



DRIVING ALERTS AND ACTIONS ON YOUR DATA

LARS ANDERSEN
MICROSOFT



Sponsors



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Fellowwind

[Fellowmind](#)

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CONSULTING

[ITPA consulting](#)

data on
Power your data

[dataon](#)



A|S

enversion



Raffle prizes



Tabular Editor



Agenda

- About me
- How to use data more actionable
- What is Data Activator

About me

- Joined Microsoft in Januar 2014
- 7.5 years at Microsoft Denmark
- Part of Fabric (Power BI) CAT since September 2021

How to use data more actionable

How do you use data today?

Excel Financial Sample - View-only

Search (Alt + Q)

File Home Insert Draw Page Layout Formulas Data Review View Help Table Design

Viewing Edit a copy Comments

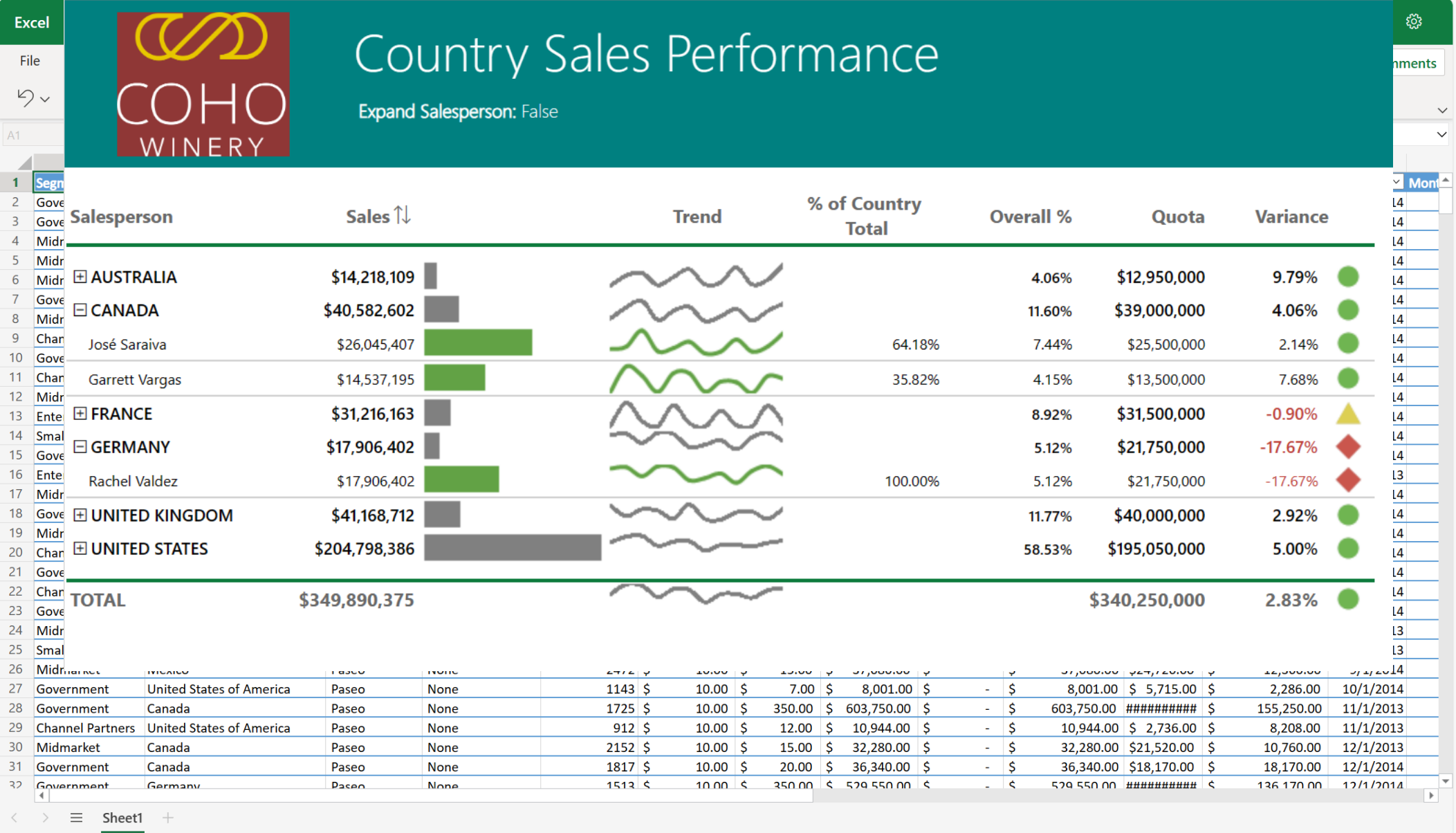
12 B Merge General

fx Segment

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Segment	Country	Product	Discount Band	Units Sold	Manufacturi	Sale Price	Gross Sales	Discounts	Sales	COGS	Profit	Date
2	Government	Canada	Carretera	None	1618.5	\$ 3.00	\$ 20.00	\$ 32,370.00	\$ -	\$ 32,370.00	\$16,185.00	\$ 16,185.00	1/1/2014
3	Government	Germany	Carretera	None	1321	\$ 3.00	\$ 20.00	\$ 26,420.00	\$ -	\$ 26,420.00	\$13,210.00	\$ 13,210.00	1/1/2014
4	Midmarket	France	Carretera	None	2178	\$ 3.00	\$ 15.00	\$ 32,670.00	\$ -	\$ 32,670.00	\$21,780.00	\$ 10,890.00	6/1/2014
5	Midmarket	Germany	Carretera	None	888	\$ 3.00	\$ 15.00	\$ 13,320.00	\$ -	\$ 13,320.00	\$ 8,880.00	\$ 4,440.00	6/1/2014
6	Midmarket	Mexico	Carretera	None	2470	\$ 3.00	\$ 15.00	\$ 37,050.00	\$ -	\$ 37,050.00	\$24,700.00	\$ 12,350.00	6/1/2014
7	Government	Germany	Carretera	None	1513	\$ 3.00	\$ 350.00	\$ 529,550.00	\$ -	\$ 529,550.00	#####	\$ 136,170.00	12/1/2014
8	Midmarket	Germany	Montana	None	921	\$ 5.00	\$ 15.00	\$ 13,815.00	\$ -	\$ 13,815.00	\$ 9,210.00	\$ 4,605.00	3/1/2014
9	Channel Partners	Canada	Montana	None	2518	\$ 5.00	\$ 12.00	\$ 30,216.00	\$ -	\$ 30,216.00	\$ 7,554.00	\$ 22,662.00	6/1/2014
10	Government	France	Montana	None	1899	\$ 5.00	\$ 20.00	\$ 37,980.00	\$ -	\$ 37,980.00	\$18,990.00	\$ 18,990.00	6/1/2014
11	Channel Partners	Germany	Montana	None	1545	\$ 5.00	\$ 12.00	\$ 18,540.00	\$ -	\$ 18,540.00	\$ 4,635.00	\$ 13,905.00	6/1/2014
12	Midmarket	Mexico	Montana	None	2470	\$ 5.00	\$ 15.00	\$ 37,050.00	\$ -	\$ 37,050.00	\$24,700.00	\$ 12,350.00	6/1/2014
