Power BI - Will too many cooks spoil the broth?

Who am I?

- Norway
- Master in Marine Technology
  - Control systems
- Started in Capgemini fall 2019
- Azure, Power BI, Data catalog

When not geeking

- Love the outdoors
  - Trad climbing and skiing

/marthemoengen

@mmoengen

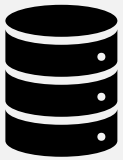
Power BI - Will too many cooks spoil the broth?

Power BI - Will too many cooks spoil the broth?

Make reports

Overview of all KPIs

Deep dive into data



Load data from numerous sources

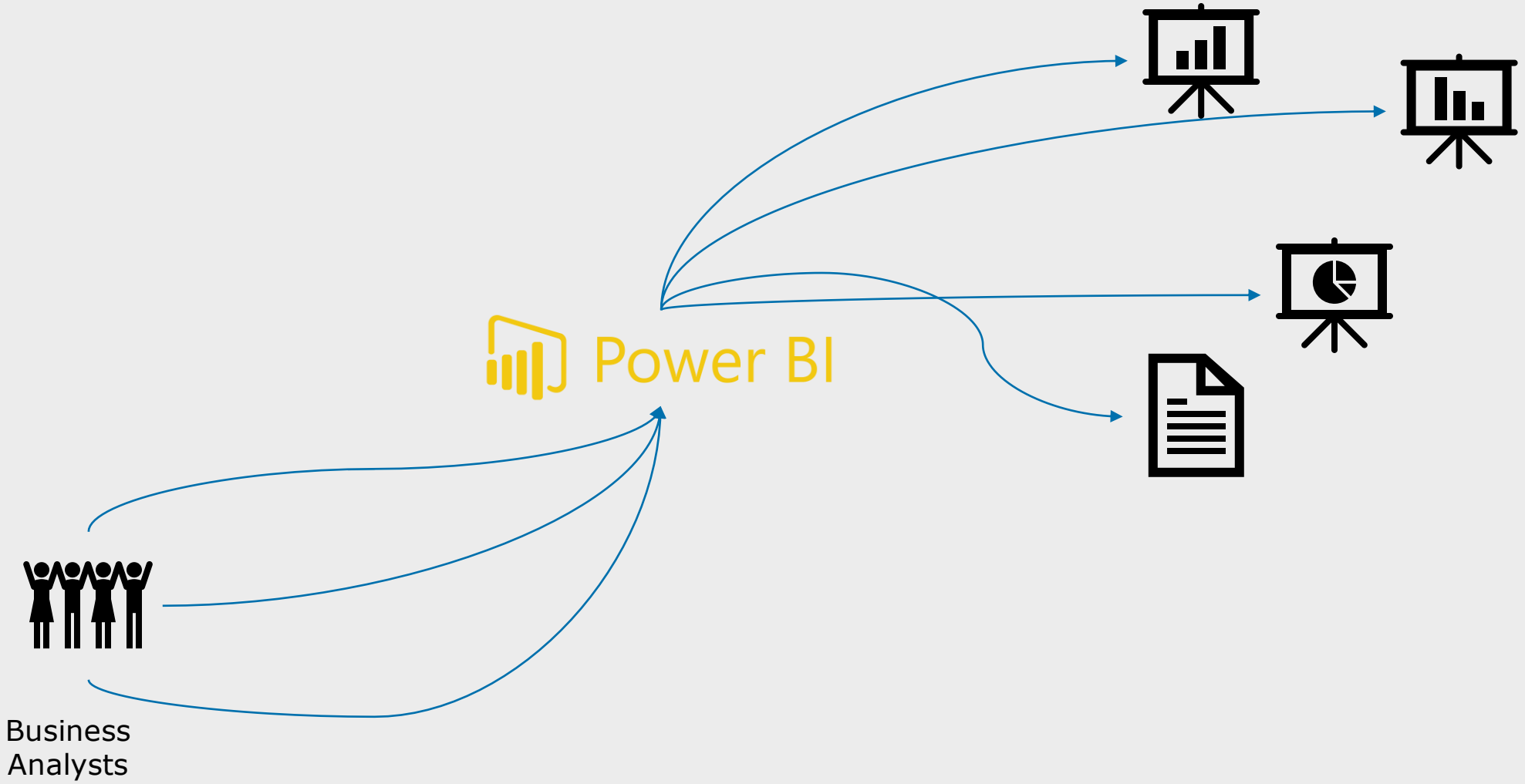
Build report in Power BI Desktop

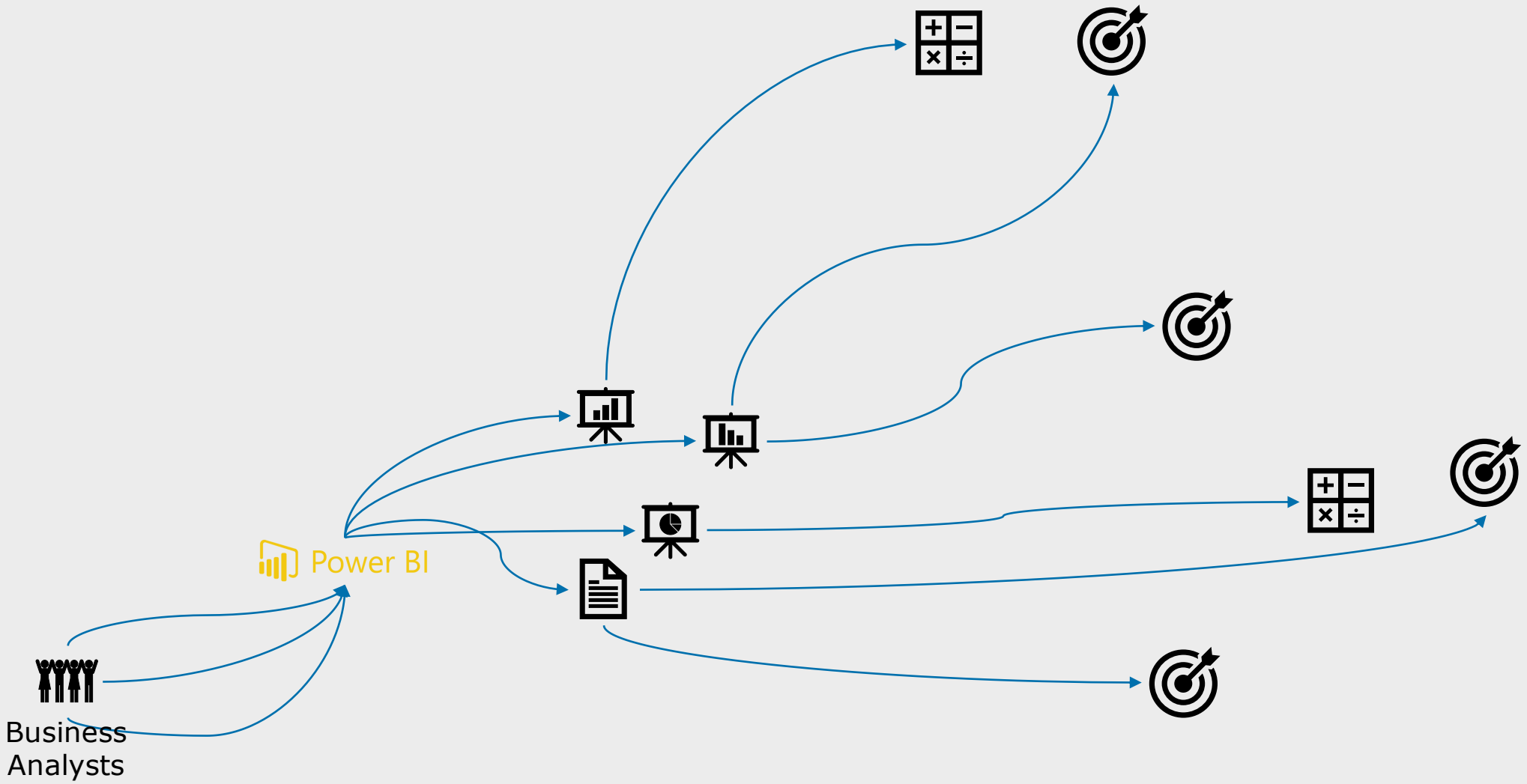
Share reports in Power BI Service

Power BI - Will too many cooks spoil the broth?

Large
Enterprise

Customer data


Power BI
Business
Analysts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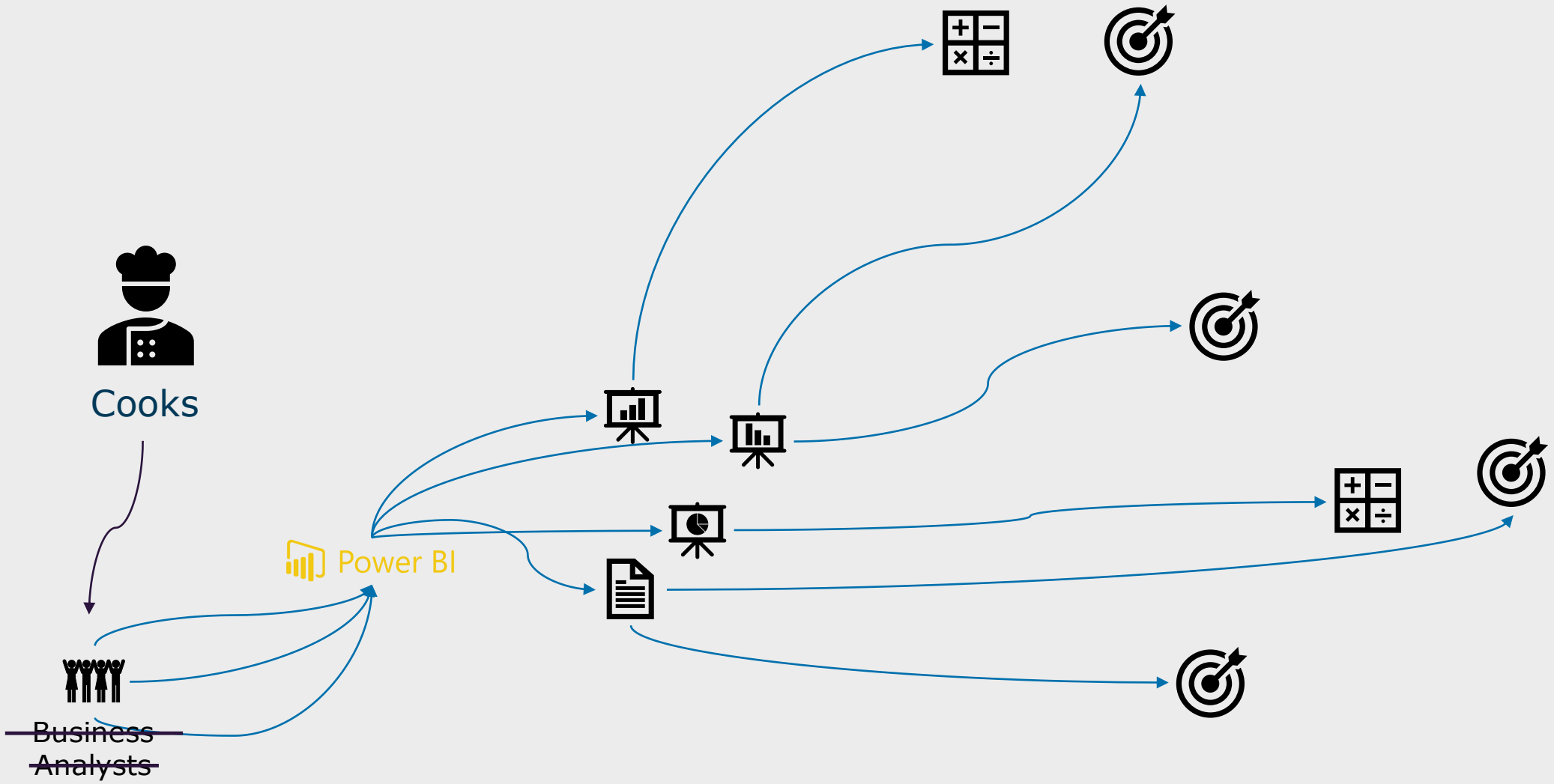

