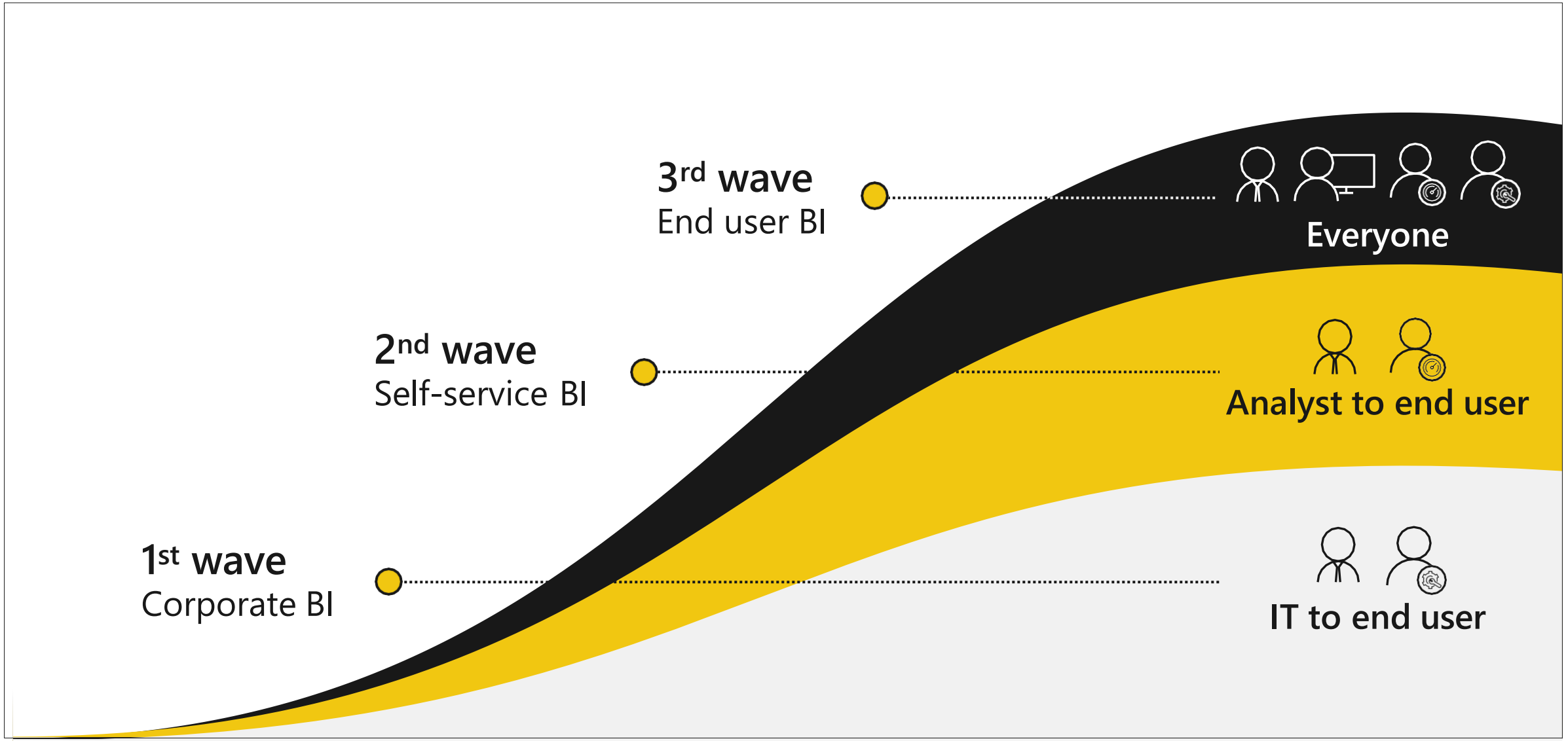
Power BI Reports Building Course.

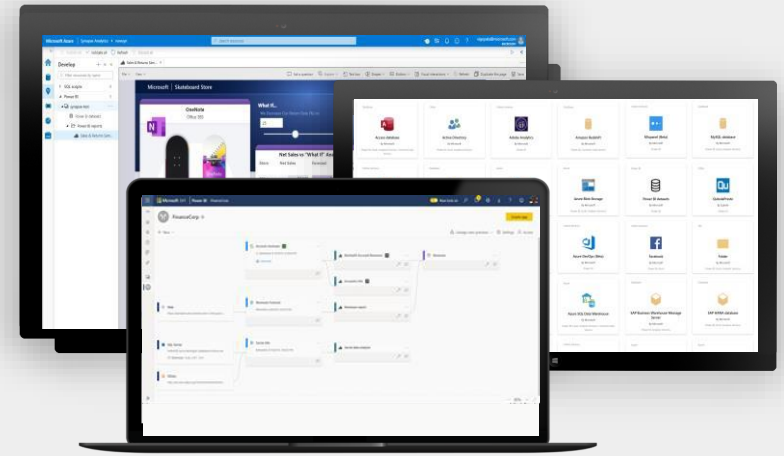
DCU
Ollscoil Chathair
Bhaile Átha Cliath
Dublin City University

