Microsoft

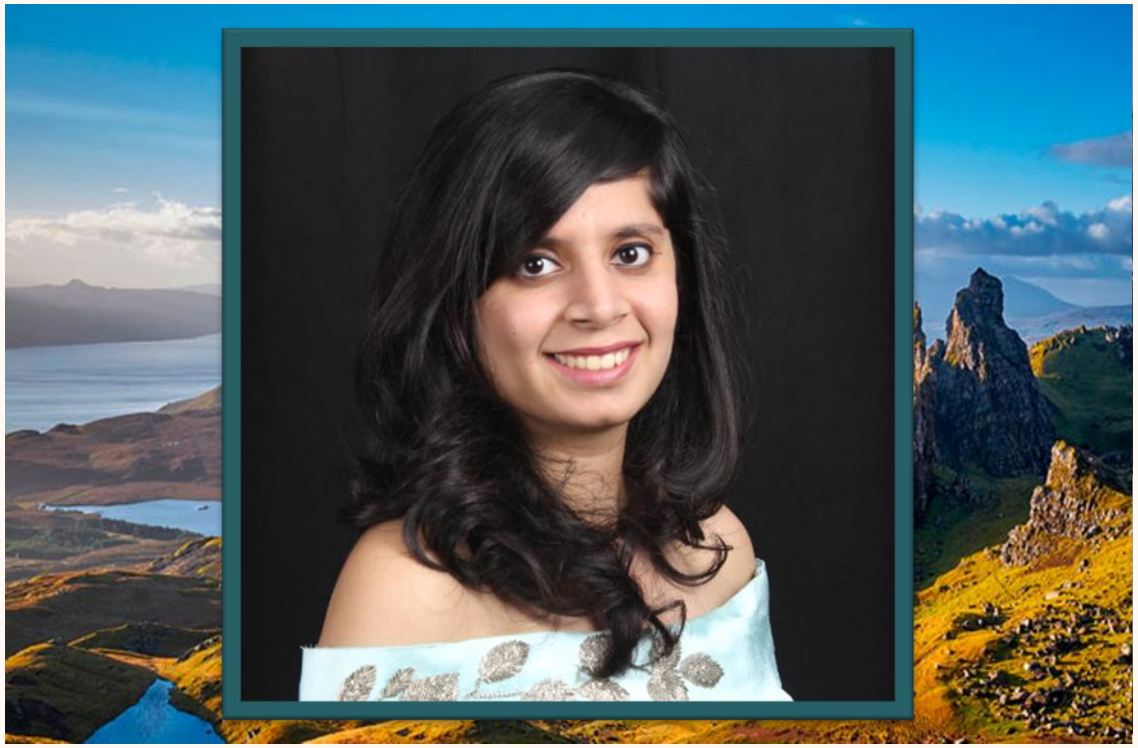
SUS05T

Azure emissions insights and Azure Carbon Optimization

Kiran Motwani
Sr. Product Manager

Sourav Chakraborty
Principal Product Manager

Meet your speakers



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Azure Carbon Optimization

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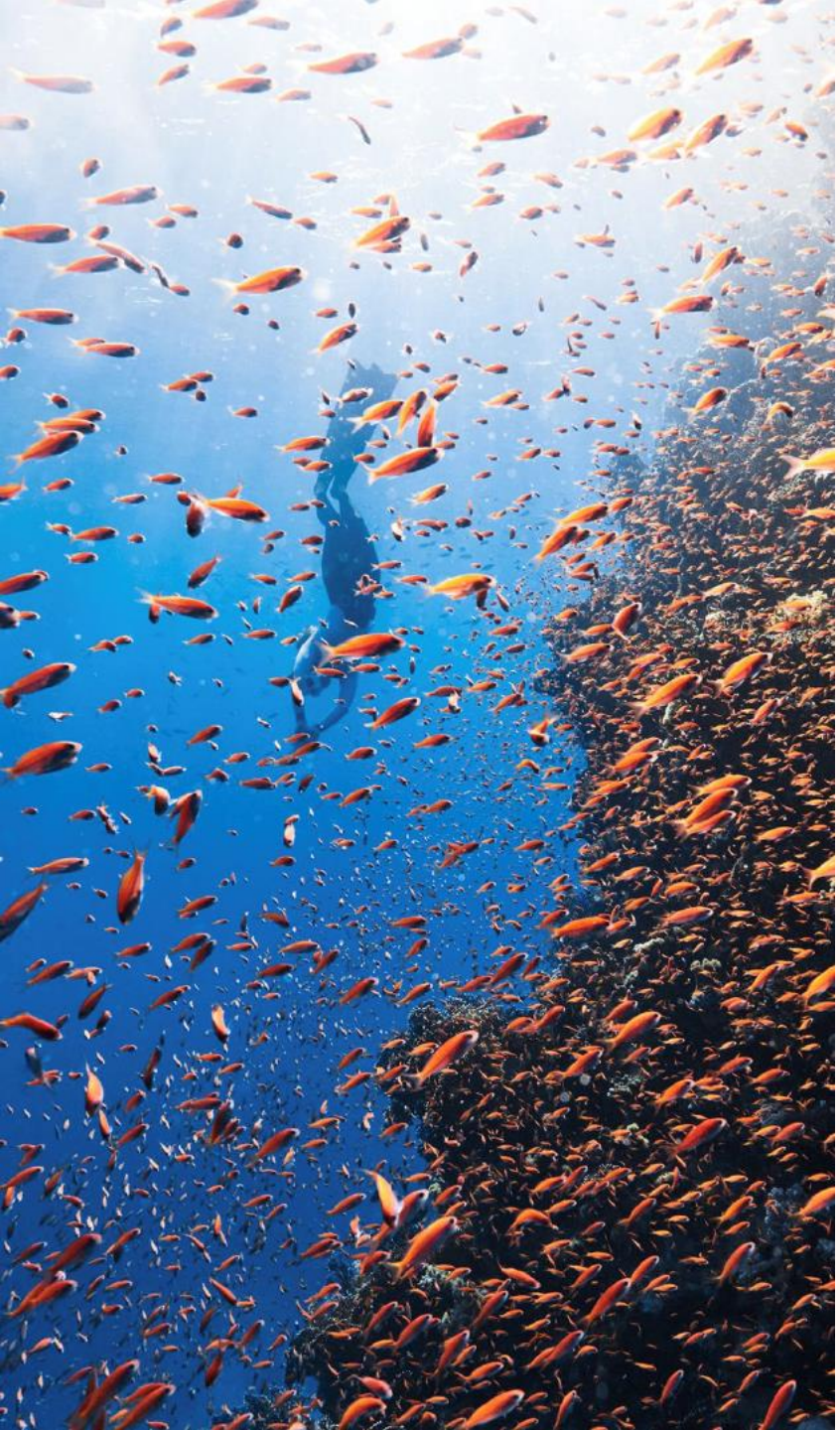

