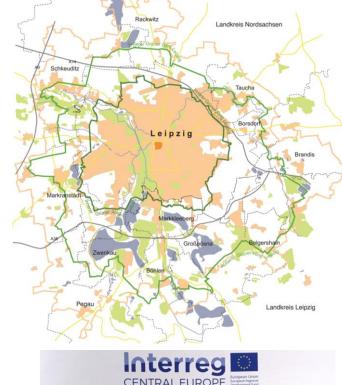


- Project Meeting
 Torino 26.09.2017
- LUMAT Action Plan Tool Concept (LUMATO)
- LUMAT LfULG Karl Eckert, Bernd Siemer and Dr.-Ing. Uwe Ferber



- LUMAT Pilot Area Green Ring Leipzig
 - Cooperation of 13 Municipalities and two Counties
 - Existing database system being used, maintained by external IT company
- LUMAT activities include:
 - Analysis and evaluation of "Threats" in the pilot area
 - Compensations measures on threatened land parcels "for more livable places!" (CE Objective 3.3)
 - Development of Tool









Feedback we have received from Green Ring Leipzig:

- They do not want/cannot accept any additional tools or software to add to their existing tools!
- What is missing is an integrated environmental approach to threats

Tool Goal: Define a LUMAT vision and context appropriate solutions

- To be supported with a tool in GRL:
 - Inter-municipal communication
 - Integration of evaluation of different disciplines
 - Various access points to the tool (writing and guiding permissions)

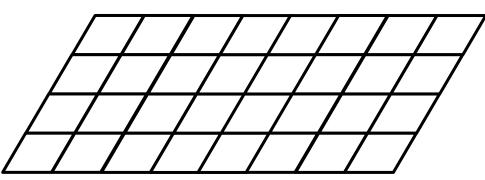




LUMAT Pilot Area Tools to be **Homogeneous Dataset**INSPIRE Grid (Pilot Area Germany has 78,000 100mx100m cells)

Reasons for using an INSPIRE Grid:

- 1. Homogeneous information base (FUA, Central Europe, even EU-wide!)
- 2. <u>Protection of personal information</u> (for example identification of property owners, generalisation required when presenting information to the public)
- 3. Compilation of various sectoral disciplines into the tool (<u>integrated</u> environmental management!)
- 4. EU-wide INSPIRE guidelines for gathering environmental information
- 5. INSPIRE Grid (GIS Shapefile) quickly implementable into existing organisations (no new software required, no new skills required for those already working in GIS)
- 6. Steer ecological compensation measures to "Make the places more livable!"

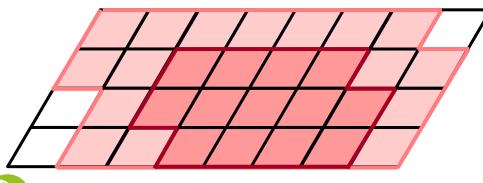


LUMAT Pilot Area (example) INSPIRE Grid





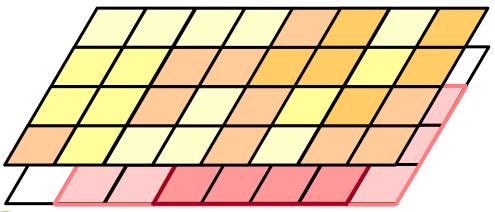
The tool consists of multiple layers (for the visualisation of threats in the FUA) - example 1/7



LUMAT Pilot area
 Core and commuting zone
 (Eurostat/OECD Methodology)



The tool consists of multiple layers (for the visualisation of threats in the FUA) - example 2/7



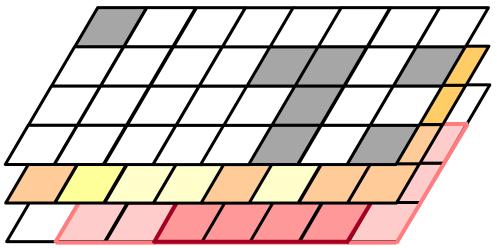
- 2. Land use cover or other information
- 1. LUMAT Pilot area
 Core and commuting zone



