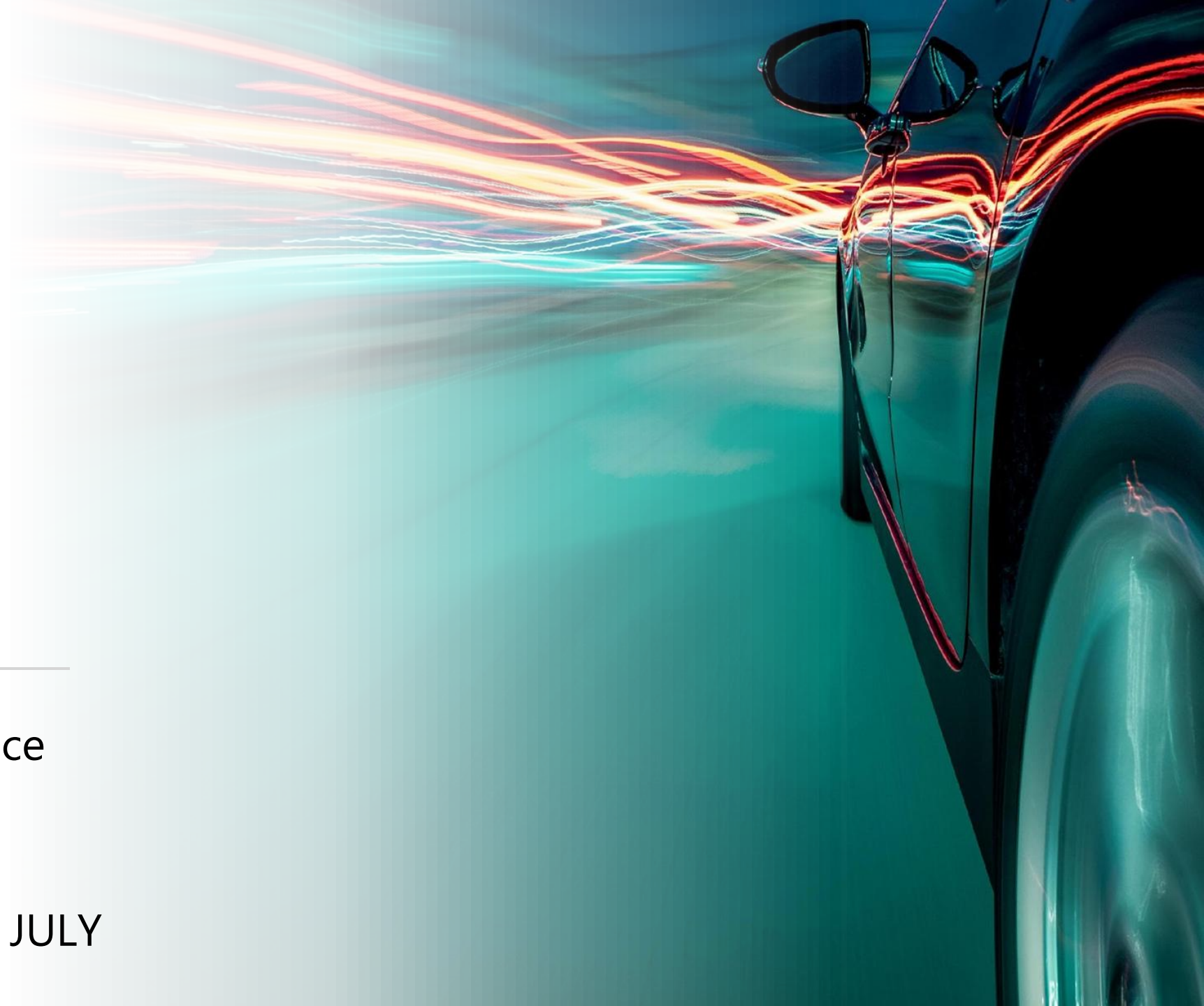


Done in 60 seconds

Intelligent Time Intelligence

DATA TOBOGGAN 12th of JULY

EIVIND HAUGEN

twoday

Lead Consultant

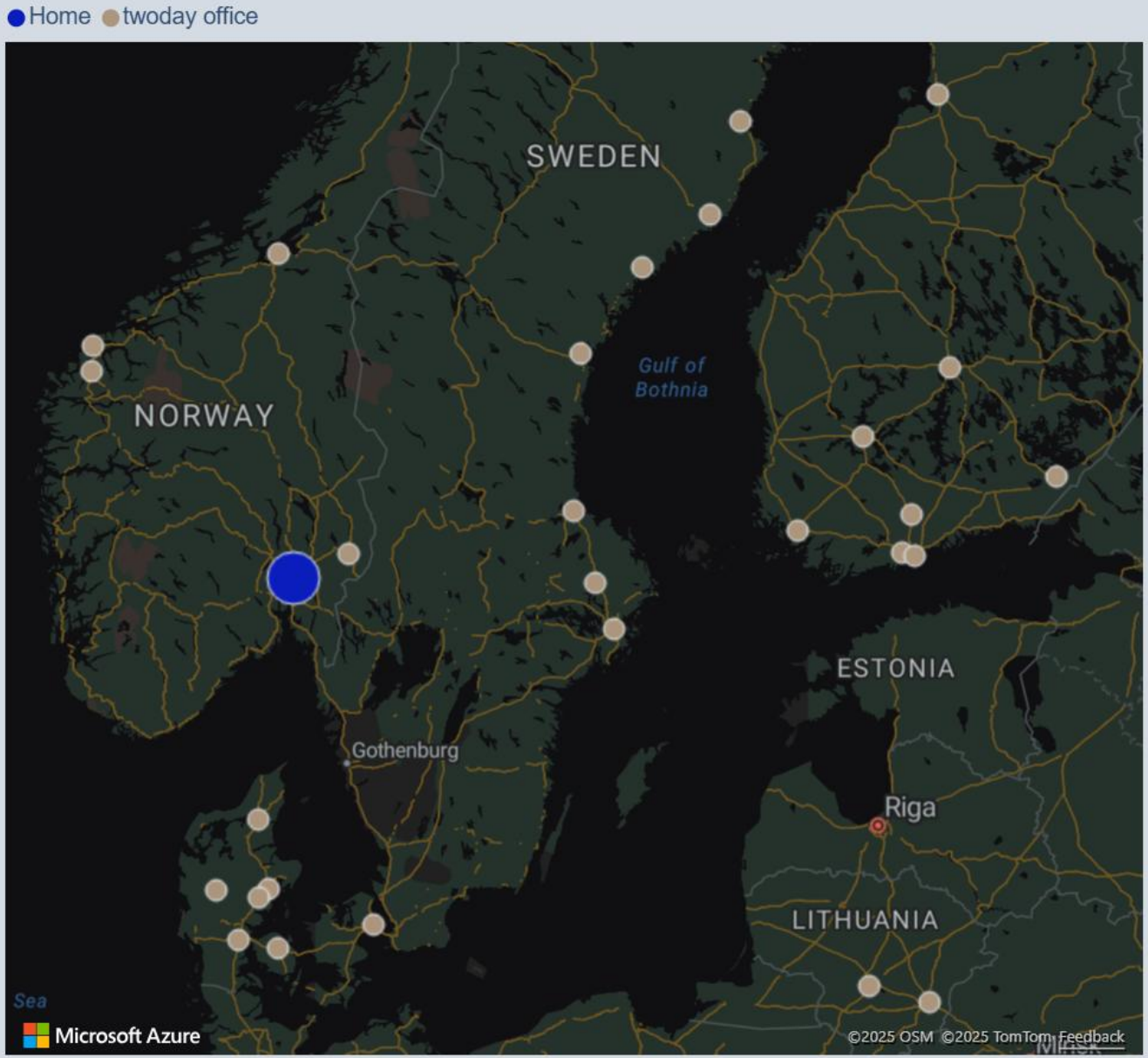
Data and AI

eivind-haugen-43821063

@EivindH4

@eivind4.bsky.social

/Eivind4/DoneIn60seconds



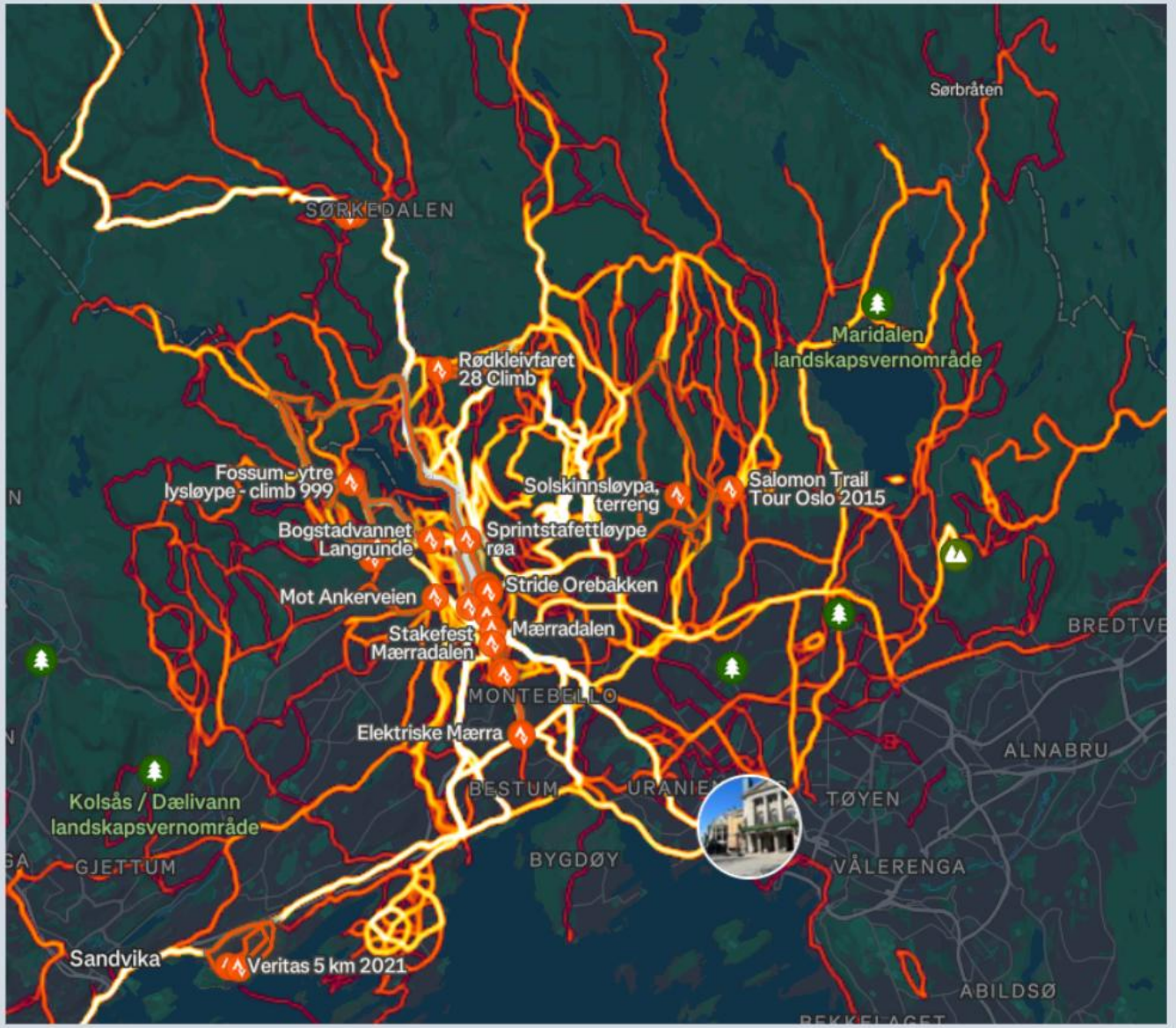
EIVIND HAUGEN

twoday

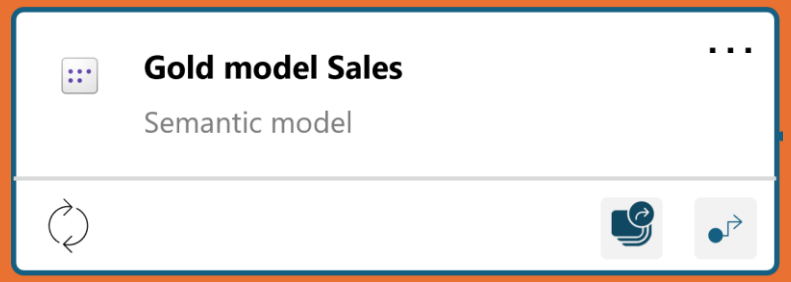
Lead Consultant

Data and AI

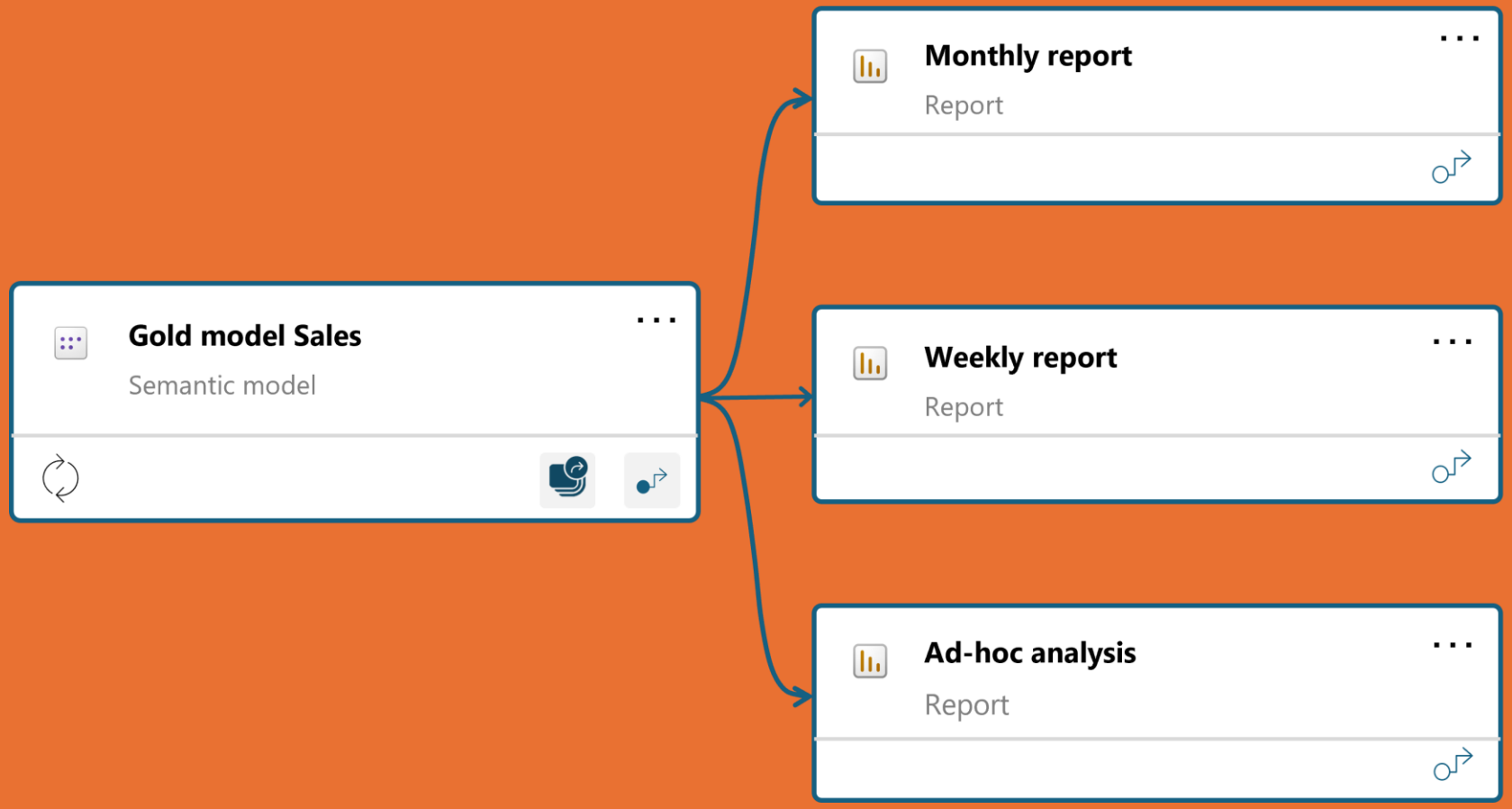
athletes/6500291



MODEL



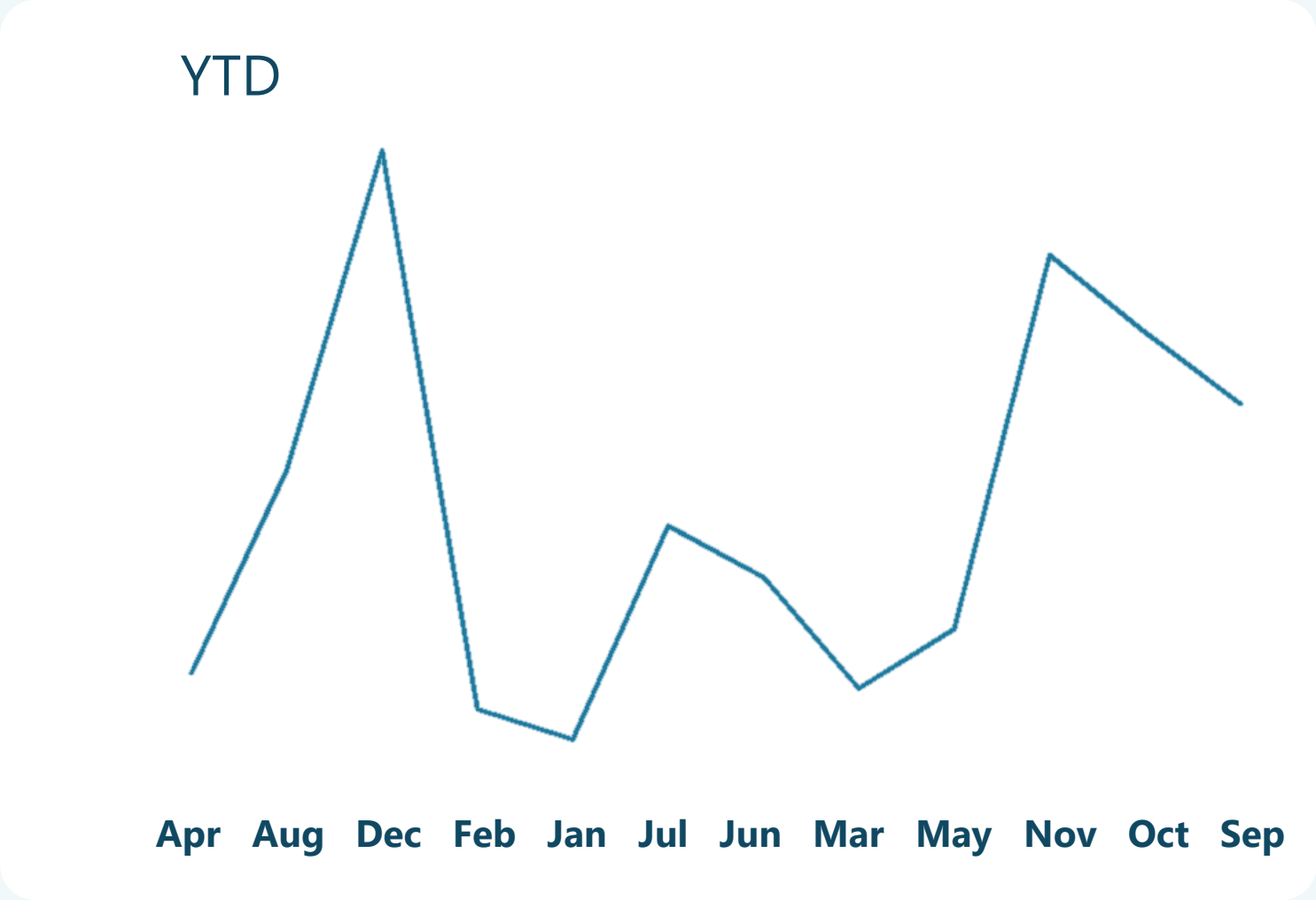
REPORT REQUIREMENTS



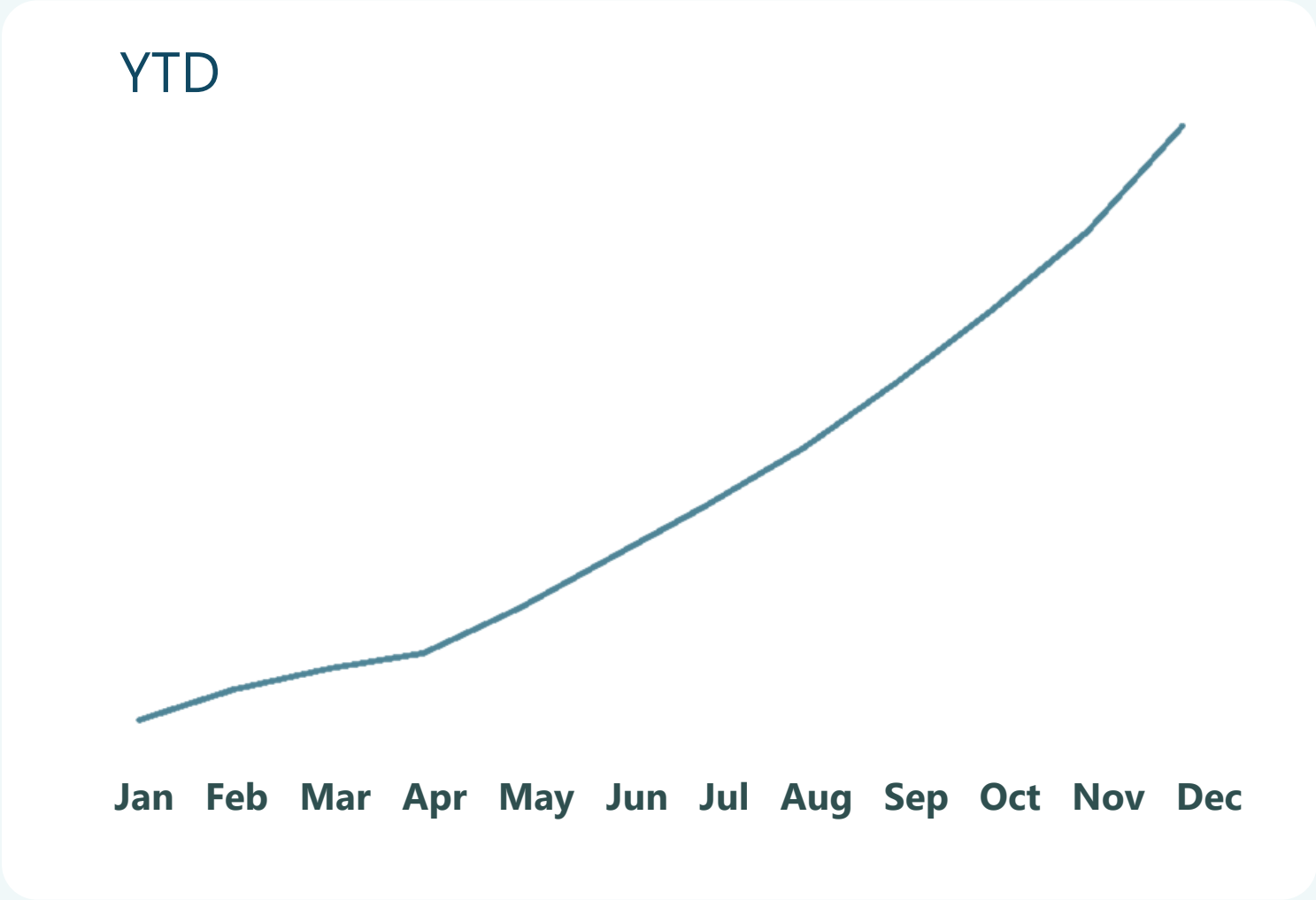
1. FORMAT DATE-TABLE

Year	Quarter	is_History	Date	Year Quarter	Year Quarter Number	Year Month	Year Month Short	Year Month Number	Month
2025	Q1	True	01/01/2025	Q1-2025	8101	January 2025	Jan 2025	24301	January
