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# Evolving your Power BI Architecture using Dataflows and Shared Datasets

Ben Watt



## Agenda

- History lesson: Microsoft BI Enterprise Architecture
- Power BI Architecture. **Simple.**
- Dataflows
- Shared Datasets
- Power BI Architecture. **Evolved.**
- Link to slides, content



**Ben Watt**



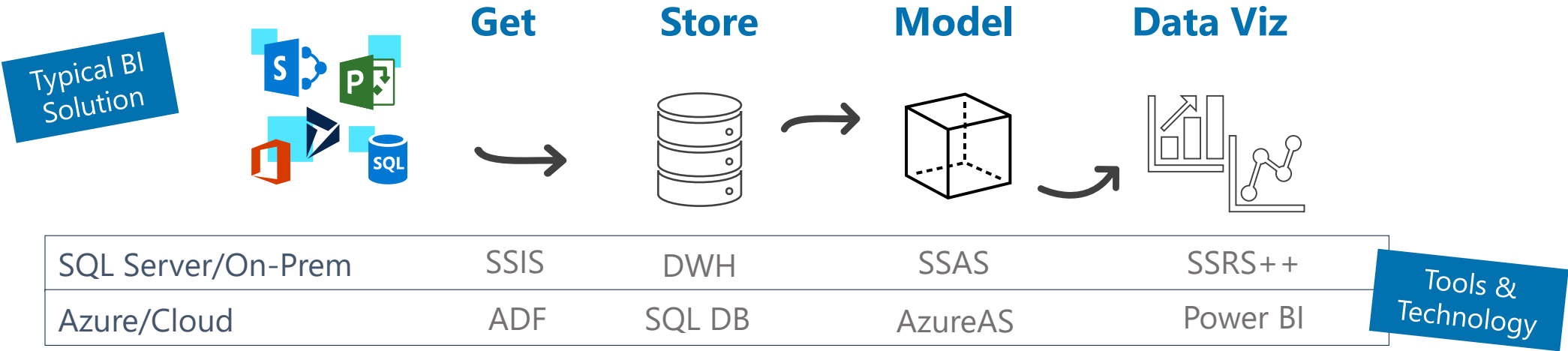
## At your Service!

- Managing Director at Datalineo
- Microsoft MVP Data Platform
- Power BI: SQL/Azure/Power Platform
- Dublin Power BI UG leader
- Event Co-Ordinator, Data Ceili

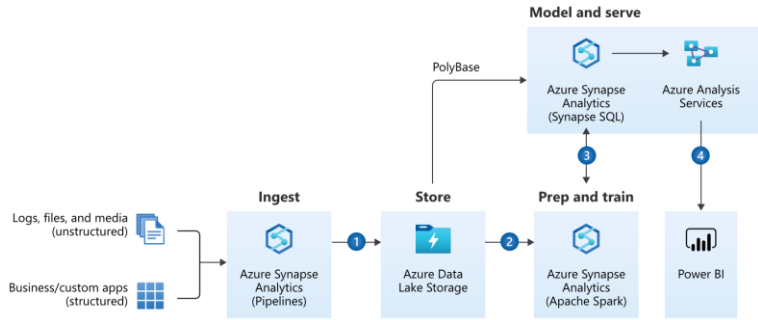
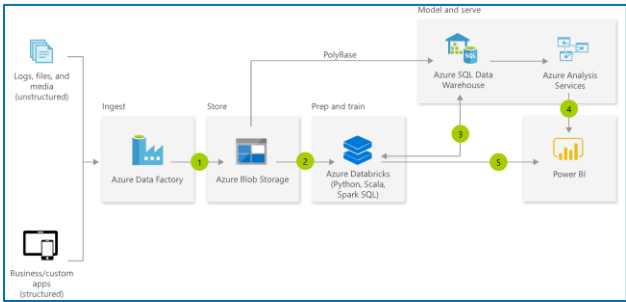


