



Session 10



**How we use
Artificial
Intelligence**



**Bogotá, Colombia
25 & 26 April 2024**



Improving policy making through IATI data

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German Federal Ministry for Economic Cooperation and
Development (BMZ)

26.04.2024



Federal Ministry
for Economic Cooperation
and Development

The Importance of Open Data and AI in Policymaking



Open Data as foundation for transparent and accountable governance and data-based policy decisions



IATI data to communicate and inform about Germany's global engagement



Our objective: Integrating AI with IATI to increase transparency and effectiveness



Preconditions: AI-generated insights must be 1. clear, 2. valuable, 3. timely, 4. secure, 5. fair

Current Approach : Utilizing Open AI's LLM



Keywords from project descriptions with sector-specific approach



From prompt engineering to using the API



Enhance search functionalities in back-end



Extensive testing for user-friendly keywords

Basic Prompt



Context

You are an expert in the analysis of measures in development cooperation and can summarize them in concise and appropriate keywords. A definition of what keywords are can be found below.

Activity

The activity consists of the variables <IATIActivityID>, <Title>, <Description>...

#Definition of Keywords#

Keywords are short, concise terms or expressions that are used to characterize ...

Task

Take a good look at the measure provided. Find the keywords that specifically summarize the content of the description of the measure. Assign a maximum of 5 keywords. Only assign keywords based on the <description> variable. Only assign keywords if you are absolutely sure and don't make up keywords that don't fit. You must ensure that you only use technical terms. You may not use regional or country information, country names, abbreviations or organization names. The keywords must be German words. Think carefully about your answers. Also give a rating from 1 (very unsure) to 10 (very sure) about how sure you are about assigning each keyword.

Output Format

Create a JSON with the following structure ...

Objective: AI-Enhanced Search (e.g. Gender Equality)

Keyword search (Gender equality)

Starting with basic AI-driven keyword searches to identify relevant data based on specific terms related to sectors or general topics.

Contextual Search (Gender Transformative approach)

Advancing to contextual searches that not only identify keywords but also understand the context in which they are used, particularly focusing on identifying gender transformative initiatives.

Semantic Search

Culminating in full semantic search capabilities where AI comprehends and interprets the full meaning and relationships within the data, allowing for nuanced insights and thorough understanding of content in terms of gender equality.