Spanish Point technologies ltd

The Evolution of BI



Power BI

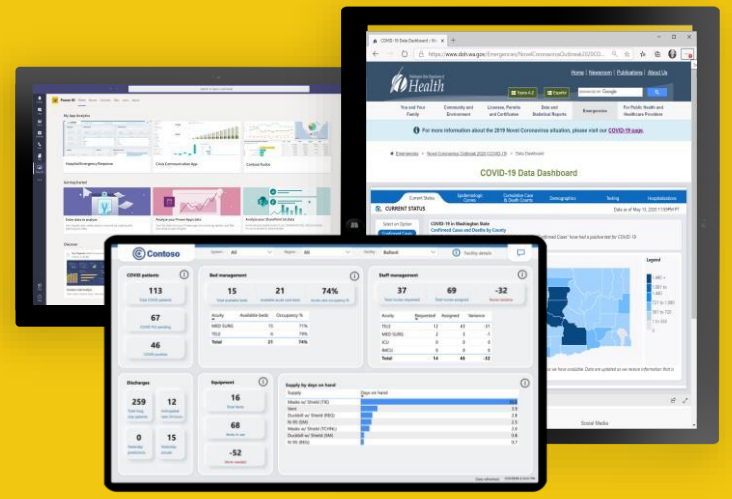


All Data

Break down data silos and enrich your data with intelligence

For Everyone

Create rich-interactive data experiences with AI infused insights



For Every Decision

Integrate trusted and secure BI into the fabric of your organization and apps

Power BI drives a data culture for everyone and every decision

Why Power BI?

Power BI Desktop is free

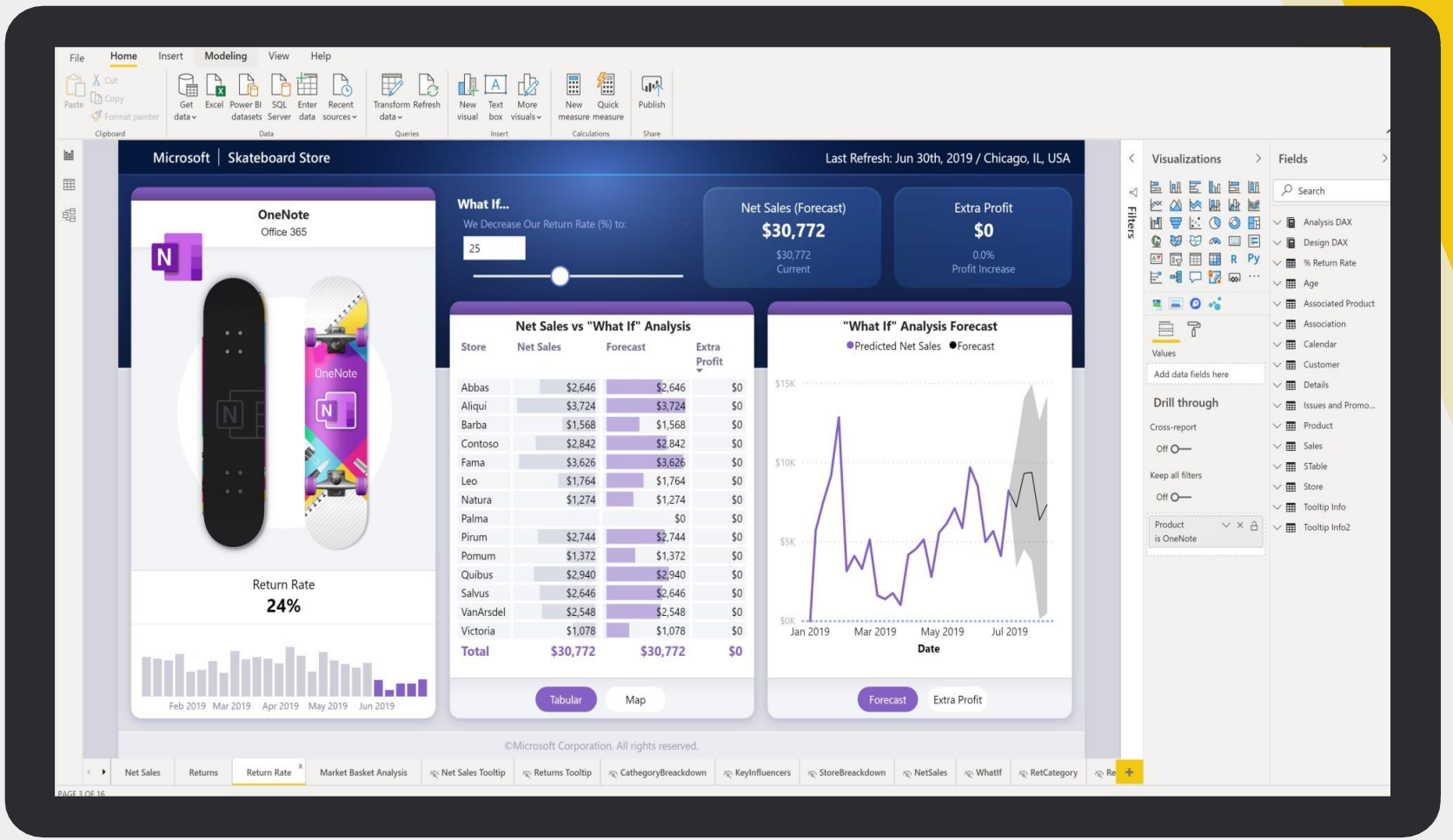
Real time dashboards and interactive reports