13	Enterprise	Canada	Montana	None	2665.5	\$ 5.00	\$ 125.00	\$ 333,187.50	\$ -	\$ 333,187.50	#####	\$ 13,327.50	7/1/2014
14	Small Business	Mexico	Montana	None	958	\$ 5.00	\$ 300.00	\$ 287,400.00	\$ -	\$ 287,400.00	#####	\$ 47,900.00	8/1/2014
15	Government	Germany	Montana	None	2146	\$ 5.00	\$ 7.00	\$ 15,022.00	\$ -	\$ 15,022.00	\$10,730.00	\$ 4,292.00	9/1/2014
16	Enterprise	Canada	Montana	None	345	\$ 5.00	\$ 125.00	\$ 43,125.00	\$ -	\$ 43,125.00	\$41,400.00	\$ 1,725.00	10/1/2013
17	Midmarket	United States of America	Montana	None	615	\$ 5.00	\$ 15.00	\$ 9,225.00	\$ -	\$ 9,225.00	\$ 6,150.00	\$ 3,075.00	12/1/2014
18	Government	Canada	Paseo	None	292	\$ 10.00	\$ 20.00	\$ 5,840.00	\$ -	\$ 5,840.00	\$ 2,920.00	\$ 2,920.00	2/1/2014
19	Midmarket	Mexico	Paseo	None	974	\$ 10.00	\$ 15.00	\$ 14,610.00	\$ -	\$ 14,610.00	\$ 9,740.00	\$ 4,870.00	2/1/2014
20	Channel Partners	Canada	Paseo	None	2518	\$ 10.00	\$ 12.00	\$ 30,216.00	\$ -	\$ 30,216.00	\$ 7,554.00	\$ 22,662.00	6/1/2014
21	Government	Germany	Paseo	None	1006	\$ 10.00	\$ 350.00	\$ 352,100.00	\$ -	\$ 352,100.00	#####	\$ 90,540.00	6/1/2014
22	Channel Partners	Germany	Paseo	None	367	\$ 10.00	\$ 12.00	\$ 4,404.00	\$ -	\$ 4,404.00	\$ 1,101.00	\$ 3,303.00	7/1/2014
23	Government	Mexico	Paseo	None	883	\$ 10.00	\$ 7.00	\$ 6,181.00	\$ -	\$ 6,181.00	\$ 4,415.00	\$ 1,766.00	8/1/2014
24	Midmarket	France	Paseo	None	549	\$ 10.00	\$ 15.00	\$ 8,235.00	\$ -	\$ 8,235.00	\$ 5,490.00	\$ 2,745.00	9/1/2013
25	Small Business	Mexico	Paseo	None	788	\$ 10.00	\$ 300.00	\$ 236,400.00	\$ -	\$ 236,400.00	#####	\$ 39,400.00	9/1/2013
26	Midmarket	Mexico	Paseo	None	2472	\$ 10.00	\$ 15.00	\$ 37,080.00	\$ -	\$ 37,080.00	\$24,720.00	\$ 12,360.00	9/1/2014
27	Government	United States of America	Paseo	None	1143	\$ 10.00	\$ 7.00	\$ 8,001.00	\$ -	\$ 8,001.00	\$ 5,715.00	\$ 2,286.00	10/1/2014
28	Government	Canada	Paseo	None	1725	\$ 10.00	\$ 350.00	\$ 603,750.00	\$ -	\$ 603,750.00	#####	\$ 155,250.00	11/1/2013
29	Channel Partners	United States of America	Paseo	None	912	\$ 10.00	\$ 12.00	\$ 10,944.00	\$ -	\$ 10,944.00	\$ 2,736.00	\$ 8,208.00	11/1/2013
30	Midmarket	Canada	Paseo	None	2152	\$ 10.00	\$ 15.00	\$ 32,280.00	\$ -	\$ 32,280.00	\$21,520.00	\$ 10,760.00	12/1/2013
31	Government	Canada	Paseo	None	1817	\$ 10.00	\$ 20.00	\$ 36,340.00	\$ -	\$ 36,340.00	\$18,170.00	\$ 18,170.00	12/1/2014
32	Government	Germany	Paseo	None	1513	\$ 10.00	\$ 350.00	\$ 529,550.00	\$ -	\$ 529,550.00	#####	\$ 136,170.00	12/1/2014