2025	Q1	True	01/02/2025	Q1-2025	8101	January 2025	Jan 2025	24301	January
2025	Q1	True	01/03/2025	Q1-2025	8101	January 2025	Jan 2025	24301	January
2025	Q1	True	01/04/2025	Q1-2025	8101	January 2025	Jan 2025	24301	January
2025	Q1	True	01/05/2025	Q1-2025	8101	January 2025	Jan 2025	24301	January
2025	Q1	True	01/06/2025	Q1-2025	8101	January 2025	Jan 2025	24301	January
2025	Q1	True	01/07/2025	Q1-2025	8101	January 2025	Jan 2025	24301	January
2025	Q1	True	01/08/2025	Q1-2025	8101	January 2025	Jan 2025	24301	January
2025	Q1	True	01/09/2025	Q1-2025	8101	January 2025	Jan 2025	24301	January
2025	Q1	True	01/10/2025	Q1-2025	8101	January 2025	Jan 2025	24301	January
2025	Q1	True	01/11/2025	Q1-2025	8101	January 2025	Jan 2025	24301	January
2025	Q1	True	01/12/2025	Q1-2025	8101	January 2025	Jan 2025	24301	January
2025	Q1	True	01/13/2025	Q1-2025	8101	January 2025	Jan 2025	24301	January
2025	Q1	True	01/14/2025	Q1-2025	8101	January 2025	Jan 2025	24301	January
2025	Q1	True	01/15/2025	Q1-2025	8101	January 2025	Jan 2025	24301	January
2025	Q1	True	01/16/2025	Q1-2025	8101	January 2025	Jan 2025	24301	January
2025	Q1	True	01/17/2025	Q1-2025	8101	January 2025	Jan 2025	24301	January
2025	Q1	True	01/18/2025	Q1-2025	8101	January 2025	Jan 2025	24301	January
2025	Q1	True	01/19/2025	Q1-2025	8101	January 2025	Jan 2025	24301	January

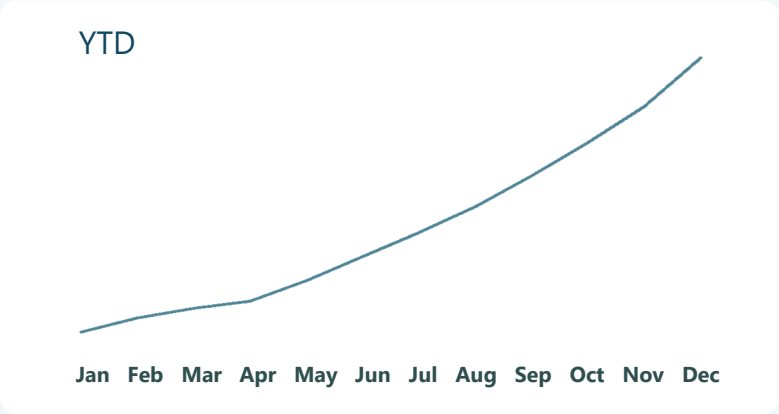
1. FORMAT DATE-TABLE



1. FORMAT DATE-TABLE

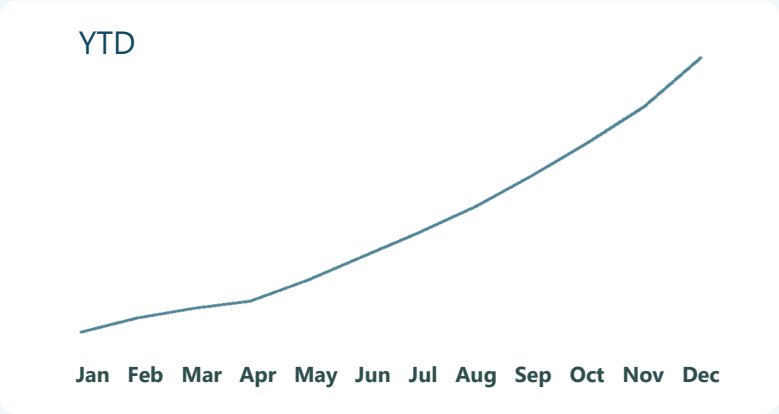


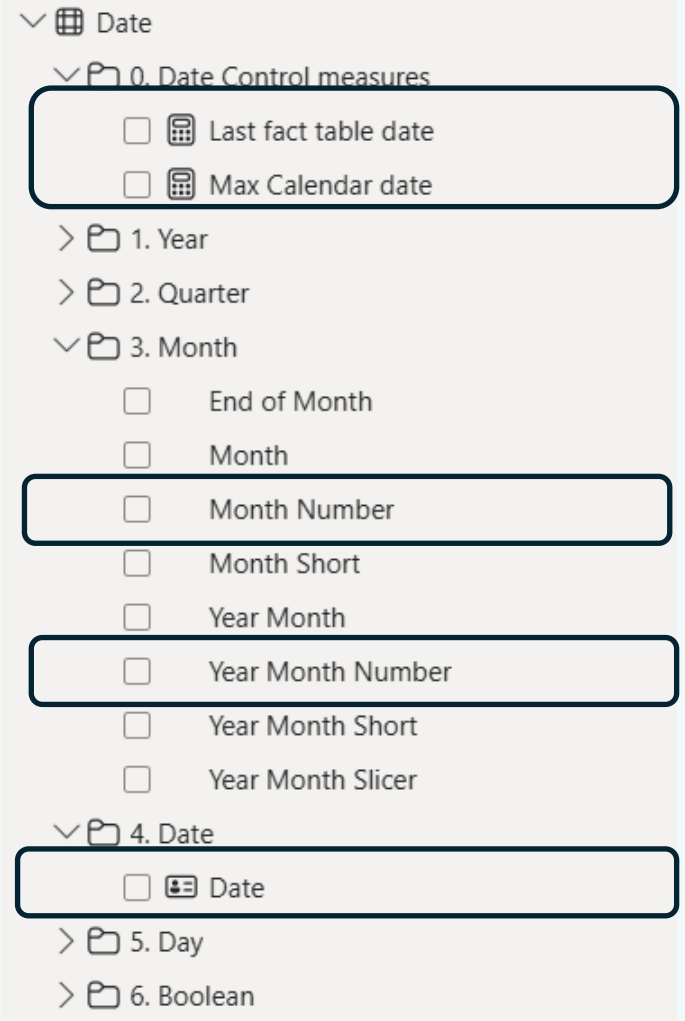
1. FORMAT DATE-TABLE



- Date
  - 0. Date Control measures
  - 1. Year
  - 2. Quarter
  - 3. Month
  - 4. Date
  - 5. Day
  - 6. Boolean

