AI Optimisation Recommendations

Summarised view of all savings opportunities across a number of technical categories

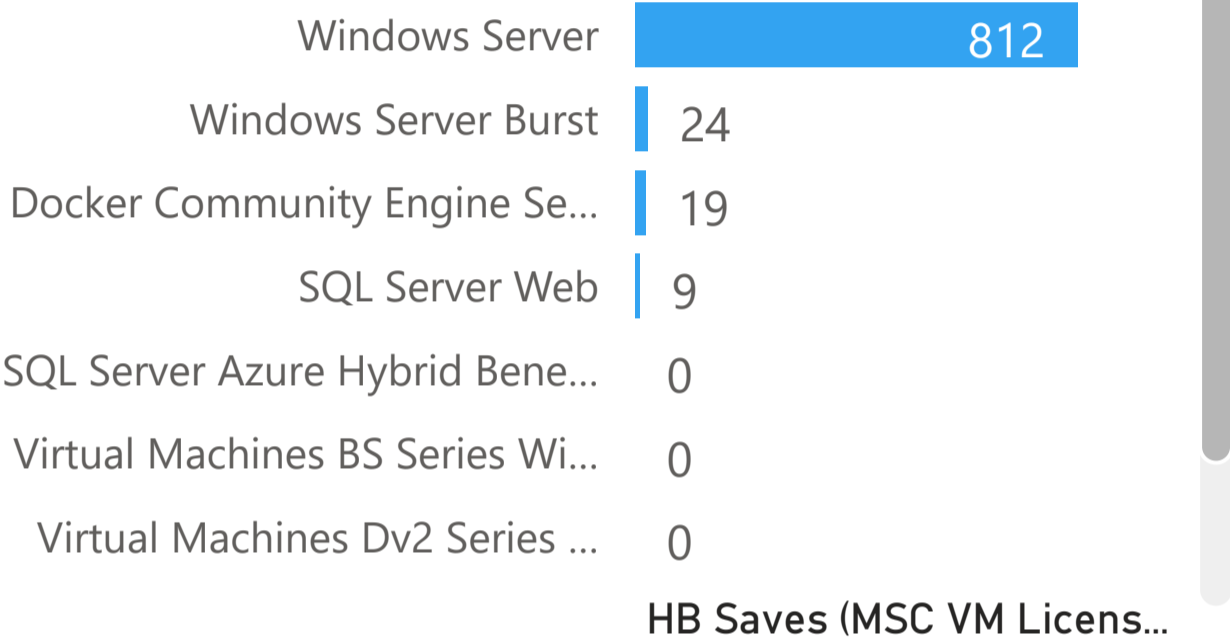## 29.22%
High End Saves Estimate

14.61%
Low End Saves Estimate

Estimated monthly saves range between €2,557 (€30,688 per year) and €1,279 (€15,344 per year)

Last monthly bill was €8,751

Hybrid Benefit

27 Hybrid Benefit opportunities, current monthly Azure license cost is €863, which could be saved by moving to Hybrid Benefit.

	HB Saves (MSC VM Licens...
Windows Server	812
Windows Server Burst	24
Docker Community Engine Se...	19
SQL Server Web	9
SQL Server Azure Hybrid Bene...	0
Virtual Machines BS Series Wi...	0
Virtual Machines Dv2 Series ...	0

Reserved Instances

8 CSP RI Recommendations, for 12 target resources, with potential monthly saves of €410

	RI Total Saves (Month) (Top5)
	227.22
	141.33
	41.32
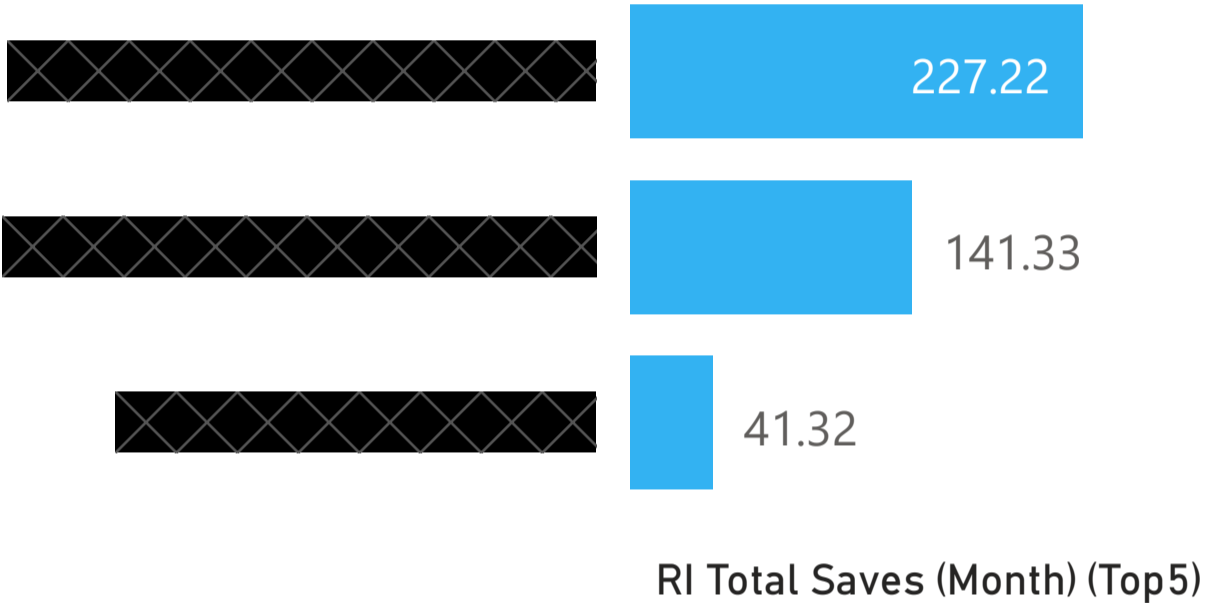
Zombie Resources

Monthly value of is €1 across 4 devices which can be considered for decomission.

|	Zombie Cost Saves (Month)
Geolocalized storage	1.1
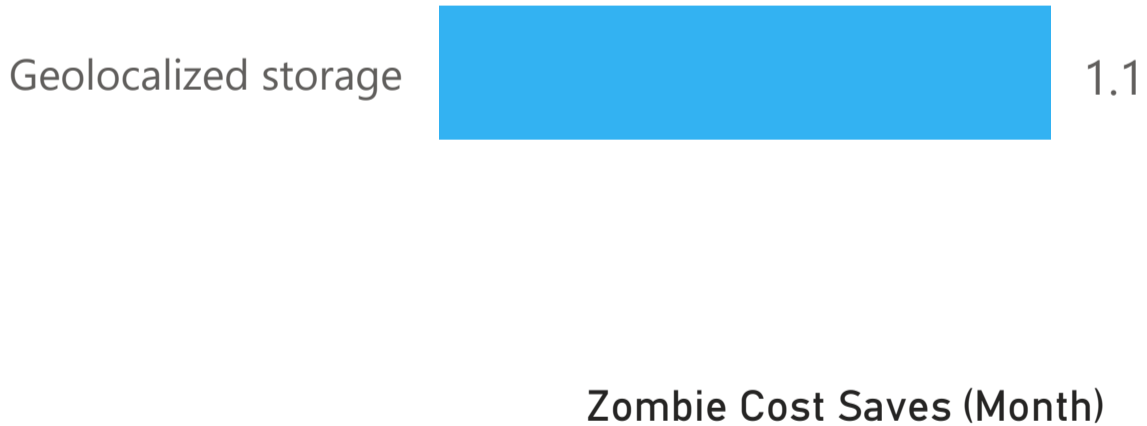
Idle & Oversized Services