Sheet1

How do you use data today?



How do you use data today?

Contoso Corporation
Executive summary

Key performance metrics
Last 12 months (June, 2022 - May, 2023)

Category	Metric	Value
Sales pipeline	Opportunity Count	291,682
	Revenue Open	\$ 185,809,380
	Revenue Won	\$ 985,887,310
	Revenue Lost	\$ 450,813,388
Lead generation	Total visits	1.3M
	Converted %	9.5 %
	Average cost	\$ 22
	Qualified	261,771
Agent performance	Agent quality	43
	Compliance risk	72
	Average duration	12 minutes
	Customer satisfaction score	84 %
Supply chain management	Cost of purchase order	\$ 26.2
	Cost reduction	\$ 2.1
	Cost savings	\$ 3.4
	Procurement ROI	35
Operations	Average operation costs	\$ 234.5
	Product performance	\$ 38,219
	Production last year	\$ 4,122,643
	Return rate	13 %

How do you use data today?

The collage shows three main components:

- Excel:** A spreadsheet with columns for 'Salesperson' and 'TOTAL'. The 'Salesperson' column lists names like José Saraiva, Garrett Vargas, Rachel Valdez, and others. The 'TOTAL' column shows values for various categories.
- Sales Pipeline Dashboard:** A dashboard titled 'Sales pipeline' with a 'Title 0' and 'Opportunity Count' of 291,682. It features three charts:
 - Revenue by Status (Last three years 2021-2023):** A donut chart showing revenue by status: Lost (\$0.19bn, 12.04%), Open (\$0.19bn, 12.04%), and Won (\$1.17bn, 75.92%).
 - Revenue by Year, Month and Status (2021):** A bar chart showing monthly revenue for 2021, with values ranging from approximately \$0.05bn to \$0.15bn.
 - Revenue Open by State or Province:** A horizontal bar chart showing revenue open by state/province: California (4.4M), Texas (4.3M), Florida (2.7M), New York (1.9M), Virginia (1.5M), Ohio (1.4M), and Georgia (1.1M).
- Salesperson List:** A list of salespersons with their names and associated revenue values, such as '3,388' for one individual.

