



What's on in my power bi environment

Monitoring Power BI

Ásgeir Gunnarsson



Power BI Gebruikersdag 2022

#pbig2022



Met dank aan onze partners

Platinum partners



Gold partners



Met dank aan onze partners

Silver partners



Community partners



ÁSGEIR GUNNARSSON

WHO AM I

- Data Platform MVP
 - Owner of North Insights
 - In BI since 2007
 - PUG leader of the Icelandic Power BI User Group
 - Group leader of the Icelandic PASS Group
 - Co-author of Pro Microsoft Power BI Administration
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AGENDA

- Why this topic
- Power BI Governance
- Power BI Admin Portal Settings
- Power BI artifact inventory
- Power BI activities
- Building things
- Reporting on the data

WHY THIS TOPIC

- Most of us Power BI Admins are accidental admins
- It's not easy to get the information
 - Nothing built in nicely
- Good to get the information out to stakeholders
- Important part of governance

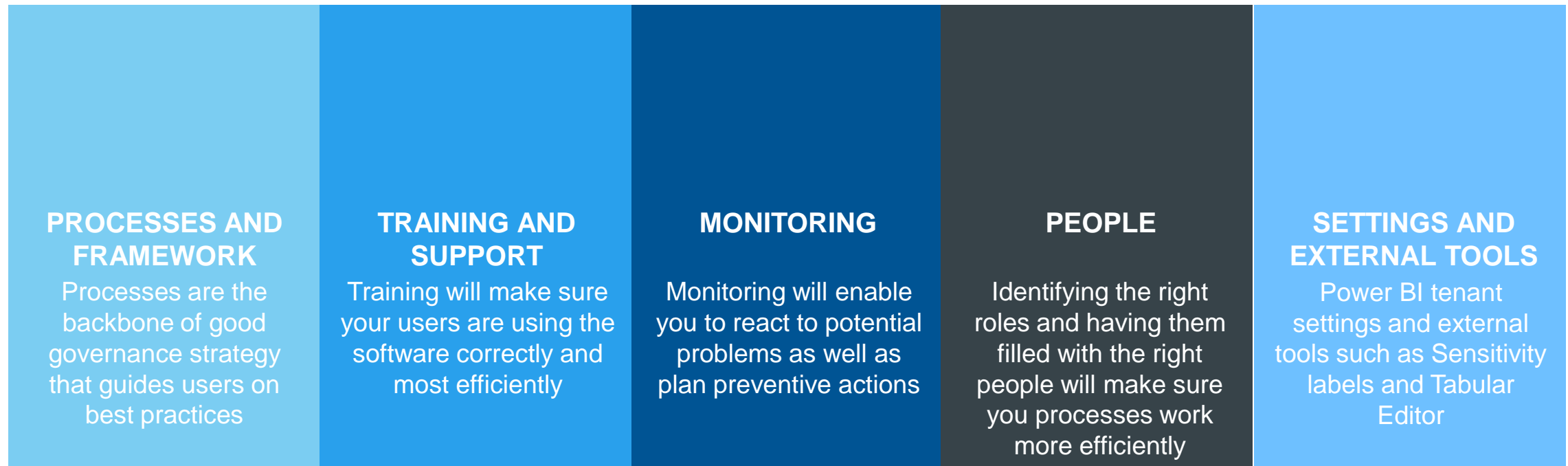
GOVERNANCE

GOVERNANCE

GOVERNANCE

POWER BI GOVERNANCE

Governance is a vital part of any implementation and should be thought into planning from the start *



* It's never too late to start

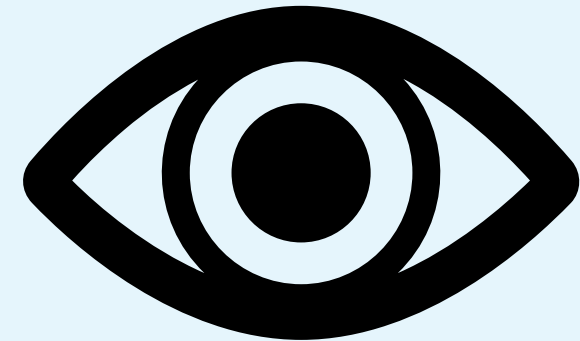
GOVERNANCE

MONITORING WHAT AND WHY

GOVERNANCE

MONITORING

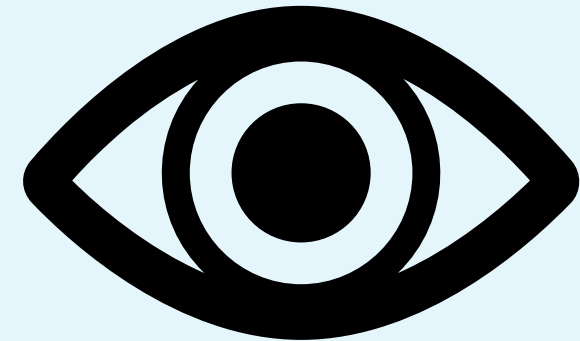
- Big part of governance is monitoring
- What exists
- What's being done
- Are we compliant



