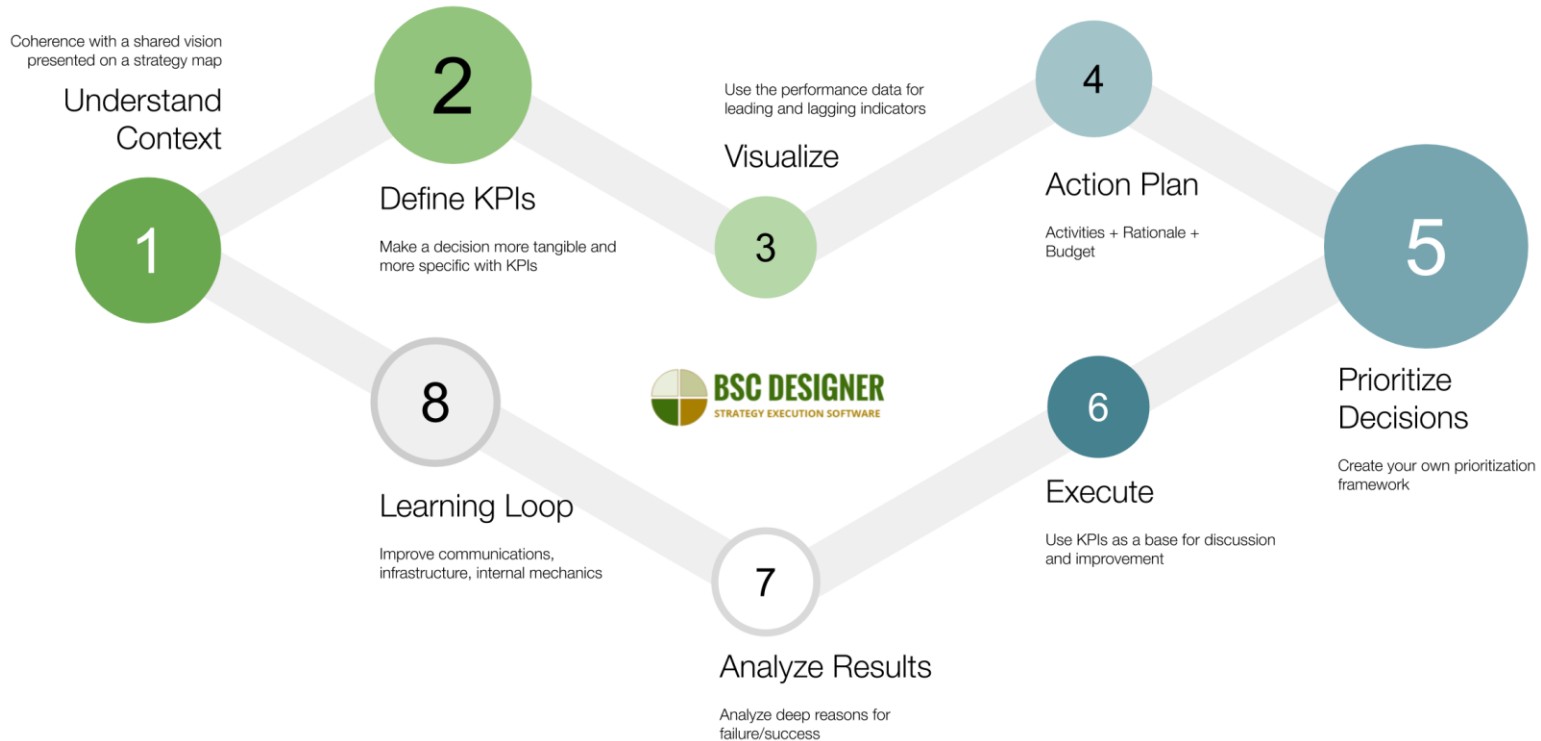


# Asset Management Dashboards Using Power BI

How to visualize our AM Plans?

# 7 Steps of Data-Driven Decision-Making

by  BSC Designer



## What is Power BI?



A **suite of tools** to support **both** self-service BI and enterprise BI:

- Data acquisition
- Data preparation & cleansing
- Data modeling
- Calculations
- Reports & visuals
- Content delivery & viewing



Power BI is a broad collection  
of tools, services, and features

## Key Components of Power BI – On Premise

### Power Query

Discover



- ❖ Search organizational and Public (Cloud) data
- ❖ Import, merge, shape and cleanse Data
- ❖ Manage Shared Queries and Certify Queries

### Power Pivot

Analyze



- ❖ Create in-memory data model
- ❖ Create hierarchies and KPI's
- ❖ Create derived fields and calculations

### Power View

Visualize



- ❖ Analyze, visualize and display data
- ❖ Interactive data visualization tool
- ❖ Delivers intuitive ad-hoc reporting for business users

### Power Map

Map



- ❖ Create maps and tours of data
- ❖ Enables story telling using 3-D data
- ❖ Uses "Bing Map Service"

Figure 1. Magic Quadrant for Analytics and Business Intelligence Platforms



Source: Gartner (February 2020)

