1. Topic: Embedding of customized information as background to Google maps – case study with animal density information

There is strong evidence for regional influences on hay quality which are explained by altitude, botanical composition, production intensity and fertilizer intensity. In forage production including hay, the level of available fertilizer in the form of manure is directly linked with animal density. It is expected that high animal density results in high phosphorous content. The interesting questions are: which nutrients in hay samples do correlate with animal density? How can we visualize animal density and hay quality simultaneously? How are hay samples distributed over the different animal density classes?

Data on animal density are available on a communal basis whereas data on hay nutrients are given on a postal code basis. One problem to solve is the merging of the two data sets. A community is not always identical to a postal code and vice versa. Before correlations can be calculated, the data sets need to be screened and merged.
The visualization of the spatial distribution of hay samples across spatial animal density classes can be solved by embedding animal density into Google maps and displaying the hay samples as flags (or some alternative form). Reasonable animal density classes must be defined in a first step. On the map, each density class takes a different color. In the end, every community must be colored.

Deliverables of the project:

1. Implementation of animal density classes into Google maps on a community level and link with hay samples that are displayed as flags.
2. Flags (or some alternative form) of the hay samples maintain the functionality of displaying above or below average values for any selected nutrient.
3. Distribution of hay samples across density classes
4. Correlation between hay nutrients and animal density