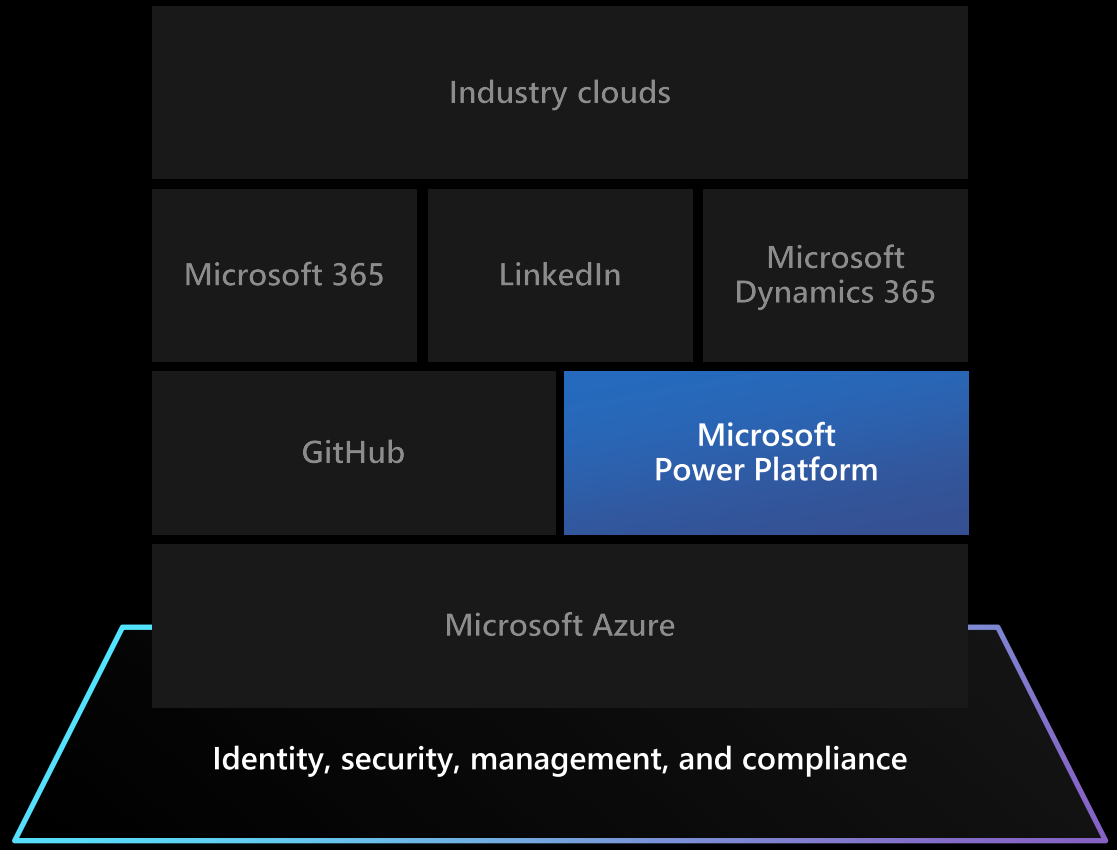
Microsoft

Lunch & Learn:
Intro to Power BI

Skylar Shonblom
Sr. Cloud Solution Architect

Microsoft cloud



Microsoft Power Platform

No code, low code, and code first—all are welcome

Power BI

Business analytics

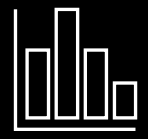
Power Apps

Application development

Power Automate

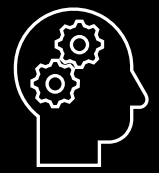
Workflow automation

How does Power BI help modernize analytics?



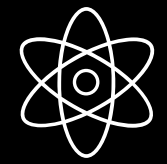
Unify self-service and enterprise BI

Remove the challenges of multiple solutions and conquer data both structured and unstructured



AI gets to insights faster

Reduce the amount of time spent wrangling data and spend more time getting answers



Anyone can access and analyze

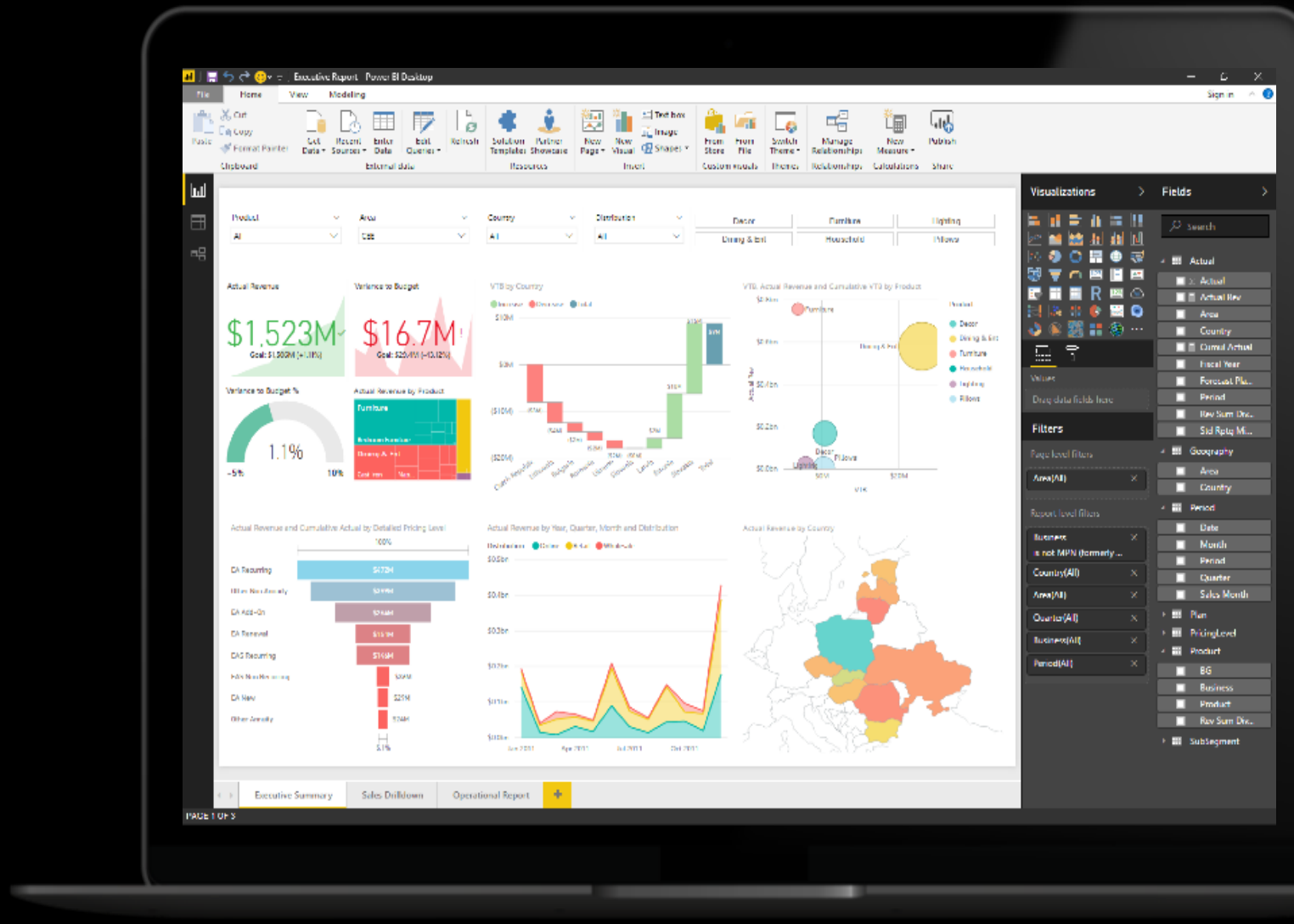
Make sense of data and drive confident decisions without relying on specialized skills

Anyone can access and analyze

- Tell your data story with hundreds of data connectors and visual options
- Expedite decisions backed by live dashboards and single source of truth
- Run your business in real time and complete ad-hoc analysis from any device
- Put insights where users spend time by embedding dashboards in applications

Transform data to insights

- Get your data
- Analyze
- Visualize
- Publish
- Collaborate



Easily connect, clean, and mashup data

Get your data

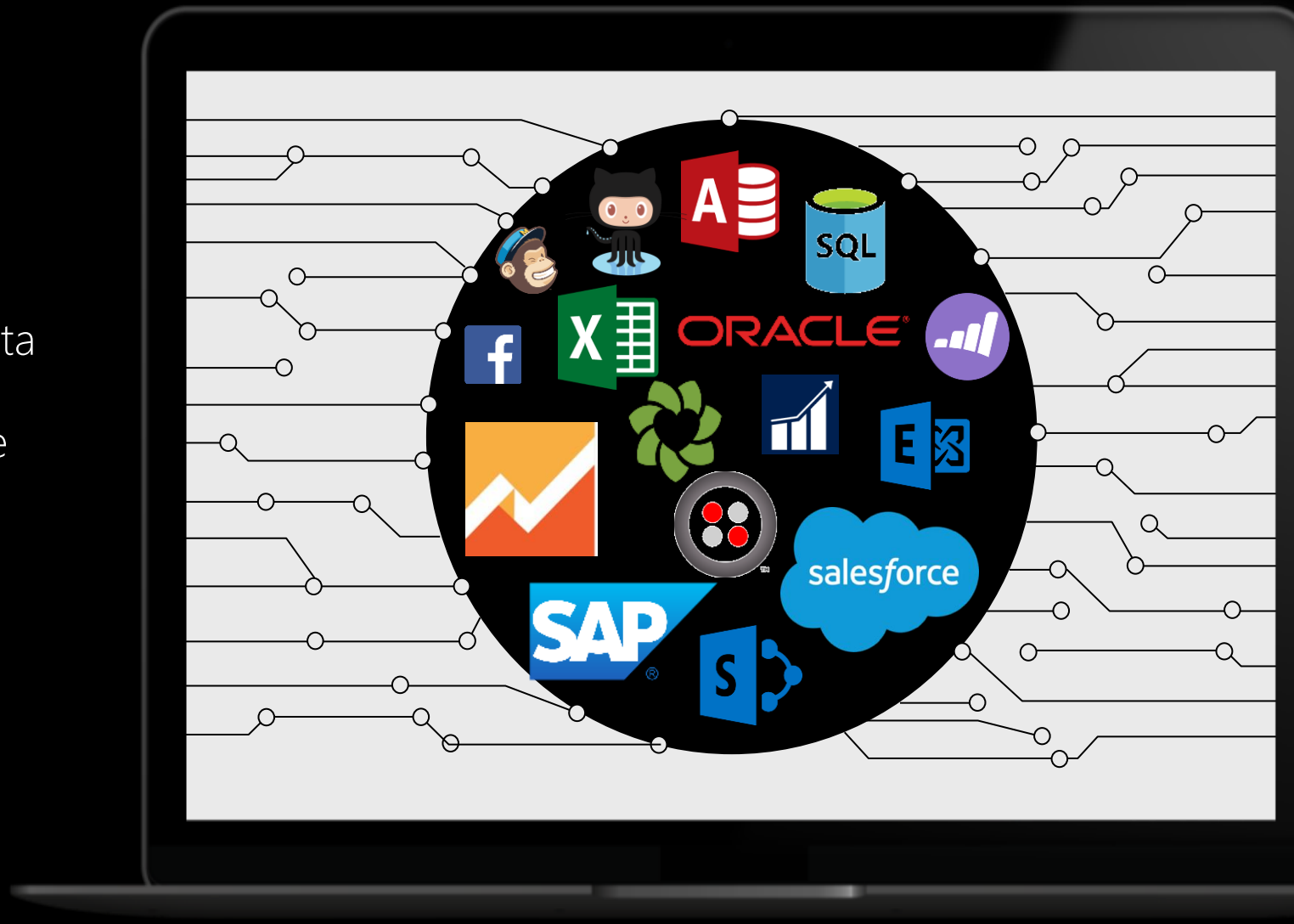
Connect to any data sources on-premises and cloud

Shape, transform, and clean data

Connect live to any data source

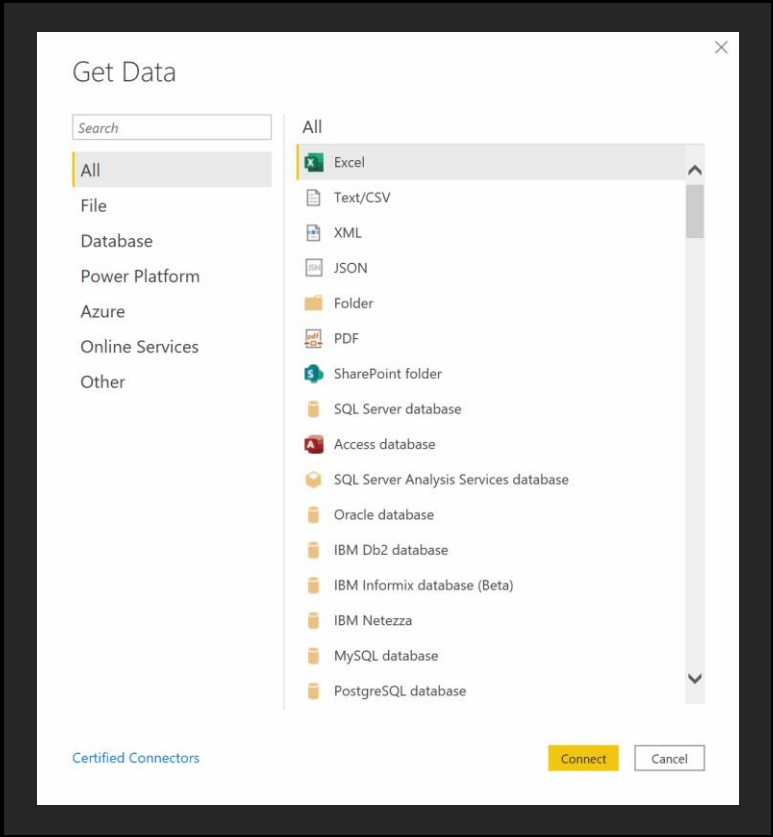
Prep your data using familiar Power Query experience

Extend self-service prep to Azure Data Lake Storage



Power Query – richest data connectivity in the industry

- 150+ data connectors out-of-the-box



82
Built by Microsoft

- Developed by our Product Team
- Bundled w/ Power Query
- **Examples:** SQL Server, Analysis Services, PDF Files, SAP BW & HANA, Web Page & Web API, ODBC, etc.

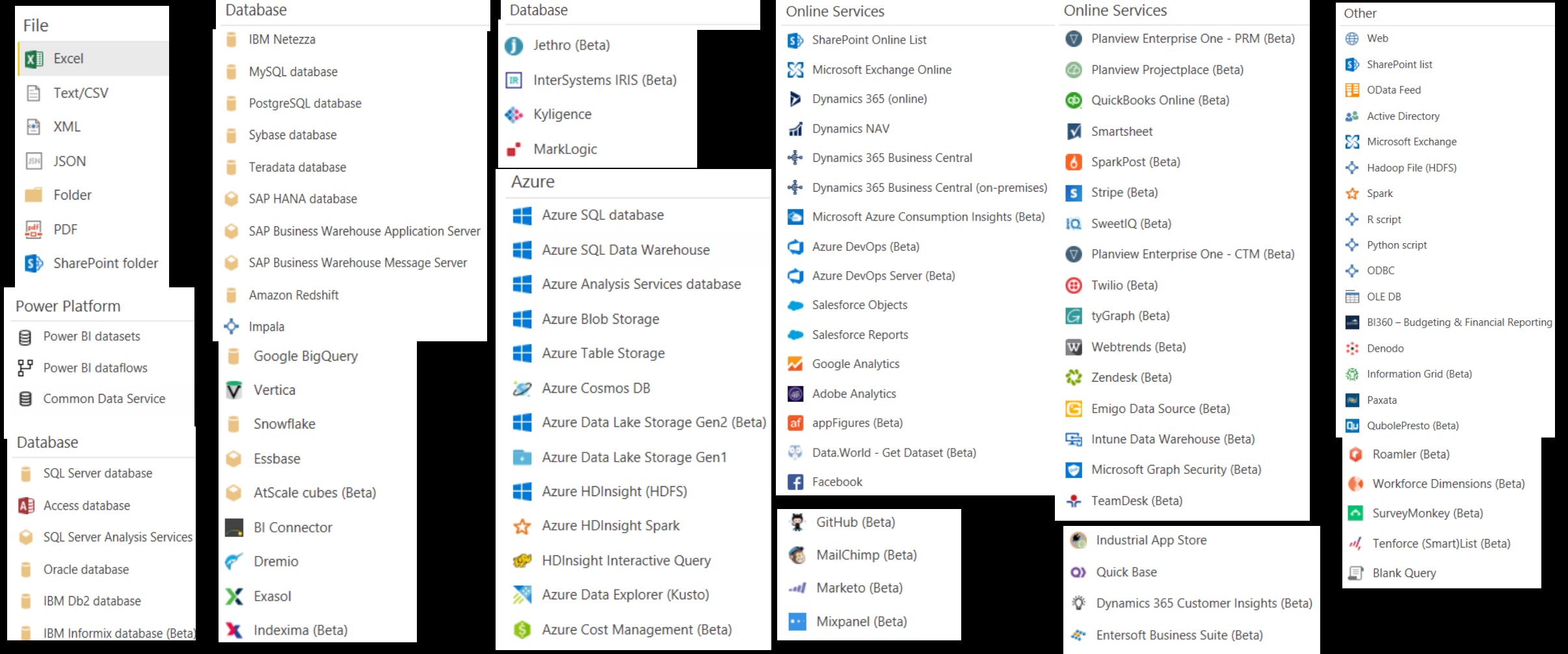
70
Built by ISVs

- Built by 3rd party ISVs, using our Connectors SDK
- Certified and Shipped by Microsoft
- Bundled w/ Power Query
- **Examples:** Denodo, Databricks, etc.

