

Central and Eastern European Initiatives and Developments to Enhance Urban Biodiversity

BEST PRACTICE-BASED GUIDE



October 2023



Acknowledgements

Authors: Madoc Wade (CEEweb for Biodiversity)

Editor: Orsolya Nyárai (CEEweb for Biodiversity)

Copy editing: Thor Morante Brigneti and Endre Papp (CEEweb for Biodiversity)

Design: Eszter Sebestyén (CEEweb for Biodiversity)

Date of publication: 19 October 2023

Copyright © 2023 CEEweb for Biodiversity

Katona József utca 35. 1/1., 1137 Budapest, Hungary



The sole responsibility for the content of this publication lies with its authors. It does not necessarily reflect the opinion of the European Union. Neither the CINEA nor the European Commission is responsible for any use that may be made of the information contained therein.

Introduction

In 2021, in response to falling urban biodiversity, the European Union (EU) called on cities of over 200 000 residents to formalise Urban Greening Plans (UGPs). These plans, which range in their ambition, are a part of the EU's larger Biodiversity Strategy for 2030. The strategy stresses the importance of urban biodiversity not only for the ecological health of the region, but also for the mental well-being of its residents.¹

In Central and Eastern Europe (CEE), there are several cities which have successfully implemented greening strategies during this period. Not all of the projects listed here are directly registered as UGPs; however, they all embody the general philosophy of the strategy and can serve as valuable best practice guides for other cities in the CEE region.

Ljubljana – Bee Paths and Successful Pedestrianisation

Teaching the youngest in society about biodiversity and food systems is fundamental because they will protect the environment when they grow up, but raising awareness among adults is also necessary. Awarded the Most Bee-Friendly Municipality in 2017 and 2019 by Slovenia's Beekeepers Association, Ljubljana, in Slovenia, developed a path through the city to learn about green spaces and pollinators. The city also created a mobile application that tells the city centre's history and the story of pollinators and the environment. The Bee Path was opened in 2015 by the city of Ljubljana, a municipality aware of the importance of pollinators for the sustainability of cities.

¹ Directorate-General for Environment. 2020. *EU biodiversity strategy for 2030*. Publications Office of the European Union – Brussels.



The path is designed in such a way that visitors can comprehend the importance of bees for our survival and our food security, discover the necessity of honey in our daily diet, but also find out more about the city's beekeeping culture. Various stakeholders are involved in the initiative: educational, cultural and health institutions, businesses, NGOs, and, most certainly, beekeepers. As a matter of fact, two-thirds of the total surface of Ljubljana are rural areas, within which 826 farms operate. The city puts great emphasis on self-sustainability, both to shorten food supply chains and ensure food sovereignty.

The City of Ljubljana is firmly linked to beekeeping. Around 300 beekeepers maintain more than 4500 beehives, housing as many as 180 000 000 bees. In the Strategy for Rural Development of the City of Ljubljana (2014-2020), the quality of agriculture and forestry goods, with the aim of self-sufficiency, is one of the important goals which should be achieved by an increase of beekeeping in rural and urban areas. There is a support system for bees, and recommendations for all residents that want to keep bees in urban areas.