Cooks
Power BI
~~Business Analysts~~

Large Enterprise

Ensure standardization and harmonization of reporting across all brands for

KPIs

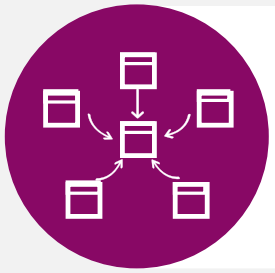
Reports

How do you do that?

Solution

How to ensure harmonization and standardization?

Three key components



Data Model:
Star schema modelled for each KEY-report

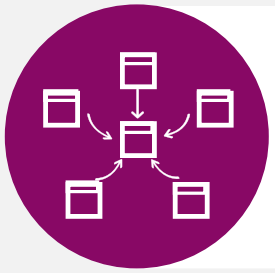
Power BI:
Standard Layout and Shared Datasets

Data Catalog:
Documentation on measures and KPIs

Data Model



Theory
Practice



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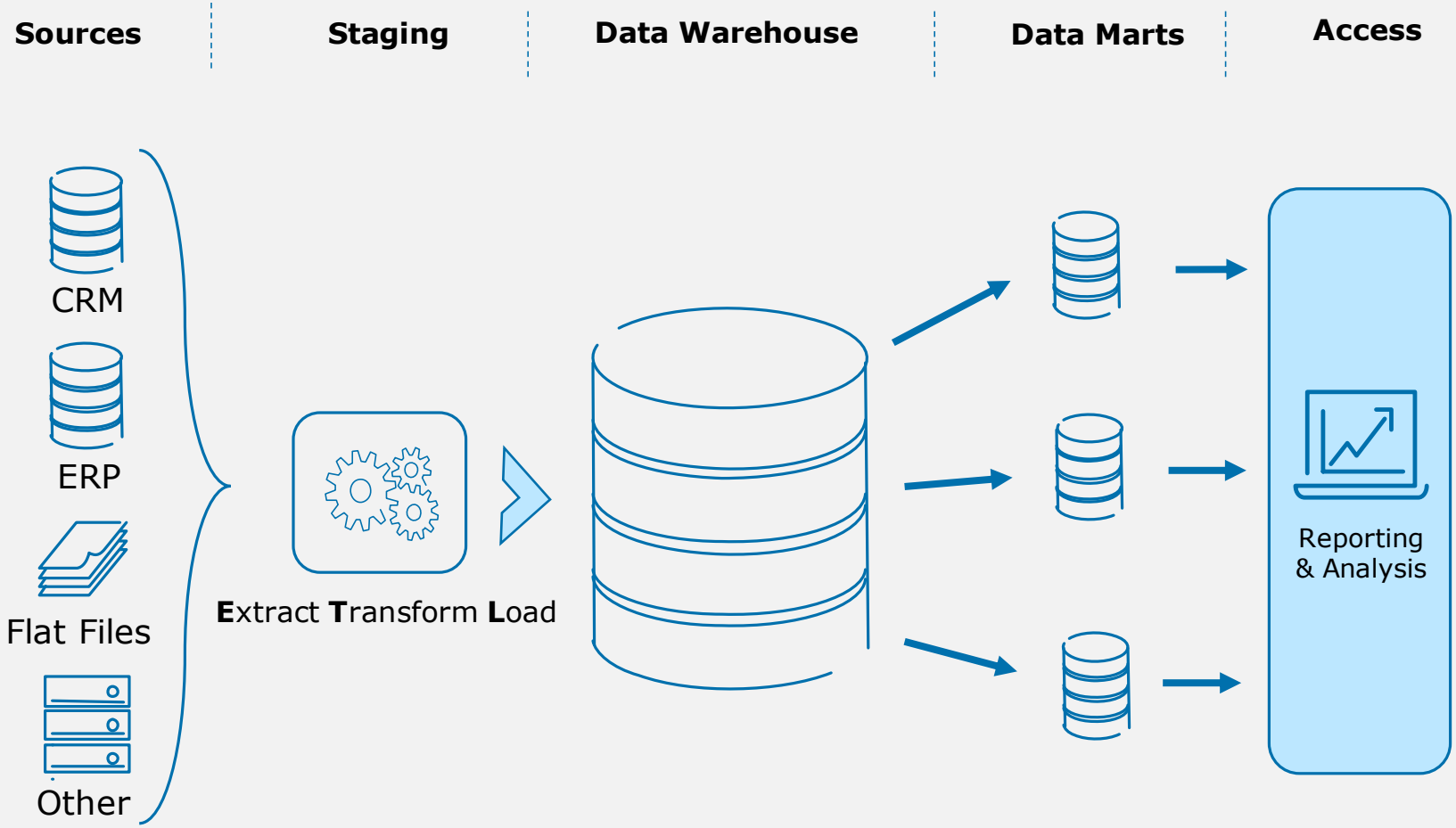
Data Model

Theory
Practice

What is a data model?

