

Evaluation of LEADER Programme under RDP 2014-2020 in the Mazowieckie region: Text mining results

The LEADER Programme under RDP 2014-2020 was chosen for the policy evaluation task for Poland. The focus was on the sub-measure 19.2 “Support for the implementation of operations under the community-led local development strategy”. This instrument aims at developing the rural entrepreneurship through community-led local development strategy.

Sources

For a text-mining based evaluation, a Reading List was created, which consists of 13 resources, including policy regulations, local development strategies, scientific research as well as additional sources dealing with the implementation of the LEADER Programme under RDP 2014-2020. There was one error with the webpage with a direct link to the pdf file.

Results

Common topics are local development (in total it appeared 218 times), rural development (183), rural development plan (170), new city (150) and local government (115). As was expected, due to the selected sources most of the topics appeared as having neutral polarity (light green¹ and orange colours on the bar chart). The Reading List mostly includes sources (webpages) with information on the LEADER Programme, and only few contain opinions or some kind of evaluation results. Negative sentiment (red colour on the bar chart) was identified for topics like earth science (negative polarity 26 times), local development (24) and activities outside the defined area (21). Although the pilot team has some reservations about the accuracy of polarity score (negative) for the topic of local development, the number of negative assessments was relatively low compared to other sentiments.

¹ Sometimes the difference between light green and green was hardly visible.

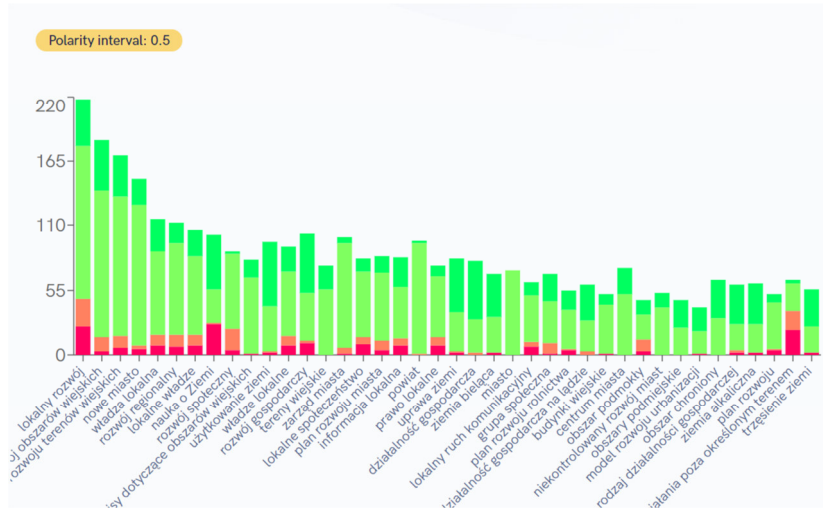


Figure 1. Polarity scores for topics

Semantic diagram for CAP reform

Semantic diagram appears to be a useful tool for tasks like policy evaluation. The semantic diagram is a good complement to the analysis of polarity score for each topic. In the case of Polish language, it would be useful to identify synonymous topics which, at present, are provided separately when doing the analysis of polarity scores.

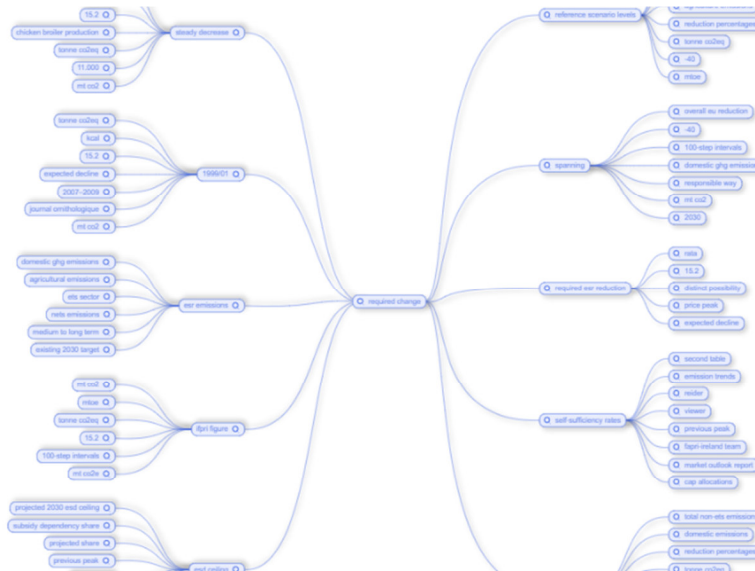
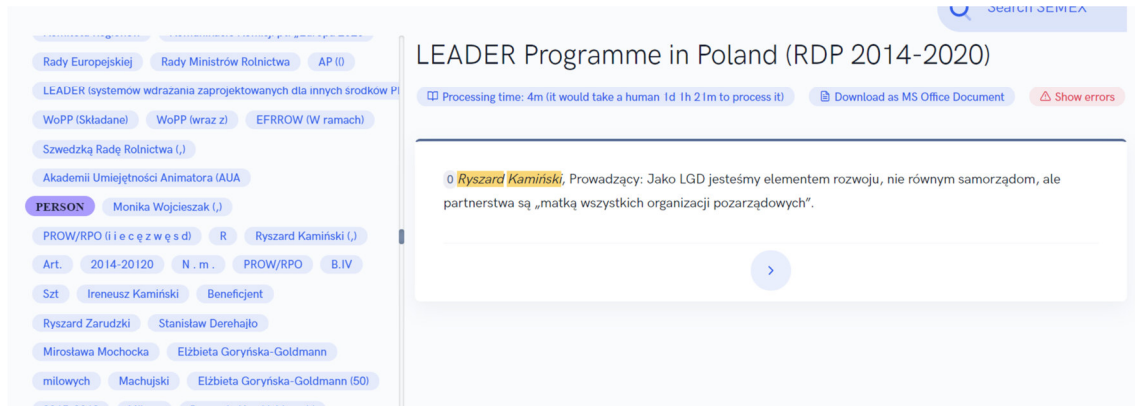


Figure 2. Semantic diagram for “required change”

Named entity

Sometimes when the team selected the topic and then the person - nothing happened. However, it was possible to see some opinions along with sentiment if the person was selected first. We selected “Ryszard Kamiński”, whose opinion was neutral. Unfortunately, when we tried to click on other persons - nothing happened.



The screenshot displays the SEMEX search interface. On the left, a sidebar lists various topics and filters, with 'PERSON' selected and 'Ryszard Kamiński' highlighted. The main panel shows the search results for 'LEADER Programme in Poland (RDP 2014-2020)'. A snippet of text is displayed, with 'Ryszard Kamiński' highlighted in yellow. The text reads: 'Ryszard Kamiński, Prowadzący: Jako LGD jesteśmy elementem rozwoju, nie równym samorządom, ale partnerstwa są „matką wszystkich organizacji pozarządowych”.' The interface also shows processing time and options to download as an MS Office Document or show errors.

Figure 3. Named Entity PERSON

Conclusion

Policy evaluation using text mining did not add any new perspectives or findings at this stage of Semex development. However, it should be noted that the analysed Reading List includes mostly the sources with neutral emotions (no positive or negative opinions). In the case of Polish language there could be a problem with synonymous topics for which the sentiment analysis is made separately.