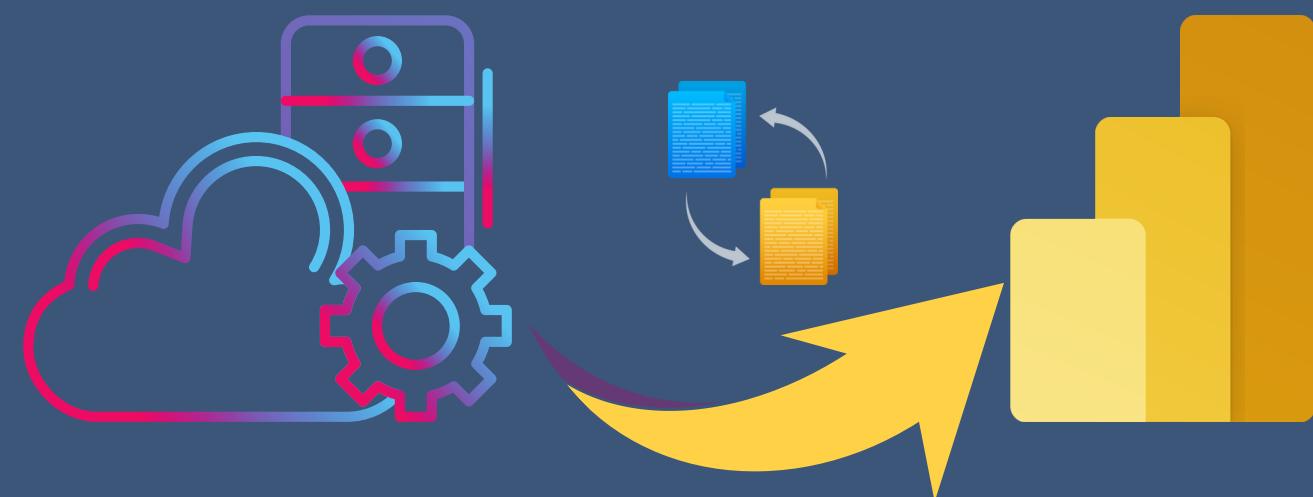


# MIGRATE TO POWER BI



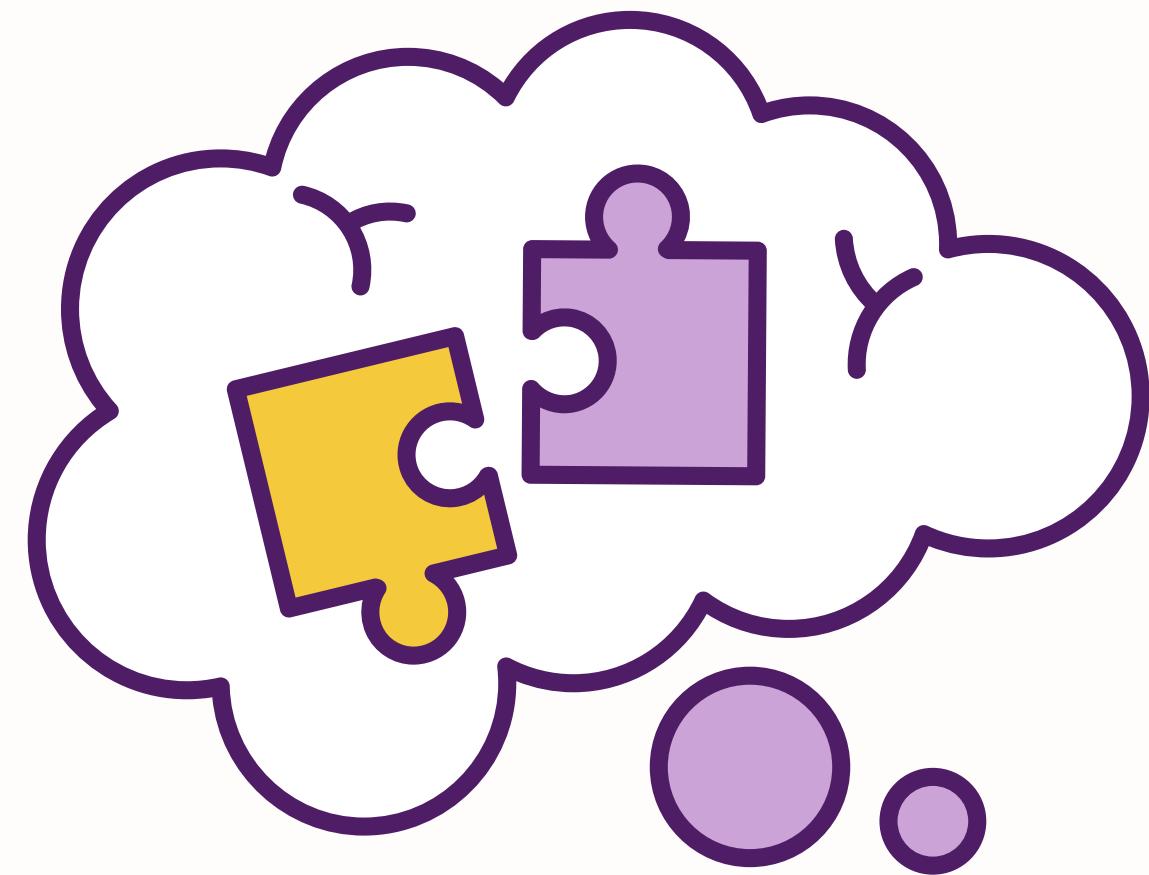
# You'll learn...

