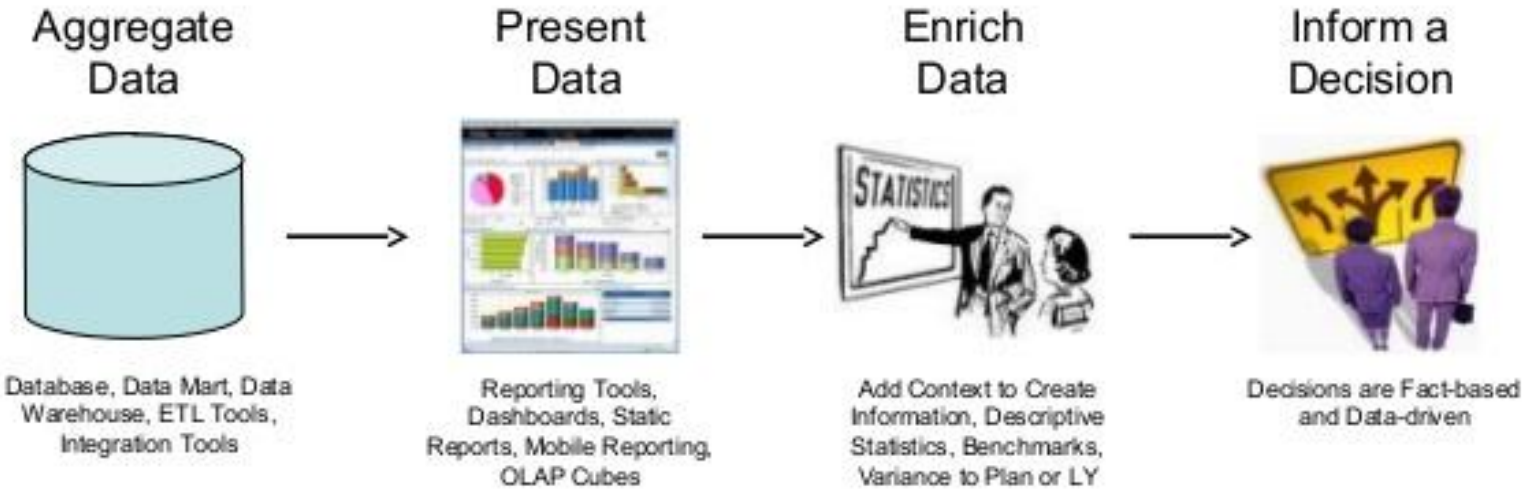
BIG DATA ANALYSIS AND VISUALIZATION WITH POWER BI

Introduction to Microsoft Power BI

Peter Lo

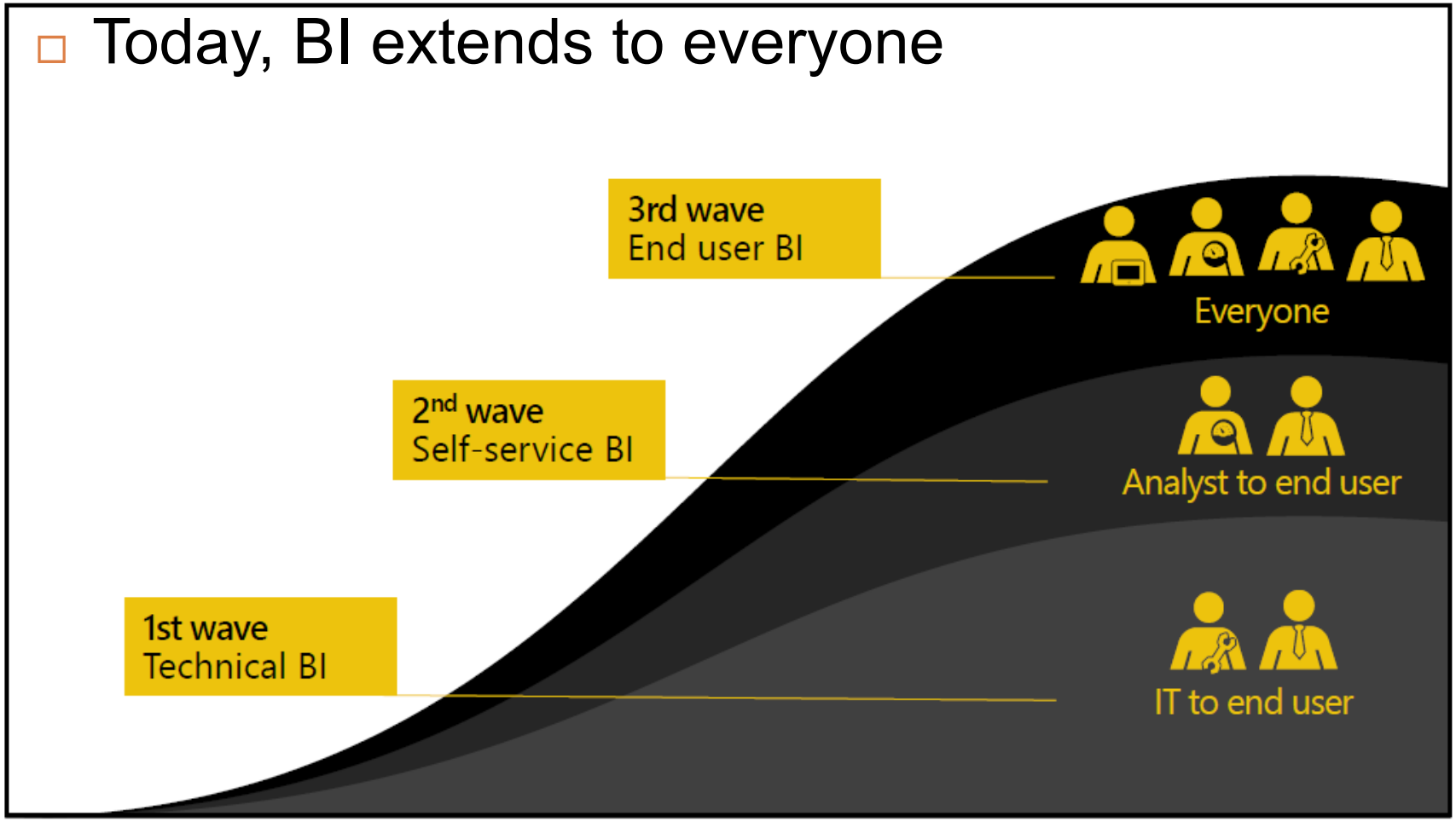
What is Business Intelligence?