1,000s
Custom

- Built by 3rd party ISVs, SIs, partners, etc.
- Side-loaded by users/admins into Power Query & On-premises data gateway

Power BI data sources



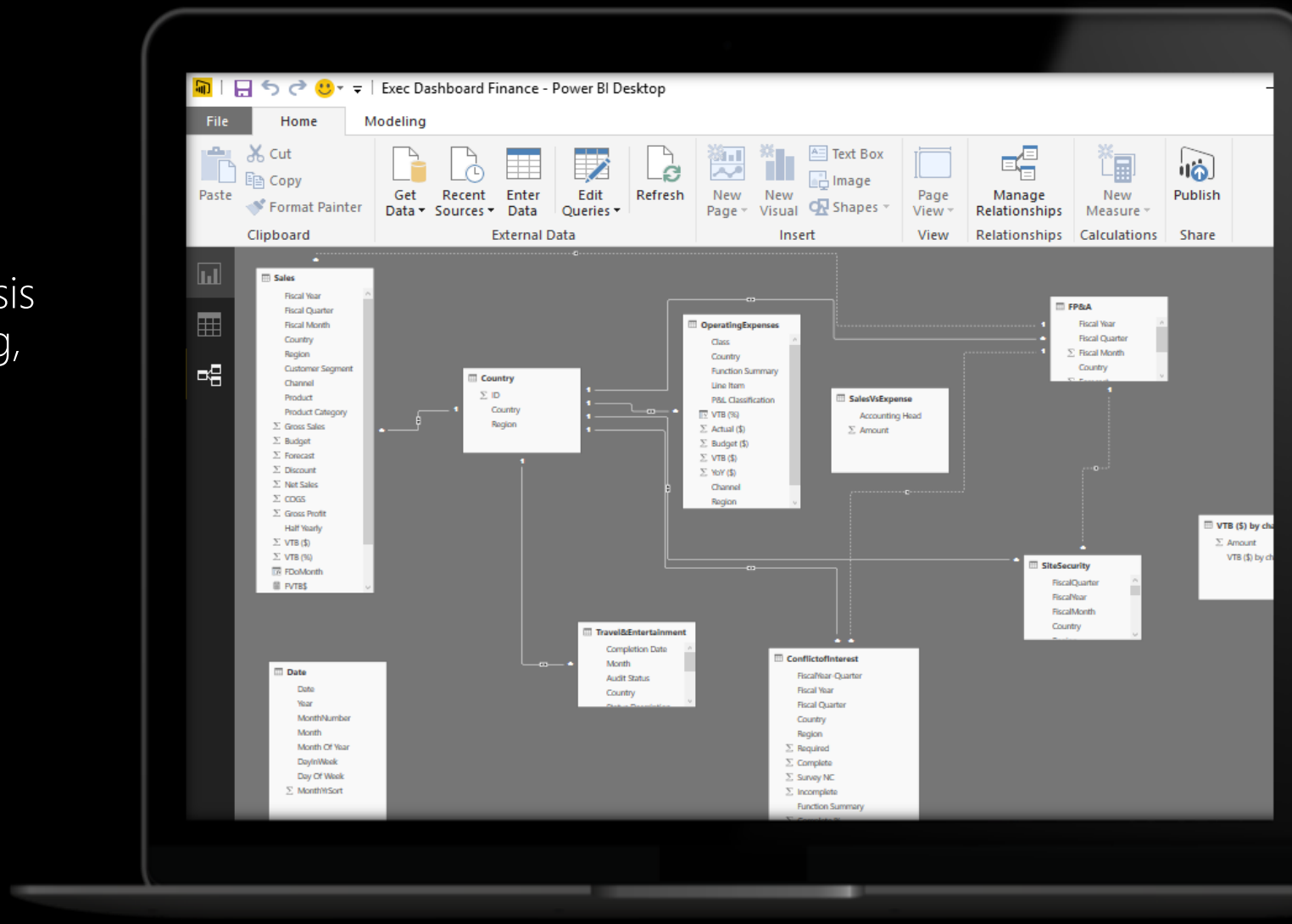
Build powerful models and flexible measures

Analyze

Create model automatically

Simplified point and click analysis with Quick Measures, Clustering, and Binning

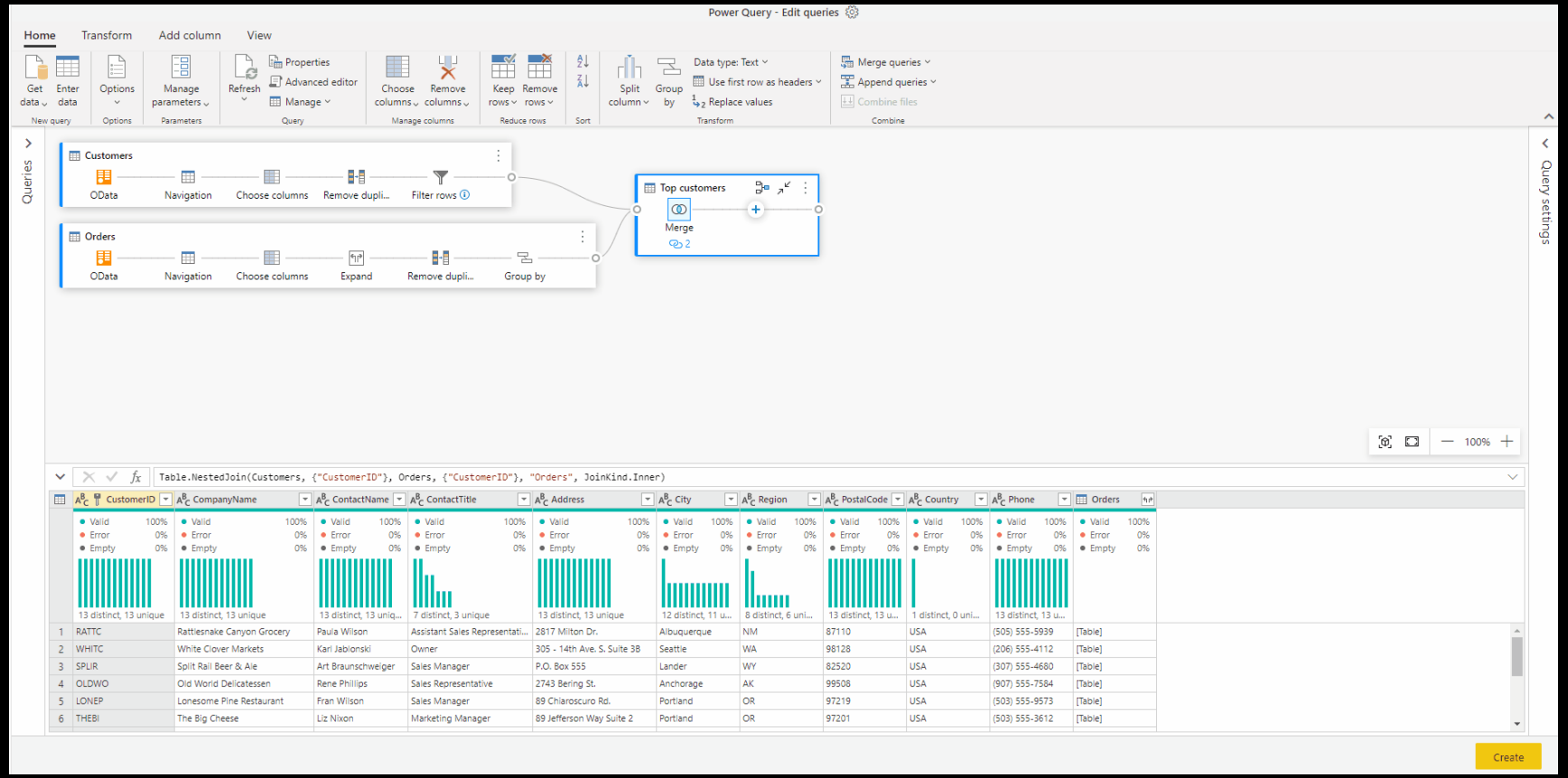
Create powerful measures with familiar DAX formulas



Simplify authoring and visualize data preparation

Easily create dataflows and understand the data prep steps and dependencies through a visual interface

Available in Power Query Online



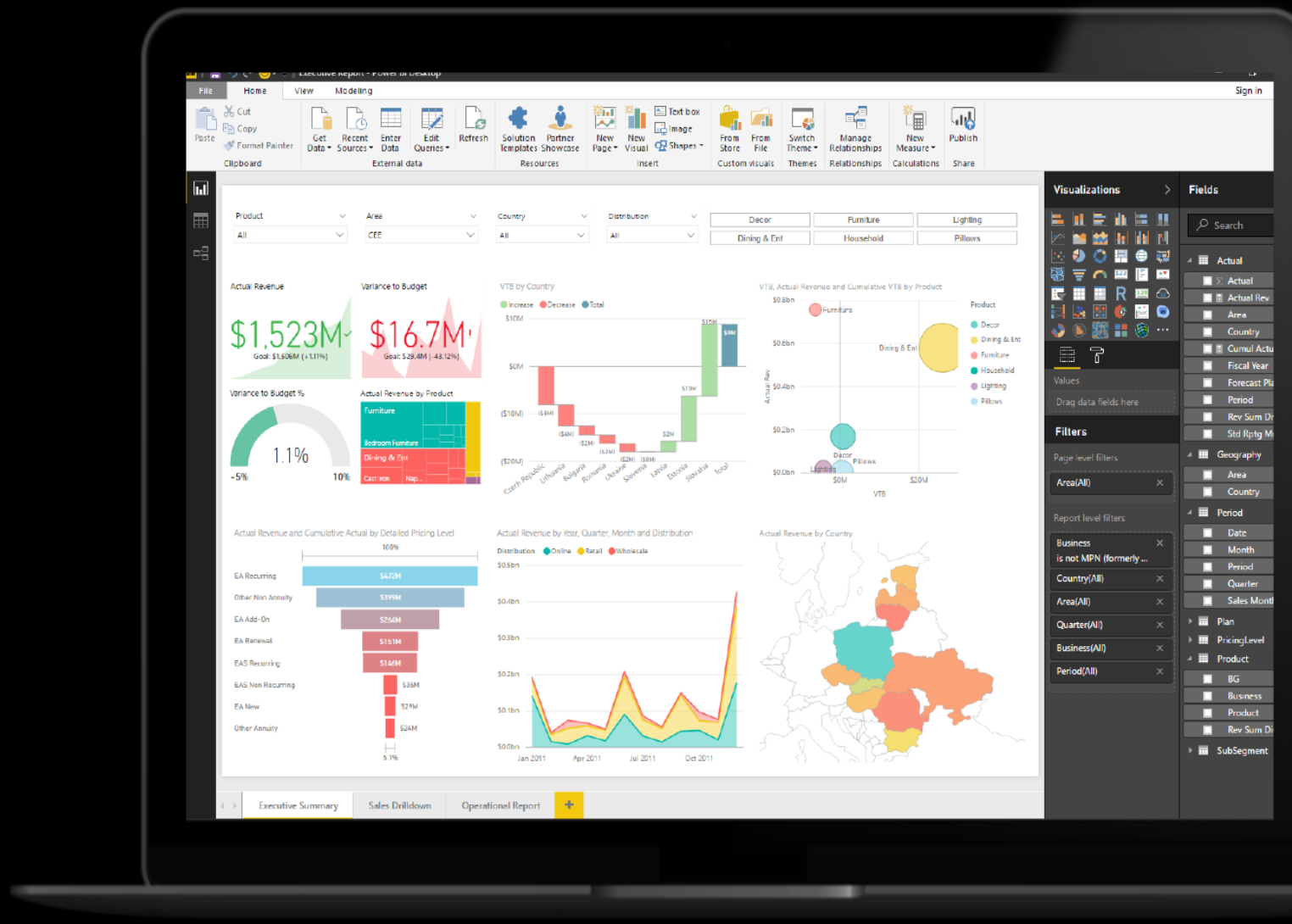
Create stunning interactive reports

Visualize

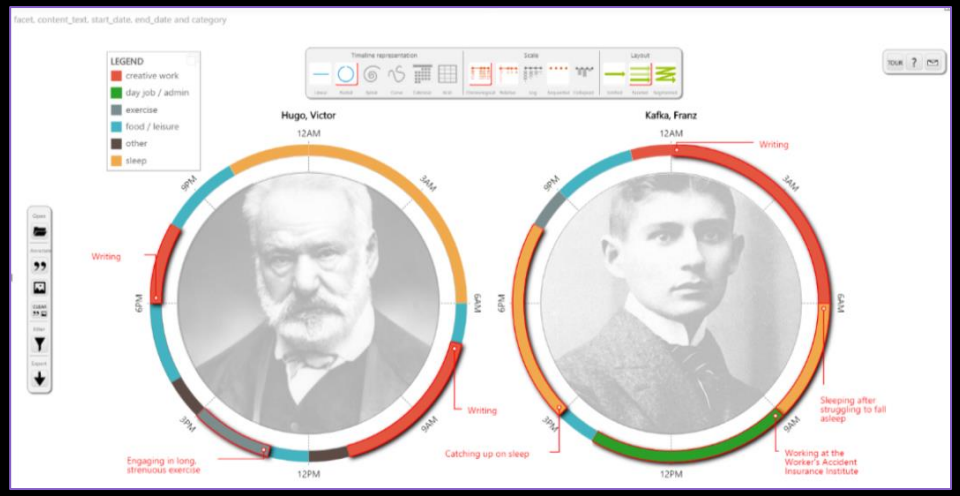
Choose from limitless visualization options

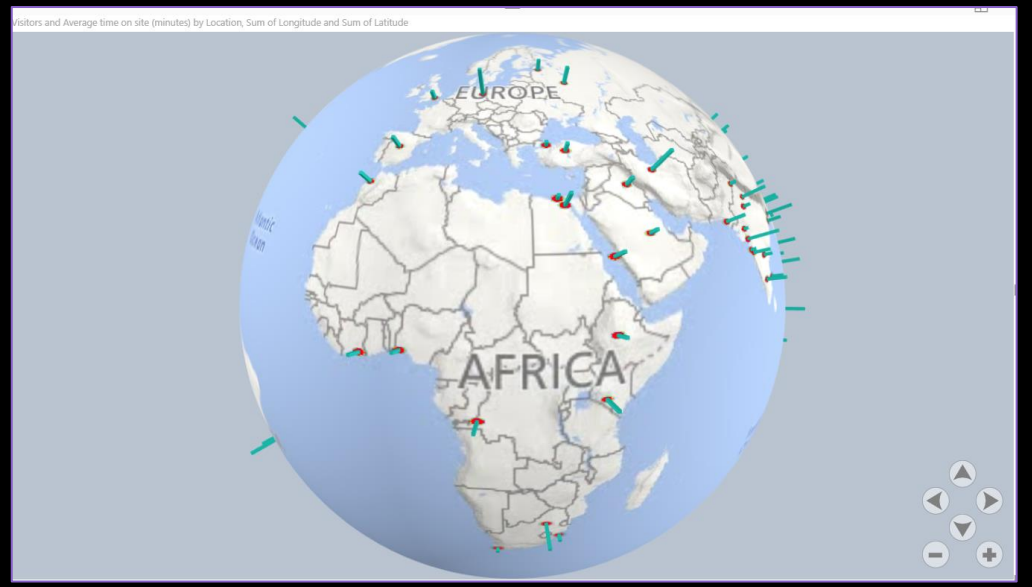
Visualizations are interactive and link together

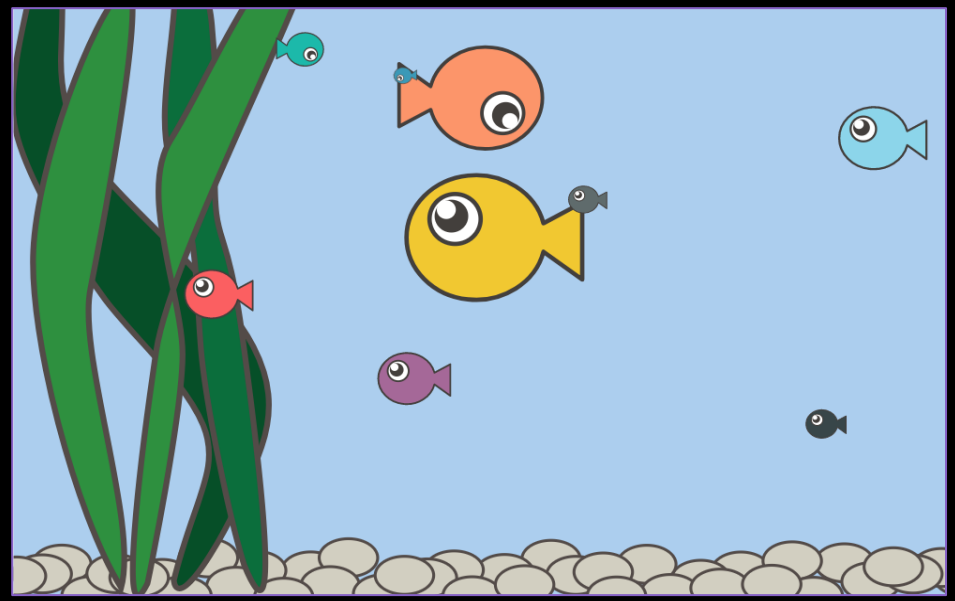
Use bookmarks and custom navigation to bring your data story to life

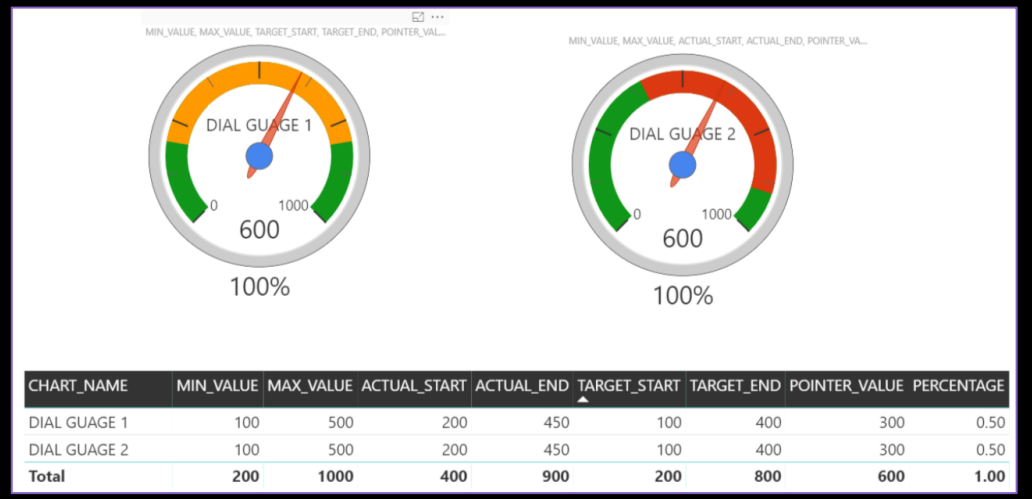


Visualize in the context of your business









CHART_NAME	MIN_VALUE	MAX_VALUE	ACTUAL_START	ACTUAL_END	TARGET_START	TARGET_END	POINTER_VALUE	PERCENTAGE
DIAL GUAGE 1	100	500	200	450	100	400	300	0.50
DIAL GUAGE 2	100	500	200	450	100	400	300	0.50
Total	**200**	**1000**	**400**	**900**	**200**	**800**	**600**	**1.00**

