



# SDMX Metadata AI Assistant

Your AI-powered assistant for metadata in SDMX

## At a glance

The **SDMX Metadata AI Assistant (SDMX MAIA)** is an open source, Python-based tool leveraging Large Language Models (LLMs). It simplifies metadata editing in SDMX by executing custom instructions, such as grammar checks and formatting.

## Key benefits

- ✓ **Saves time** by automating repetitive tasks
- ✓ Ensures **high-quality**, standardised metadata
- ✓ Provides an interactive and **user-friendly interface**

## How it works

### Input: three steps



Upload your **SDMX file** and a data structure definition

#### Step 1 - Upload SDMX files

Upload SDMX file



Drag and drop file here

Browse files

Limit 200MB per file • XML, ZIP

#### Upload DSD file



Drag and drop file here

Browse files

Limit 200MB per file • XML, ZIP



Choose the attribute to review

#### Step 2 - Choose attribute

Select the name of the attribute you want to check using AI

TITLE



Set your OpenAI Assistant and API key

#### Step 3 - Technical settings

OpenAI API key

Agent ID

### Process metadata

**Metadata AI Assistant (MAIA)** can:

- Fix grammar, syntax, formatting
- Ensure consistency eg:
  - names
  - date formats
- Shorten text to fit length limits
- Generate additional metadata
- Follow institutional standards



### Review & export



**Human-in-the-loop:** compare changes, accept or revert edits, modify

#### Difference

National Bank of Belgium, Bank for ~~Intl-~~  
International ~~Settlement~~ Settlements

#### Updated

National Bank of Belgium, Bank for  
International Settlements

Revert to  
original

Revert to  
updated

Press Ctrl+Enter to apply



Output: updated **SDMX file** for integration

## Features

- Metadata editing: grammar, syntax, formatting
- Customisable AI Assistant
- End-to-end SDMX integration
- Interactive comparison of changes
- Streamlit interface (UI) + Command Line (CLI)
- Performance metrics

## Technical

- Python 3.11.9+
- OpenAI API key
- Streamlit
- Pysdmx

Part of the **sdmx.io** ecosystem



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