urban policy** towards a more integrated, multi-disciplinary and open planning system with community stakeholders as central to the planning process and planners as innovative, creative and holistic actors working within a multi-disciplinary and multi-functional framework....
- .....as **urban green policy** is increasingly being used as a tool to enhance urban resilience and sustainability supporting biodiversity and ecosystem services ..... the unused sites and buildings could make cities and urban communities more resilient that will probably enable them to improve planning efforts with regeneration projects and innovative creative design.....
- .....as **mobilising** social capital, (scarce) economic and environmental resources while seeking to work with planning stakeholders on the egalitarian way .... with *de facto* inclusion of cultural and other forms of knowledge....



# Ljubljana

- **Ljubljana**, the capital city of Slovenia, is the largest town with approx. 280.000 inhabitants, located at the cross-roads between Central Europe, the Mediterranean, and the South-East Europe.
- Since independence of Slovenia in 1991, Ljubljana has been exposed to international challenges of globalization, *Europeanisation* and inter and intra-city transformation. As a result of successful macro-economic reforms and sectoral policies (1992-2004), Ljubljana became the most important locations of economic activities in Slovenia, and one of the most competitive Central Europe cities - while at the same time preserving social cohesion, environment, and the quality of life for local citizens.
- Since 2008 Ljubljana has been in crisis – economic, political, social, etc., and not many projects are being completed according to the spatial plans and development programmes due to the lack of investors capital and opposition by local residents.



The **City Municipality of Ljubljana** (LAU 2) and other 25 LAU 2 municipalities as part of Central Slovenian (*statistical / developing*) NUTS 3 region - **Ljubljana urban region** LUR (with approx. 500.000 inhabitants)



[www.ljubljana.si](http://www.ljubljana.si)

[www.ruralur.si](http://www.ruralur.si)



# Ljubljana: »Smart City Growth«

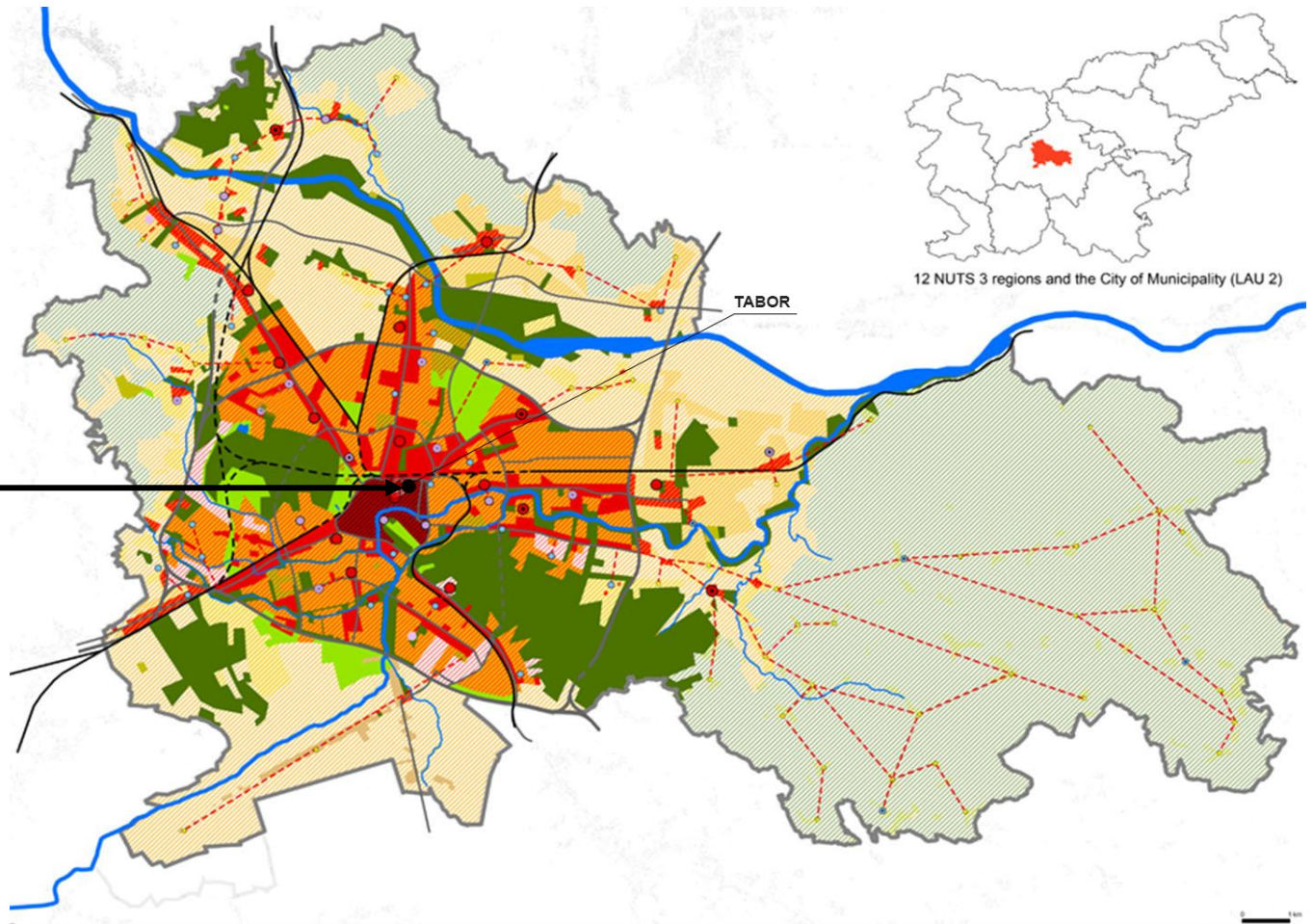
## ***Spatial / urban plans of the city of Ljubljana and urban agglomeration***