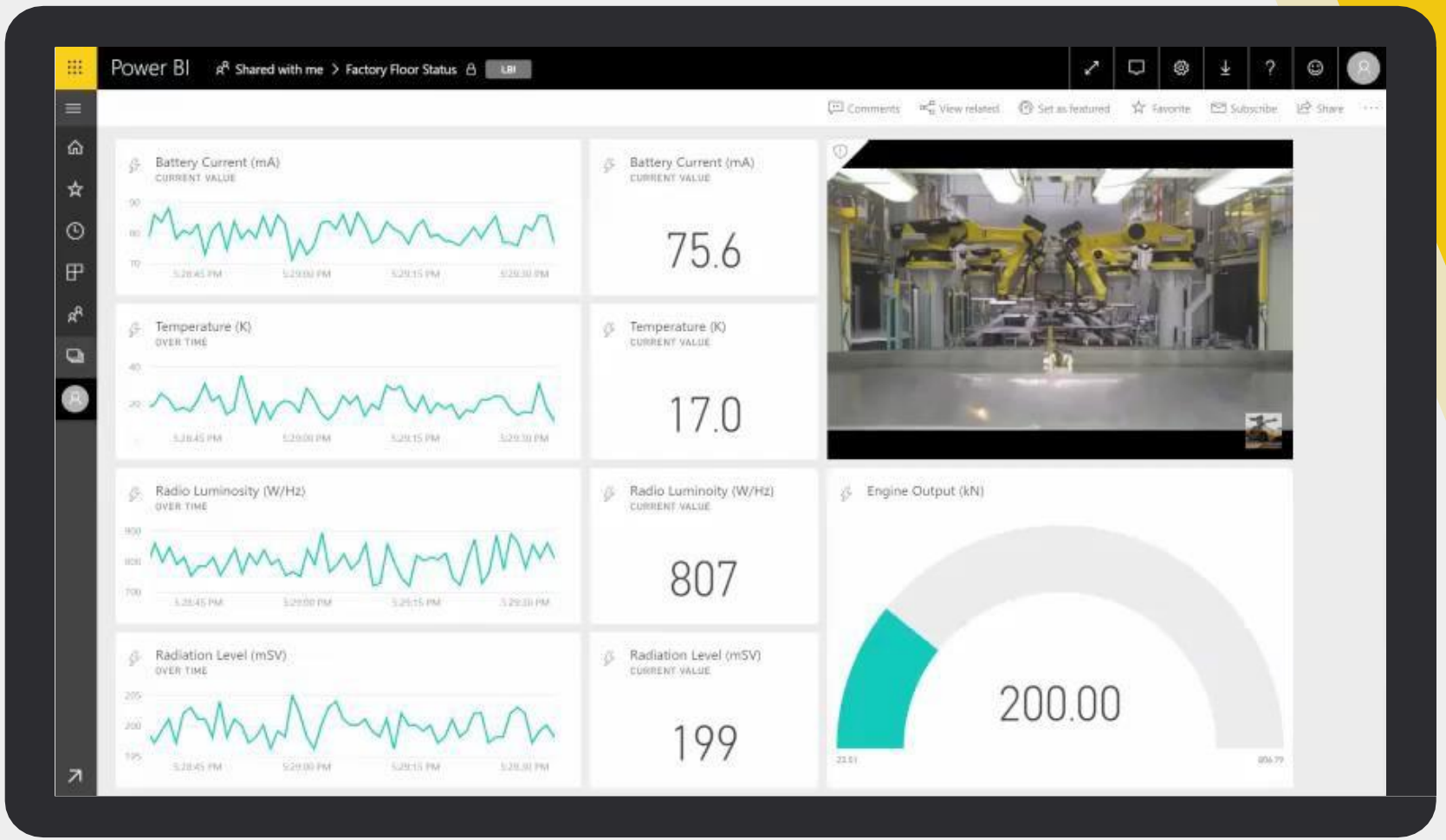
Natural Language query & AI insights

Custom visualizations and custom connectors

Integration with Excel, Power Point, SharePoint and TEAMS

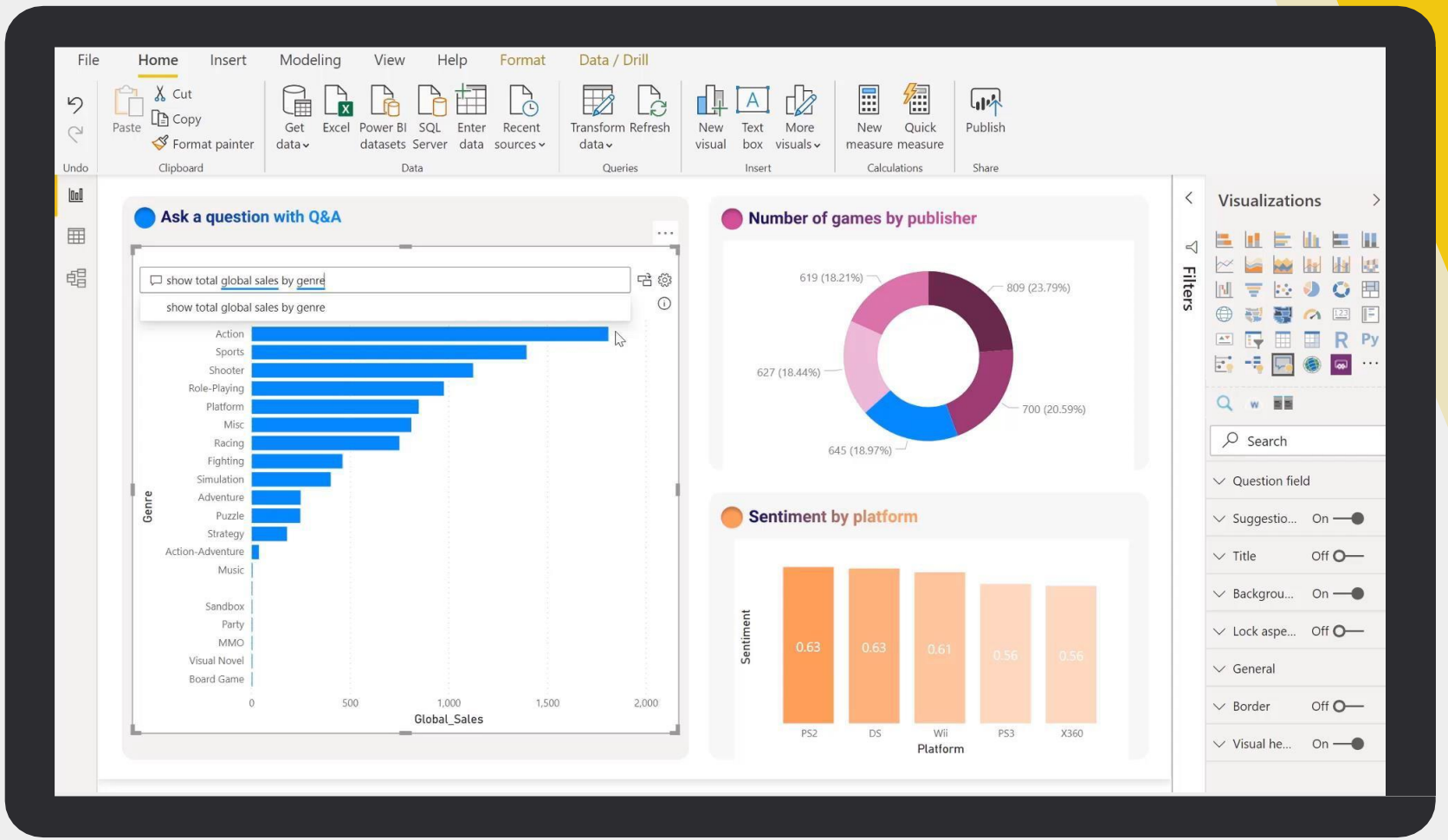
Power BI Desktop is free