- Business Intelligence (BI) is a technology-driven method which helps you to analyze data and to provide actionable information which helps corporate executives, business managers, and other users to make informed business decisions.

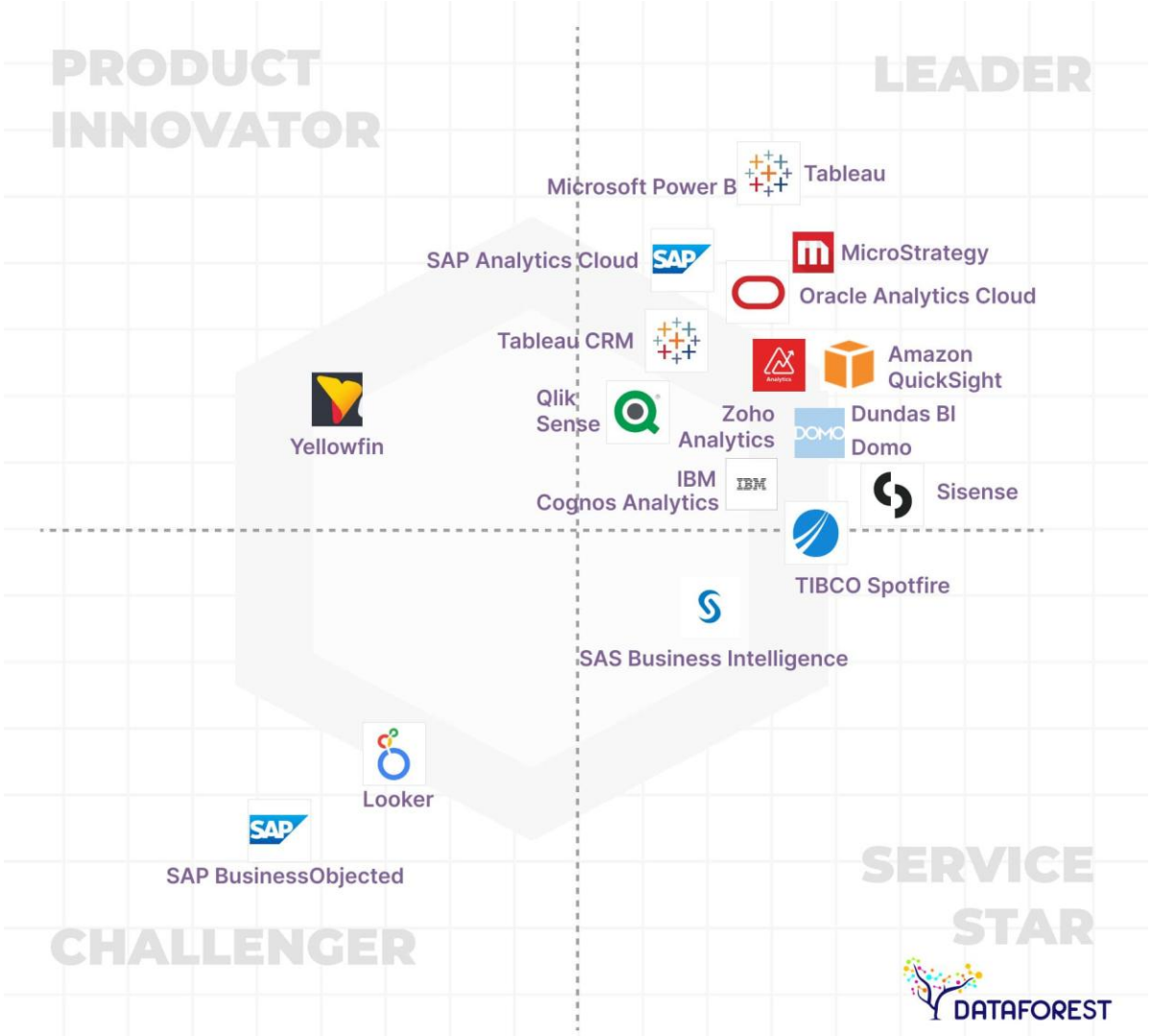


A New Generation of BI

- Today, BI extends to everyone



Most Popular BI Tools

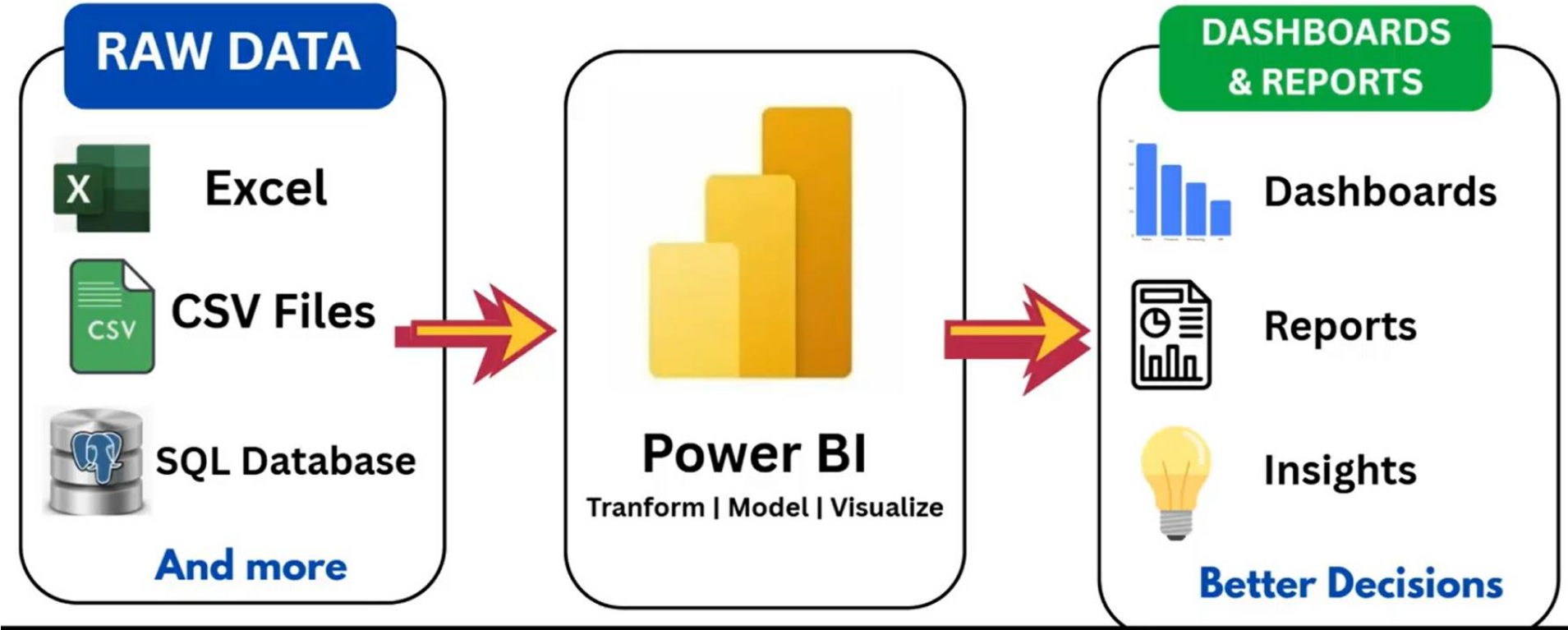