1. FORMAT DATE-TABLE





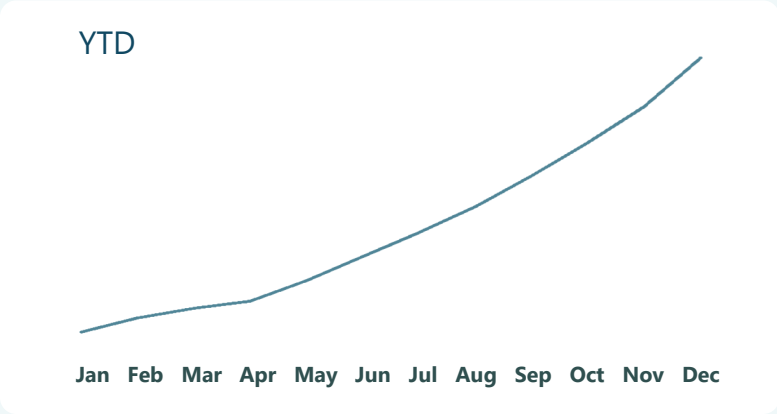
Last fact table date =

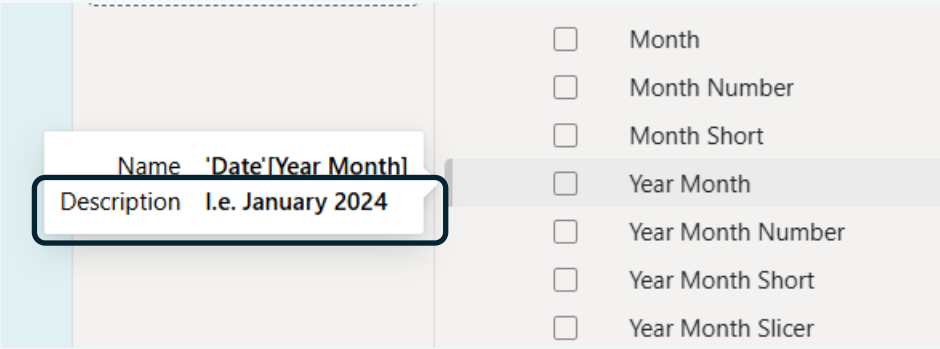
```
CALCULATE (
    MAX('Sales'[Order Date]),
    ALL ('Sales')
)
```

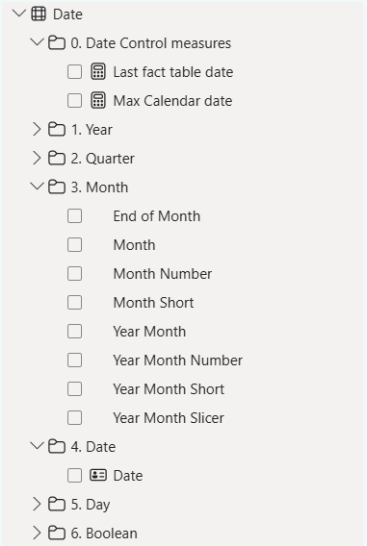
Do not summarize

Saturday, July 12, 2025 ?
Mark as Date-Table

1. FORMAT DATE-TABLE







2. TIME INTELLIGENCE

```
YTD =
CALCULATE(
        SELECTEDMEASURE(),
        DATESYTD('Date'[Date])
)
```

Ref: Standard time-related calculations – DAX Patterns

2. TIME INTELLIGENCE

```
YTD =
CALCULATE(
      SELECTEDMEASURE(),
      DATESYTD('Date'[Date])
)
```

```
YTD =
TOTALYTD(
                SELECTEDMEASURE(),
                'Date'[Date]
)
```

```
YTD =
CALCULATE(
    SELECTEDMEASURE(),
    'Date'[Year] = YEAR(MAX('Date'[Date])),
    'Date'[Date] <= MAX('Date'[Date])
)
```

```
YTD =
CALCULATE(
                SELECTEDMEASURE(),
                DATESBETWEEN(
                                'Date'[Date],
                                DATE(YEAR(MAX('Date'[Date])), 1, 1),
                                MAX('Date'[Date])
                )
 )
```

```
YTD =
VAR CurrentDate = MAX('Date'[Date])
VAR YearStart = DATE(YEAR(CurrentDate), 1, 1)
RETURN
CALCULATE(
    SELECTEDMEASURE(),
    FILTER(
        ALL('Date'),
        'Date'[Date] >= YearStart &&
        'Date'[Date] <= CurrentDate
    )
)
```

2. TIME INTELLIGENCE

R12M avg =

```
VAR _NumOfMonths = 12
VAR _LastCurrentDate =
    CALCULATE(
        MAX('Date'[Date]),
        CALCULATETABLE(
            VALUES('Date'[Date]),
            'Date'[is_History] = 1
        )
    )

VAR _Period =
    DATESINPERIOD('Date'[Date], _LastCurrentDate, -_NumOfMonths, MONTH)

VAR _Result =
    CALCULATE(
        AVERAGEX(
            VALUES('Date'[Year month]),
            SELECTEDMEASURE()
        ),
        _Period
    )

VAR _firstDateInPeriod = MINX(_Period, 'Date'[Date])

RETURN
    IF(_firstDateInPeriod <= _LastCurrentDate, _Result)
```

Ref: Rolling 12 Months Average in DAX – SQLBI*

*Sligthly modified

Open – End of period =

```
VAR _EndDateVisual = MAX('Date'[Date])
VAR _Result =
    CALCULATE(
        SELECTEDMEASURE(),
        REMOVEFILTERS('Date'),
        'Sales'[Order Date] <= _EndDateVisual,
        'Sales'[Delivery Date] > _EndDateVisual
        ||
        ISBLANK('Sales'[Delivery Date])
    )
RETURN _Result
```

Ref:
https://www.youtube.com/watch?v=YL7H1Rqckb0

3. CREATE MEASURES

Sales YTD	Quantity YTD	Margin YTD	Margin % YTD
26,047,038	100,242	14,614,062	56.1%
Deviation: -7,907,895 -23.3%	Deviation: -24,956 -19.9%	Deviation: -4,396,841 -23.1%	Deviation: 0.1% 0.2%

3. CREATE MEASURES

Sales YTD	Quantity YTD	Margin YTD	Margin % YTD
26,047,038	100,242	14,614,062	56.1%
Deviation: -7,907,895 -23.3%	Deviation: -24,956 -19.9%	Deviation: -4,396,841 -23.1%	Deviation: 0.1% 0.2%

- Margin % YOYTD
- Margin % YOYTD %
- Margin % YTD
- Margin YOYTD
- Margin YOYTD %
- Margin YTD
- Quantity YOYTD
- Quantity YOYTD %
- Quantity YTD
- Sales YOYTD
- Sales YOYTD %
- Sales YTD

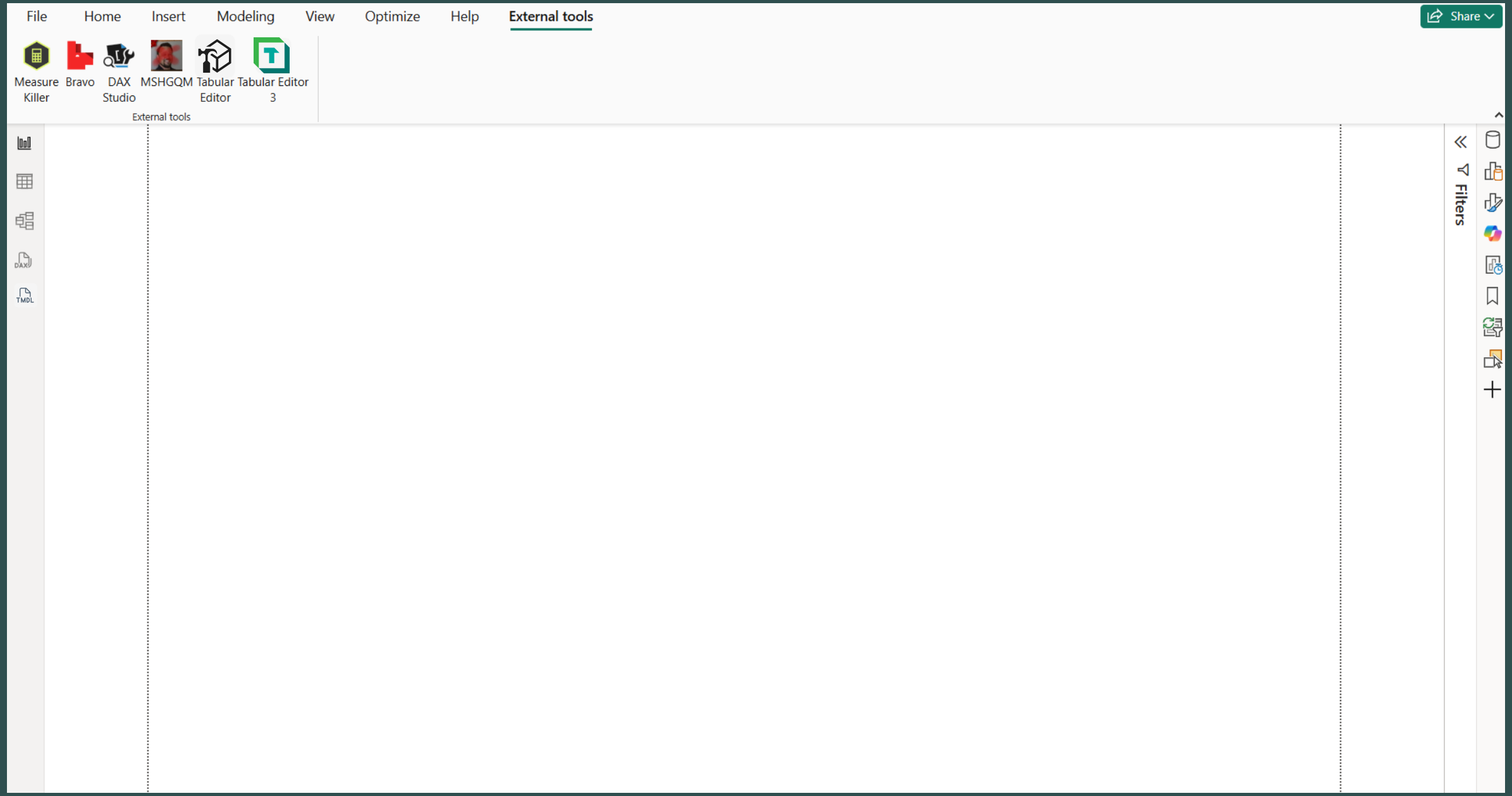
	APPLY BEST PRACTICE
26,047,038.16	26,047,038
0.56	56.1%

