

# AI & DATA 4 GOOD



**Webinar:**  
UK Authority

MEET THE **SPEAKER**

**Matt Wicks**

THE VIRTUAL FORGE CO-CEO



## PUBLIC SERVICE CLIENTS



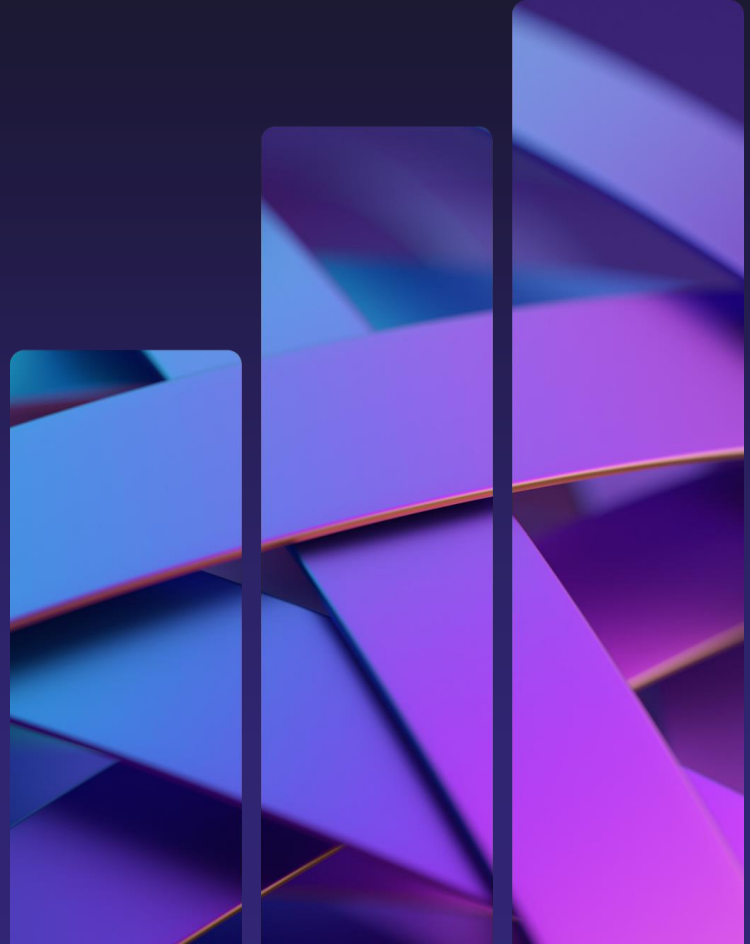
## PRIVATE CLIENTS



## OUR OFFICES

LONDON | BATH | LISBON | PHILADELPHIA

# WHAT IS “ THE DATA PROBLEM ” ?



# Data Problems: Making them your own

Solving problems with data in the public sector requires layers of collaboration across agencies and departments.

It's a cliché but it's a 'people problem' as much as a technical problem.