Share insights with others

Publish

Publish interactive or paginated reports to the cloud or on-premises

Automatic data refresh, so your reports are always up to date

Package your reports in apps for easy consumption and control

Manage your analytics content with admin and governance tools

Empower your organization

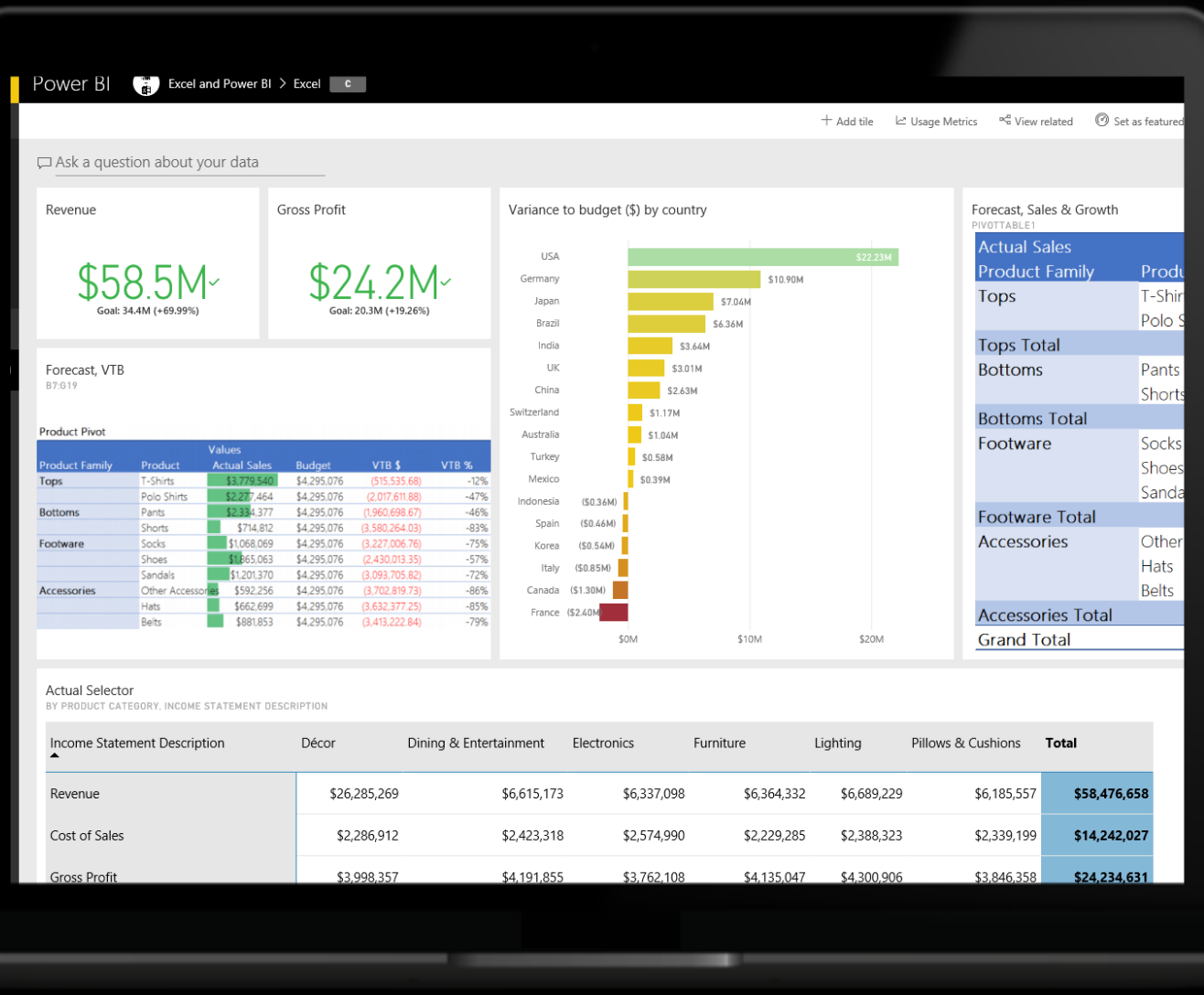
Collaborate

Provide insights on any device

Use Q&A to automatically discover insights

Deliver insights in other user flows like Teams and SharePoint

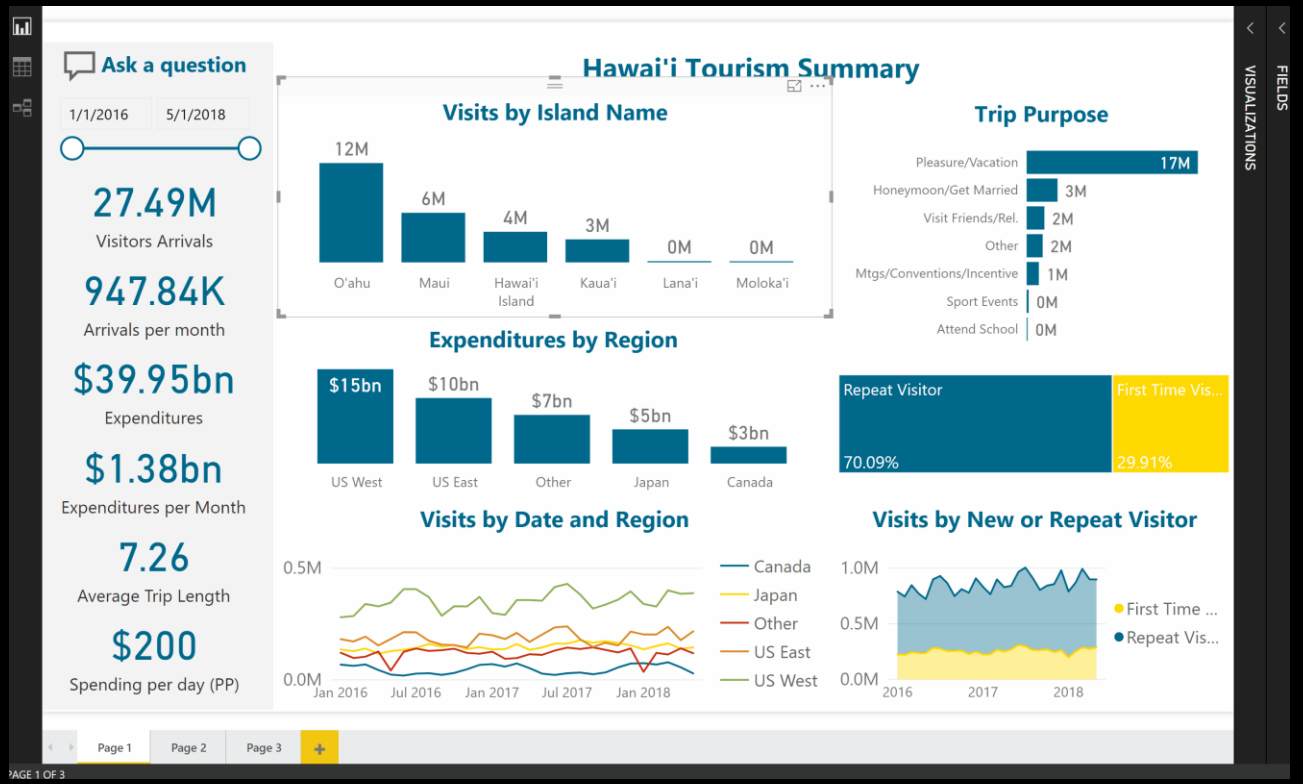
Connect live to your models in Excel and Power BI Desktop



Help business users understand data

Q&A

Get answers by simply asking



Backorder Analysis

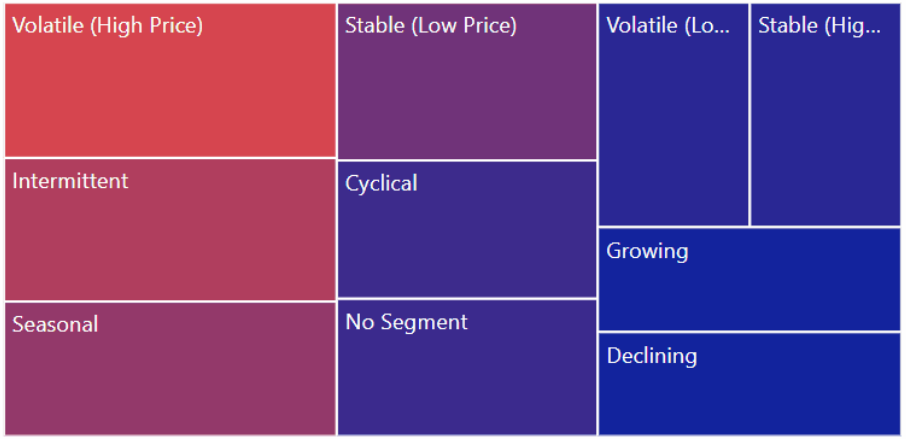
Ask a question about your data

Try one of these to get started

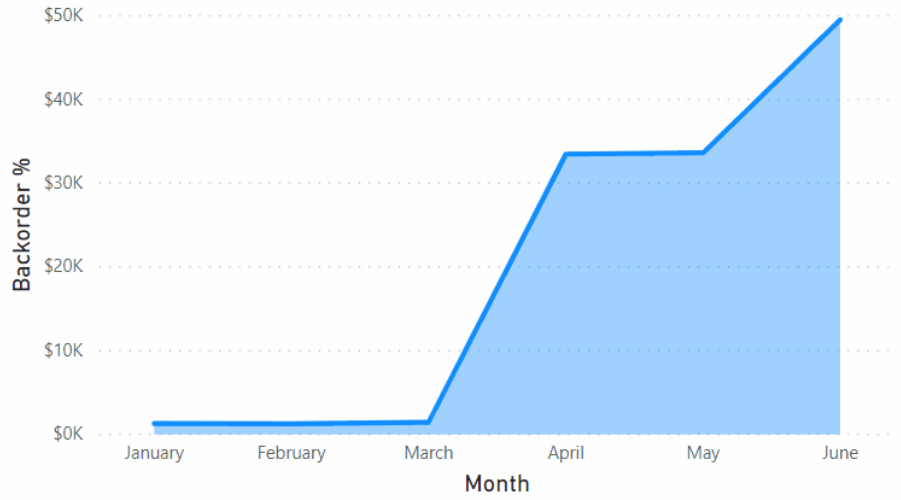
- what is the % on time orders by demand type
- what is the product availability by demand type
- top plants by backorder $
- top plants by product availability
- what is the % on backorder by region
- what is the % on time orders by month
- what is the backorder $ by brand
- what is the % on backorder by brand
- what is the % on time orders by brand
- sort backorder percentages by shipment type

Show fewer suggestions

% on backorder by Demand Type



Backorder $ by Month



Filters

Q&A tools

Q&A setup

- Getting started
- Field synonyms
- Review questions
- Teach Q&A
- Manage terms
- Suggest questions

Getting started

Field synonyms

Add terms people might use as synonyms for the fields and tables in your data.

Field synonyms

Review questions

Review questions people have asked and fix misunderstandings.

Review questions

Teach Q&A

Teach Q&A to understand questions and terms people might use.

Teach Q&A

Suggest questions

Help people explore your data by adding suggested questions.

Suggest questions

Help Q&A understand people better

Learn more about Q&A

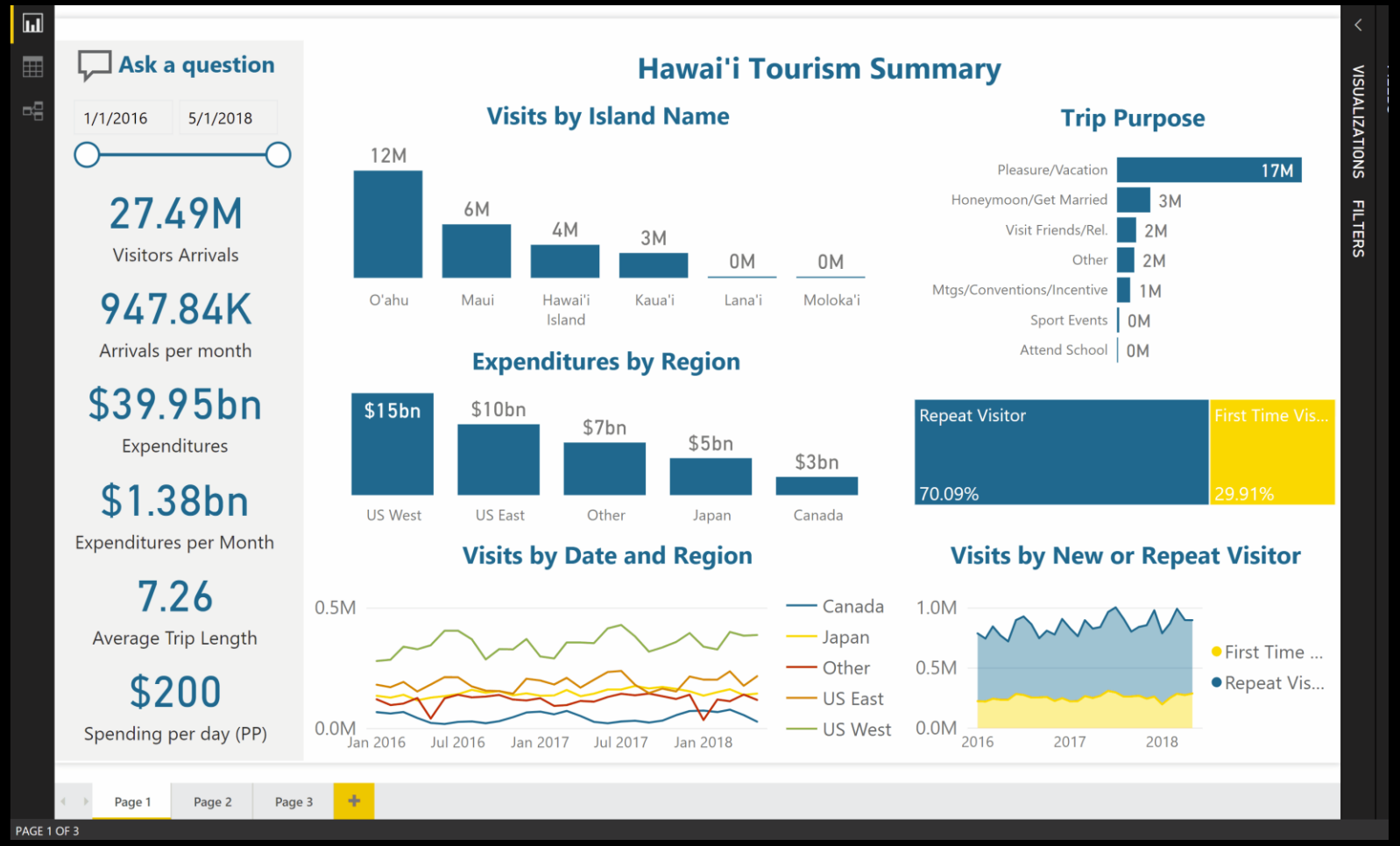
This feature is in preview. Learn more

Help business users understand data

Quick insights

Find where the distribution is different

In this example, first time visitors visits to islands is different than those who visit several times