Agenda

1. Overview: Emissions management in Azure
2. Demos
   - **Demo: Azure Carbon Optimization (Preview)**
   - **Demo: Microsoft Azure emissions insights (Preview)**

Emissions management in Azure

Key personas and scenarios

Sustainability practitioners

Define IT sustainability strategy

IT Pros and developers

Democratize emissions impact

Data experts

Advance sustainability with data

Emissions management in Azure

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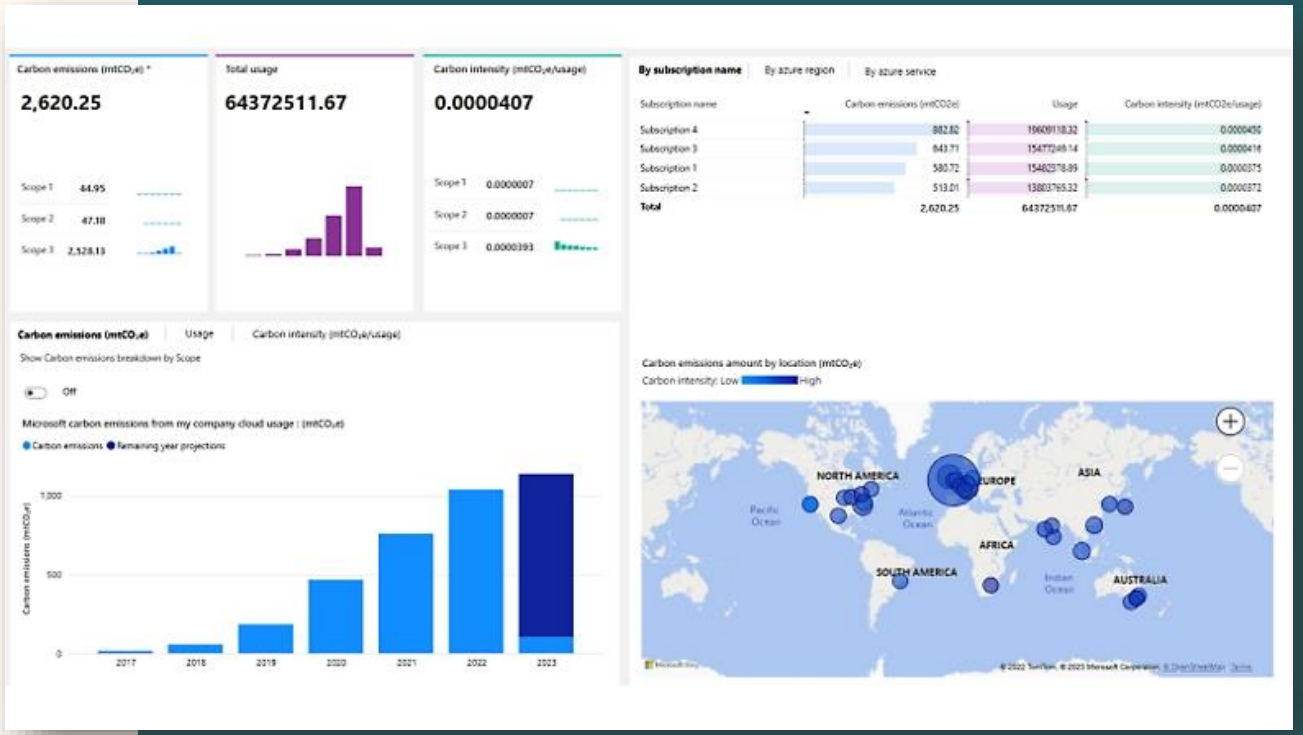
Advance sustainability with data

Define IT sustainability strategy

Sustainability practitioners want to:

- **Understand** the total emissions coming from Microsoft cloud usage – Azure + M365
- Identify business units with highest **opportunities** for optimization
- Establish baselines and define sustainability **objectives**