# EXCEL VS POWERBI

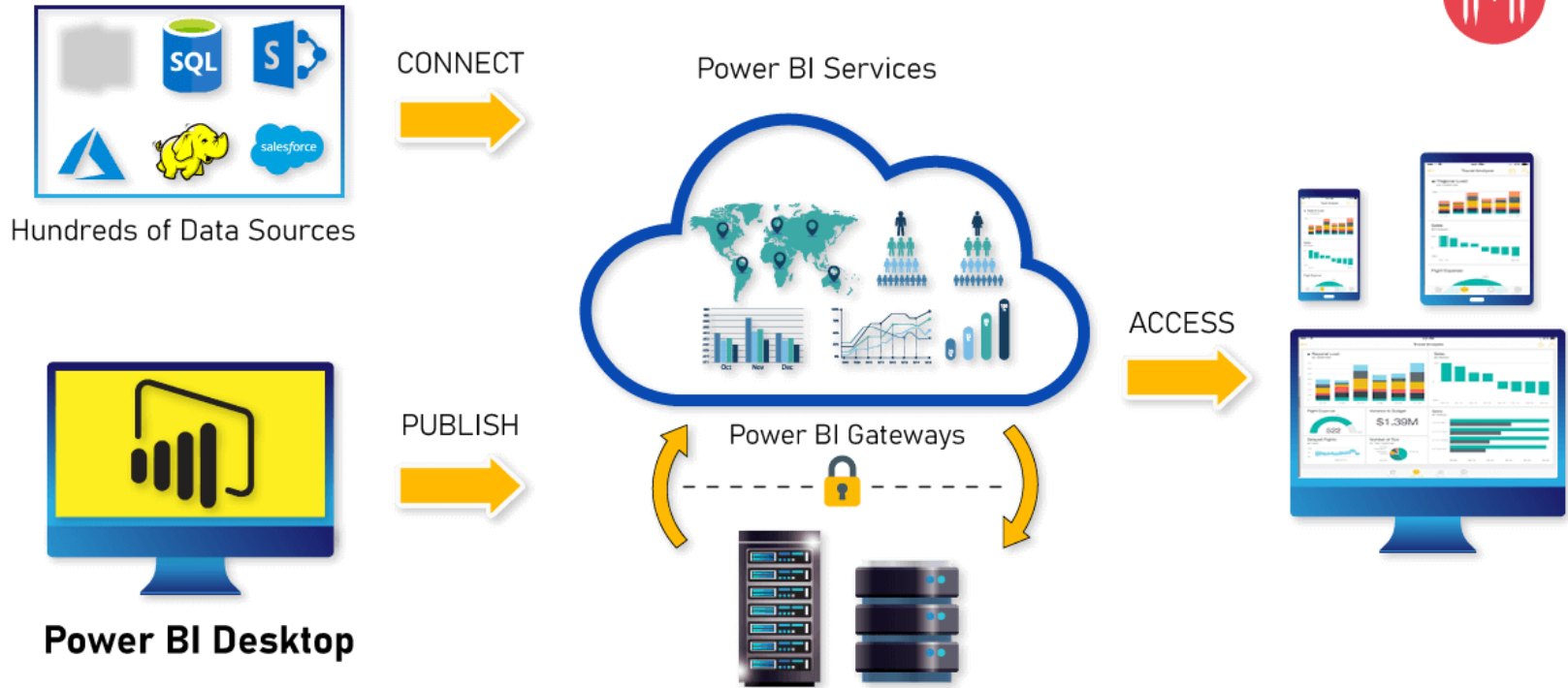


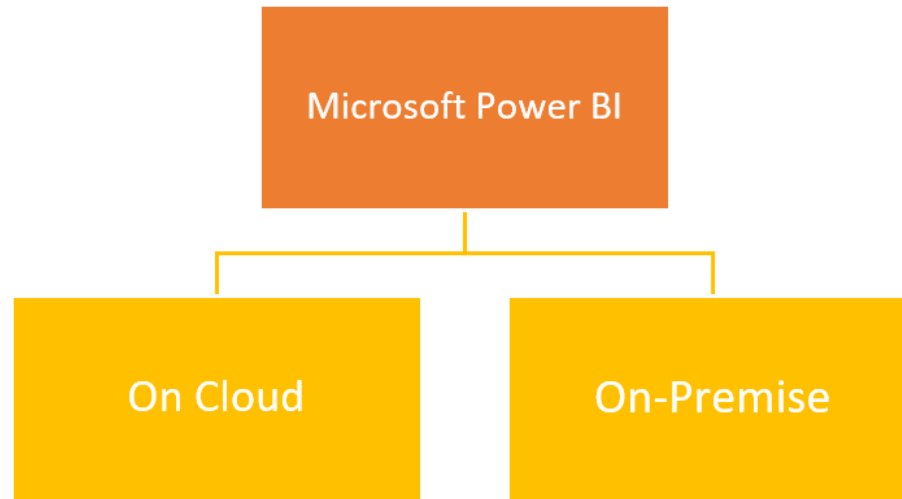
- 1 Simple & less attractive reports than Power Bi.
- 2 No advance cross-filtering between graphic.
- 3 It has most advance charting feature, but can't connect to data model.
- 4 Reports are limited to specific number of user.
- 5 Fewer data analysis option.
- 6 Slower processing than power BI.



- 1 More beautiful, personalized & Interactive
- 2 Supports advance cross-filtering between charts.
- 3 Optimal for dashboard, alert & KPIs includes better visual & Data Anal.
- 4 Reports can be worked on by a large number of user
- 5 More Power analytics capabilities than excel
- 6 Fast processing than Excel.