@benrebooted

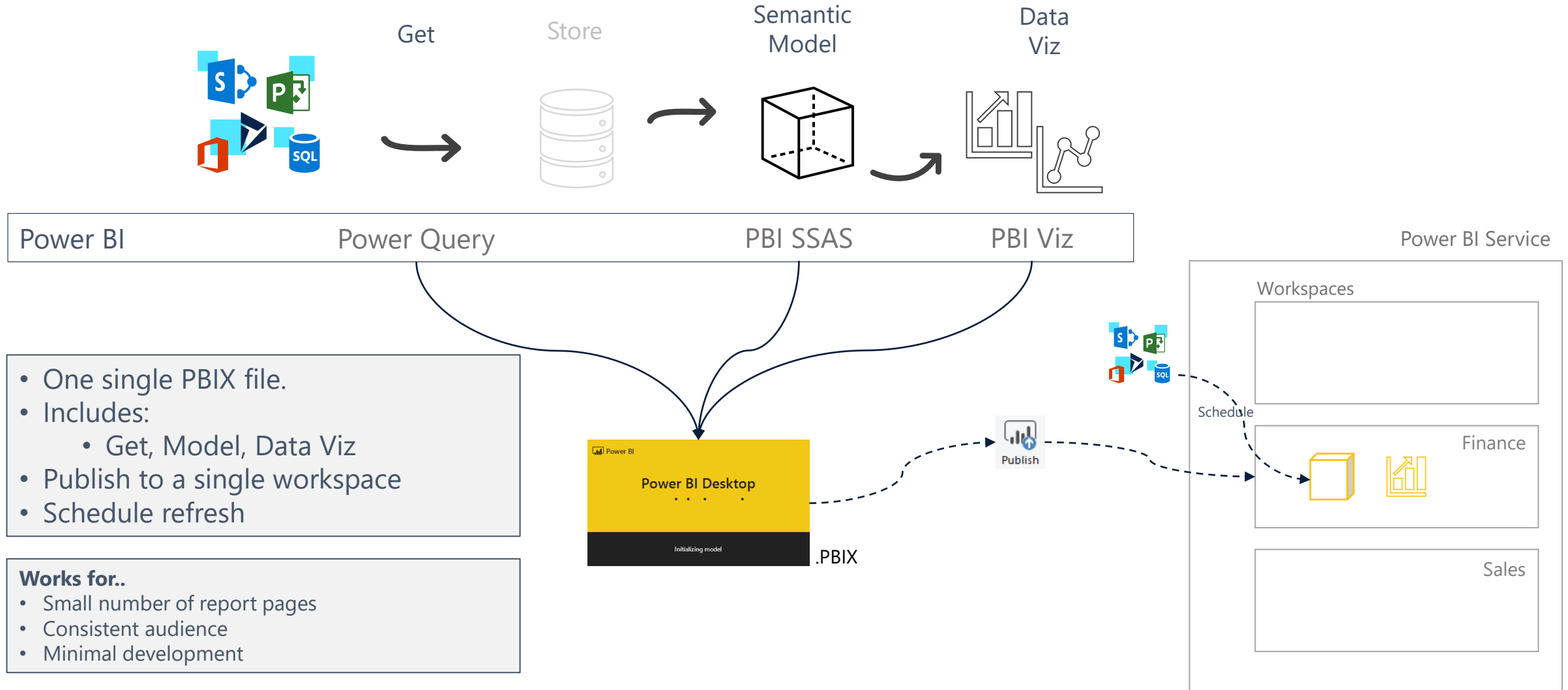
# History Lesson: Microsoft Enterprise BI



