GMES Urban Service, as a contribution to regional soil protection for the Region of Freiberg-Chemnitz

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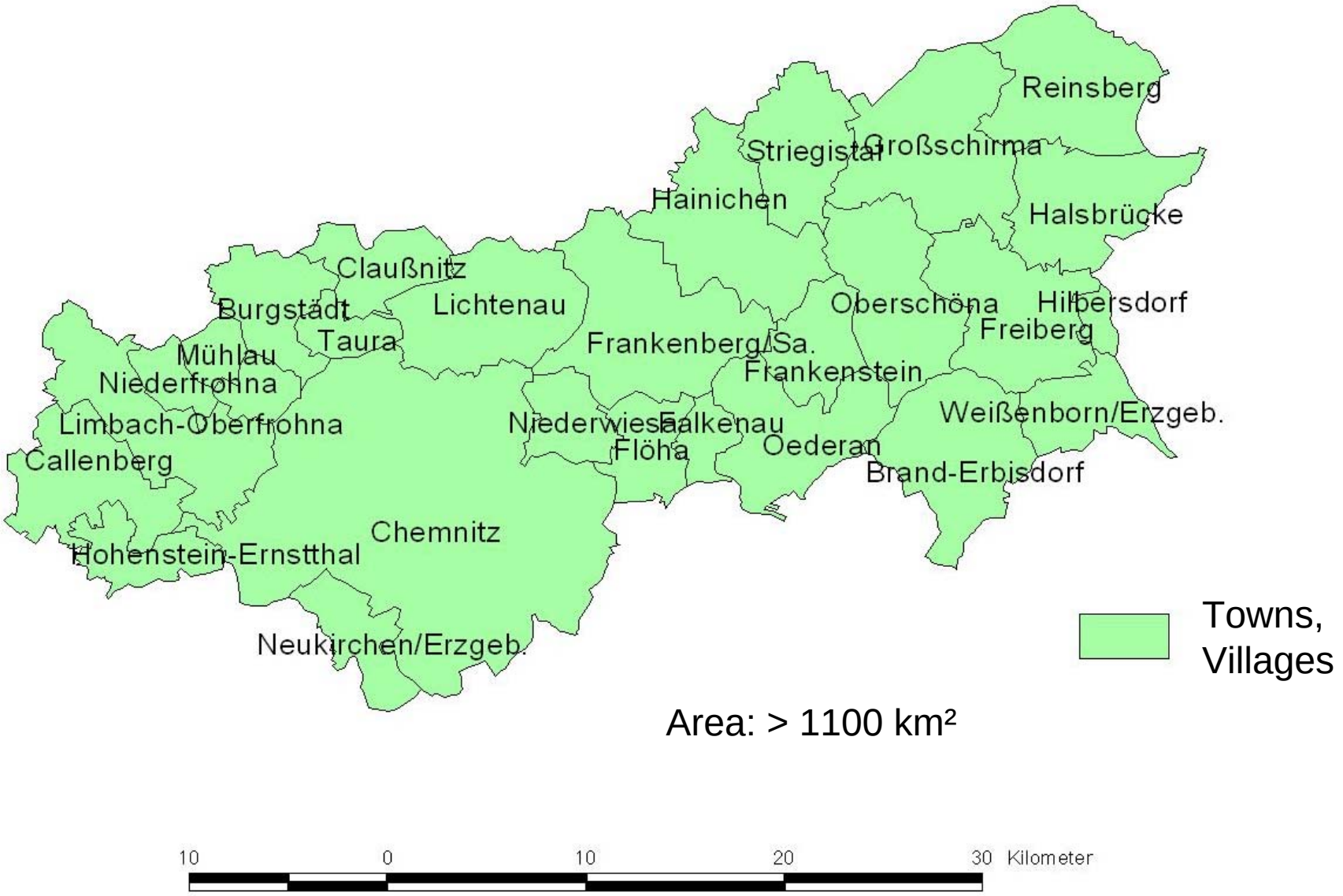
Investigated Administration districts in Saxony