TAKING COOPERATION FORWARD



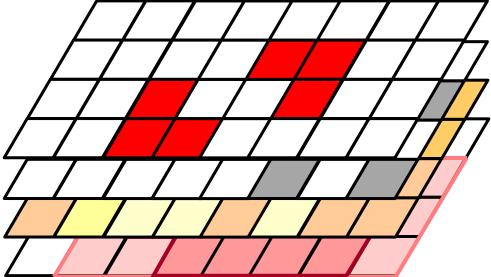
The tool consists of multiple layers (for the visualisation of threats in the FUA) - example 3/7



- 3. THREAT Brownfields, Greyfields
- 2. Land use cover or other information
- LUMAT Pilot area
 Core and commuting zone



The tool consists of multiple layers (for the visualisation of threats in the FUA) - example 4/7

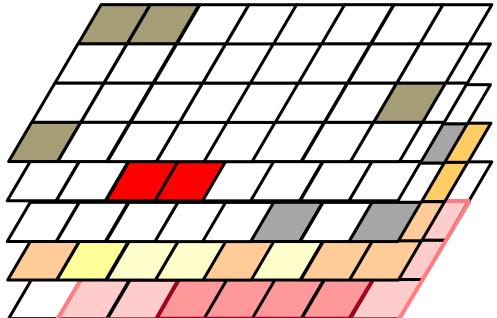


- 4. THREAT Overwarming
- 3. THREAT Brownfields, Greyfields
- 2. Land use cover or other information
- 1. LUMAT Pilot area Core and commuting zone





The tool consists of multiple layers (for the visualisation of threats in the FUA) - example 5/7

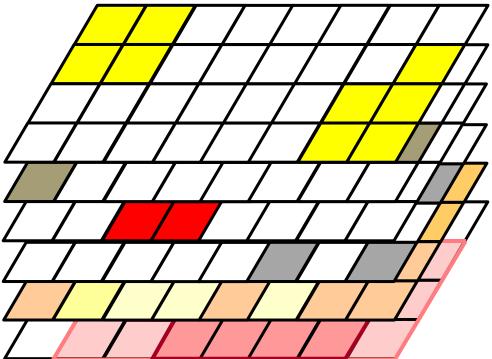


- 5. THREAT Overfertilisation
- 4. THREAT Overwarming
- 3. THREAT Brownfields, Greyfields
- 2. Land use cover or other information
- 1. LUMAT Pilot area Core and commuting zone





The tool consists of multiple layers (for the visualisation of threats in the FUA) - example 6/7

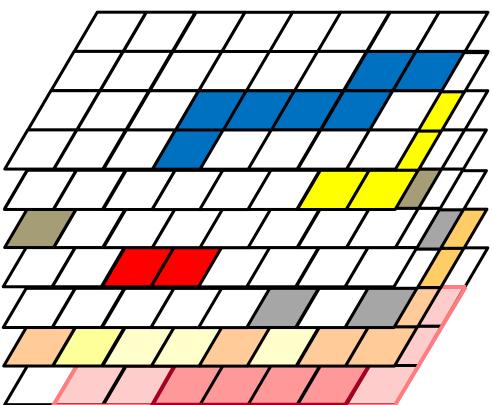


- 6. THREAT New Soil Sealing
- 5. THREAT Overfertilisation
- 4. THREAT Overwarming
- 3. THREAT Brownfields, Greyfields
- 2. Land use cover or other information
- 1. LUMAT Pilot area Core and commuting zone





The tool consists of multiple layers (for the visualisation of threats in the FUA) - example 7/7