APPLY BEST PRACTICE

```
Sales YTD = CALCULATE([Sales], DATESYTD ( ...
```

```
Sales YTD =
        CALCULATE(
                [Sales],
                DATESYTD ( 'Date'[Date])
        )
```

This measure is the sum of column 'Sales'[Amount]
- using Time Intelligence definition (YTD):
Accumulated year to date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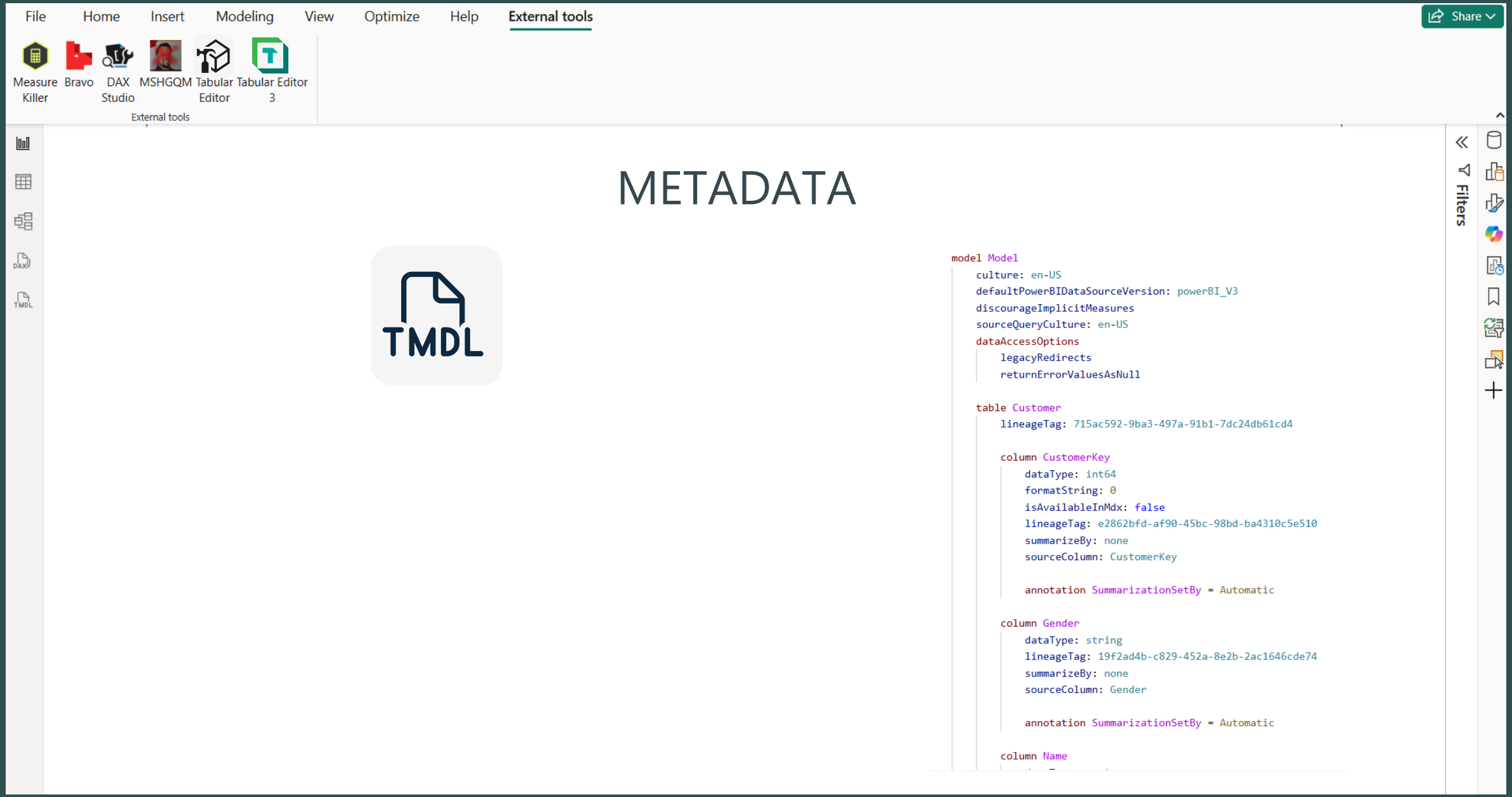
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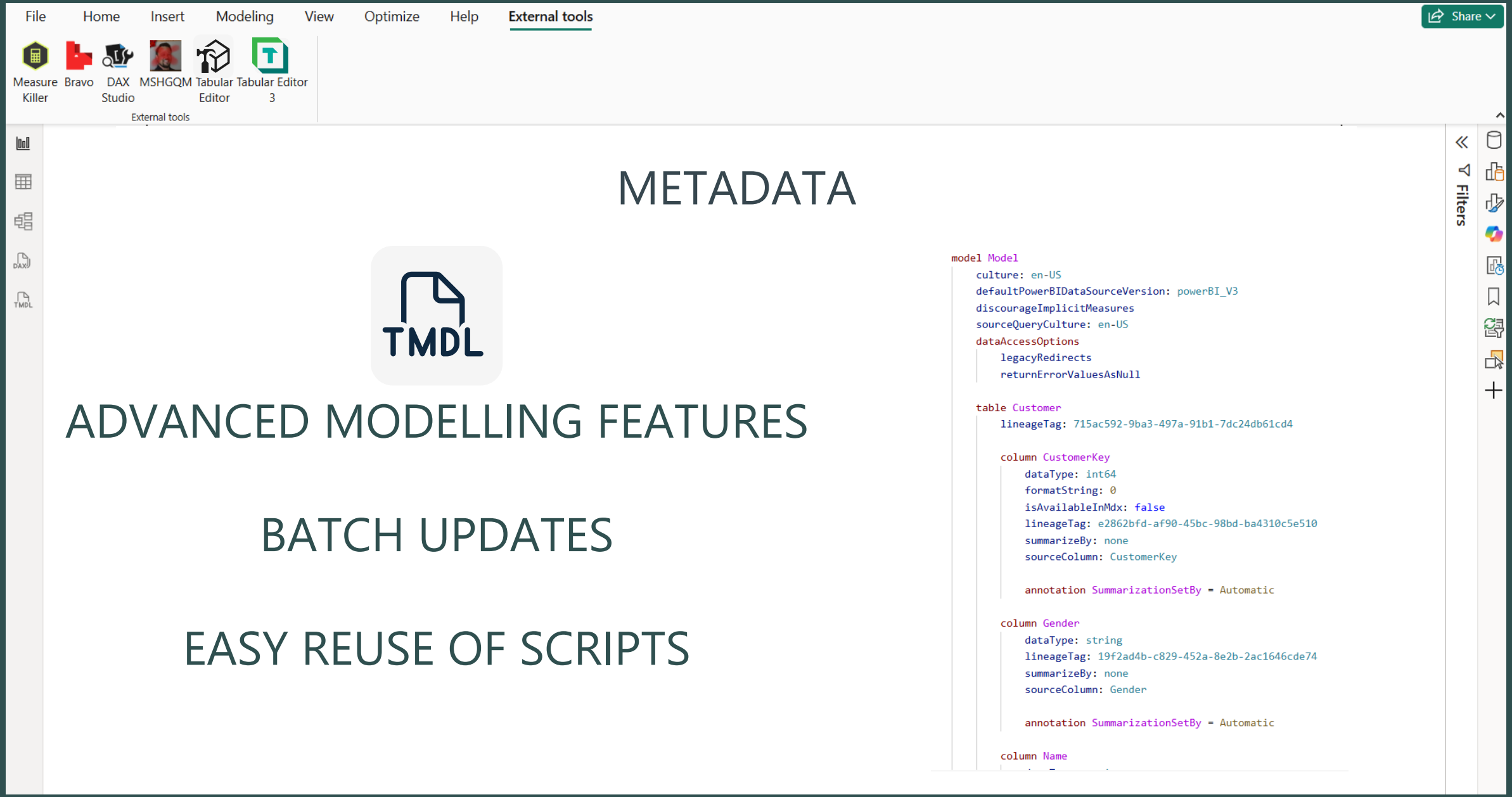
METADATA
TMDL
model Model
culture: en-US
defaultPowerBIDataSourceVersion: powerBI_V3
discourageImplicitMeasures
sourceQueryCulture: en-US
dataAccessOptions
legacyRedirects
returnErrorValuesAsNull
table Customer
lineageTag: 715ac592-9ba3-497a-91b1-7dc24db61cd4
column CustomerKey
dataType: int64
formatString: 0
isAvailableInMdx: false
lineageTag: e2862bfd-af90-45bc-98bd-ba4310c5e510
summarizeBy: none
sourceColumn: CustomerKey
annotation SummarizationSetBy = Automatic
column Gender
dataType: string
lineageTag: 19f2ad4b-c829-452a-8e2b-2ac1646cde74
summarizeBy: none
sourceColumn: Gender
annotation SummarizationSetBy = Automatic
column Name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Filters
METADATA
TMDL
ADVANCED MODELLING FEATURES
BATCH UPDATES
EASY REUSE OF SCRIPTS
model Model
culture: en-US
defaultPowerBIDataSourceVersion: powerBI_V3
discourageImplicitMeasures
sourceQueryCulture: en-US
dataAccessOptions
legacyRedirects
returnErrorValuesAsNull
table Customer
lineageTag: 715ac592-9ba3-497a-91b1-7dc24db61cd4
column CustomerKey
dataType: int64
formatString: 0
isAvailableInMdx: false
lineageTag: e2862bfd-af90-45bc-98bd-ba4310c5e510
summarizeBy: none
sourceColumn: CustomerKey
annotation SummarizationSetBy = Automatic
column Gender
dataType: string
lineageTag: 19f2ad4b-c829-452a-8e2b-2ac1646cde74
summarizeBy: none
sourceColumn: Gender
annotation SummarizationSetBy = Automatic
column Name