Top Business Intelligence & Analytics Providers Revealed in Info-Tech Research Group's 2026

DATAFOREST

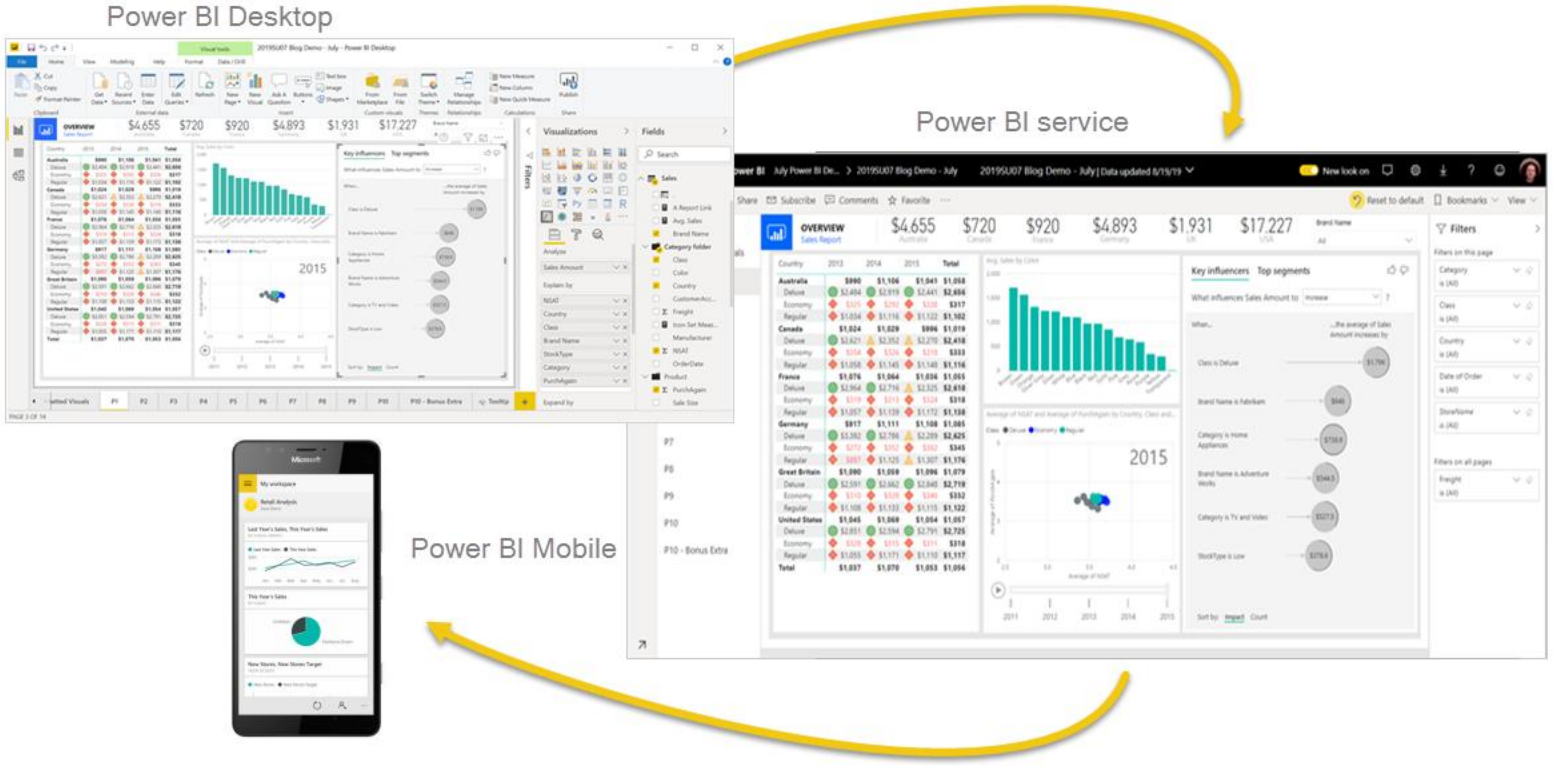
What is Microsoft Power BI?

- Microsoft Power BI is a collection of software services, apps, and connectors that work together to turn your unrelated sources of data into coherent, visually immersive, and interactive insights.