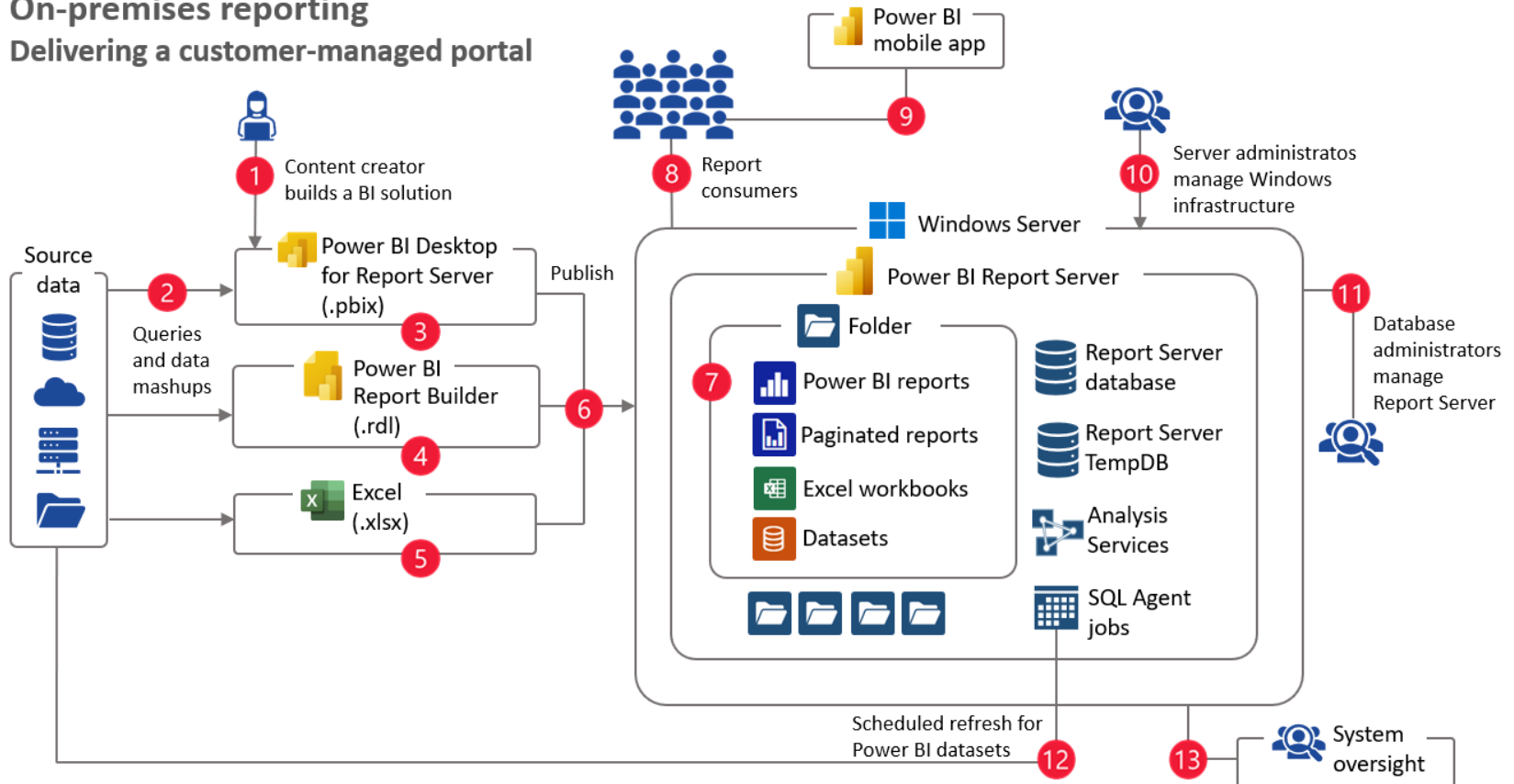
# Power BI Architecture





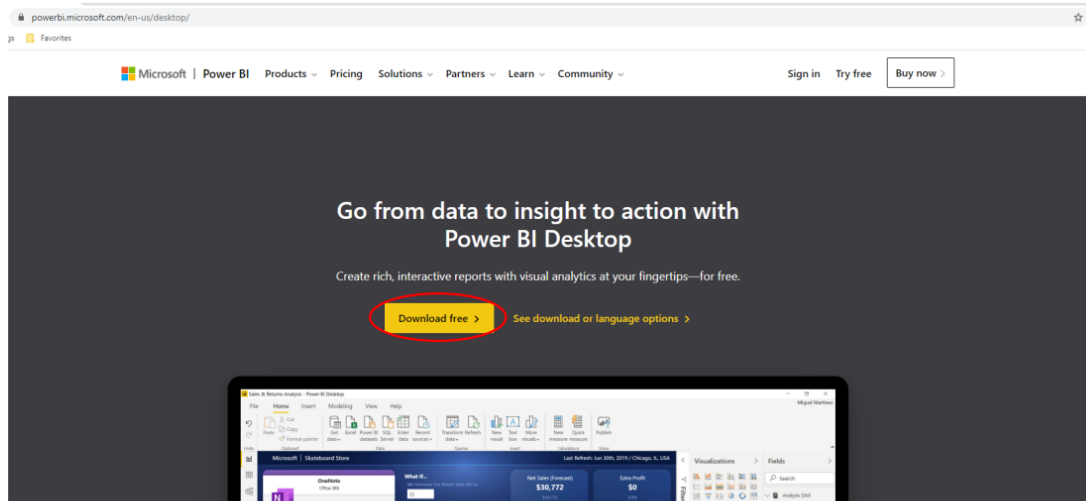


## On-premises reporting Delivering a customer-managed portal



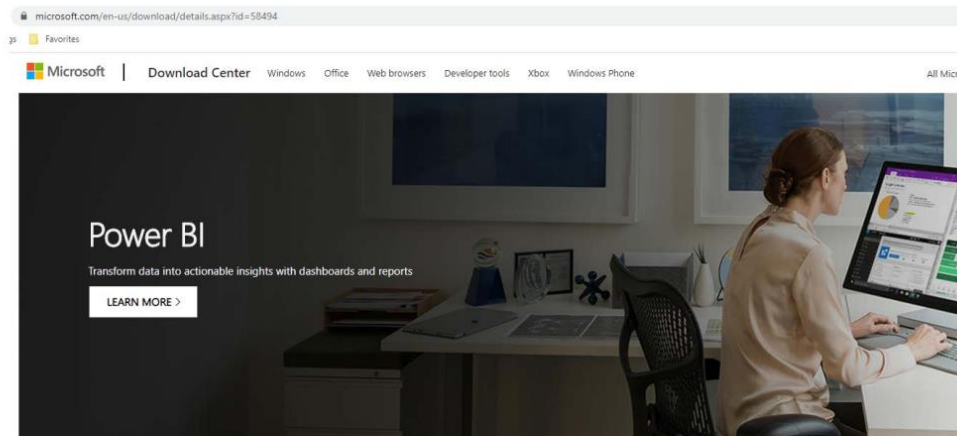
# Download the Software

1. Go to <https://powerbi.microsoft.com/en-us/desktop/>
2. Click on the **Download free** button



## Download the Software

- Clicking on the Download free button redirects you to Microsoft's download center webpage.
- On this page, click on the **Download** button



Microsoft Power BI Desktop

Important! Selecting a language below will dynamically change the complete page content to that language.

Select Language:

English

Download

## Download the Software

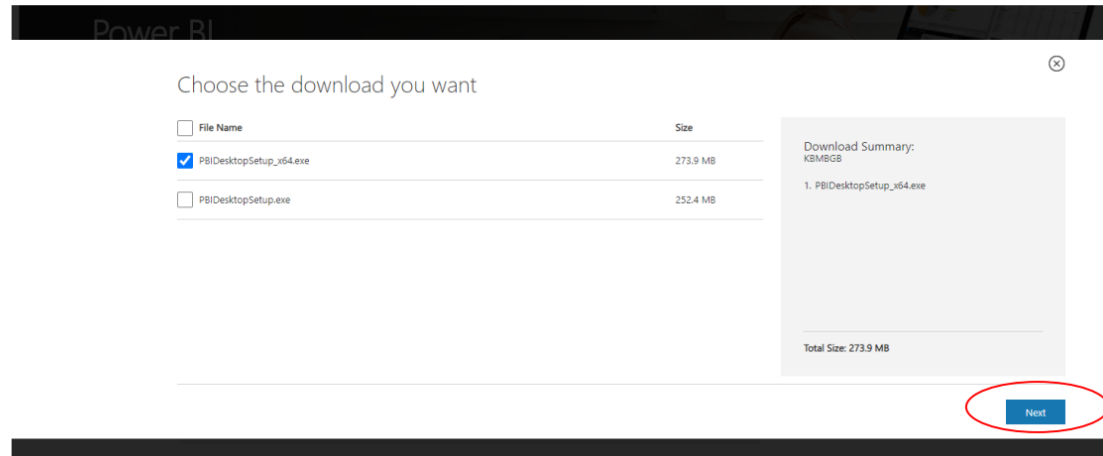
- Clicking on the Download button opens a screen which prompts you to select the bit version.
- Select the Power BI Desktop version that matches your operating system.
- The first choice is for 64 bit operating systems while the second choice is for 32 bit operating systems.

File Name	Size
<input type="checkbox"/> PBI\DesktopSetup_x64.exe	273.9 MB
<input type="checkbox"/> PBI\DesktopSetup.exe	252.4 MB

Download Summary:  
KBMBGB  
You have not selected any file(s) to c  
Total Size: 0

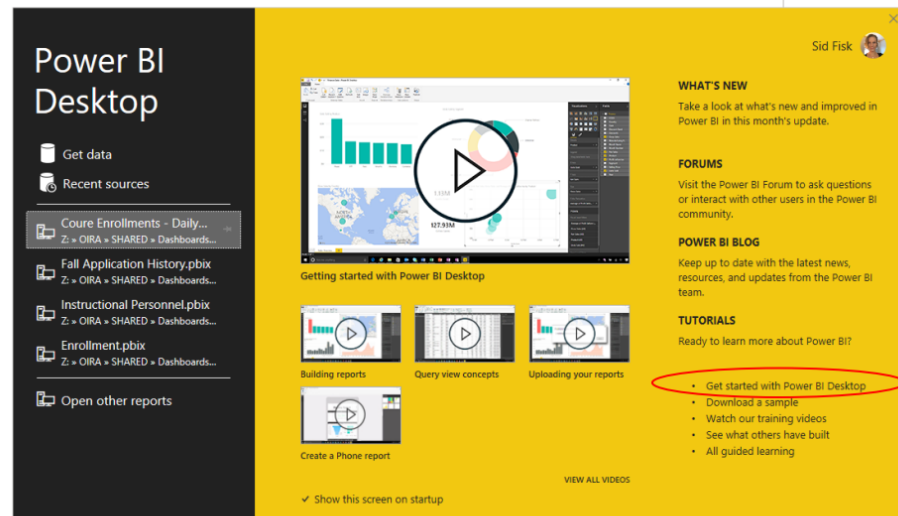
## Download the Software

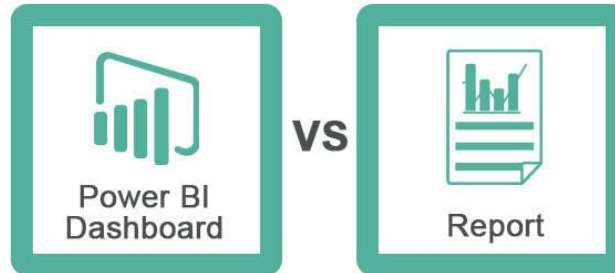
- Once you've selected the Power BI Desktop version that is compatible with your operating system, Click the **Next** button.
- This will start the download of the Power BI Desktop Setup file.
- Once the file is downloaded, open the downloaded file. A setup window will prompt you through the installation process.



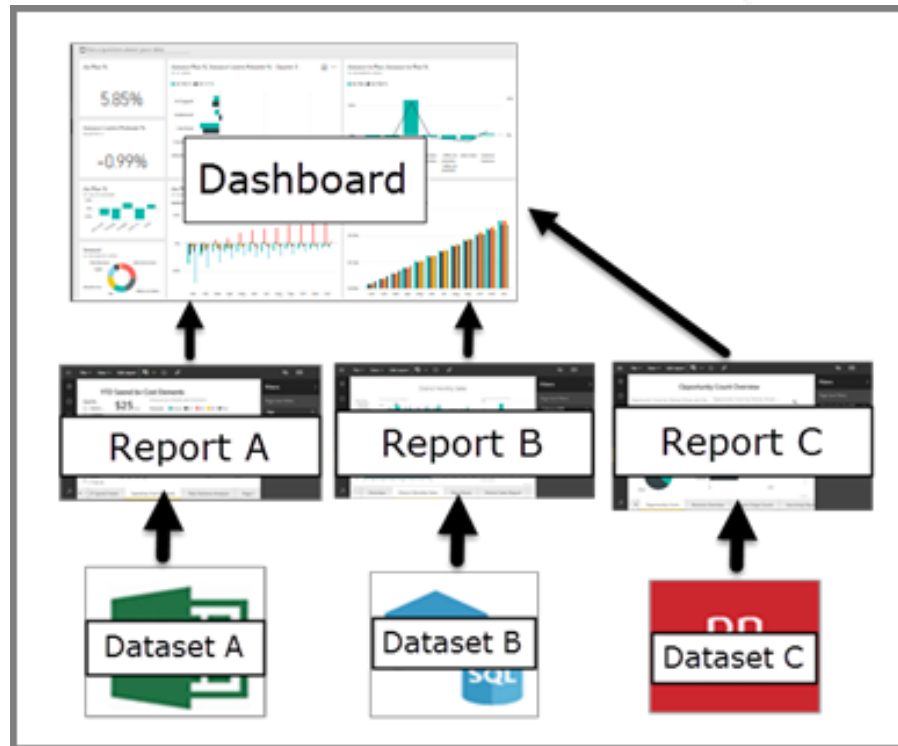
# Open Power BI Desktop

- When you open the Power BI software, the Power BI Desktop window will automatically open. This window includes, among other things, links to tutorials.
- Click on the , Get started with Power BI Desktop link or simply go to this webpage:
- <https://docs.microsoft.com/en-us/power-bi/fundamentals/desktop-getting-started>





www.wallstreetmojo.com



www.ipamc.org

## Capability

Pages

Data sources

Drilling down in visuals

Available in Power BI Desktop

Filtering

[Feature content on colleagues' Home page](#)

