

Introducing the requirements catalogue

Key requirements – version 1

As an advisor, I want

- that the chatbot automatically answers routine queries in the area of crop production, so that I am relieved and have more time for complex queries.
- that the chatbot can also answer related legal questions (e.g., subsidy law), so that I receive comprehensive, forward-looking and legally-correct information. I only want to carry out measures that are lawful and do not jeopardize my subsidy payments.

Introducing the requirements catalogue

Key requirements – version 2

As an advisor, I want

- that the chatbot integrates data from internal and external databases, so that I receive up-to-date and comprehensive information for my advisory work.
- In particular, I save time because I receive up-to-date data on approved plant protection products and their active ingredients.
- In addition, I save even more time because the chatbot can access important information sources for me and summarize them.

Introducing the requirements catalogue

Requirements – version 3

As a farmer, I want

- that the chatbot provides a map view to find the correct field-block so that I can ask specific questions about my field. The answers are based on freely available data on open.nrw.
- that the chatbot forwards me to an advisor if it cannot fully answer my question, so that I still receive complete advice.

Results of the quality sprint

Quality work followed by test iterations

Input improvements:

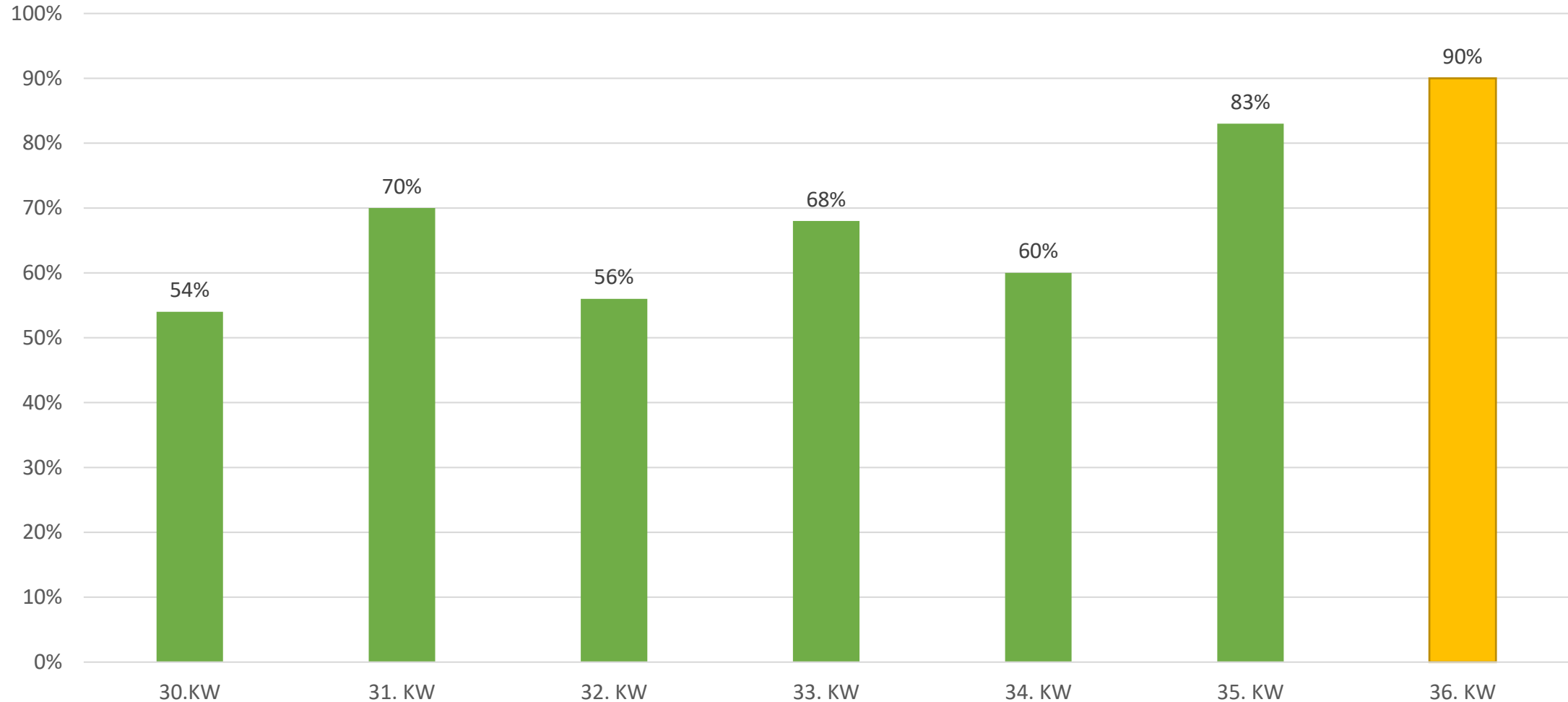
- Optimizing system prompts
- Reviewing and reprocessing data
- Creating FAQ sheets and ontology lists, with input from advisors
- Reorganizing data (funding guide)

Technical improvements:

- Tests with temperature settings
- Tests with top-k and top-p settings (word variability)
- Tests with various LLMs

Results of the quality sprint

Quantitative evaluation (calendar weeks 30–36)



What's next

AI Chatbot Project

Identified technical improvement potential – we are currently looking for additional technical solutions; this is an opportunity for collaboration

- 1 Feedback options/loops
- 2 Knowledge graphs
- 3 Chunking and creating/classifying text excerpts
- 4 Question–answer matching
- 5 Static answers for legal questions
- 6 Agentic AI – create a dedicated agent with specific instructions for each topic area

Does anyone have similar wishes? Then we should collaborate!