- Episode - 1: Power BI migration overview
- Episode - 2: Prepare to migrate to Power BI
- Episode - 3: Gather requirements to migrate to Power BI
- Episode - 4: Plan deployment to migrate to Power BI
- Episode - 5: Conduct proof of concept to migrate to Power BI
- Episode - 6: Create content to migrate to Power BI
- Episode - 7: Deploy to Power BI
- Episode - 8: Best Practices for Power BI migrations

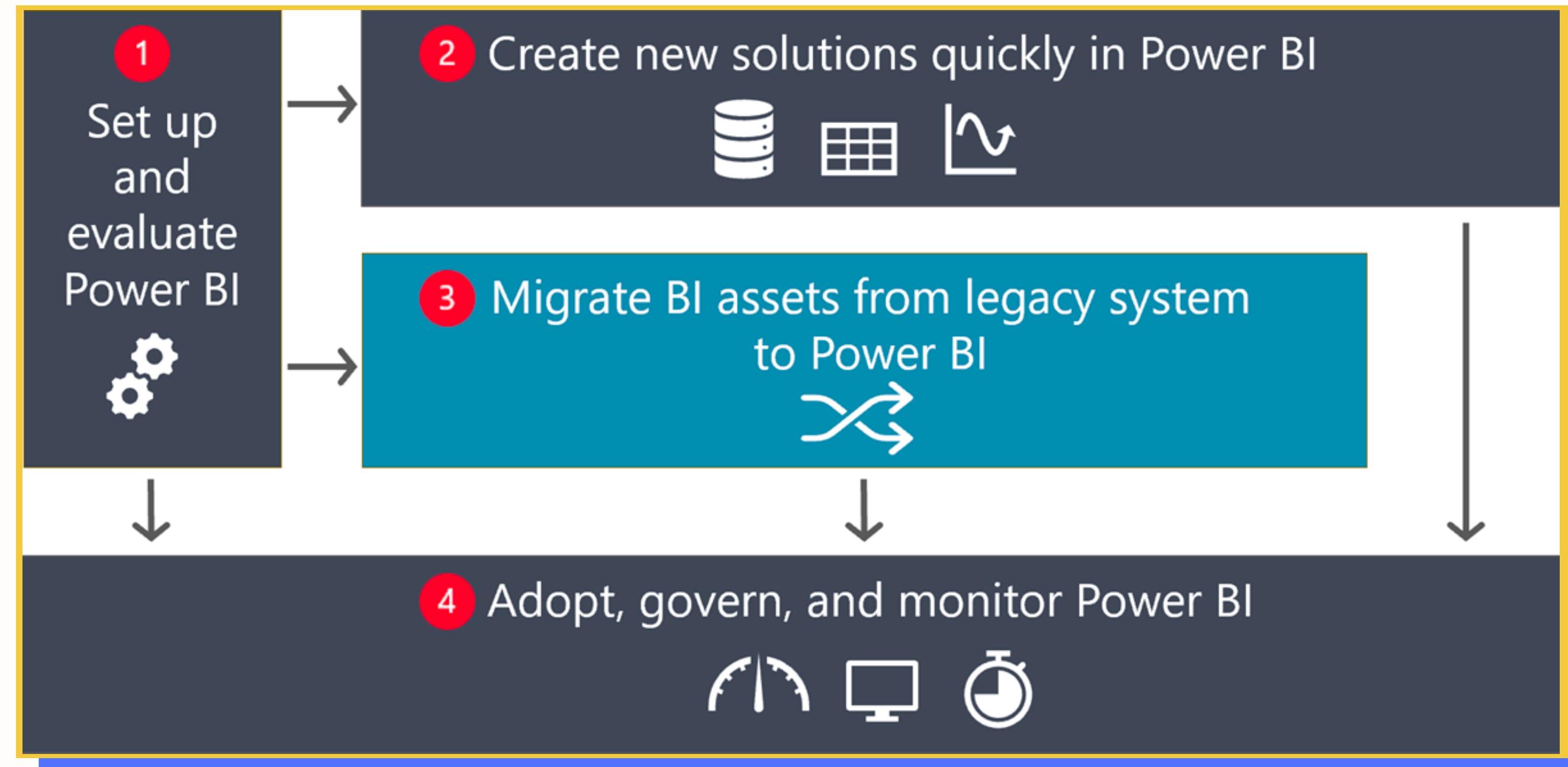


## Assumptions...

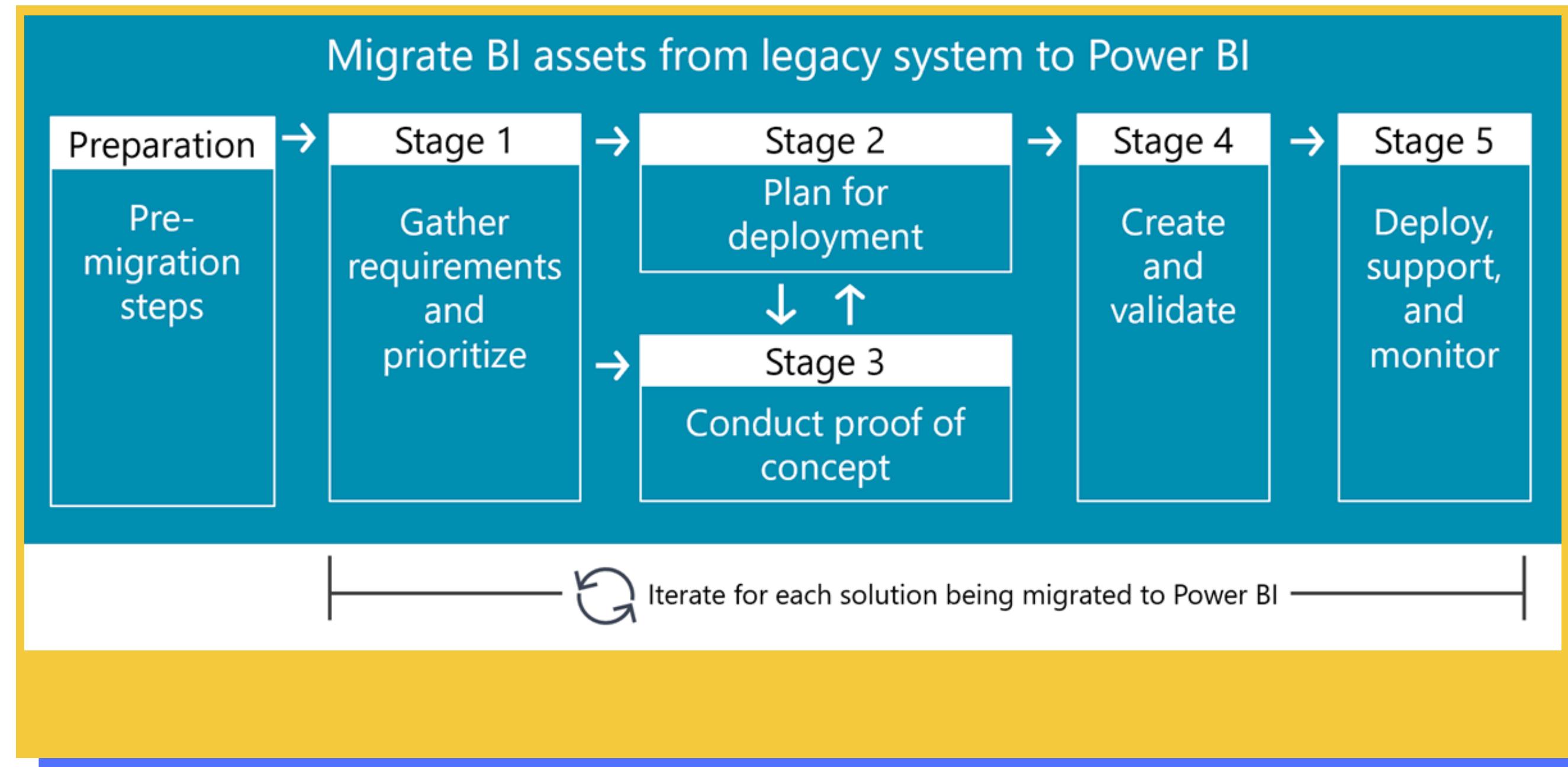
- 1: Your organization has a legacy BI platform currently in place.
- 2: The decision has been made to formally migrate content and users to Power BI.



# Phases for deploying Power BI...



# Five stages of a Power BI migration...



What's Next...