## Solution Architecture through the ages

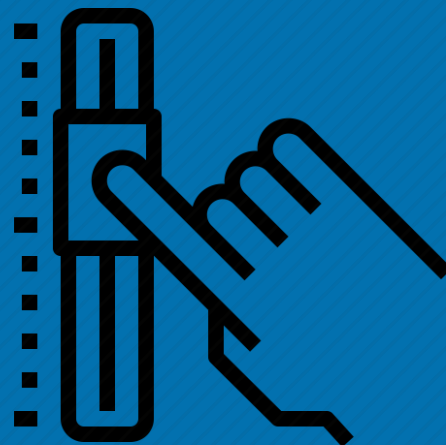


# Power BI Solution (simple version)



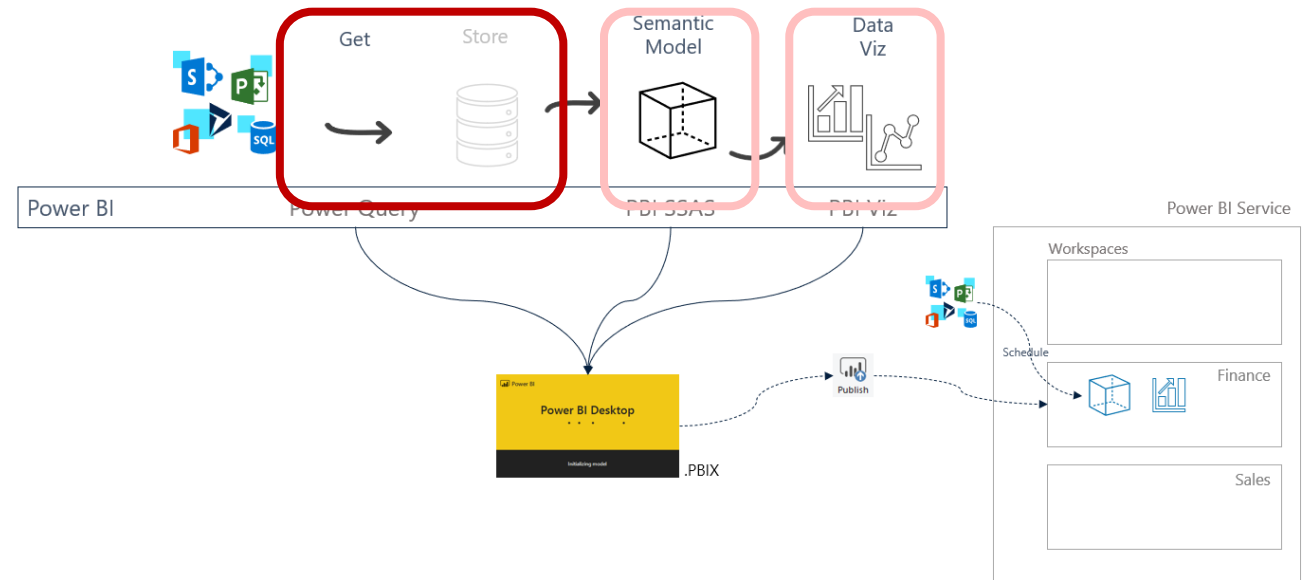
# Let's scale up!

Shared Datasets and Dataflows.