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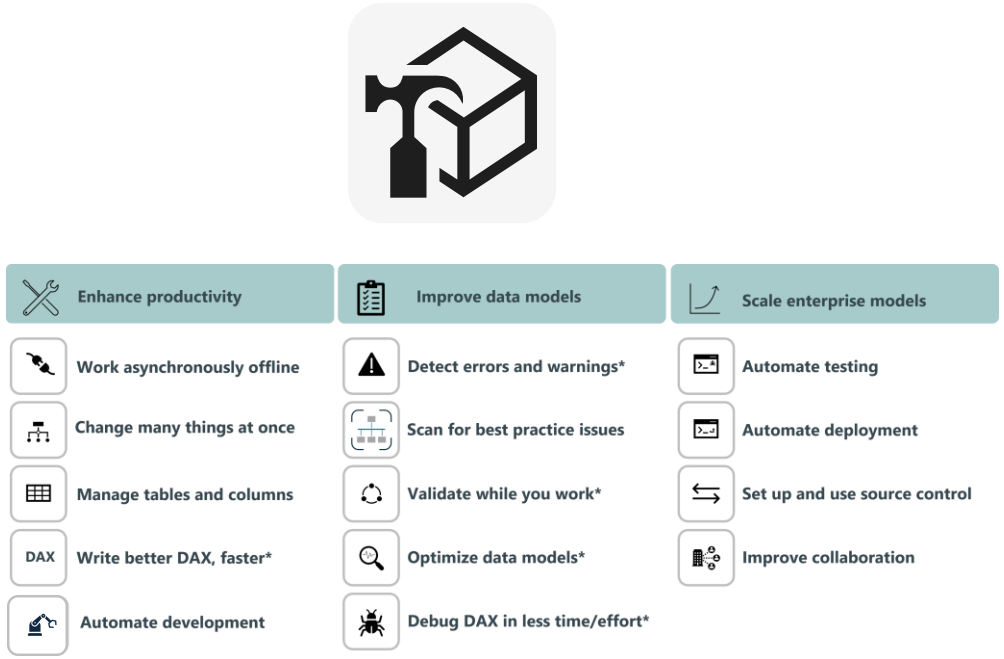
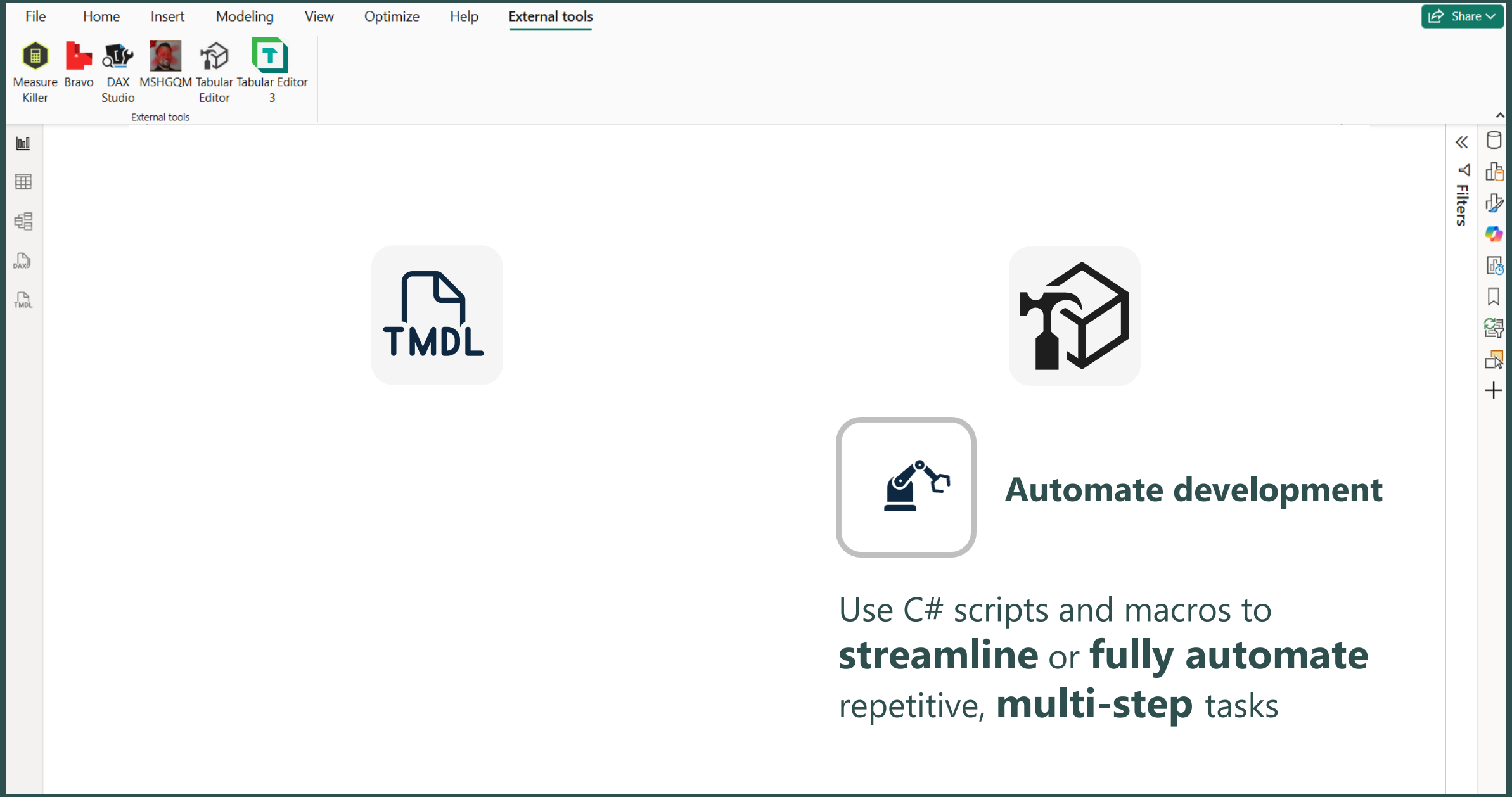