- ***Master Plan of the City of Ljubljana (1966)***
- ***Long-term urban development plan of Ljubljana (agglomeration) 1986 -2000***
- ***Strategic spatial and implementation plan (land use plans) with Environmental impact assessment as part of the new **Spatial Plan of the City Municipality of Ljubljana** (2010) prepared according to the new spatial planning legislation and documents in Slovenia (> 2002).***
- In year 2007 the City Municipality of Ljubljana has also adopted the new **»Vision of the City of Ljubljana by year 2025«** emphasizing **22 strategic projects** (from the list of approx. 100 projects) to be realised by year 2025, linking the three principal urban development aims:
  - **»Ideal city«** (i.e. the optimal city size – for living, working, recreation),
  - **»Sustainable city«** (i.e. preserving natural and urban environment in the city and urban region),
  - **»Slovenian metropolis«** (European competitive capital city).





# Ljubljana Land Use Plan (2010)



Case study: TABOR



- |                                |                                       |  |   |   |
|--------------------------------|---------------------------------------|--|---|---|
| City Municipality of Ljubljana | Inner-city area                       | Suburban area  | Hilly Countryside                               | Recreational areas and areas of high ecological value |
| rivers                         | Compact urban area                    | Highly built-up areas and manufacturing and services areas | Rural settlements and areas with holiday houses | Sport centres   |
| roads                          | Central city with historic urban area | Low built-up areas and manufacturing and services areas    | Low built-up areas at Ljubljana Marshland       | Urban and thematic parks                              |
| roads in tunnels               | Mixed-use urban areas                 | Mixed-use suburban areas                                   |   |   |
| railway                        |                                       |  |   |   |
| railway in tunnels             |                                       |  |   |   |
| links between settlements      |                                       |  |   |   |



# Research methods

- Evaluation of the implementation of the European **INTERREG IV B MED SOSTENUTO** project (2009 – 2012) “*Economic and social innovations in the field of culture and creation activities in European cities*” - in Ljubljana (inner-city Tabor neighbourhood) was based on comprehensive study of official documents such as original project proposal, reports, web page presentations, and interviews with principle project partner in Ljubljana (*BUNKER non-profit organisation*) and other project participants (2012-2013);
- Interviews with other important local stakeholders living and working in Tabor neighbourhood and Ljubljana as well as with officials from the City Municipality of Ljubljana, Ministry of Culture of RS and Ministry of Environment and Spatial Planning of RS, etc (2012-2015).
- Citizens’ observations, authors observations (2010-2015);
- *Stakeholders’ short (e-mail) survey – e-mail, telephone, face-to-face answers (summer 2015)*



**Short survey sent to 25 stakeholders by email – 11 answers received by e-mail, telephone, face-to-face interviews (summer 2015)**

- a) *What are the planned short and medium term activities for development of green infrastructure at the selected case study locations in Tabor neighbourhood?*
- b) *How the initiatives of inhabitants, land users and other civil initiatives (non-profit associations such as Bunker, Prostorož, Onkraj gradbišča, etc) who are active in Tabor neighbourhood influence development of green infrastructure and activities of the City Municipality of Ljubljana (i.e. modification of planning documents, planning recommendations, financial budget, etc)?*
- c) *What is like the cooperation between different actors and stakeholders in Tabor neighbourhood and decision and policy makers from the City of Ljubljana towards urban resilient planning and development of green infrastructure in Tabor neighbourhood?*