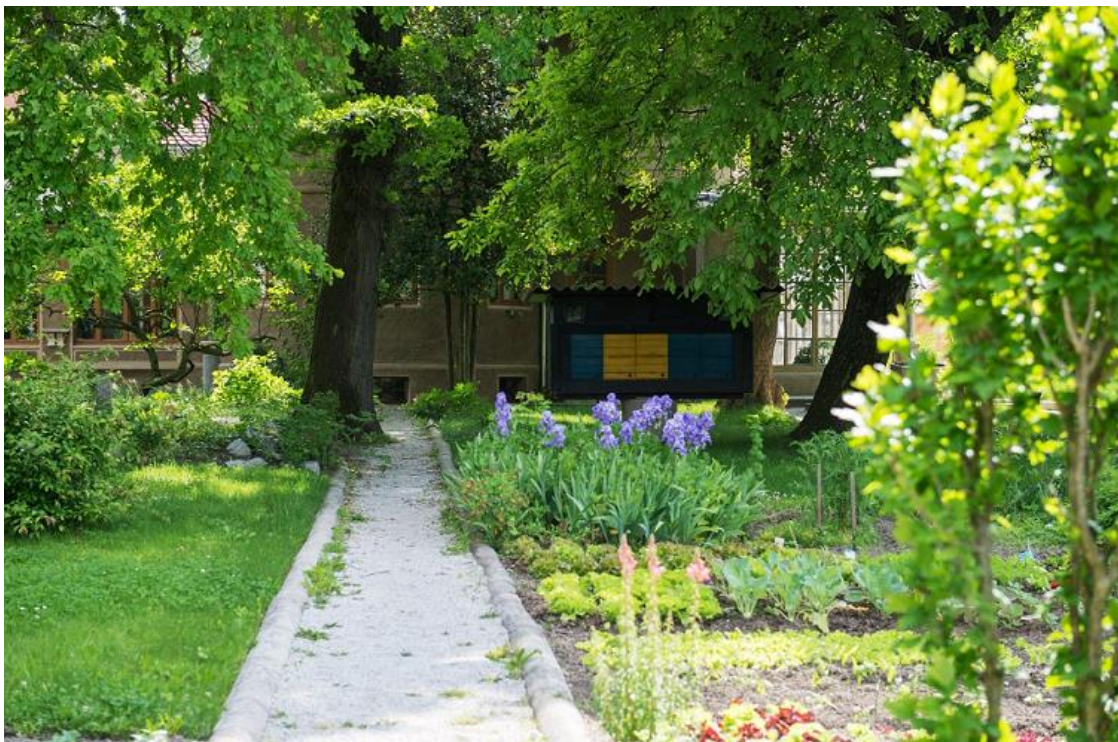


Image 1. Urban Sustainability Exchange.

Within the Bee Path programme, the urban beehives and bee stands have been designed to meet the demands of urban space. The city has also planted melliferous plants and trees — with an emphasis on indigenous plants. Thus, the biodiversity has been maintained, and due to the higher number of pollinators, the ecological self-sufficiency of the city has improved. The city administration and the Ljubljana Tourist Board have created a bee-keeping education trail for tourists that connects the main locations of Ljubljana’s beekeepers.

One way to take care of pollinators is to preserve flowering meadows. “When we started mowing public green areas only after the pollinators’ activity was finished, so that they could thrive, locals were furious because it gave the city a look of neglect,” explains Maruška Markovčič, Senior Advisor for the Department of Environmental Protection and Rural Development at the City of Ljubljana. However, the sort of orderly, clean-cut green grass they wanted is a green desert for pollinators. “We started this action explaining the reason behind it, and now people are calling to ask, ‘why did you mow the grass yesterday? There were so many different insects. It was alive, and now it’s barren’.”

Residents can also learn directly from beekeepers. They can visit the apiaries in the city centre or rent one to get directly involved. “By learning how to take care of pollinators, they will increase their chances to have locally produced food,” says Markovčič. A stimulating environment for pollinators means better crops, and their well-being is also a good indicator of a healthy environment for everyone. “If the environment is healthy for the bees, it is for us too. That’s why Ljubljana is doing its best to enrich the urban jungle with bees,” says Crnek Dejan, Deputy Mayor of the City of Ljubljana.

Ljubljana’s success with the Bee Path has inspired a wider movement across Europe. The Bee Path Cities network was launched in October 2022 and is intended to facilitate the exchange of ideas between cities seeking to improve their urban biodiversity. Specifically, the network’s website states their aims as:



- **Knowledge transfer** – sharing information, ideas and initiatives for enhancing urban sustainability.
- **Joint action** – finding opportunities to fund common activities (in the form of local actions, information sharing, awareness-raising) and strengthening our movement around the world.
- **Awareness raising** – increasing public understanding of the connections between pollinator well-being and broader urban sustainability.

Affiliated cities include Amarante, Portugal; Bansko, Bulgaria; and District XII of Budapest, Hungary. The network is financially supported by URBACT, which helps to facilitate intercity cooperation on sustainable urban development.