Emissions Impact Dashboard

Emissions management in Azure

Sustainability practitioners

Define IT sustainability strategy

IT Pros and developers

Democratize emissions impact

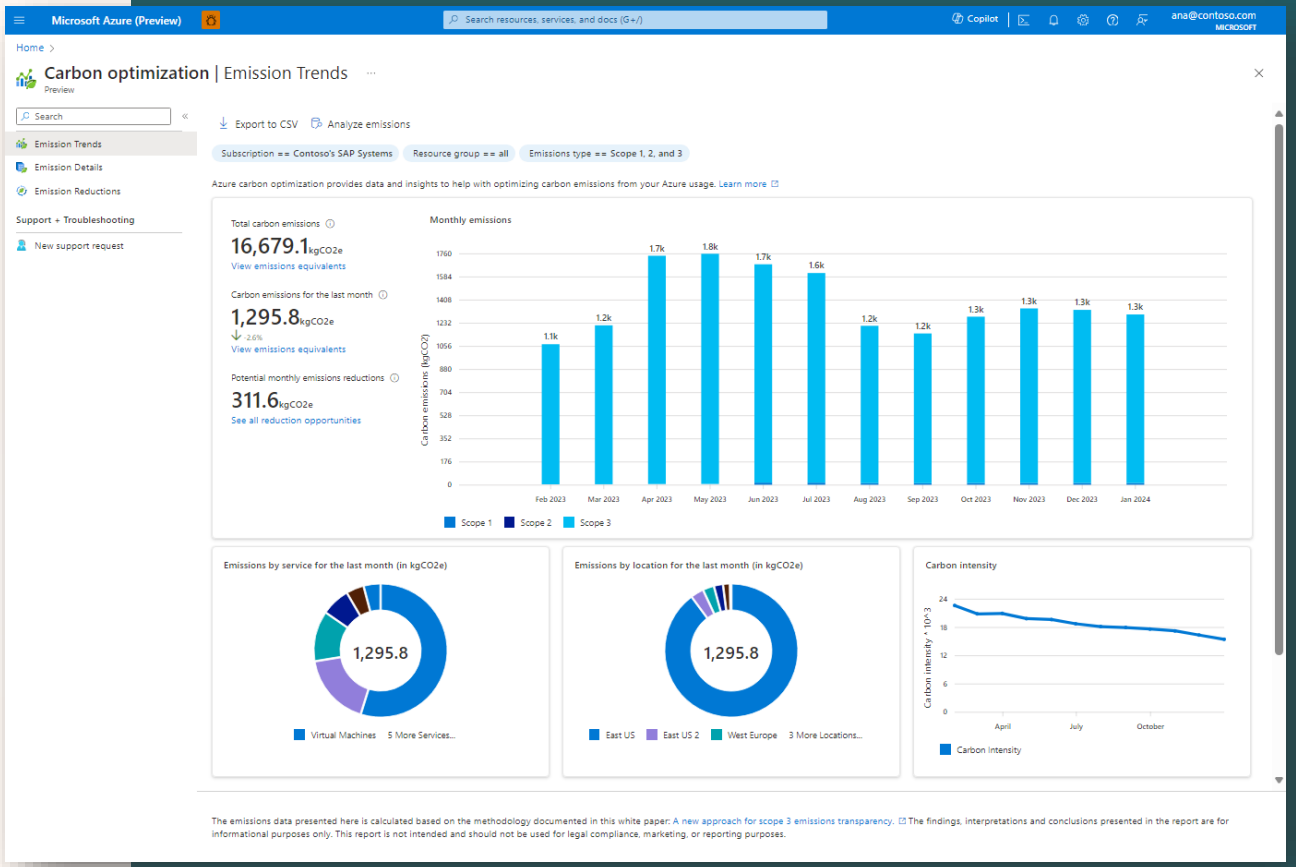
Data experts

Advance sustainability with data

Democratize emissions impact

IT pros and **developers** want to:

- Gain **visibility** into emissions of their Azure resources
- Understand the environmental impact of **each resource** across all scopes
- Find **recommendations** to improve cloud efficiency and sustainability



Azure Carbon Optimization (Preview)