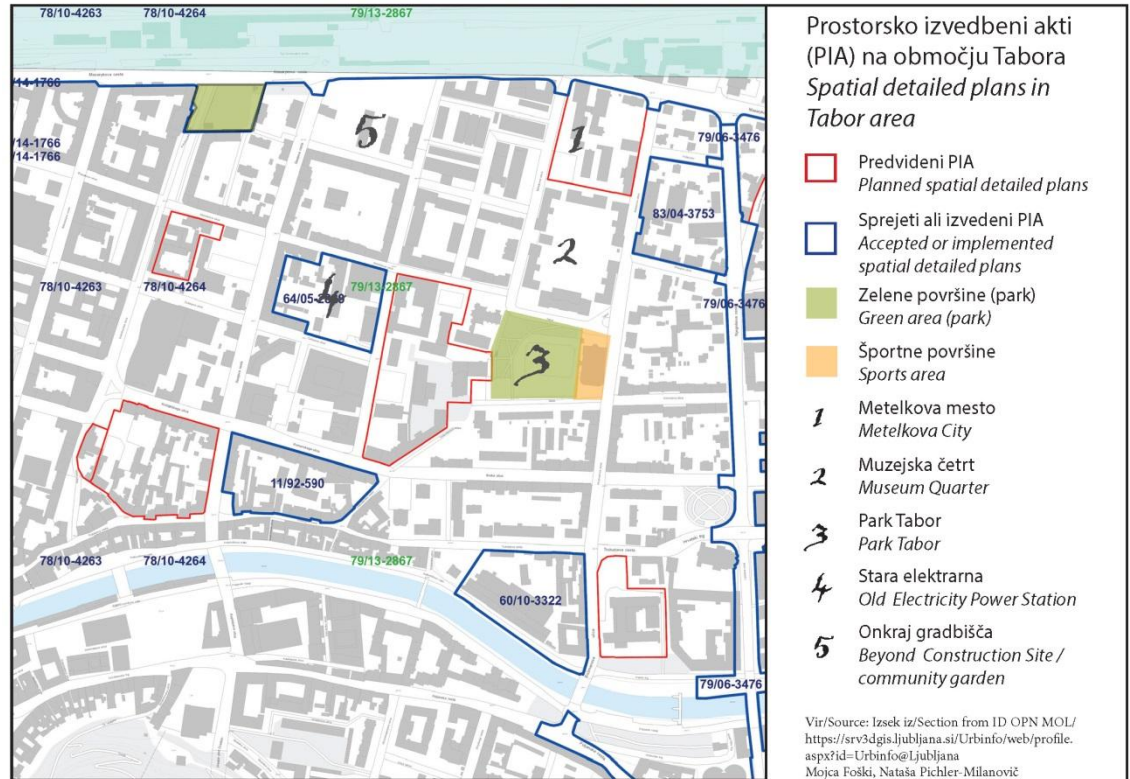
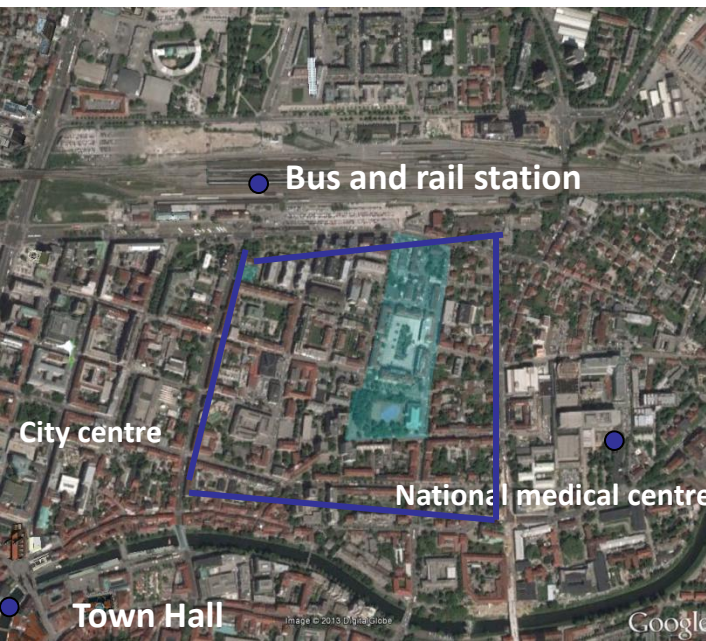




# Spatial detailed plans in Tabor with 5 case studies are

([https://urbanizem.ljubljana.si/index3/files/OPN\\_MOL\\_SD\\_01\\_zasnova.jpg](https://urbanizem.ljubljana.si/index3/files/OPN_MOL_SD_01_zasnova.jpg)

(accessed July / September 2015) / authors' modification)



Inner-city Tabor neighbourhood in Ljubljana is located between the Central Bus and Rail Station, Town Hall, National Medical Centre, etc., with mixed-use residential buildings, offices, the church, kindergardens, elementary and secondary schools, elderly home, student home, sport clubs, park, museums, cinemas, cultural centres, shops, caffes, etc.