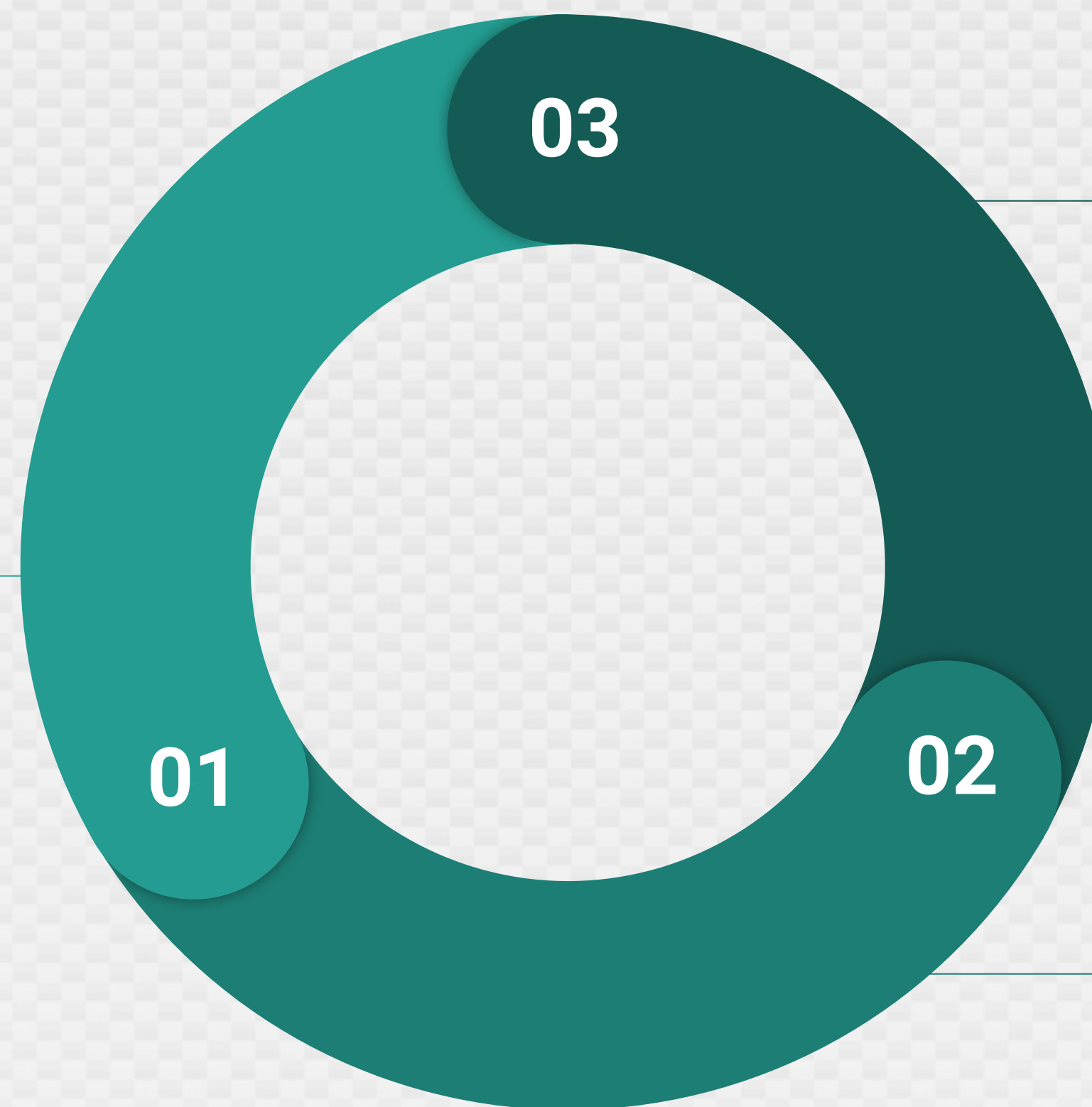


Current state

Development of AI tools

Prompt Engineering

Initiating the process with prompt engineering, where precise and effective prompts are designed to extract relevant responses from AI systems.



Current state

Chatbot implementation

Implementing a chatbot that utilizes the refined AI prompts and API capabilities to provide real-time, interactive, and intuitive assistance or data analysis.

API Integration

Integrating with powerful APIs (e.g. Open AI API) that provide robust AI capabilities, enhancing the system's ability to process and analyze data at a more complex level.

Challenges using IATI data

- **Data Quality:**
Continuous work on enhancing project descriptions and filling data gaps.
- **Accessibility of Additional Data:**
Often non-public and decentralized storage.
- **Data Security and Compliance:**
GDPR concerns with internal documents containing sensitive information about partners, target groups, and employees. Using secure servers and trustworthy AI platforms is key.

Conclusion

Future Objectives

- Semantic search function
- Chatbot in transparency portal

Addressing AI-Risks

- Hallucinations, biases, mathematical errors, security of sensitive data
- Importance of Ethical AI.

Take-aways

- Start small
- Continuous iterations
- Resource management
- Technical & IATI expertise





AFRO FUTURISTIC AI - AFRICA GEN AI LAB

**WINNIE KAMAU, CO-FOUNDER
AFRICA GEN AI LAB
26TH APRIL 2024**



WHAT IS AI?

- Artificial Intelligence allows machines to model, or even improve upon, the capabilities of the human mind. Using the deep neural networks a programme system which is modelled on the human brain is designed to imitate the human brain.
- It is estimated that the Early Adopters of AI will reap part of the 300 Billion Dollar Market of AI



AI FEEDS ON DATA

AI improves with data

Computers don't see things like we do. We ourselves are still discovering how we see and process image data

We can obtain significant breakthroughs in AI by improving our digital representation of the real world



What we see

```
[ 45, 48, 122, 153, 163, 193, 18, 173, 88, 163, 188, 53, 44,  
106, 87, 188, 240, 205, 155, 80, 201, 238, 181, 47, 44, 41,  
169, 79, 238, 216, 219, 15, 14, 7, 31, 23, 125, 71, 23,  
240, 207, 13, 196, 9, 113, 3, 126, 188, 37, 219, 3, 55,  
157, 215, 67, 73, 64, 38, 210, 135, 52, 86, 90, 252, 215,  
253, 14, 174, 70, 225, 225, 109, 156, 99, 47, 225, 212, 85,  
76, 171, 125, 23, 69, 84, 20, 109, 184, 49, 13, 238, 185,  
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164, 0, 148, 163, 138, 239, 243, 40, 131, 111, 99, 84, 188,  
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212, 11, 215, 184, 238, 132, 118, 189, 173, 221, 99, 78, 3,  
24, 25, 188, 0, 171, 163, 186, 188, 163 ]
```

What computers see

Sparking AI Innovation for a Future-Ready Africa

- The Africa Generative AI Lab is a research and development center that explores the intersection of African culture, technology, and science fiction.
- The lab's objective is to democratize and localize AI technologies that are tailored to the unique needs of African societies in various sectors of Education, Agriculture, Health, Creatives and Media.
- The Lab is based in Kenya and Rwanda

GENERATIVE AI TOOLS

- Both Generative AI Tools and artificial intelligence use machine learning algorithms to obtain their results.
- **Generative AI is intended to create new content in the form of text, image, sound**



JASIRI AI

- **Jasiri AI operates through a sophisticated architecture that combines the power of generative AI models and a personal data storage system.**
- **Plugged to IATI data the generative AI model generates recommendations tailored to individual preferences, also has agentic features while the symbolic engine applies logical reasoning to ensure these suggestions make sense in the user's unique context.**





**“The future holds for efficiency and convenience,
hence the need for automation for fast and
efficient service delivery”**

BY JONAN KATENDE

**Asanteni Sana!
Gracias!**



Leveraging AI Agents on the Dataxplorer.org platform

Automatically Mapping *Data Dimensions* To A Recommended Chart(S) Using An AI Agent

Contact: Siem Vaessen, CEO Zimmerman

What Is Dataxplorer?

Dataxplorer is a platform that aims to make analysis, representation and visualisation of any datasource easy with a key focus on allowing user to connect data, create charts and produce reports.