Krakow - Afforestation and Wildflower Meadows

Since 2015, the Municipal Greenery Authority (ZZM) in Krakow has engaged in a proactive campaign to increase green spaces in the city. A focus has been placed on directly engaging residents through educational activities aimed at both adults and children and social engagement.²

Starting in 2016, Krakow began to dramatically increase its procurement of land for green spaces. This included the construction of community-focused parks in each of the city's 18 districts and the refurbishment of Zakrzówek Park — a flooded, disused limestone quarry in the West of the city which has been transformed into a public bathing location. The municipality also set targets to double its forest cover to 8 %. As a part of this program, in 2018, nearly 13 000 saplings were planted on approximately three hectares of land; in 2019, 120 000

² ZZM Library. 2023. In: <https://zsm.krakow.pl/biblioteka-zsm.html>



saplings were planted on approximately 23 ha of land; and in 2020, approximately 74 000 saplings were planted in Spring on approximately 15 ha.³

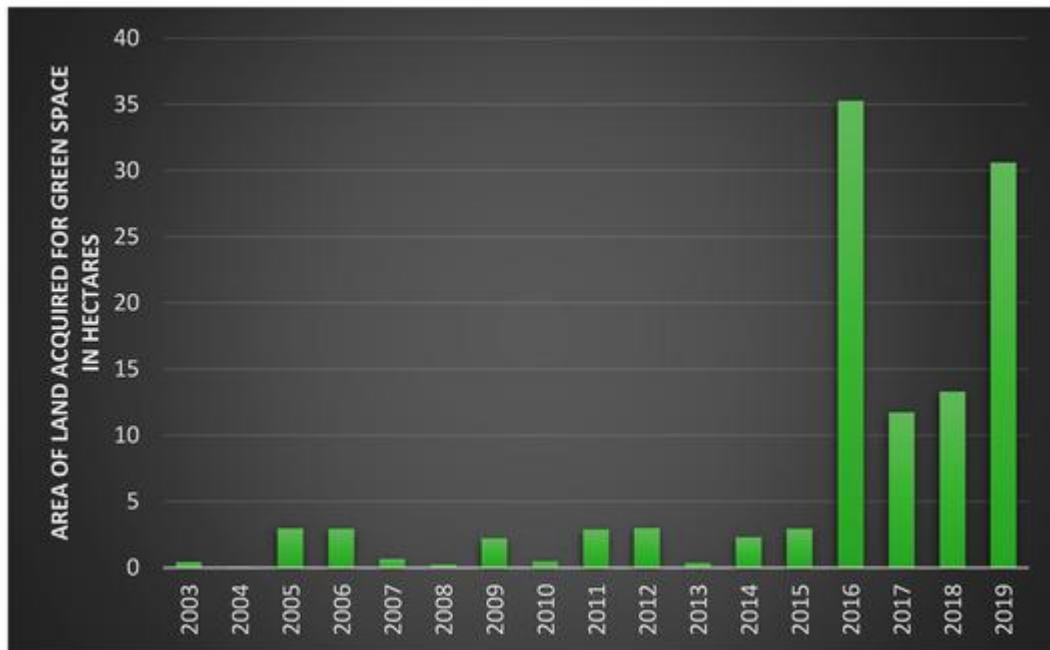


Figure 1. Source: Kwartnik-Pruc and Trembecka 2021.

One issue which cities can face when designating protected green spaces is that these protections necessarily limit the use of those areas by the residents. A protected meadow, for example, is a space in which residents are limited in playing sport, socialising or even just walking where they choose. This runs the risk of alienating the public and losing political good will, thereby hindering the achievement of long-term goals. To this end, the municipality proactively differentiates between different green spaces for different uses. Areas designated for recreational use by people, such as mowed fields for sports and squares, are categorised separately from forests or meadows which are

³ Kwartnik-Pruc, A. and Trembecka, A. 2021. *Public Green Space Policy Implementation: A Case Study of Krakow, Poland*. In: *Sustainability*, 13(2): 538. URL: <https://doi.org/10.3390/su13020538>



maintained first and foremost to aid the city's biodiversity.⁴ By setting clear boundaries between these types of green space, the authority can proactively ensure that there is sufficient room for a range of activities.

Separate from the forestation program, Krakow has also invested in supporting pollinators and, by extension, the general biodiversity of their city. The use of chemical pesticides is banned in the city's green areas, and areas of the city which are considered particularly sensitive habitats are given additional protection. In 2017, Krakow designated 10 ha of land near major roads to be transformed into wildflower meadows, and also worked with local NGOs to provide pollinator-friendly seeds to members of the public as part of the "Nice Meadows for Balconies" project.⁵

Belgrade – Linear Park and Green Urban Design

Belgrade's flagship 'green infrastructure' is its 'Linear Park', a 4.5 km project built upon a previously abandoned railway line. The park will be a 'hybrid space' intended not only to improve biodiversity, allow for movement of animals between green areas, and serve as a carbon/heat sink, but also to provide a pro-social function. Pedestrians and cyclists will be able to use the park to travel to and from the city centre, and different sections will include art exhibitions, parks and space for outdoor recreational activities.