€392 per month, across 64 devices. Saves of between 50% to 25% would result in a monthly cost reduction between €196 and €98

|	Idle / Oversized Saves (Month)
Idle Services	184
Idle Database	12
Oversize services	0
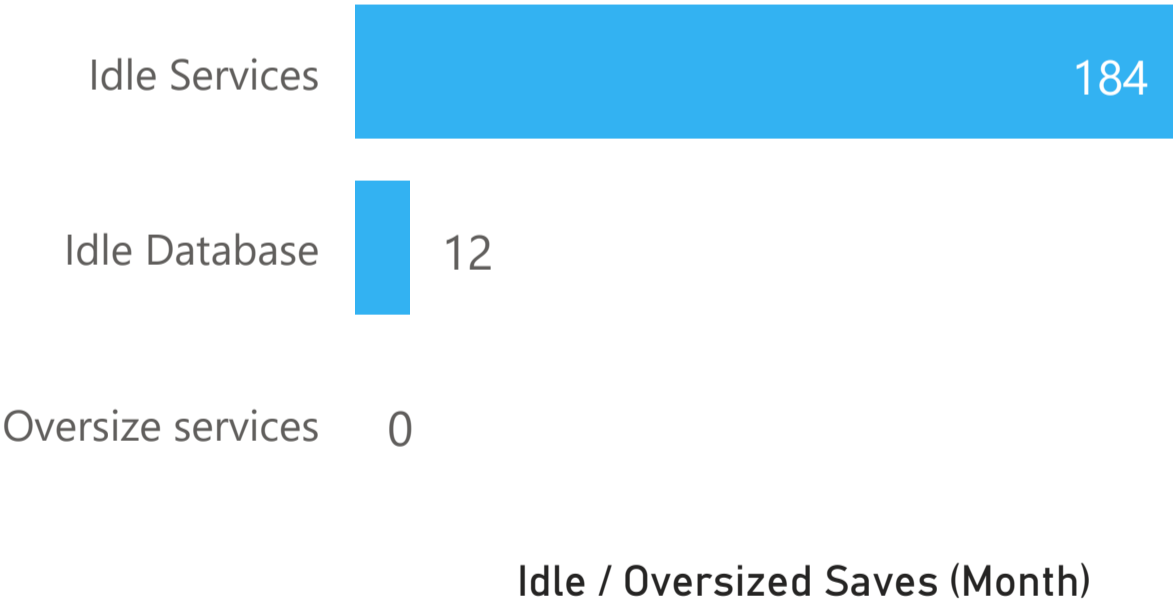
VM Optimisation

Current virtual machine monthly cost is €1,185, potential saves achieved by right-sizing VMs is €531 (CPU < 10% Avg. and moving to a lower tier, estimated at 50% of cost)

	VM Saves (Month)
< 5% Utilisation	531
6 - 10% Utilisation	0
Not Defined	0
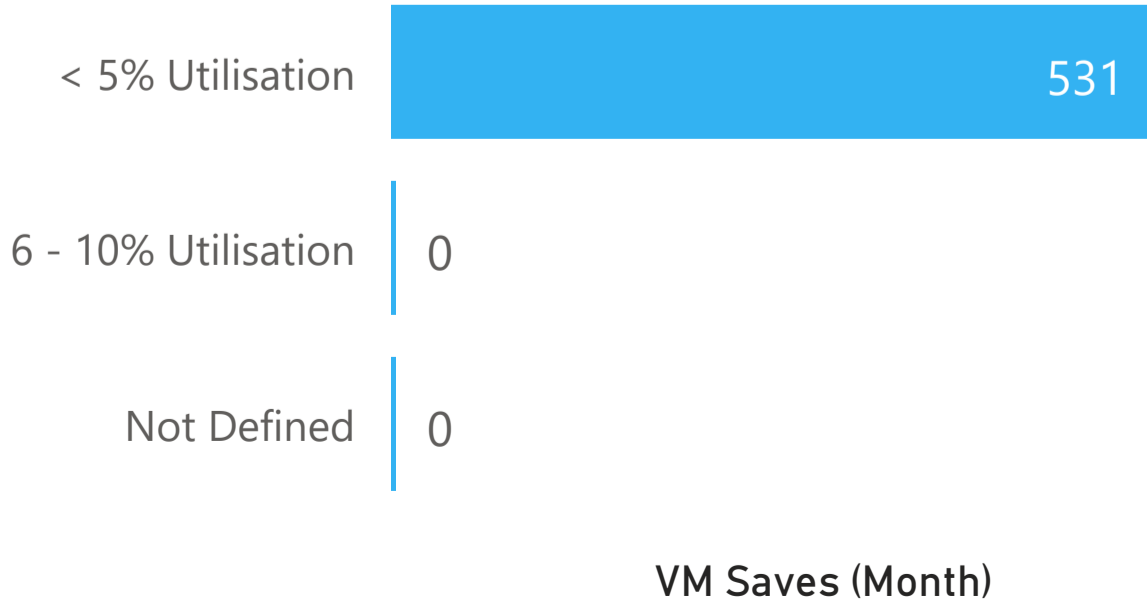
Storage Optimisation

Current monthly cost for storage is €3,058, estimated saves which can be achieved by downgrading storage to non SSD is €850. Assuming a 50% saves for a lower tier

	Disk Cost Saves (Month)
Premium SSD Managed Disks	850
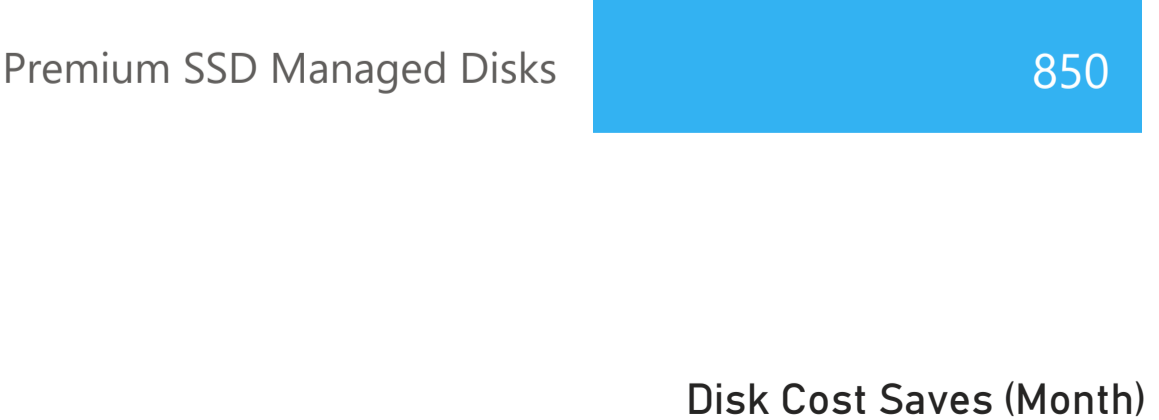
Cost Overview