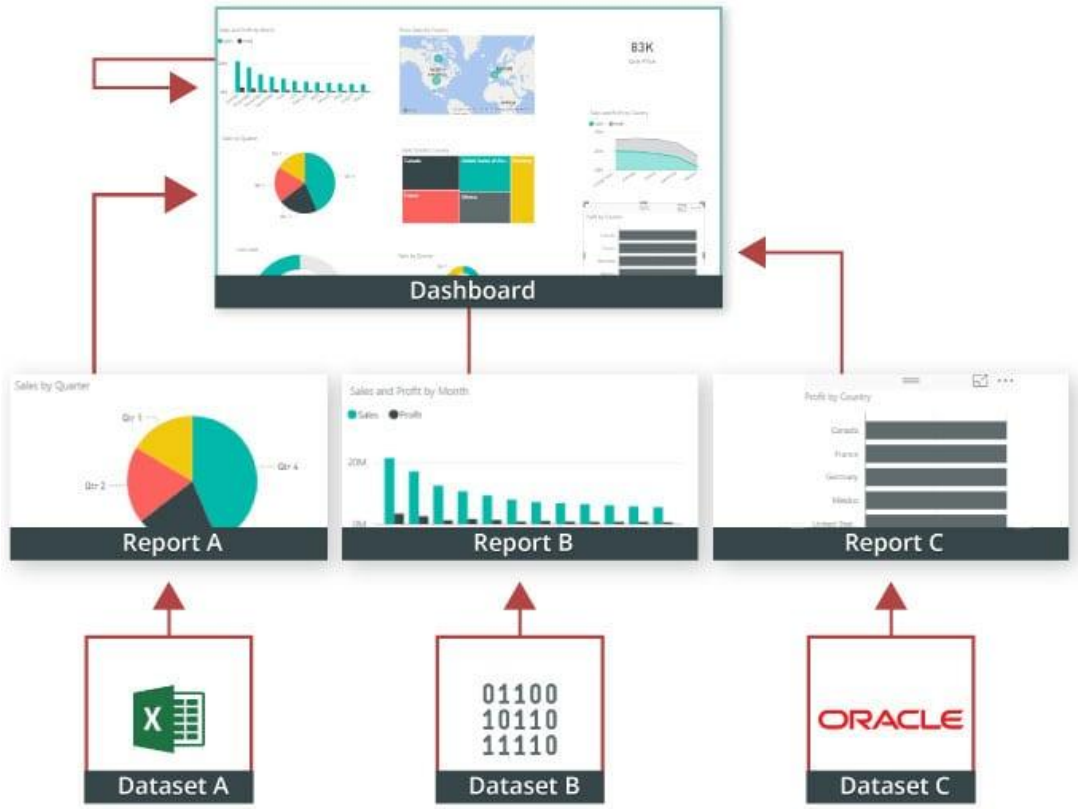
Power BI Component

- Power BI consists of:
  - A desktop application called **Power BI Desktop**
  - An online service called the **Power BI Service**
  - A **Power BI Apps** that are available on phones and tablets.



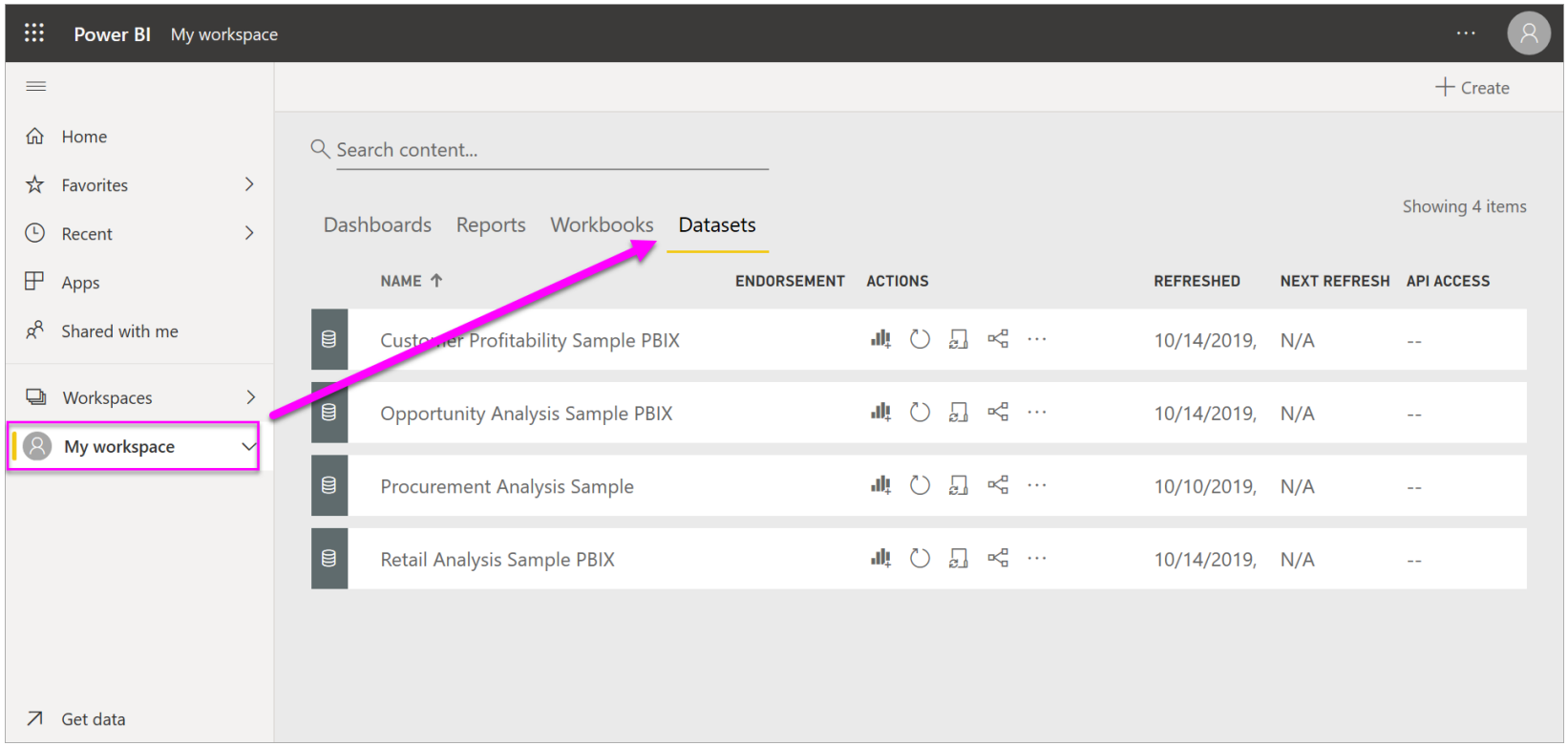
Power BI Concepts

- The major building blocks of Power BI are:
  - Datasets
  - Reports
  - Dashboards