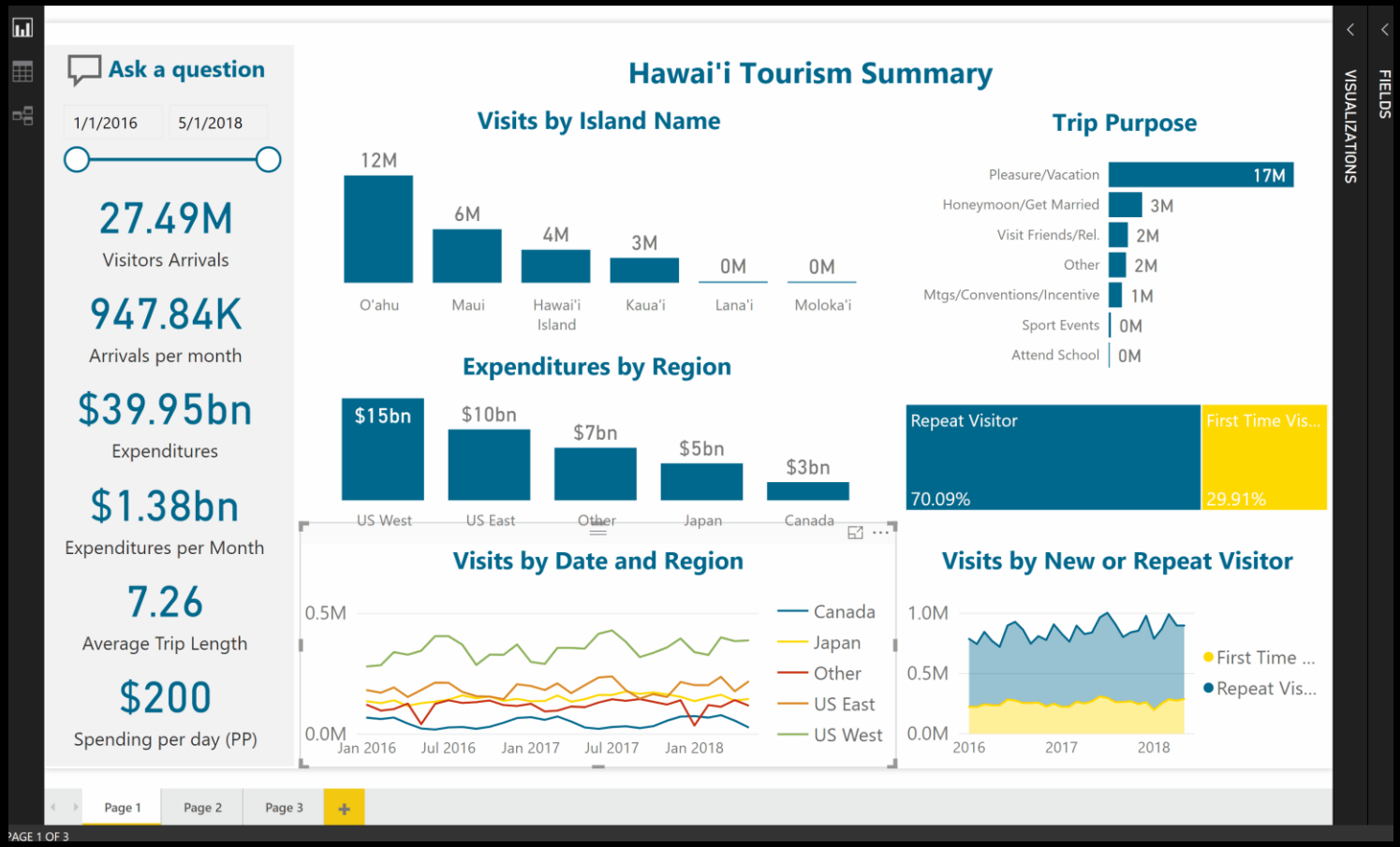


Help business users understand data

Quick insights

Explain the increase or decrease

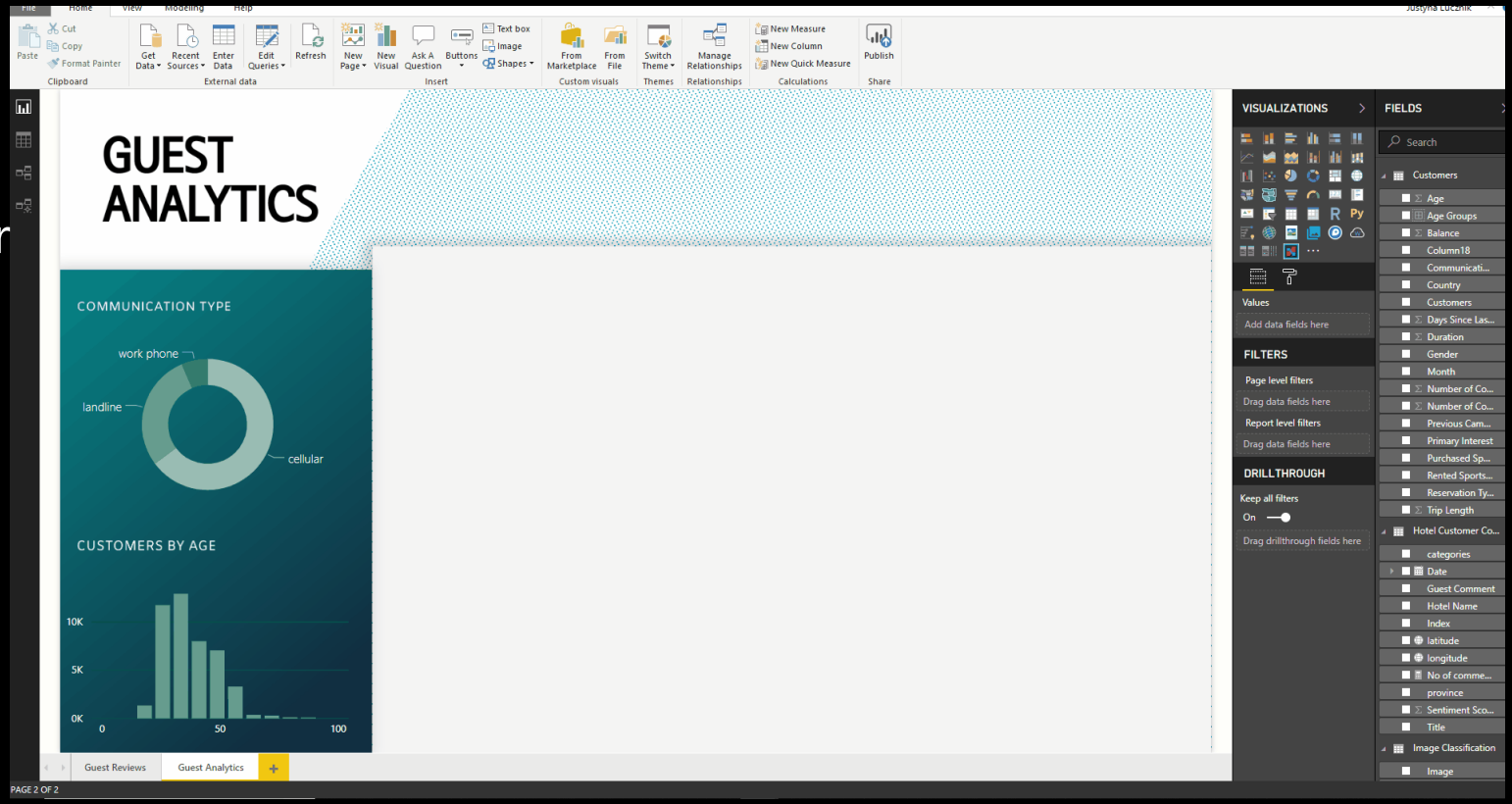
Here, we see that the decrease of visitors in summer 2017 was explained by Pleasure/Vacationers. The type of traveler more likely to cancel a trip when Volcanoes erupt!