Azure Carbon Optimization

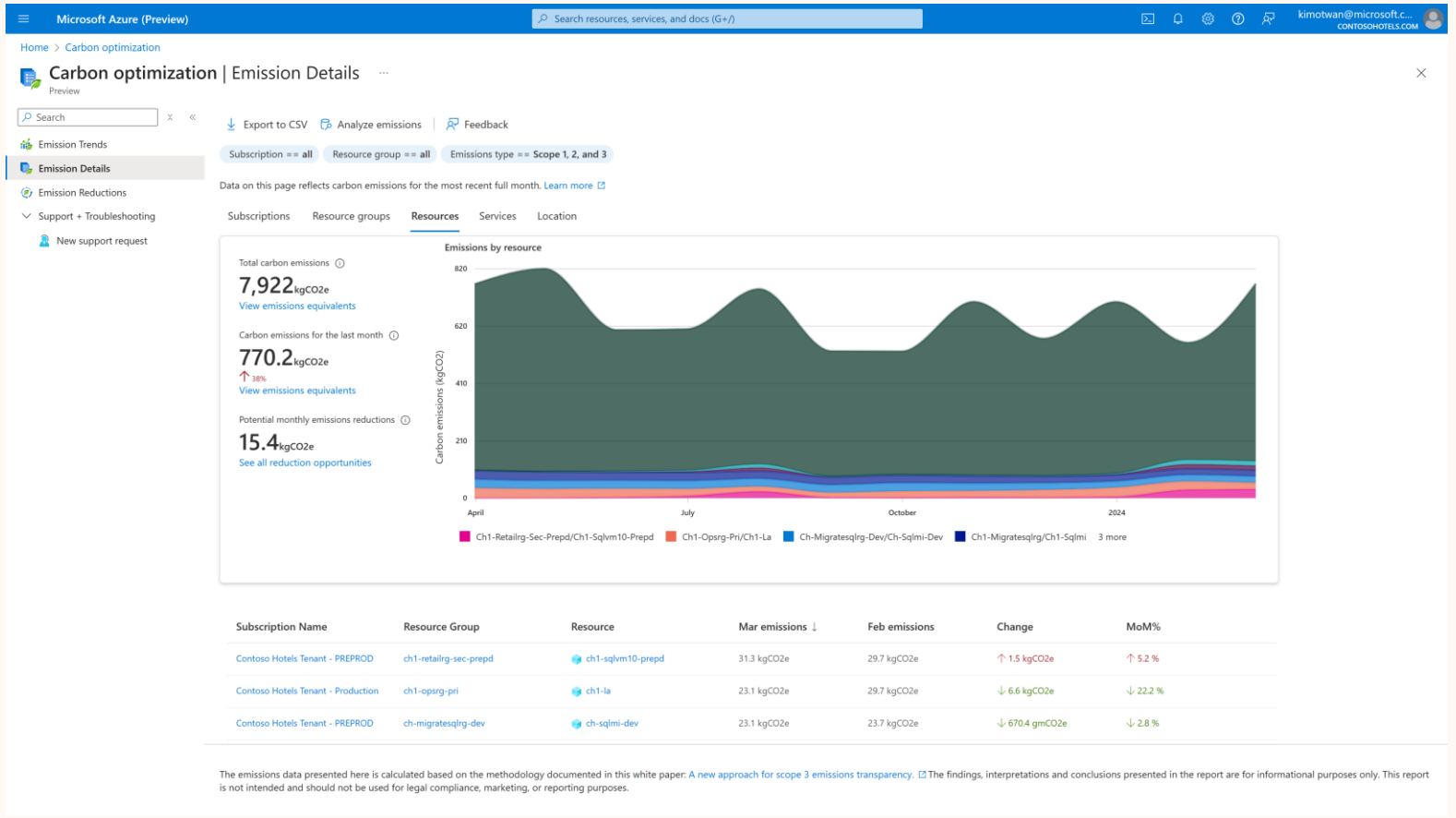
Manage emissions

Understand

Emissions within Azure Portal to raise awareness of carbon footprint among engineering groups

Measure & manage

Granular data for all Azure resource types at subscription, resource group, and resource grain