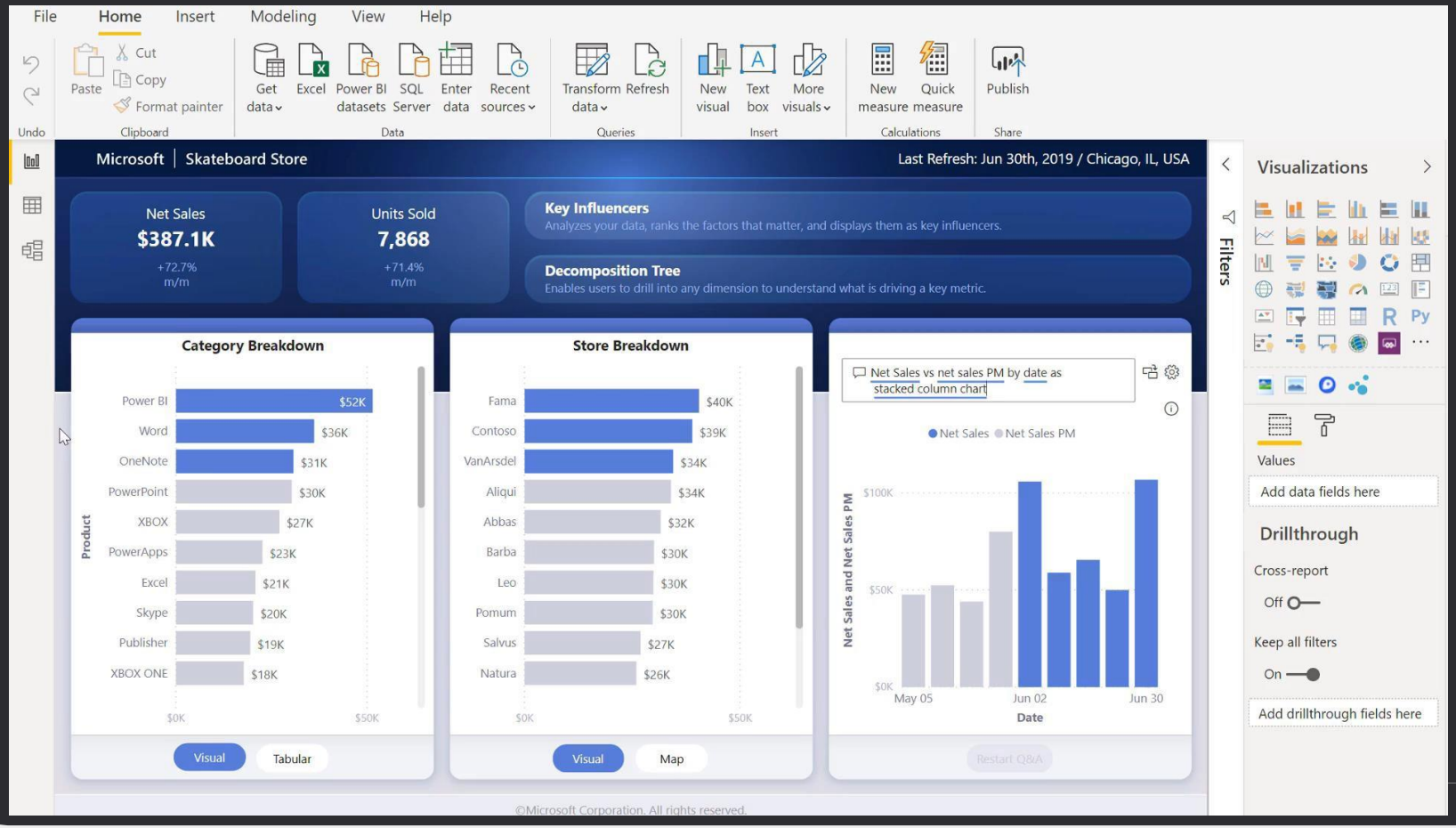




Real time dashboards and interactive reports

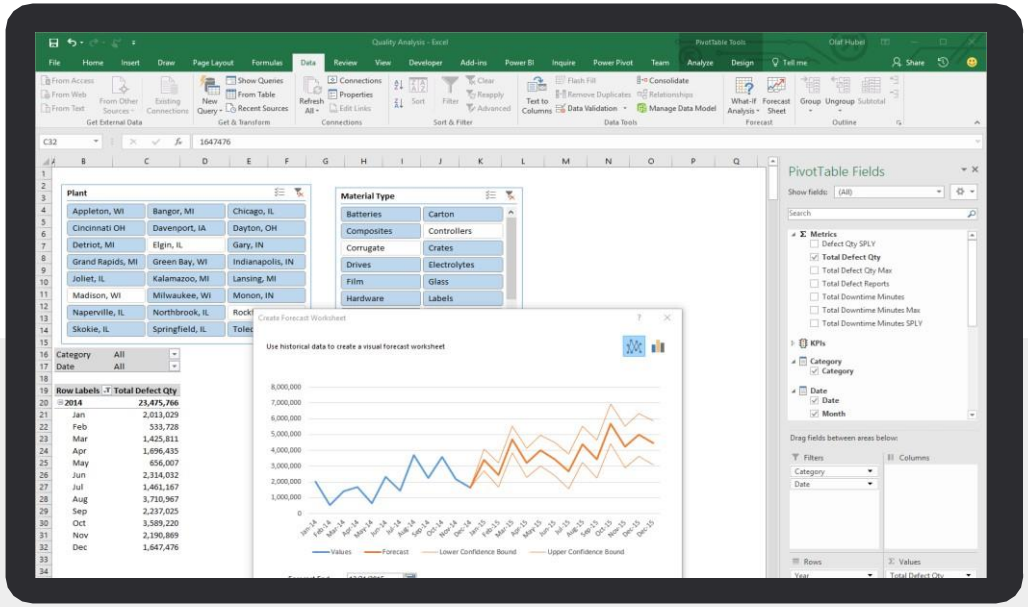
Natural Language query & AI insights

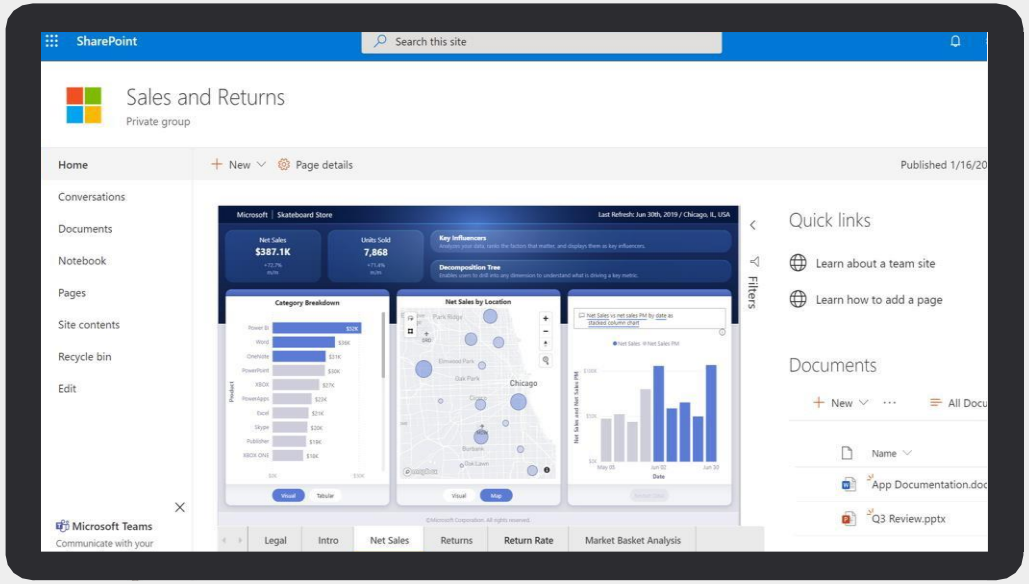


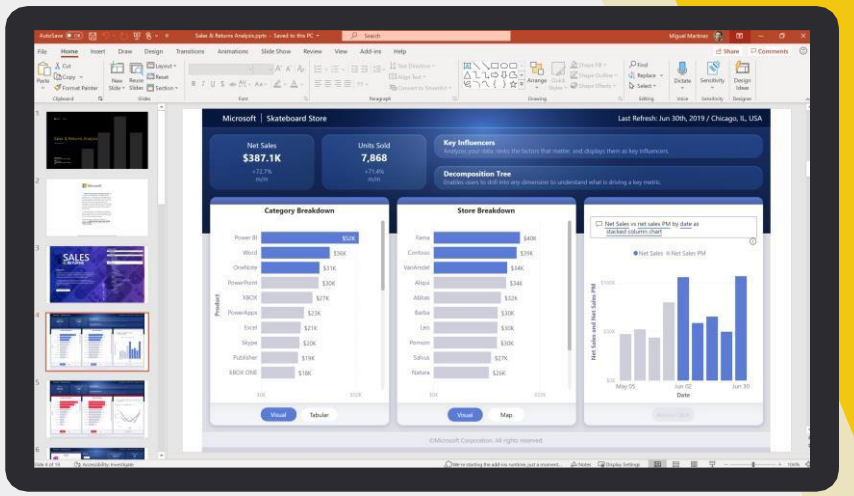


250+ Custom visuals

