

REEL IN THE WILD WEST

Power BI Governance



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WHO AM I

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- In BI since 2007
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IS YOUR POWER BI ENVIRONMENT „THE WILD WEST“?

**HOW DO I WANT MY POWER BI
ENVIRONMENT TO BE?**

**HOW IS MY POWER BI
ENVIRONMENT?**

GOVERNANCE

WHY GOVERNANCE

- Governance is about making sure the right people do the right thing within the defined boundaries for the organization. We need to make sure the BI system (Power BI) does not expose data to the wrong people and that the artifacts are stored, shared, and maintained in the right way. Furthermore, we need to make sure that the users, creators, and administrators know how to use, manage, and secure the artifacts
- As Power BI is partly self-service, it is vital that the governance is implemented early and in such a way that it does not impede creators and users unless necessary. Being restrictive in the wrong place can lead to implementation failure and un-governed solution frequently known as Shadow IT. It's important to tread carefully to avoid that situation but at the same time make sure your organization is compliant and secure

**NEED TO MAKE SURE THEA THE USERS,
CREATORS, AND ADMINISTRATORS KNOW
HOW TO USE, MANAGE, AND SECURE THE
ARTIFACTS**

**IT IS VITAL THAT THE GOVERNANCE IS
IMPLEMENTED EARLY AND IN SUCH A WAY
THAT ID DOES NOT IMPEDE CREATORS AND
USERS UNLESS NECESSARY**

GOVERNANCE

GOVERNANCE STRATEGY

- Consider current IT Governance strategy
- In your organization is Power BI:
 - Enterprise BI tool
 - Self-service BI tool
 - Managed self-service
 - All of the above
- Other considerations
 - How sensitive is your data
 - How do developers and users work with Power BI
 - How experienced are your developers
 - What kind of security requirements and/or industry standards do you have to adhere to
 - How much audit trail do you need

Key considerations

- Secure management buy-in
- How much control is enough
- How do you document the control
- How do you enforce the control

GOVERNANCE

GOVERNANCE STRATEGY

- Important to make the strategy and relevant documents available to all Power BI users
- Preferably automated delivery based on roles and actions
- Setup a RACI

GOVERNANCE

GOVERNANCE STRATEGY

- The governance strategy can be a separate document
- The governance strategy can be embedded into processes
- Set of guiding principles: e.g.,
 - “PBIX files should always be stored in a central storage with version control”
 - “Non-departmental reports (or datasets supporting them) should always use at least two environments (dev and prod)”

GOVERNANCE

POWER BI GOVERNANCE

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

PROCESSES

Processes are the backbone of good governance strategy that guides users on best practices

TRAINING

Training will make sure your users are using the software correctly and most efficiently

MONITORING

Monitoring will enable you to react to potential problems as well as plan preventive actions

ROLES

Identifying the right roles and having them filled with the right people will make sure your processes work more efficiently

* It's never too late to start

GOVERNANCE

PROCESSES

PROCESSES

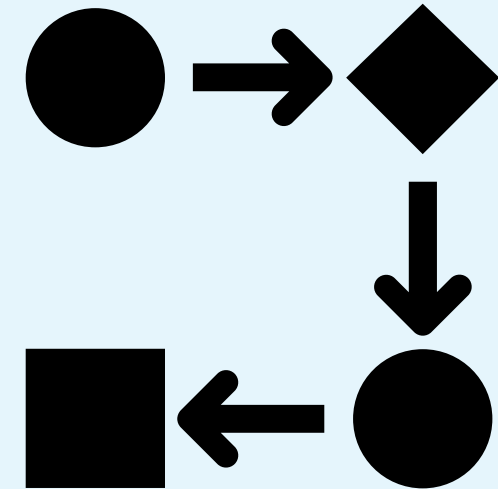
WHY DO PROCESSES

- By having processes, you achieve the following:
 - Reduce risk
 - Standardize the way content is created and tenant is administered
 - More effective developers and administrators because they do things right the first time

