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Microsoft MVP
Most Valuable Professional

Microsoft
FastTrack Recognized
Solution Architect
Power BI
2022 >>

Microsoft
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Data Platform
2018 >>

Agenda

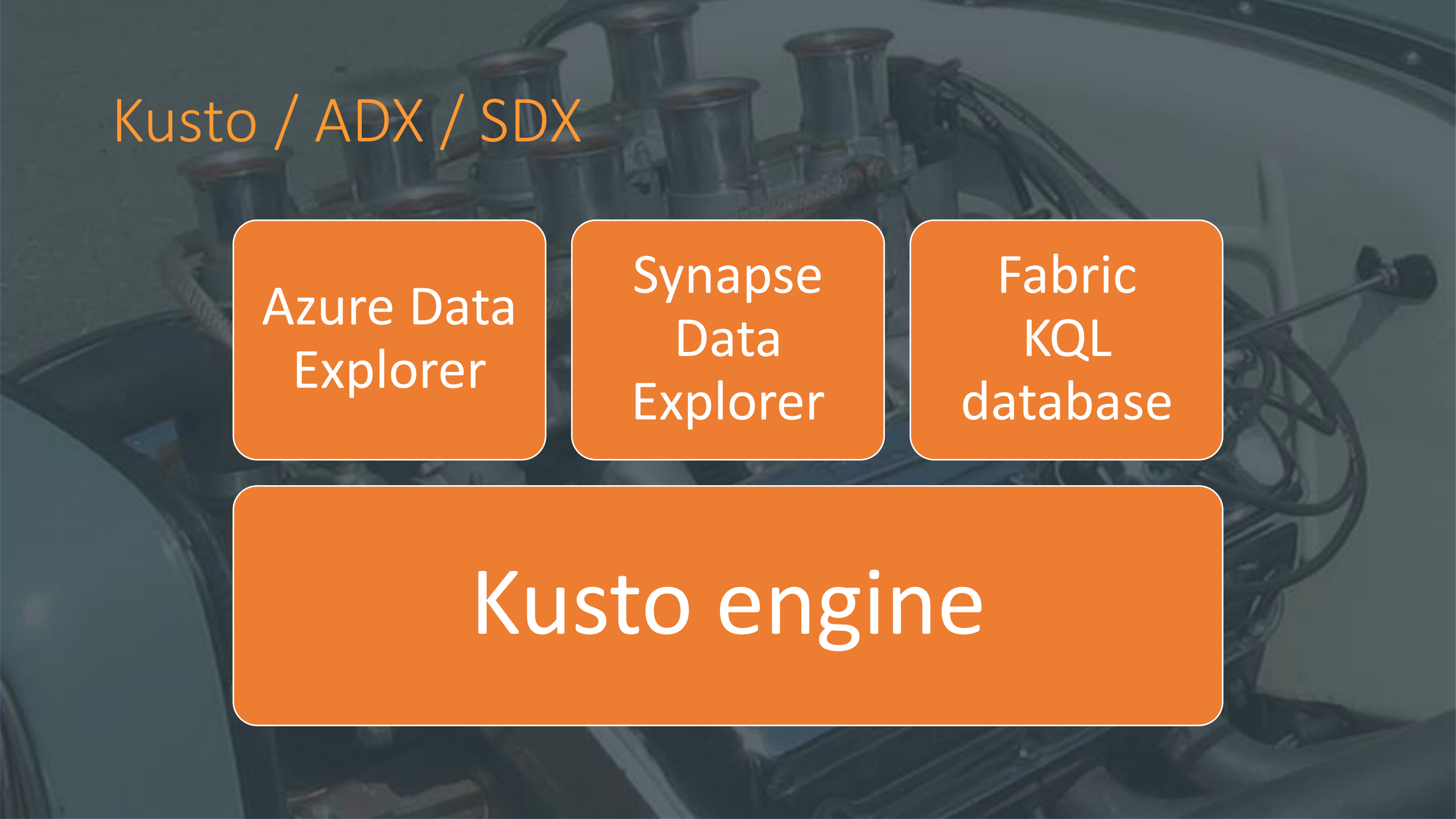
The Kusto engine

Data modelling in Power BI

Runthrough of the Fabric Kusto

Demo

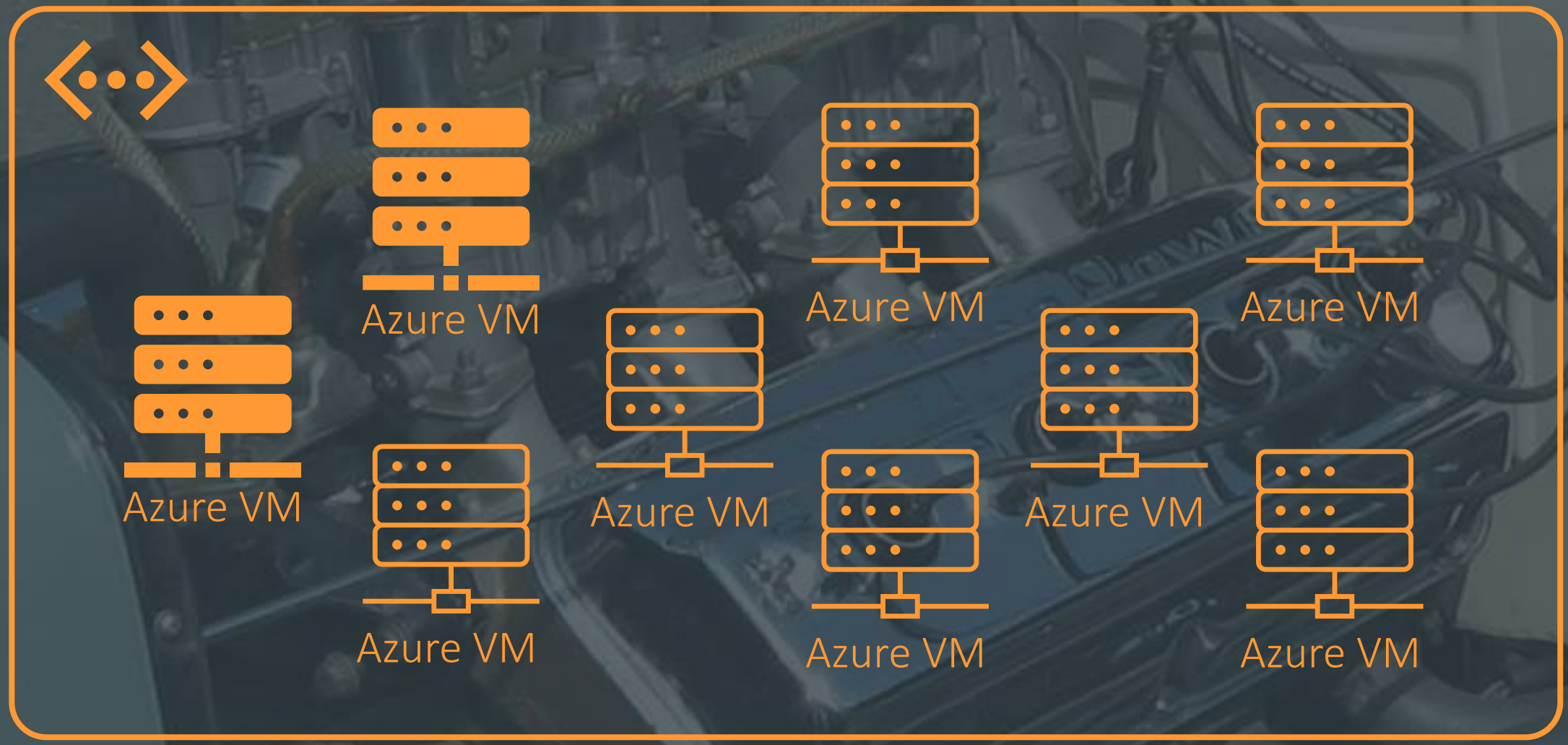
Kusto / ADX / SDX



Kusto / ADX / SDX

- Distributed engine on several disks (SSD or spinning)
- Columnar storage → read only needed columns and not all data
- Clusters are Azure VMs → highly parallel
  - For Fabric we don’t know yet
- Read-only, delete rarely and no updates
- Fast ingestion → no consistency checks

Kusto / ADX / SDX



Kusto / ADX / SDX

Admin node:
responsible for maintaining the overall cluster metadata

Query Head:
Responsible for accepting and processing Kusto query, when you see, Kusto engine or Kusto query planer, usually refer to query head node.