Help business users understand data

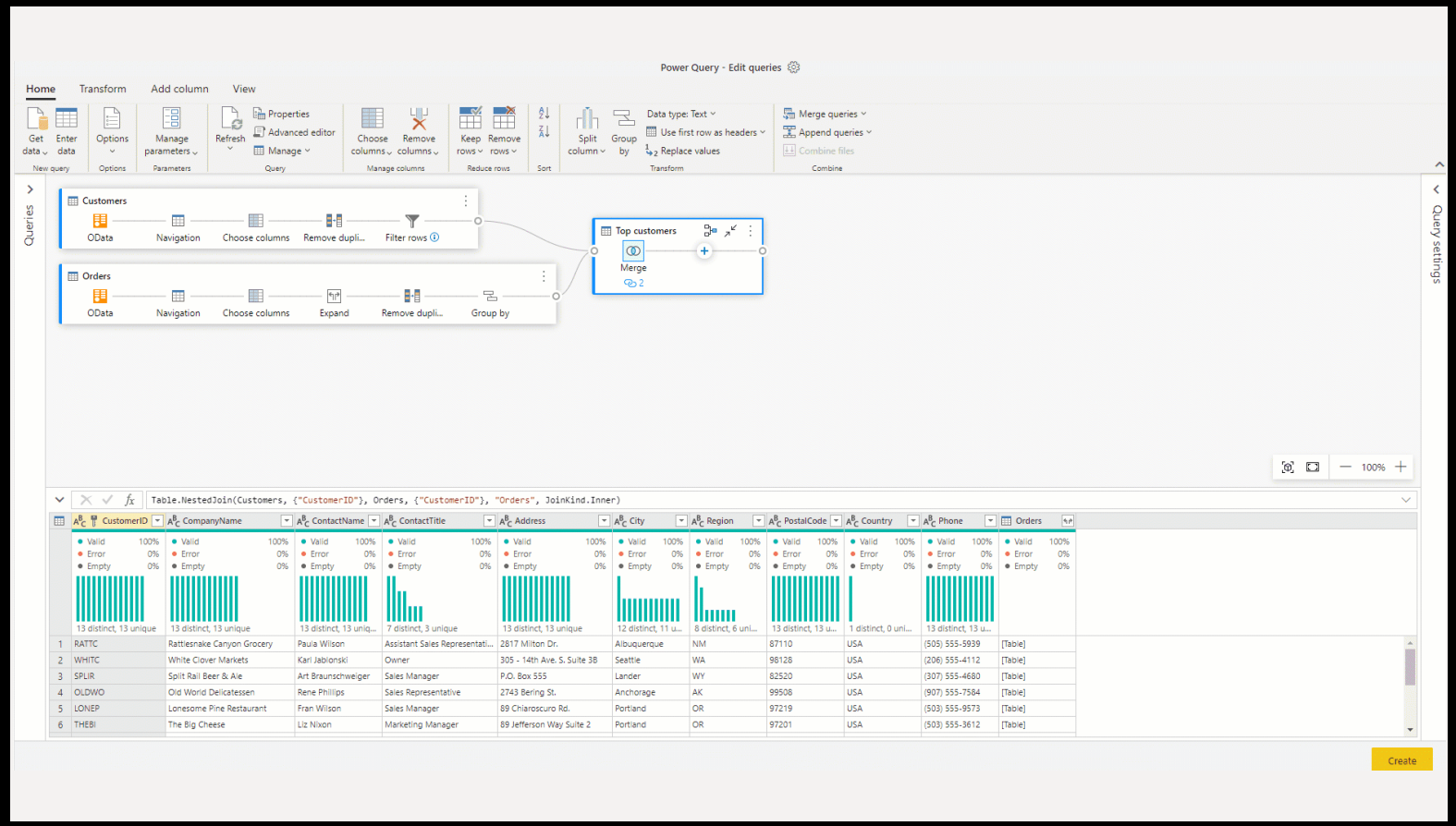
Key influencers

Find out what drives your KPIs—key influencers uncovers what matters

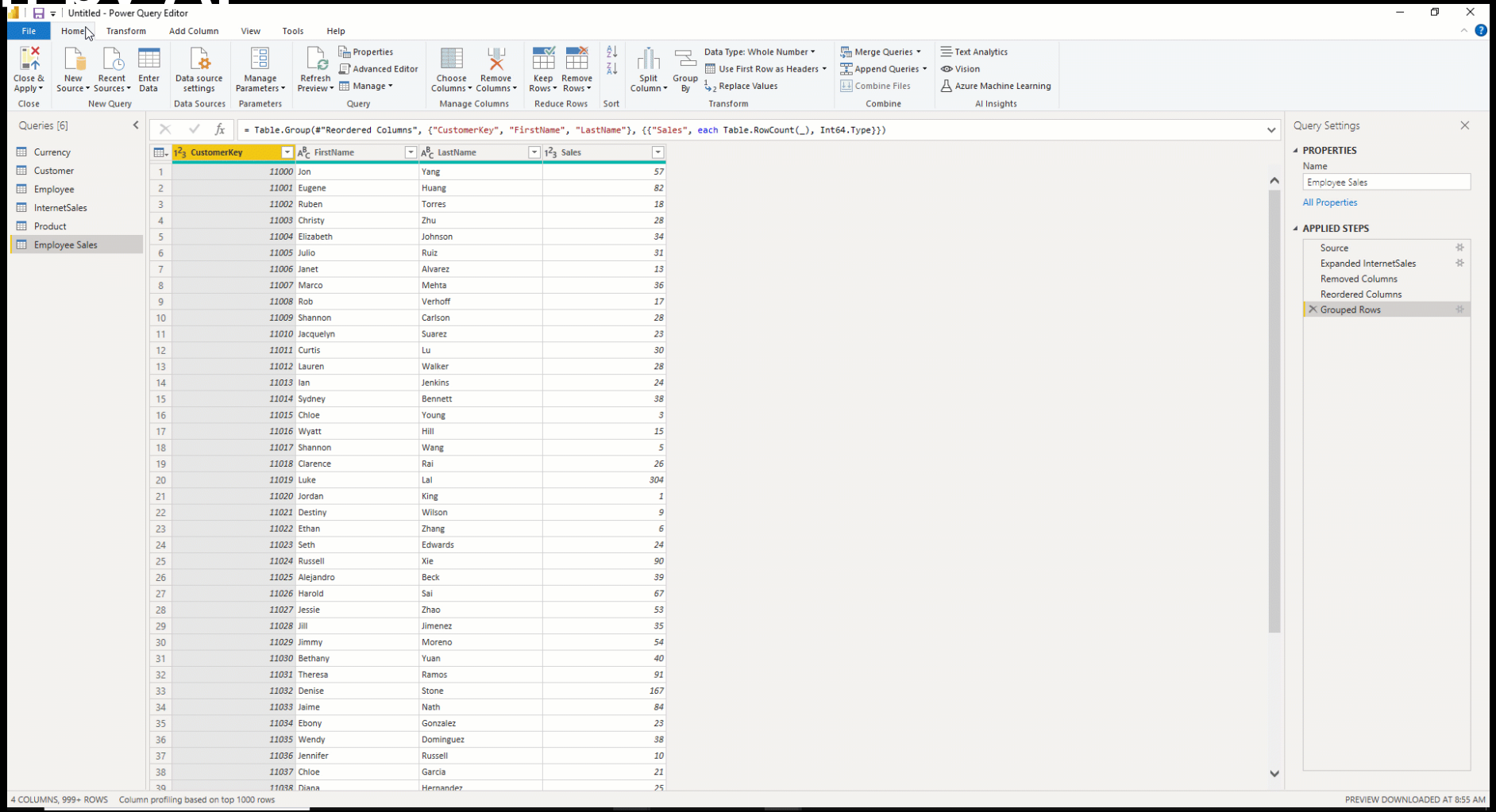


Self-service data prep

- Power BI Dataflows

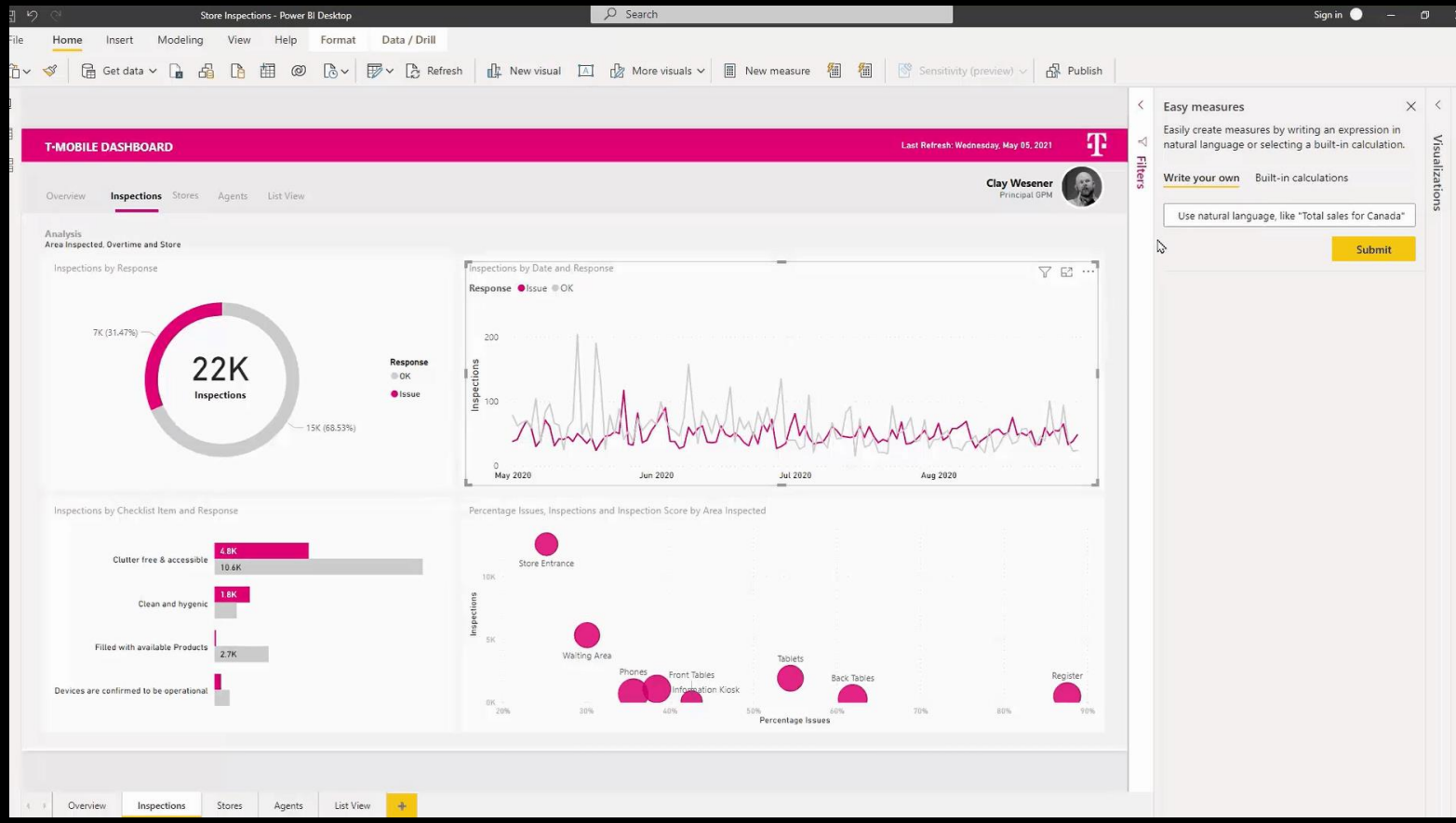


Data prep driven by AI

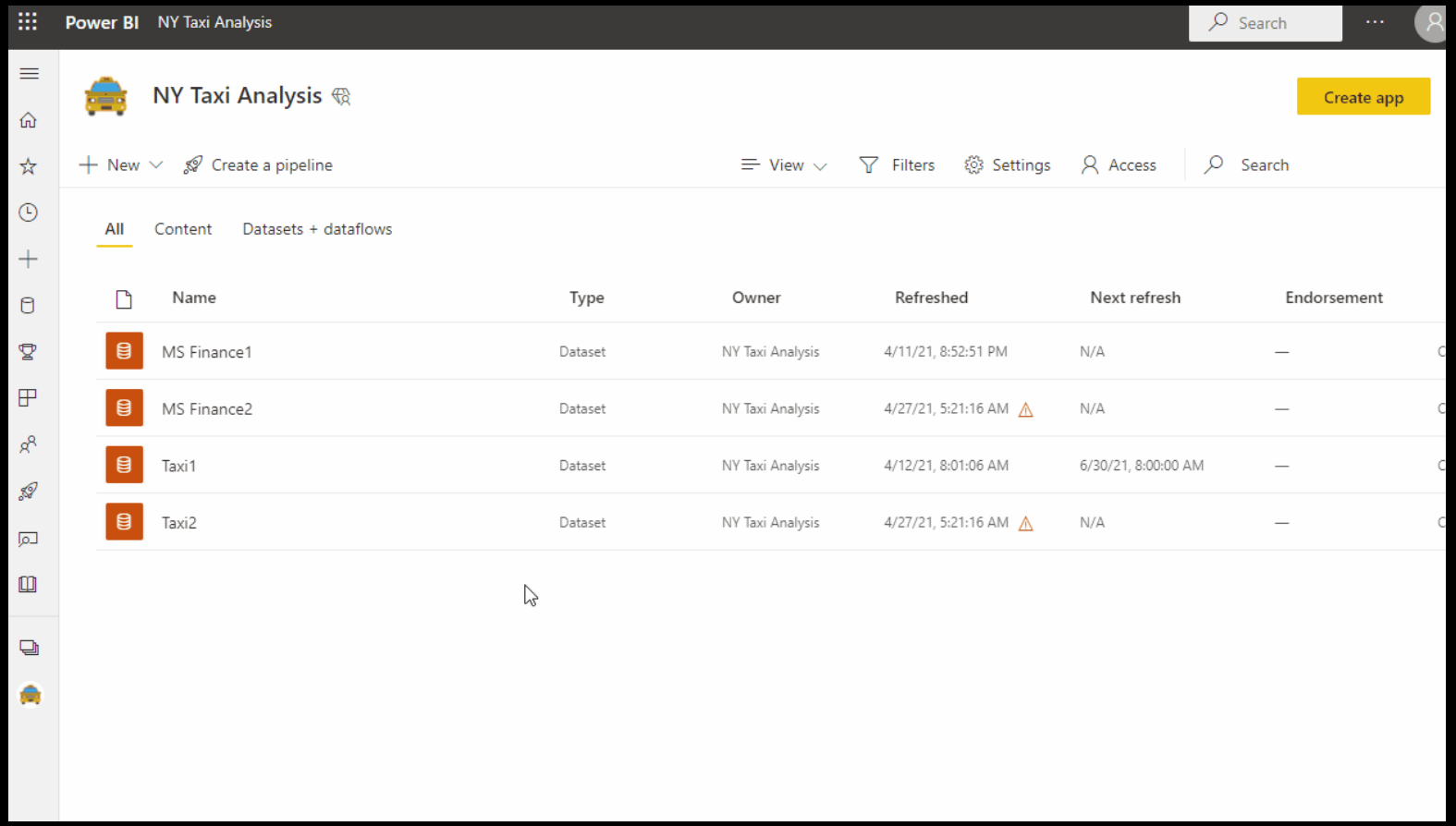


Business analysts

- Natural language to DAX



Automatic aggregations

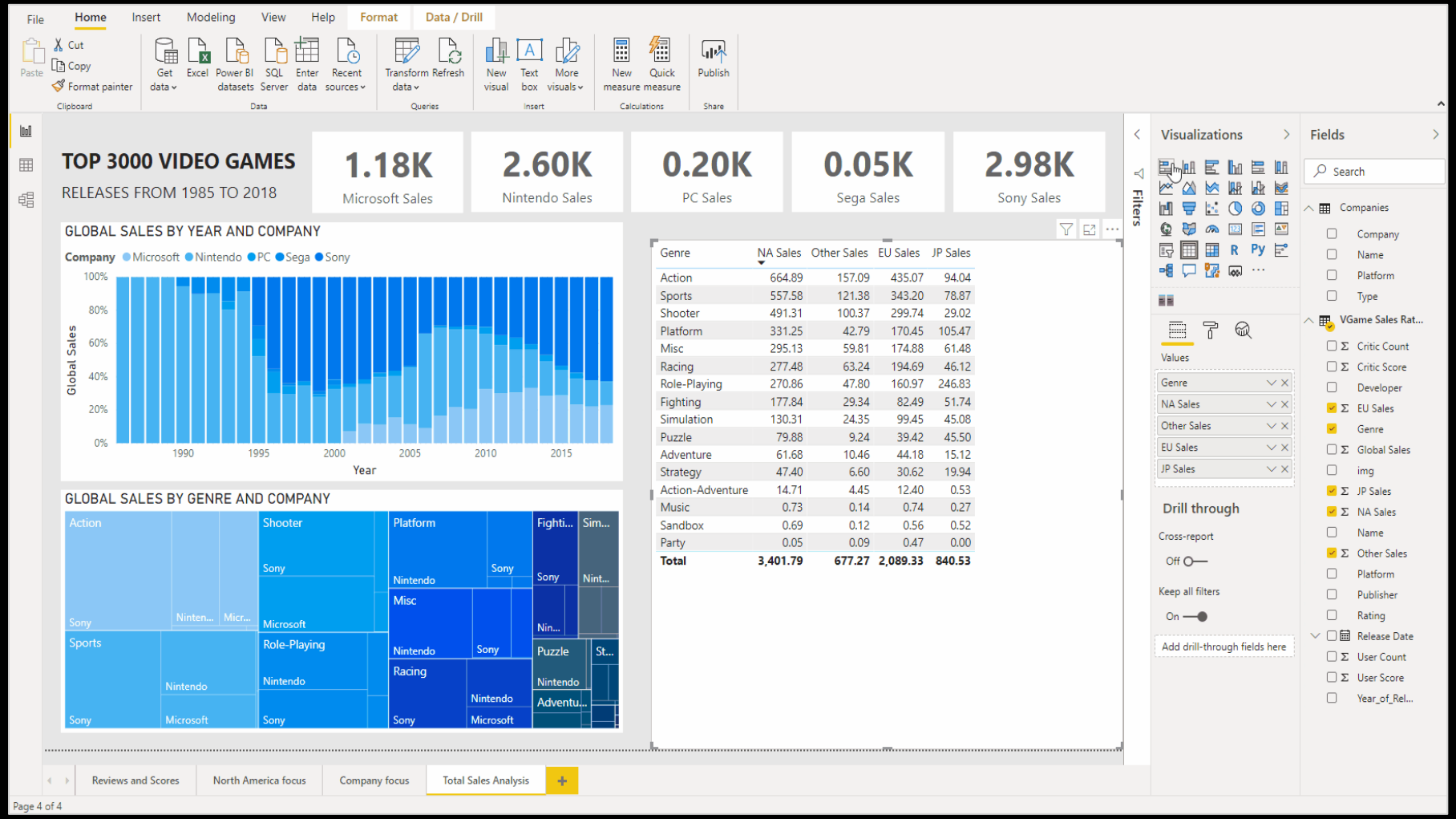


“PowerPoint for Data”

Connect to data, wherever it is

Visual, intuitive data prep and modeling

Office like experiences to analyze data and create reports



Sales and Marketing Sample V1 - Power BI Desktop

Search

Will Thompson (MSIT)

File Home Insert Modeling View Help External Tools Format Data / Drill

Paste Cut Copy Format painter — Clipboard

Get data Excel Power BI datasets SQL Server Enter data Recent sources — Data

Transform data Refresh — Queries

New visual Text box More visuals — Insert

New measure Quick measure — Calculations

Publish — Share

SALES & MARKETING REPORT Return on Investment

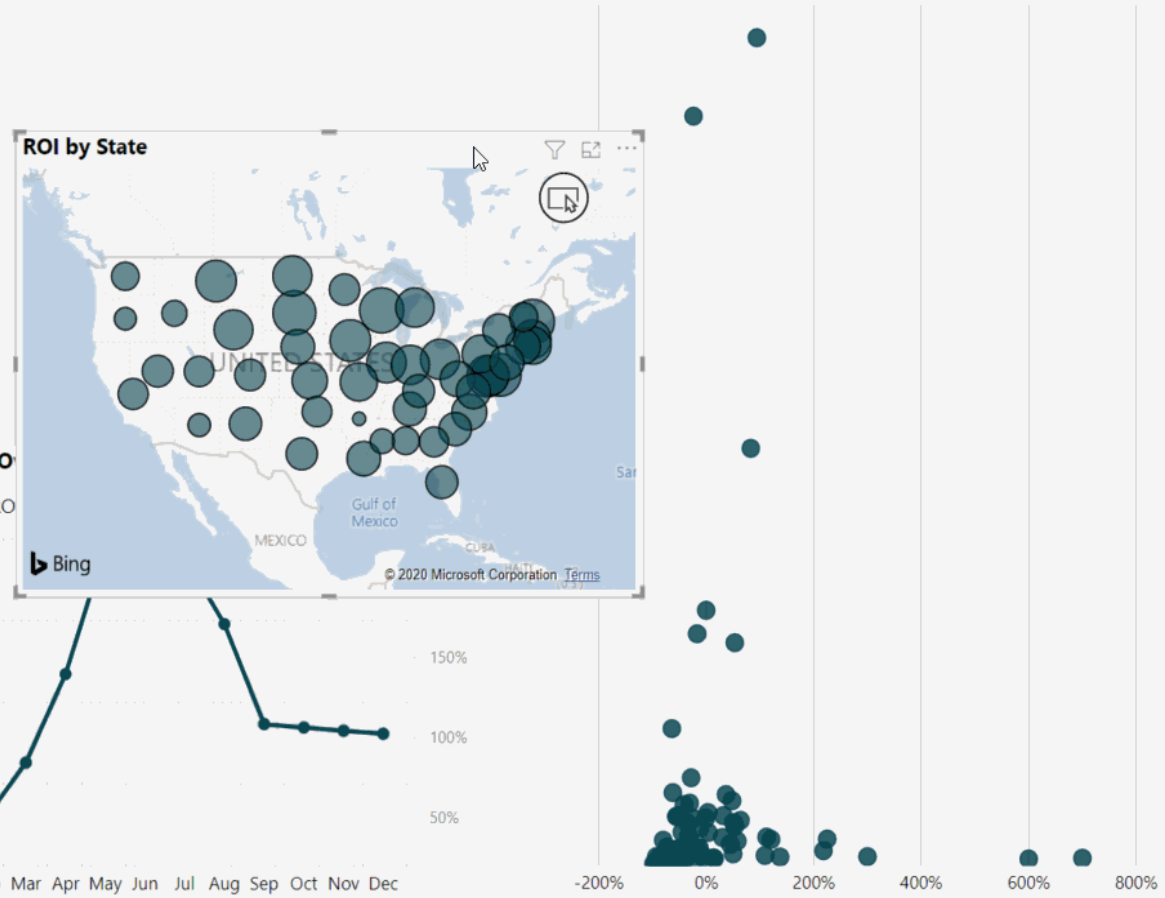
12%
ROI

$207M
Sales $

15K
Total Units

11K
Total VanArsdel Units

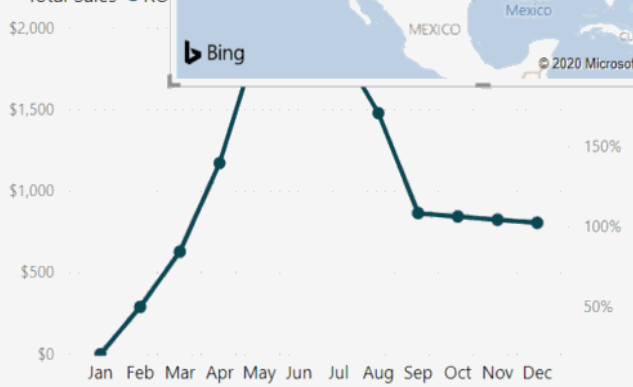
ROI and Total Units by Product



ROI by State

Sales and ROI O

Total Sales ● RO



Return on Investment (ROI)

0% 100%

Visualizations

Filters

Location: State

Legend: Add data fields here

Latitude: Add data fields here

Longitude: Add data fields here

Size: ROI

Tooltips: Sales

Drill through

Cross-report: Off

Keep all filters: Off

Add drill-through fields here

Fields

Search

- SalesFact
- Sentiment
- Category
- Date
- Geo
- Indicators
- KPI
- Manufacturer
- Product

Info | Executive Overview | Top 10 Regions | Return on Investment | Detailed Info | Tooltip | +

Page 4 of 6

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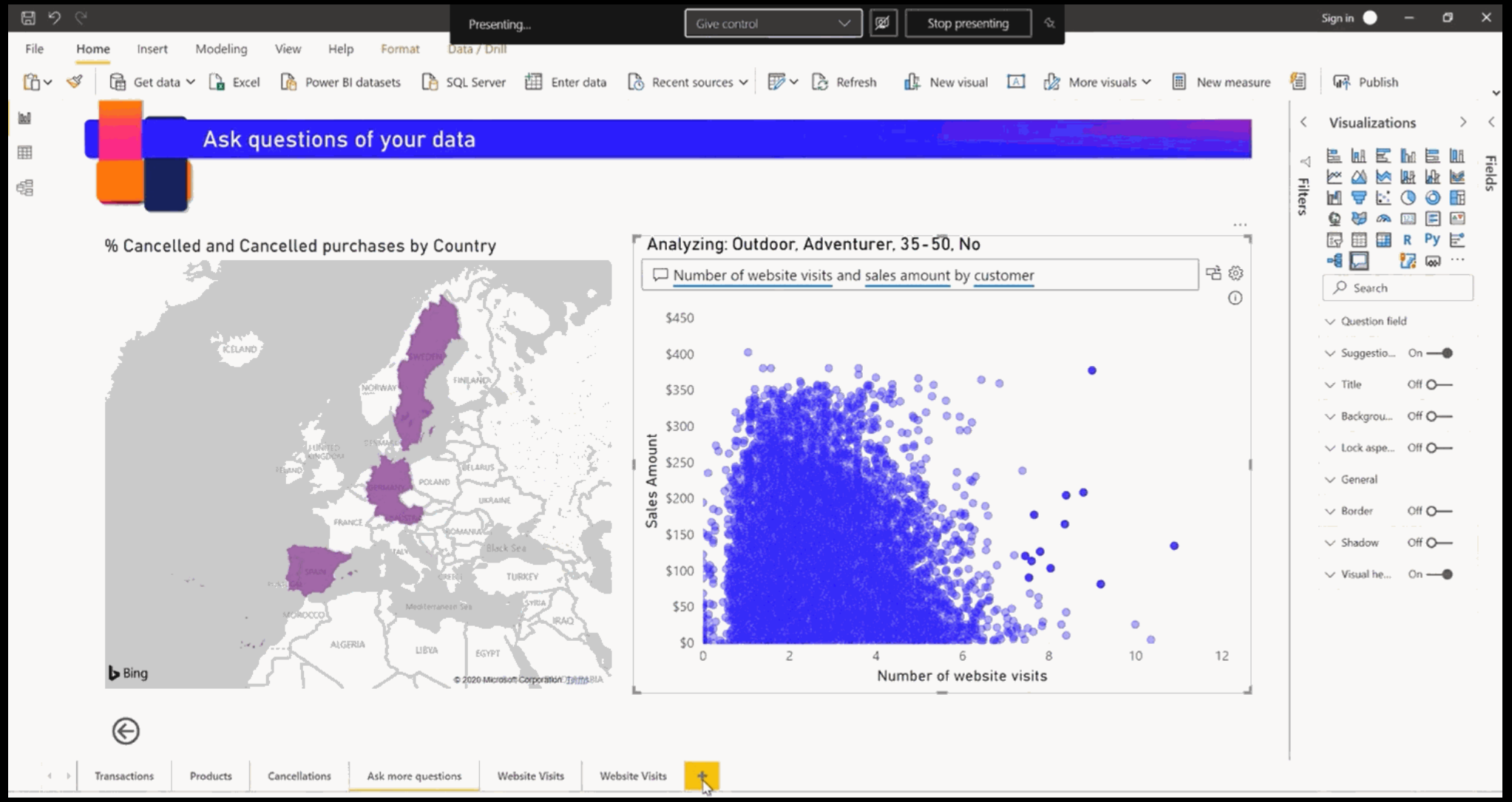
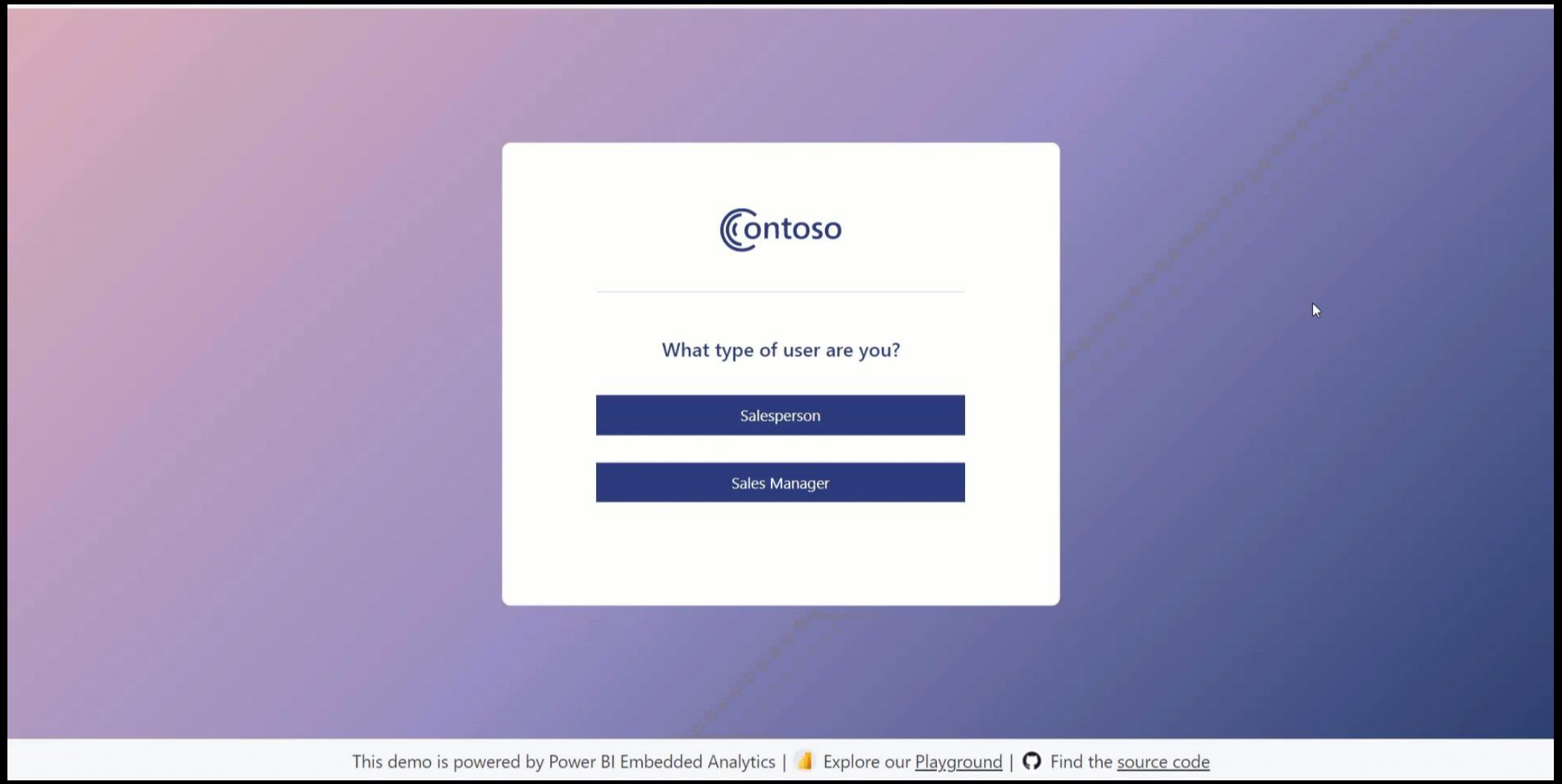
“PowerPoint for Data” – Layout Templates

Professionality designed layout templates allow building beautiful report pages with just a few clicks