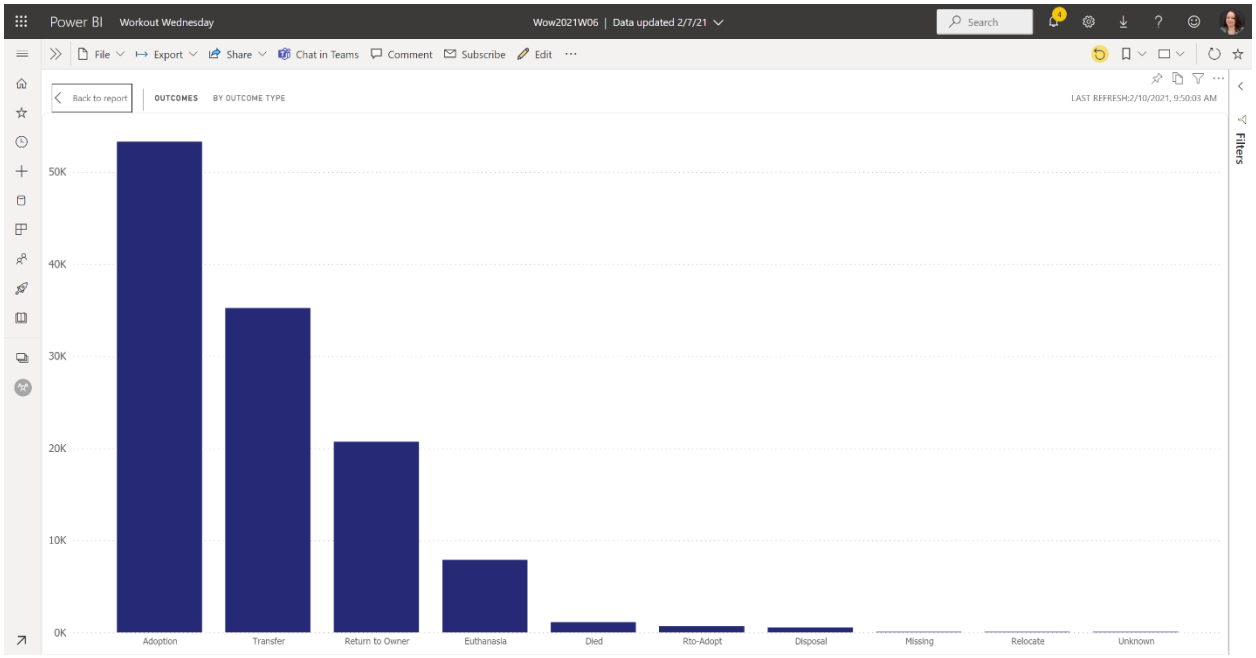
Datasets

- A dataset is a collection of data that you import or connect to.



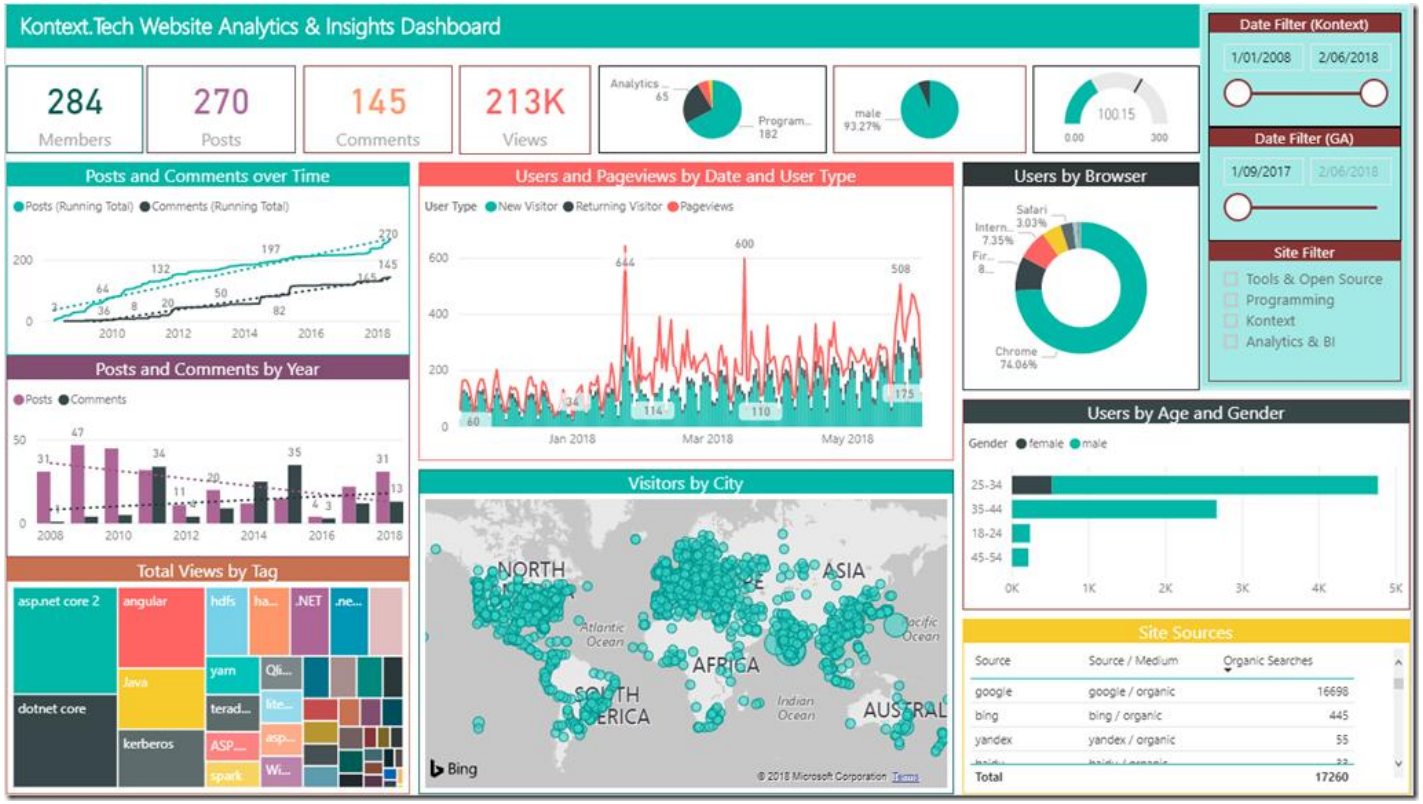
Report

- Report is a multi-perspective view into a dataset, with visuals that represent different findings and insights from that dataset.