The screenshot shows the Data Explorer website in a browser window. The browser's address bar shows 'Data Explorer' and the website's logo 'DX|dataxplorer' is in the top left. The top navigation bar includes links for 'Why DataXplorer?', 'Explore', 'About', 'Partners', 'Contact', and a 'MY DX' button. The main heading is 'Welcome Siem'. Below it is a large blue banner with the text 'Connect, discover, and communicate your data' and a subtext 'Turn Data into Impact in Minutes with DataXplorer. Simplify and empower visual data reporting.' The banner features four buttons: 'UPLOAD NEW DATASET' (pink), 'CREATE NEW CHART' (green), 'CREATE NEW REPORT' (dark blue), and 'WATCH VIDEO' (white). Below the banner is the 'Report Library' section, which has tabs for 'Data', 'Charts', and 'Reports' (the active tab). The text 'Explore the collection of Reports' is displayed. The library contains a grid of report cards. The first card is a large blue button labeled 'New Report' with a plus icon and the text 'Create a new report'. The other cards are for 'Climate change 2022', 'Air quality in Europe 2022', and 'Finance Report', each with a brief description, a chart icon, and a date 'February 2023'.

Data Explorer

DX|dataxplorer

Why DataXplorer? Explore About Partners Contact MY DX

Welcome Siem

Connect, discover, and communicate your data

Turn Data into Impact in Minutes with DataXplorer.
Simplify and empower visual data reporting.

UPLOAD NEW DATASET CREATE NEW CHART CREATE NEW REPORT WATCH VIDEO

Report Library

Data Charts Reports

Explore the collection of Reports

New Report
Create a new report

Climate change 2022
The Working Group II assesses the impacts of climate change, looking at ecosystems, biodiversity, and human...
February 2023

Air quality in Europe 2022
The 'Air quality in Europe' report series from the European Environment Agency (EEA) presents annual assessments...
February 2023

Finance Report
Detailed budgets for each im
2017 - 2019 Allocation Period
February 2023

Finance Report
Detailed budgets for each implementation period from the 2017 - 2019 Allocation Period onwards
February 2023

Climate change 2022
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2017 - 2019 Allocation Period
February 2023

How Does Dataxplorer Work?

1.

The user is able to
Connect any
DataSource

2.

Wide selection of
ChartTypes are
offered to
visualise data

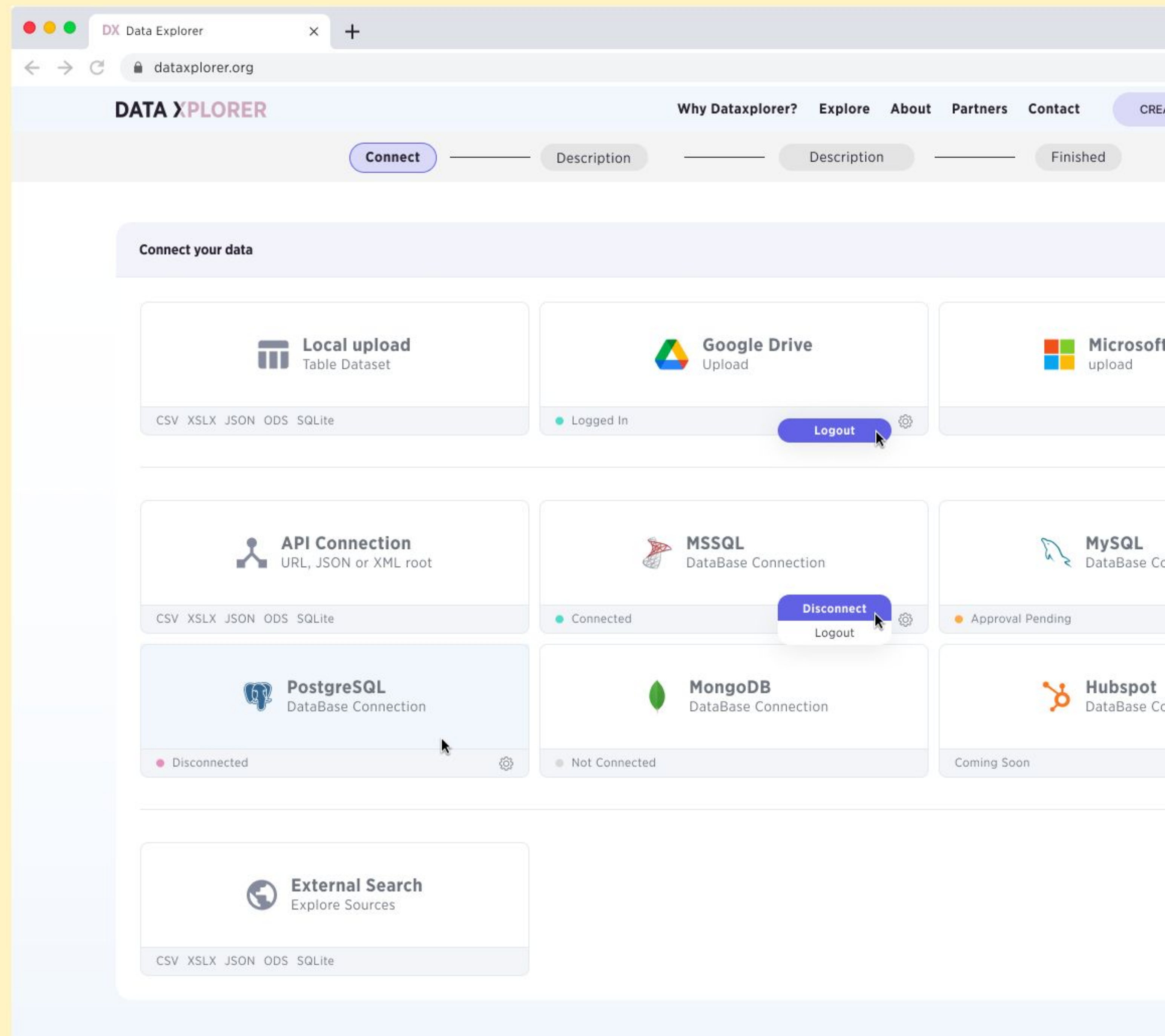
3.