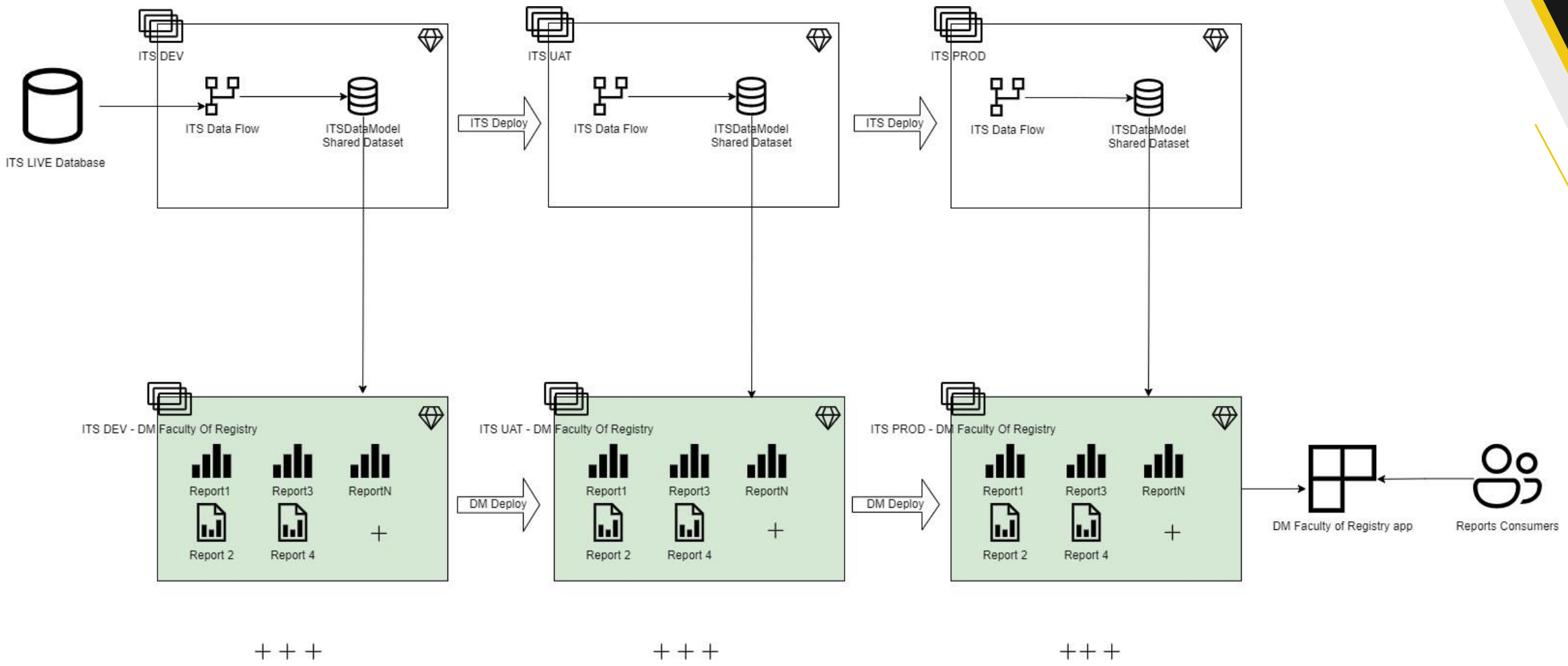
Integration with Excel, Power Point, SharePoint and TEAMS







ITS Power BI Reports Solution Architecture



Lab

Building Power BI Report

Lab. Building Power BI Report. Prerequisites.

1. Access to Power BI Desktop on DCU Virtual Desktop