Summarised view of the Azure bill excluding Marketplace and Reserved Instances

5	€90,696	€64,843	€8,751	-9.65%
Total Subscriptions	Cost in last 12 Months	Year to date costs	Cost in previous Month	Year end forecast vs last 12 months
	ⓘ from 01/10/21 to 31/08/2022	ⓘ from 01/01/22 to 31/08/2022	ⓘ from 01/08/22 to 31/08/2022	

Average Cost: 8.2K
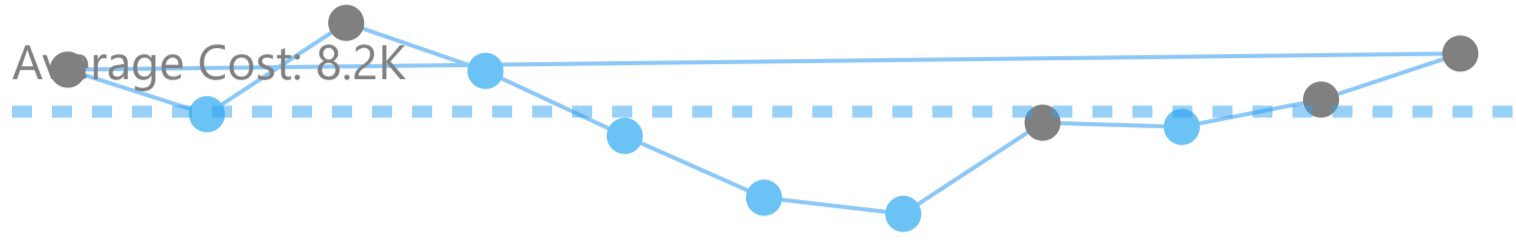
Run Rate by Subscription (Top 10)

Year		2021			2022								Total
Subscription | Location | MeterCategory | SubCategory | MeterName | Resource		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	▼
▨ ████████		4,419	4,215	4,459	4,373	3,994	3,470	3,345	3,699	3,567	3,695	3,841	43,077
▨ ████████		2,733	2,615	2,924	2,688	2,573	2,375	2,394	2,752	2,850	2,936	3,109	29,950
▨ ████████		690	672	882	805	777	891	777	841	873	862	916	8,986
▨ ████████		635	617	661	651	599	666	750	781	746	779	816	7,700
▨ ████████		135	104	93	84	90	91	87	76	77	78	69	984
Total		8,611	8,222	9,019	8,600	8,033	7,495	7,354	8,149	8,112	8,350	8,751	90,696

Top 5 - Total Cost by Meter Category

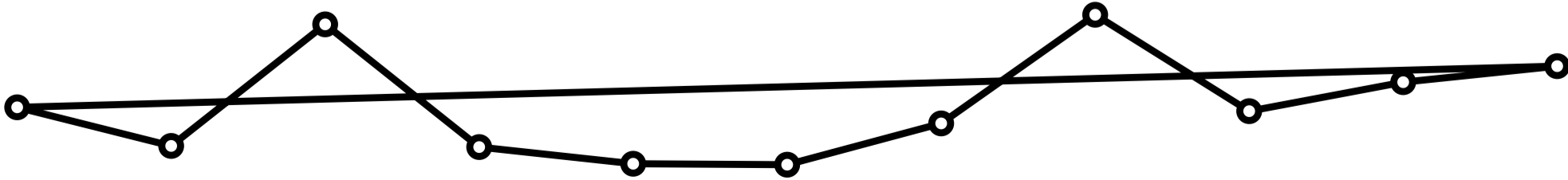| Category	Cost
Storage	26K
Virtual Machines	25K
Backup	7K
Azure Data Factory v2	6K
Functions	6K

