

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

Bernd Siemer

Saxon State Office for Environment, Agriculture, Geology

www.umwelt.sachsen.de/lfulg

Bernd.Siemer@smul.sachsen.de

Investigated Administration districts in Saxony

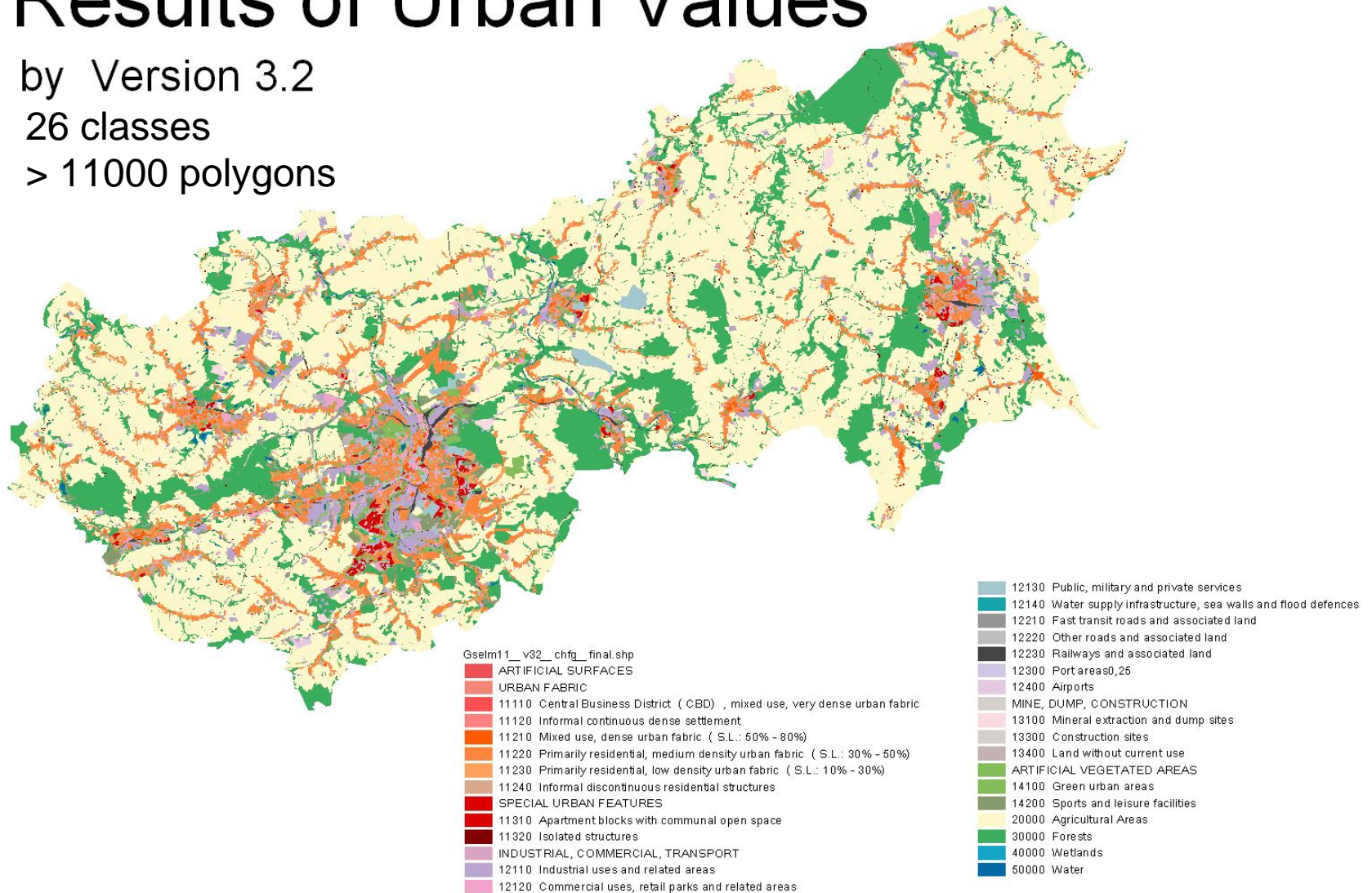


Results of Urban Values

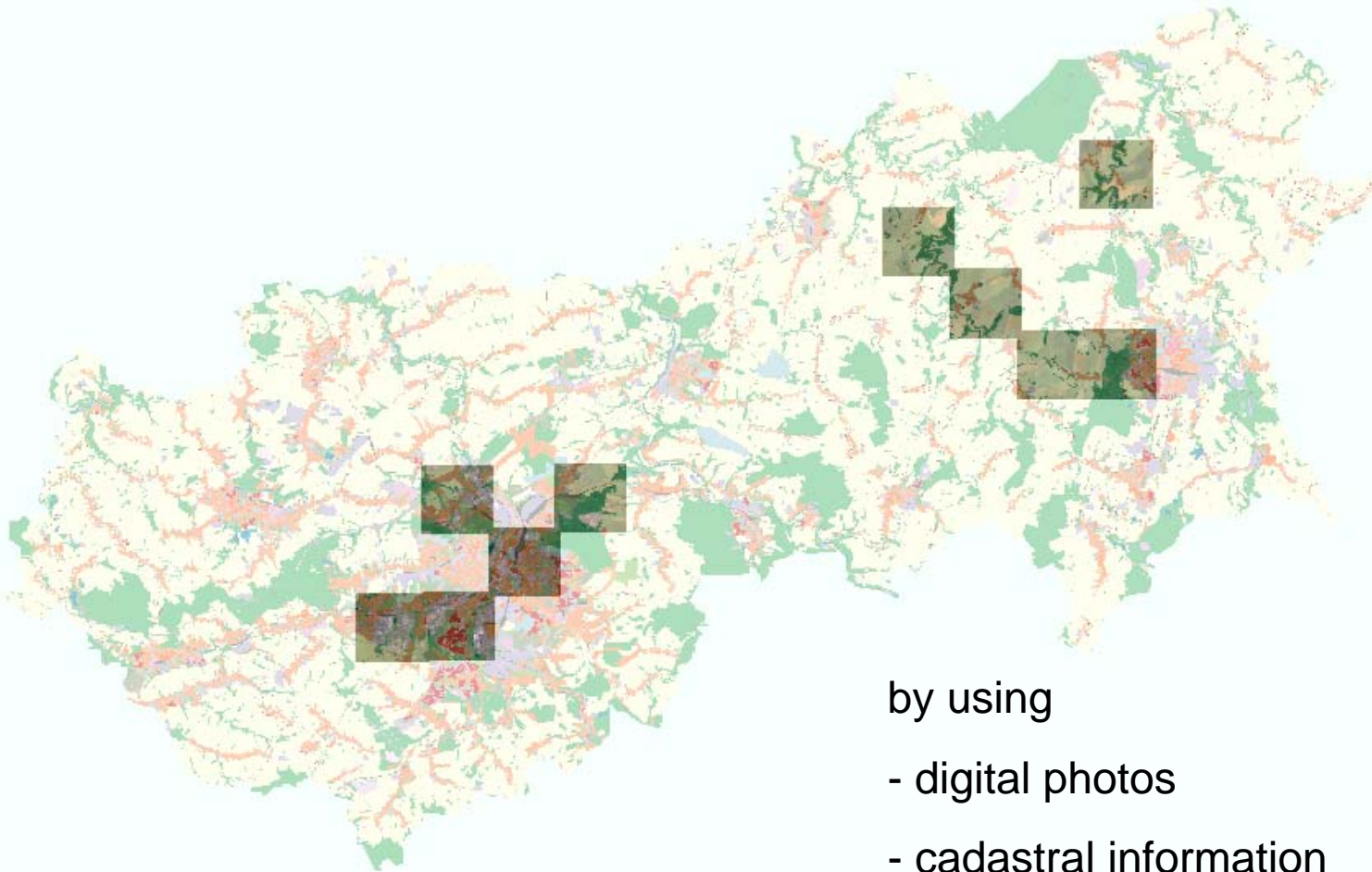
by Version 3.2

26 classes

> 11000 polygons



Review by the User