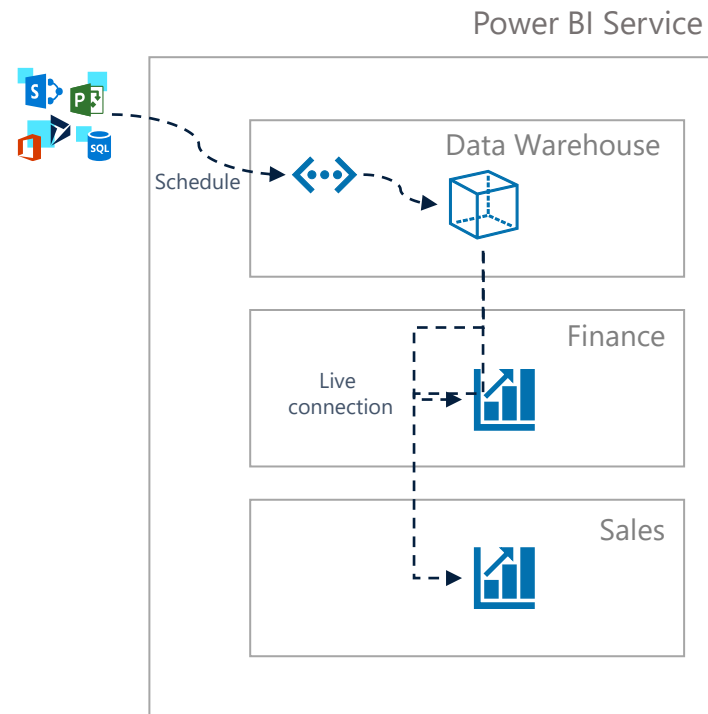


## Dataflows

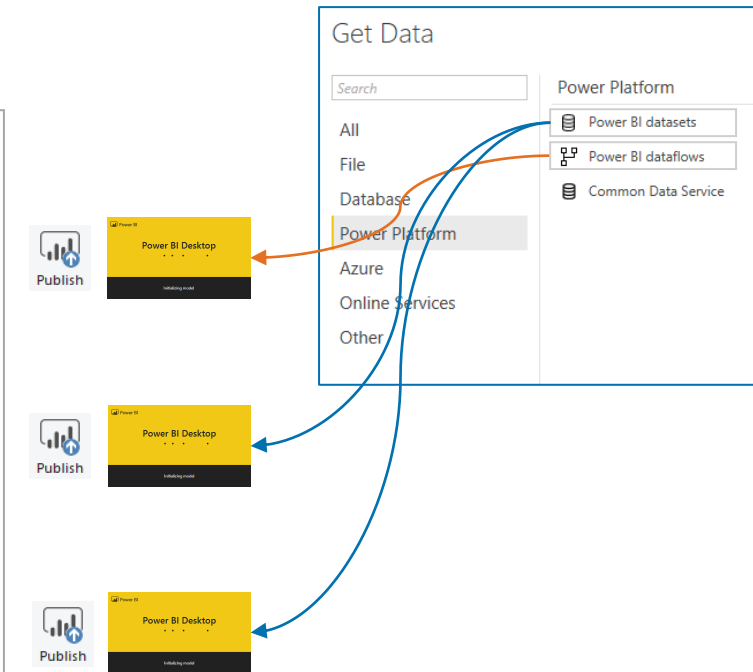
- Decouples the **data acquisition** and **scheduling** from your .PBIX file
- Creates new “entities”/“tables”, available for multiple PBIX datasets
- Acts like the ETL and DWH of Enterprise BI
- Developed in browser (or copy/paste from Desktop)
- Data is stored in Azure Data Lake Gen2 as CDM compliant folders.
  - 10GB (Pro), 100TB (P1), or BYO
- Premium features
  - Enhanced Compute Engine
  - Incremental refresh
  - Parallel refresh
  - Linked/Computed Entities
  - AI Insights



- Decouples the Data Model from the Data Viz
- Same .PBIX file, just plays the Data Model role
- Use Live Connection .PBIX for reports
- Security
  - Apps
  - Workspaces
  - Row Level
  - Build Access
- Simplifies Data Model v Report deployment
- Certify and Promote Datasets
- Promote or Certify Datasets