- Organizes elements of data
- Standardizes how they relate to one another
- Two architecture schools:
  - Inmon
    - Normalized



Data Model

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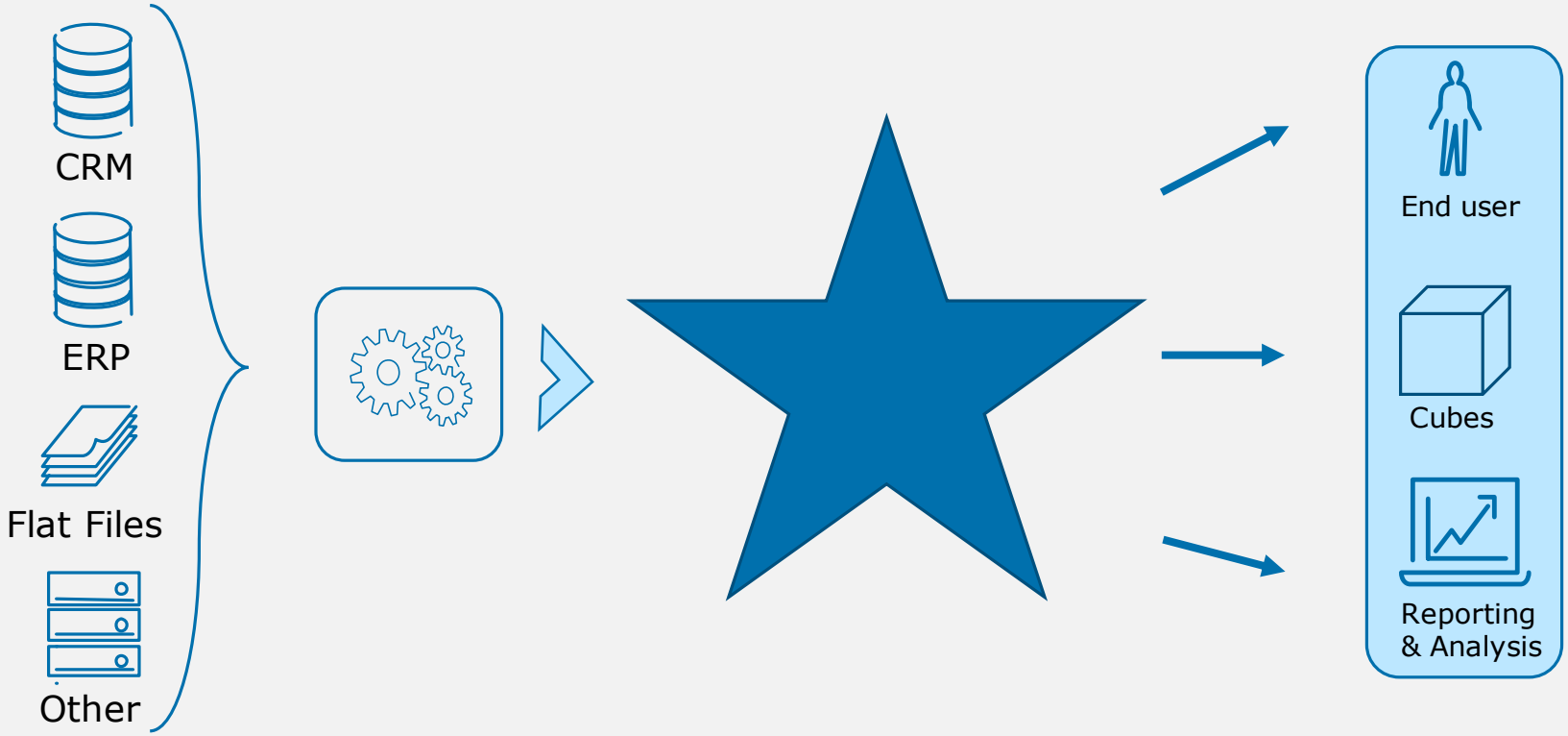

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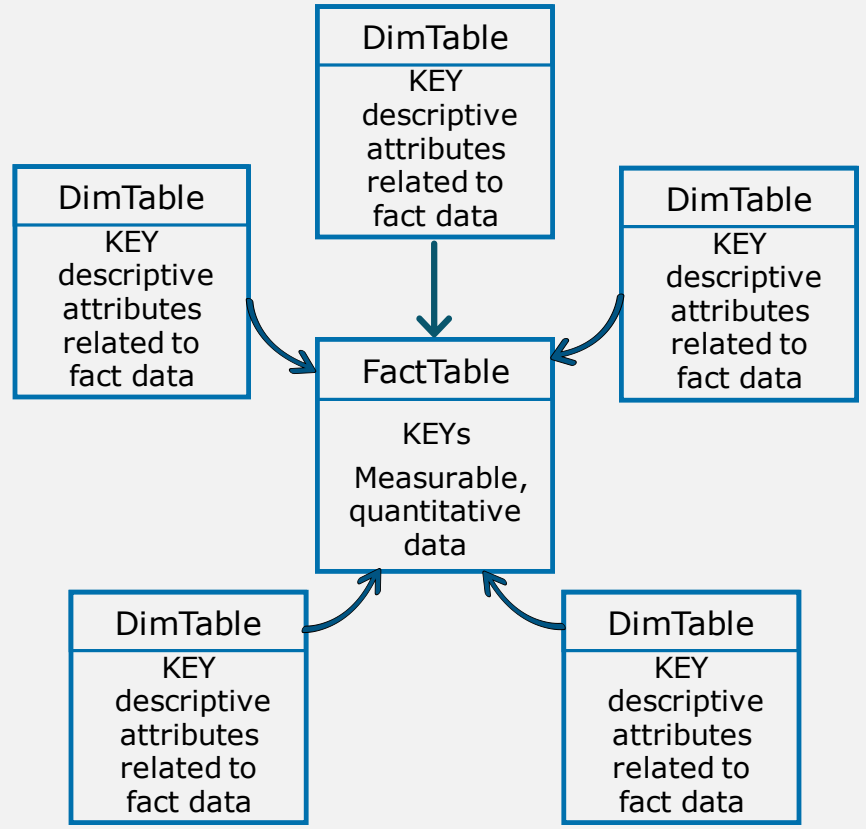
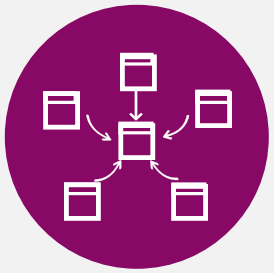
Star Schema

- Data mart schema
- Separate business process data into
  - Facts
  - Dimensions





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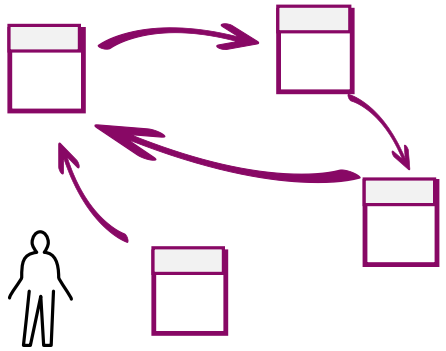
Why is it important?

