



SUS04W

# Integrating Azure Open AI and Copilot with SDSF

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Principal Product Manager

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Software Engineer





# Agenda

- Sustainability and Azure Open AI
- Architecture
- Demo
- Q&A

# Meet your speakers



**Sourav Chakraborty**

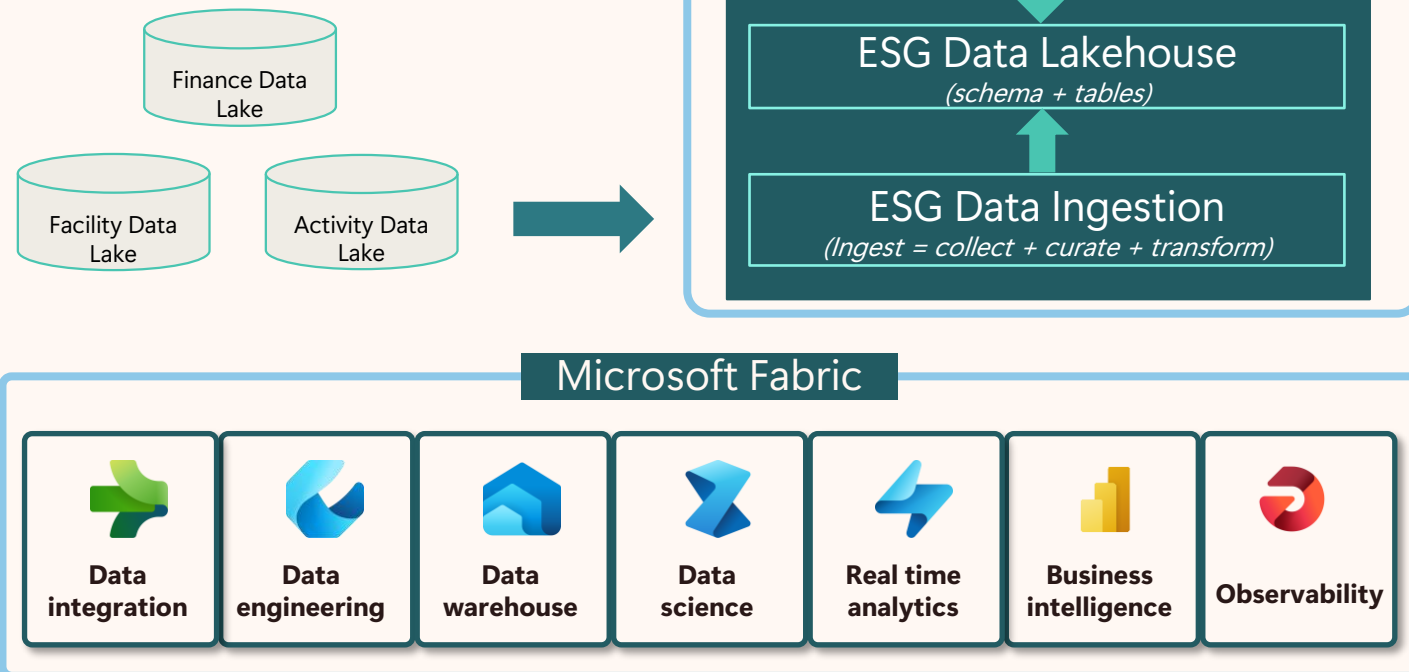
*Principal Product Manager  
Microsoft Cloud for Sustainability*



**Chintan Rajvir**

*Software Engineer  
Microsoft Cloud for Sustainability*

# Sustainability data solutions in Fabric



Sustainability data platform to harmonize disparate enterprise data into ESG datasets and metrics

Purpose-built data estates for ESG scenarios  
Pre-built lakehouses, notebooks and dashboards

Fabric based deployment and operations  
Leverage Fabric resources to build ESG data estates

More reporting capabilities coming soon!