# PREPARE TO MIGRATE

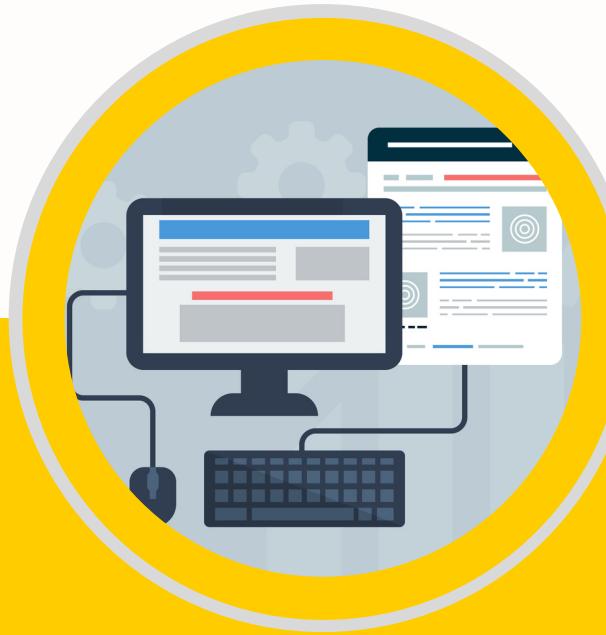


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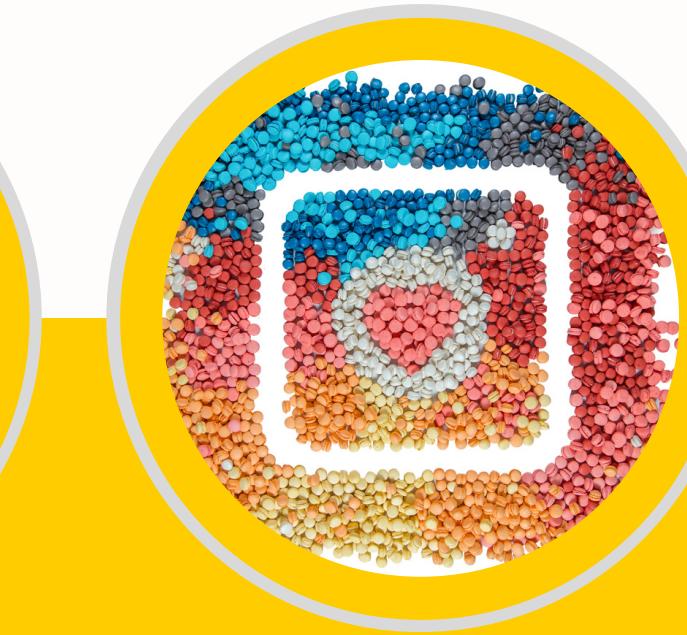
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