

TAKING COOPERATION FORWARD

EU Pavilion in COP24, Katowice, 8 December 2018

Interreg contribution to climate change adaptation – project CIRCUSE and LUMAT

LUMAT, CIRCUSE | IETU Institute for Ecology of Industrial Areas, Poland | Anna Starzewska-Sikorska



CIRCUSE: Circular flow land use management (2010 - 2013)

LUMAT: Implementation of Sustainable Land Use in Integrated Environmental Management of Functional Urban Areas (2016-2019)

KEY URBAN ISSUES



- excessive land consumption,
- urban sprawl,
- soil sealing,
- brownfields,
- increase of urbanized areas not proportionally to population growth

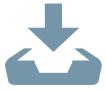
Among negative consequences the **diminishing of soil environmental services capacity resulting in global climate problems** was indicated.

— TAKING COOPERATION FORWARD

ENVIRONMENTAL MANAGEMENT METHODS USED IN LUMAT & CIRCUSE

- Ecosystem services assessment for supporting decisions in integrated land use management
- Integrated site compensation in relation to brownfields and degraded areas
- Industrial symbiosis with environmental criteria in business co-operation
- Circular land use management

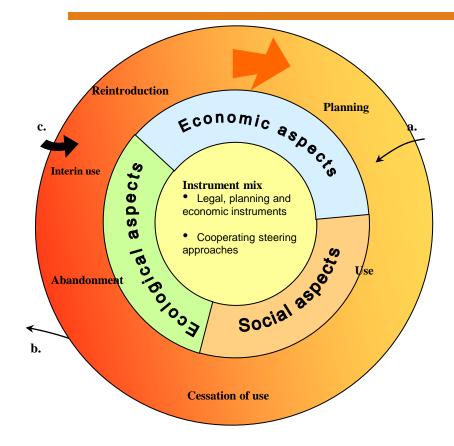








Life cycle of land (source: Research group "Flache im Kreis", 2005)



The CircUse process is visualized in this figure, showing land use as a cycle with three major phases:

- a. Zoning new "Greenfields"
- b. Rejection of land not suitable for subsequent use

Activating land potentials
brownfields, empty buildings
gaps between buildings and vacant land
urban renewal and redevelopment sites
sites undergoing planning

The end and the beginning of each phase are crucial decision points.

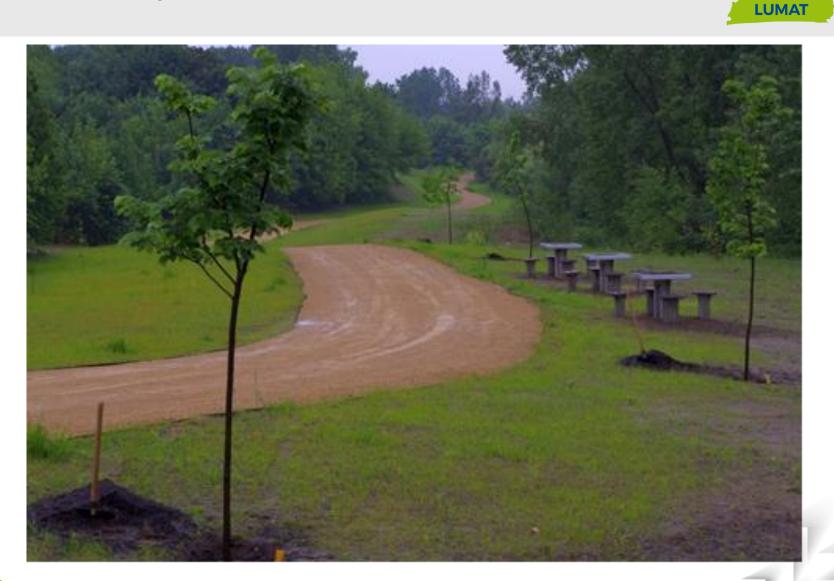






PIEKARY ŚLĄSKIE INVESTMENT IN CIRCUSE





TAKING COOPERATION FORWARD





Czech Republic Germany Poland Italy Slovakia Austria Slovenia

LUMAT

Implementation of Sustainable Land Use in Integrated Environmental Management of Functional Urban Areas

TECHNICAL ACTIONS IN ACTION PLANS

- Program of re-using post-mining sites (Austria),
- Program of brownfields revitalization (Czech Republic),
- Program of integrated site compensation (Germany),
- FUAs' environmental and territorial issues management model as contribution to metropolitan strategic planning and metropolitan general spatial planning (Italy),



EUROPE

- Concept of green and blue infrastructure strengthening and development (Poland),
- Integrated, sustainable management concept of functional city area in the process of spatial planning with an emphasis on integrated management of environmental protection and integrated land use (Slovakia),
- Program of business development on degraded areas as inner city development (Slovenia).



PILOT ACTIONS



- "Garden show" (Austria),
- "Priority map" (Czech Republic),
- "Pilot program of site compensation" (Germany),
- "Intermunicipal management model with implementation of SDSS" (Italy),

- Investment of brownfield regeneration in city centre (Poland),
- Investment of "green brownfield" regeneration (Slovakia),
- Industrial symbiosis model application (Slovenia).



POLAND: investment including regeneration of the post-zinc wastes dumping site in the middle of Ruda Śląska city with application of the phytostabilization technology. The site will be transformed into an area of a sports and recreation function.



PILOT ACTION IN RUDA ŚLĄSKA





Source: Ruda Śląska City

PILOT ACTION IN RUDA ŚLĄSKA





Source: Ruda Śląska City

SERVICES PROVIDED BY ECOSYSTEMS



- **Provisioning** food, clean air, fuel, timber,
- Regulating - climate, flooding
- Cultural - aesthetic and cognitive inputs, health, recreation and tourism
- **Supporting** water cycling, soil formation,

ECOSYSTEM SERVICES IN LUMAT



AC 5

TL2

TL3

TL4

Methodology of ecosystem services assessment applied in LUMAT is concentrated on descriptive way of defining benefits gained from the environment as a result of action plans implementation.

The benefits connected with climate aspects concern *strengthening* of urban areas resilience to climate change impact. These are activities related to:

development and enlargement of green and blue infrastructure

TL21

TL22

de-sealing of surface of urban areas.

TL28

Source: Trnava City

CONTACTS





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LUMAT Project