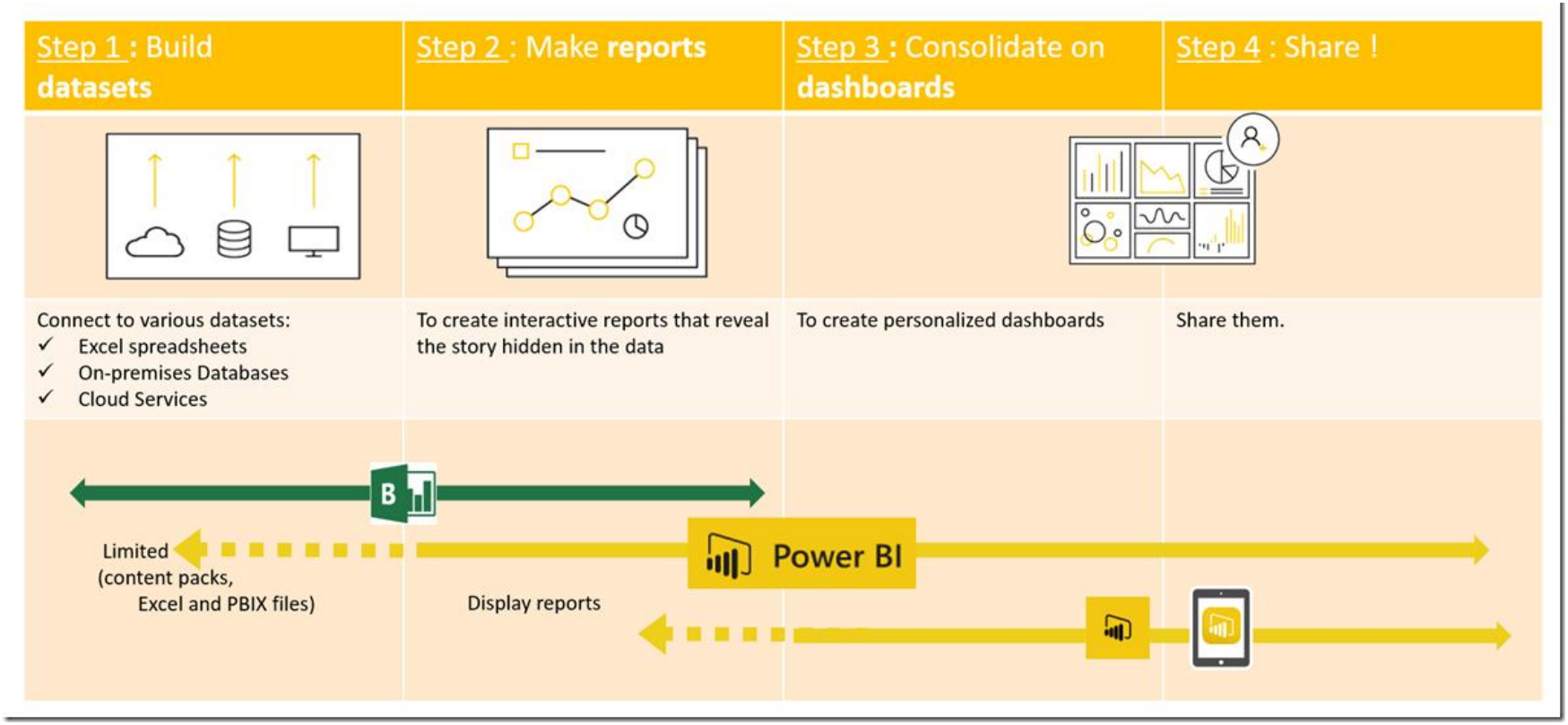


Dashboards

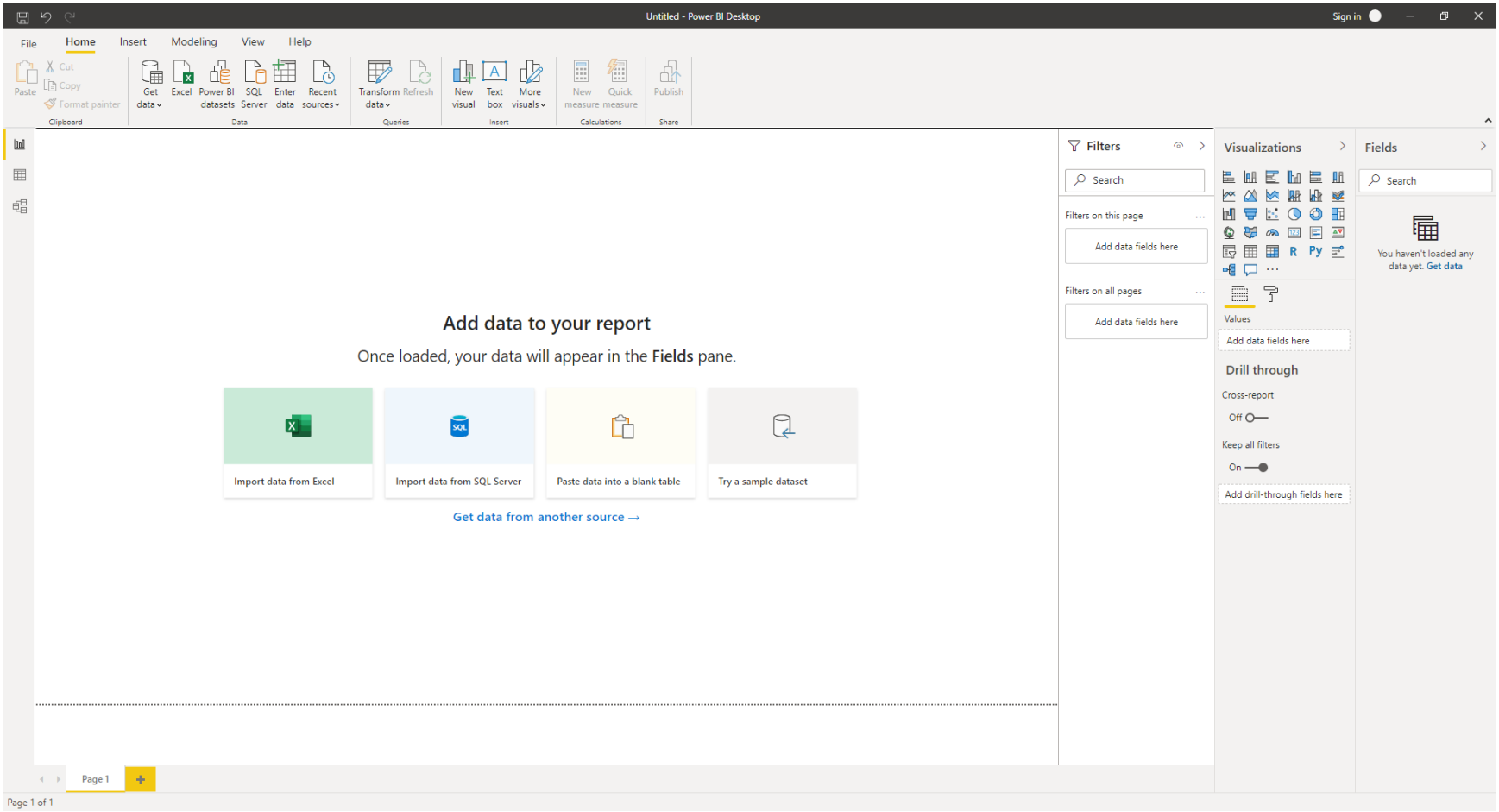
- A dashboard is a single canvas that contains zero or more tiles and widgets.