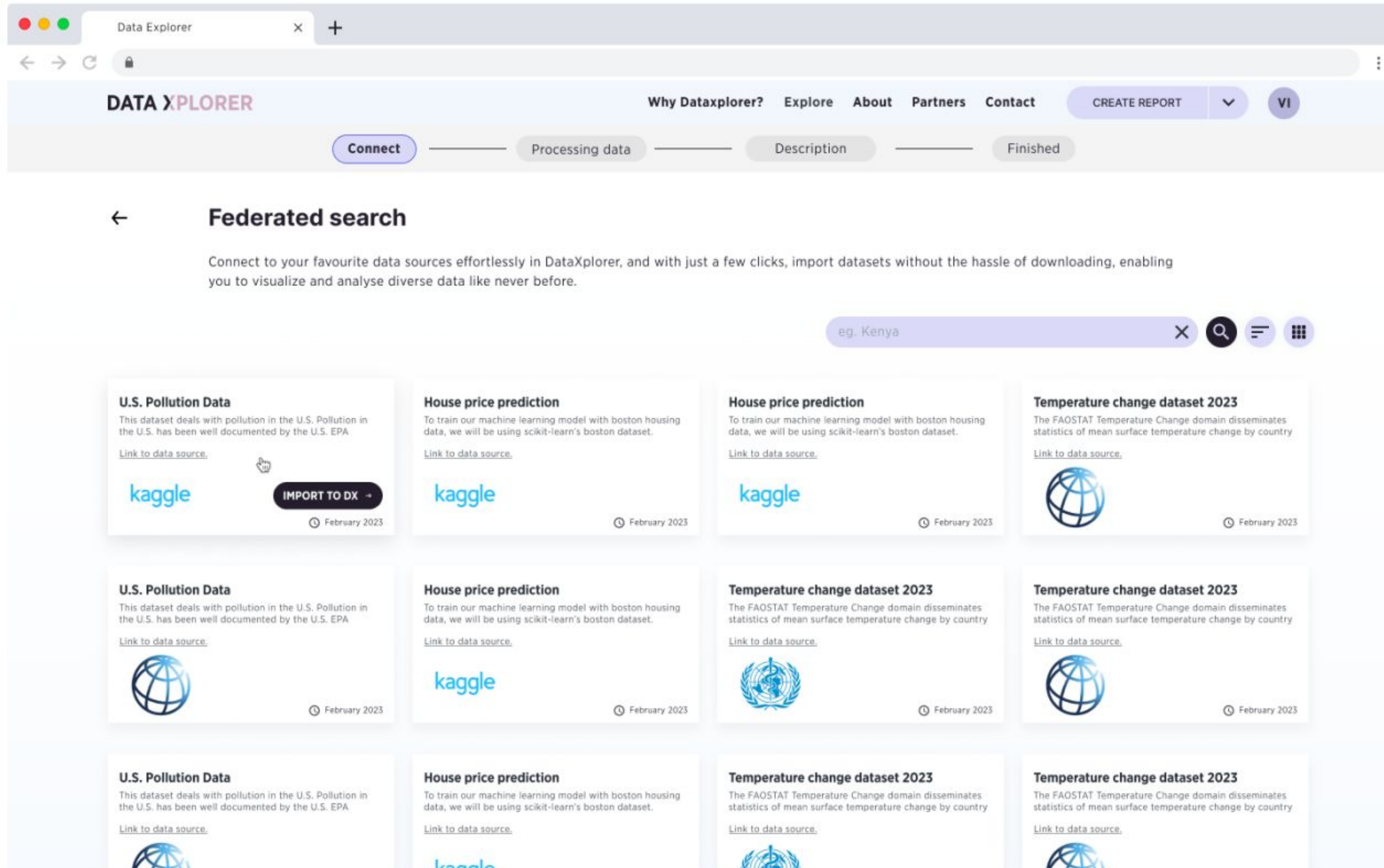
Interactive
Reports can be
produced using
Charts, Copy,
Videos and
images



