# Province of Fryslân, Rijks ICT Gilde & the Z-Inspection® Initiative

### Assessing the trustworthiness of an Al system in practice

Summary of the ethical examination of the AI system "Monitoring grassification of heather fields"

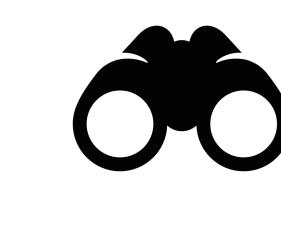
The goal

The AI system aims to monitor heather fields for grassification through satellite imagery. Grassification disturbs the biodiversity of natural areas. The AI system helps ecologists to quickly and frequently image the natural area so that it can be checked whether the intended nature quality objectives are being met, the right management measures can be taken and whether the approach to increasing biodiversity is working.

#### FRAIA

Within the Dutch government, the Fundamental Rights and Algorithms Impact Assessment (FRAIA) is an important tool to identify infringements of human rights in the deployment of AI systems. Z-Inspection is a trustworthiness assessment for Al systems, taking the values and principles from the "Ethical Guidelines for Trusworthy Artificial Intelligence" as a starting point. A hybrid approach was adopted in the pilot. First, the AI system was assessed against legal human rights requirements using the FRAIA. Then human rights were linked to ethical values and the system was assessed from this broader perspective. Not only were human rights violations considered, but also human rights that are actually being protected or strengthened, such as the right to a healthy environment.

#### Two perspectives



Human rights perspective



## Assessment of fundamental rights

Based on the purpose of the AI system and the two perspectives, five categories of fundamental rights were determined that the AI system might affect. These can be either positive or negative.







Protection of data







### Ethical issues

In addition to fundamental rights assessment, a number of ethical issues have also been identified and assessed based on the European guidelines for responsible AI.

Receiving relevant information

Human agency and oversight

Technical robustness and safety

Justice and fairness

Accountability and liability

## Top 6 recommendations

- Increase the technical robustness of the Al system

Have the Al system periodically evaluated by a third party

Involve the public in the development of the AI system

- Share the monitoring information collected not only with ecologists and wildlife managers but also with the public.
- Provide training to users of the AI system so that they know well the capabilities and limitations of the system

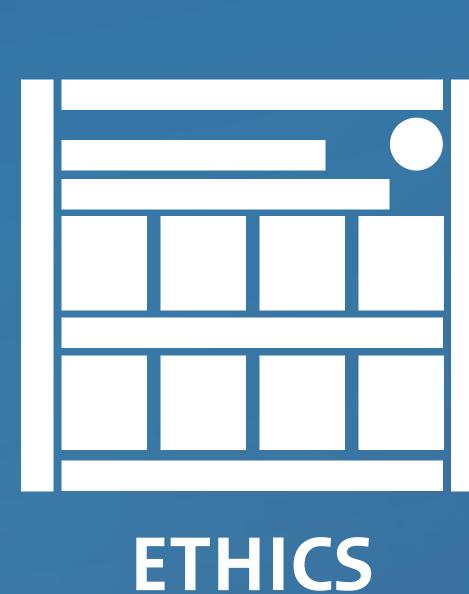
Make sure the purpose and why of the Al system is clear, give key stakeholders a voice and secure this in Al governance

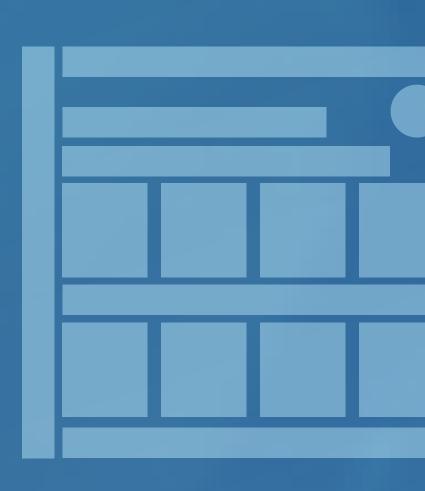
Summaries assessment

The AI system was examined on three components: technical, ethical and ecological. The findings were captured in three different reports. A summary has been prepared for each report. In addition to substantive reports, lessons learned from applying the Z-inspection method were also identified. This is summarized in the lessons learned overview.









**ECOLOGY**