GOVERNANCE

PROCESS

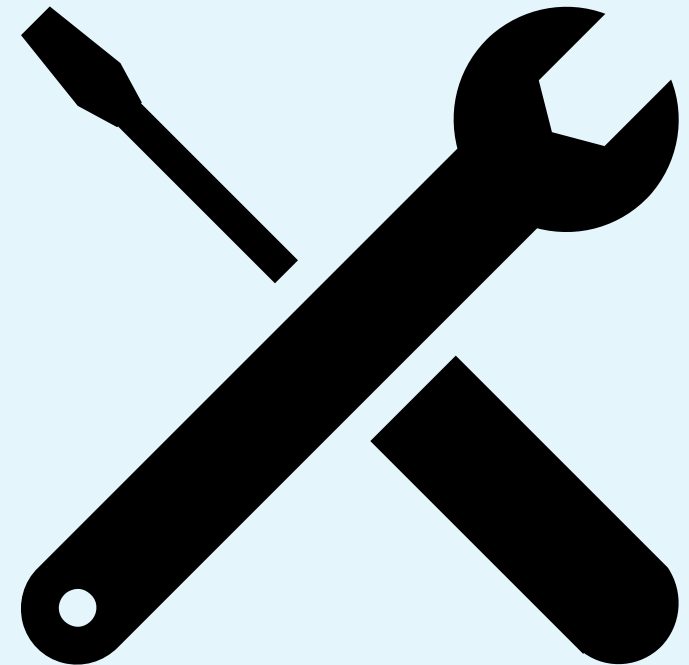
- Backbone of a good governance strategy
- Broken into smaller processes
- Processes reduce accidental breaches
- Can be presented as best practices



GOVERNANCE

DEVELOPMENT PROCESS

- Relevant to everyone that create reports or datasets
- Often includes description of the following
 - Where content is developed
 - How and where to store PBIX files
 - When to split report and dataset from each other
 - Branding information
 - Development support material
- Might be different for BI professionals and business people
 - Main content the same



GOVERNANCE

PUBLISHING PROCESS

- Relevant to everyone that create reports or datasets
- Often includes description of the following
 - How to setup App Workspaces
 - How and when to publish reports and datasets
- Might be different for BI professionals and business people
 - Main content the same



GOVERNANCE

SHARING PROCESS

- Relevant to everyone that need to share reports, dashboards or datasets or workspace managers
- Often includes description of the following
 - Description of sharing methods and which ones are acceptable in each circumstances
 - References to Security process for further details



GOVERNANCE

SECURITY PROCESS

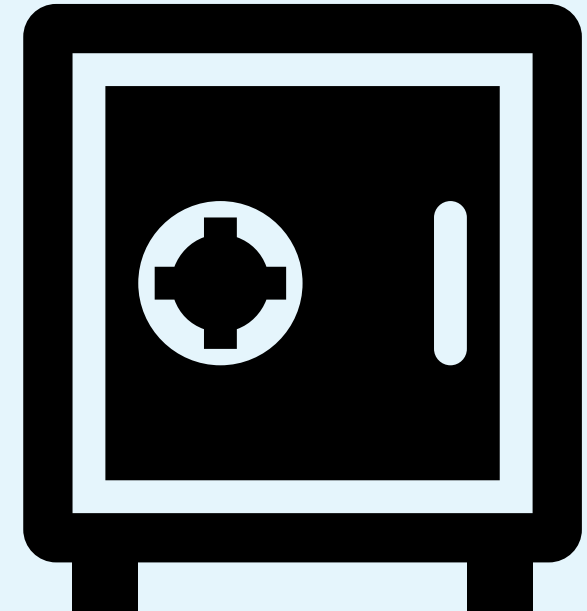
- Relevant to everyone that need to share reports, dashboards or datasets
- Usually split into two categories
 - Data security
 - Object security
- Contains information on and references to standards and rules and regulation the organization has to follow



GOVERNANCE

OBJECT SECURITY PROCESS

- Relevant to everyone that need to share reports, dashboards or datasets or workspace managers
- Often includes description of the following
 - When it's necessary to secure objects
 - How to secure different objects such as
 - PBIX
 - App Workspaces
 - Workspace Apps
 - Datasets
 - Reports and dashboards
 - On-Premise Gateway connection
- When to use AD groups and how to get them