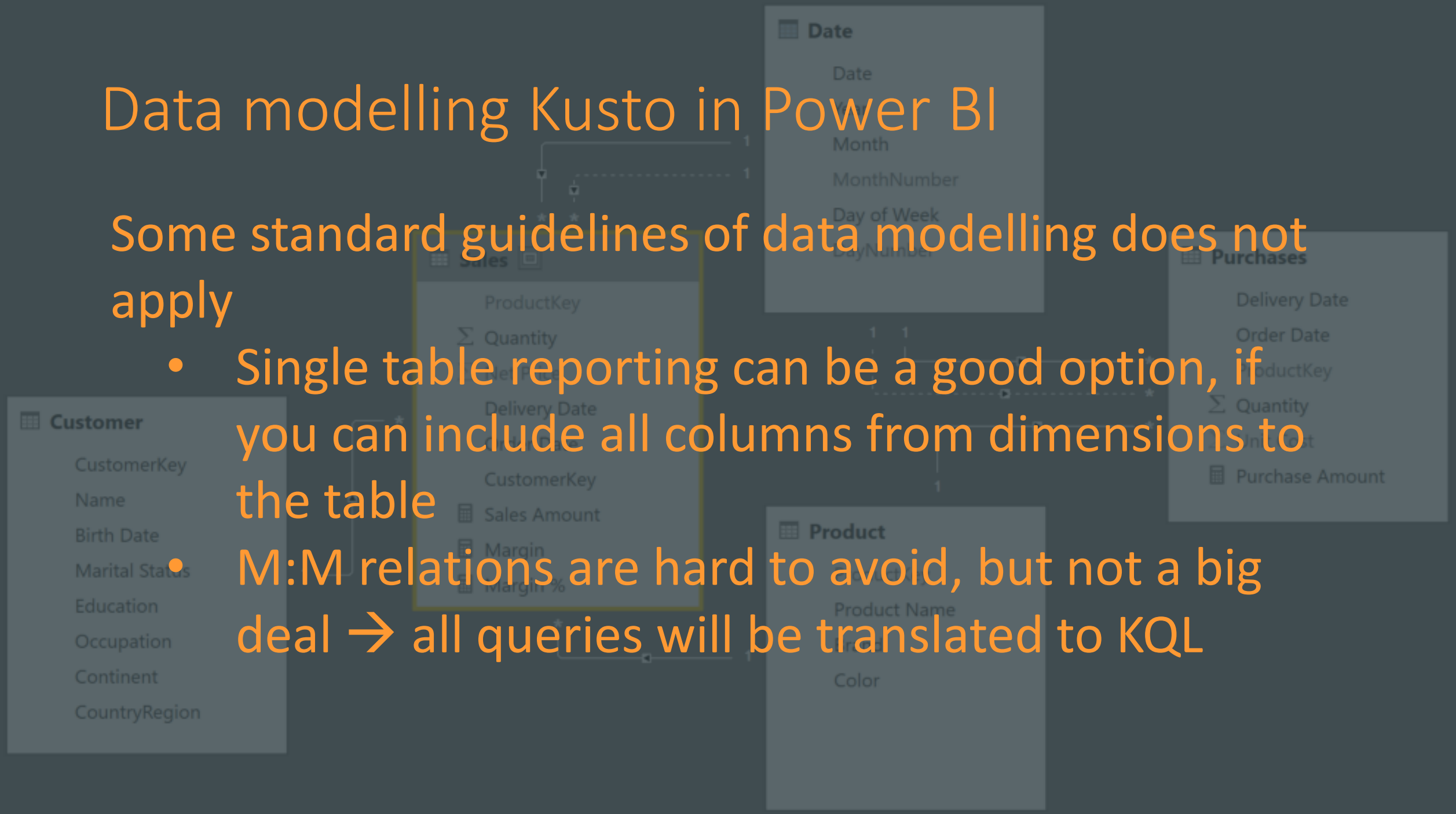
Data Node:
The most common role, like its name indicates, this node is responsible for: first. storing data; second. contribute the CPU and memory when executing the Kusto query.