Manage alerts

[+ Add alert rule](#)

^ Revenue alert 🗑️

Active On

Alert title: Revenue alert

Set alerts rule for: Revenue Open 2

Condition: Above ▼ Threshold: 1000000

Maximum notification frequency:

- At most every 24 hours
- At most once an hour

Alerts are only sent if your data changes.

By default, you'll receive notifications on the service in the notification center.

Send me email, too

[Use Microsoft Power Automate to trigger additional actions](#)

[Save and close](#) [Cancel](#)

Driving actions from your data

 Monitor

 Detect

 Act

Driving actions from your data

	A	B	C	D	E	F
1	Segment	Country	Product	Discount Band	Units Sold	Manufacturing
2	Government	Canada	Carretera	None	1618.5	\$ 3.00
3	Government	Germany	Carretera	None	1321	\$ 3.00
4	Midmarket	France	Carretera	None	2178	\$ 3.00
5	Midmarket	Germany	Carretera	None	888	\$ 3.00
6	Midmarket	Mexico	Carretera	None	2470	\$ 3.00
7	Government	Germany	Carretera	None	1513	\$ 3.00
8	Midmarket	Germany	Montana	None	921	\$ 5.00
9	Channel Partners	Canada	Montana	None	2518	\$ 5.00
10	Government	France	Montana	None		5.00
11	Channel Partners	Germany	Montana	None		
12	Midmarket	Mexico	Montana	None		
13	Enterprise	Canada	Montana	None		
14	Small Business	Mexico	Montana	None		
15	Government	Germany	Montana	None	2146	\$
16	Enterprise	Canada	Montana	None	345	\$ 5.00
17	Midmarket	United States of America	Montana	None	615	\$ 5.00
18	Government	Canada	Paseo	None	292	\$ 10.00
19	Midmarket	Mexico	Paseo	None	974	\$ 10.00
20	Channel Partners	Canada	Paseo	None	2518	\$ 10.00
21	Government	Germany	Paseo	None	1006	\$ 10.00

Units Sold is lower than expected - do something!!!

Examples

Finance: request payment for overdue invoices

Manufacturing: if a shipment is delayed, warn the recipient

Retail: if freezer temperature is too high, warn me

How do you drive actions from your data?

Manual



Staff diverted
Hard to scale
Hard to keep consistent

Code



Lack of agility
Expensive
Hard for IT to scale

No-code

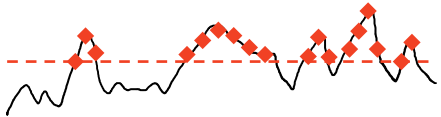


Empowered experts
Fast iteration
Every department

More examples

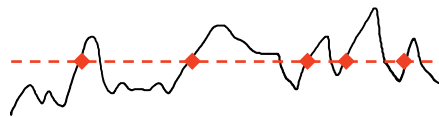
Greater than a threshold

"Alert me when the number of support calls exceeds 100 on any given day."



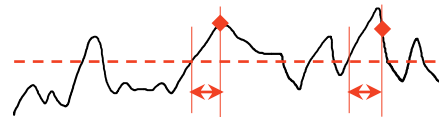
Crosses above a threshold

"Alert an account manager upon any invoice becoming 10 days overdue."



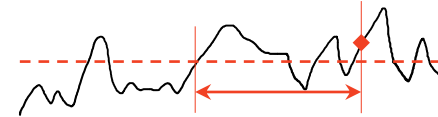
Crosses above and stays above

"File a ticket upon any freezer crossing and staying above 32F for 15 minutes."



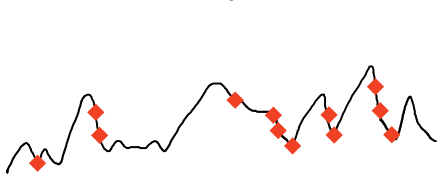
Crosses above 3 times in an hour

"File a ticket whenever any freezer exceeds 32F three times in an hour."



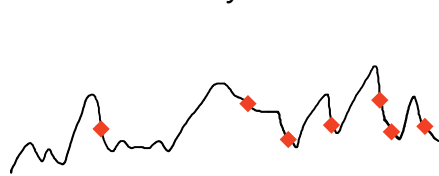
Decreases by 10

"Alert the product manager when revenue decreases by \$10k in one day."