Step 1: Connecting Data

- Connect internal data sources
- Federated Search
- Local Upload of Data





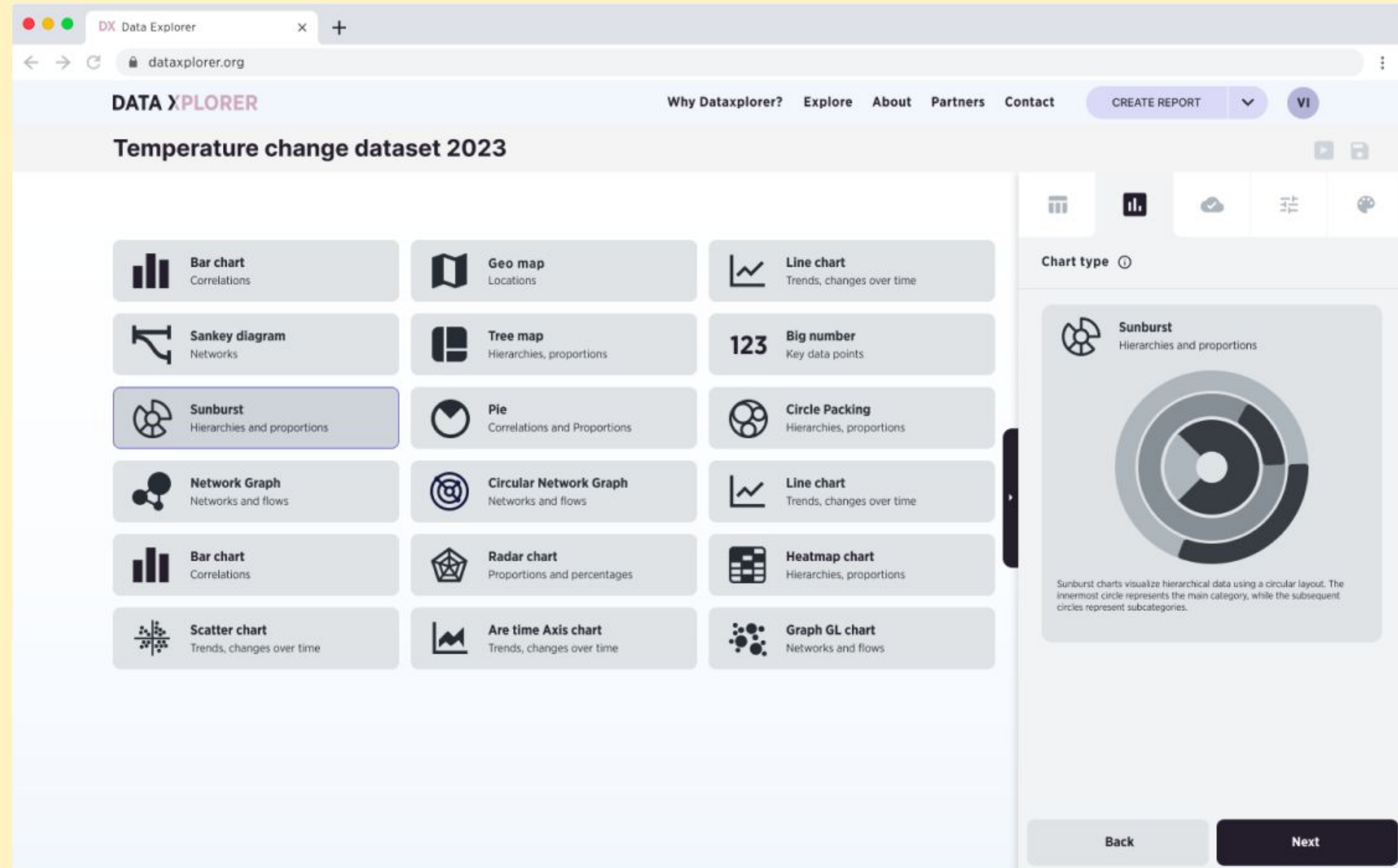
Federated Datasource Search

Using the Federated Search users have instant access to data API's operated by the World bank, WHO, Kaggle, HDX and many more.

Dataexplorer imports them directly and datasets are made available for the next step of Charting Data

Step 2: Creating Charts

Pick ChartTypes to
manually map data



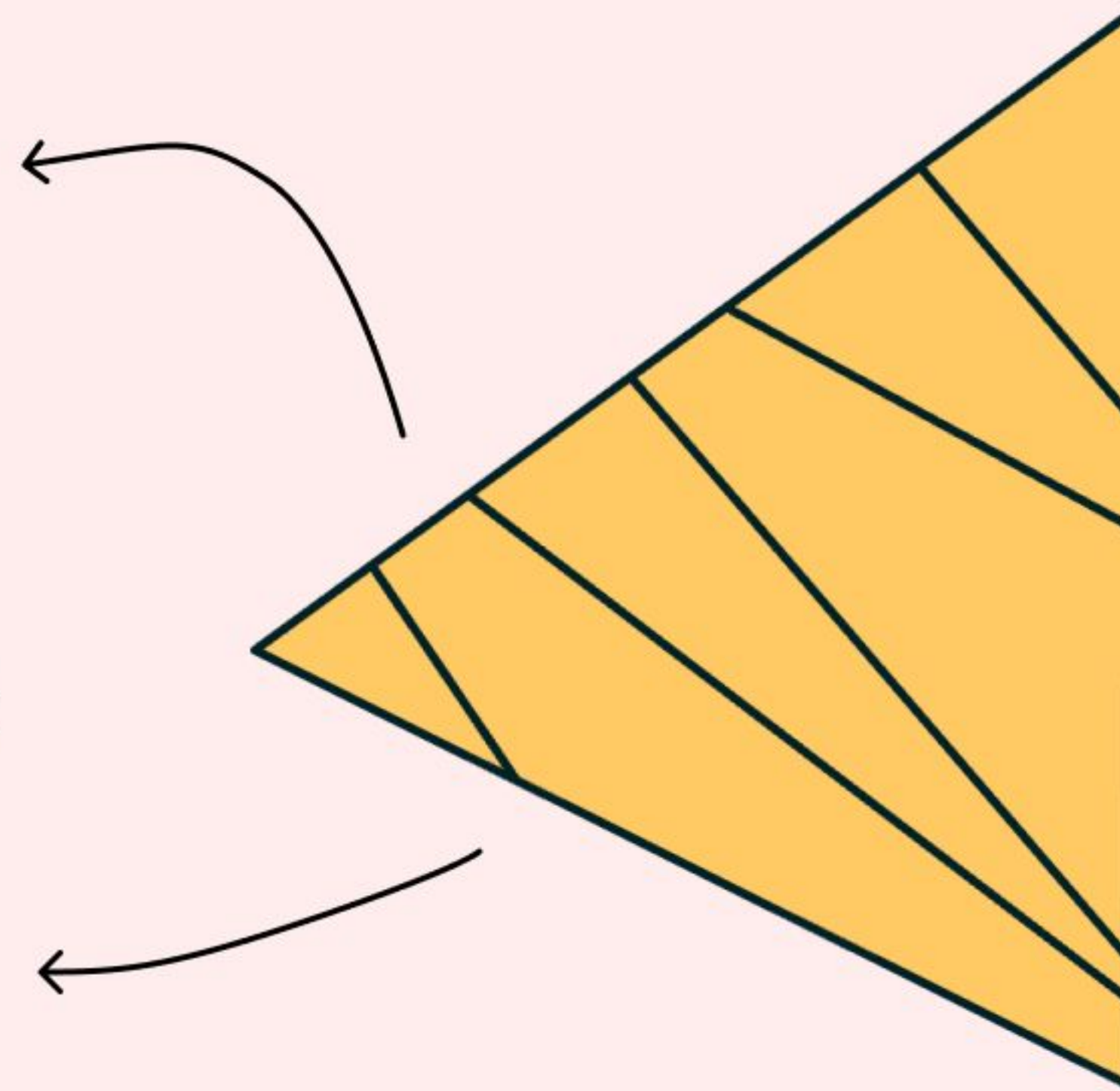
Challenges with manually mapping data to a chart