*Items marked * require the use of Tabular Editor 3*

[Ref: Using Tabular Editor in Microsoft Fabric – Tabular Editor Blog]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Tabular Editor 3
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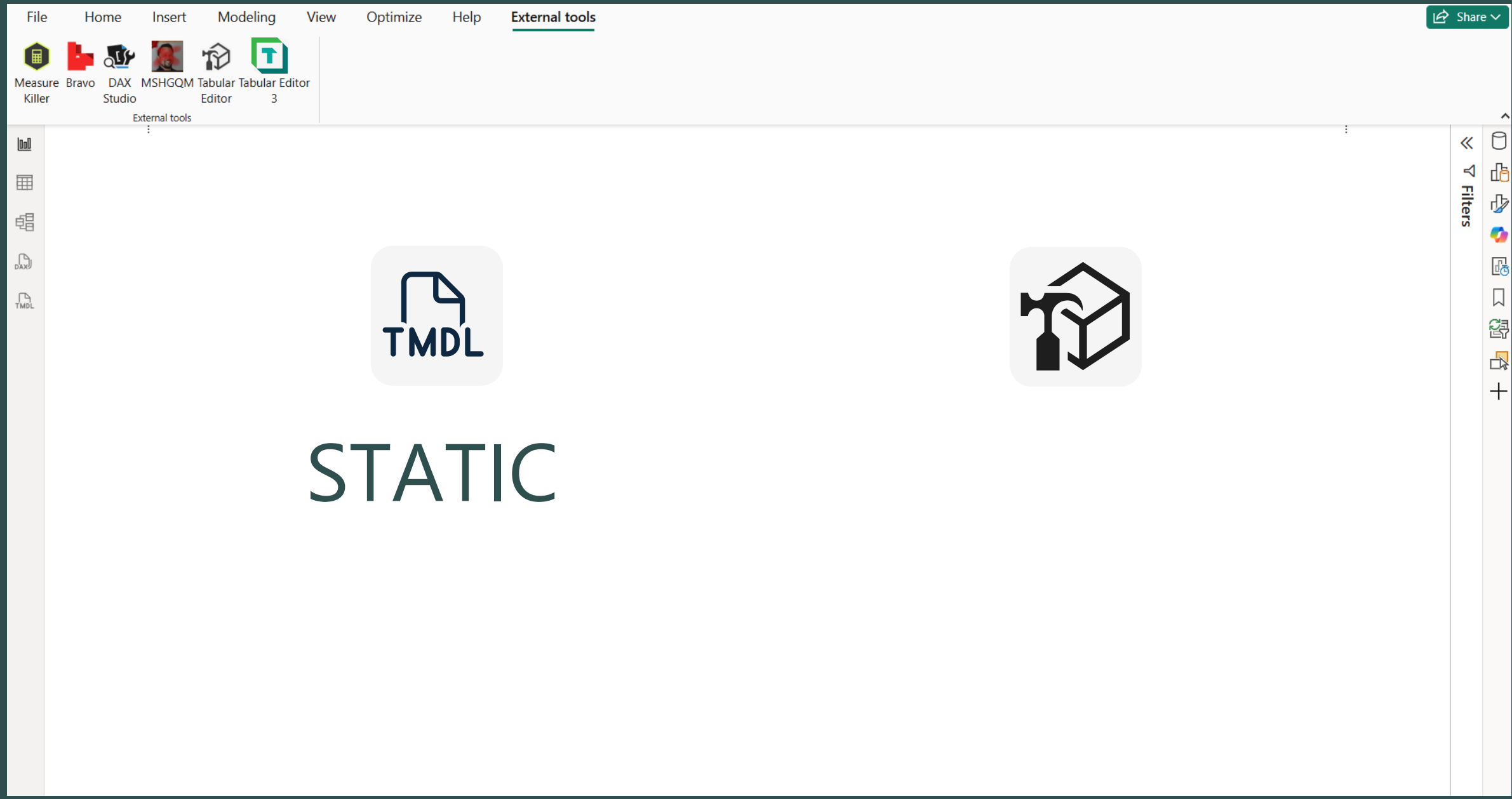
Automate development
Use C# scripts and macros to
streamline or fully automate
repetitive, multi-step tasks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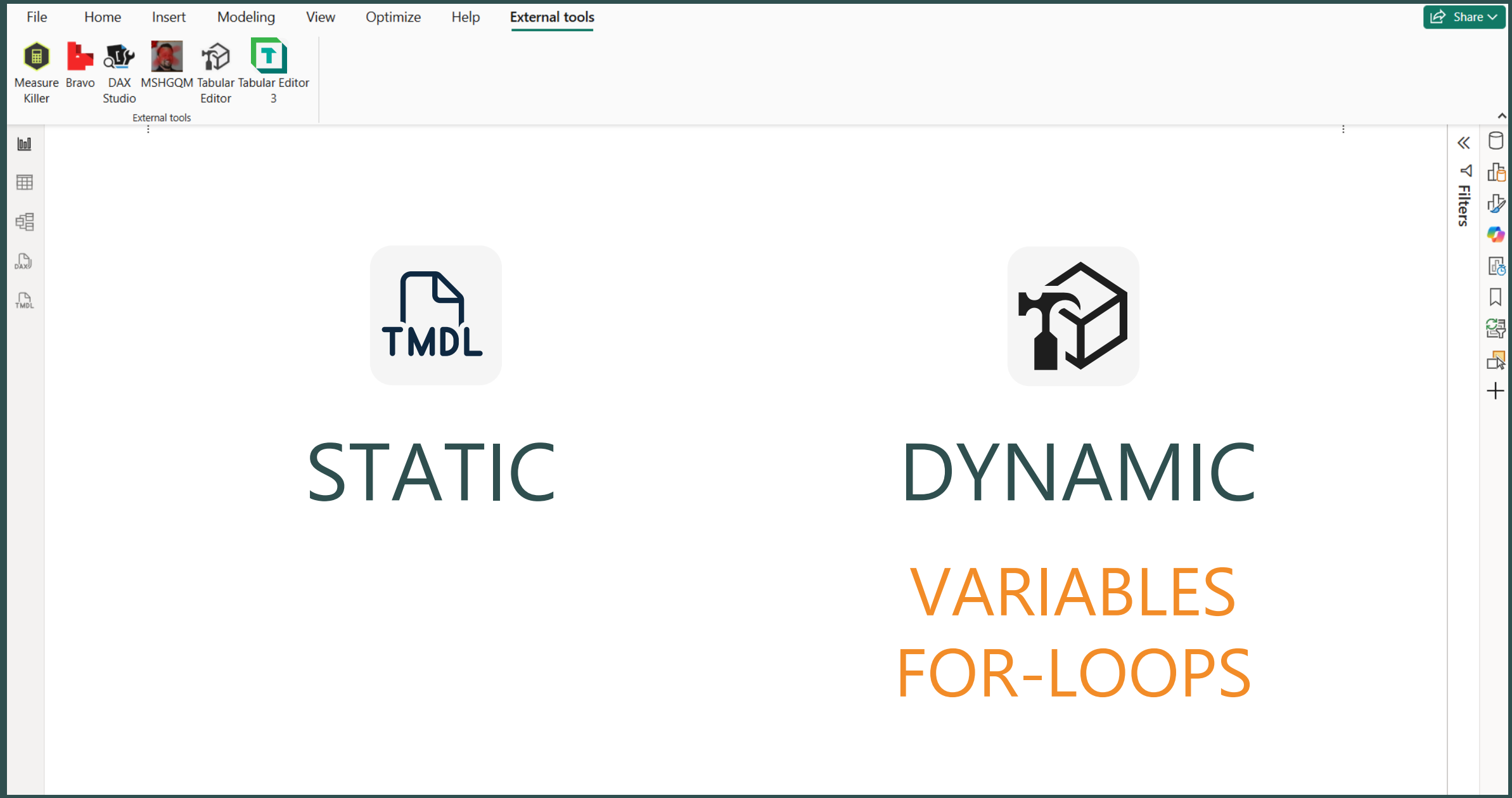
DAX
TMDL
STATIC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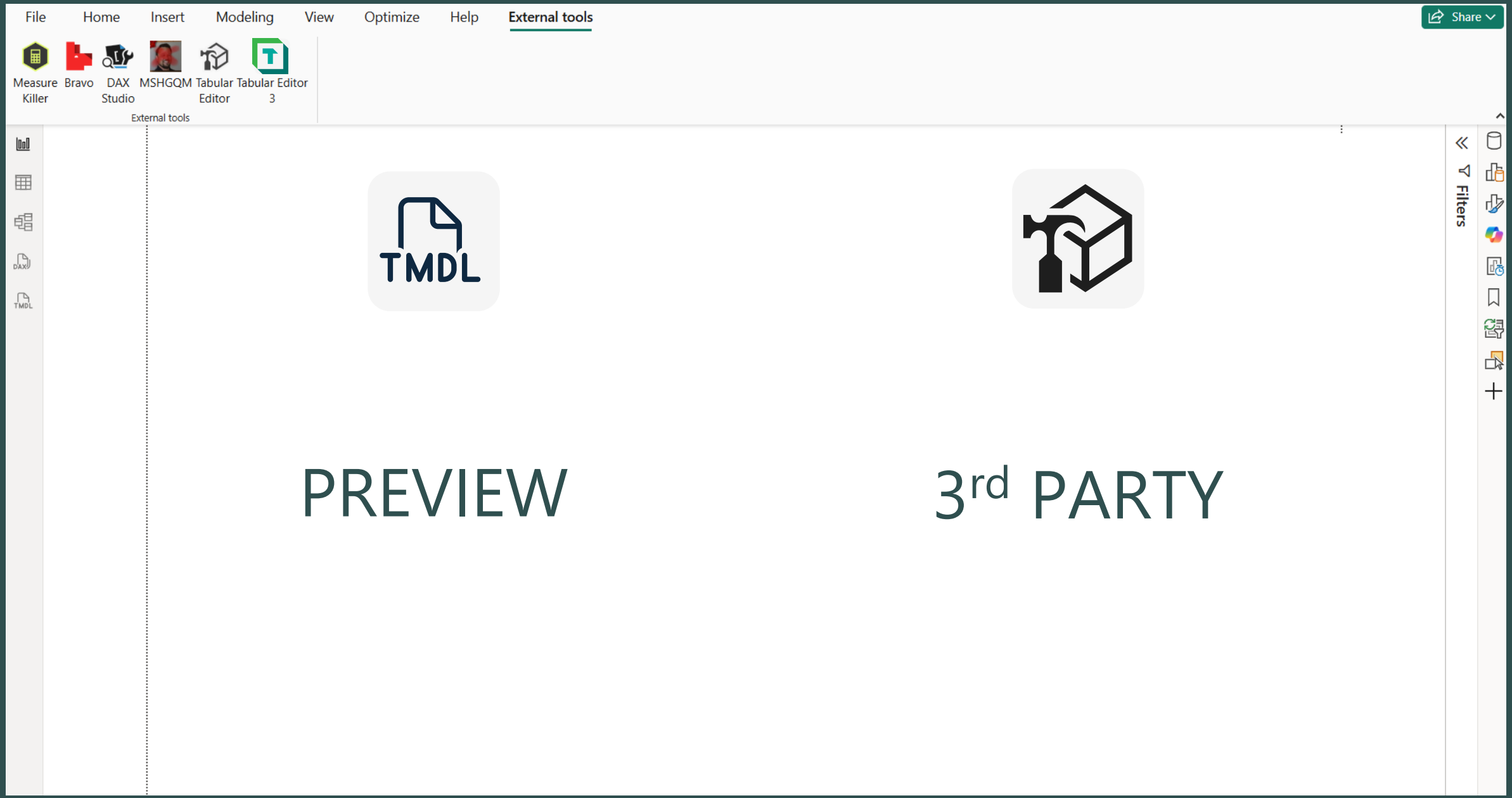
STATIC
DYNAMIC
VARIABLES
FOR-LOOPS

