

# Informed Consent Form

## User Study: Understanding Exploration Behavior in Hypothetical Scenario based XAI Tools

**Principal Investigator:** Yulia Grushetskaya  
**Contact Email:** yulia.grushetskaya@gfz.de

### Purpose of the User Study

This study investigates how users interact with explainable AI interfaces, such as the HypotheX tool, to explore model behavior and build explanations. Your participation will help us understand common reasoning patterns, exploration strategies, and challenges in interpreting AI model output during scenario-based interaction.

### What Participation Involves

If you agree to participate in this study, you will:

- Complete tasks using interactive XAI tools (What-If Tool and HypotheX) to explore how models behave in hypothetical scenarios.
- Respond to open-ended questions about your reasoning and exploration strategies.
- Follow a *think-aloud protocol*, describing your thoughts and interpretations aloud as you interact with the system.
- Have your screen and audio recorded during the session:
  - The audio will be recorded in raw form, but will be used solely for the purpose of encoding your current hypotheses and thinking strategies during the study.
  - Screen recordings will be encoded and used solely to analyze your interaction behavior (e.g., which data points you modified or explored).
  - The raw audio and screen recordings will **not** be published or shared. They will be securely deleted after the transcription and annotation have been completed.

## **Anonymity & Data Handling**

All data will be processed anonymously and securely stored. No identifying information will appear in any reports or publications. The encoded event flow description and aggregated findings can be used in academic settings.

## **Participation Terms**

Your participation is anonymous and non-retractable, as no personal identifiers are stored. Participation is voluntary. You may withdraw by leaving the session before it begins.

## **Consent Confirmation**

By signing in the following, you confirm that:

- You understand the purpose and procedures of the study.
- You consent to the recording of your audio and your screen.
- You agree to anonymous and non-retractable participation.
- You voluntarily agree to participate in this study.

**Participant Name:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Signature:** \_\_\_\_\_