- Higher quality
- Reduce complexity
- Improved collaboration
- Important in **Power BI**

Data Model

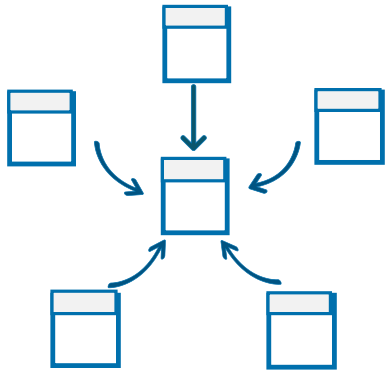
Theory
Practice

CHALLENGE



- Data models **not tailored for their needs**

SOLUTION



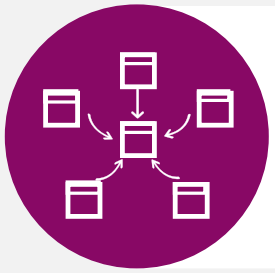
- Develop a **star schema**
- **Designed** for each reporting need
- Move **measures and filtering options to the data model**

RESULT

- Manually labor and human errors are **removed**
- **Holistic solution**

How to ensure harmonization and standardization?

Three key components



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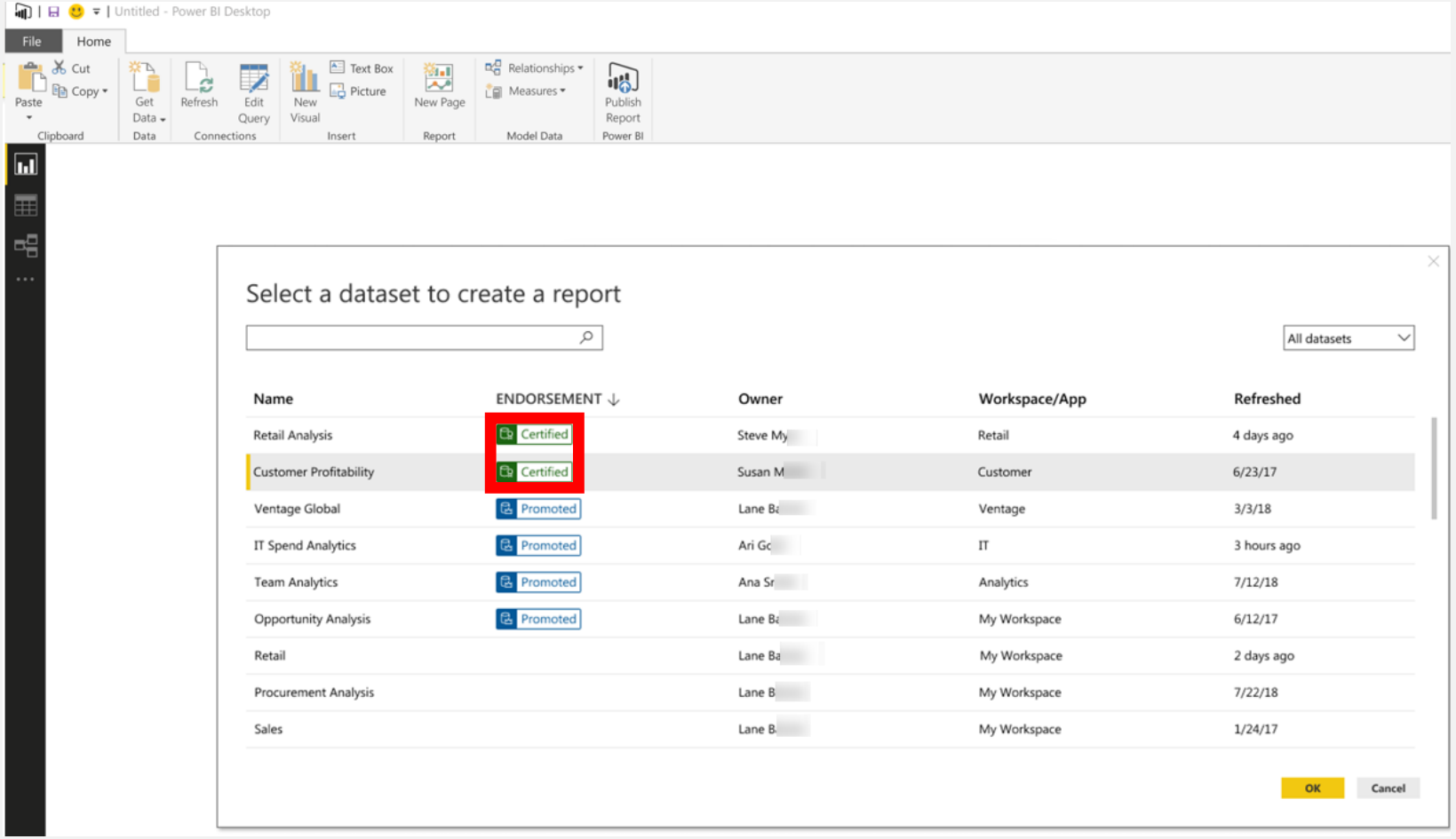
Power BI