**IT ALL STARTS WITH PEOPLE**



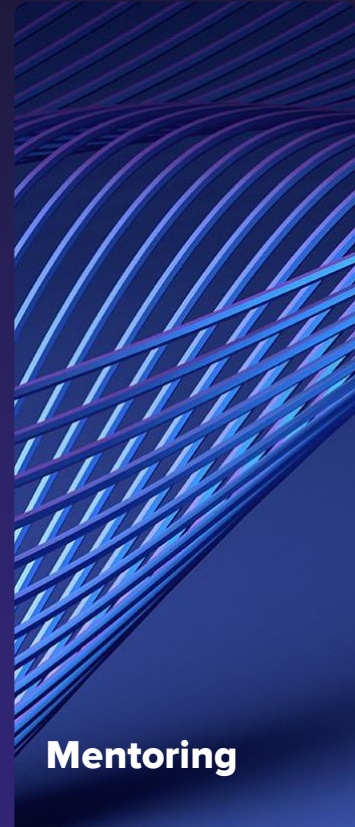
## Our Approach



**Governance**



**Enablement**



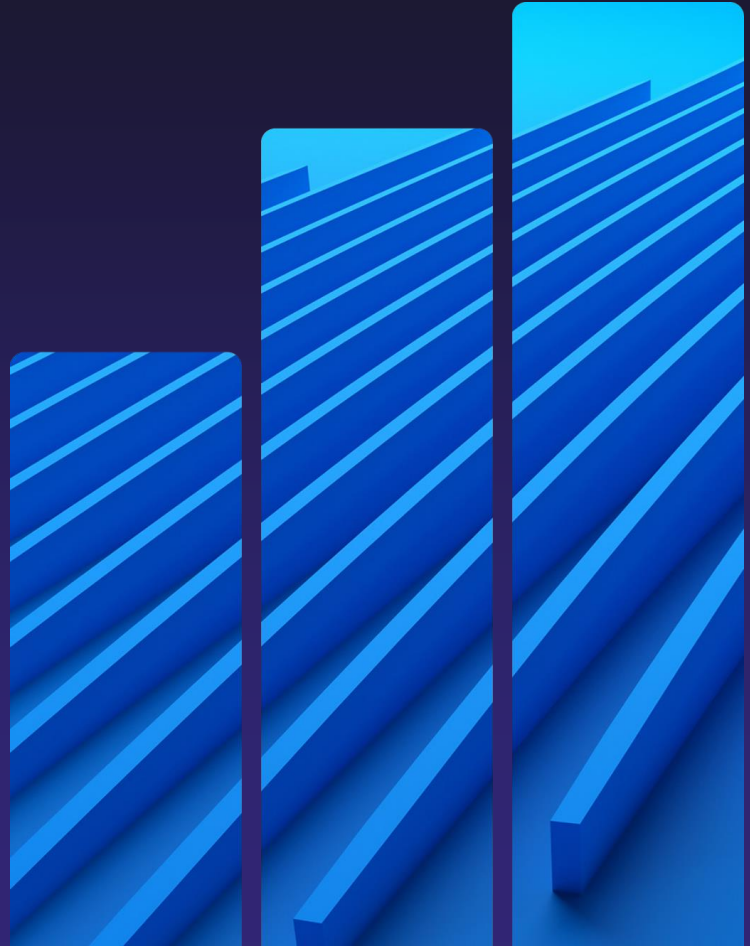
**Mentoring**

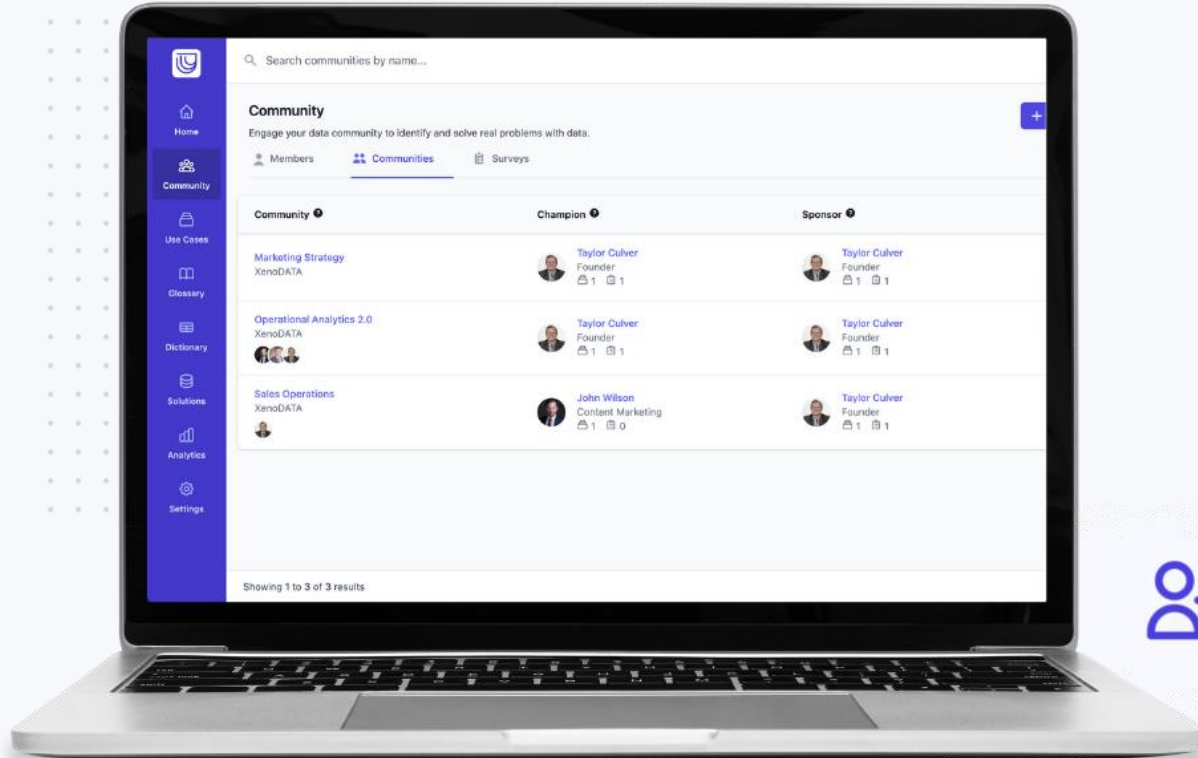
## Governance

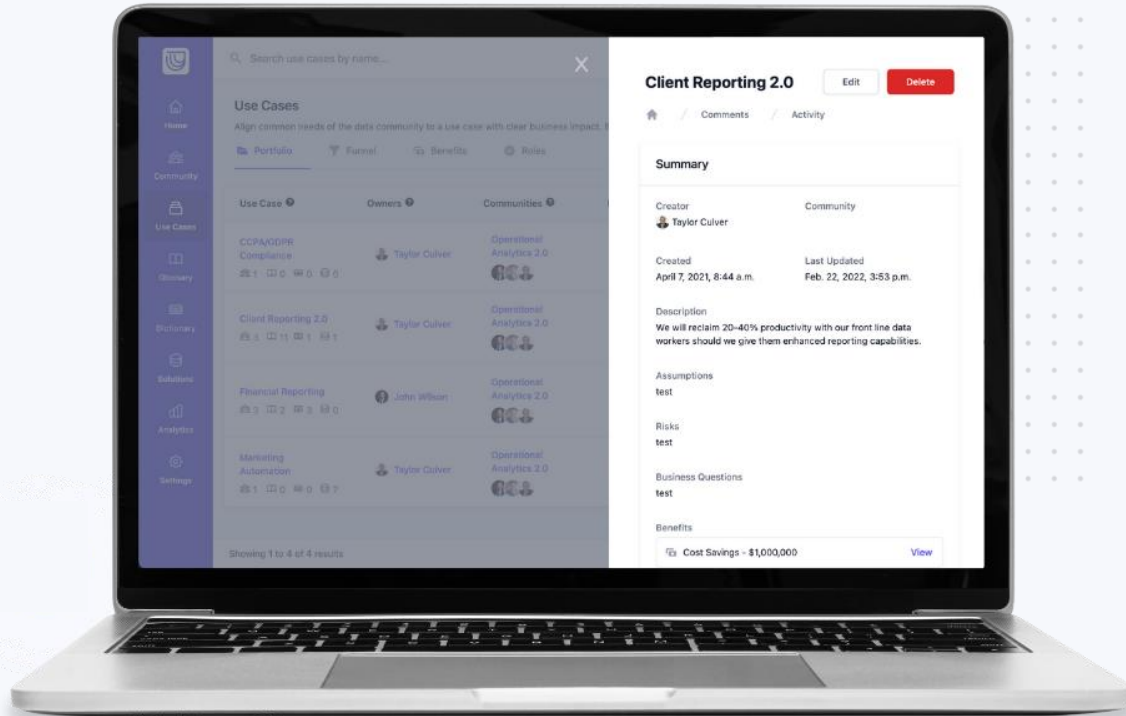
Allows you to identify proper use cases, link these to communities and specific data elements and assign responsibilities to data owners at a granular level



<https://xenodata.com/>









## Glossary

Define the business terms required to deliver one or many use cases.

+ Add data element

Business Terms
Data Catalog
Taxonomies

0 Filters
Clear all

Sort ▾

Business Term	Description	Business Stewards		Mapped Data Elements		Sample Value
Account Manager <span style="color: green;">✔</span> 10 3	Internal Account Manager Name		<span style="background-color: #4a7ebb; color: white; padding: 2px 5px; border-radius: 4px;">Map</span>	<b>Data Element</b> ABCUSER.user_first_name ABCUSER.user_last_name Client.OperationsManagerID Client.SalesManagerID COMPANY.comp_acctmgr_id items.CompletionDate Manager.ManagerName Package.PackageID SalesRepresentatives.OrigID SalesRepresentatives.SalesRepName	<b>Data Stewards</b> 	Ruben Dominguez 1 1 750 2015-09-02 16:10:17.600 Josh 1 None None
Adjudication <span style="color: green;">✔</span> 8 3	More process related than score. Adjudication is a component within a package. All other components in a package must be ...		<span style="background-color: #4a7ebb; color: white; padding: 2px 5px; border-radius: 4px;">Map</span>	<b>Data Element</b> ADJ_OPTION.ADJ_DESC ADJ_OPTION.ADJ_ID DOES NOT MAP - ANow Orders.Dispute Orders.Successful_Dispute orderstatushistory.Status OrderTags.TagID SEARCH.ADJ_ID	<b>Data Stewards</b> 	Meets Requirement, Doesn't Meet Requirement 6002.6558 ... ... ... ... ... 1