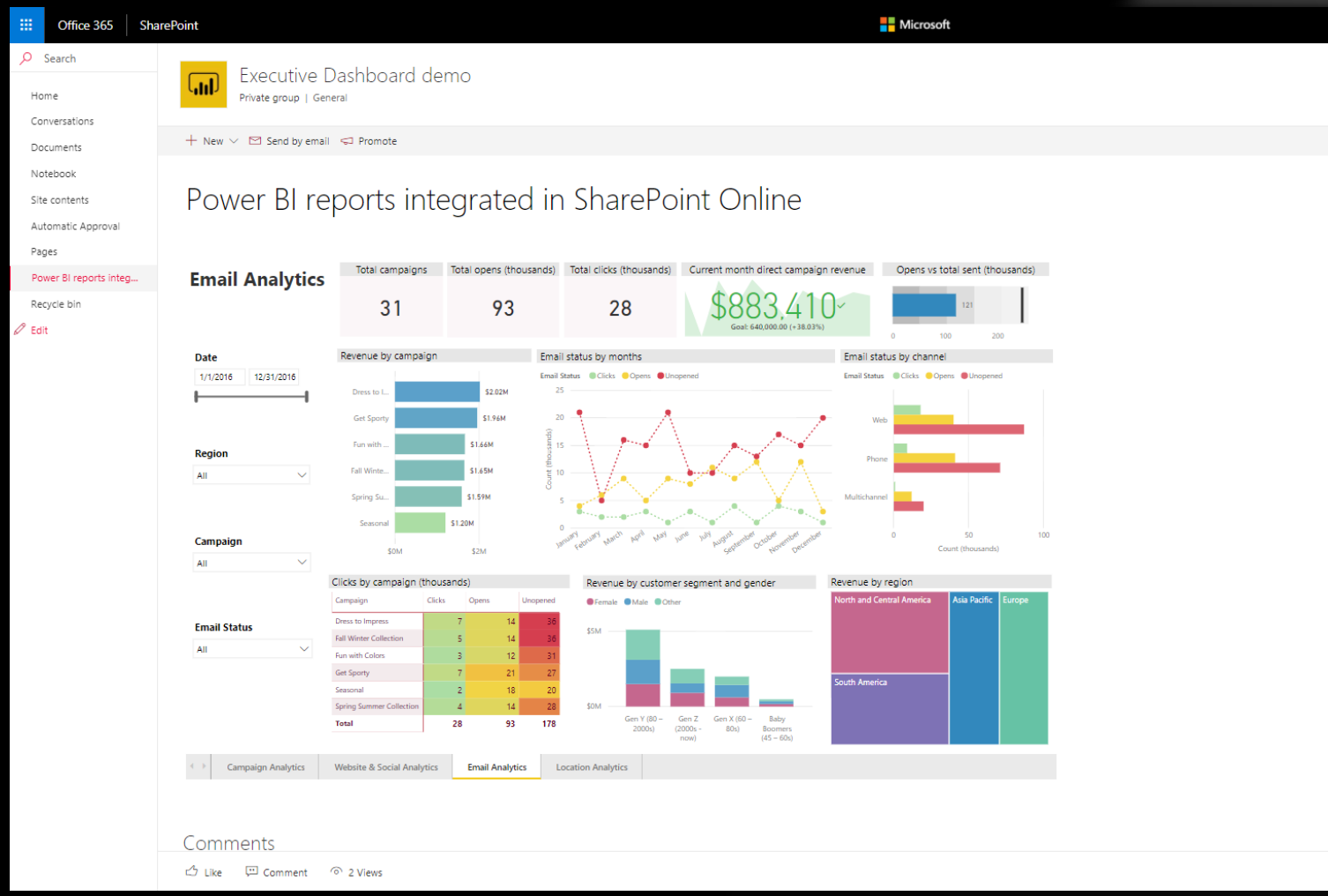
Demo

Embedded analytics

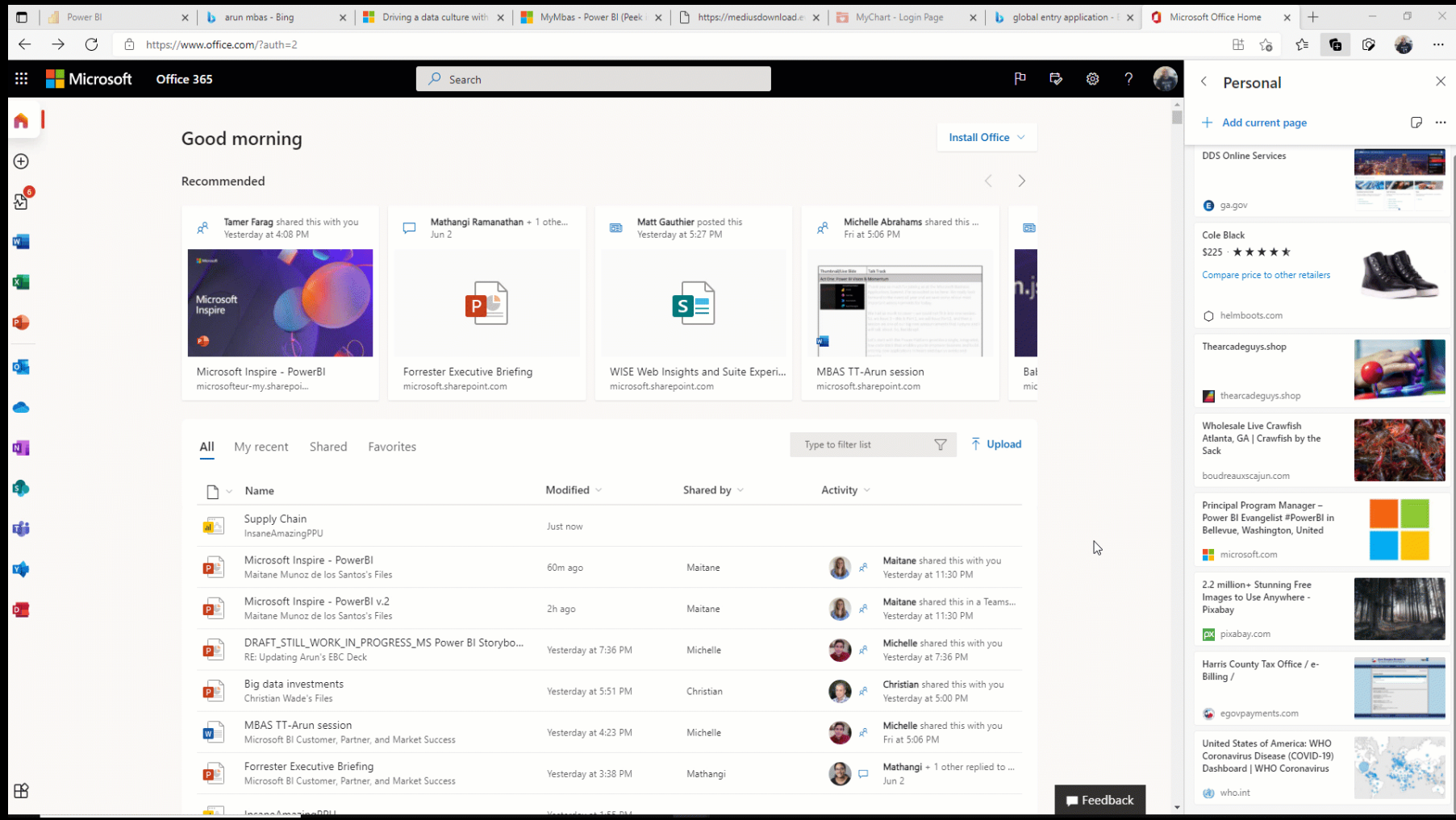


Deliver insights through

- Excel
- Visio
- SharePoint
- Teams
- PowerApps
- Dynamics 365
- SaaS apps

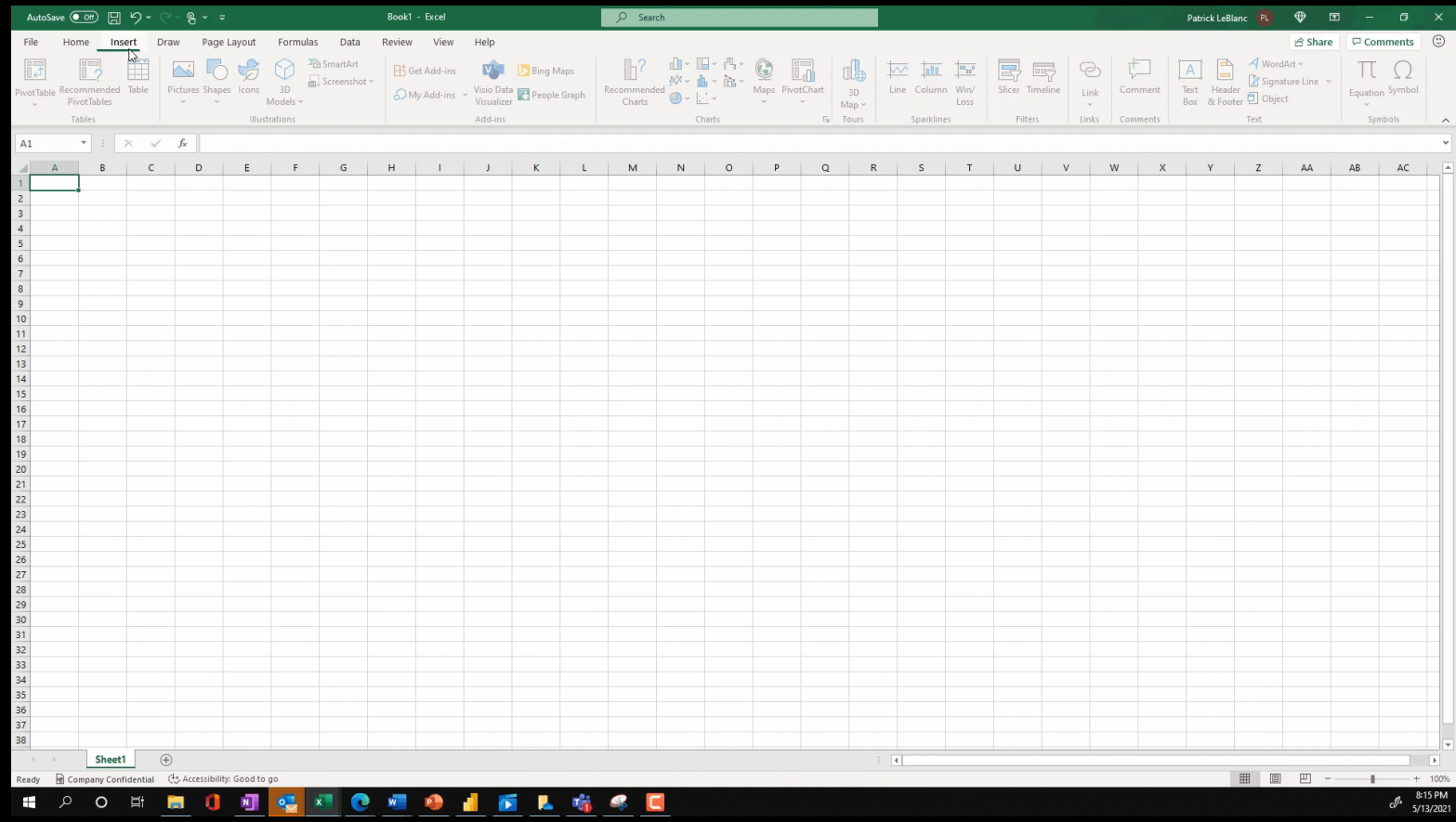


Power BI reports are just like all other Office documents

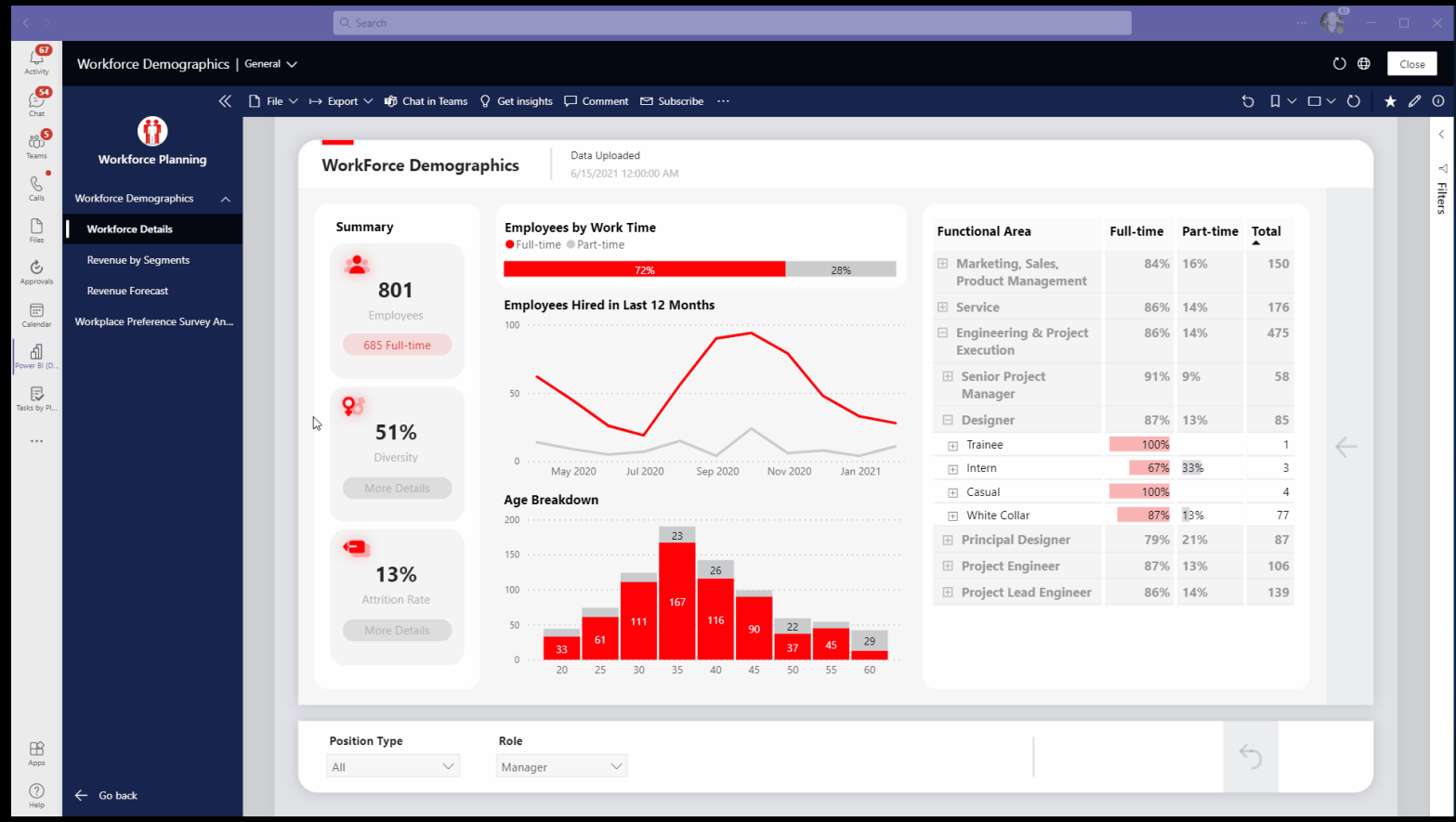


Power BI + Excel

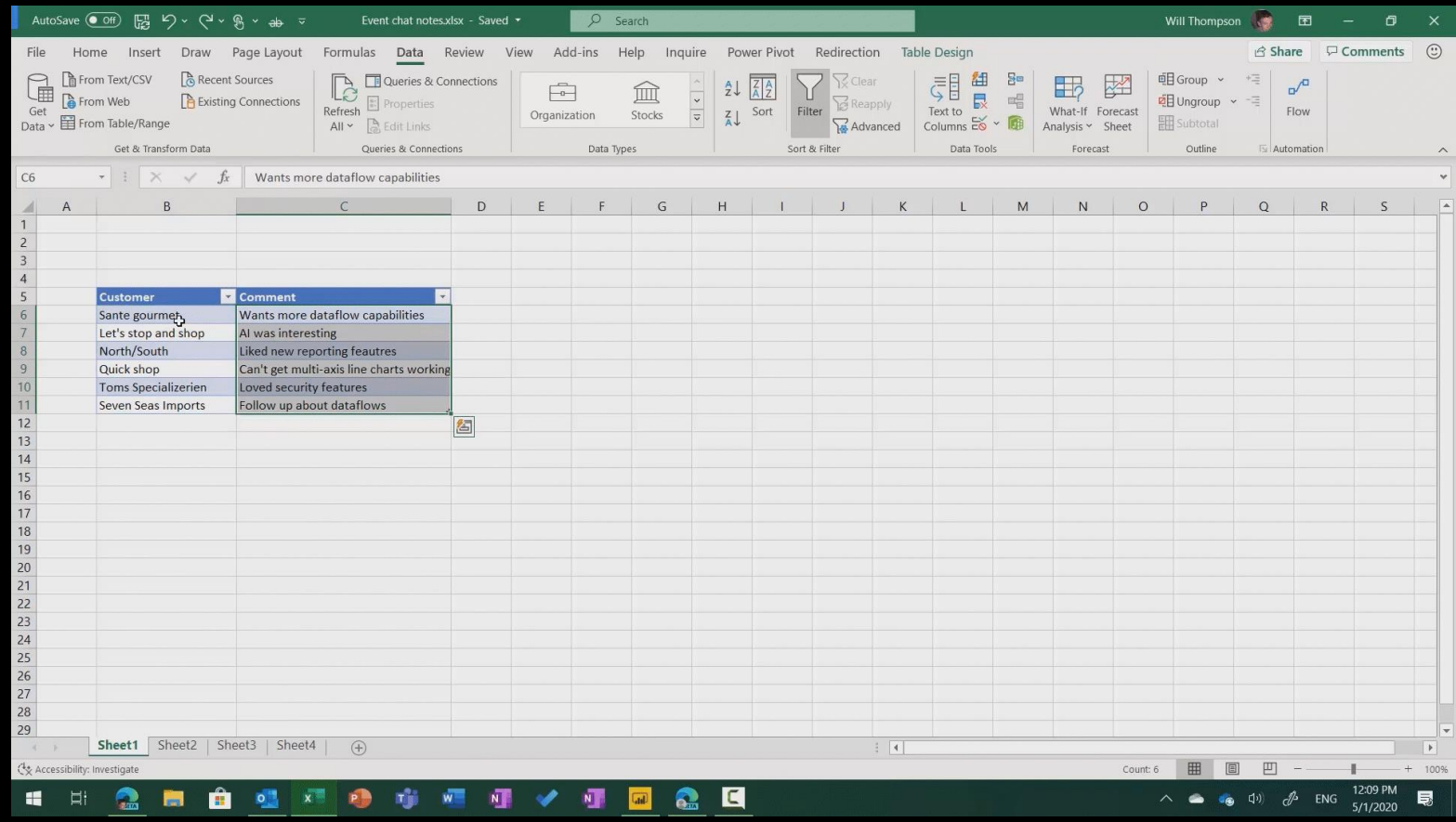
- Power BI Datasets in Excel



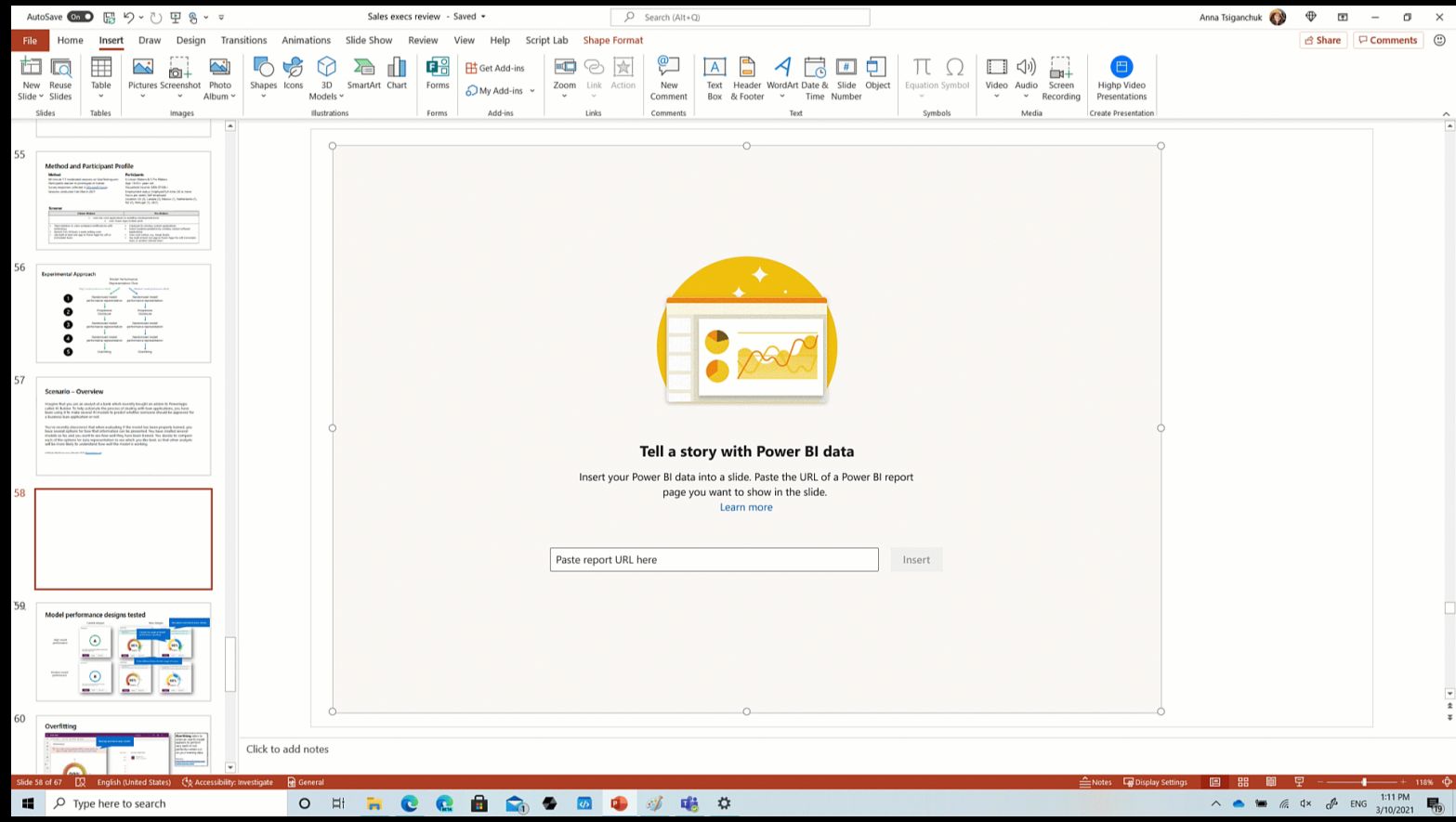