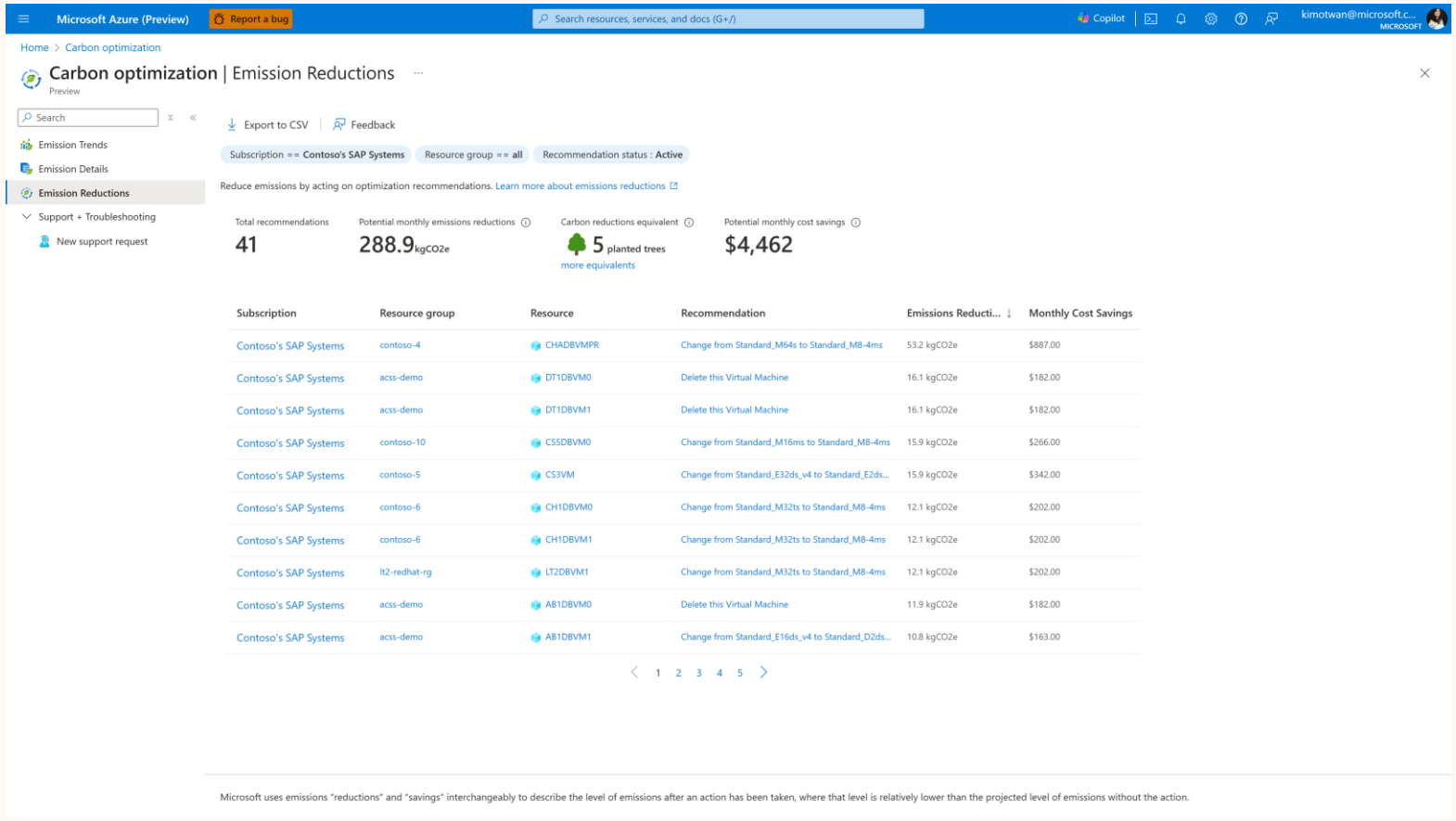


Azure Carbon Optimization

Optimize emissions

Optimize

Make cloud usage more efficient and sustainable



Carbon optimization | Emission Trends

Preview

Search
Emission Trends
Emission Details
Emission Reductions
Support + Troubleshooting
New support request

Export to CSV | Take a tour | Analyze emissions | Feedback

Subscription == **all** | Resource group == **all** | Emissions type == **Scope 1, 2, and 3**

Azure carbon optimization provides data and insights to help with optimizing carbon emissions from your Azure usage. Learn more