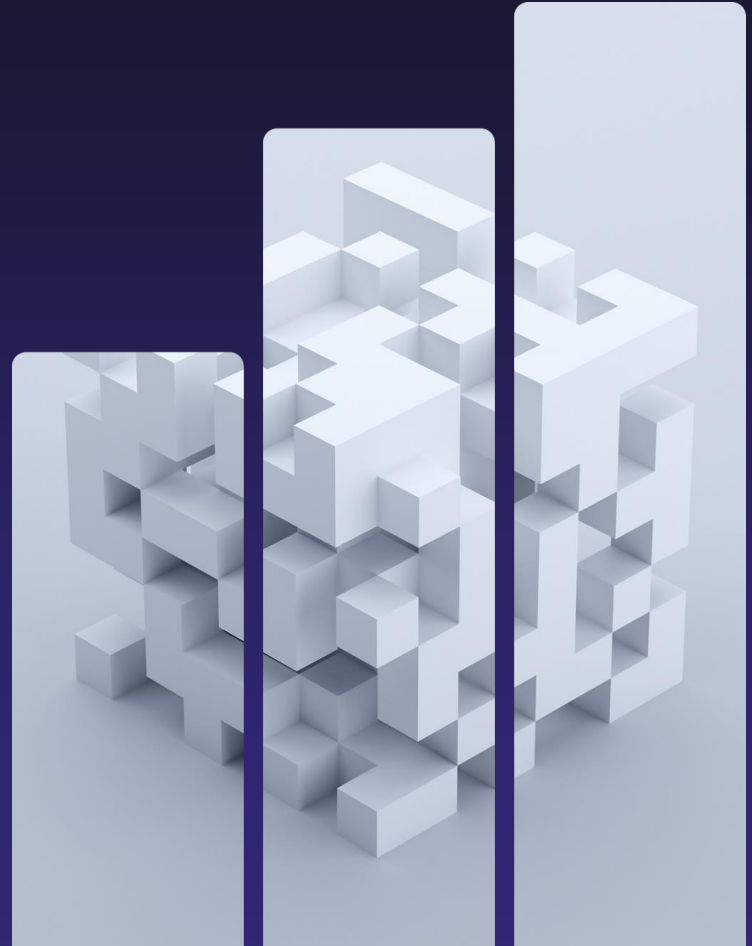
Showing 1 to 20 of 158 results

<<
1
2
3
...
6
7
8
>
>>

# Enablement

Understanding how your data maps to results is key to success, but so is making the data approachable and comprehensible.

Often overlooked is consistency in delivery of reports.





## Survey Response Summary

2023

2024

No of Frontline Staff

3

No of Service Users

3

Hierarchy

All

Survey Type

All

Age

All

Ethnicity

All

Gender

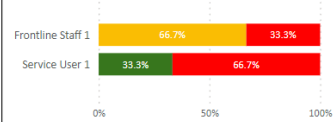
All

Postcode

All

### What you do and how often

● Always ● Sometimes ● Never

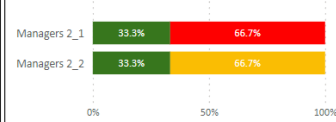


### Question Detail

Survey Type	Question Num	Question Text
Frontline Staff	Q2a.1	I encourage people to prepare for they could bring or do in advance
Service User	Q1.1	I am encouraged to prepare for my appointments (e.g. what to bring c

### What you do and how often

● Always ● Sometimes ● Never

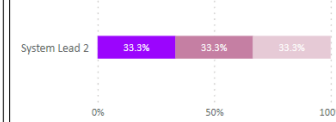


### Question Detail

Survey Type	Question Num	Question Text
Managers	Q1b.2_1	How people are helped to prepare staff/services: - People are given in informing them of what to expect
Managers	Q1b.2_2	How people are helped to prepare staff/services: - People are prompt

### What you do in the ICB

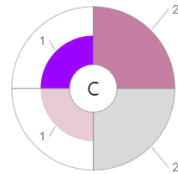
● Digital, Delivery, Personal... ● Executive Director... ● Personalised car...