Favorites

Natural language queries (Q&A)

Set alerts

Subscribe

See underlying dataset tables and fields

## Dashboards

One page

One or more reports and one or more datasets per dashboard

Only if you [pin an entire report page](#) to a dashboard.

No

No. You can't filter or slice a dashboard. You can filter a [dashboard tile in focus mode](#), but can't save the filter.

Yes

Yes. You can set multiple dashboards as *favorites*.

Yes

Yes. Available for dashboard tiles in certain circumstances.

Yes. You can subscribe to a dashboard.

No. You can't see tables and fields in the dashboard itself, but you can export data.

## Reports

One or more pages

A single dataset per report

Yes

Yes. You can build and view reports in Power BI Desktop.

Yes. There are many different ways to filter, highlight, and slice.

Yes

Yes. You can set multiple reports as *favorites*.

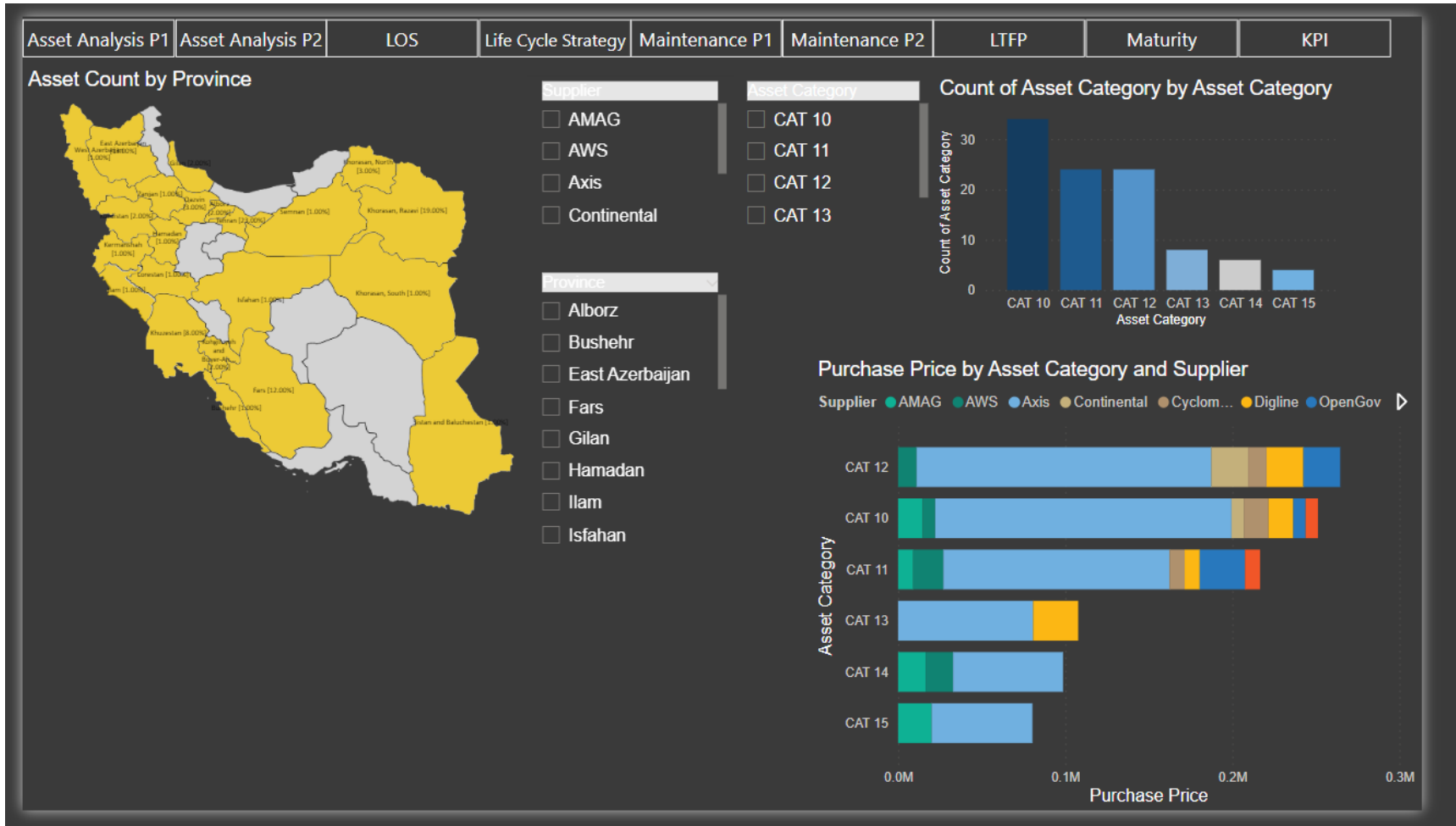
Yes, provided you have edit permissions for the report and underlying dataset.

No

Yes. You can subscribe to a report page.

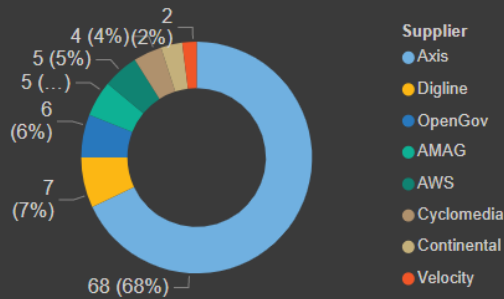
Yes





Asset Analysis P1	Asset Analysis P2	LOS	Life Cycle Strategy	Maintenance P1	Maintenance P2	LTFP	Maturity	KPI
-------------------	-------------------	-----	---------------------	----------------	----------------	------	----------	-----