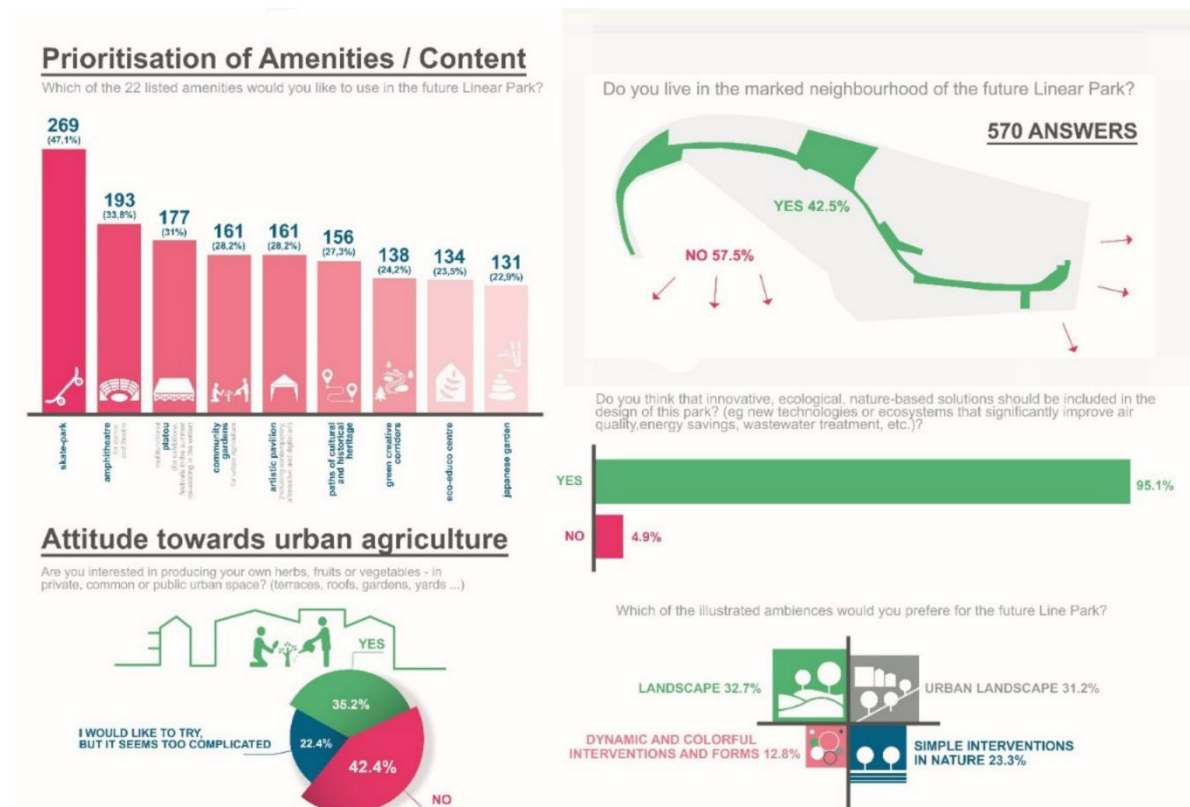
The city is designing the entire park with strong community involvement and hosted workshops and surveys where residents could suggest features that could be included. So far, skateboard ramps, amphitheatres, and vegetable gardens are

⁴ EU Commission. 2023. *Kraków – The Code of Best Practice for green areas*. In: https://environment.ec.europa.eu/topics/urban-environment/european-green-capital-award/inspiration/krakow-code-good-practice_en

⁵ *Op cit.*



among the most popular suggestions. Furthermore, the city called on young local architects to help design certain zones for environmental protection.⁶



This project, while undoubtedly a positive development for biodiversity in Belgrade, has also been hailed by researchers as a great example of good civil engagement when planning large green infrastructure projects.⁷ The linear park is part of a larger initiative within Belgrade to redesign various districts with an environmental focus.