Gateway Node:
Responsible for processing external API calls, authentication, and request dispatches.

Data modelling Kusto in Power BI

Some standard guidelines of data modelling does not apply

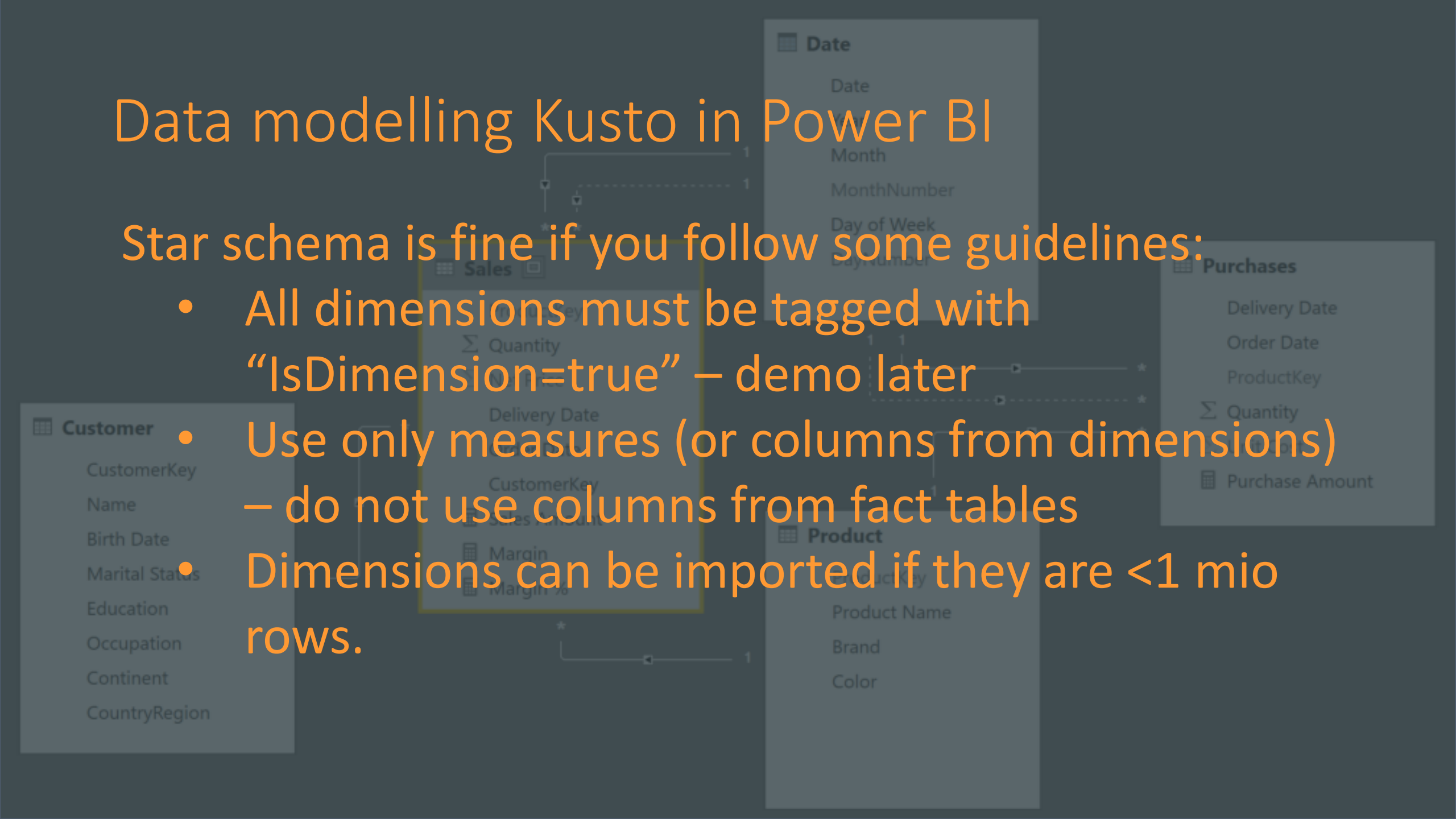
- Single table reporting can be a good option, if you can include all columns from dimensions to the table
- M:M relations are hard to avoid, but not a big deal → all queries will be translated to KQL