Time consuming

The process of selecting data and picking a chart may prove to be time consuming as the user is presented with many different charts to choose from. "What Chart Type should I be using?"

Choosing a Chart

What chart is best suitable for my data? The user may not instantly understand what data fits best on what Chart Type



Difficult

It may prove to be difficult to map datapoints to a chart if the user is unaware on how to map specific data dimensions to become visible on a chart.

Controlling outcome

It's difficult for the user to assess if any valuable representations are being shown once the user has mapped some of the data dimensions. Room for improvement is needed.

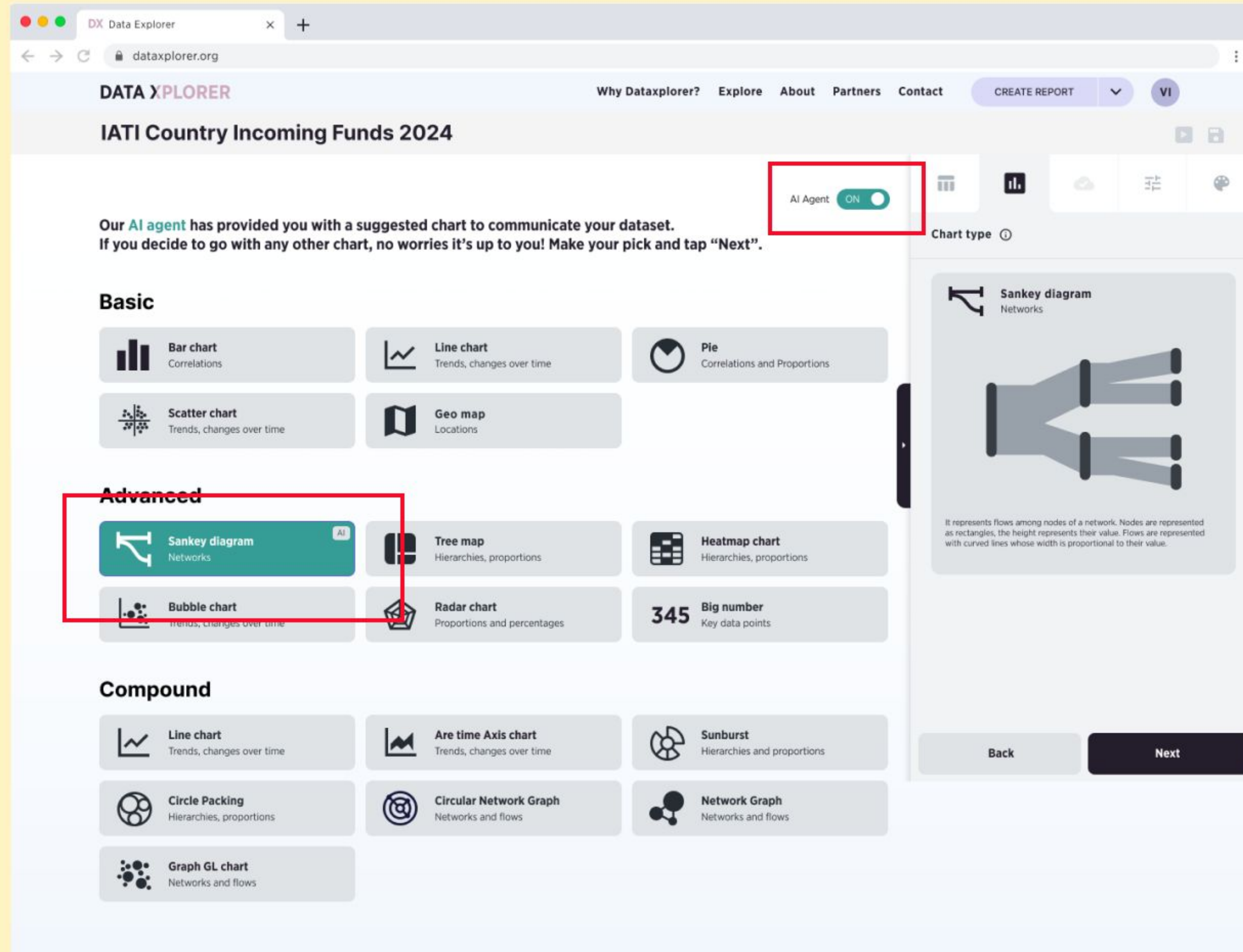
What Is An AI Agent?