Theory
Practice

Shared datasets

- Make measures available the way you designed them
- Certify datasets
- Enable non-technical users of Power BI
  - Do not need to think about the data model



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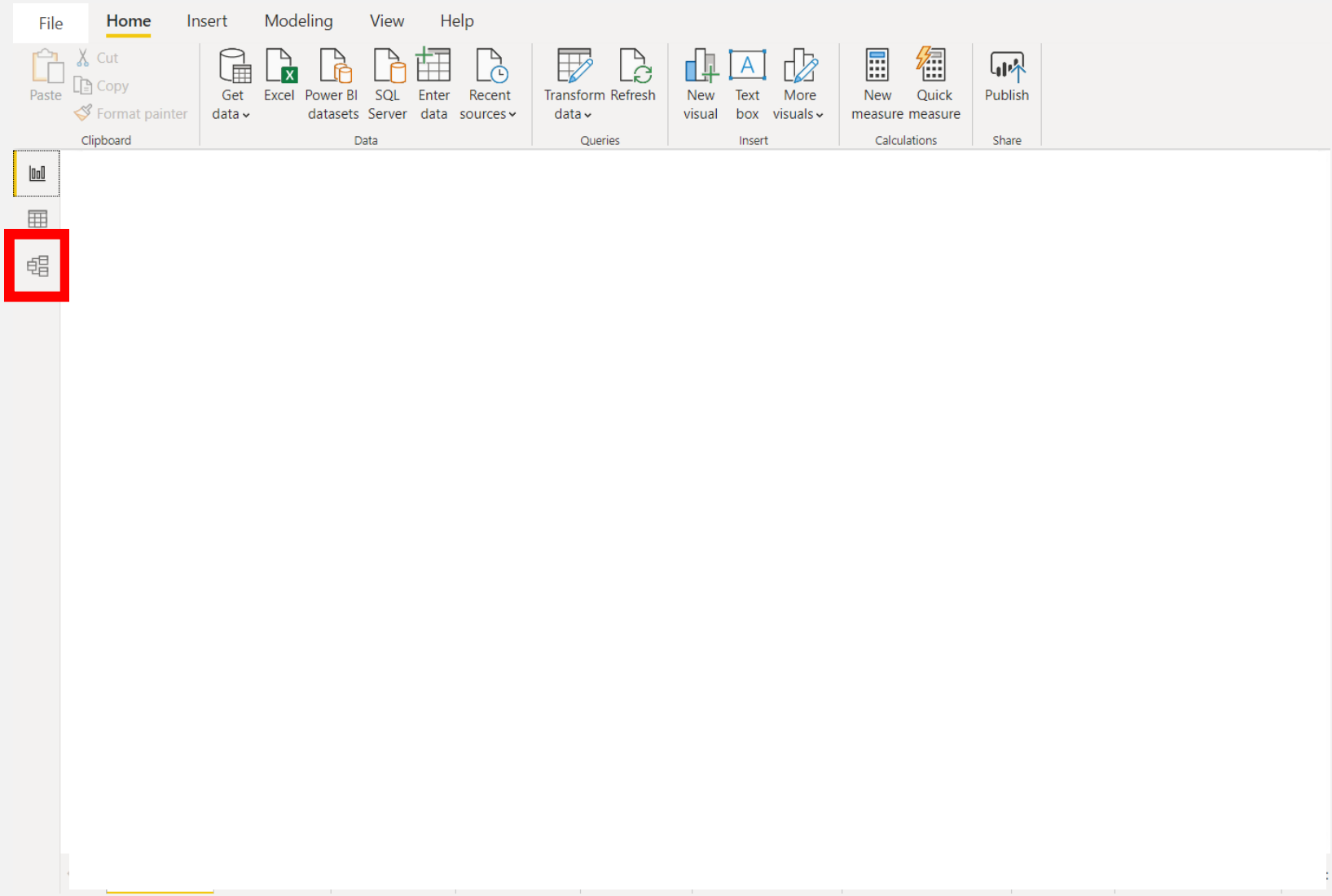