Total carbon emissions

7,922 kgCO2e

View emissions equivalents

Carbon emissions for the last month

770.2 kgCO2e

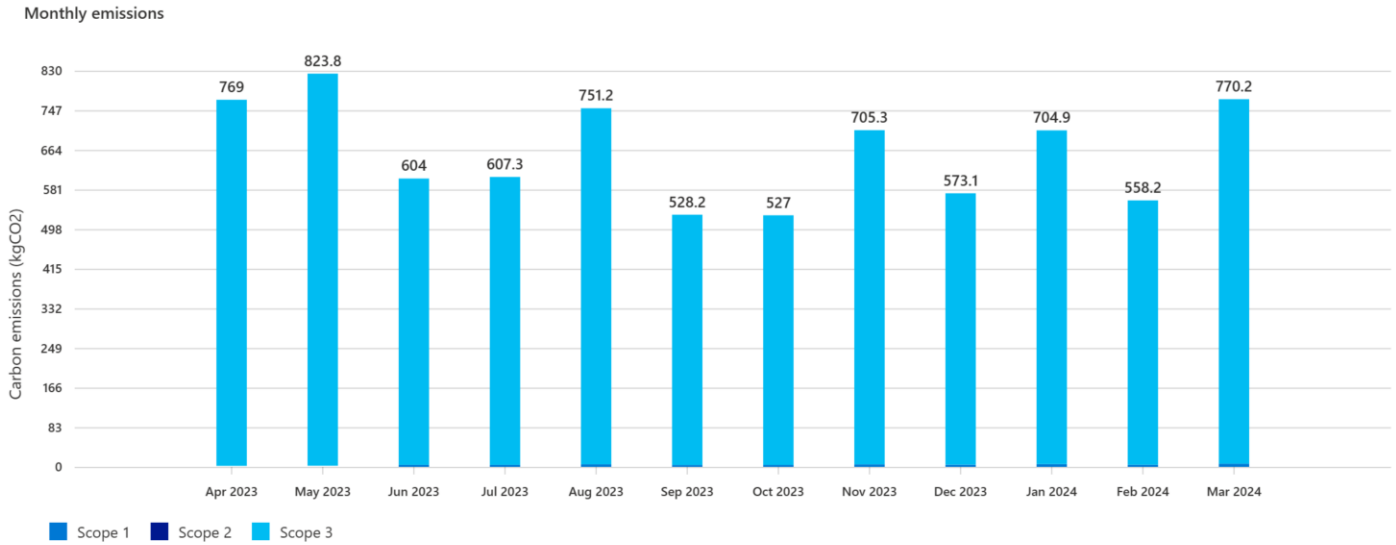
↑ 38%

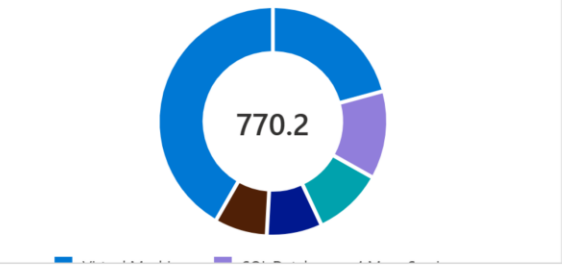
View emissions equivalents

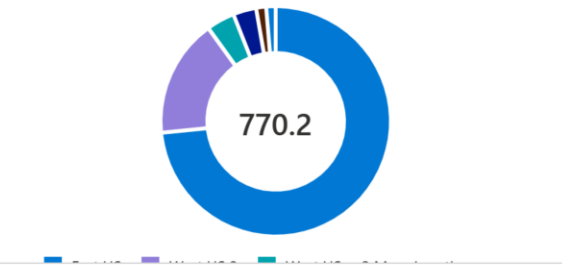
Potential monthly emissions reductions

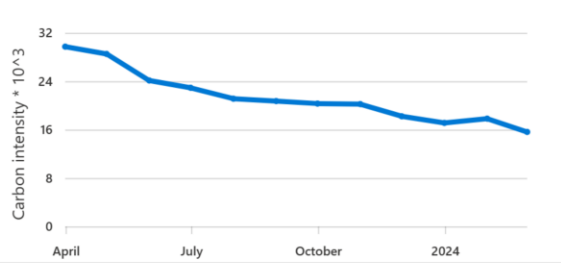
15.4 kgCO2e

See all reduction opportunities









The emissions data presented here is calculated based on the methodology documented in this white paper: A new approach for scope 3 emissions transparency. The findings, interpretations and conclusions presented in the report are for informational purposes only. This report is not intended and should not be used for legal compliance, marketing, or reporting purposes.

Emissions management in Azure

Sustainability practitioners

Define IT sustainability strategy

IT Pros and developers

Democratize emissions impact

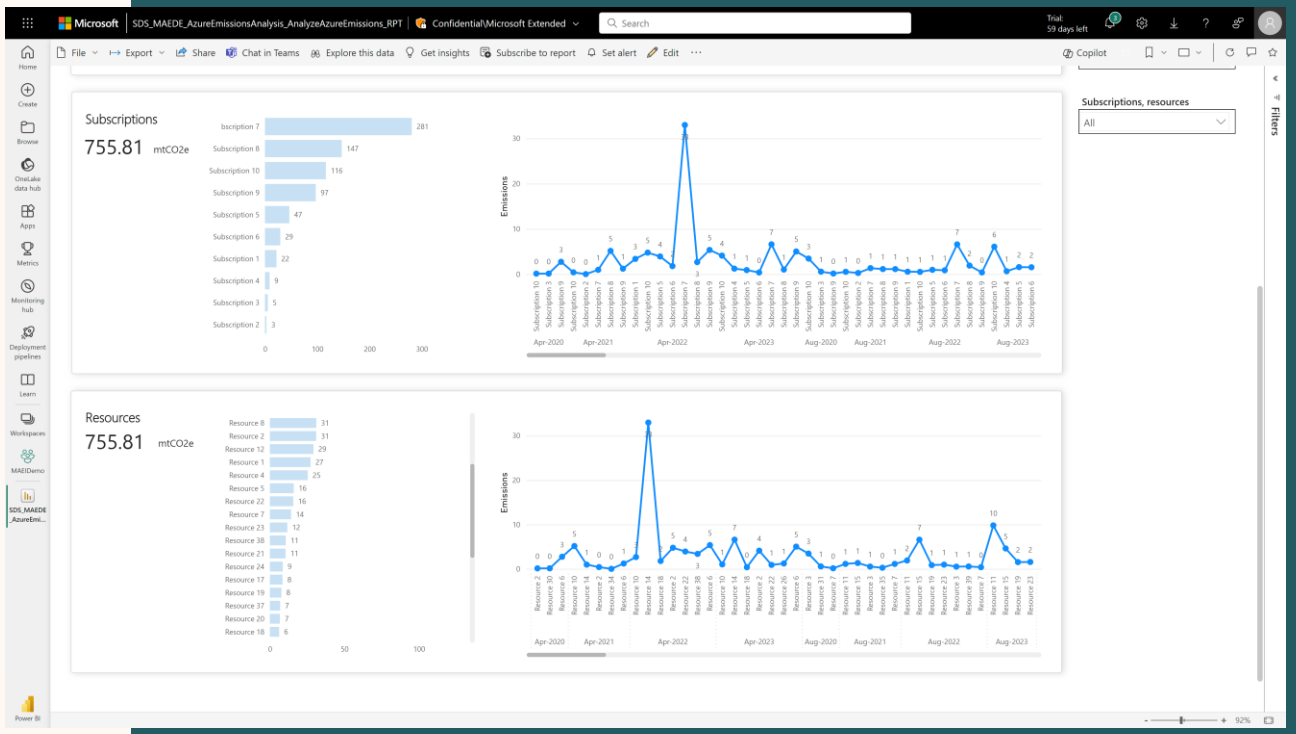
Data experts

Advance sustainability with data

Advance sustainability with data

Data experts want to:

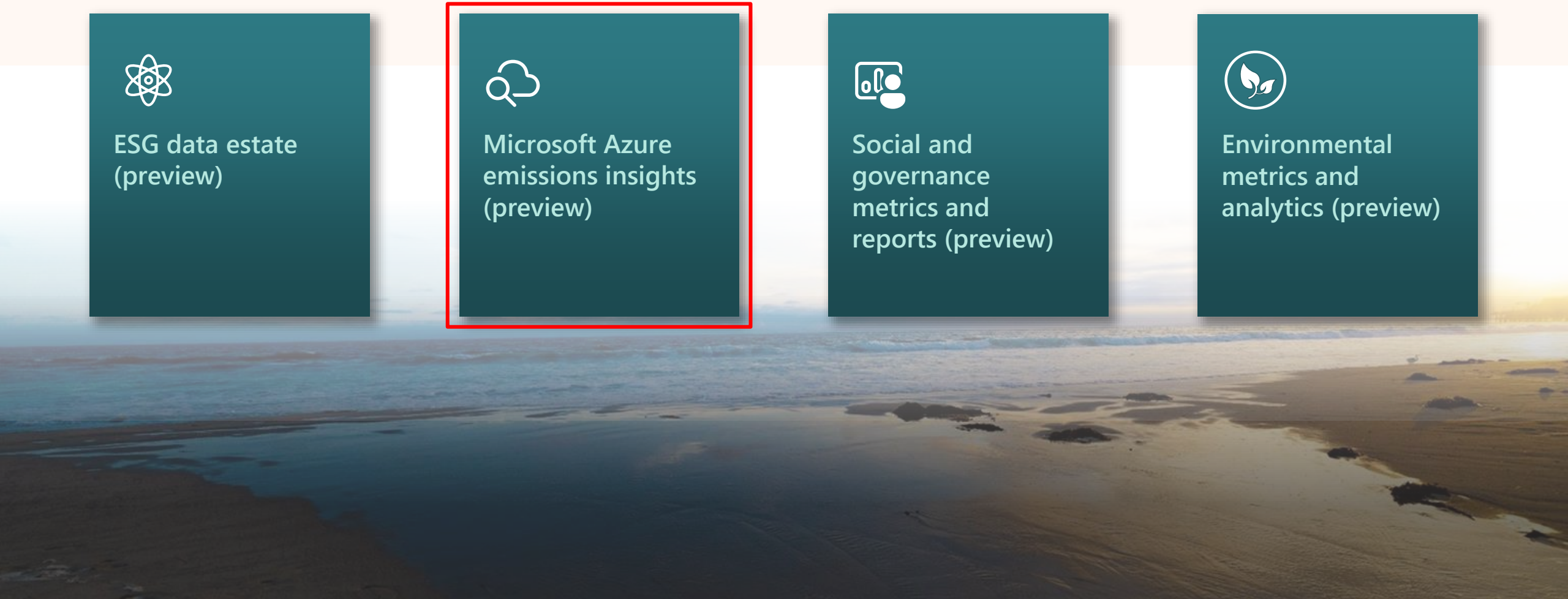
- **Track** sustainability metrics for improvement using monitoring tools
- **Collaborate** with cross-functional teams to align data practices
- Generate **insights** and propose reduction strategies



Microsoft Azure emissions insights (Preview)

Sustainability data solutions in Microsoft Fabric (preview)

Highly integrated, easy-to-use suite of services



Microsoft Azure Emissions Insights

Fetching data

Aggregate and categorize

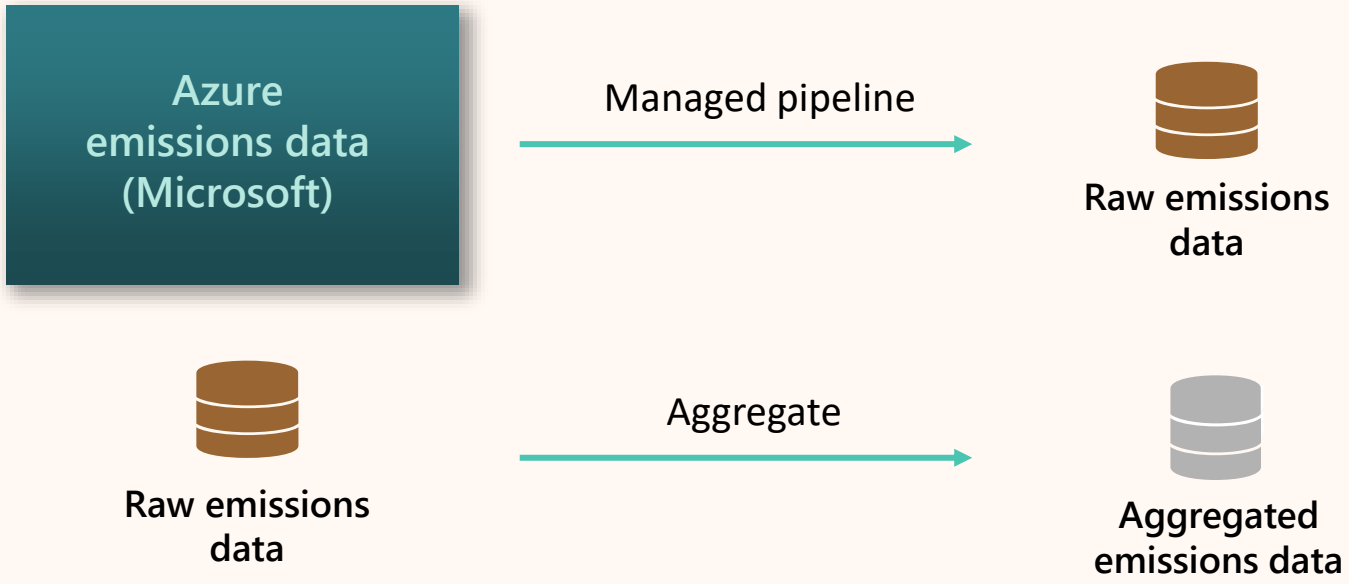
Notebooks to aggregate raw Azure emissions data by month, subscription and resource

Enrichment

Opportunity to enrich the aggregated data with contextual information

Fetch raw Azure emissions data on-demand from Microsoft

- Subscription and resource level emissions data
- Tenant information accessible to users with Billing Admin rights