GOVERNANCE

WHAT TO MONITOR

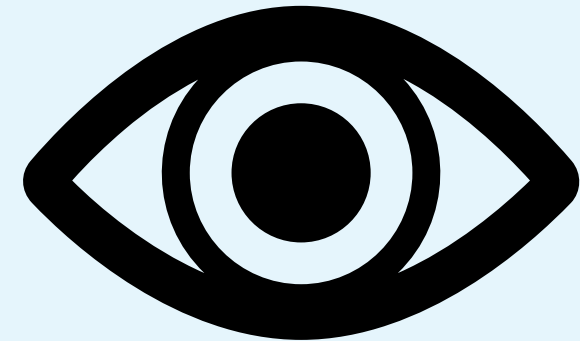
- Power BI Admin portal settings
- Power BI artifact inventory
- Power BI activities
- Power BI On-Premise Data Gateway
- Power BI Capacities



GOVERNANCE

WHY MONITOR

- Governance compliance
- Adoption and implementation
- Better insights
- License maintenance



WHAT TO MONITOR

ADMIN PORTAL SETTINGS

Changes frequently – manual
monitoring

ARTIFACT INVENTORY

What exists and who has
access

ACTIVITY LOG

Who did what when

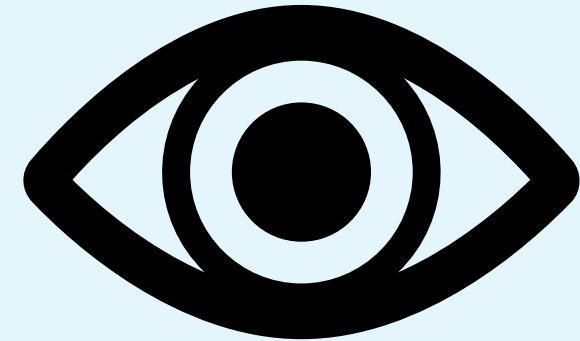
SUPPORT DATA

To make the picture complete

GOVERNANCE

ADMIN PORTAL SETTINGS

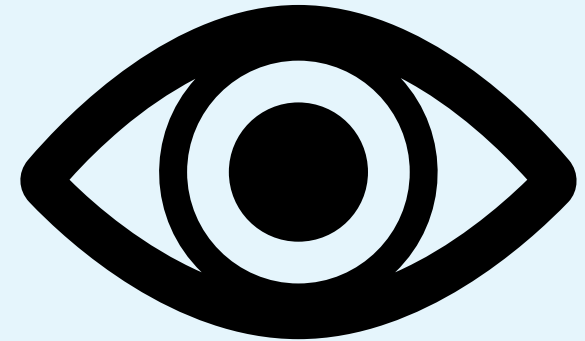
- Tenant Settings
 - Setting you should modify
 - Publish to web
 - Settings you might want to modify
 - Export
 - Share outside you company
 - Internal Help page
- Embed Code
- Workspaces
- Capacities



GOVERNANCE

ARTIFACT INVENTORY

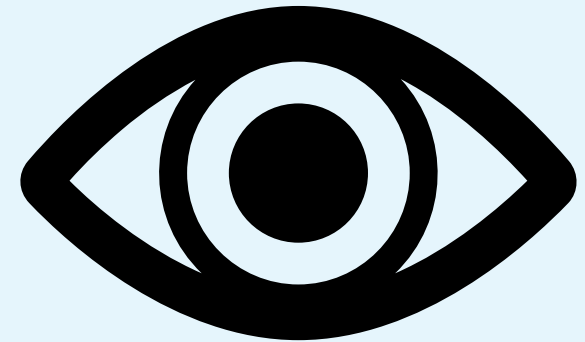
- Important to know what exists
- Important to know who owns what
- Users see only artifacts they have explicit access to
- Power BI Admin Rest API endpoints (scanner API) are used



GOVERNANCE

ARTIFACT INVENTORY

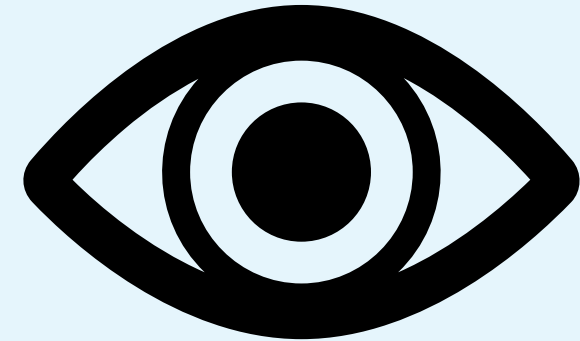
- Workspaces
- Reports
- Dashboards
- Datasets
- Data sources
- Gateways
- Dataflows