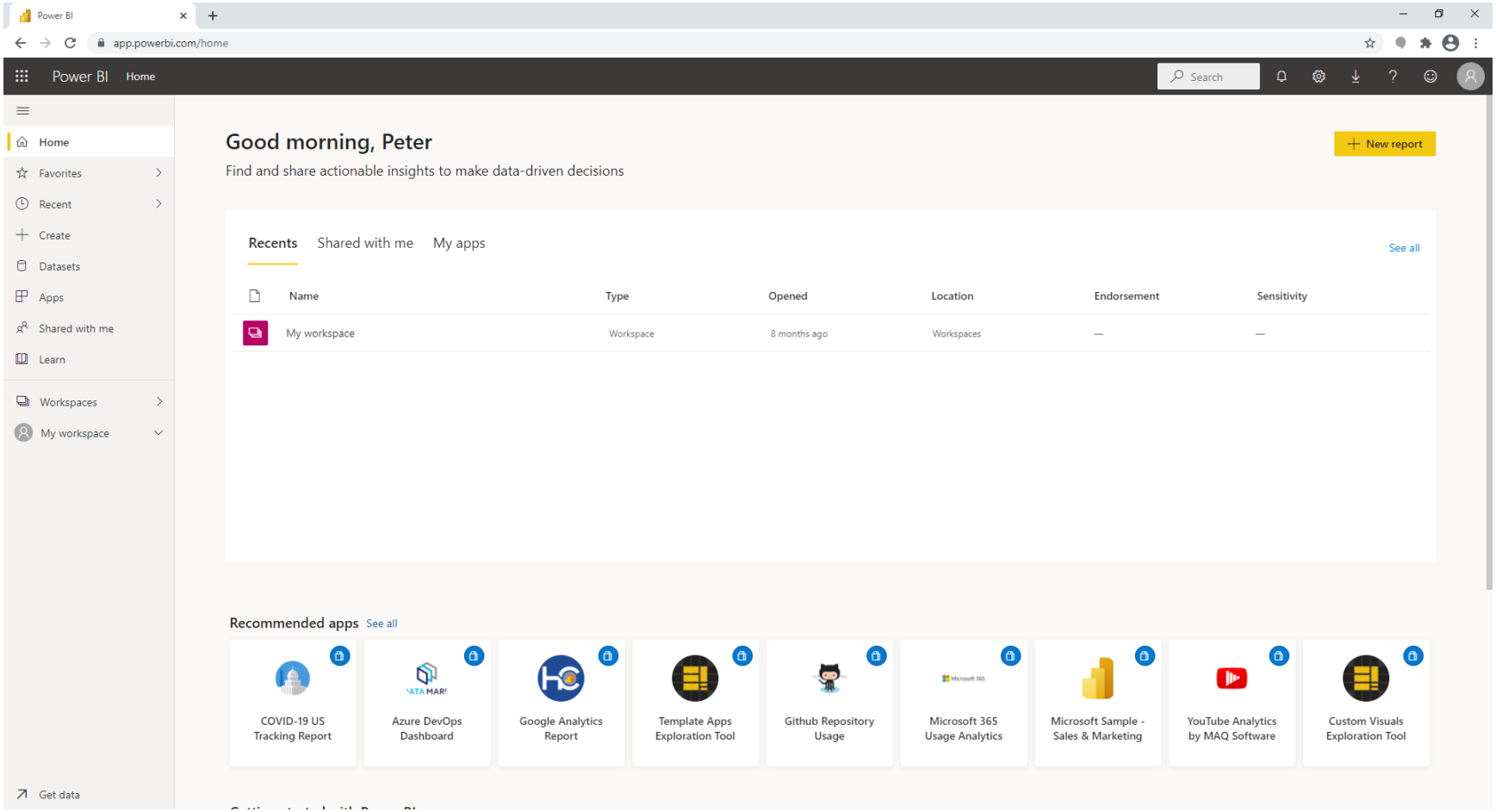
Power BI vs. Excel



Power BI Desktop

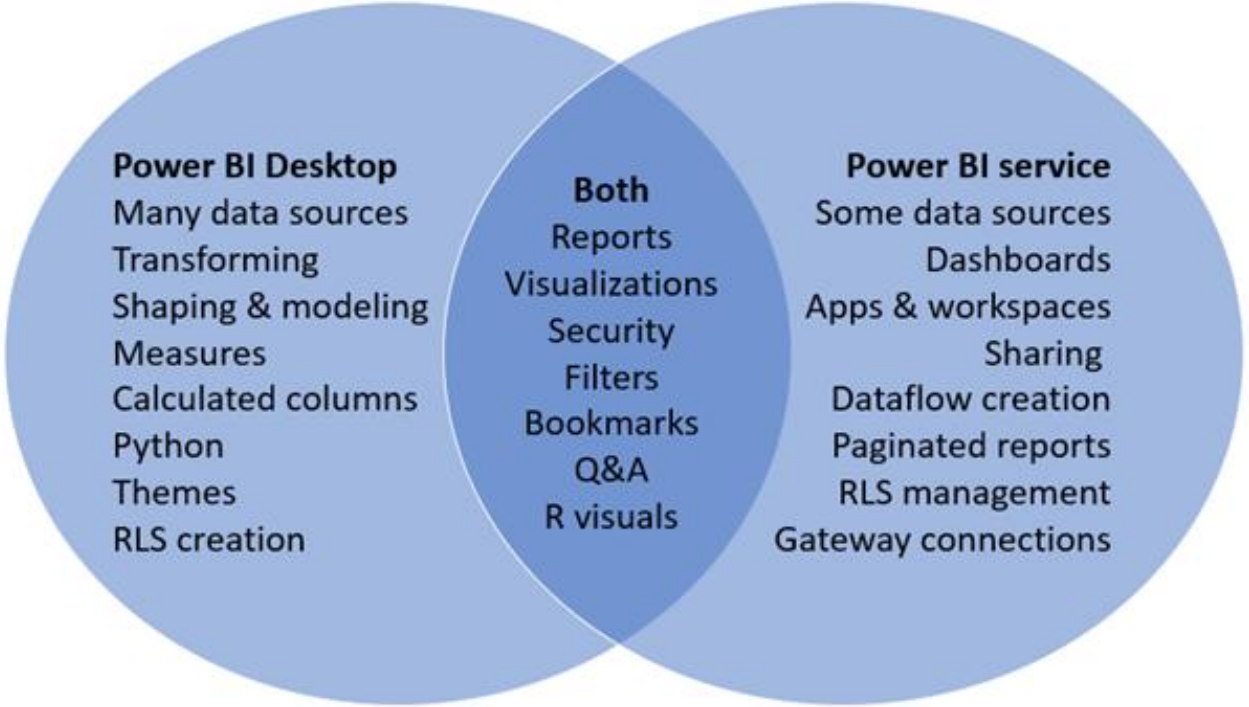


Power BI Service

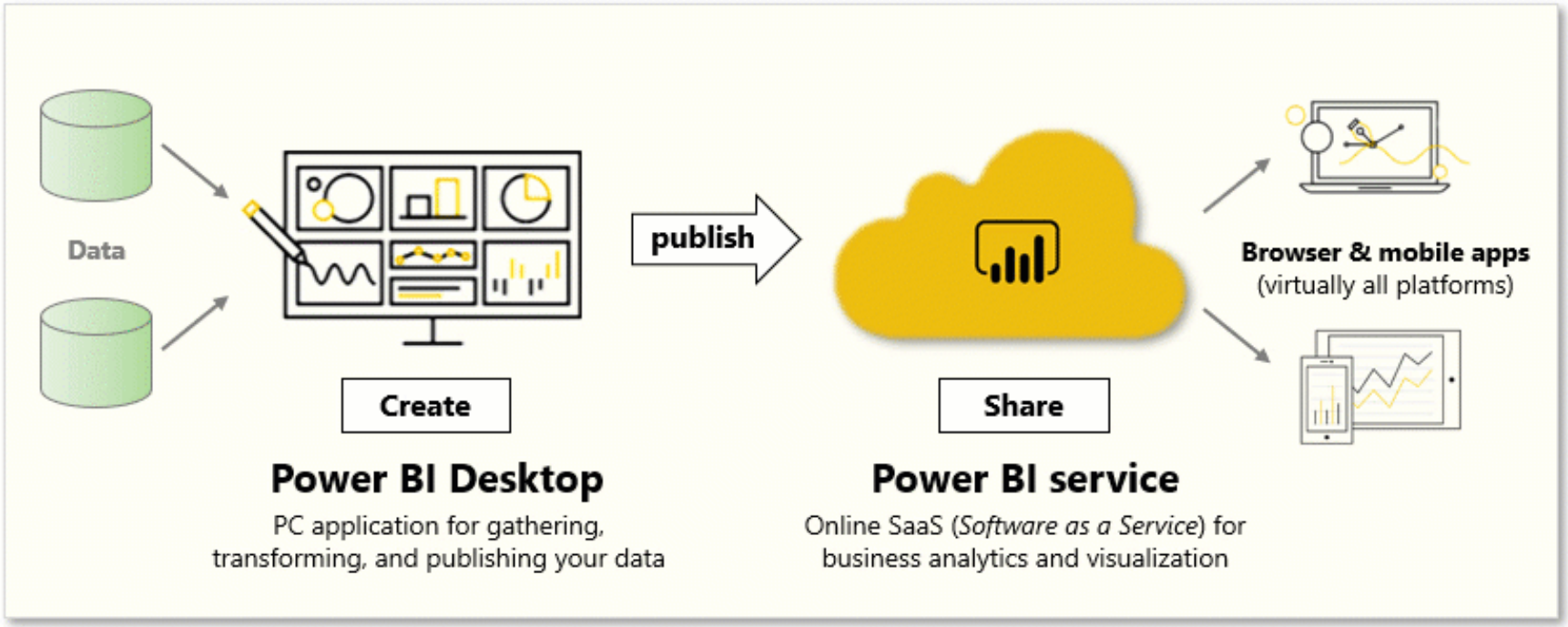


Power BI Desktop vs. Power BI Services

- Most users use Power BI Desktop to create Power BI reports, and then use the Power BI service to collaborate and distribute their reports.



Implementation Process



Implementation Process (Power BI Desktop)