# Applications of Copilots for Sustainability

Democratize data in ESG data lakes for data driven sustainability actions

- ❖ Explore computed data in SDSF
- ❖ Discover trends of ESG metrics
- ❖ Generate text summary of ESG metrics

The screenshot shows the Azure OpenAI Studio Chat playground interface. The user has asked: "What is the yearly change in total water consumption from 2022 to 2023?". The AI response provides a summary and a detailed table of water consumption data for 2022.

**Total Water Consumption in 2022:**

From , the total water consumption for 2022 is 6,102,779.40336 cubic metres.

From <sup>1</sup> and <sup>2</sup> , the total water consumption for individual facilities in 2022 can be summed up as follows:

- Contoso Pod Factory 3 (India): 381,668.25066 cubic metres
- Contoso Africa HQ Nairobi (Kenya): 337,942.64907 cubic metres
- Contoso Farms Ethiopia (Ethiopia): 382,297.25978 cubic metres
- Contoso Farms Brazil (Brazil): 362,212.1994 cubic metres
- Leased Factory (United States of America): 355,951.89739 cubic metres
- Contoso APAC Japan (Japan): 366,651.68015 cubic metres
- Contoso Pod Factory 5 (United States of America): 370,211.54568 cubic metres
- Atlantic Yards (United States of America): 371,780.04895 cubic metres
- Contoso Pod Factory 4 (Singapore): 359,354.43334 cubic metres
- Landlord Facility (United States of America): 357,877.64711 cubic metres
- Contoso Pod Factory 2 (Australia): 368,062.71042 cubic metres

799/128000 tokens to be sent



# Azure Open AI Studio

A unified platform for developing generative AI apps and custom copilot experiences