Power BI + Excel integrated into Power BI



Enterprise data types in Excel



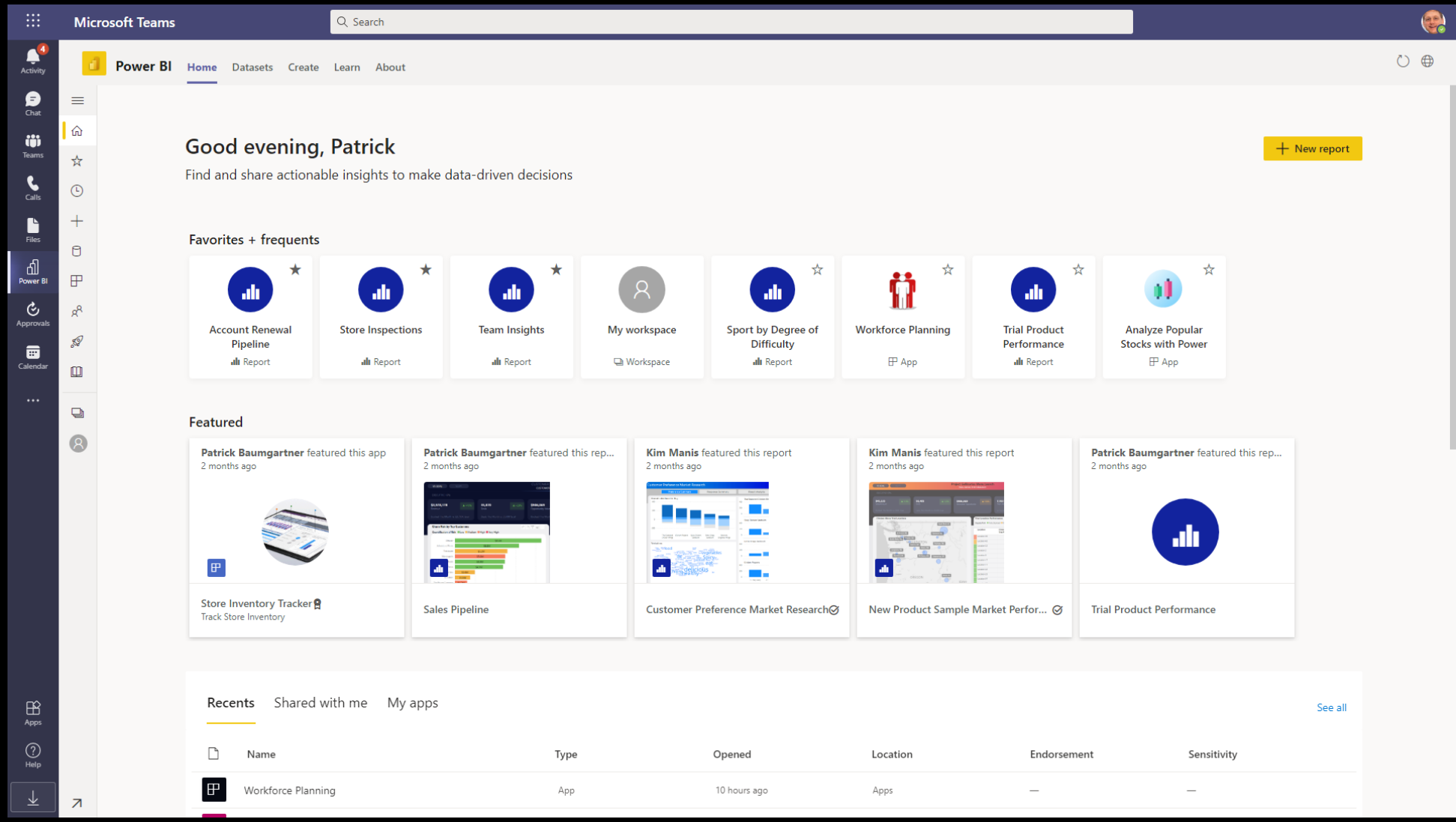
Storytelling with PowerPoint



Power BI + Teams

Your data is where you collaborate

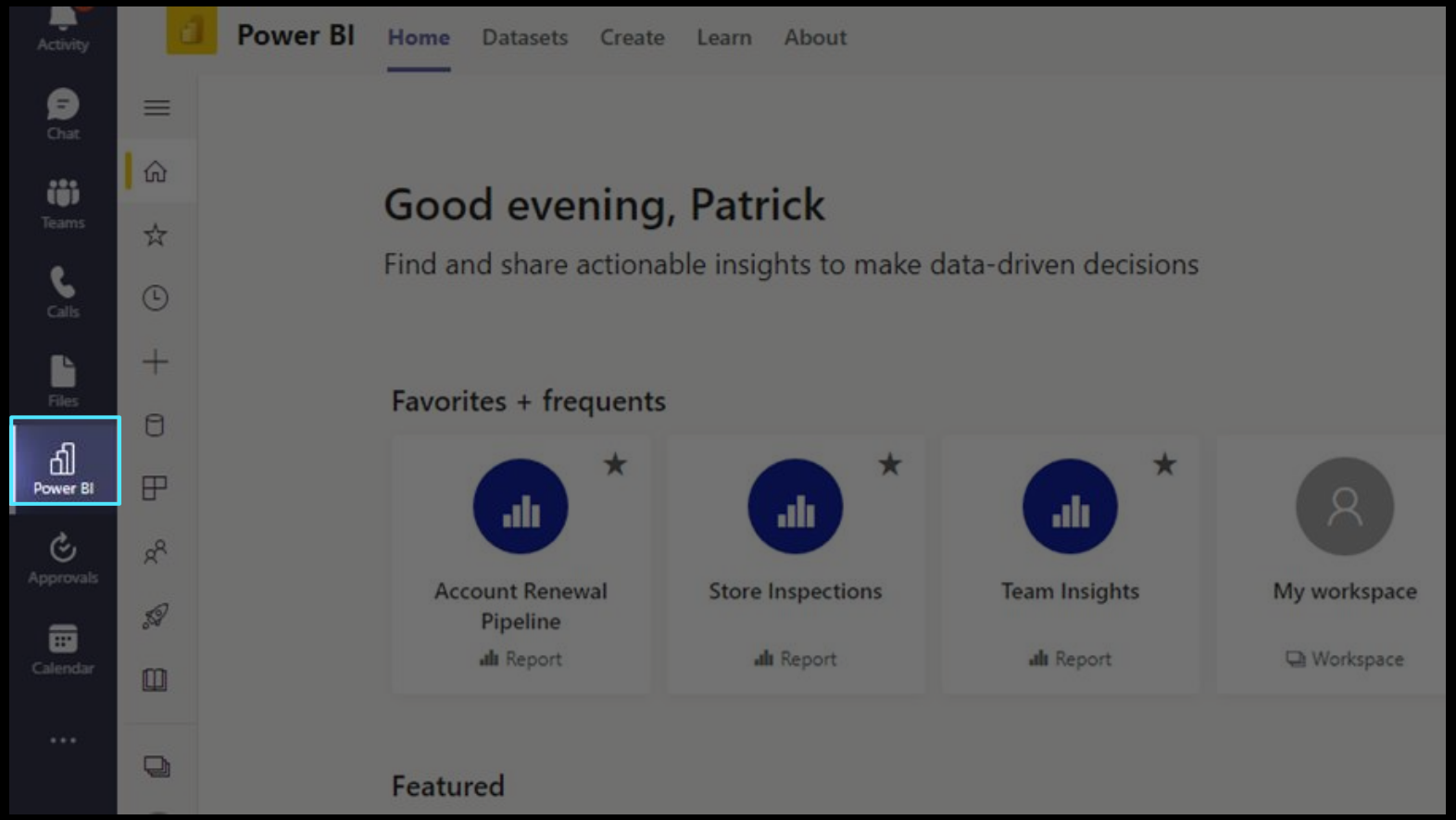
As fundamental as “chat”, “calendar” and “files”



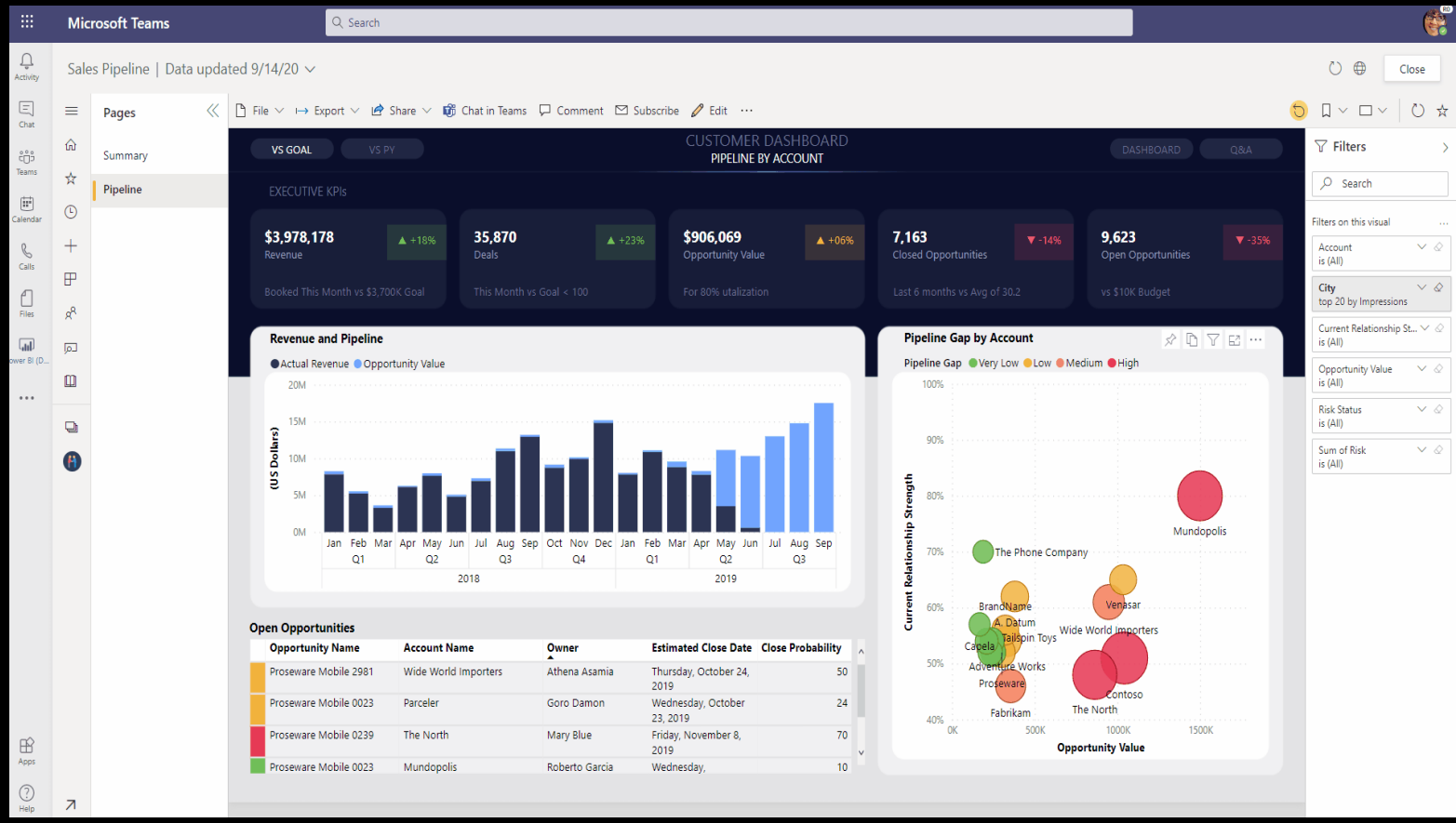
Power BI + Teams

Your data is where you collaborate

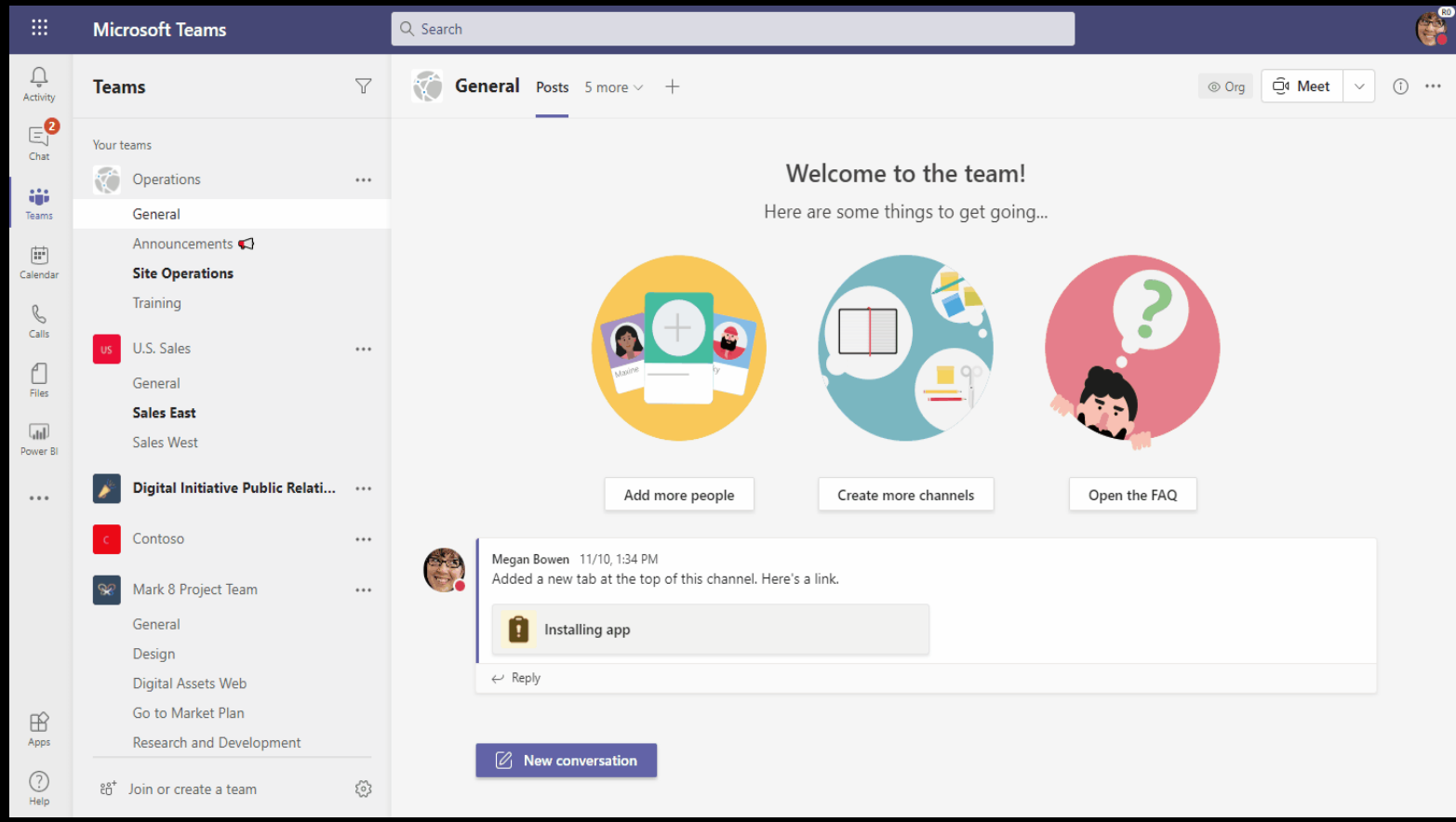
As fundamental as “chat”, “calendar” and “files”