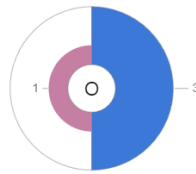
### Question Detail

Survey Type	Question Num	Question Text
System Lead	2	Q0.2-What is your role in the Integrated Care Board (ICB) or system (please tick all that apply)? - Selected Choice

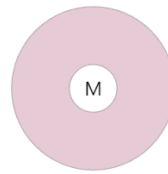
### Capabilities



### Opportunities

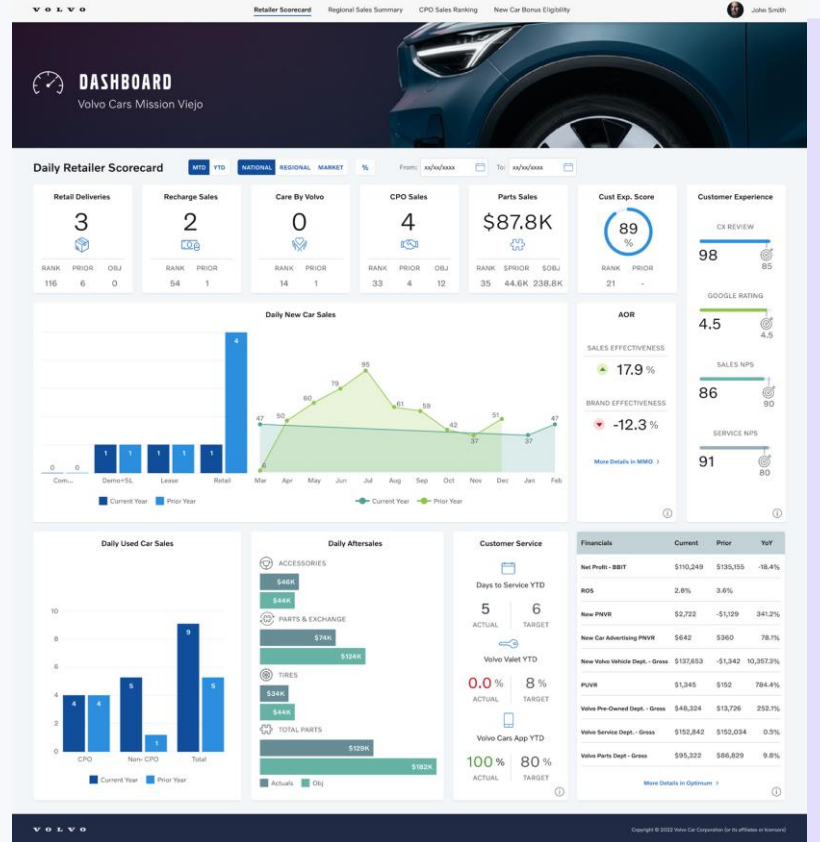
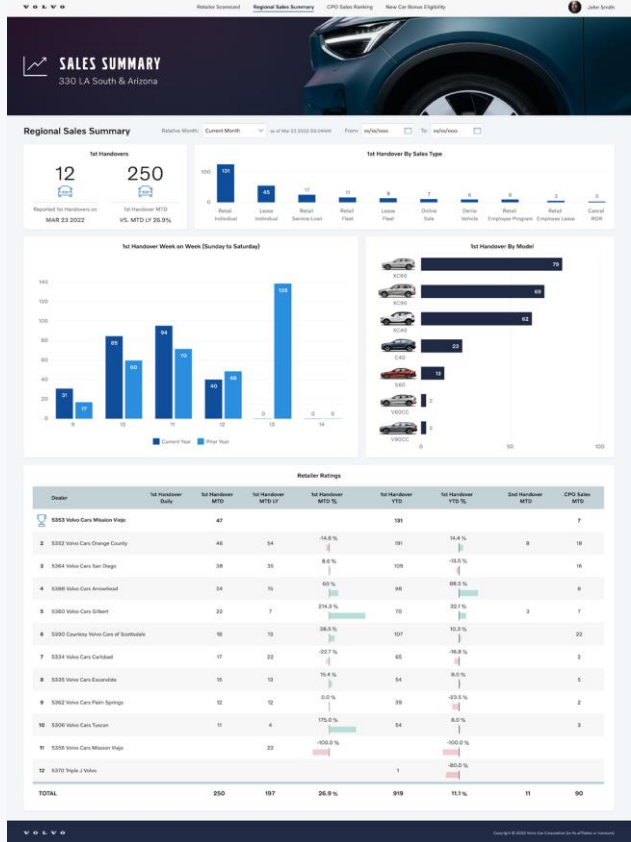