## Unified platform

Comprehensive AI Tools  
Code-centric Developer experiences



## Data & search

Data integration  
Hybrid vector search



## Foundation models

Best in class and open model catalog  
Multimodal



## Safe & responsible AI

Content classification  
Model monitoring  
Jailbreak risk detection

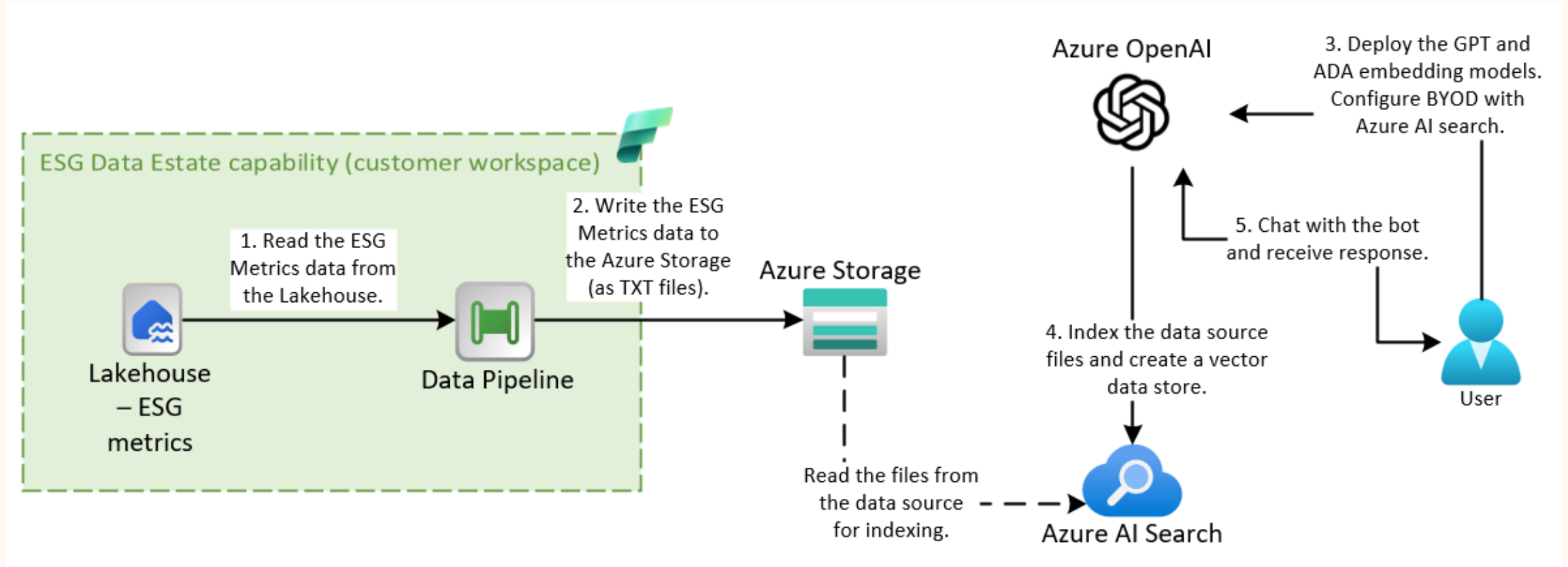


## Full development lifecycle

Prompt flow  
LLMOps  
Model monitoring

**Explore, build, evaluate, and deploy AI responsibly**

# High-level architecture



Demo







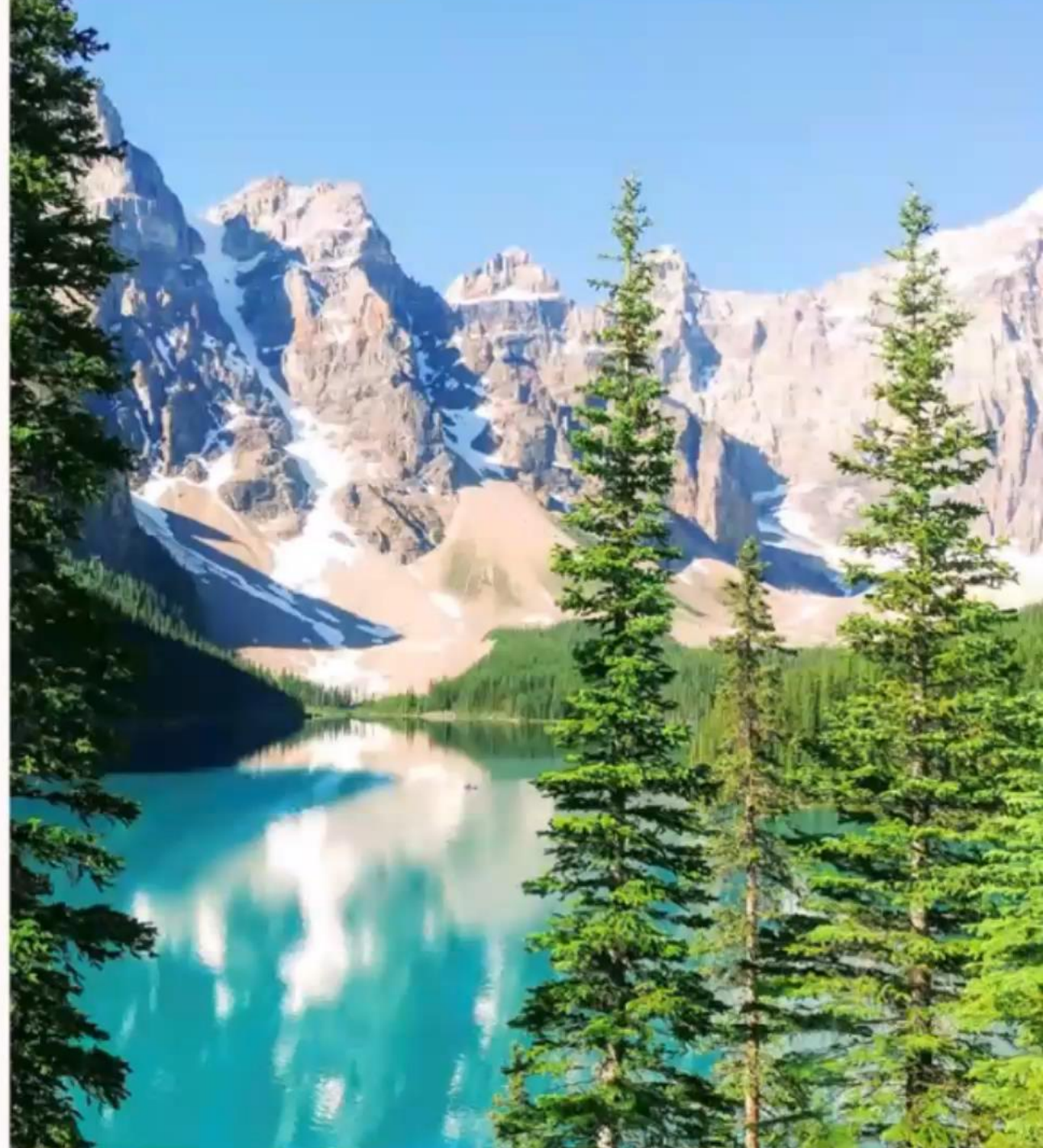
SUS04R

# Integrating Azure Open AI and Copilot with SDSF

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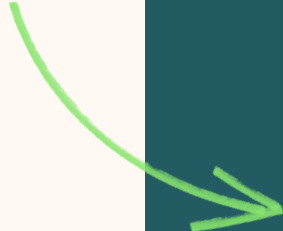
# Related sessions

## Focus on Sustainability Data Solutions

Session	Title	Abstract	Speakers	Date
SUS04M	Introduction to Sustainability Data Solutions in Fabric (SDSF)	This introductory session will guide you through the foundational features of Sustainability Data Solutions in Fabric (SDSF). We will also uncover deployment best practices to maximize your Environmental, Social, and Governance (ESG) impact and investments.	Ravindran Gangadharan, Sourav Chakraborty	Monday, May 6
SUS05M	Audit compliance for Sustainability regulations	Discover how to adeptly navigate disclosure reporting requirements and utilize Microsoft Cloud for Sustainability to enhance the audit process, ensuring precision and compliance every step of the way. This session will provide an overview of the audit requirements for disclosure reporting and the capabilities provided by Microsoft for streamlining the audit process.	Neha Gupta, Chintan Rajvir	Monday, May 6