“An AI agent is a software program designed to perceive context, make decisions, and take actions autonomously to achieve a specific goal.”

AI Agent(S) In Dataxplorer

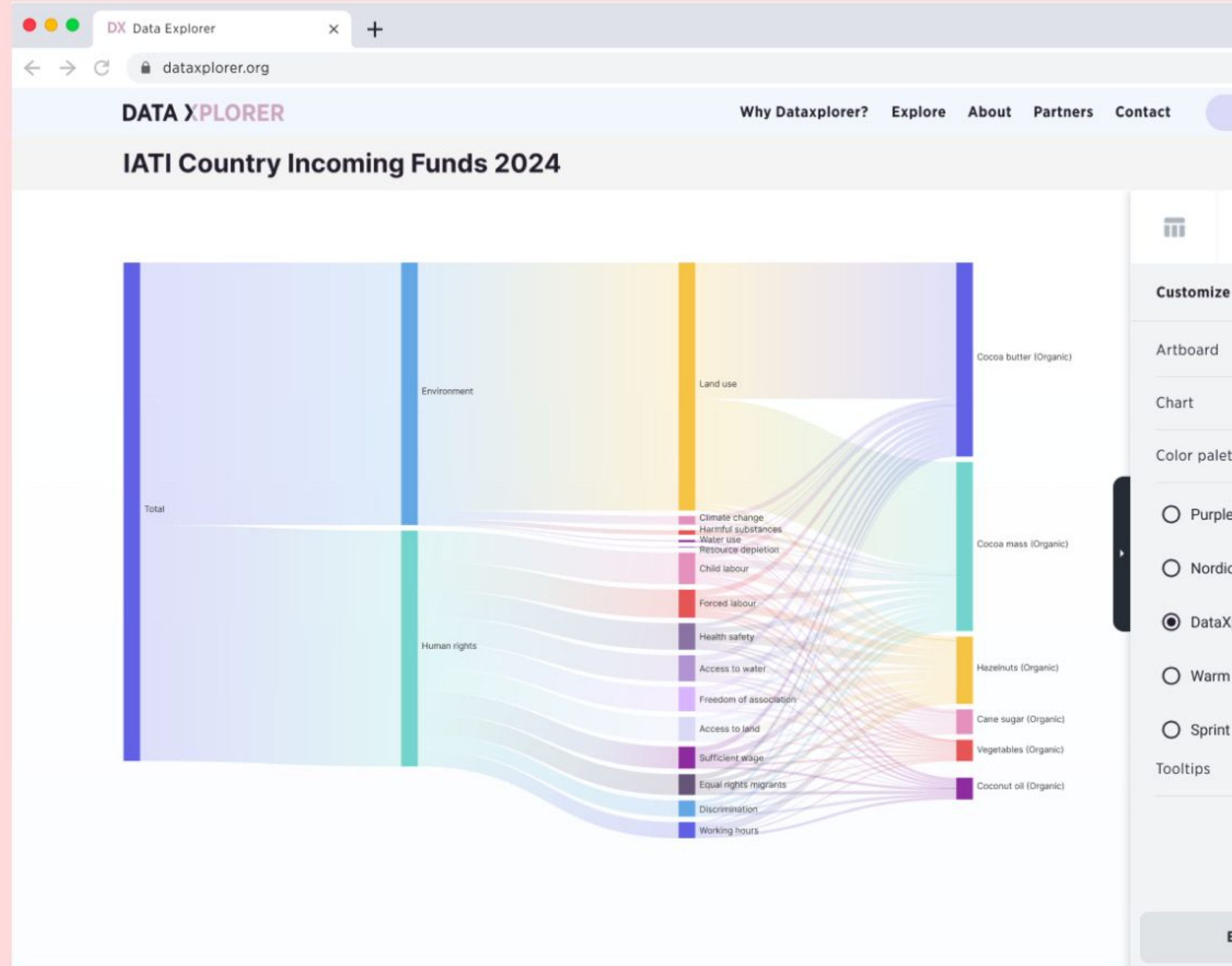
In the context of Dataxplorer an AI Agent will work towards:

automatically providing recommendations for data provided by the user to a chart type that the AI Agent deems fit.