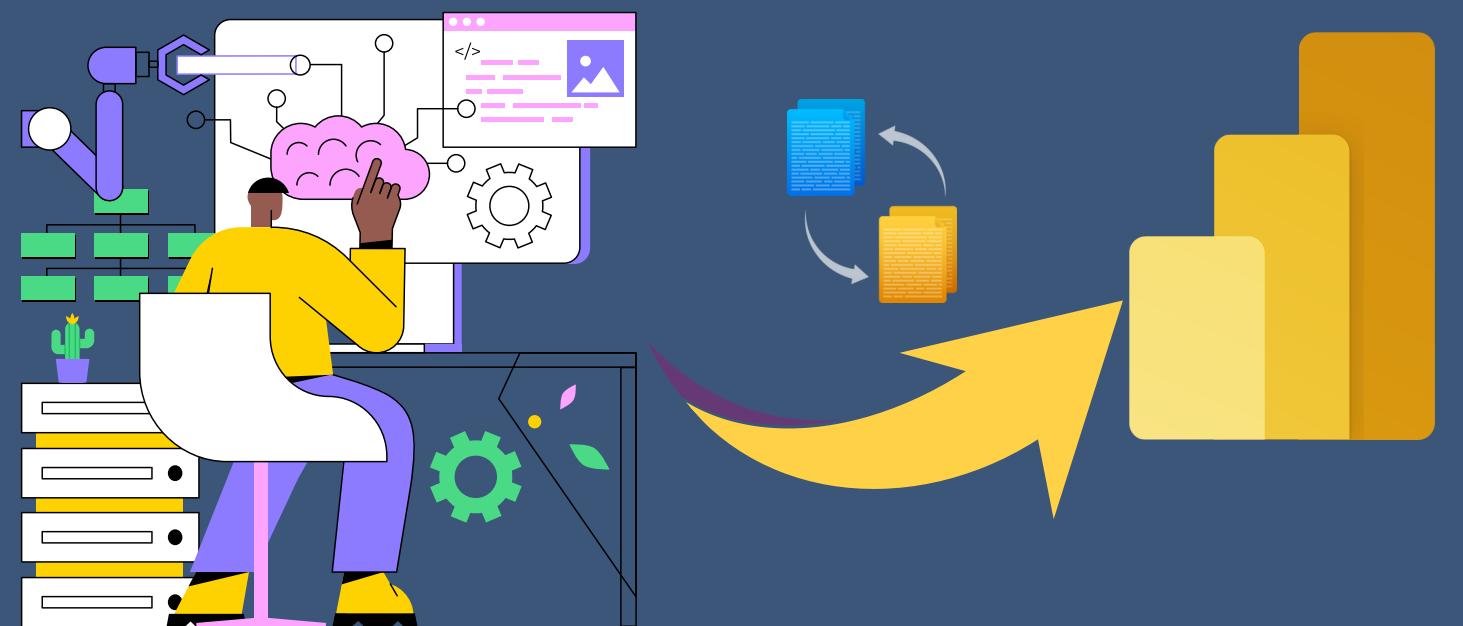
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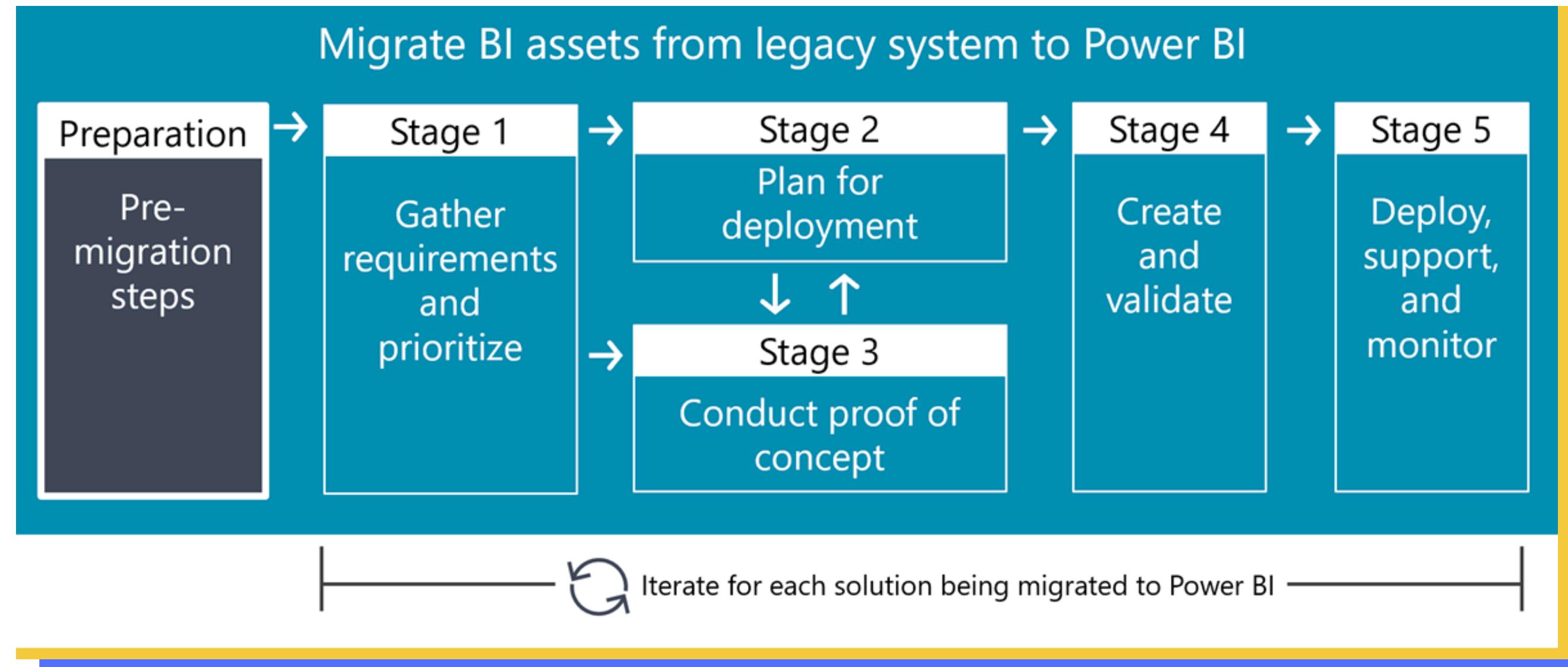
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# PREPARE TO MIGRATE