SUS04T	Transform your data with the ESG Data Estate	This session will expand on the foundational concepts of Sustainability data solutions in Fabric and explore how to extend the ESG Data Estate capability to meet sustainability reporting and analytical requirements.	Sourav Chakraborty	Tuesday, May 7
SUS05T	Microsoft Azure Emission Insights + Azure Carbon Optimization	Learn how to obtain, visualize, analyze, and optimize emissions data for Azure workloads. Discover the capabilities of Azure Carbon Optimization and Microsoft Emissions Insights offerings, and how they can empower you to make data-driven decisions for a more sustainable cloud environment.	Sourav Chakraborty, Kiran Motwani	Tuesday, May 7
SUS04R	Integrating Azure AI's Document Intelligence models with Sustainability Data Solutions in Fabric	Learn how to extract and transform unstructured data from sources like images, documents and forms, into structured data stored within delta lakes. We'll guide you through the process of creating an Azure AI instance, integrating with Azure Key Vault, and using SDSF notebooks to convert images or documents into usable data which can be further used for analysis within Fabric.	Abhinav Premsekhar, Deep Baldha	Thursday, May 9



Thank you!



→ **How was the Summit? We want to hear from you!**  
[aka.ms/MCfSTSFeedback](https://aka.ms/MCfSTSFeedback)

→ **ESG Data Estate documentation**  
[ESG data estate \(preview\) - Microsoft Cloud for Sustainability](#)

→ **Join the Sustainability Community!**  
[aka.ms/MCfSCommunity](https://aka.ms/MCfSCommunity)

→ **Learning Resources**  
[aka.ms/CloudforSustainabilityLearnCollection](https://aka.ms/CloudforSustainabilityLearnCollection)



Q&A

Please type your questions **in the chat** and we will answer them during the Q&A session.