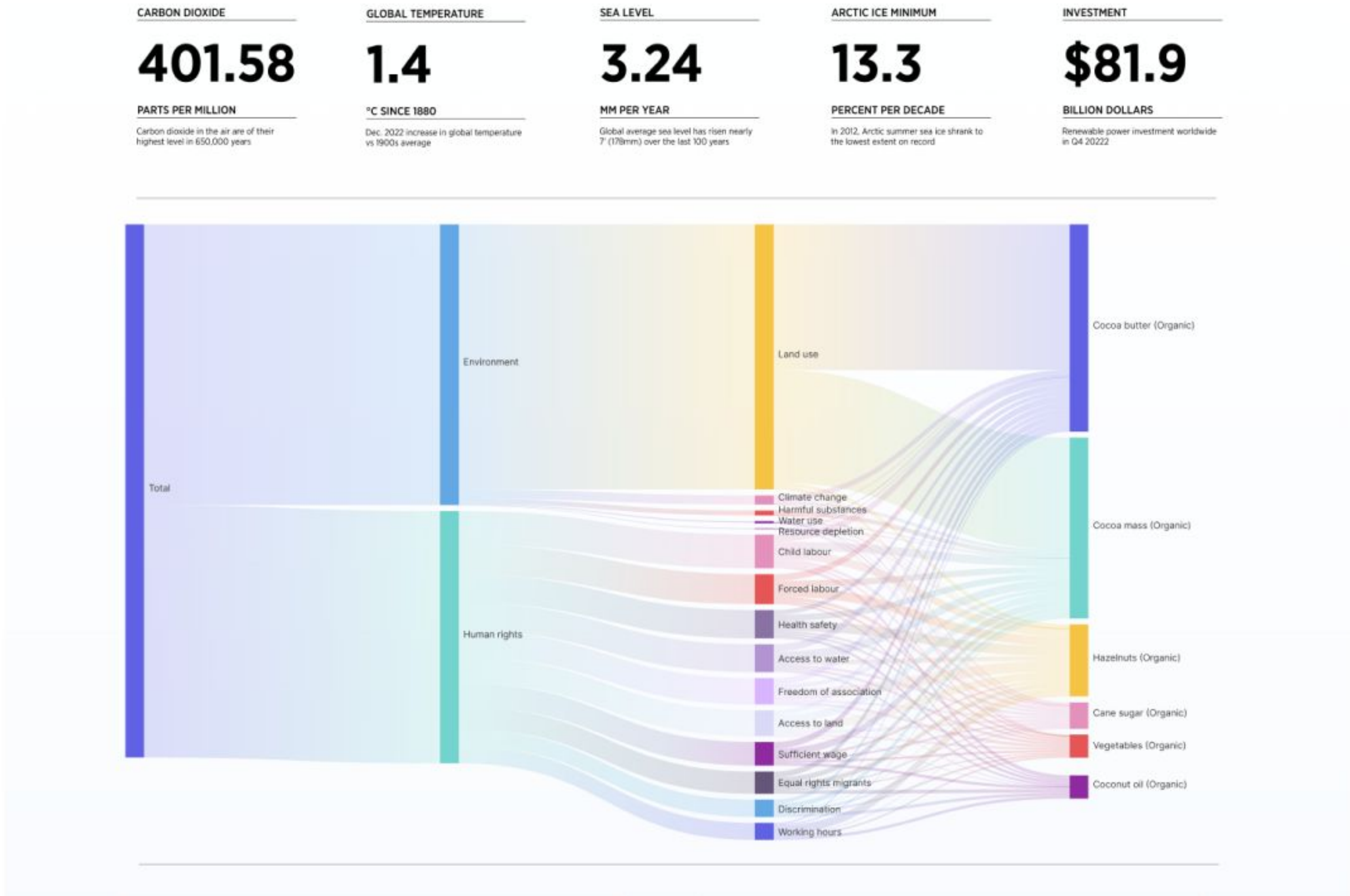
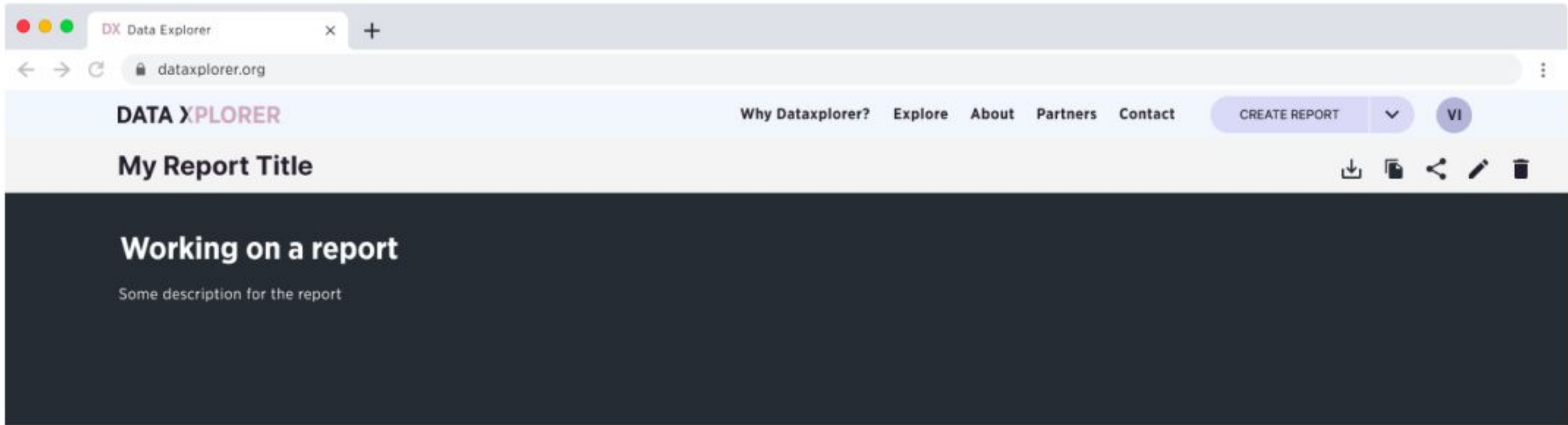
Advantages On Working With This AI Agent

- AI Agent automatically picks a ChartType best suitable for you data
- Fast turnaround, instant results
- User is still in control as reviewer
- Better understanding of why dimensions are mapped in the Provided Chart



Step 3: Creating Reports

User now is able to create interactive reports with a variety of Charts and copy, with the possibility of enhancing them with images and videos, making it possible to produce rich reports based on different datasources.



Questions?



Thank You!

Visit The MVP @ Dataxplorer.Org

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