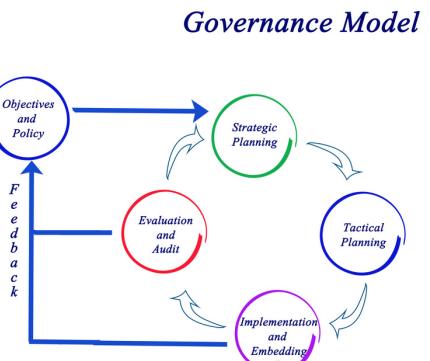


# Preparation

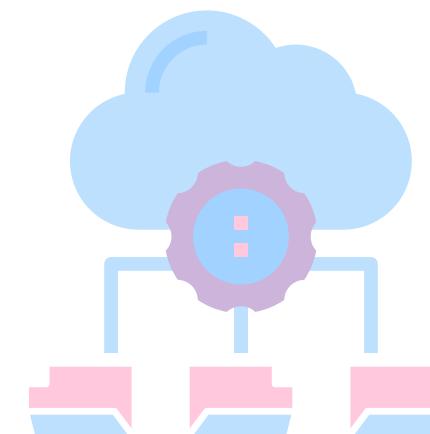


# Output from the pre-migration steps

- An initial governance model



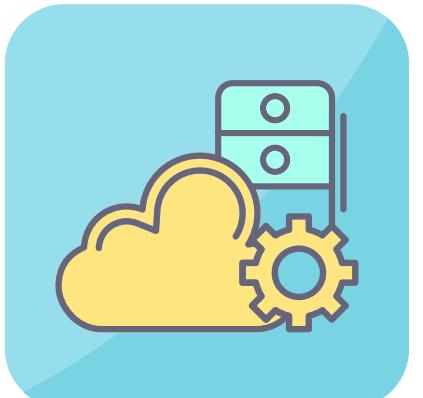
- Initial high-level deployment planning



- An inventory of the reports



- Data to be migrate



# Create cost/benefit analysis and evaluation



- Clarity on the business case and BI strategy to reach a specific desired future state.
- Clarity on what success means, and how to measure progress and success for the migration initiative.
- Cost estimates and return on investment (ROI) calculation results.
- Successful results for several productive Power BI initiatives that are smaller in scope and complexity level.

# Identify stakeholders and executive support

- Ensure executive sponsorship is in place.
- Ensure alignment with stakeholders on the business case and BI strategy.
- Include representatives from throughout the business units—even if their content is slated for migration on a later timetable
- Involve Power BI champions early.
- Create, and follow, a communication plan with stakeholders.

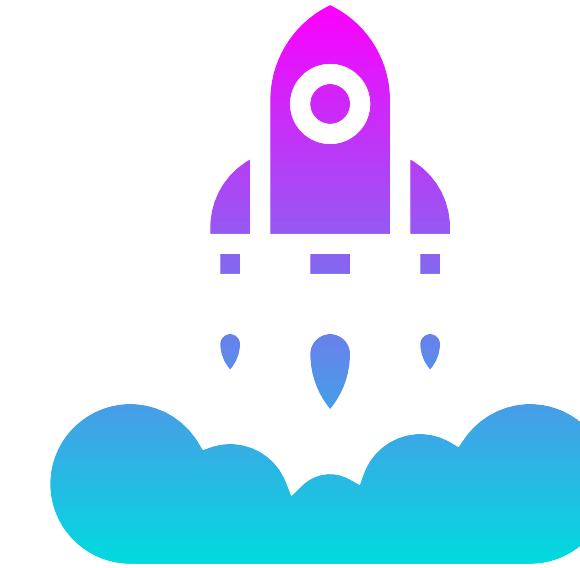


# Generate initial governance model



- Specific goals for Power BI adoption and where Power BI fits into the overall BI strategy for the organization.
- How the Power BI administrator role will be handled, particularly in decentralized organizations.
- Policies related to achieving trusted data: use of authoritative data sources, addressing data quality issues, and use of consistent terminology and common definitions.
- Security and data privacy strategy for data sources, data models, reports, and content delivery to internal and external users.
- How internal and external compliance, regulatory, and audit requirements will be met.