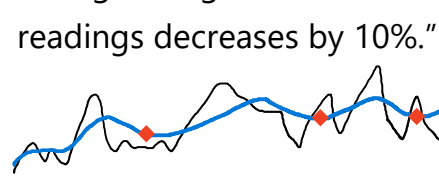
Decreases by 10%

"Alert the product manager when revenue decreases by 10% in one day."



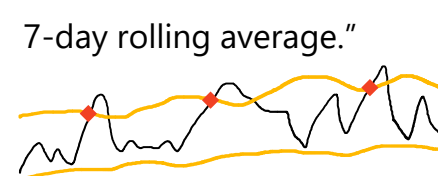
Rolling average decreases by 10%

"Alert when the 6-hour rolling average of sensor readings decreases by 10%."



Exceeds 1 standard deviation

"Alert when sensor readings are one stdev outside of 7-day rolling average."



What is Data Activator





Microsoft Fabric

The data platform for the era of AI



Data
Factory



Synapse Data
Engineering



Synapse Data
Science



Synapse Data
Warehousing



Synapse Real
Time Analytics



Power BI



Data
Activator



OneLake



Microsoft Fabric

The data platform for the era of AI



Data
Factory



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Synapse Data
Science



Synapse Data
Warehousing



Synapse Real
Time Analytics



Power BI



Data
Activator



OneLake

What is missing today?