0K   20K
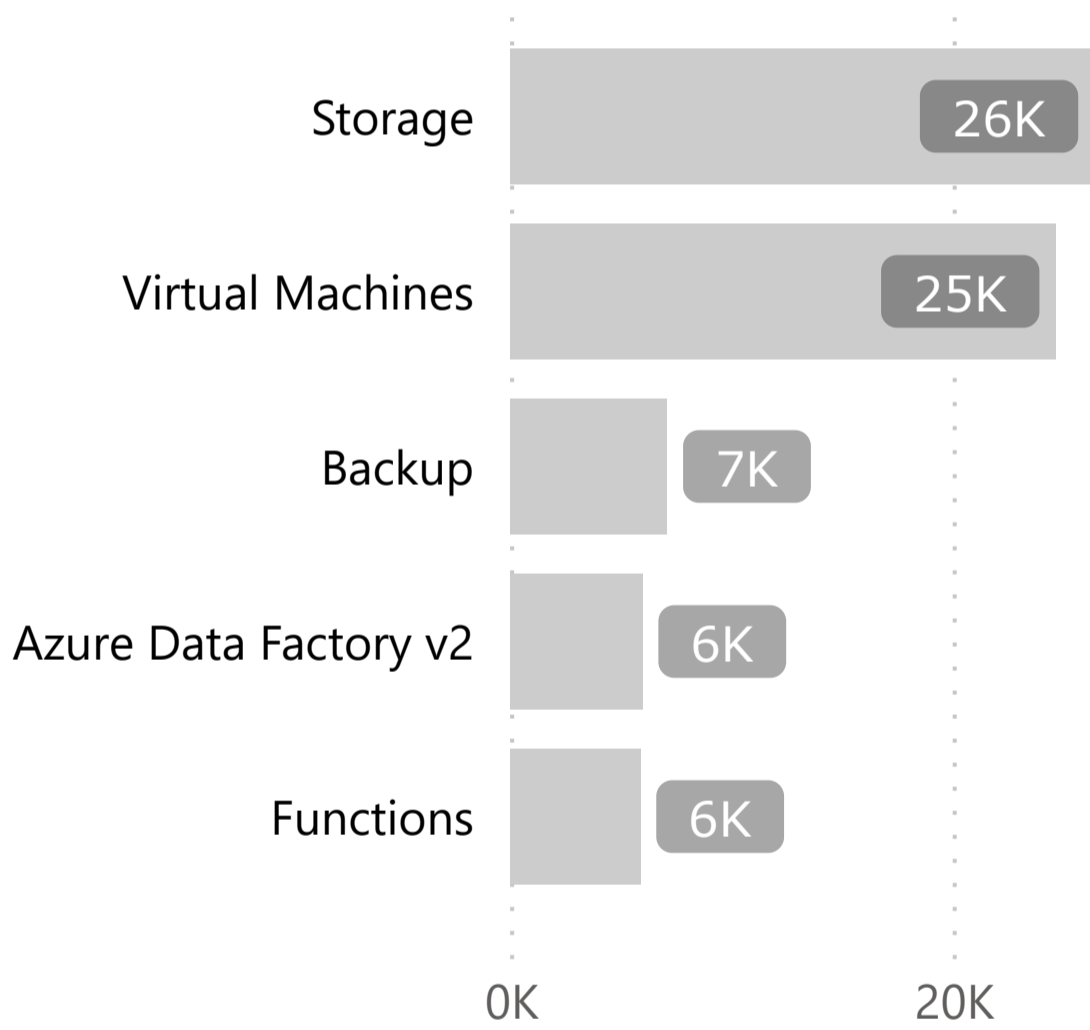
HC.Count Resources (comissioned)
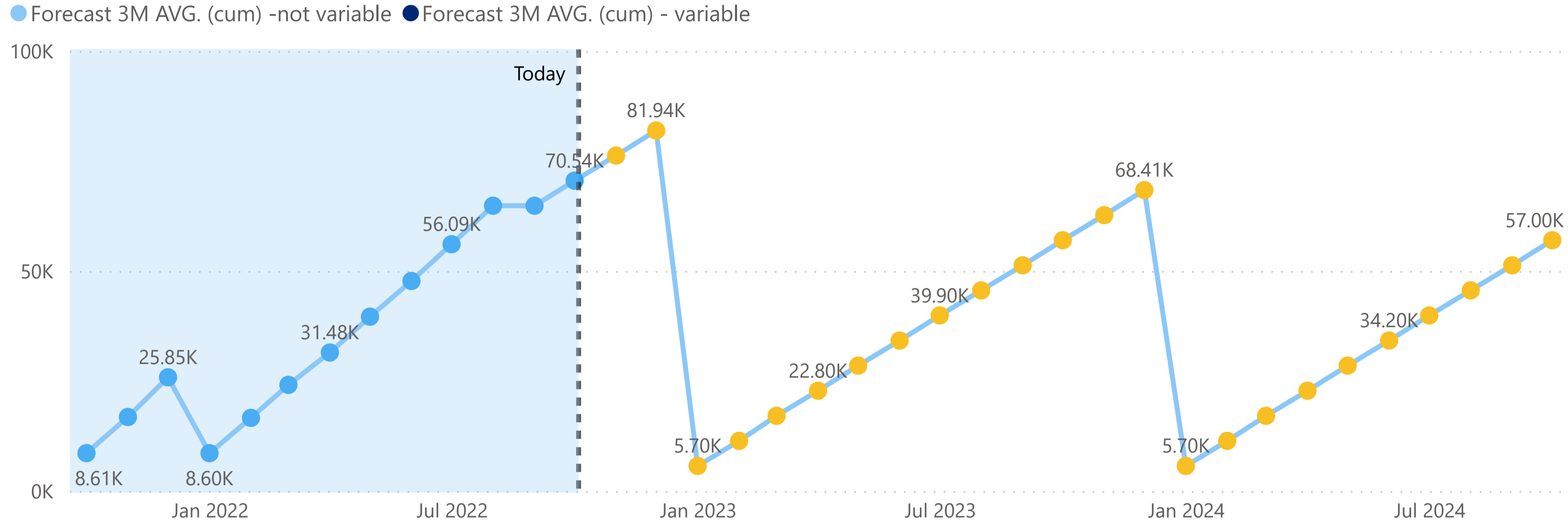
156
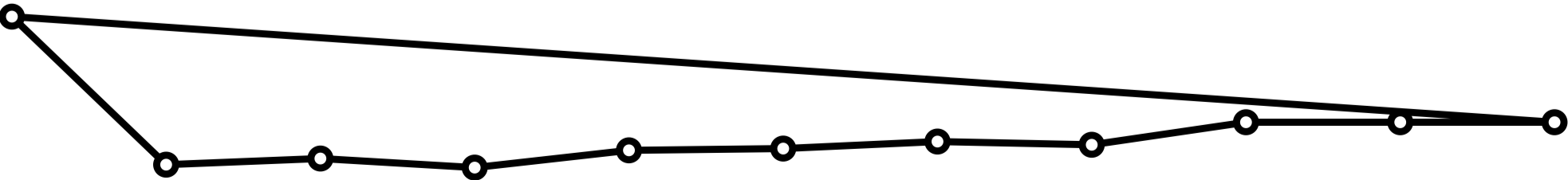
% Monthly Cost Change

4.81%

Cost Forecast

An overview of the current spend with projected spend and option to project costs based on cost variation
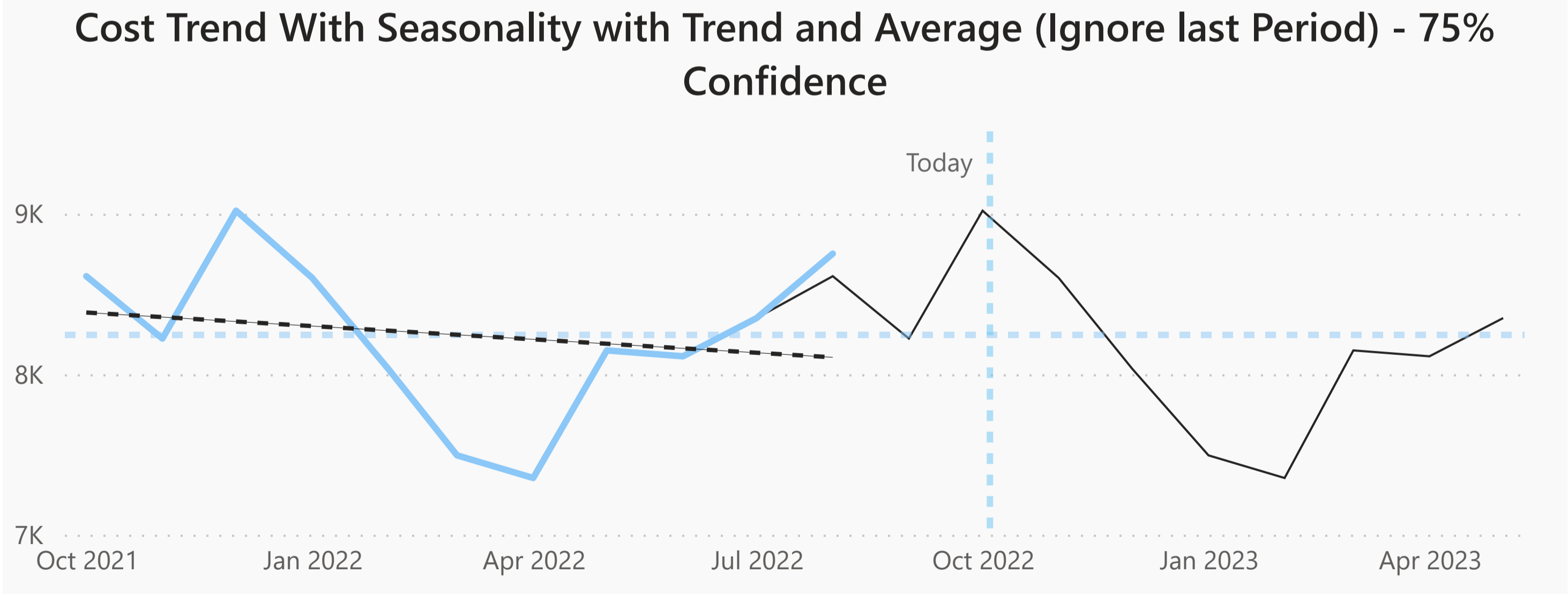
Cumulative Forecast Based on Previous 3 Months Average Cost with Variable Uplift