DEMO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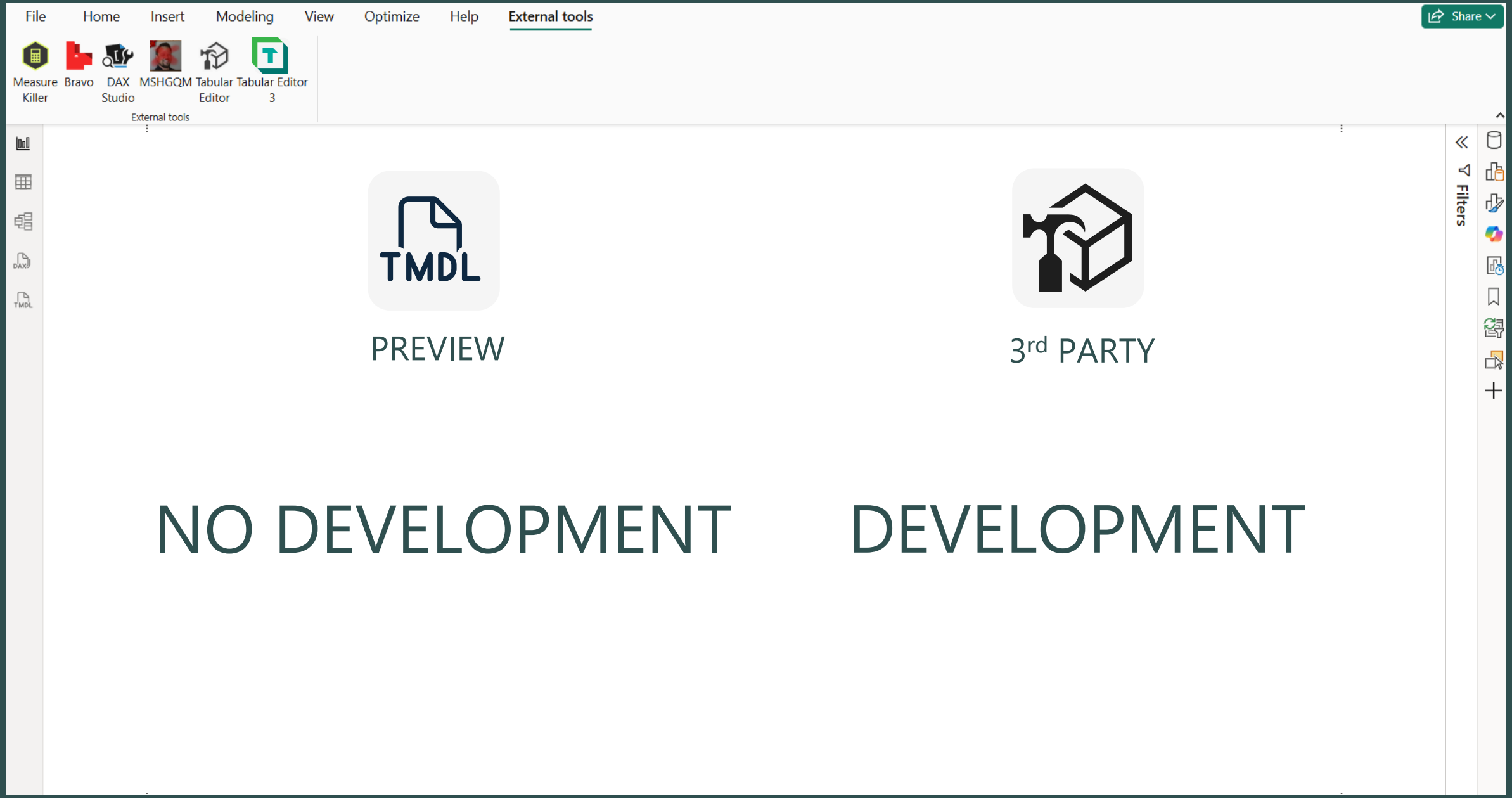
PREVIEW
3rd PARTY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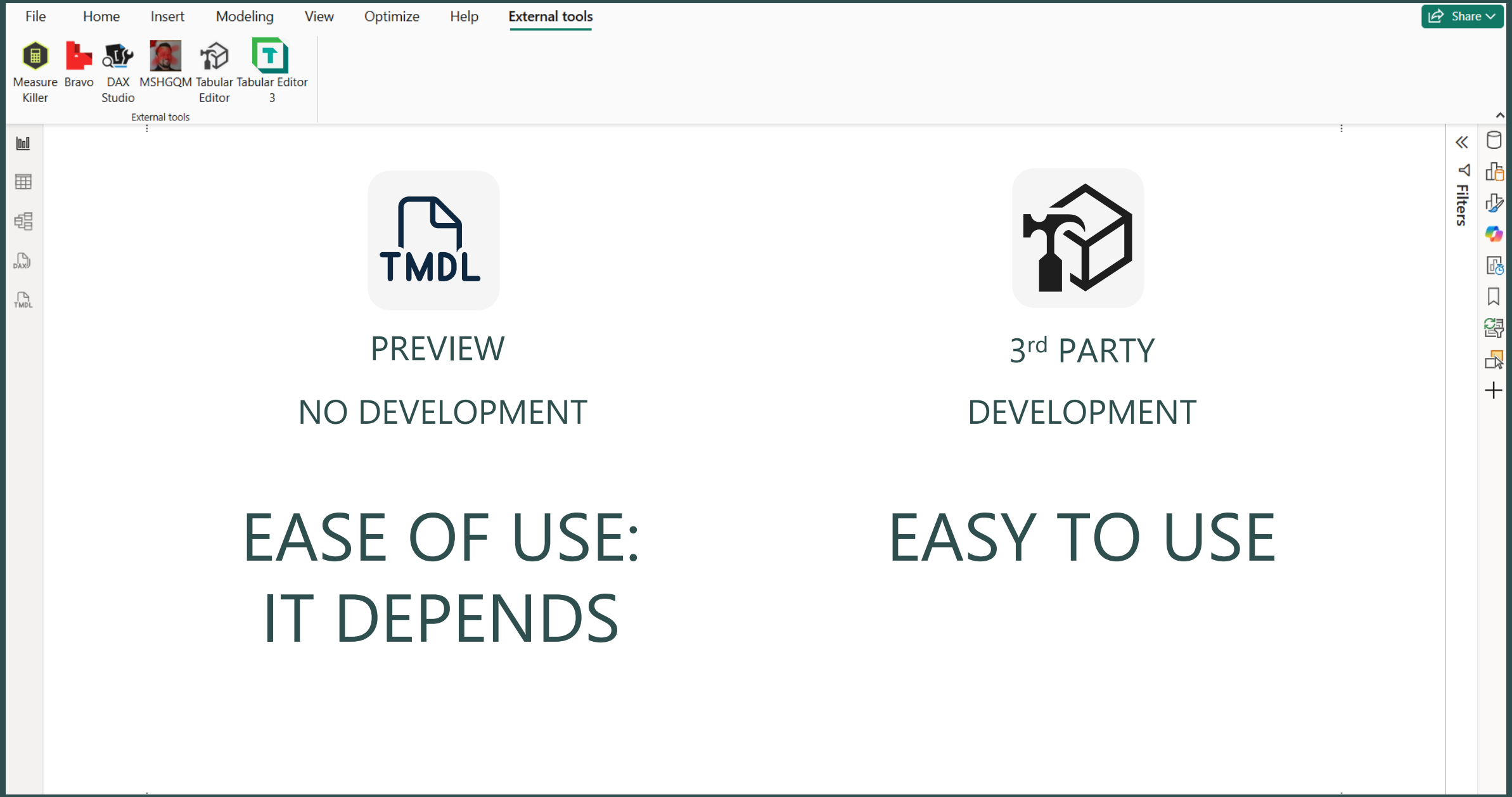
DEVELOPMENT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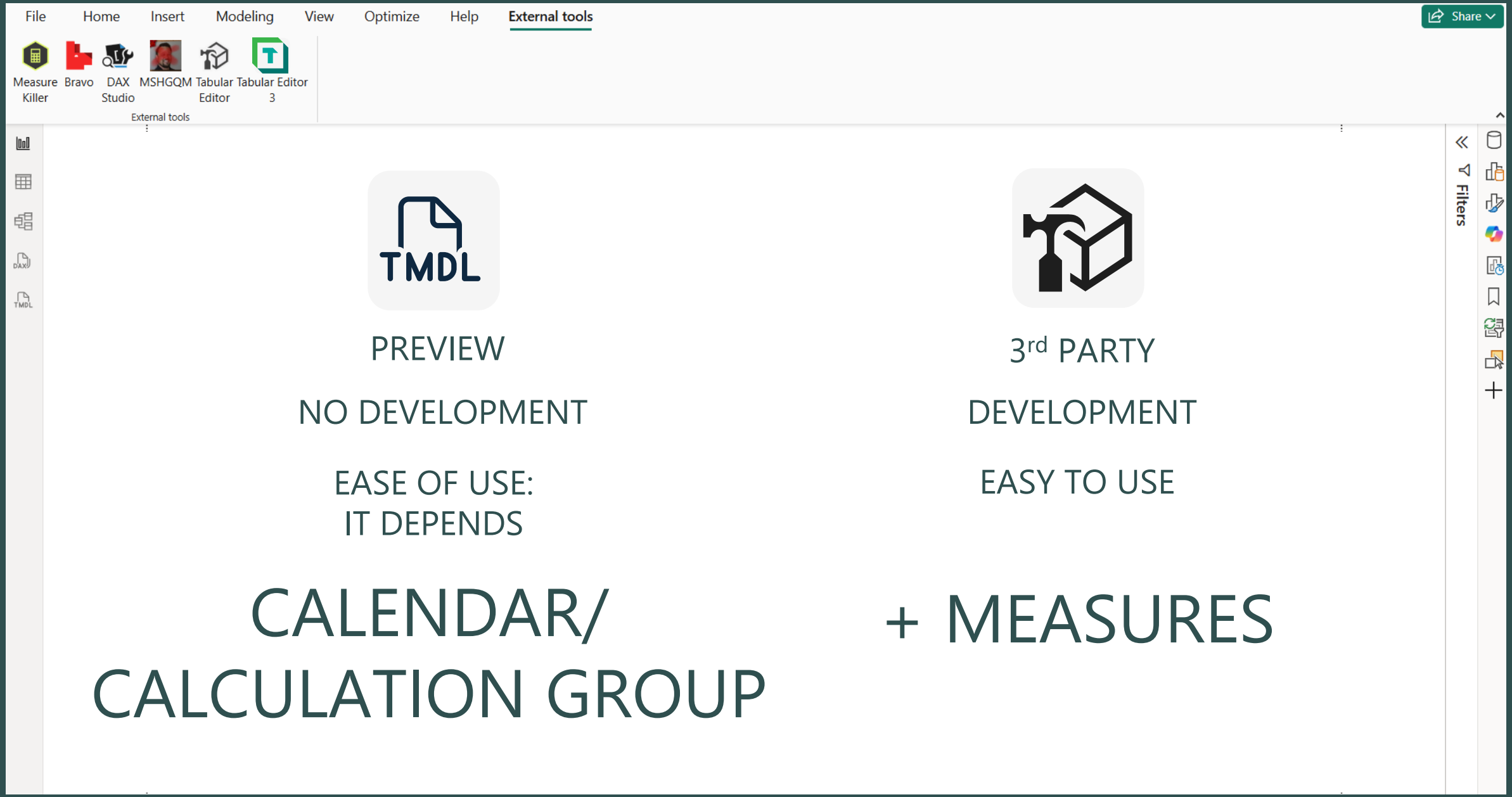
3rd PARTY
DEVELOPMENT
EASE OF USE:
IT DEPENDS
EASY TO USE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Tabular Editor 3
External tools
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TMDL
PREVIEW
NO DEVELOPMENT
EASE OF USE:
IT DEPENDS
3rd PARTY
DEVELOPMENT
EASY TO USE
CALENDAR/
CALCULATION GROUP
+ MEASURES

COMMUNITY RESOURCES

https://github.com/Eivind4/DoneIn60Seconds-DataToboggan

COMMUNITY RESOURCES

https://fabsnippets.replit.app/

TMDL

docs.tabulareditor.com/common/CSharpScripts/csharp-script-library.html?tabs=TE2Preferences

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data-goblin / **powerbi-macguyver-toolbox**

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Bernatagulloesbrina / **TabularEditor-Scripts**

KornAlexander / **PBI-Tools**

C#

TIME INTELLIGENCE RESOURCES

DAX Patterns: Standard time-related calculations

SQLBI: Hiding future dates for calculations in DAX

SQLBI: Rolling 12 Months Average in DAX

Access Analytics (Youtube): DAX and the Start Date End Date Problem aka Events in Progress

WANT TO LEARN MORE?

TMDL View: A practical introduction for productive Power BI users

Learn all about the TMDL View in Power BI Desktop: what it is, how to use it, and why it matters. These are just some of the topics covered in this course.

Open course →

9.

Scripting & Automation

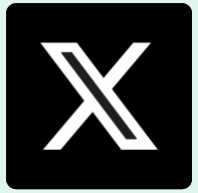
This final course will dive into one of the most powerful and versatile features in Tabular Editor 3: C# scripting and macros.

Open course →

Ref: Tabular Editor Learn

Q&A

Eivind-Haugen-43821063



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@eivind4.bsky.social

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