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DATA SECURITY PROCESS

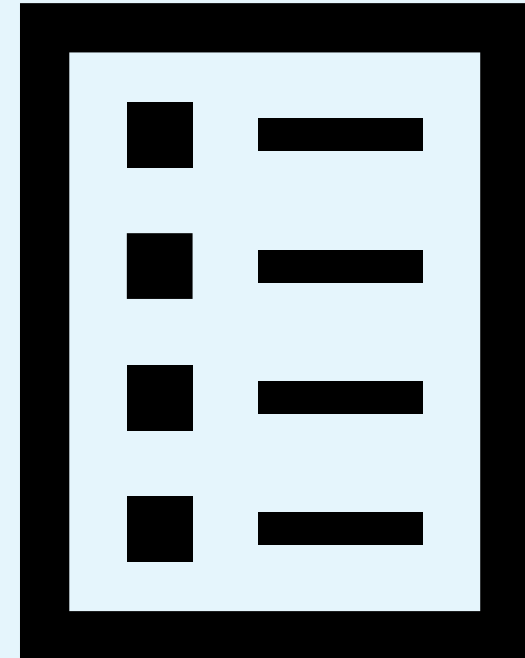
- Relevant to everyone that need to share reports, dashboards or datasets or workspace managers
- Often includes description of the following
 - When it's necessary to secure data separately
 - When to use data source security and when to use Power BI row-level security
 - Difference between static and dynamic row-level security and when to use which method



GOVERNANCE

NAMING STANDARDS PROCESS

- Relevant to everyone that need to create reports, dashboards, datasets and app workspaces
- Usually connected to existing corporate naming standards
- Often includes description of the following
 - How to name your objects
 - How to change names of objects after creation
 - Where to find the corporate naming standard



GOVERNANCE

SUPPORT PROCESS

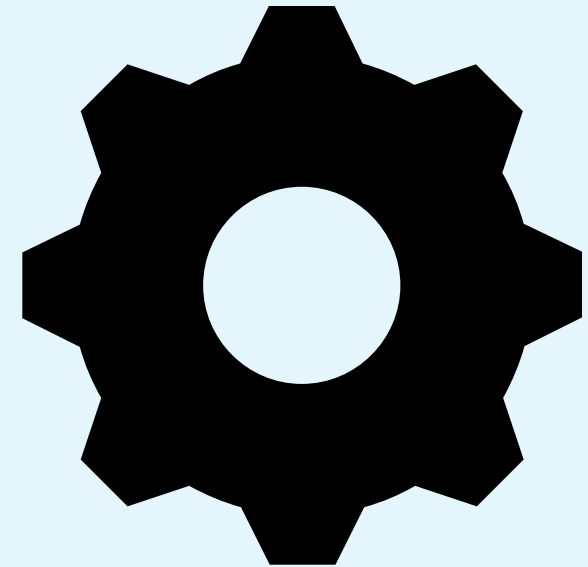
- Relevant to those supporting Power BI development
- Sometimes dedicated support organization – often not
- Often includes description of the following
 - Common support scenarios and how to solve them
 - Access problems
 - Refresh problems
 - How to identify report/dashboard/dataset owner



GOVERNANCE

TENANT SETTINGS DOCUMENTATION

- Relevant to Power BI administrators
- Often includes description of the following
 - Each setting in the Power BI Admin portal and how it should be set
 - How to navigate to the Power BI Admin portal and change settings



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ROLES

GOVERNANCE

ROLES

- Important to have well defined roles
- Different from organization to organization
- Same person might have more than one role
- The most common roles are:
 - Power BI Administrator
 - Power BI Gateway Administrator
 - Data steward
 - Power BI Auditor
 - Power BI Supporter(s).



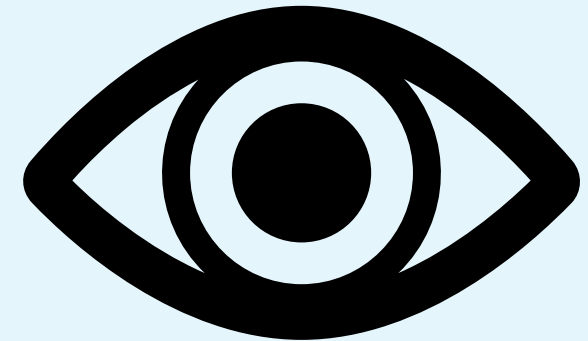
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MONITORING

GOVERNANCE

MONITORING

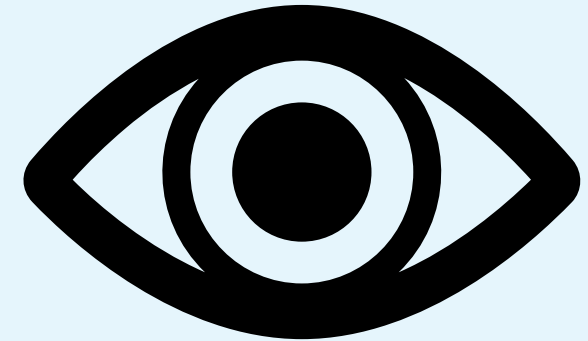
- Big part of governance is monitoring
- Using Power BI API to create and maintain artifact inventory
- Using the Power BI Audit Log to monitor activity (and inactivity)
 - Governance issues
 - Adoption
- Report on the results