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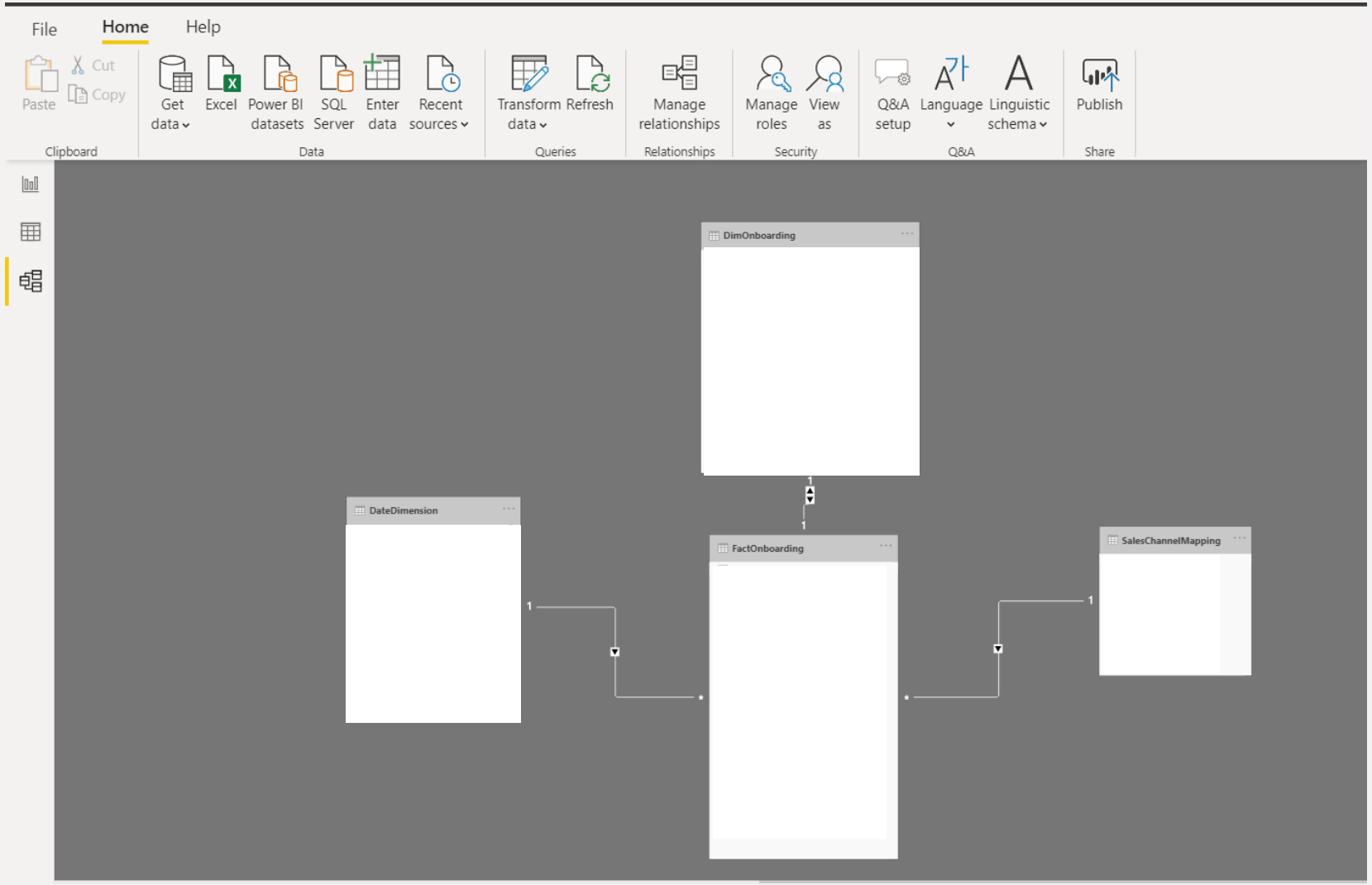

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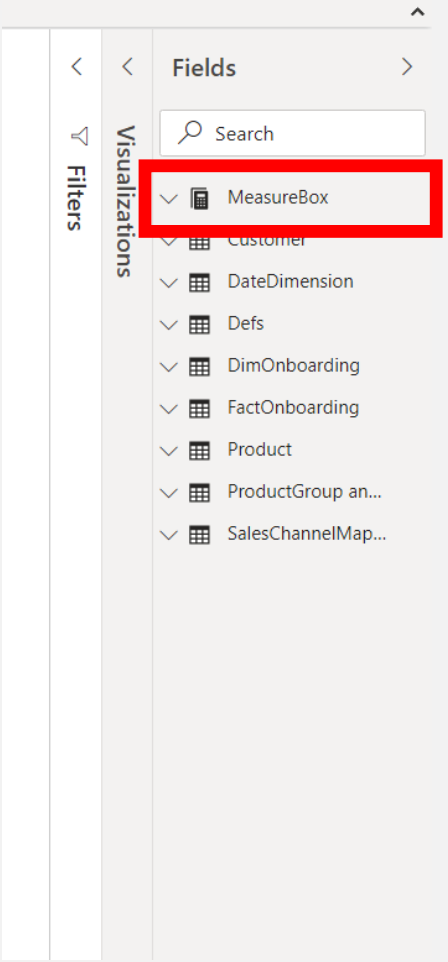
Want to know more?

YouTube NO

Guy in a Cube
126k abonnenter



Power BI



Theory
Practice

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Standardize layout

- Make a set of rules to follow
  - Filtering options
  - Semantic meaning to colors
- Display data in the same way
- Comparable
- Remove noise
- Template PBI file
  - Correct theme
  - Desired layout rules