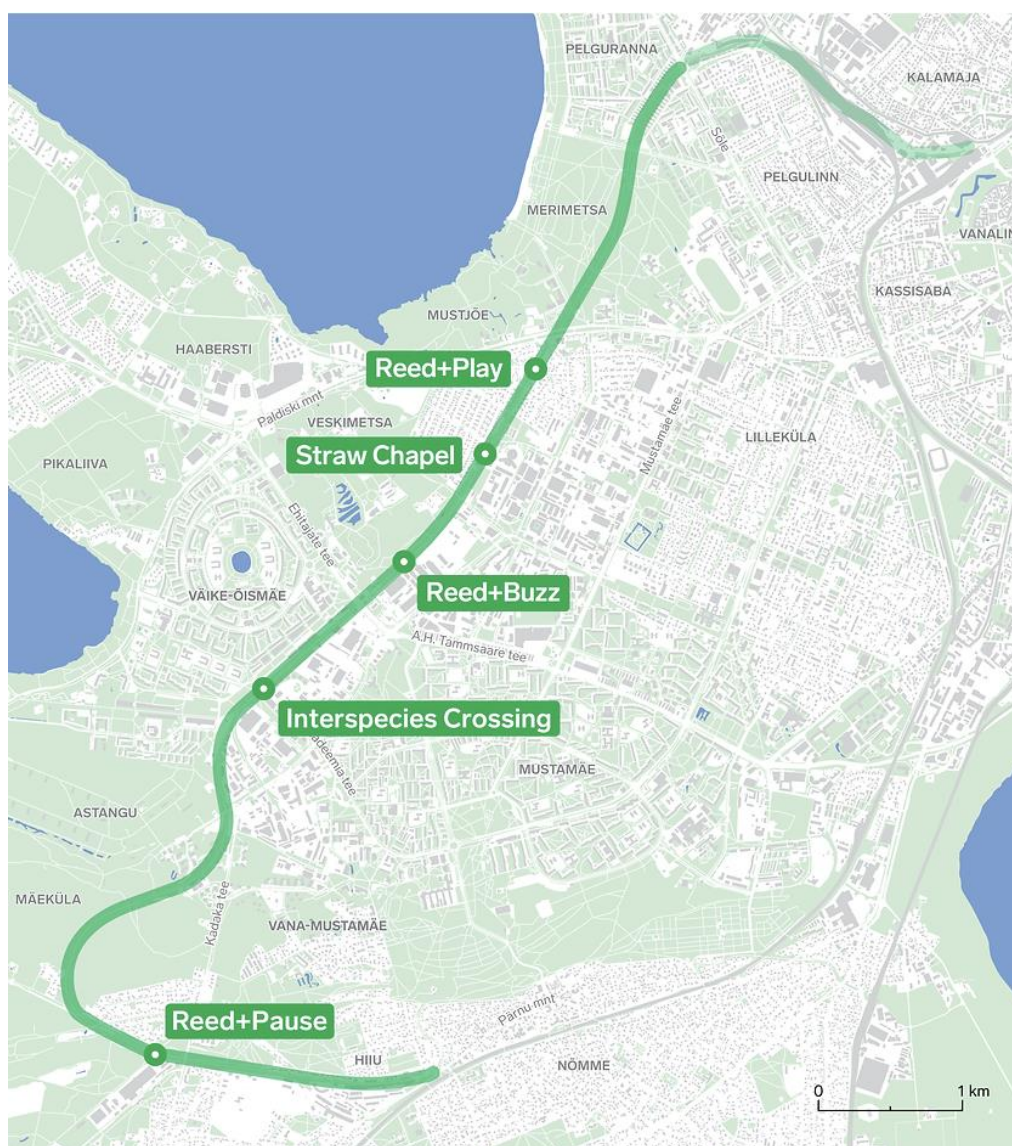
⁶ CleverCities. 2020. *Belgrade plans new linear park to bring nature to the heart of the city*. In: <https://clevercities.eu/news/?c=search&uid=lygvGdna>

⁷ Mitić-Radulović, A. and Lalović, K. 2021. *Multi-Level Perspective on Sustainability Transition towards Nature-Based Solutions and Co-Creation in Urban Planning of Belgrade, Serbia*. Sustainability 13, 7576. In: <https://doi.org/10.3390/su13147576>



Tallinn – The Pollinator Highway

Tallinn was the winner of the European Green Capital award in 2023 due to the significant reforms and flagship projects which the city has undertaken. These actions have had an explicit focus on biodiversity, including the development of biodiverse areas to ensure their protection⁸ and the construction of the Pollinator Highway — a 14-km-long “meadow-like” green corridor which connects six of the city’s districts.