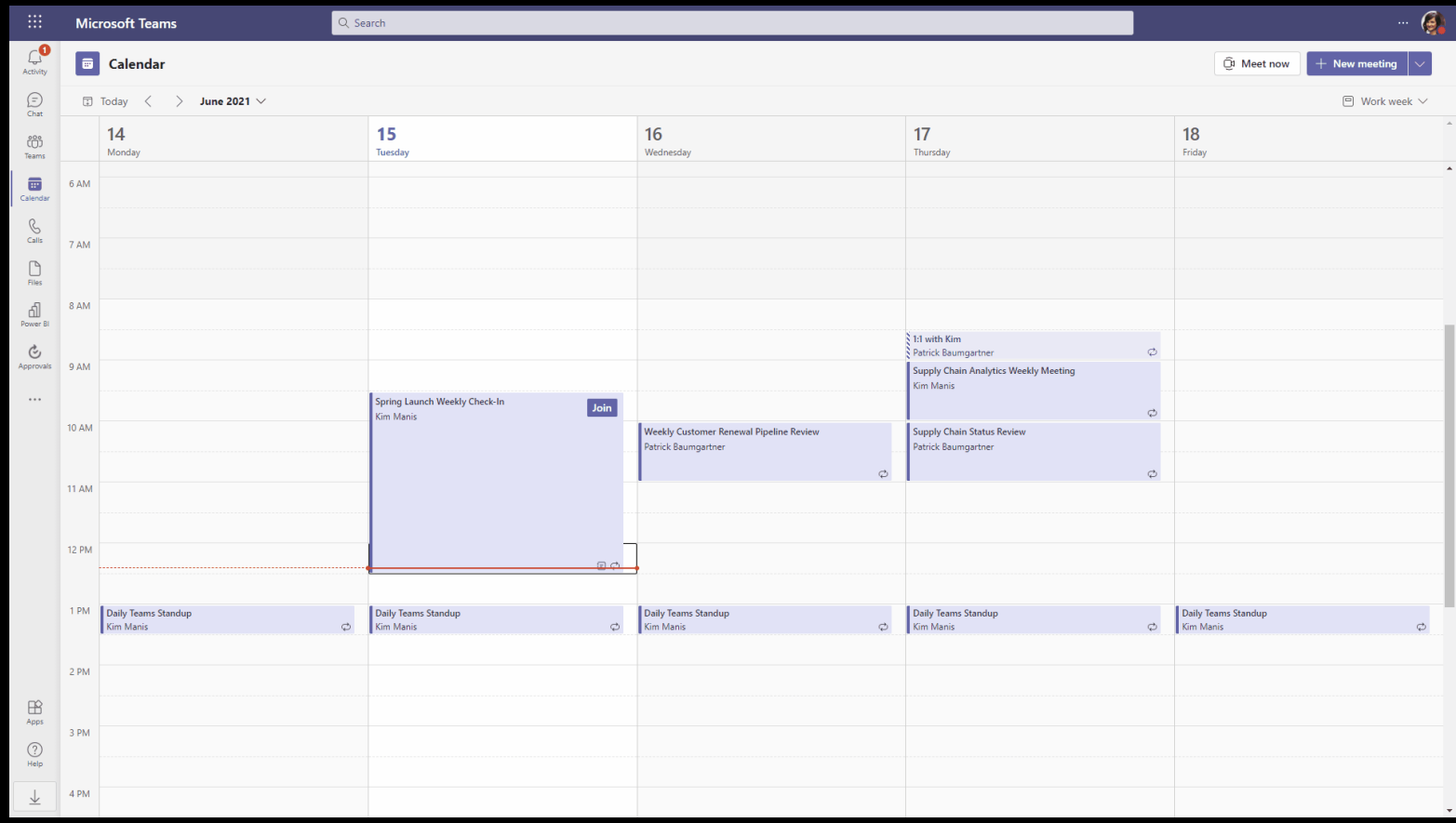
Start conversations from data



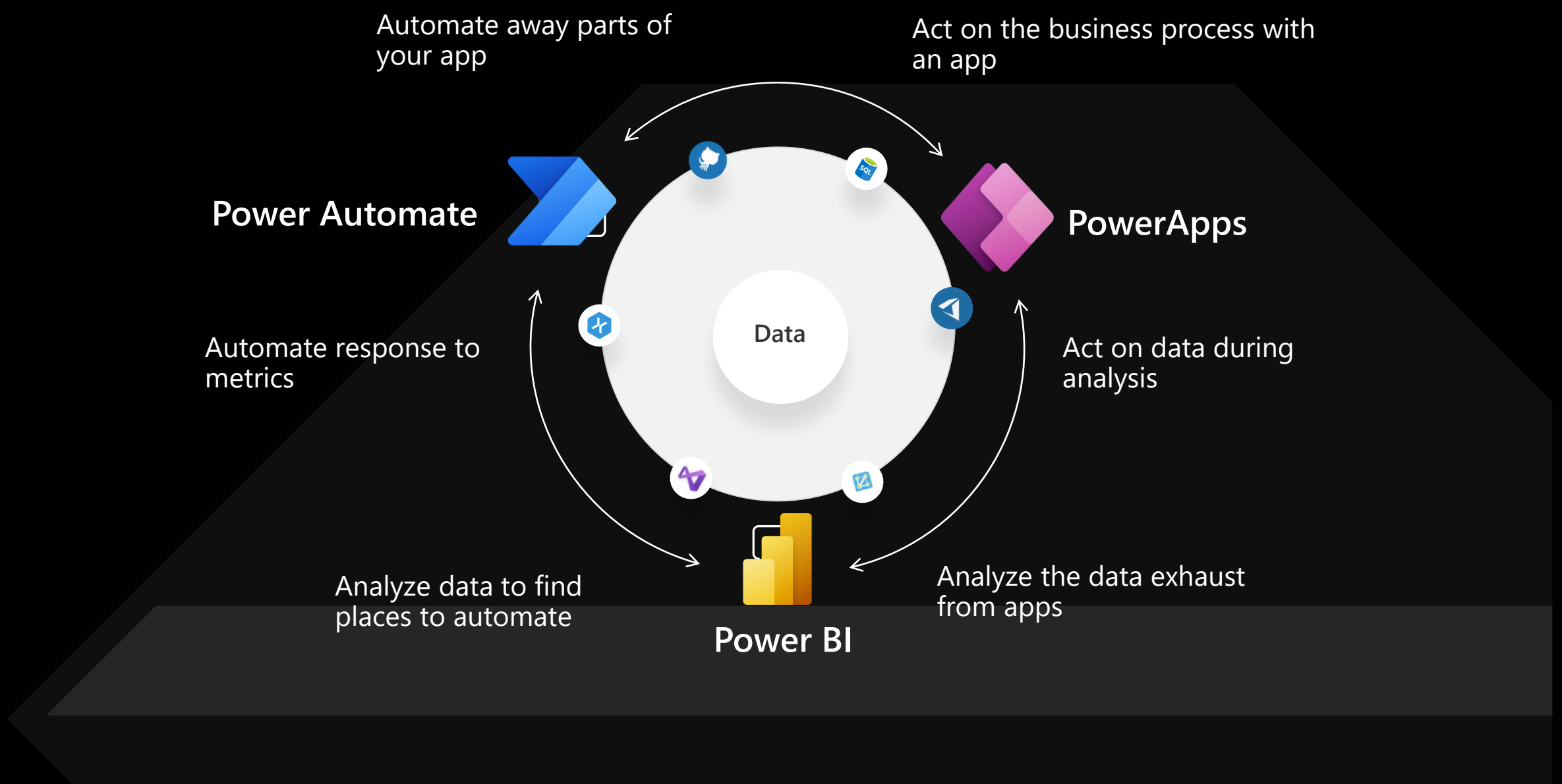
Use data to inform discussions in Teams



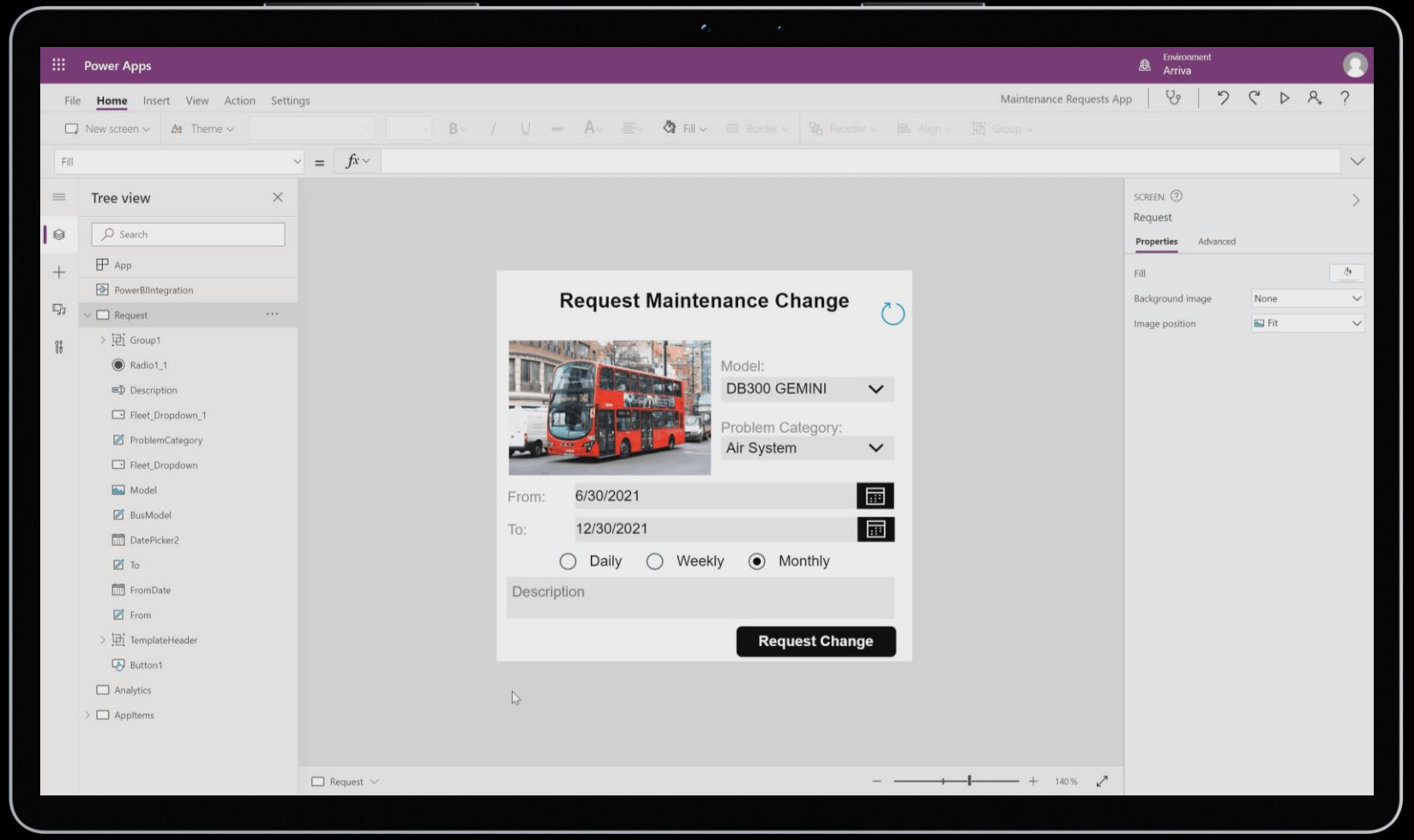
Data driven meetings



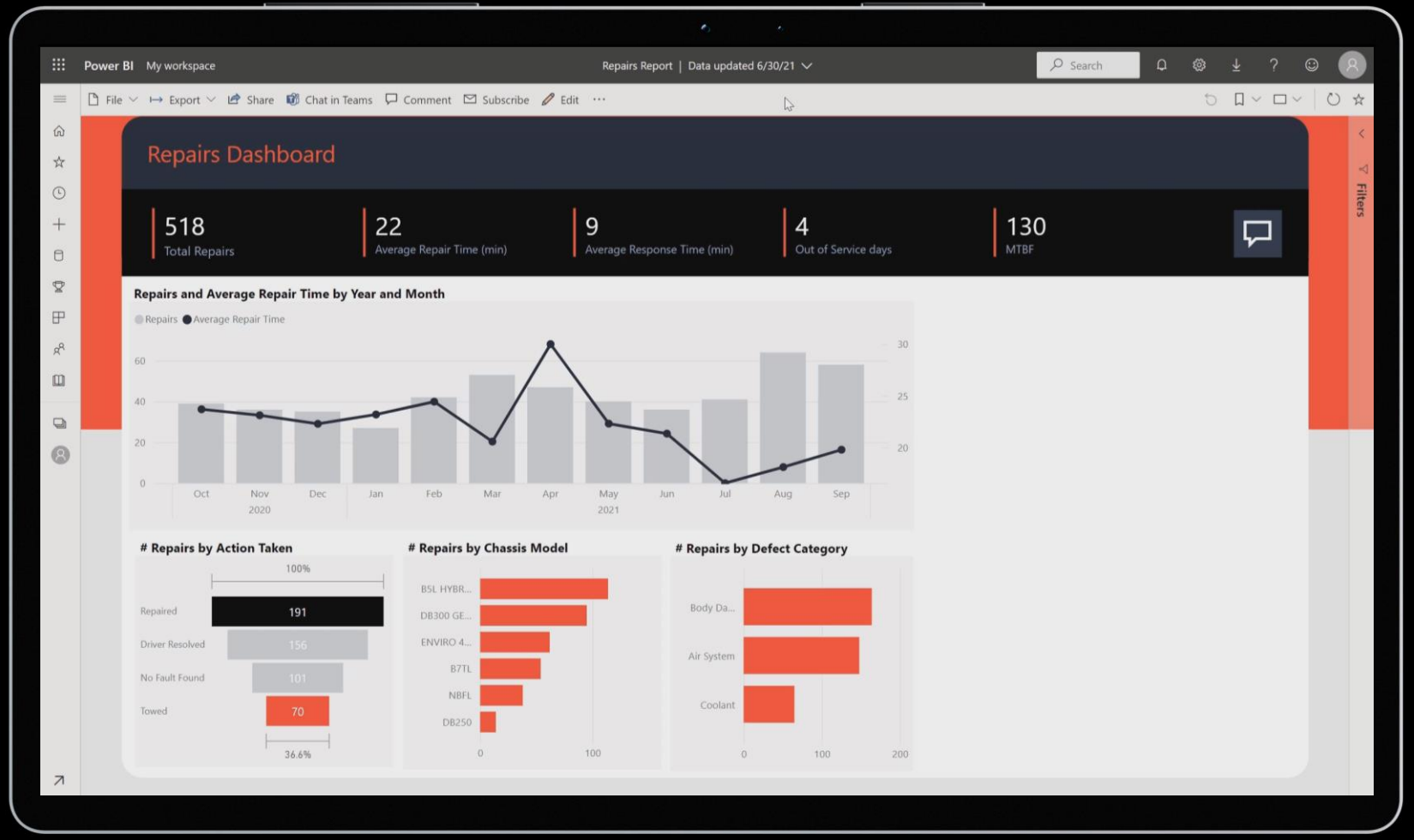
Turn insights into actions



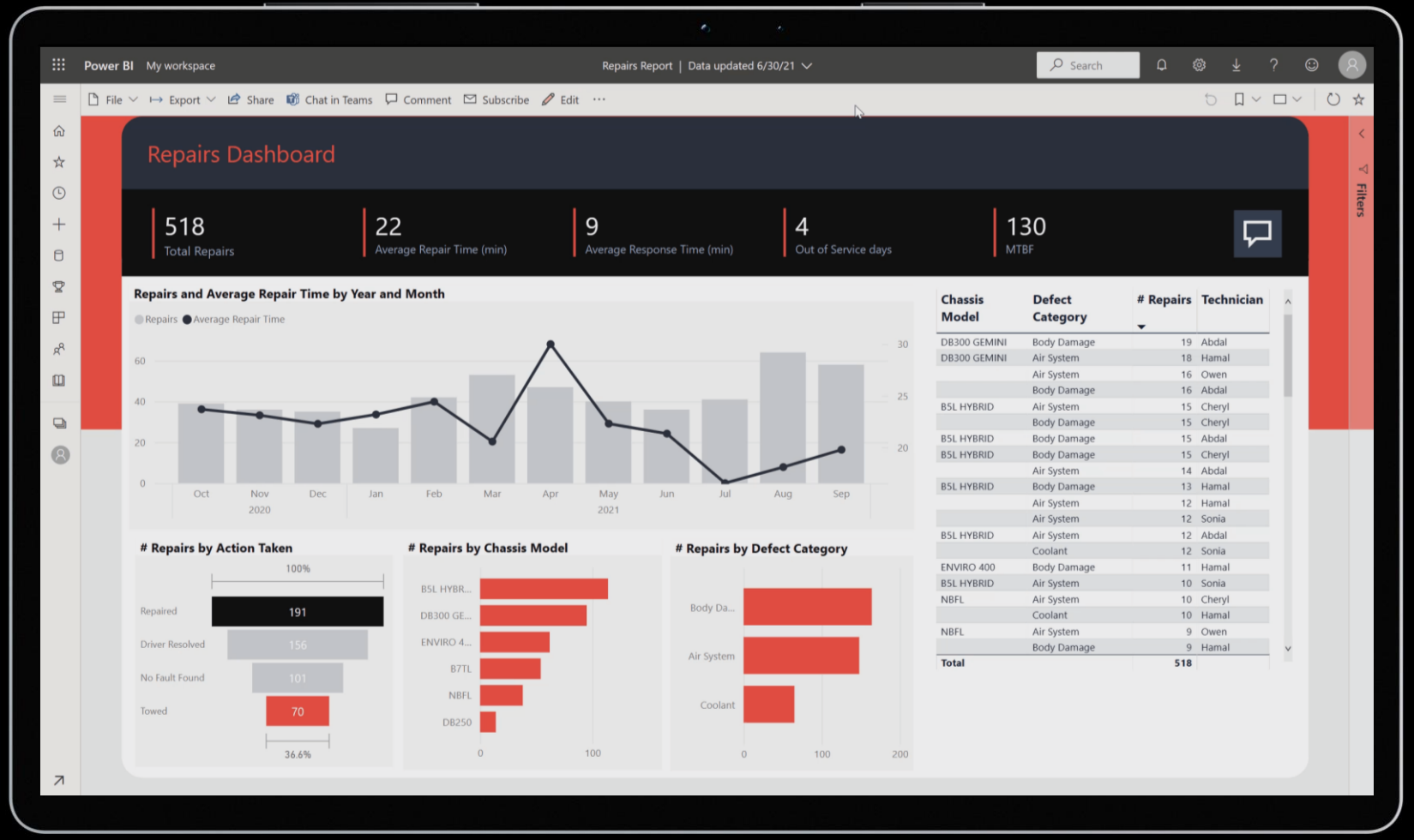
Power BI in Power Apps



Power Apps in Power BI



Power Automate in Power BI



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Upcoming Lunch & Learns:

9/22: Power Apps

9/29: Power Automate

More Power BI:

9/28: Power BI Desktop

10/5: Power BI Service

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Power BI self-paced learning:

Design Effective Reports in Power BI

https://docs.microsoft.com/en-us/training/paths/power-bi-effective/

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Thank you

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