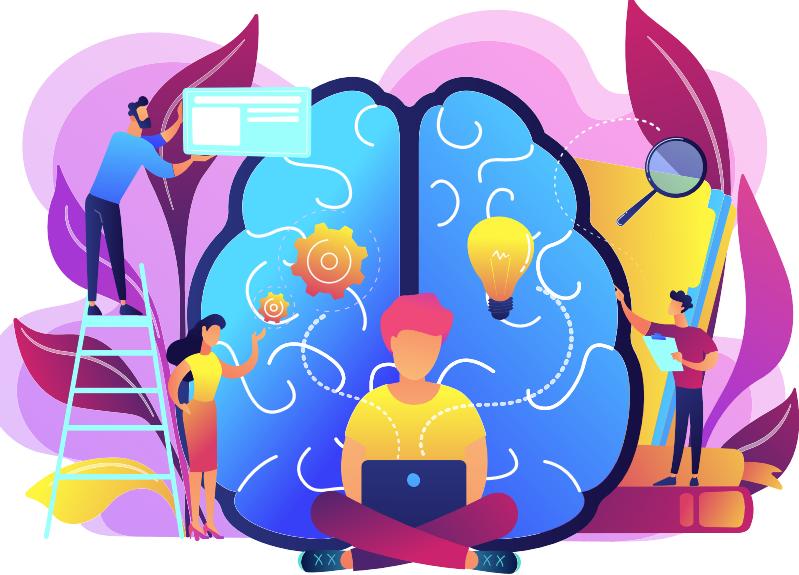
# Conduct initial deployment planning



**This involves defining standards, policies, and preferences for the organization's Power BI implementation.**

# Critical items to address early in a Power BI impletation

- Power BI tenant setting decisions, which should be documented.
- Workspace management decisions, which should be documented.
- Considerations and preferences related to data and content distribution methods, such as apps, workspaces, sharing, subscriptions, and embedding of content.
- Preferences related to dataset modes, such as use of Import mode, DirectQuery mode, or combining the two modes in a Composite model.
- Securing data and access.
- Working with shared datasets for reusability.



- Applying data certification to promote the use of authoritative and trustworthy data.
- Use of different report types, including Power BI reports, Excel reports, or paginated reports for different use cases or business units.
- Change management approaches for managing centralized BI items and business-managed BI items.
- Training plans for consumers, data modelers, report authors, and administrators.
- Support for content authors by using Power BI Desktop templates, custom visuals, and documented report design standards.
- Procedures and processes for managing user requirements, such as requesting new licenses, adding new gateway data sources, gaining permission to gateway data sources, requesting new workspaces, workspace permissions changes, and other common requirements that may be encountered on a regular basis.



# Establish initial architecture



- Power BI tenant setup and integration with Azure Active Directory.
- Define Power BI administrators.
- Procure and assign initial user licenses.
- Configure and review Power BI tenant settings.
- Setup workspace roles and assign access to Azure Active Directory security groups and users.
- Configure an initial data gateway cluster—with a plan to update regularly.
- Procure initial Premium capacity license (if applicable).
- Configure Premium capacity workloads—with a plan to manage on an ongoing basis.

# Define success criteria for migration



- What are the specific motivations and objectives for this migration?
- What's the expected cost/benefit or ROI for this migration?
- What key performance indicators (KPIs) will be used to measure success?

# Prepare inventory of existing reports

- Inventory of reports



- Inventory of data sources



- Audit log



# Explore automation options



What's Next...