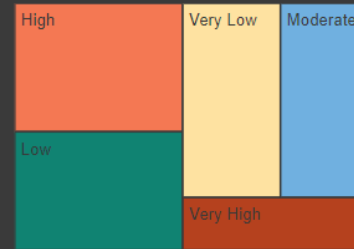
Asset Count by Supplier



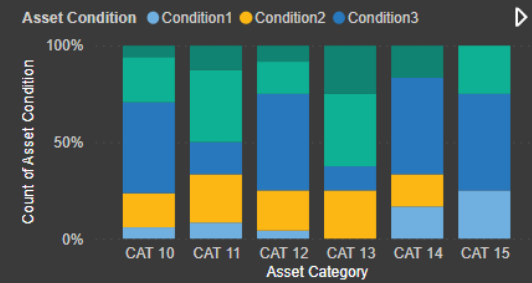
1.02M  
Purchase Price

100  
Count of Asset Id

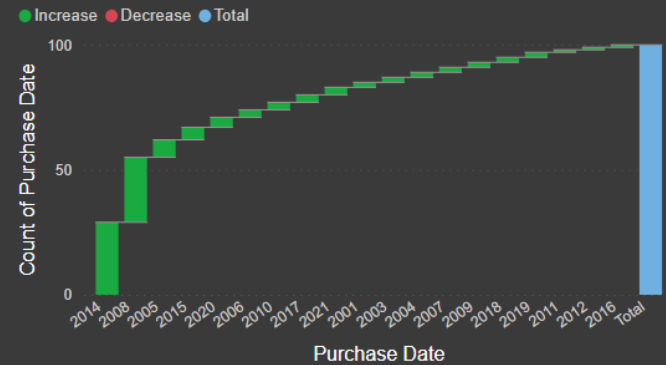
Remaining Life by Asset Criticality

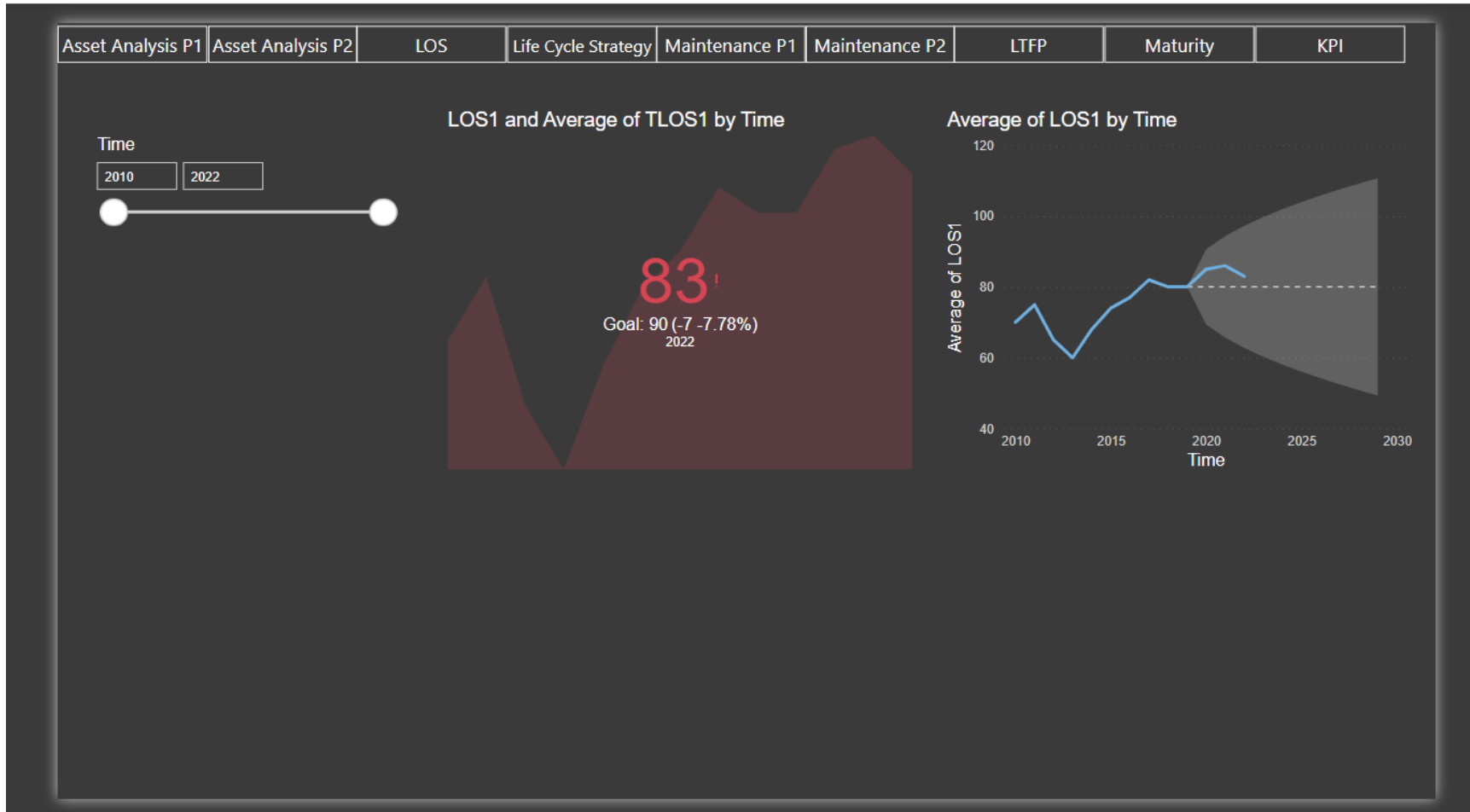


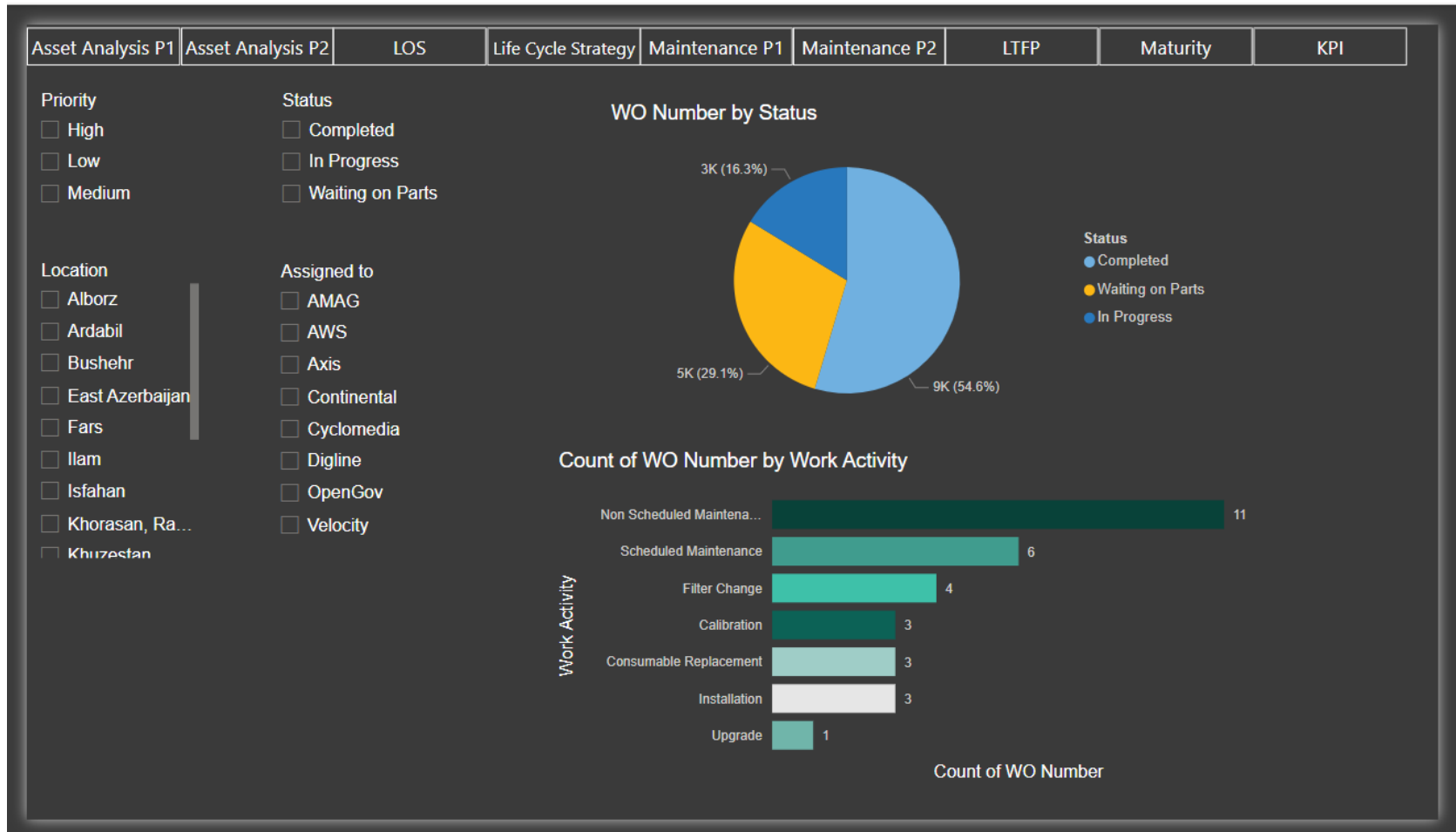
Count of Asset Condition by Asset Category and Asset Condition



