

Microsoft Fabric Festival

From Analyst to Architect

Agenda

1 The Data Analyst Today

2 Microsoft Fabric for Data Analysts

3 Solution Scenarios – Live Demos

4 Wrap Up



Personal Data

Age:

33

Job Title:

Data Analyst

Company:

EnergyCorp

Alex

Data Analyst

Taking data to the next level

Personal profile

Alex is a Business Data Analyst at EnergyCorp and is responsible for delivering trusted, reliable data which drives strategic decisions and enables business growth.

He is used to building Power BI Reports on existing data models created by the centralized data team, but recently he has been faced with an increasing number of demands from the end users to include new data, and make changes to the back end.

Skills

Power BI

Microsoft Excel

Front-end Developer

Needs

- Manipulate data adhoc
- Work independently –
Make things happen
- Improve data storytelling
- Dynamic and modifiable
data foundation

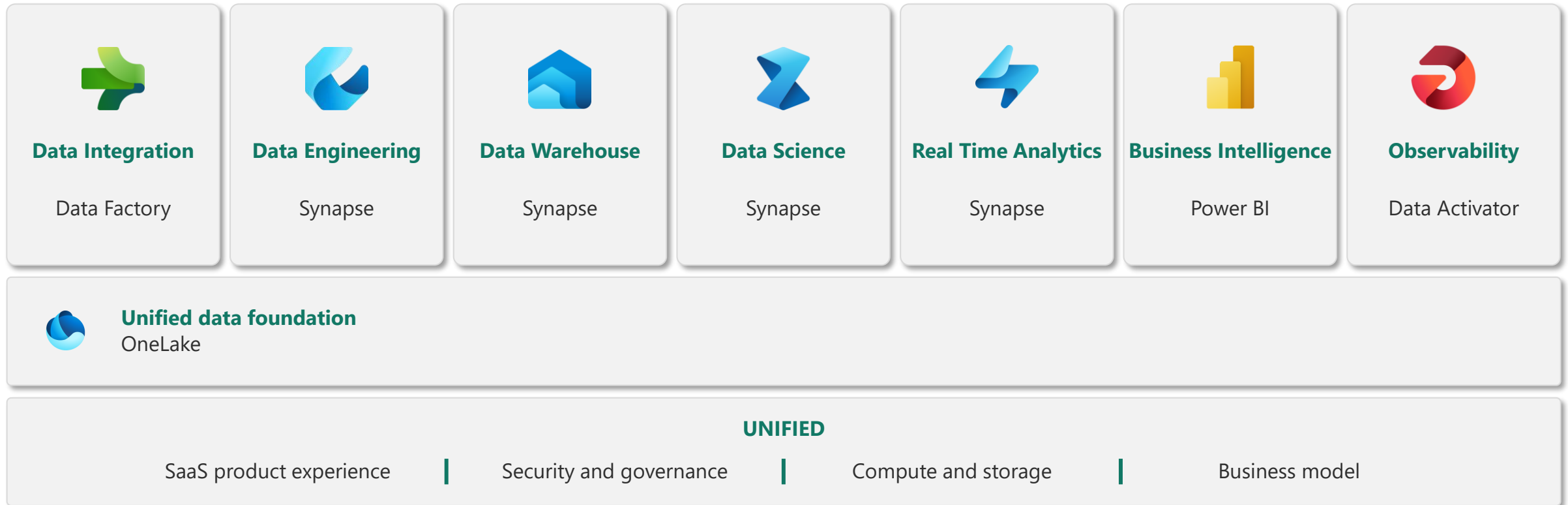




Pains

- Too many chefs, too many tools, too many restrictions
- Data often can't be exported into correct format
- Badly formatted data
- Rigid, non-customizable tools
- Long waiting time for new data / data changes

Microsoft Fabric for Analysts



Solution scenarios

Starting point: Data Model delivered by data engineer

1. Building a report on a Lakehouse

Leveraging Centralized Models and DirectLake



3. Comment Implementation

Implementing comments in the existing solution from an Excel file stored locally, via OneLake



5. Data Monitoring

Triggering automated alerts in Outlook/Teams when conditions are met.



2. Integrating Budget Data

Integrating Budget Data into existing solution from an Excel file on Sharepoint



4. Visual Query vs. SQL Query

Building Queries and Collaborating with Engineers in the Lakehouse



Scenario 1: Build on existing Data Model



Problem

- Alex is tasked with a Power BI report for EnergyCorp and the data has been made ready
- Users demand frequent updates; DirectQuery offers immediacy but can compromise performance.
- Imported mode boosts performance but doesn't match the desired update frequency.



Solution

- Alex builds a Power BI report directly on the Fabric platform in the browser.
- Fabric's "Direct Lake" functionality combines DirectQuery's immediacy with imported data performance.
- This solution effectively meets user demands for speed and frequent updates.

Scenario 2: Integrate Budget Data



Problem

- Alex just received a request from his manager to include emission prognosis data in the energy report he is presenting later today
- Due to the time constraint, it is not possible for Alex to wait for his Data Engineer colleague to incorporate this data in the existing Lakehouse.
- Currently, the emission data can be found as Excel-files, which reside in a SharePoint folder.