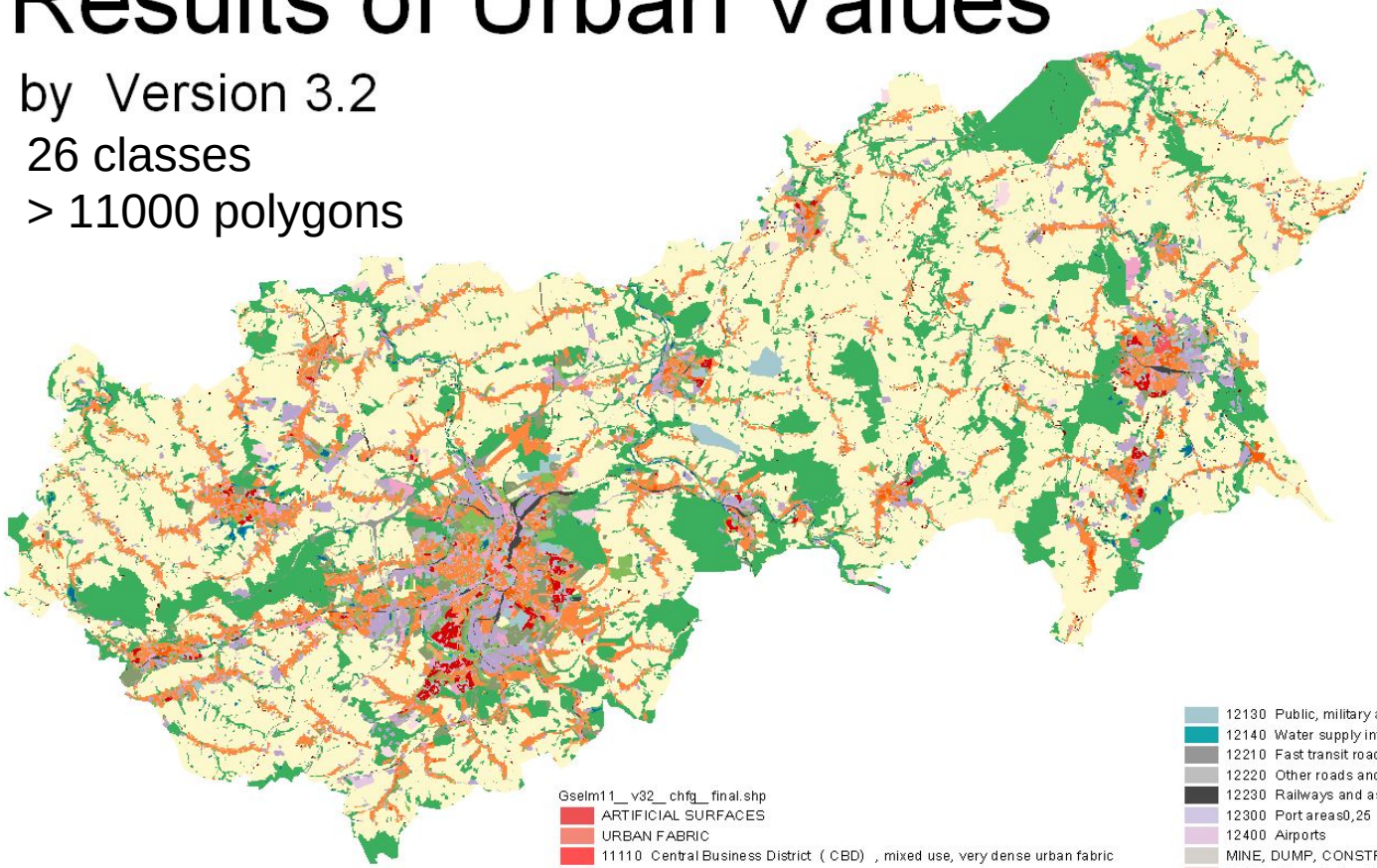


Results of Urban Values

by Version 3.2

26 classes

> 11000 polygons



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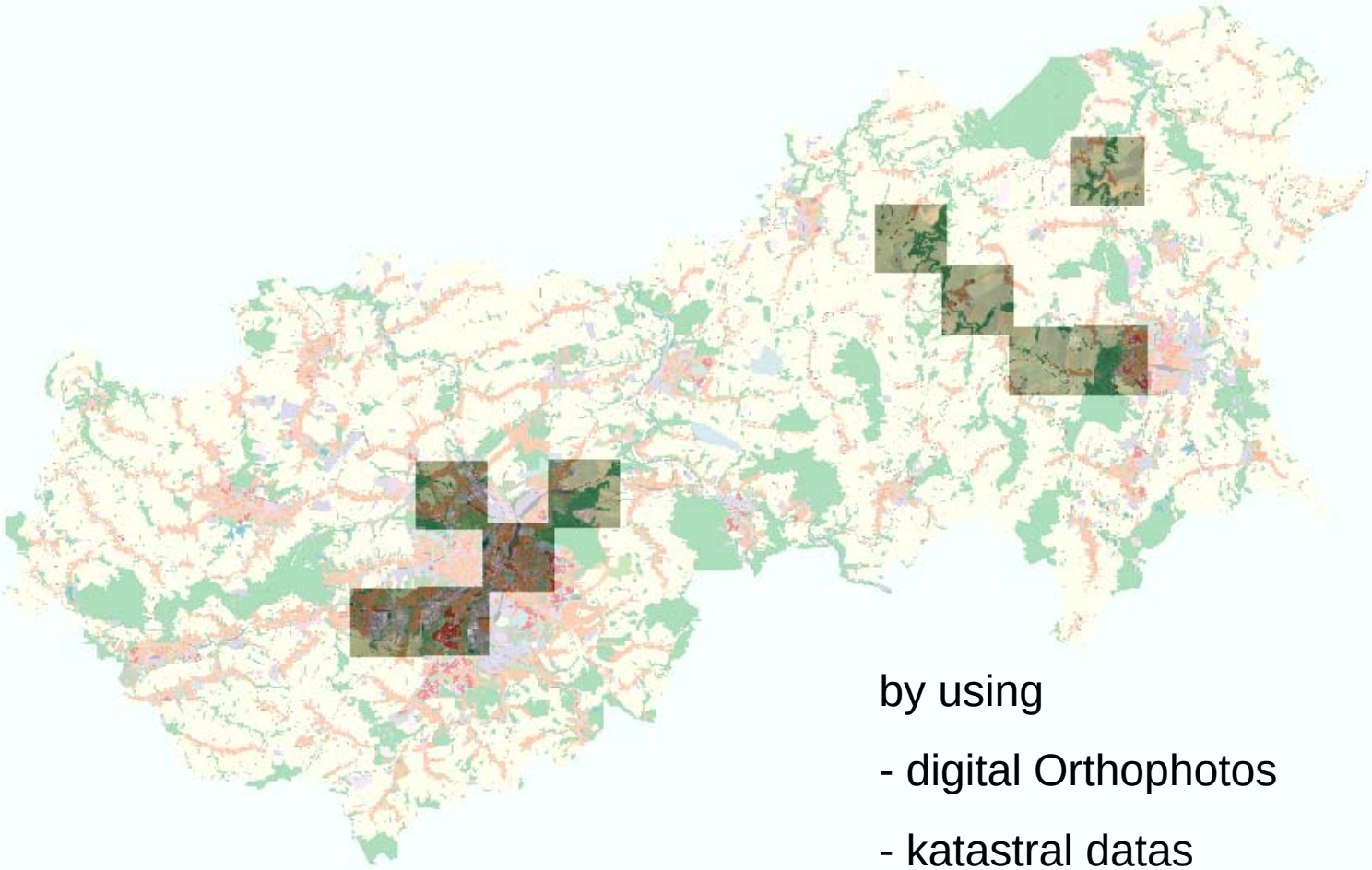
- ARTIFICIAL SURFACES
- URBAN FABRIC
- 11110 Central Business District (CBD) , mixed use, very dense urban fabric
- 11120 Informal continuous dense settlement
- 11210 Mixed use, dense urban fabric (S.L.: 50% - 80%)
- 11220 Primarily residential, medium density urban fabric (S.L.: 30% - 50%)
- 11230 Primarily residential, low density urban fabric (S.L.: 10% - 30%)
- 11240 Informal discontinuous residential structures
- SPECIAL URBAN FEATURES
- 11310 Apartment blocks with communal open space
- 11320 Isolated structures
- INDUSTRIAL, COMMERCIAL, TRANSPORT
- 12110 Industrial uses and related areas
- 12120 Commercial uses, retail parks and related areas
- 12130 Public, military and private services
- 12140 Water supply infrastructure, sea walls and flood defences
- 12210 Fast transit roads and associated land
- 12220 Other roads and associated land
- 12230 Railways and associated land
- 12300 Port areas0,25
- 12400 Airports
- MINE, DUMP, CONSTRUCTION
- 13100 Mineral extraction and dump sites
- 13300 Construction sites
- 13400 Land without current use
- ARTIFICIAL VEGETATED AREAS
- 14100 Green urban areas
- 14200 Sports and leisure facilities
- 20000 Agricultural Areas
- 30000 Forests
- 40000 Wetlands
- 50000 Water