● Forecast 3M AVG. (cum) -not variable ● Forecast 3M AVG. (cum) - variable

€81,945
Year end Forecast

Dec
Forecast ending month

-9.65%
Year end forecast vs last 12 months

Cost Trend With Seasonality with Trend and Average (Ignore last Period) - 75% Confidence

The seasonal algorithm (ETS AAA) models the time series using an equation that accounts for additive error, additive trend, and additive seasonality. This algorithm is also popularly known as the Holt-Winters algorithm, after the researchers who described the characteristics of the model. The Holt-Winters method is widely used, for example, in predicting and planning demand in businesses.

Cost Trend with Trend and Average (Ignore last Period) - 75% Confidence
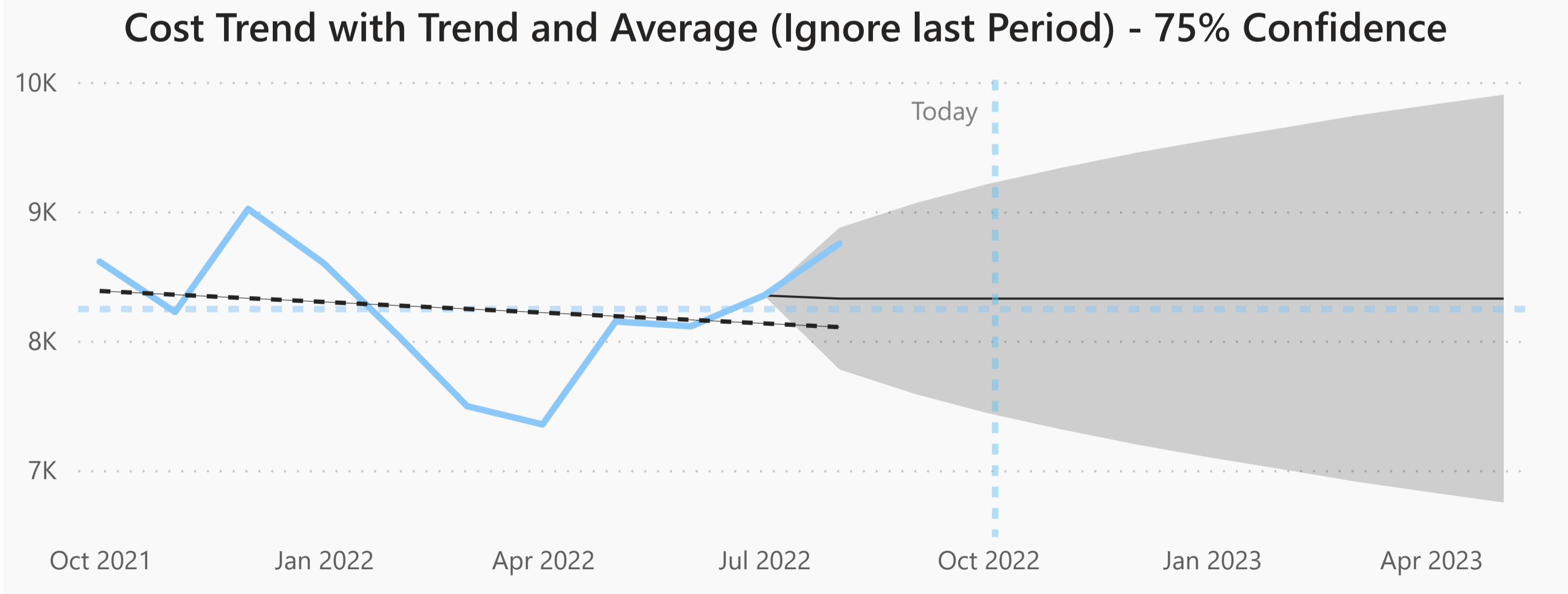
The non-seasonal algorithm (ETS AAN) uses a simpler equation to model the time series, which includes only a term for additive trend and additive error, and does not consider seasonality at all. We assume data values increase or decrease in some way that can be described by a formula, but that the increase or decrease is not cyclical.
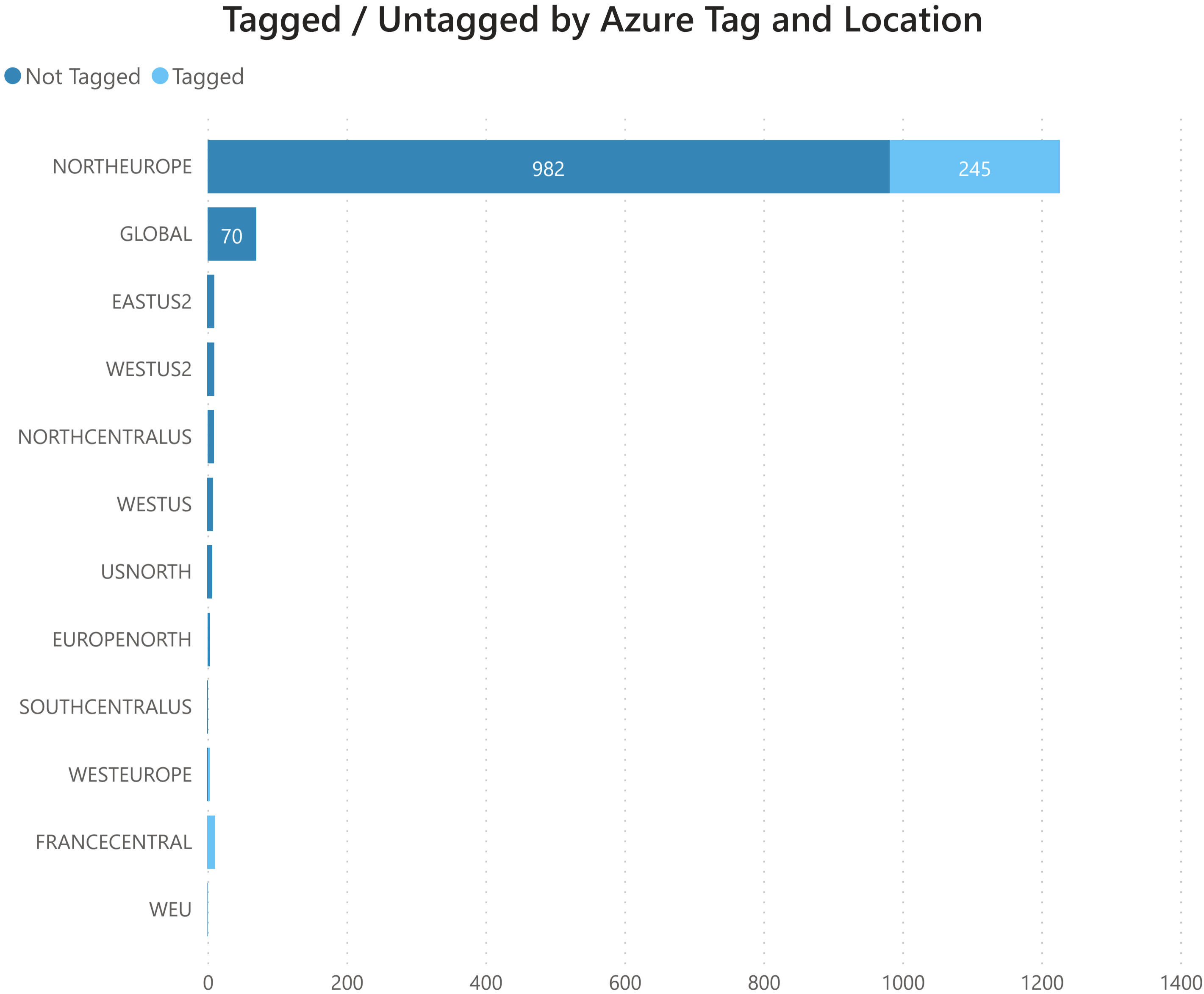
Azure Tag Summary