⁸ Green Tallinn. 2022. Flagship Projects. In: <https://greentallinn.eu/en/flagship-projects/>



Both the form and philosophy of this project are similar to the Linear Park in Belgrade. This corridor is also constructed upon disused railway and industrial land, and features art exhibits and recreational facilities alongside protected spaces for biodiversity. In 2022, the project called on local artists to design installations for the corridor in their 'Place Buzz' competition. The title paid homage to both the area's biodiversity focus and previous use for high-voltage cables. The winning exhibit, "Interspecies Crossing", features hemp netting strung over a road, which is intended to provide a surface for lichen to grow in the coming years.⁹



Through this, the Pollinator Highway is intended to have a positive effect not only on the city's ecological health, but also on its social and recreational opportunities. According to the project's website, "The Pollinator Highway is

⁹ Green Tallinn. 2022. Installation Competition 'Place Buzz'. In: <https://www.putukavail.ee/kohasumin?lang=en>



defined by both biodiversity and urbanisation. ‘City’ and ‘nature’ are not opposite terms.”¹⁰

Vilnius – The Green Wave Initiative

The Green Wave initiative in Vilnius, launched in 2021, is a community-inclusive project to dramatically increase the city’s tree cover and upgrade existing infrastructure to be more sustainable over two years. In that time, over 100 000 trees, 300 000 climbing vines and 10 000 000 bushes will be planted.¹¹

What makes this plan so novel, other than its scale, is that the municipality has called on citizens and community organisations to lead the charge in the planting. Seeds, saplings and specialist consultation have been provided by the



¹⁰ Green Tallinn. 2023. *The Pollinator Highway. City's Biodiverse Green Corridor*. In: <https://greentallinn.eu/en/flag-projects/the-pollinator-highway/>

¹¹ City of Vilnius. 2021. *The Green Wave is rising in Vilnius with hundreds of thousands of trees, millions of shrubs and vines*. In: <https://vilnius.lt/en/2021/10/01/the-green-wave-is-rising-in-vilnius-with-hundreds-of-thousands-of-trees-millions-of-shrubs-and-vines/>



city, and citizens were also able to sponsor the planting of trees by landscaping firms.

The seedlings which have been used are chosen for both their benefit to biodiversity in the city and their natural adaptability to the Lithuanian climate. This includes “maples, lindens, acacias, pines, spiraea, syringas, sorbarias, ivy and other creepers”¹².

Additionally, Vilnius is seeking to transition away from coal and peat-fuelled boilers, offering reimbursements of between 65 % and 100 % based on household income, for residents who transition to more environmentally friendly options.¹³

In July 2023, Vilnius was named as a finalist for the European Green Capital 2025, alongside Graz and Guimarães.¹⁴

¹² *Op. cit.*

¹³ City of Vilnius. 2022. *Preparations for the ban on burning coal and peat are under way: Vilnius is going to offer financial support to replace polluting boilers.* In: <https://vilnius.lt/en/2022/06/09/preparations-for-the-ban-on-burning-coal-and-peat-are-under-way-vilnius-is-going-to-offer-financial-support-to-replace-polluting-boilers/>

¹⁴ European Commission. 2023. *Sustainable cities: five finalists for the European Green Capital & Leaf Awards.* In: https://environment.ec.europa.eu/news/sustainable-cities-five-finalists-european-green-capital-leaf-awards-2023-07-20_en



Conclusions

These cities highlight the possibility of dramatic green reforms in the pursuit of biodiversity, as well as the benefits which such a transition can have on the subjective well-being of cities' residents.

Nevertheless, projects should never be pushed onto residents. Instead, the direct involvement of the residents themselves, both in terms of design and implementation, is essential. This can be accomplished through workshops, discussion groups and public consultations.

With these goals and methods in mind, the practices listed here should serve as both an inspiration and guide for governments and NGOs in cities in CEE.