Power BI

Theory
Practice

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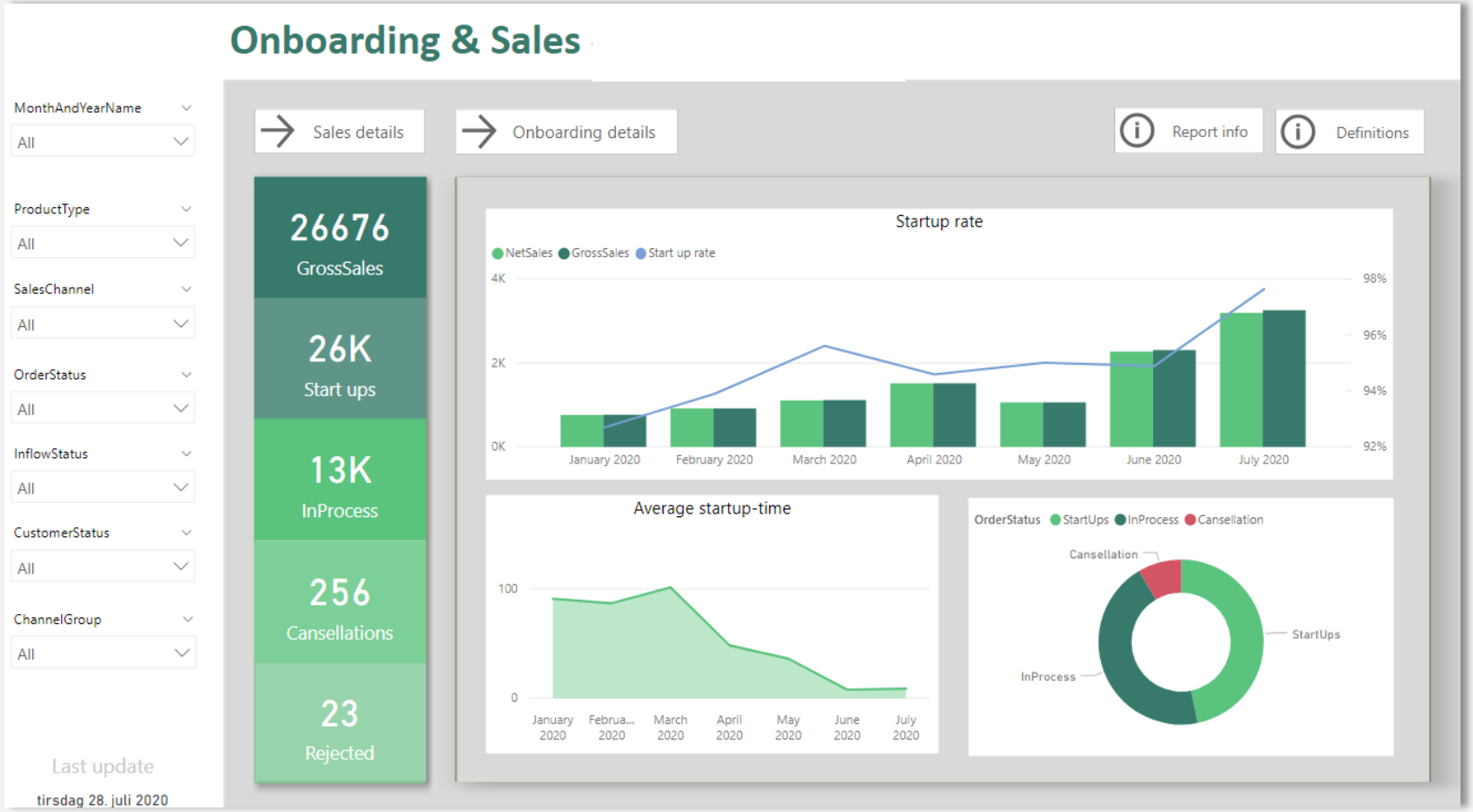
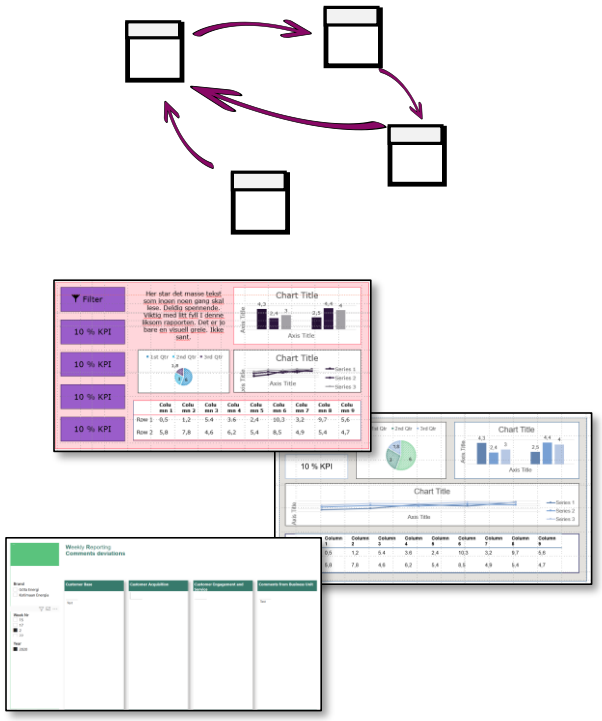


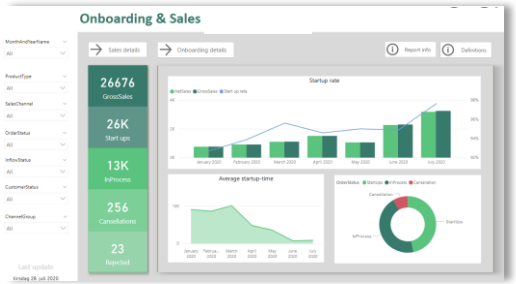
Power BI

Theory
Practice

CHALLENGE



SOLUTION



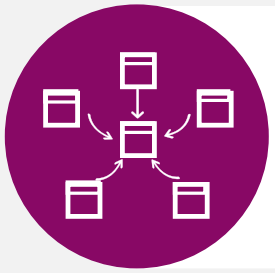
- Defining **layout rules**
- **Shared datasets**

RESULT

- Improved **readability**
- Removed **error sources**
- Enable **standardization**

How to ensure harmonization and standardization?

Three key components



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Data Catalog



Theory
Practice

Data Catalog:
Documentation on measures and KPIs

Data Catalog



Theory
Practice

What is a data catalog?

- Creates and maintains an inventory of data assets
- Provides context
- Help data consumers to find and understand relevant datasets

Key features

- Data Search
- Intelligent Population
- Data profiling
- Data Linage and Usage
- Data Recommendations
- Publish to popular targets
- User Collaboration and Crowdsourcing
- Business Glossary
- Rule Management
- Impact Analysis

Why do you need it?

- Realize twice the business value
- Through 2022, over 80% **data lake projects will fail to deliver value**
- ML to assist in finding and inventorying data

- Gartner

Demo

Data Catalog

Theory
Practice

CHALLENGE

- Azure Data Catalog
- **Missing systemized documentation** for reporting
- **Difficult** to govern

SOLUTION

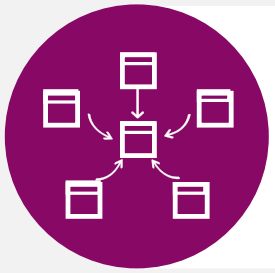
- **Alation** with tools as
  - Articles
  - Tags
  - Catalog sets
  - Stewardship dashboard

RESULT

- **Transparent** reporting solution
- **Centralized** command and control.
- **Enables** business users

How to ensure harmonization and standardization?

Three key components



Data Model:
Star schema modelled for each KEY-report

Removes sources of errors as definitions and measures are moved to the data model

Power BI:
Standard Layout and Shared Datasets

Promotes user-friendliness

Data Catalog:
Documentation on measures and KPIs

Accessible and transparent information on definitions and measures

Power BI - Will too many cooks spoil the broth?

Thank you!

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