Solution

- Dataflows Gen2 allows for ingesting and transforming files, as well as outputting them to the Lakehouse.
- Data Factory Pipelines allows for governance on data refreshes and monitoring.
- The imported data can easily be added to the centralized dataset in Fabric.

Scenario 3: Implement Offline Comments



Problem

- During a meeting, several comments were written in a joint spreadsheet as possible explanations for fluctuating emissions. Alex's manager wishes to integrate these in the Energy report.



Solution

- Alex applies Microsoft Fabric to upload the Excel-CSV file in the Lakehouse by utilizing OneLake. The file can then be converted into a table and incorporated in the energy report.

Scenario 4: Queries & Collaboration



Problem

- The department heads love the report, but they need Alex to make a few changes to the query. Changes which require a new View to be built in the Lakehouse.
- The Engineers have time to help next week, but the boss wants it done yesterday.



Solution

- Alex builds his own query in the lakehouse using either Visual Queries or SQL queries, and imports the new View to the data model.

Scenario 5: Data Monitoring



Problem

- During a meeting, Alex's boss identifies months with emissions above prognosis values. Now, he tasks Alex with notifying him in future months when prognosis numbers are exceeded.



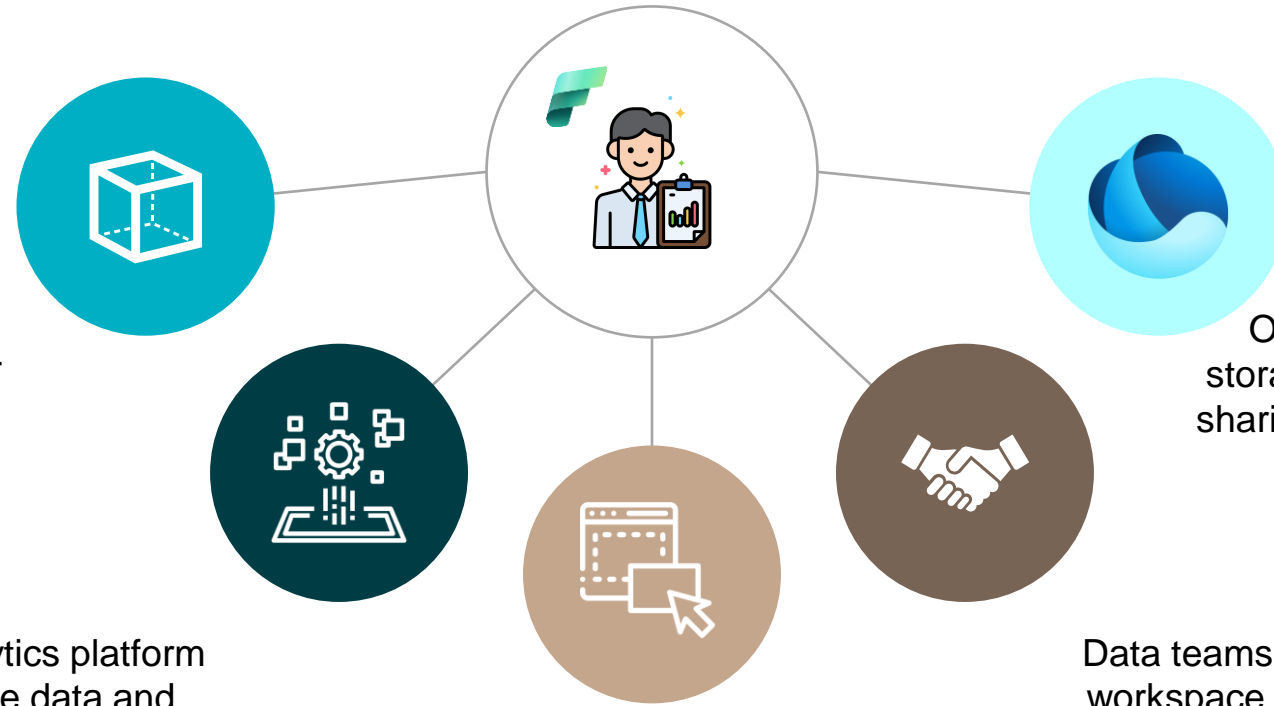
Solution

- Alex uses Microsoft Fabric and Data Activator to trigger an alert that will automatically be sent to his boss via e-mail whenever prognosis numbers are exceeded.

Wrap Up

Enable your inner architect

Microsoft Fabric benefits for the Data Analyst



Direct Lake

Query performance on a par with Import mode, with the real-time nature of DirectQuery

End-to-end solution

A complete, unified analytics platform that brings together all the data and analytics tools you need

Easy to Use SaaS solution

User-friendly interface mirroring the well-known Power BI Service experience

OneLake: OneDrive for data

OneLake provides a single, unified storage system, where discovery and sharing of data of any format between users and applications is easy

Collaboration

Data teams can collaborate in a single workspace, on the same copy of data, with centralized administration, governance, and compliance tools

Leading people – leading business

INSPARI



Thank you

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