# STAGE 1 - GATHERING AND PRIORITIZING REQUIREMENTS

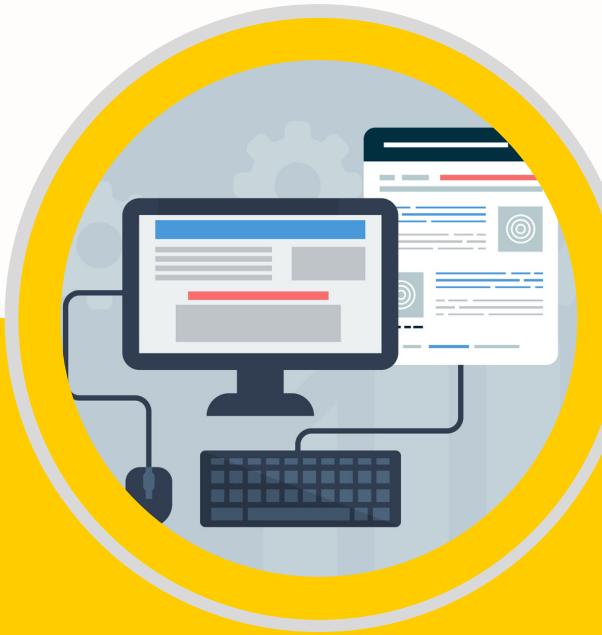


# Connect with us

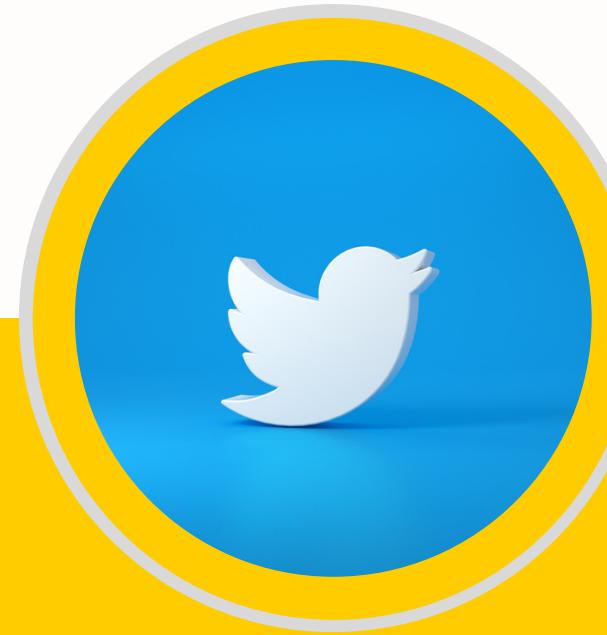
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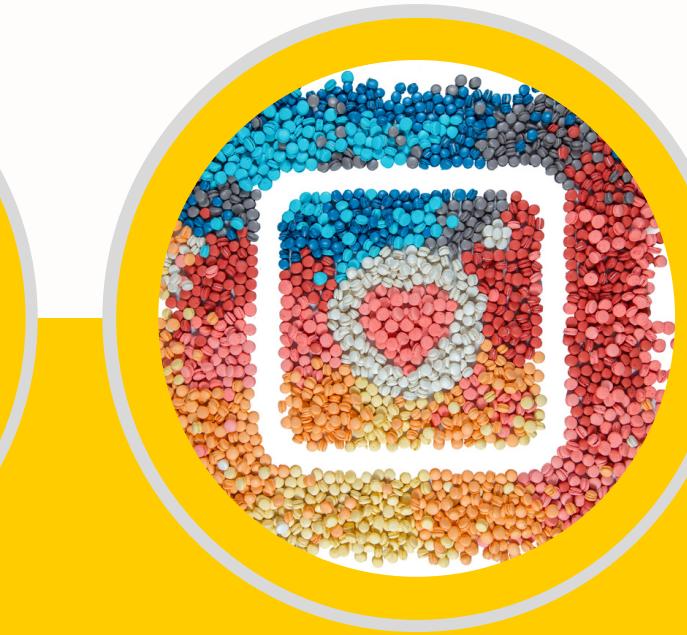
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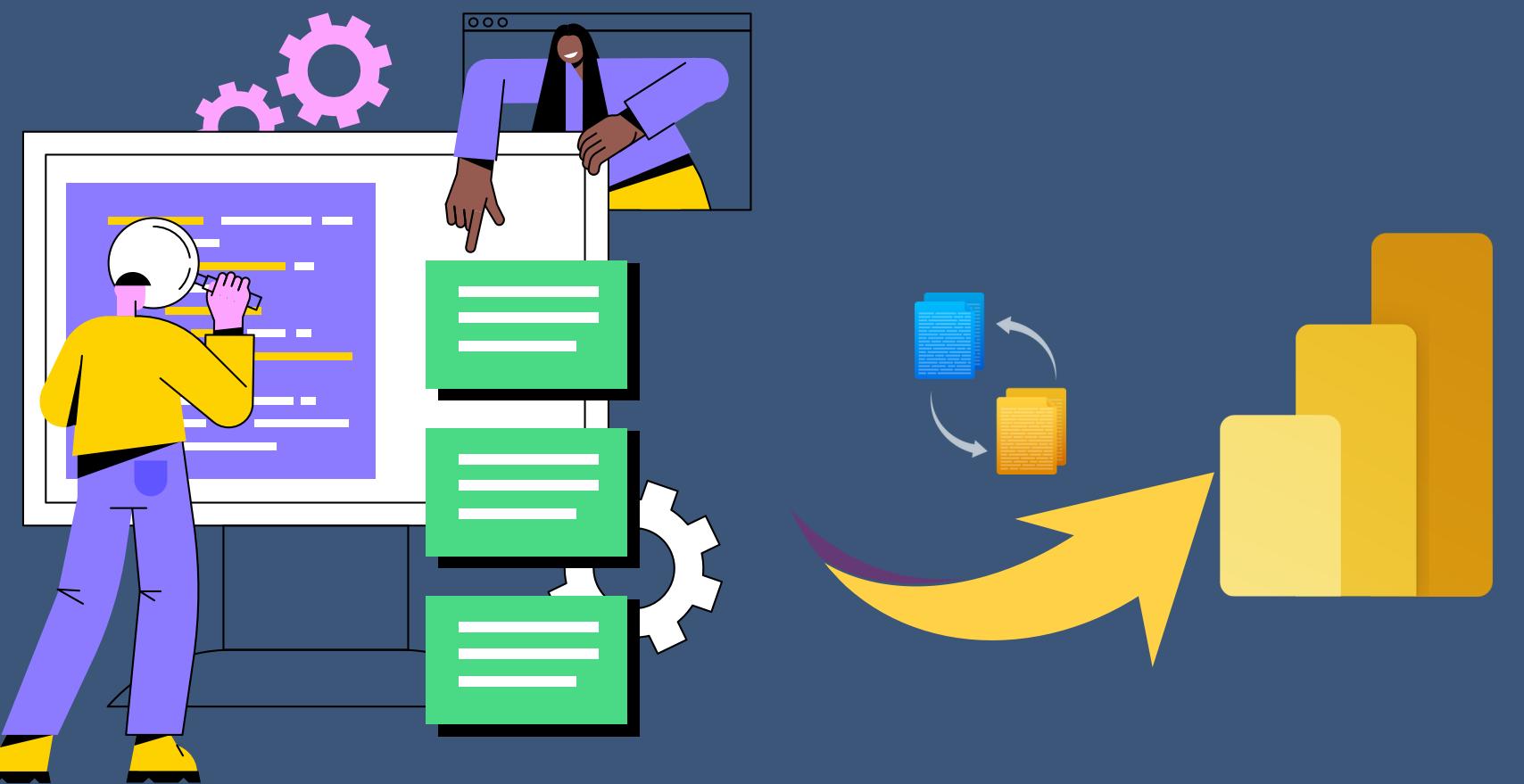