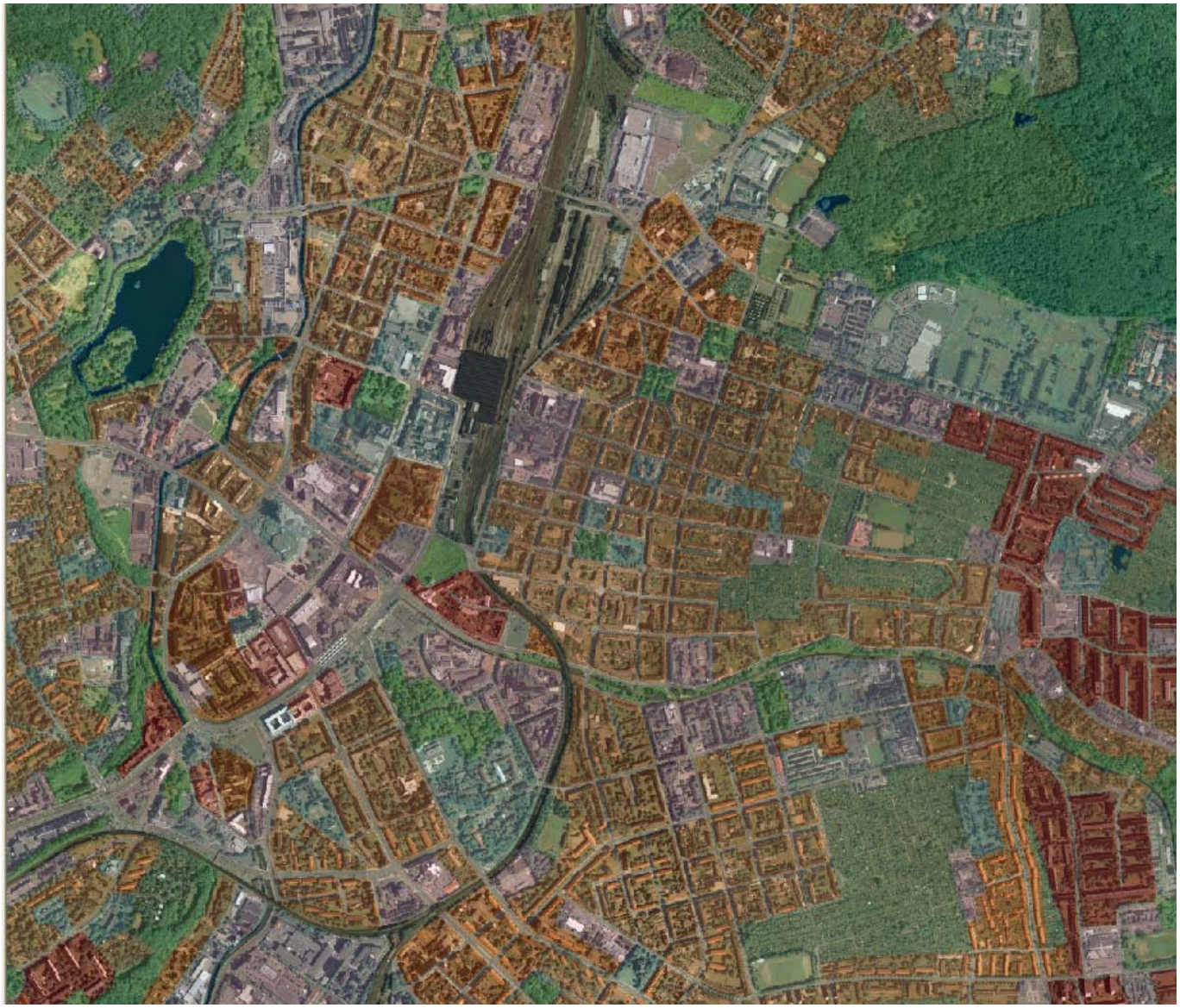
Review by the User



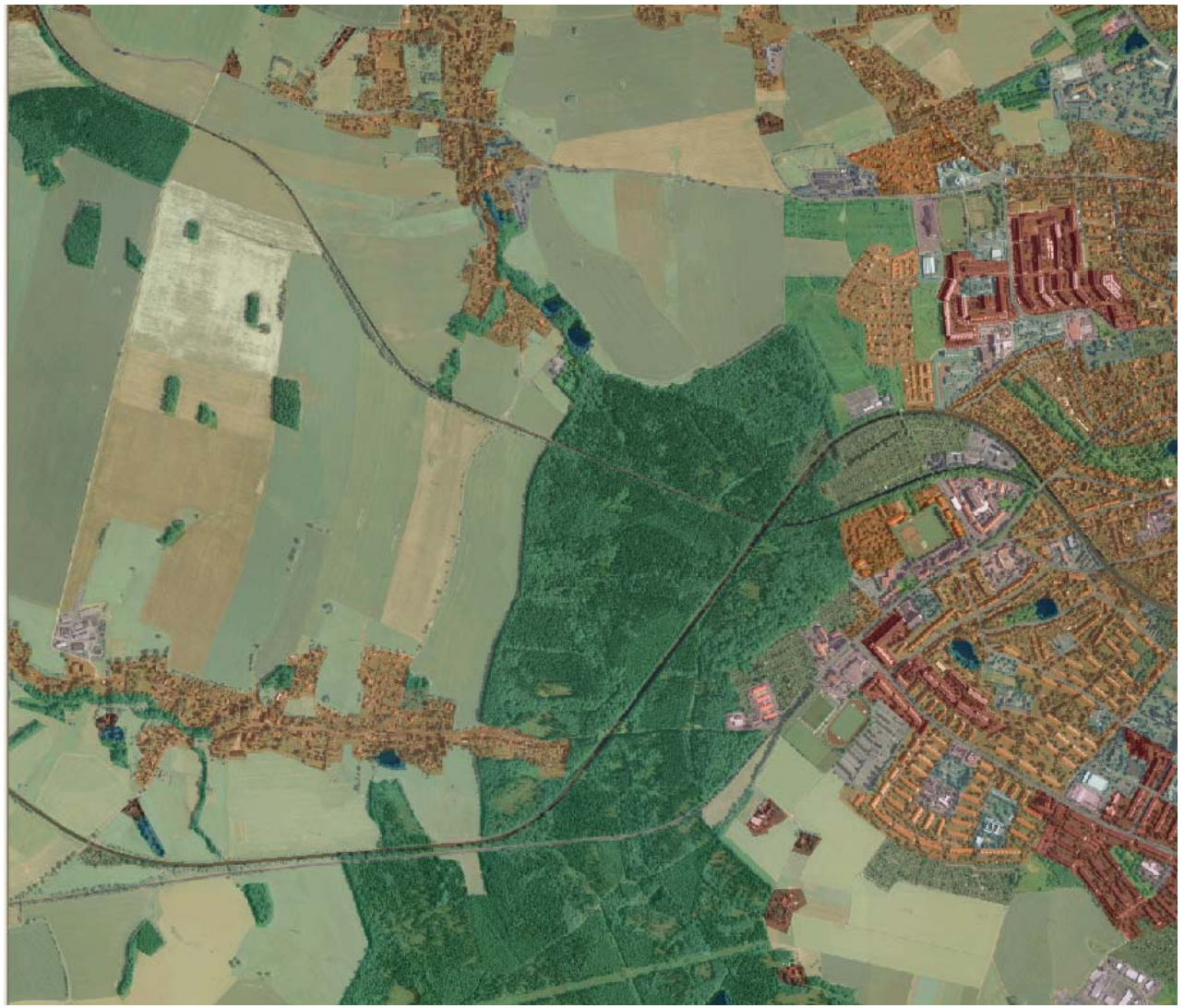
by using

- digital Orthophotos
- katastral datas

Example: City of Chemnitz



Example: City of Freiberg and villages near by



Results of the comparison

- very good classification results of the urban area

- a detailed coverage of the urban density

  - for example the urban land use in big cities (Chemnitz) with many informations of different land use and land consumption

  - for example the urban land use in rural regions with elongated structures and cutting effects and land consumption

- a homogeneous record in the whole area

- all information in vector format: a user can change the land use information if it is necessary

How can the information be used ?

- Settlement mask with different urban aspects
- Places with different density of settlement are correlated with different degrees of soil sealing, so the information also can be used as a overview of a sealing map.
- General suitability as a monitor für urban land use change, for example at intervals of 3 - 5 years.
- Applicability in the local planning rather not. Here is the information more supportive. But in local planning without any other base-information the GSE-Land may be applicable.
- For tasks of regional planning, the information is of high importance.

Recommendations

- The target for GSE-Land is the application of technical standards at acceptable costs.
- Problems are always on when a data homogeneity doesn‘t exist.
- I therefore recommend that the number of possible classification units in the entire study area is constant.
- In Saxony there is a high daily soil consumption also in the rural area. In the GSE-classification only the fast track areas with mixed and residential use are involved. Commercial, industrial and agricultural buildings and sealing's are covered in the Fast Track but they are in GSE-Land not include. This is pity.

Thank you for your attention!