An overview of Azure tagging to help assess tag implementation across the organisation

80.36%
Azure - Not Tagged

84.29%
Devices with <=1 tag

1064
Tagged Devices

260
Untagged Devices

Tagged / Untagged by Azure Tag and Location

● Not Tagged ● Tagged

Location	Value 1	Value 2
NORTHEUROPE	982	245
GLOBAL	70	
EASTUS2		
WESTUS2		
NORTHCENTRALUS		
WESTUS		
USNORTH		
EUROPENORTH		
SOUTHCENTRALUS		
WESTEUROPE		
FRANCECENTRAL		
WEU		

0   200   400   600   800   1000   1200   1400

Reserved Instances

Overview of Azure Reserved instance spend across both EA and CSP environments, and a view of current % of VMs using RIs and % of virtual machine compute used by RIs

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0
CSP - Active RIs

Cost Previous Month

CSP Reservation Billed to Date (Active)

CSP Reservation Committed Total (Active)

ⓘ Reservation costs for active CSP reservations span from to

CPS Reservation Remaining Committed

0
EA - Active RIs

€0
Cost Previous Month

€0
EA Reservations Billed to Date (Active)

€0
EA Reservations Remaining Commit (Active)

ⓘ Reservation costs for active EA reservations span from (NA) to (NA)

€0
EA Reservations Committed total (Active)

14
RI VM Recommendations

ⓘ Azure VM Reserved Instance usage summary - €1,185 of compute spend (total €1,185) not optimised by RIs (100.00%) in the previous month

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ⓘ 14 Virtual Machines out of 28 used RIs in the previous month (50.00%).
14 VMs recommended to move to RIs

16,126.29
Total Compute Hours Last Month

(Blank)
RI Compute Hours Last Month

14
RI Based VMs last Month

28
Total VM Count Last Month

On Demand Vs RI Spend on Virtual Machines

● On Demand ● CSP Reserved ● EA Reserved ● Total Azure Spend ● Marketplace Costs
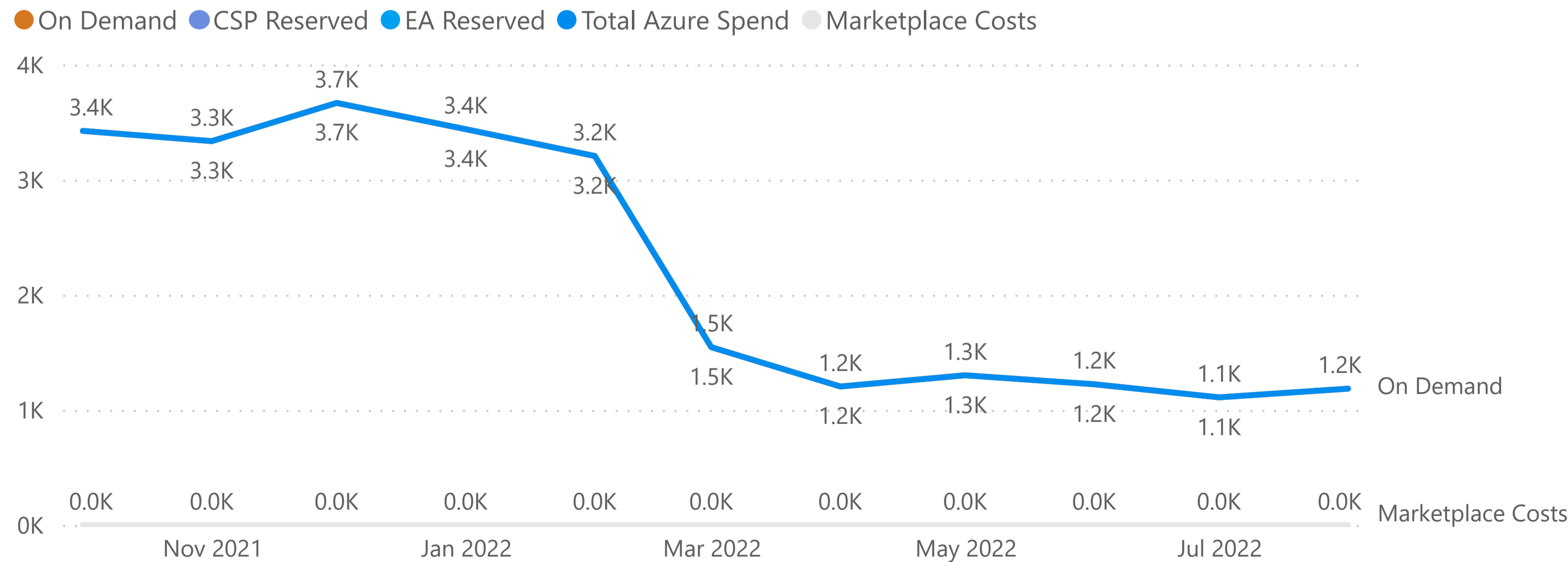
Azure Databricks

Overview of costs related to Databricks

€0
Databrick Costs (Previous Month)

ⓘ Databrick costs, €0 between 10-2021 and 08-2022

0.00%
ADB. Services Cost Databricks % (MAX Month)