2. Power BI PRO account on Power BI Service
3. Access to ITS Training Development/UAT/PRO Workspaces om Power BI Service
4. Access to V:\\ITS Power BI Training\Assets folder, where can be found:
    1. Power BI Report samples
    2. ReportQueries.sql Original SQL queries of the reports on ITS database.
    3. DCU_PBIColorTheme.json report theme file
    4. DCU Logo pictures

Lab. Building Power BI Report: “2022 AZ Status PG”

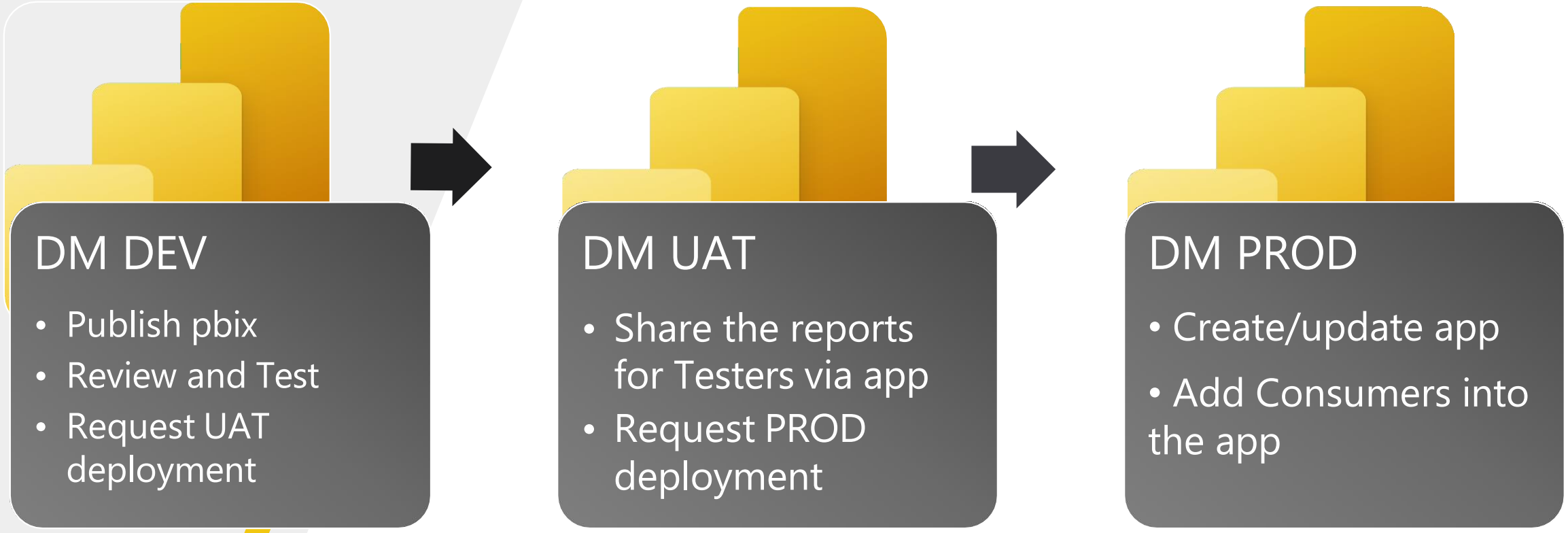
Building the report in **Power BI Desktop**:

1. From Power BI Desktop connect to the dataset “**ITS Data Model**”.
2. Review the report query in ReportQueries.sql: identify tables that’s been used for the report.
3. Review those **tables** in the model. Identify **relationships** between tables based on the query.
4. Create a table visual with all fields from “SELECT” clause of the report query.
5. Add filters on **Filter pane** for the table.
6. Add **Dropdown slicers** to the report for Qualification, Choice, Award Type and Description.
7. Add picture of **DCU Logo** on the report.
8. Add **Header** of the report as a text field.
9. Adjust **look and feel** of the report page, slicers, table. Import report **Color theme:** DCU_PBIColorTheme.json
10. Save the report with your initials and name like <FullName>_2022 AZ Status PG.pbix

Lab 02 -

Building Power BI Report based on Direct Query

Reports Deployment Stages

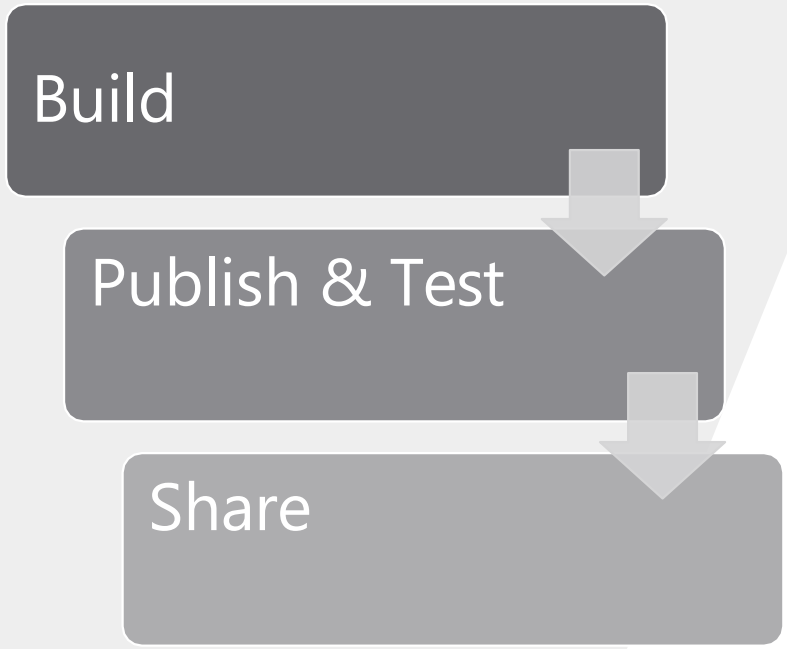


Lab. Building Power BI Report: “2022 AZ Status PG”

Publishing and Share the report on **Power BI Service**:

1. From Power BI Desktop publish the report on Power BI Service **ITS Training Development** workspace.
2. Review the report on ITS Training Development.
3. Request deployment of ITS Training Development content to **ITS Training UAT** workspace from admins.
4. Review the report on **ITS Training UAT** when deployed by admins
5. Create/Update an **app** to share the report with testers.
6. Request Deployment on **ITS Training PROD** from admins.
7. Create/Update an **app** to share the report with end users.

Reports Building Flow Recap



1. Connect to ITS Data Model dataset from Power BI Desktop.
2. Request the dataset access “build” permission from DCU dataset designers if missing.
3. Build the report using existing tables and relationships in the dataset.
4. Request missing data and relationships from DCU data model designers providing requirements.
5. Save report locally as pbix file.
6. Publish the report into destination workspace on DEV environment on Power BI Service.
7. Test report internally on Power BI Service
8. Request deployment to UAT and PROD from DCU reports admins
9. Add report viewers into workspace app auditory and create/update the app.

Q&A

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Recommended Resources

- Power BI Learning: https://docs.microsoft.com/en-us/learn/powerplatform/power-bi?WT.mc_id=powerbi_landingpage-docs-link
- YouTube Power BI Latest News: https://www.youtube.com/user/mspowerbi
- Power BI Community: https://community.powerbi.com/
- Sqlbi portal: http://www.sqlbi.com/
- Introducing Dax Free video Course: http://www.sqlbi.com/p/introducing-dax-video-course/
- DAX Guide from sqlbi.com: https://dax.guide
- DAX Reference: https://msdn.microsoft.com/en-us/library/gg413422.aspx
- Power Query M Reference: https://microsoft.com/en-us/documentation/powerbi-service-visualization-best-practices/msdn.microsoft.com/en-us/library/mt211003.aspx
- Power BI Design best practices: https://powerbi..microsoft.com/en-us/documentation/powerbi-service-visualization-best-practices/