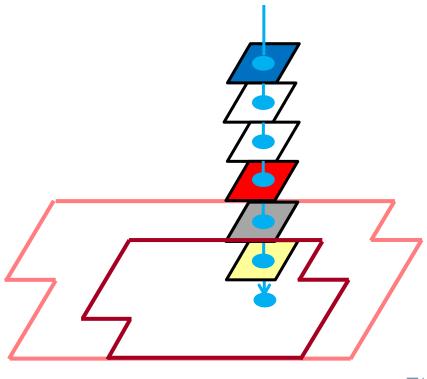


- 7. THREAT Flooding Hazard Land
- 6. THREAT New Soil Sealing
- 5. THREAT Overfertilisation
- 4. THREAT Overwarming
- 3. THREAT Brownfields, Greyfields
- 2. Land use cover or other information
- 1. LUMAT Pilot area Core and commuting zone





INTEGRATED ANALYSIS THREATS (EXAMPLE)



Flooding Hazard Land - Yes

New Soil Sealing - No

Overfertilisation - No

Overwarming - Yes

Brownfields, Greyfields - Yes

Land use cover or other information-

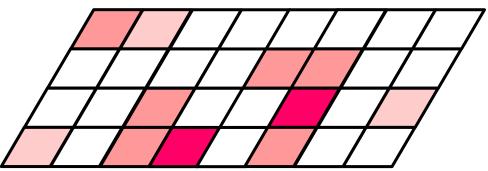
Core or commuting zone - Core





(2018) Combined Evaluated Threats in Pilot Area

- Top Priority Threat Mitigation
- Middle Priority Threat Mitigation
- Low Priority Threat Mitigation



INTEGRATED ANALYSIS OF THREATS

- Priority given through the setting of a point-based system
- Establish which threats should be addressed first, and which can wait accordingly
- Give stakeholders a quick overview of the areas of action for ecosystem improvement
- Improve cross administrational and sectoral communication!





Specific actions can be proposed to mitigate certain threats, for example:

Brownfields - ACTION:

- Create green spaces (urban or rural in nature)
- Desealing, revitalisation
- Renovation into new urban uses (feasibility studies)

Overwarming - ACTION:

- Desealing (to increase evaporation and further cooling functions of soil)
- Create urban green structures on brownfield sites

Overfertilization - ACTION:

- Limit the intensive use of fertilizers on sensitive soils
- Protect ground water bodies from pollution

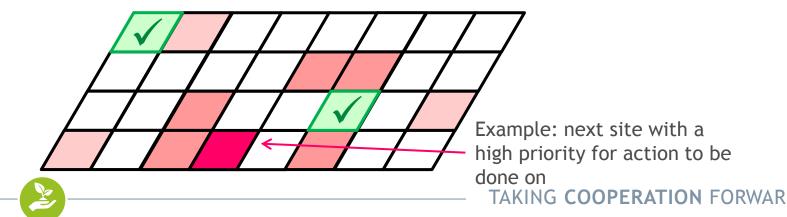






Monitoring Environmental Services Improvement

- For example deconstruction of a brownfield takes place, ecosystem services are improved because soil functions are restored/improved, thus parcel get a check (✓).
- Checks can be spatially arranged to show where improvement has taken place, and where threats still should be treated in the future
- Obtain existing funds for mitigating threats
- General base for environmental compensation





- Feedback: we would like to know -
 - Your ideas to this LUMAT Tool concept
 - Your potential interest in such a tool?
- PP3 can assist in the creation of a Grid layer for your pilot area, this depends on the INSPIRE guidelines in your region and FUA boundaries
 - For example, Germany uses the UTM coordinate system
 - Need to know what is required for partner countries!
- Compiling the common action plan concept with input from each region





- Planned activities 2018:
 - Defining priority setting of threats, adaptation to local context
 - Defining actions to improve ecosystem services of a grid cell
 - Mapping the improvements of the area (monitoring)





Thank you for your attention!

Cheers, Bernd, Karl and Uwe