### Motivation



### Selected Respondents vs Total

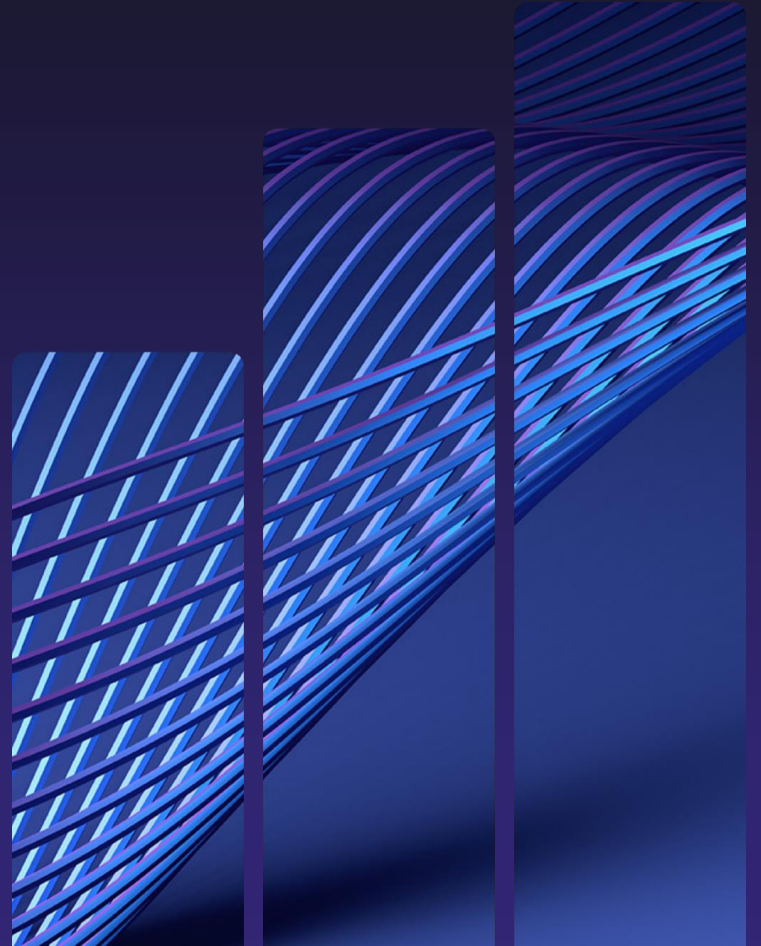




# Mentoring: Building sustainable in-house skills

Having a trusted partner to lean on in order to help is important. We have mentoring programmes that we run which focus very much on “what works”.

Sometimes these are an hour every few weeks, sometimes these are a burst at the start to get you going and then a supporting person you can ask questions of.



The Power in BI - Building Better Reports with Better (Best) Practices

EPISODE 1

# Building Better Reports with Better (Best) Practices

Watch later Share

The screenshot displays a Power BI report interface. At the top, the DAX editor shows the following formulas:

```
1 Incorrect CALCULATE w/ Variables =  
2 VAR _sales = SUM ( Sales[Sales] )  
3 VAR _currentsales =  
4 TOTALMTD (   
5     _sales,  
6     'Calendar'[Date]  
7 )  
8 RETURN  
9     _sales
```

Below the formulas, a table titled 'Adventure Works' shows sales data with a large '\$32.5M' value highlighted. To the right, there are three visualizations: 'Revenue by Category' (a bar chart), 'Revenue by Country' (a map), and 'Revenue by Month' (a bar chart). The 'Visualizations' pane on the right shows the 'Data' source and various visualization options.

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DATA-DRIVEN SOFTWARE

Watch on YouTube

## Custom Model Advice



# Dynamic Parking

Our client wanted to be able to adjust pricing based on factors such as weather, emission levels of the car, traffic, resident status, etc. We built a model which they implemented to allow them to do dynamic pricing for parking locations across the city.

## Resident parking permit pricing across London boroughs

	Factors used for resident parking permit pricing						
	CO2	# CO2 bands	Engine Size	Electric/green	Diesel	Multi-vehicle	Location
Barking and Dagenham	X	7	X		X	X	
Barnet	X	14	X		X	X	
Bexley							X
Brent	X	3	X		X	X	
Bromley							X
Camden	X	5	X		X	X	
Croydon	X	5	X		X	X	
Ealing	X	4	X		X	X	
Enfield			X				
Greenwich						X	X
Hackney	X	5	X		X		
Hammersmith						X	

