

OUTPUT FACT SHEET

Pilot actions (including investment, if applicable)

Version 2

Project index number and acronym	CE89 LUMAT
Lead partner	IETU, Katowice
Output number and title	O.T3.1 Pilot Actions for integrated environmental management in FUAs - pilot action in Ruda Śląska
Investment number and title (if applicable)	I1 Rehabilitation of brownfield site in Ruda Śląska to create public space with recreational functions
Responsible partner (PP name and number)	PP02 City of Ruda Śląska
Project website	https://www.interreg-central.eu/Content.Node/LUMAT.html
Delivery date	April 2019

Summary description of the pilot action (including investment, if applicable) explaining its experimental nature and demonstration character

Pilot action in Ruda Śląska was developed and implemented as the investment concerning rehabilitation of the brownfield site located in the very middle of the city. The pilot action was to present the way of how to implement the action plan which has been elaborated for the Ruda Śląska FUA. The action plan was aiming at strengthening and development of green infrastructure in the FUA. The pilot action site constitutes one of the selected sites in the action plan.

The objective of the post-zinc heap rehabilitation was to create an area of a park character with recreation and leisure function serving to inhabitants of the whole FUA.

Main problem and target of actions designed for area of zinc spoil heap in Ruda Śląska was the soil contamination and the process of the situation improving with remediation, to reach safe recreation open space. Additional targets were: to mitigate dangerous sharp and high crags on the northern heap edge; build possibly low cost in maintaining leisure infrastructure with possibly broad offer, vandalism resistible, and with deep connections with local identity and history.

The design contained listed below elements:

- remediation and phytostabilization of top layer of the spoil heap;
- northern slope and spoil heap top formation;

- road path system;
- lighting design;
- surveillance infrastructure design;
- recreation infrastructure: viewpoints, grill area, outdoor gym equipment, industrial playground, education path.

Phytostabilization design involves the reduction of the mobility of heavy metals in soil. The mobility of contaminants is reduced by the accumulation of contaminants by plant roots, absorption onto roots, or precipitation within the root zone. To provide proper habitat for planned grasses there was designed addition of fertile soil to the top layer of the ground. There were chosen grass species especially suitable to limit contaminations in roots and restrain their migration to aboveground stems. For the first time this technology was applied for such a large area of 12 266 m². Now the good results of this experiment can be observed.

The design of the project included many attractions for children and adults such as: playing ground, place for barbeque, walking paths, education paths, hammocks, jumping track for BMX bicycles, viewpoint, outdoor gym. The pilot area in Ruda Śląska was a place where the phytostabilization process was tested and it became an example of good practice in sustainable land use development, dealing with soil contamination. That might become a suitable source of experience for not only LUMAT project partners but also other degraded areas, scientific communities and most of all other cities in FUA.

The whole process of the pilot implementation has been followed step by step by the transnational group of the project partners, therefore it could show how to deal with a problem of regeneration of a contaminated large post-industrial site in a practical way at a relatively low cost.

NUTS region(s) concerned by the pilot action (relevant NUTS level)

The pilot action developed in the LUMAT project is concerning NUTS region of the Central-Eastern Europe: PL22, Śląskie.

Investment costs (EUR), if applicable

Total costs (mentioned above): 259 213,00 €

Estimated co-financing ERDF: 220 331,05 €

19 994,65 euro (project documentation) + 1 441,86 € (author's supervision)

Expected impact and benefits of the pilot action for the concerned territory and target groups and leverage of additional funds (if applicable)

Due to the high spatial and environmental degradation of the Wirek district in Ruda Śląska, as well as the lack of any green public spaces of a park character, it was decided to transform the wild, neglected, but located in the heart of the district and city, zinc dump. Of course, before a decision was made to use the heap, a number of social consultations, workshops and surveys were carried out as part of the project: POPT - Integrated approach

to problems of functional areas on the example of Chorzów, Ruda Śląska and Świętochłowice until 2030 and as part of works on the Local Program Revitalization of the city of Ruda Śląska until 2030, and then the Municipal Program of Revitalization of the City of Ruda Śląska until 2030.

It is also worth mentioning that the central commercial district of the city needed a pedestrian-bicycle connection with the service district - Nowy Bytom, as an alternative to automobile roads.

Thus, there was the possibility of creating a green spine of the city, connecting the northern part of the city with the south, while simultaneously binding existing and planned parks and public spaces.

By creating a new green public space, which is important, safe for health, in particular the district, but also the city, gaining a link, improving communication, improves the health of residents by promoting a healthy lifestyle (walking, cycling, outdoor gym). There is also an educational aspect (educational boards, witnesses of history (sintering pan, dolomite lump, metallurgical tanks, rock witness). Currently, the object is visited by several dozen people a day, and at the weekend even several hundred.