SYSTEMS OF
INTELLIGENCE



SYSTEM OF
DETECTION



SYSTEMS OF
ACTION



Envisaging a new Solution: Data Activator

SYSTEMS OF INTELLIGENCE



DATA ACTIVATOR

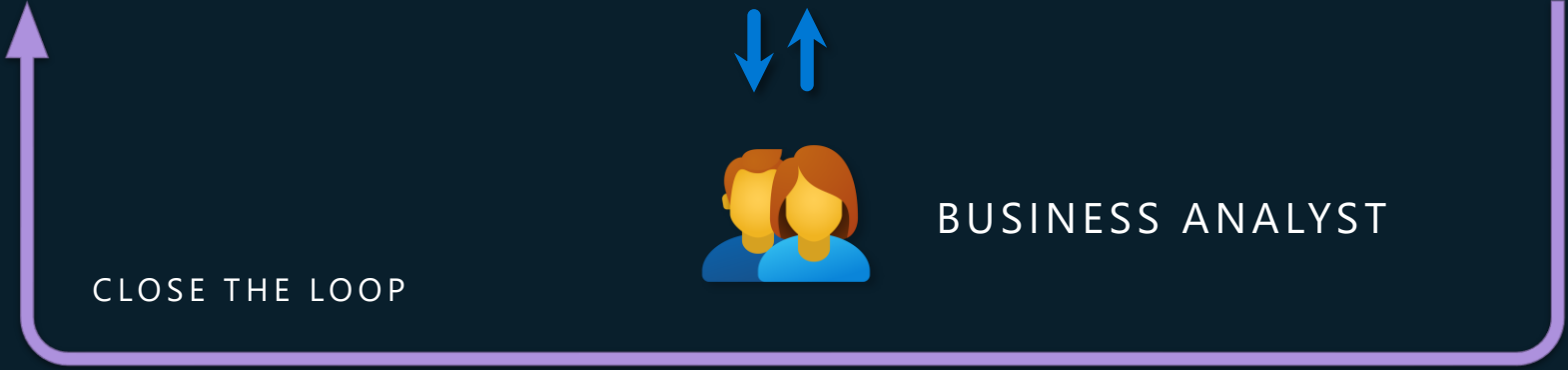


SYSTEMS OF ACTION

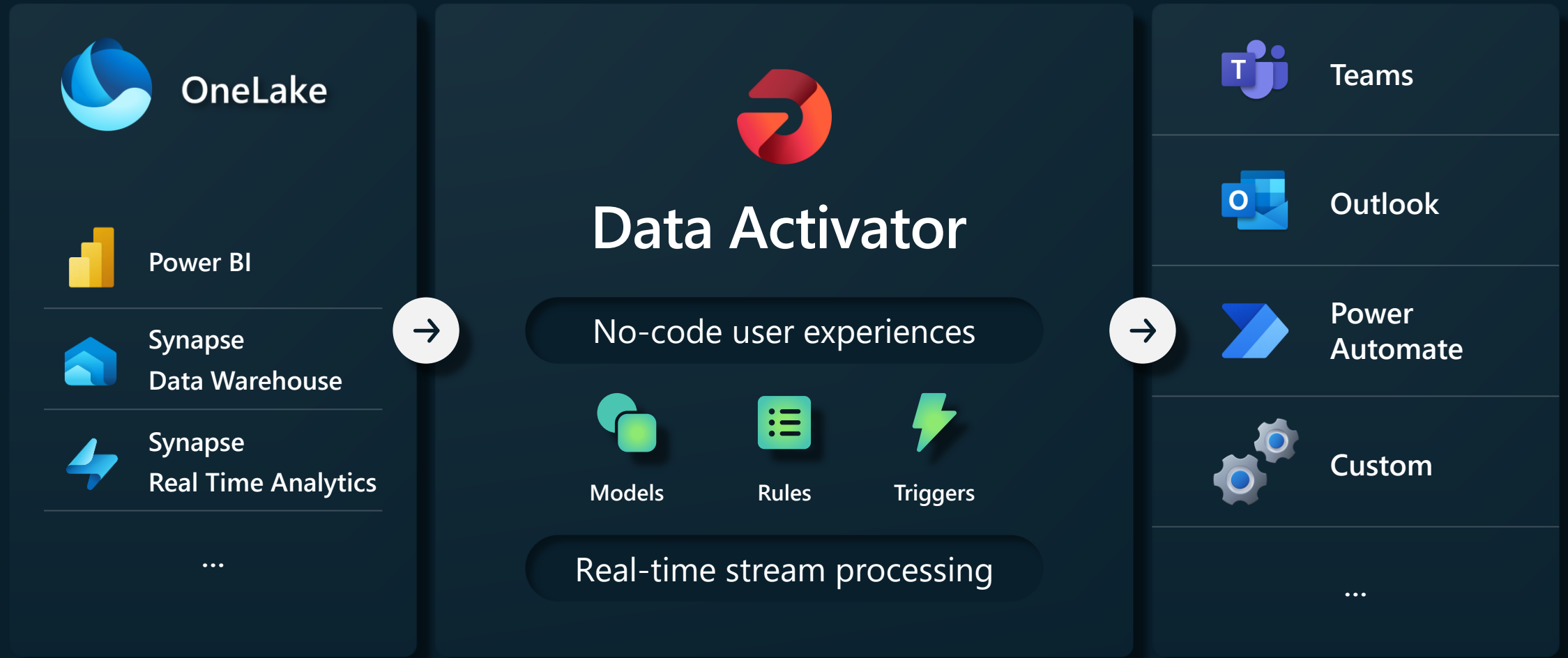


BUSINESS ANALYST

CLOSE THE LOOP



Trigger actions on all your data, from one place



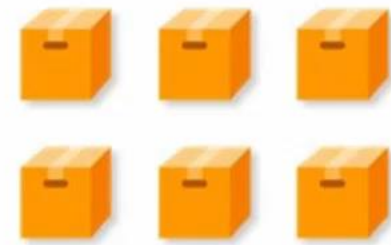
Demo: Power BI report

- Create alert from Power BI visual
- Alert is number of observations is above a defined threshold
- Setup notifications

Demo: Power BI report

- Monitor: Triggered action from Power BI visual
- Detect: If Observations is above 42
- Act: Email, Teams and Power Automate

Demo scenario – delivery logistics



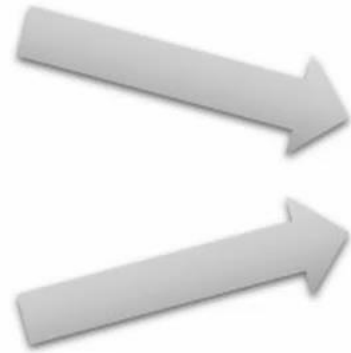
PACKAGES



DRIVERS

Package data:

- › In-transit time
- › Temperature reading
- › Delivery status
- ›



TRIGGERS

Driver data:

- › On-shift duration
- › Location
- › Driver status
- › ...

E-mails when:

- › Package is too hot
- › Package is delayed
- › Driver on shift for too long
- › ...



PEOPLE

Key points

- Drive automatic actions from your data
- Define complex alert conditions without writing code
- Connect to Event Streams & Power BI
- Drive actions in email, Teams and from Power Automate flows

Next steps

- Look out for the Data Activator public preview announcement
- <https://blog.fabric.microsoft.com>
- <https://community.fabric.microsoft.com>