Microsoft Azure Emissions Insights

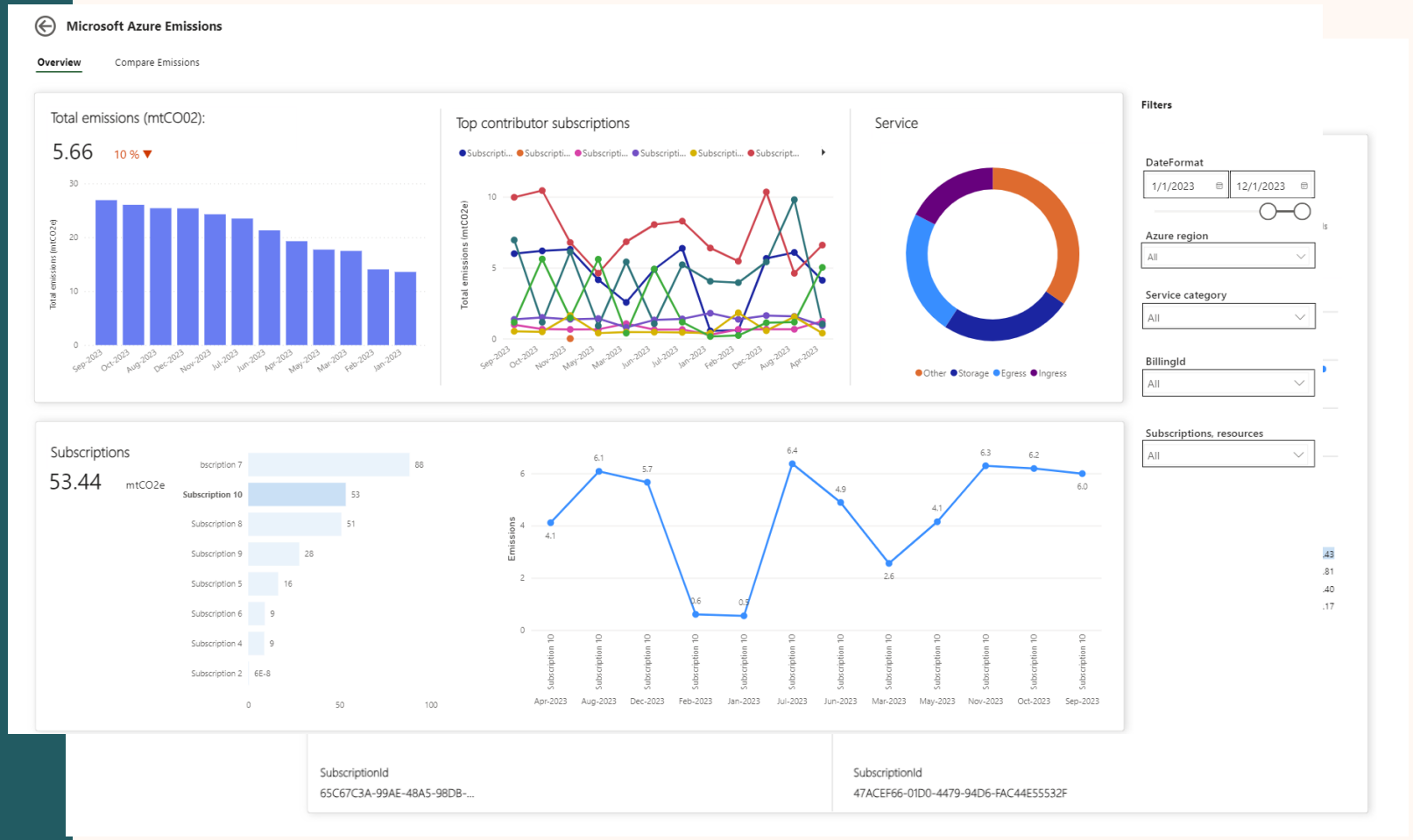
Visualizing data

Drill-down dashboards

Pre-built dashboards to drill-down and compare Azure emissions data across subscriptions and resources

Visualize trends

Visualize trends in Azure emissions data based on resource changes



Home
Create
Browse
OneLake data hub
Monitoring hub
Workspaces
ESGDataEstateDemo
ESGDataEstate1
Industry Solutions

Sustainability solutions

Improve the efficiency and value of your sustainability data

Select the capabilities you need to build unique sustainability data solutions that unify disparate data on Fabric.

Each capability contains a unique set of tools to help you prepare the data for ingestion, then transform and harmonize it for use in advanced analytics and AI modeling.

Get started on your sustainability data transformation goals by creating solutions specific to your needs and deploying them to your workspace.

- Learn about sustainability solutions
- Terms & Conditions

Manage deployed capabilities

Name	Created at	Last refreshed	Status	Owner
ESG data estate (preview)	17:26, 3/15/2024	17:28, 3/15/2024	Deployed	Sourav Chakraborty

Solution capabilities

Select each capability to learn about it and build your data transformation solution.

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
SUS04W	SDSF + Azure OpenAI service + Azure AI Studio = An open platform for Copilot	In this session we will show you examples of leveraging an integration between the ESG data in Fabric and Azure AI services to meet sustainability analytic use-cases.	Sourav Chakraborty, Chintan Rajvir	Wednesday, May 8
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

Microsoft

Thank you!

- How was the Summit? Share your feedback!
  aka.ms/MCfSTSFeedback
- Azure Carbon Optimization documentation
  Azure carbon optimization
- ESG Data Estate documentation
  ESG data estate (preview) - Microsoft Cloud for Sustainability
- Join the Sustainability Community!
  aka.ms/MCfSCommunity
- Learning Resources
  aka.ms/CloudforSustainabilityLearnCollection

Microsoft

Q&A

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