GOVERNANCE

ACTIVITY LOG

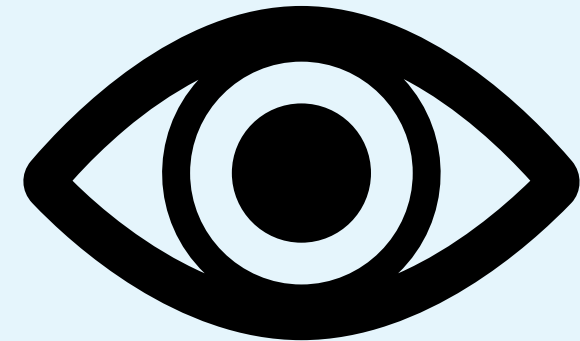
- Important to know what happened, who did it and when
- Can help in uncovering the breath of a breach
- Can help with understanding usage and managing performance
- Can be fetched from the Microsoft 365 Security and Compliance Center
 - Default last 90 days available
 - Your retention policy might be different
- Can be fetched from the Power BI Admin REST API
 - Only last 30 days no matter the retention policy in Microsoft 365



GOVERNANCE

ACTIVITY LOG

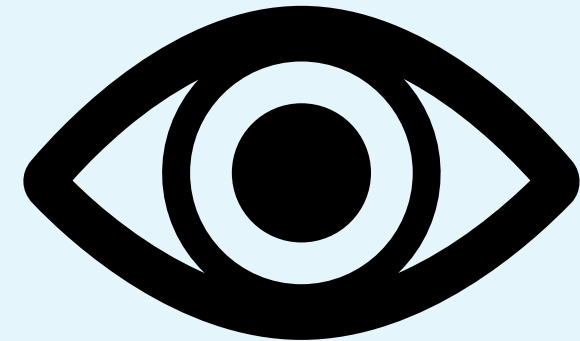
- Adoption
 - Who is using Power BI
 - Who is not using Power BI
- Who
 - Who is viewing reports/dashboards
 - Who is modifying artifacts
 - Who is deleting artifacts
- What
 - What reports/dashboards are being used
- When
 - When are the reports/dashboards being used



GOVERNANCE

OTHER USEFUL DATA

- User information from Azure Active Directory
 - Names
 - Departments
 - Role
 - Etc.
- License information from Microsoft 365
 - Who has license
 - Combined with who is using Power BI from Activity log to find dormant users with license
 - Combined with who has started trial in Activity log



GOVERNANCE

MONITORING HOW

EXTRACTING THE DATA

- Use REST API
 - Any tool that can call REST API and receive JSON in return
 - PowerShell
 - Azure Data Factory
 - SSIS
- Use PowerShell cmdlets
 - Any version of PowerShell
 - Can be run as function apps in Azure
 - Windows scheduler

GOVERNANCE

ARTIFACT INVENTORY

ARTIFACT INVENTORY

- Admin - WorkspaceInfo GetModifiedWorkspaces
 - What has changed
- Admin - WorkspaceInfo PostWorkspaceInfo
 - Give me information about list of workspaces
- Admin - WorkspaceInfo GetScanStatus
 - Are we there yet
- Admin - WorkspaceInfo GetScanResult
 - Since you are done, please give me the results

ARTIFACT INVENTORY

- Extend with:
 - Dataset Expressions (DAX and Mashup)
 - Dataset Schema (Table, columns and measures)
 - Datasource Details
 - Users
 - Lineage

GOVERNANCE

ACTIVITY LOG

ACTIVITY LOG

- Rest API
 - Admin - Get Activity Events
 - 1 day at a time (but it's really 1 hour at a time)
 - 30 days rolling window
- PowerShell cmdlet
 - Get-PowerBIActivityEvent
 - 1 day at a time (1 hour to be absolutely sure)
 - 30 days rolling window

GOVERNANCE

WHERE TO BEGIN

EXTRACTING THE DATA

- Use REST API
 - Data Factory template by JustB - <https://github.com/justBlindbaek/PowerBIMonitor>
- Use PowerShell cmdlets
 - PowerShell scripts by Rui Romano - <https://github.com/RuiRomano/pbimonitor>

GOVERNANCE

**DATA IS HERE WHAT
NOW**

REPORT ON THE DATA

- Complex data model
- In a star schema what are the facts
 - Counts
 - Trend over time
 - Lineage
- Artifact inventory vs. usage
- Extending the data with information from the creators
 - Report descriptions
 - Confidentiality
 - Business owner

QUESTIONS

ÁSGEIR GUNNARSSON
@BIDGEIR



Bedankt!
Thank you!

Vul alsjeblieft
de evaluatie in



Please fill in
the evaluation