MONITORING

ARTIFACT INVENTORY

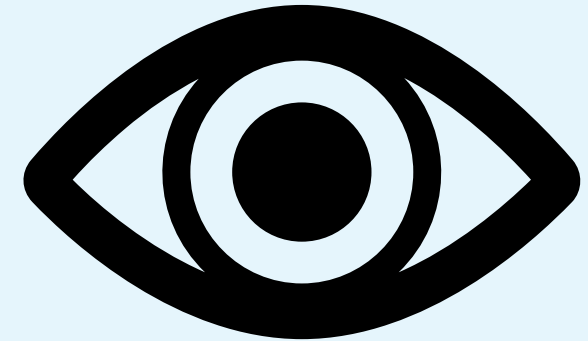
- Important to know what exists
- Important to know who owns what
- Users see only artifacts they have explicit access to
- Power BI Admin (Scanner) Rest API endpoints are used
- Can be done via PowerShell cmdlets delivered by Microsoft



MONITORING

ACTIVITY LOG

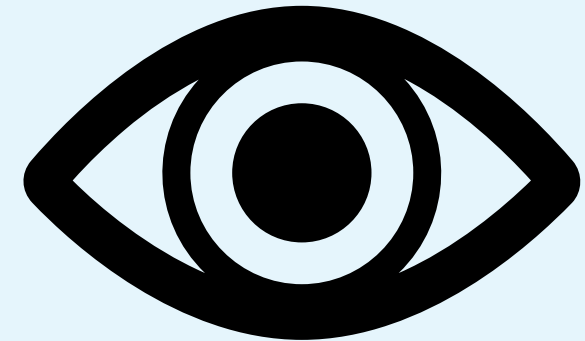
- Important to know what happened, who did it and when
- Can help in uncovering the breath of a breach
- Can help with understanding usage and managing performance
- Can be fetched from the Microsoft 365 Security and Compliance Center
 - Default last 90 days available
 - Your retention policy might be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