# TABOR (1 + 2)

## 1) Metelkova City



Metelkova city has been a cultural centre since 1993, when the northern part of the military barracks complex was squatted by a group of 200 volunteers following the initiative of an independent association of mainly underground artists and intellectuals known as *Metelkova Network* to stop the abandoned army complex from being pulled down. A former military prison was renovated in 2003 into a well known **Hostel Celica** with an original interior. Green infrastructure concept has not been developed as yet.

## 2) Museum Quarter



Museum Quarter has transformed former military barracks on Metelkova Street (southern part) for *Slovenian Ethnographic Museum*, *Slovenian Cinemateque*, *the Institute for the Protection of Cultural Heritage*, and the new additions of the *National Museum of Slovenia* and *the Museum of Contemporary Art*. Near by are also renovated building of the *Ministry of Culture of RS* and the new building of the *Ministry of Education, Science and Sport of RS*. The renovation of these premises was financed from the state budget with co-funds from ERDF OP Strengthening Regional Development Potential 2007-2013.





# TABOR (3 + 5)

## 3) Park Tabor



*Park Tabor* is situated in the heart of Tabor neighbourhood and represents one of the most important open spaces in Ljubljana. The park includes the fenced open playground, green areas and a fountain with walking pathways. Next to the park is a heritage building of the Sport Club Sokol (*Falcon*) built in 1926 with own sports facilities.

## 5) Beyond Construction Site



The purpose of this bottom up urban gardening / agriculture project is to transform derelict construction site surrounded by residential and other buildings near the Central Rail and Bus Station into a dynamic and creative common area through cooperation with local residents and other interested actors and visitors with the help of the City Municipality of Ljubljana.



# TABOR (4)

## 4) *The Old Electricity Power Station*



**Old Electricity Power Station** built in 1898 is a protected technical and cultural monument and one of the rare examples of preserved industrial architecture in Slovenia. It is still owned by the Elektro Ljubljana Company that firstly renovated the building in 1998. The second renovation (2004) was commissioned by the Ministry of Culture of RS.

The building is rented free of charge for the purposes of the performing arts. The artistic program is the responsibility of the *Bunker Institute*. Larger section of the building is now used for cultural performances, while a smaller section has been transformed into a museum.

**Garden by the Way** project (research, workshops, festival, art performances, greening, networking);

**Tabor Cultural Quarter** (2012) – new non-profit association based on partnerships and networks in the Tabor neighbourhood and Ljubljana;

### Cooperation / networking:

- **Beyond Construction Site** (urban gardening project) with the KUD Obrat (non-profit association) > 2010
- **Park Tabor** (revitalisation of the park Tabor) with the Prostorož (non-profit association) > 2009
- **Metelkova City / Museum Quarter** – institutionalised activities and events for Tabor residents, Ljubljana citizens, and visitors from Slovenia and abroad.





# Conclusion: A Way Forward?

- There are not many short and medium term planning actions for development of green infrastructure in Tabor neighbourhood. The city prefers **to keep and use the available building land** for other activities (temporary parking lots, or mixed use development projects - offices, housing, private garages, shops...
- The **initiatives of local inhabitants, citizens, land users and civil society initiatives and non-profit associations** (such as Bunker, Prostorož, Onkraj gradbišča, etc) can influence the development of green infrastructure, with modification of official city planning documents, policy recommendations, and more available resources from the budget, EU funds, crowdsourcing - but they are developing on a slow pace.
- The **cooperation between different decision and policy makers and other stakeholders** needs to be enhanced for more transparent and flexible urban (resilient) planning, taking in consideration new needs and demands of different stakeholders as well as the environmental and socio-economic situation.

***The research reveals that the development of green infrastructure within urban resilience planning is not systematically integrated into (official) strategic and urban planning and city governance actions with institutional and social barriers regarded as the main reasons.***

According to collaborative planning activities in urban and neighbourhood revitalisation with **community participation with local empowerment** are present in a variety of ways: **“bottom-up”** initiatives may coincide with and complement **“top-down”** initiatives, each dominating different (political) phases of policy-making, implementation and monitoring. The scope of different projects funded from different sources is to encourage city administration to engage in a dialogue with other stakeholders, especially local residents and other citizens, thus empowering local communities.



# LJUBLJANA – *The Green Capital of Europe 2016*



<http://www.ljubljana.si/en/green-capital/>

Photos by Primož Hieng (2013)

# THANK YOU FOR YOUR ATTENTION

**Nataša Pichler-Milanović**  
**Mojca Foški**

University of Ljubljana  
Faculty of Civil and Geodetic Engineering

[natasa.pichler-milanovic@fgg.uni-lj.si](mailto:natasa.pichler-milanovic@fgg.uni-lj.si)

[mojca.foski@fgg.uni-lj.si](mailto:mojca.foski@fgg.uni-lj.si)

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