Count of Purchase Date by Purchase Date



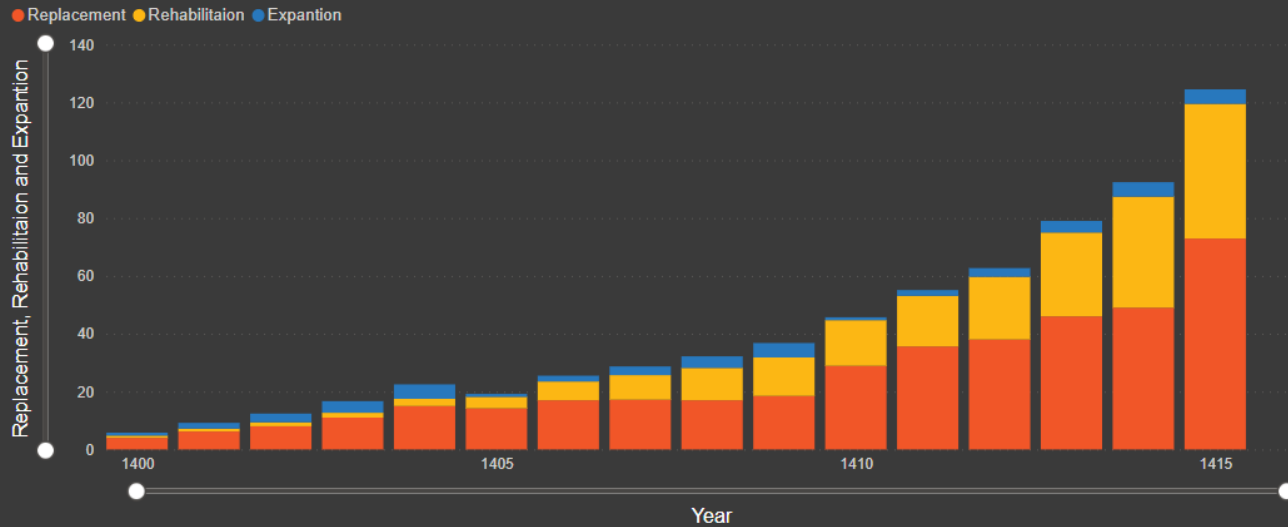






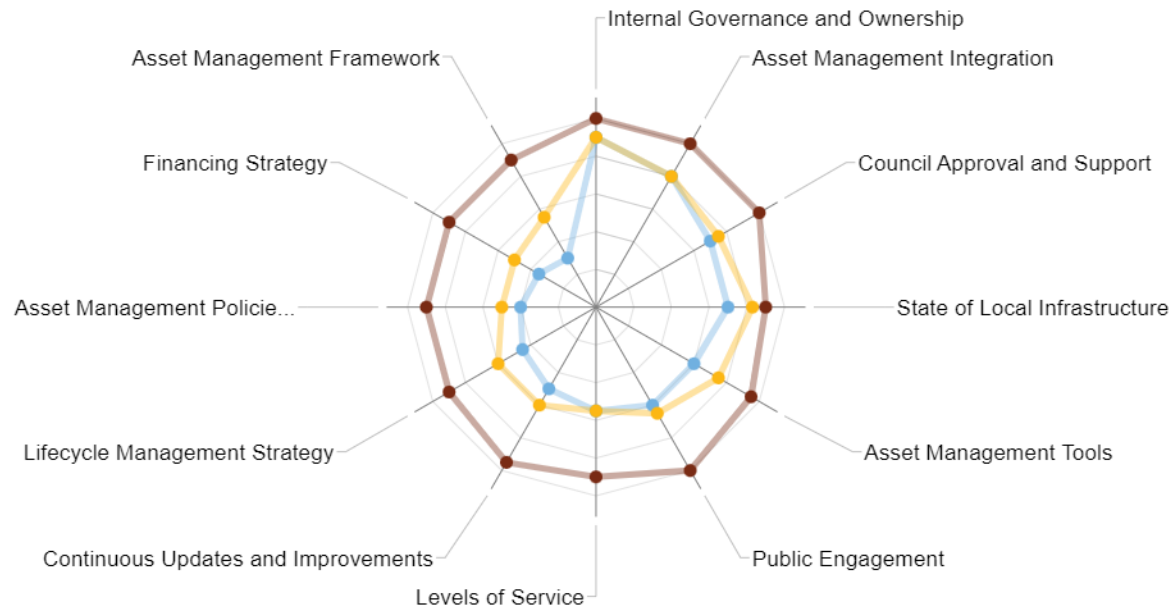
Asset Analysis P1	Asset Analysis P2	LOS	Life Cycle Strategy	Maintenance P1	Maintenance P2	LTFP	Maturity	KPI
-------------------	-------------------	-----	---------------------	----------------	----------------	------	----------	-----

### Replacement, Rehabilitation and Expansion by Year



Asset Analysis P1	Asset Analysis P2	LOS	Life Cycle Strategy	Maintenance P1	Maintenance P2	LTFP	Maturity	KPI
-------------------	-------------------	-----	---------------------	----------------	----------------	------	----------	-----

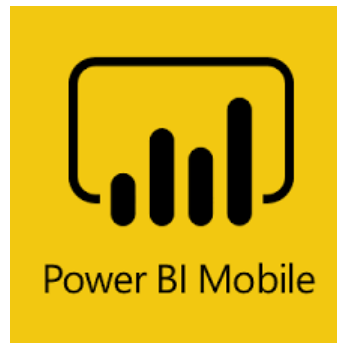
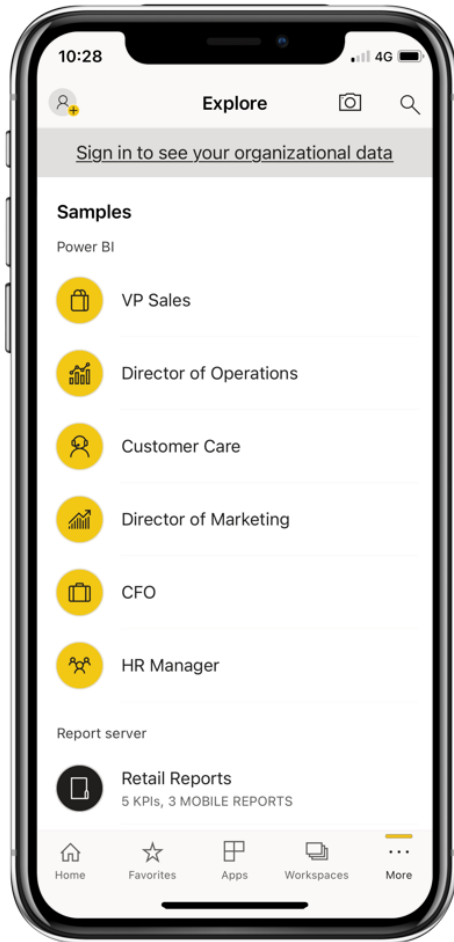
● Current Maturity ● Target 2023 ● Target Advanced



Asset Analysis P1	Asset Analysis P2	LOS	Life Cycle Strategy	Maintenance P1	Maintenance P2	LTFP	Maturity	KPI
ID	First Group	First Indicator	ID	Life Cycle Strategy	First Description			Value
19	Economic	Asset renewal funding ratio			Net present value of planned capital investments/NPV of required capital investments-95to105			
18	Economic	Asset sustainability ratio			Sum of capital expenditure for replacement or renewal of assets/sum of depreciation expenses-90to110			
17	Economic	Asset consumption ratio			Sum of depreciated replacement costs of assets/sum of current replacement costs of depreciable assets			
16	Organisational	O1			Number of internal maintenance personnel/Total internal employees %			71.00
15	Technical	T8			Preventive maintenance time causing downtime/Total downtime related to maintenance %			2.50
14	Technical	T5			Number of injuries for people due to maintenance/Working time			1.00
13	Economic	E15			Corrective maintenance cost/Total Maintenance Cost %			73.00
12	Economic	E11			Total cost of maintenance materials/Total maintenance cost %			52.00
11	Technical	MTTR			Not Applicable-Total time to restoration/Number of failures			0.00
10	Technical	MTBF			Not Applicable-Total operating time/Number of failures			0.00
09	Technical	Planned works			Planned vs Total %			55.00
08	Technical	PM works in schedule			Based on condition monitoring only %			66.00
07	Economic	Ratio of budgeted vs actual maintenance costs			%			87.00
06	Technical	Unscheduled downtime			Number of occurrence			3.00
05	Organisational	Percentage of wrench time			%			45.00
04	Technical	Work orders handled on first schedule			%			98.50
03	Technical	Total maintenance orders handled			Number of handled orders-Farvardin to Shahrivar			270.00
02	Economic	Maintenance order backlog			Number of maintenance backlogs-Farvardin to Shahrivar			740.00
01	Economic	E1			Total Maintenance Cost/Assets Replacement Value			0.50