ⓘ Databricks % of total spend, 0.00% between 10-2021 and 08-2022
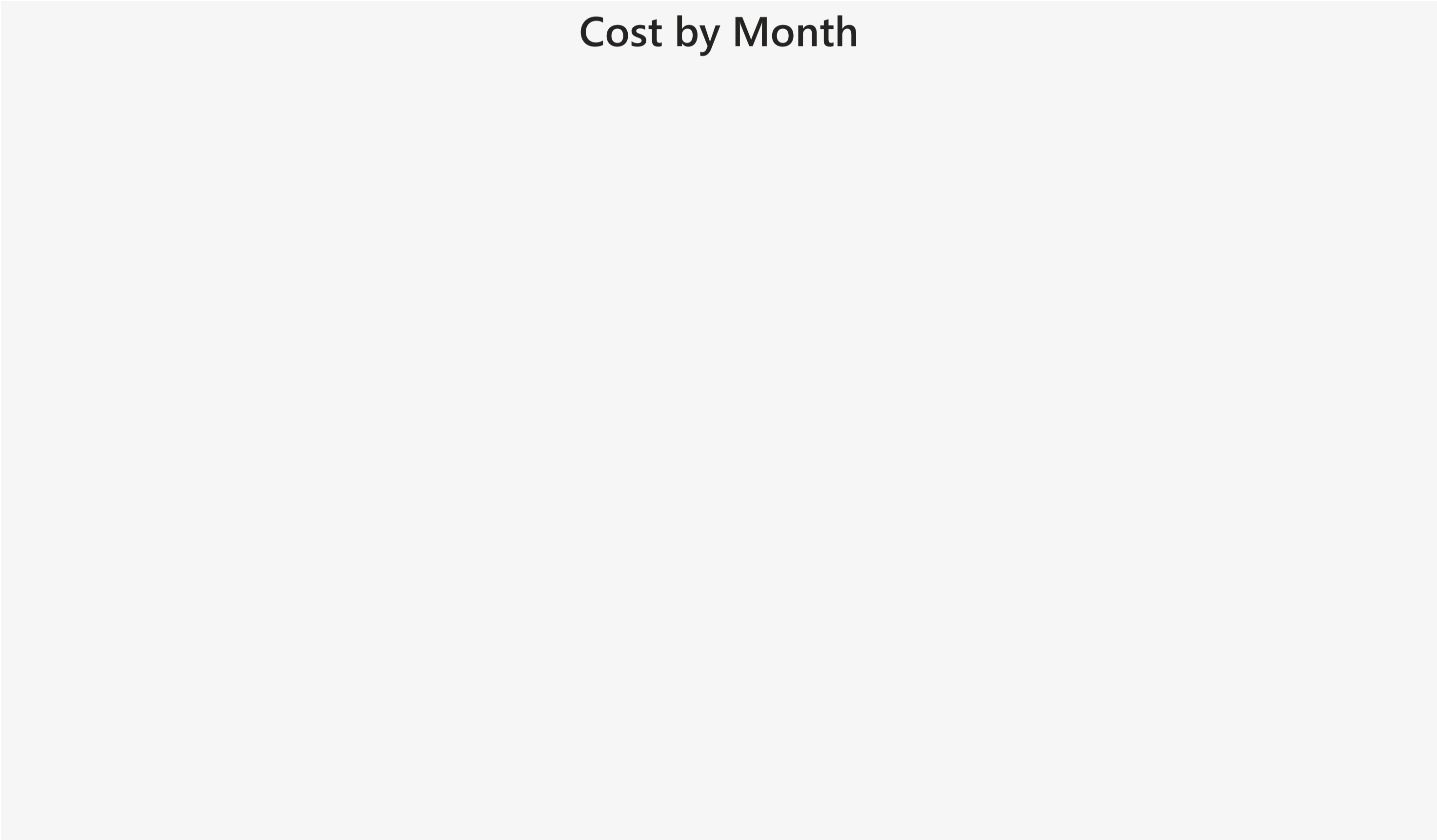
Cost by Month

Cost by meterCategory (Previous Month)

Azure Kubernetes Services

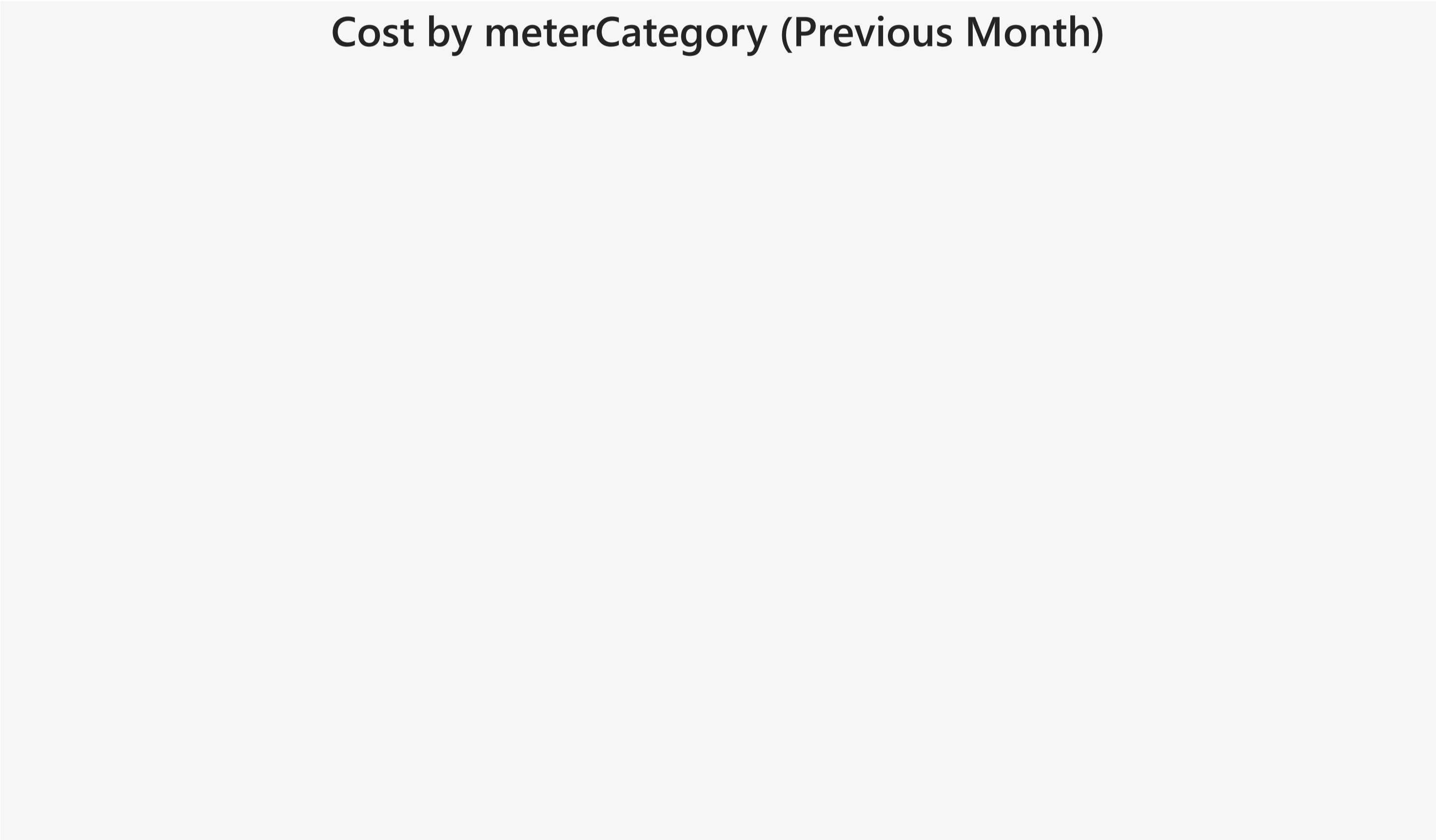Overview of costs related to Kubernetes services