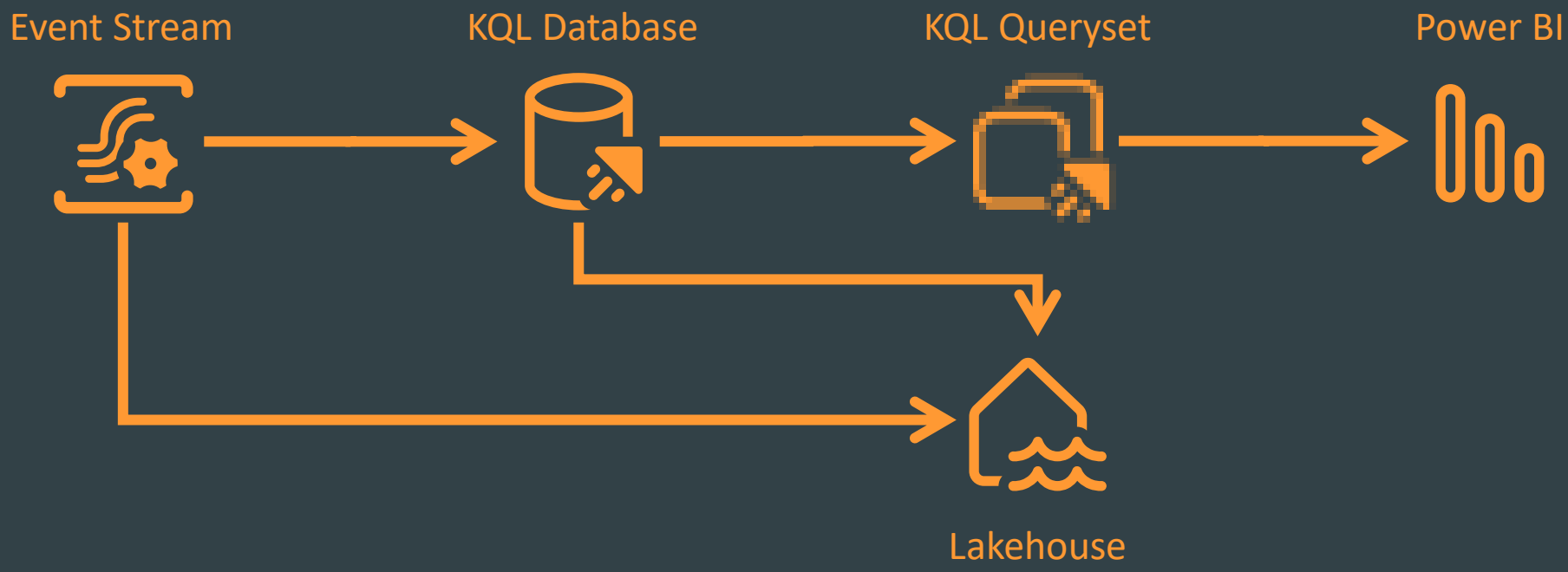
Data modelling Kusto in Power BI

Star schema is fine if you follow some guidelines:

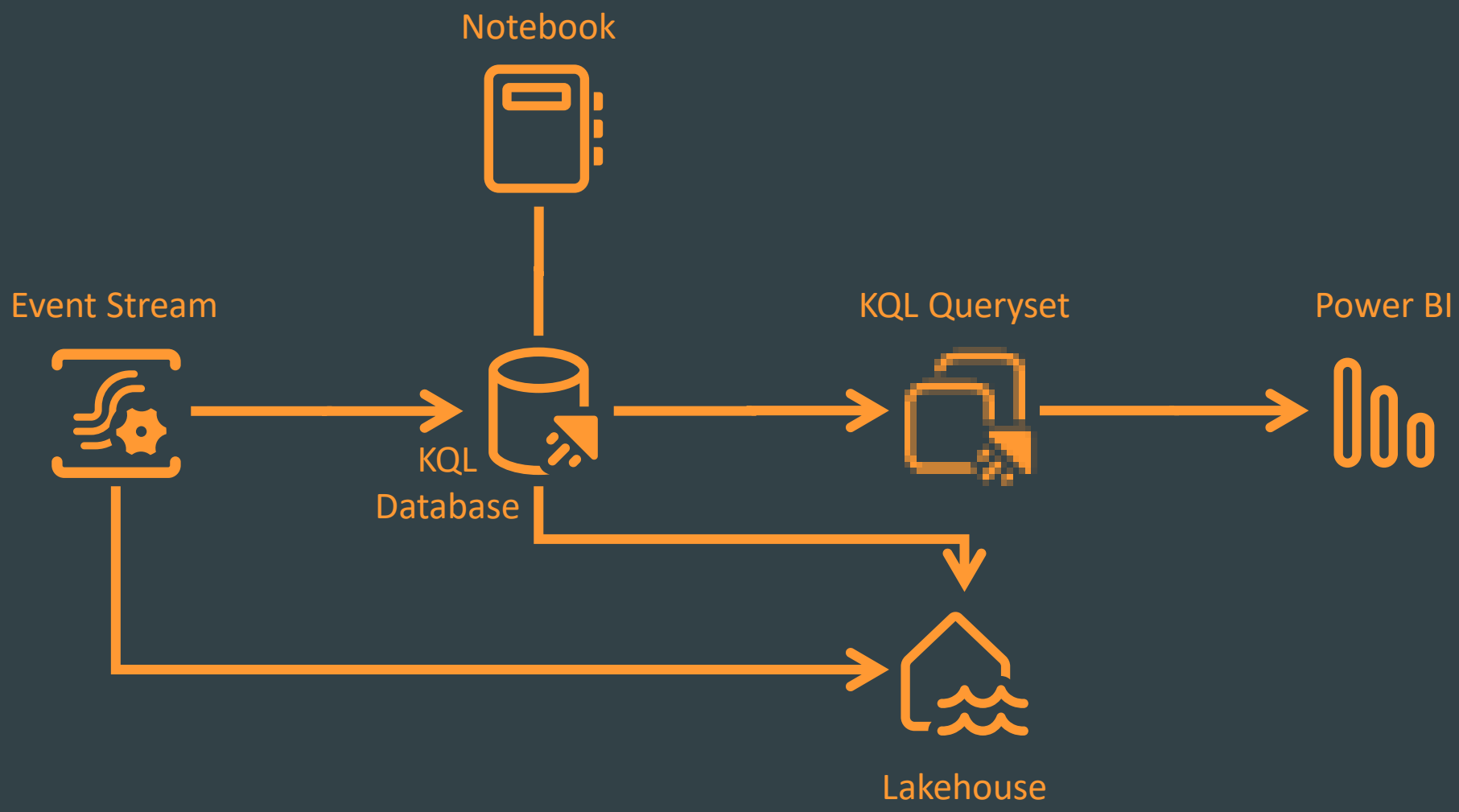
- All dimensions must be tagged with “IsDimension=true” – demo later
- Use only measures (or columns from dimensions) – do not use columns from fact tables
- Dimensions can be imported if they are <1 mio rows.



Kusto in Fabric – aka Real-Time Analytics



Kusto in Fabric – aka Real-Time Analytics



Kusto in Fabric – aka Real-Time Analytics

Kusto experience in Fabric

DEMO

Live coding
(hopefully no demo-ghost )

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