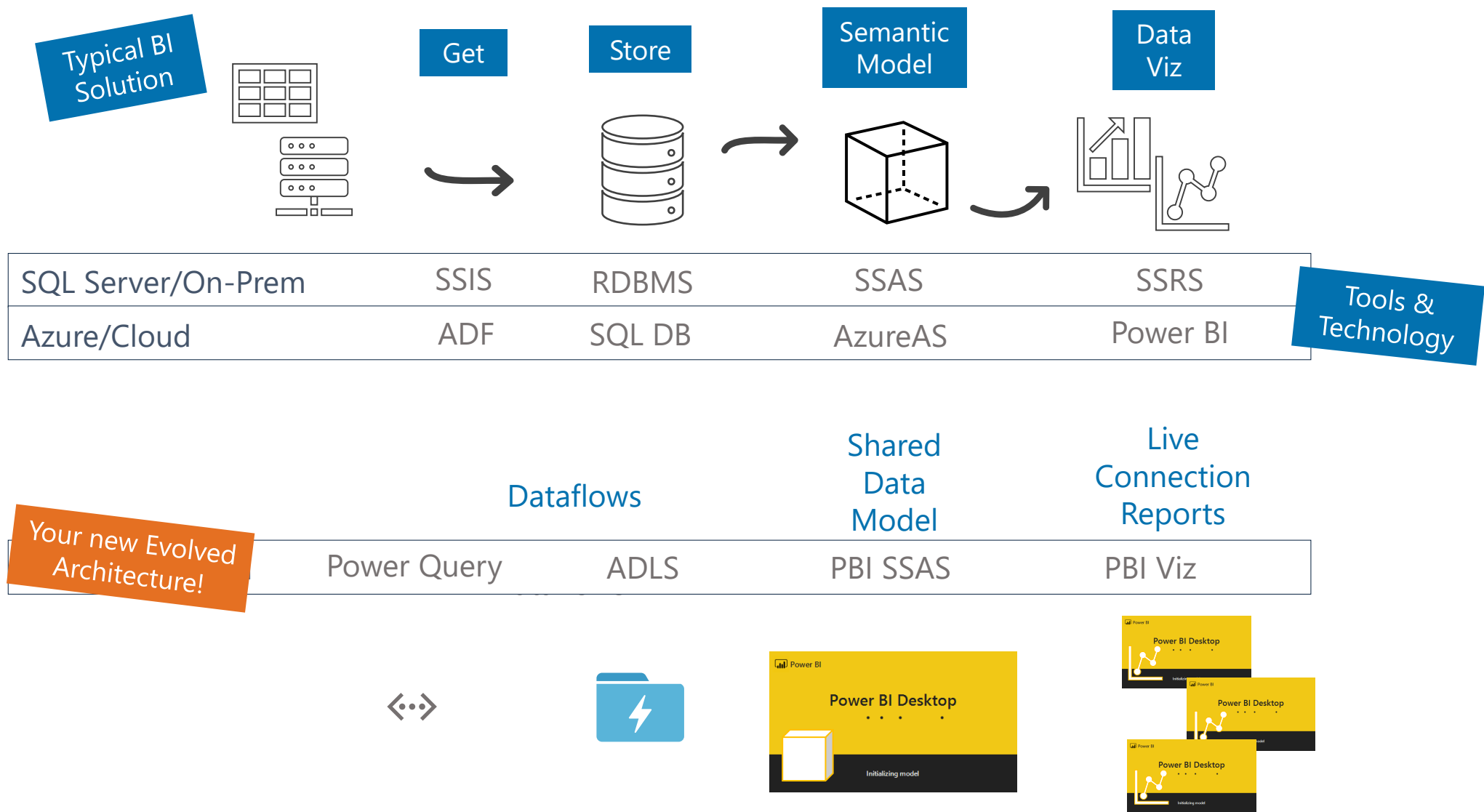


## Shared Datasets





# Power BI solution (evolved)



### Dataflows

- Generates a new Data acquisition, preparation and procurement layer. (or a mini DWH of sorts)
- Shared output for re-usable query results
- Released pressure on source data

### Shared Datasets

- Better organisation of multiple reports/pages
- Simpler deployment process: Dataset v Reports
- Granular security
- Flagging of Certified or Promoted Datasets
- **Data Analysts** → Analysis & Insights
- **BI Developers** → Self-service Platform

Slides, etc: <https://github.com/datalineo/sessions>

### Enterprise Deployment Whitepaper

<https://docs.microsoft.com/en-us/power-bi/guidance/whitepaper-powerbi-enterprise-deployment>

### Shared Datasets

<https://docs.microsoft.com/en-us/power-bi/connect-data/service-datasets-share>

### Dataflows

<https://docs.microsoft.com/en-us/power-bi/transform-model/dataflows/dataflows-introduction-self-service>



**Hit me up...**



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