Kubernetes Costs (Previous Month)

ⓘ Kubernetes costs, between 10-2021 and 08-2022

Kubernetes % of Total Spend (Previous Month)

ⓘ Kubernetes % of total spend, 0.00% between 10-2021 and 08-2022

0

Kubernetes Cluster Count

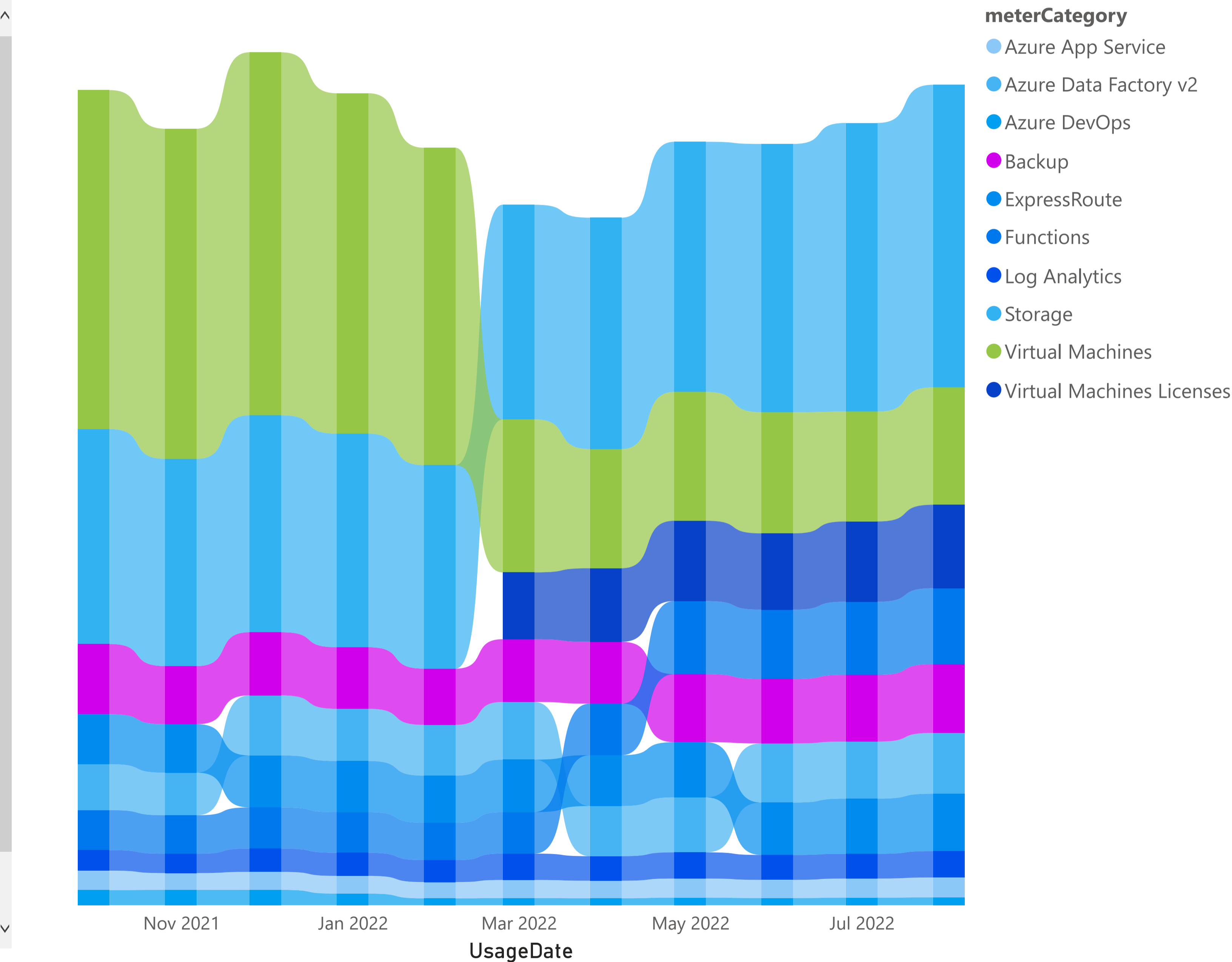## Cost by Month

Cost by meterCategory (Previous Month)

Azure Services

Cost breakdown of high level Azure services by meter category

MeterCategory Costs from 10-2021 to 08-2022

meterCategory	Cost	%GT cost	Cost Trend
Storage	26,394	29.10%	
Virtual Machines	24,641	27.17%	
Backup	7,092	7.82%	
Azure Data Factory v2	5,976	6.59%	
Functions	5,881	6.48%	
ExpressRoute	5,780	6.37%	
Virtual Machines Licenses	4,656	5.13%	
Log Analytics	2,639	2.91%	
Azure App Service	2,028	2.24%	
Azure DevOps	1,095	1.21%	
SQL Database	1,034	1.14%	
Redis Cache	966	1.07%	
Visual Studio Subscription	901	0.99%	
App Configuration	732	0.81%	
Virtual Network	521	0.57%	
Virtual Machine Licenses	206	0.23%	
Container Registry	50	0.05%	
Azure Monitor	39	0.04%	
Azure DNS	19	0.02%	
Service Bus	16	0.02%	
Bandwidth	14	0.02%	
Key Vault	9	0.01%	
Automation	5	0.01%	
Content Delivery Network	2	0.00%	
Total	**90,696**	**100.00%**	

Top 10 Service Trending

meterCategory
- Azure App Service
- Azure Data Factory v2
- Azure DevOps
- Backup
- ExpressRoute
- Functions
- Log Analytics
- Storage
- Virtual Machines
- Virtual Machines Licenses

UsageDate

Azure Secure Score

High level overview of the Azure Secure score with a view of resource health breakdown by Domain

Healthy / Unhealthy Score By Subscription Name

● Healthy Resource ● Unhealthy Resource

30.17%

Secure Score

Top improvement category is:

✅Enable MFA

(Out of a total of 15 controls)

	123	59
54	31
49	29
11	21

0   50   100   150   200