The investment implementation has pulled other sources of financing in order to continue the system of green infrastructure for the whole city. Also the system of biking routes has been included in this additional funding. The project called "Ruda Route" is financed by the National Fund for Environmental Protection and Water Management. The cost of this project is €2 079 604.

Sustainability of the pilot action results and transferability to other territories and stakeholders.

The pilot action including revitalization of the zinc spoil heap in Ruda Śląska constituted a part of the action plan concerning strengthening of an integrated environmental management of land resources in the FUA following sustainable development rules. According to these rules the technology of remediation and phytostabilization has been applied to all accessible area. On the northern slope there were the most heavy works of land formation to neutralize all health hazards connected with contamination and sharp crags. The slope was flattened. Ground surface was covered with clay and clear soil layer. Central area of the top of spoil heap was treated with phytostabilization and southern slope was maintained in the way to rebuild flora structure with the target to get plant cover not concentrating heavy metals in above the ground shoots. On that area recreation activities are highly limited. All solutions are meant to provide safe environment for people to rest, spend their leisure time and enable some sport activities with no health threat. Some limited parts of the area were left untouched to preserve local flora and provide source for natural succession. To support biodiversity nearly all designed trees are native. Most grass species except ornamental miscanthus are native too.

All solutions were designed to follow spatial, social, economic and natural demands of sustainable development and following ideas of green urbanism, the local action for biodiversity, European Landscape Convention and others.

The pilot action in Ruda Śląska represents an example of the whole process of successful remediation of a contaminated site and its transformation into an area of the new function. The example shows the way how to re-use a brownfield located in the very middle of the city with application of the technology which is financially available. The solution is transferable to other similar cases in all European countries.

In order to sustain and maintain the pilot action the Ruda Śląska City will provide a service performed by the Communal Services Company owned by the City. The service will mainly include keeping the area clean and cutting grass on the playground.

Lessons learned and added value of transnational cooperation of the pilot action implementation (including investment, if applicable)

The pilot site in Ruda Śląska was a place where the phytostabilization process was tested for the first time in the large area, that was a public greenery space, so not only the method could be tested in non - laboratory environment but could also become an example of good practice in sustainable land use development, dealing with soil contamination and connected to its social problems.

The investment in Ruda Śląska has constituted an example of solving a problem of a negative impact of polluted large brownfield located in the middle of a city. The investment is a result of the pilot action concept discussed within the LUMAT project consortium. The pilot design was a result of both discussion in the consortium and at public meetings, at which the inhabitants have expressed their wishes and expectations concerning the future form and functions of the regenerated area.

Contribution to/ compliance with:

- relevant regulatory requirements

- sustainable development - environmental effects. In case of risk of negative effects, mitigation measures introduced
- horizontal principles such as equal opportunities and non-discrimination

After the completion of the design phase by the documentation designer "Revitalization of the zinc dumping ground applied for the building permit, which has been issued - decision No. 464-17 of 18/09/2017 mark AU.6740.403.2017.

In accordance to the Polish law regulating the principles of conducting environmental impact assessments, derived from the European Union legislation from Directives: 2011/92 / EU of 13 December 2011 (EIA); 2001/42 / EC of 27 June 2001 (SEA); 92/43 / EEC of 21 May 1992 (Habitats Directive), there is no requirement to carry out a strategic environmental assessment for investment under the name: Revitalization of the zinc dumping ground located in Ruda Śląska near 1 Maja street and Tolstoy street.

All solutions are meant to provide safe environment for people to rest, spend their leisure time and enable some sport activities with no health threat. Some limited parts of the area were left untouched to preserve local flora and provide source for natural succession. To support biodiversity nearly all designed trees are native. Only groups of shrubs are introduced using ornamental plants with the highest drought tolerance. Various small architectural forms and sport facilities were applied. The form of them should support local identity. Educational path is providing information about history of the place, industry connected with the area, local flora and fauna and sustainability issues. Spatial and architectural solutions have original form and should be legible and easy to use. Small architectural elements, are resistible for vandalism and possibly not too much expensive, easy to maintain, repair or exchange.

The project has been implemented with respect to the principles of the policy concerning equal opportunities and non-discrimination and have a positive impact on it.

The project's products have been designed to be available to all groups, regardless of gender, racial or ethnic origin, religion or belief, disability, age or sexual orientation.

References to relevant deliverables (e.g. pilot action report, studies), investment factsheet and web-links

If applicable, additional documentation, pictures or images to be provided as annex

The pilot action is directly relevant to the deliverable D.T3.1.4 - report on pilot action on brownfield remediation in Ruda Śląska, to D.T3.8.1 - Framework paper on evaluation of results and lessons learnt and to D.T3.9.2 - Report on recommendations for policy makers.

It is also relevant to the investment factsheet describing the output O.I1.1.