### Illustrative example

#### Vehicle

Model: MINI Hatch 3Dr Cooper S 2.0SD 170 DPF StopStart EU6 6Spd

Manufacture year: 2014

Gross weight: 1655kg

Dimensions: 7.44m<sup>2</sup>

Fuel type: diesel

Euro rating: Euro 6

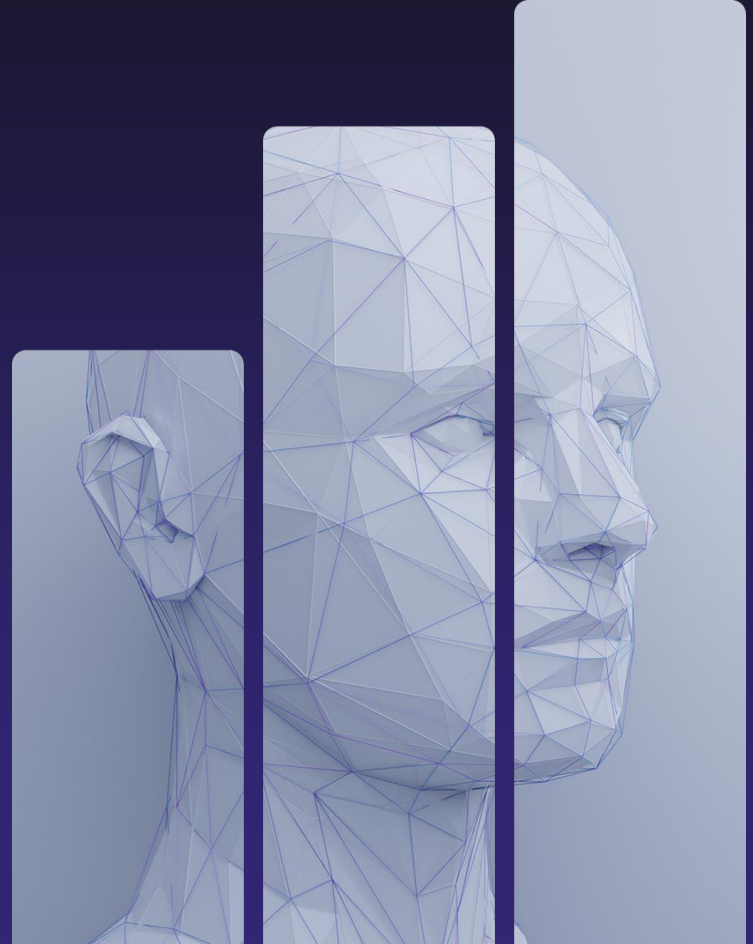
CO<sub>2</sub>: 106 g/km

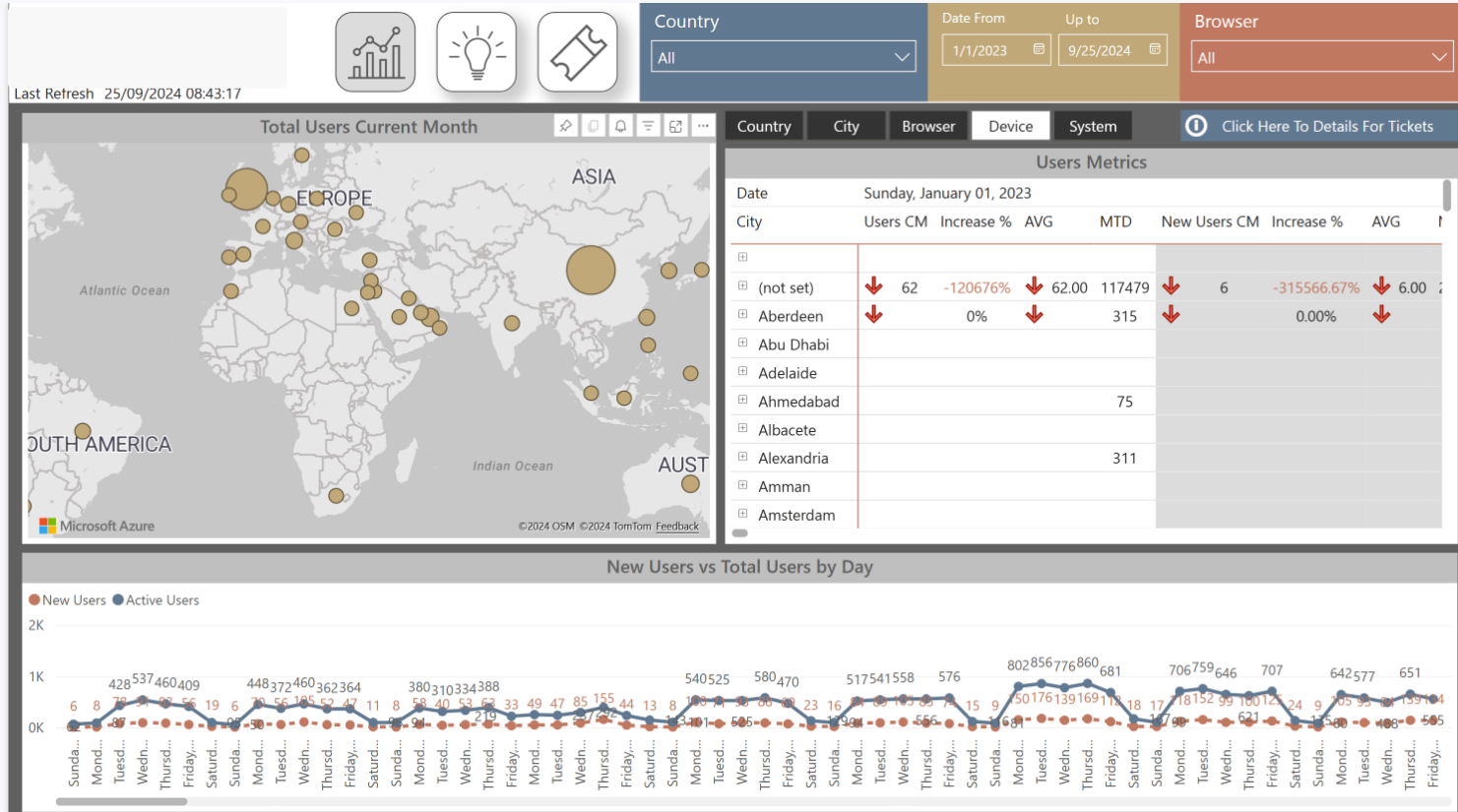
#### Sample pricing mechanism

- Maximum permit price: [redacted]
- 20% weight for each of CO<sub>2</sub>, manufacture year, dimensions, weight, fuel type
  - maximum charge of [redacted] for each attribute ([redacted] % x [redacted])
- Weight limits: (1500, 2500)
- Dimension limits: (6.0, 9.0)
- CO<sub>2</sub> upper limit: 150
- Year limits: (2005, 2020)



**DIY Data**  
**BUT WE DON'T HAVE A**  
**DATA SCIENTIST !**





Tickets Report V4 | Data updated 9/25/24

PPU Trial: 59 days left

Pages

Google Analytics

Page 1

Country
Date From: 10/1/2022
Up to: 9/25/2024
Brower

Total Users Current Month

Country	City	Brower	Device	System	Click Here To Details For Tickets	
Users Metrics						
Date: Saturday, October 01, 2022						
Country	Users CM	Increase %	AVG	MTD	New Users CM	Increase %
Australia	↓	0%	↓	1553	↓	0.00%
Austria				16		
Belgium				16		
Brazil	↓	0%	↓	1688	↓	0.00%
Canada	↓	0%	↓	156	↓	0.00%
Chile	↓	0%	↓	276	↓	0.00%
China	↓	16	-81331%	↓	16.00	71558
Colombia				16		0
Egypt						
France				159		

Inights

Top All

~ Anomalies

Recent anomaly in Active Users