# Power BI Mobile



# Q&A

## Ask a question with Q&A

Ask a question about your data

Try one of these to get started

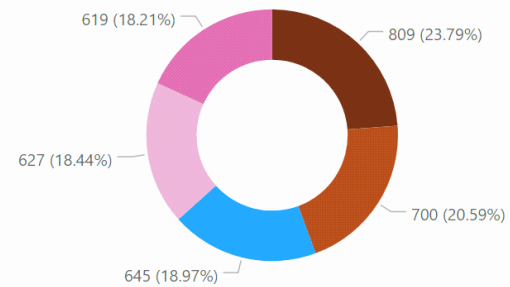
what is the #games by type

top genres by #games

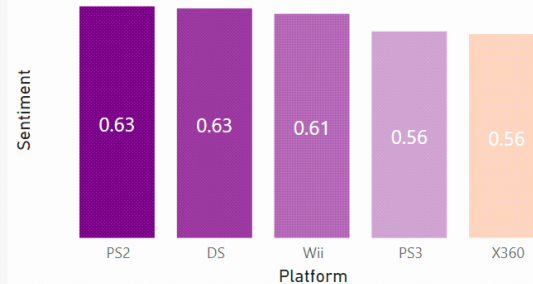
top rating by #games

Show all suggestions

## Number of games by publisher

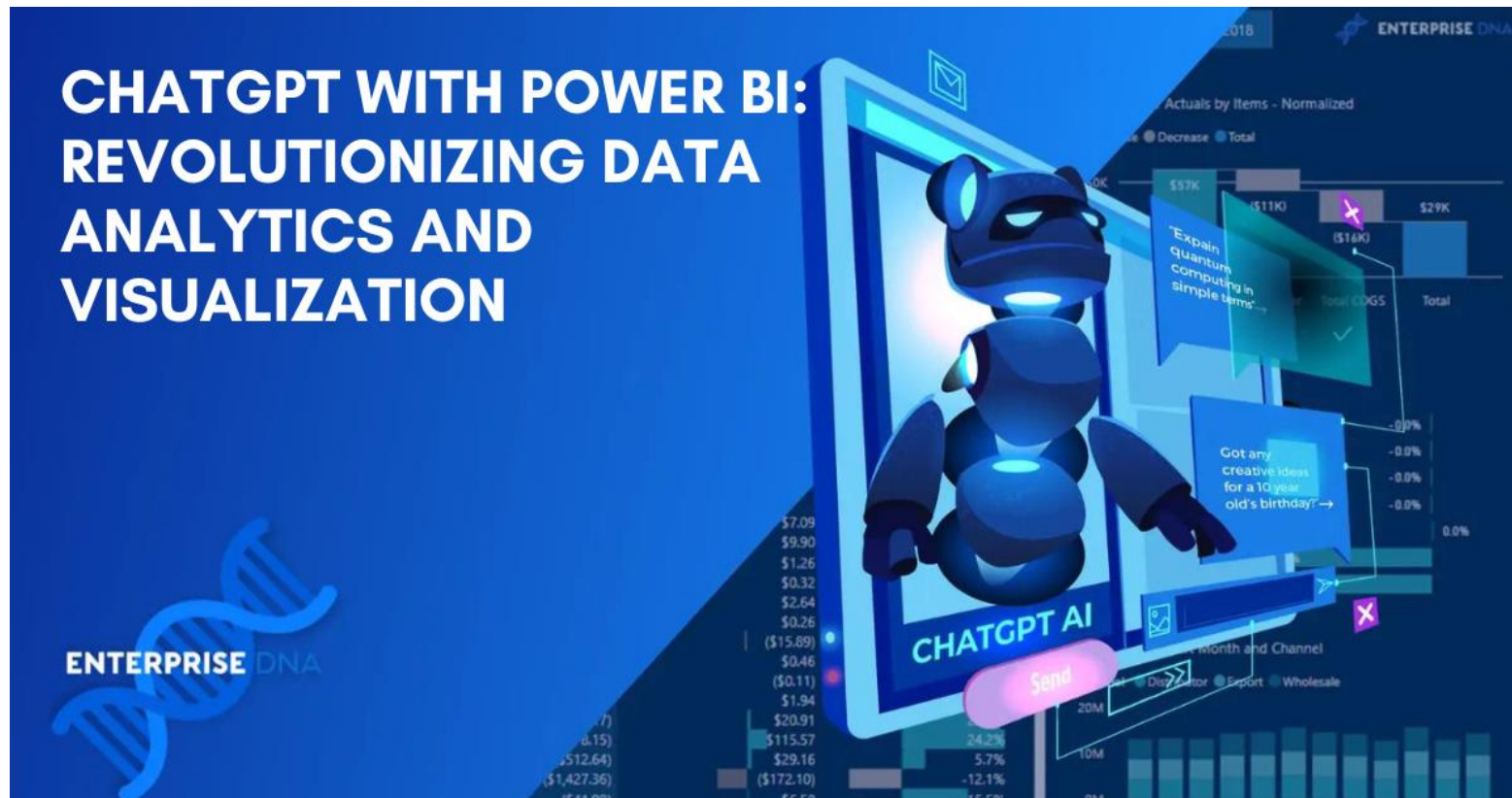


## Sentiment by platform



# Chat GPT and Power BI

This is a game-changer, let's dive into it.



# Chat GPT and Power BI

This is a game-changer, let's dive into it.

You will be my Power BI guide. You will help me with data analysis and visualization in Power BI.

I have a dataset with the following columns:

Segment, Country, Product, Discount Band, Units Sold, Manufacturing Price, Sale Price, Gross Sales, Discounts, Sales, COGS, Profit, Date, Month Number, Month Name, Year

I need help with applying a filter on the Country column in the dataset so that Germany is excluded from the dataset. Can you guide me through the steps?

## Chat GPT and Power BI



Certainly! I can guide you through the process of excluding Germany from the Country column in your dataset in Power BI. Follow these steps:



1. Import your dataset and open Power Query Editor:

If you haven't already, import your dataset into Power BI and open the Power Query Editor by clicking on "Transform Data" or "Edit Queries" in the "Home" tab.

2. Apply a filter on the Country column to exclude Germany:

In the Power Query Editor, locate the "Country" column in your dataset. Click on the

# Chat GPT and Power BI

This is a game-changer, let's dive into it.

I want to merge the columns Month Number, Month Name, Year into a new Date column. Can you guide me through all the steps that I can follow? 

# Chat GPT and Power BI

This is a game-changer, let's dive into it.