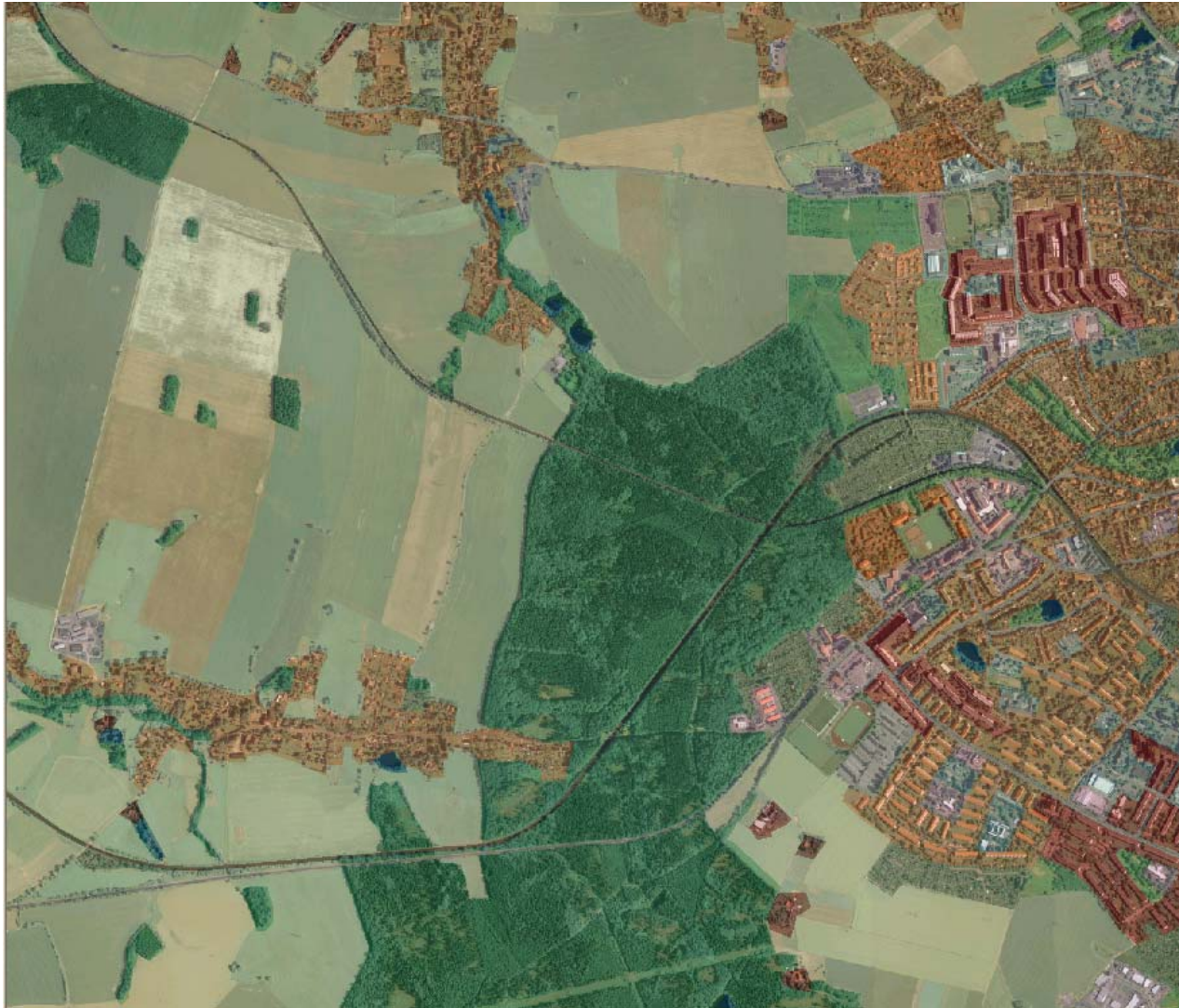
by using

- digital photos
- cadastral information

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 information's 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 are in vector format: a local 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 an overview of a sealing map.
- General suitability as a monitor für urban land use change, for example at intervals of 3 - 5 years.
- The Applicability in the local planning is rather not. Here is the information more supportive. But in local planning without any other base-information like cadastral information the GSE-Land may be applicable.
- For tasks of regional planning at a scale $> 1:20.000$, 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 about the districts with high density and low density of urban fabric.
- 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!