The most recent anomaly was on **Sunday, September 22, 2024**, when **Active Users** had a low value of **49**.

[Show more](#)

~ Trends

Recent trend in Active Users

**Active Users** started trending up on **Saturday, July 1, 2023**, rising by **147.37%** (140) in 1.05 years.

[Show more](#)

ⓘ This feature is in preview. [Learn more about Power BI insights](#)

New Users vs Total Users by Day

Tickets Report V4 | Data updated 9/25/24 | Search

Pages: Google Analytics | Page 1

Country: All | Date from: 1/1/2023 | Report to: All | Browser: All

Country	City	Browser	Device	System					
Users Metrics									
Date: Sunday, January 01, 2023									
City	Users CM	Increase %	AVG MTD	New Users CM	Increase %	AVG MTD	Users C		
London (not set)	62	120676%	↓	1174	6	211508%	↓	2628	71
Aberdeen	↓	0%	↓	315	0.00%	↓	37	↓	
Abu Dhabi	↓	75	↓	10	↓	↓	↓	↓	

Click Here to Details For Tickets

New Users vs Total Users by Day

Legend: ● New Users ● Active Users

### Trend

#### Upward trend in New Users

New Users trended up between Monday, May 1, 2023 and Sunday, May 21, 2023 with a rise of 66.

### Possible explanations

Country

'United Kingdom' accounted for the majority of the increase among Country. The relative contributions made by 'United Kingdom' and 'Australia' changed the most.

Legend: ● Increase ● Decrease ● Total ● Other

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**Thank You.**

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