MONITORING

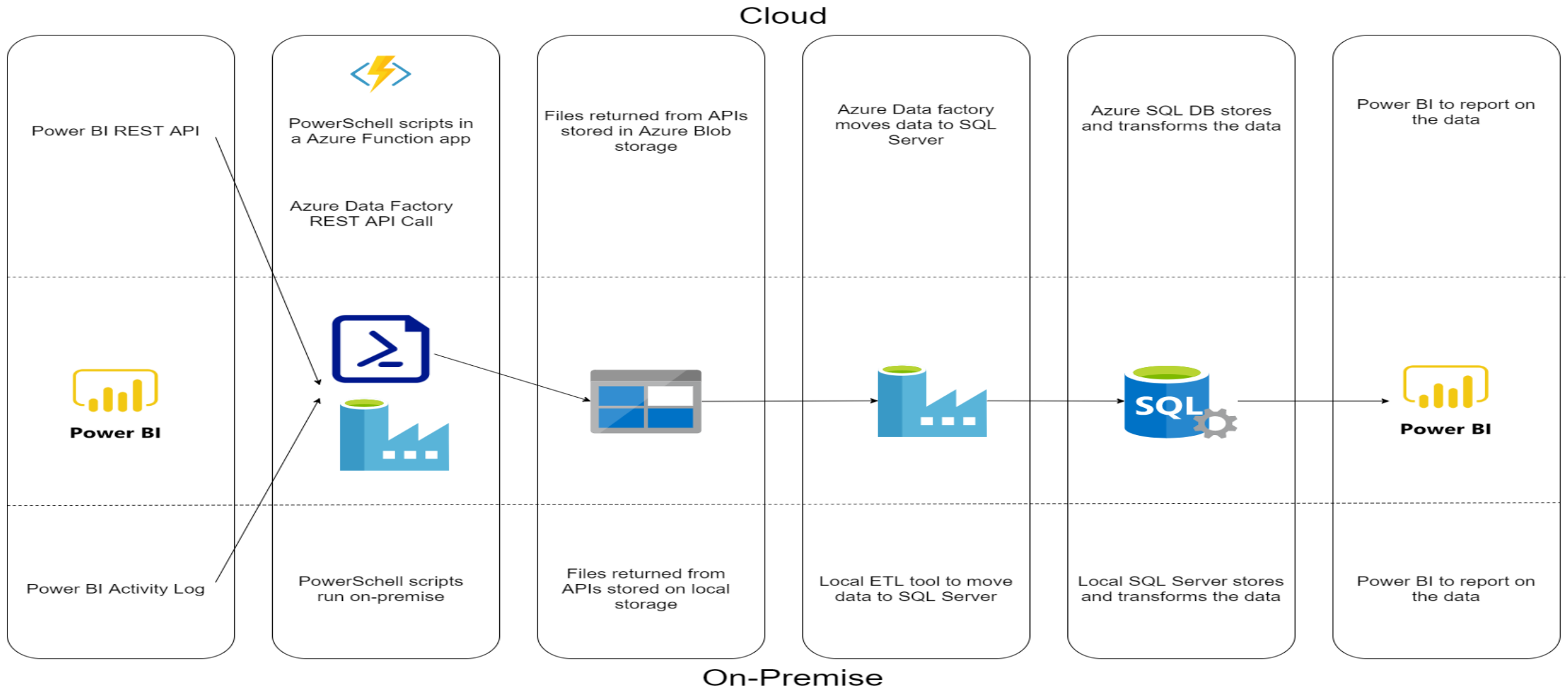
OTHER USEFUL DATA

- 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



MONITORING

POSSIBLE IMPLEMENTATION



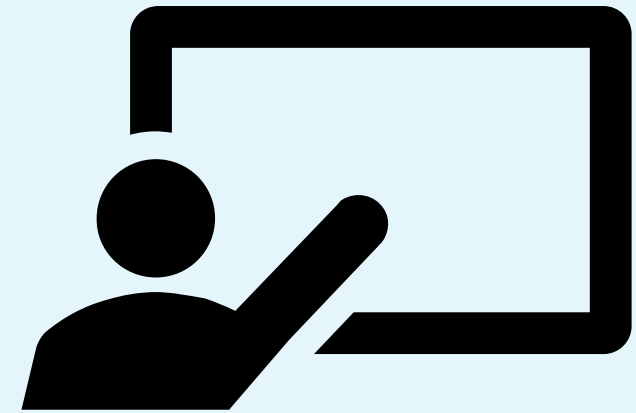
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TRAINING

TRAINING

TRAINING

- Training is very important
 - Training in the tool
 - Training in the governance
- Train everyone
 - Not just the developers
 - Tailored training based on roles
 - Consumers
 - Report developers
 - Data and report developers
 - Find right delivery method
- Automate the offering of training via Microsoft Power Automate in combination with Office 365 (who has license) and the Power BI audit log (what are they doing)



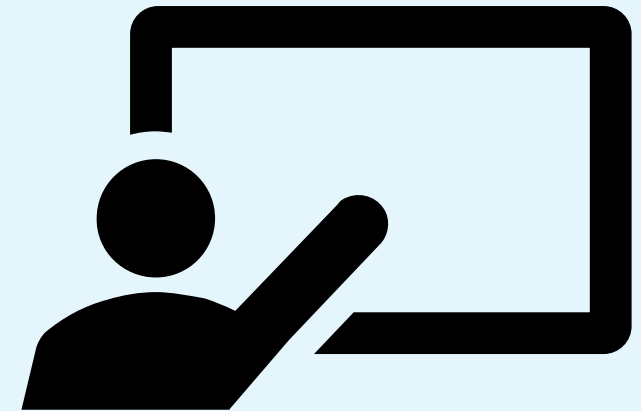
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IMPLEMENTATION

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IMPLEMENTATION

- Assessment of gaps
 - What processes are needed
 - What training is needed
 - What monitoring is needed
 - What roles are needed
- Implementation plan



GOVERNANCE

IMPLEMENTATION

- Processes (for each)
 - Session to discover needs and restriction
 - Create process document
 - Iterate if needed
- Monitoring
 - Choose architecture
 - Implement
 - Iterate if needed
- Training
 - Setup a training plan for each user group
 - Setup training delivery plan
 - Create content / Deliver training
- Roles
 - Define roles
 - Assign roles