To merge the columns Month Number, Month Name, and Year into a new Date column in Power Query Editor, you'll first need to create a custom column that combines these values and then convert the result into a date format. Follow these steps:

1. Import your dataset and open Power Query Editor:

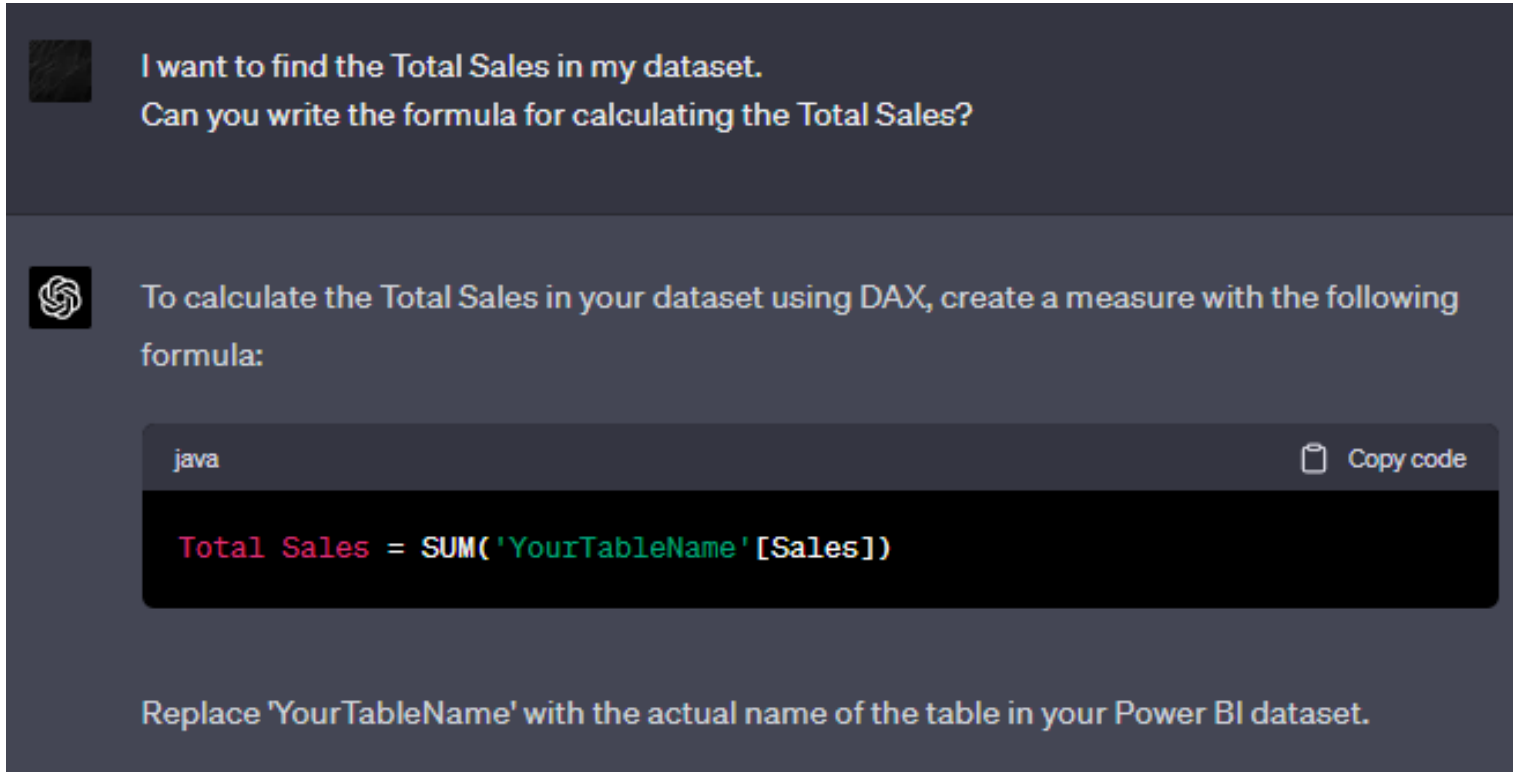
If you haven't already, import your dataset into Power BI and open the Power Query Editor by clicking on "Transform Data" or "Edit Queries" in the "Home" tab.

2. Create a custom column:

In the Power Query Editor, go to the "Add Column" tab and click on "Custom Column".

# Chat GPT and Power BI

This is a game-changer, let's dive into it.



I want to find the Total Sales in my dataset.  
Can you write the formula for calculating the Total Sales?

To calculate the Total Sales in your dataset using DAX, create a measure with the following formula:

```
java Copy code  
Total Sales = SUM('YourTableName'[Sales])
```

Replace 'YourTableName' with the actual name of the table in your Power BI dataset.



# Midjourney AI Dashboard!



# Midjourney AI Dashboard!

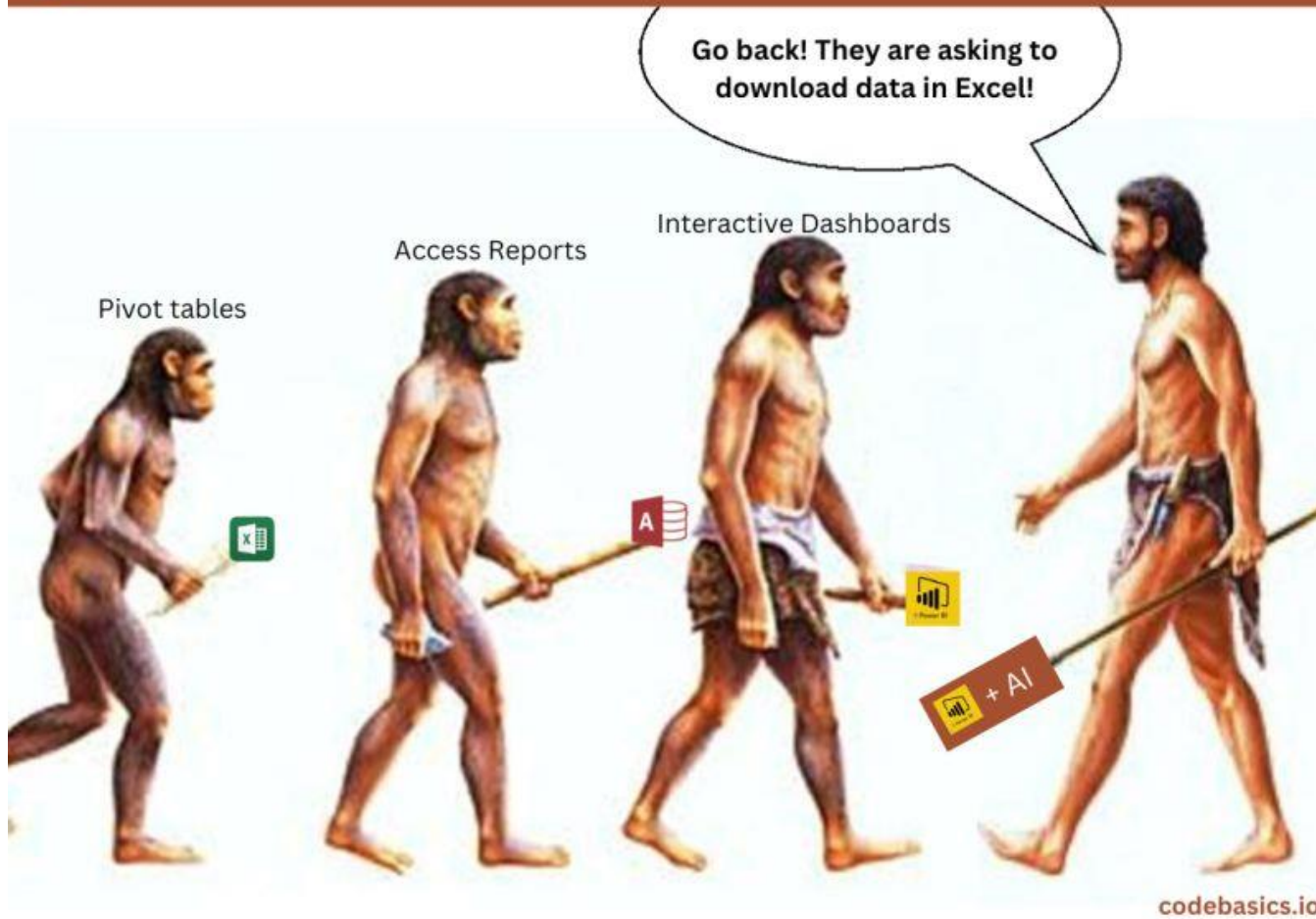


[www.ipamc.org](http://www.ipamc.org)

Mostafa Eltejaei, Asset Management Consultant – “AM Dashboards Using Power BI”



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