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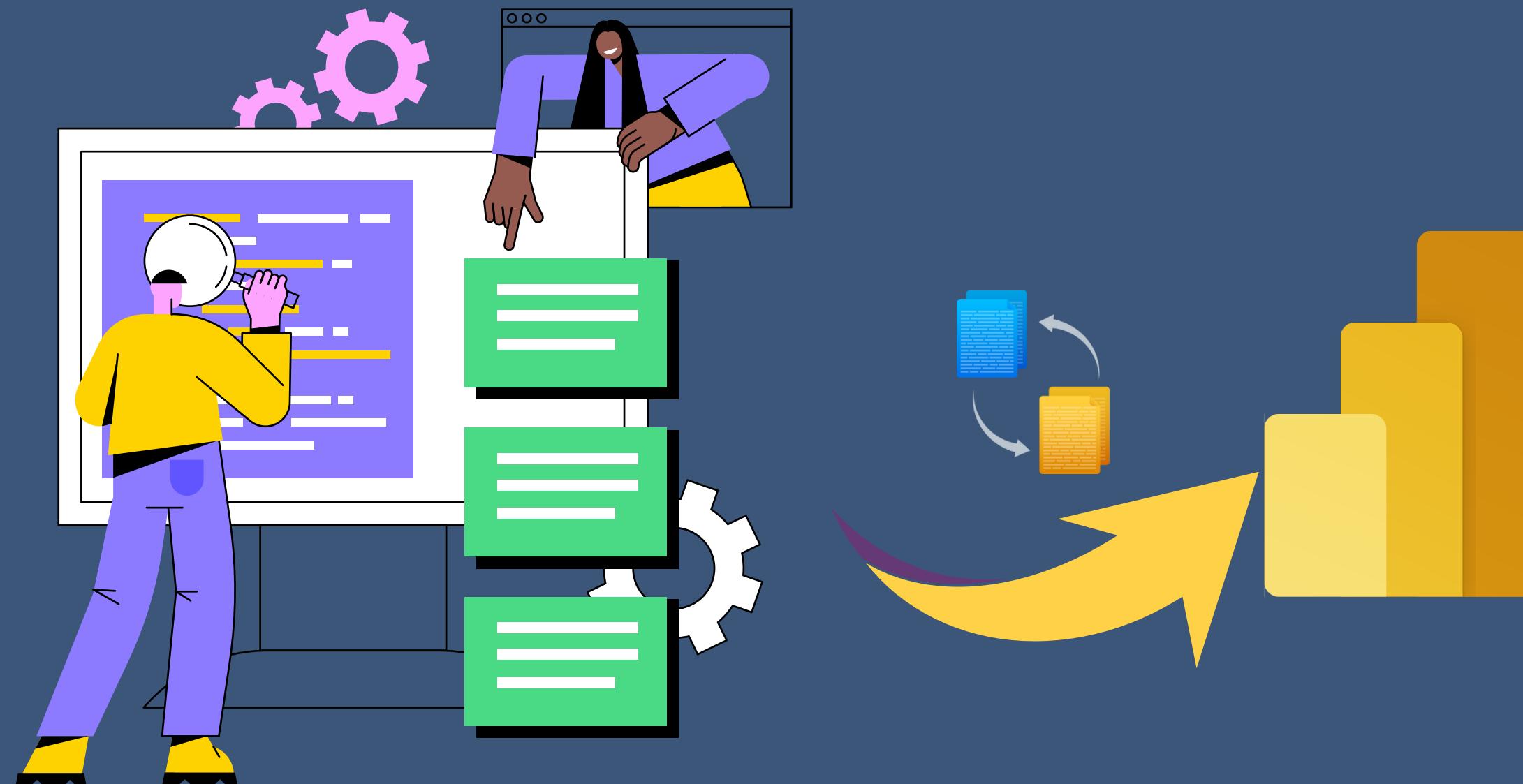
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STAGE 1

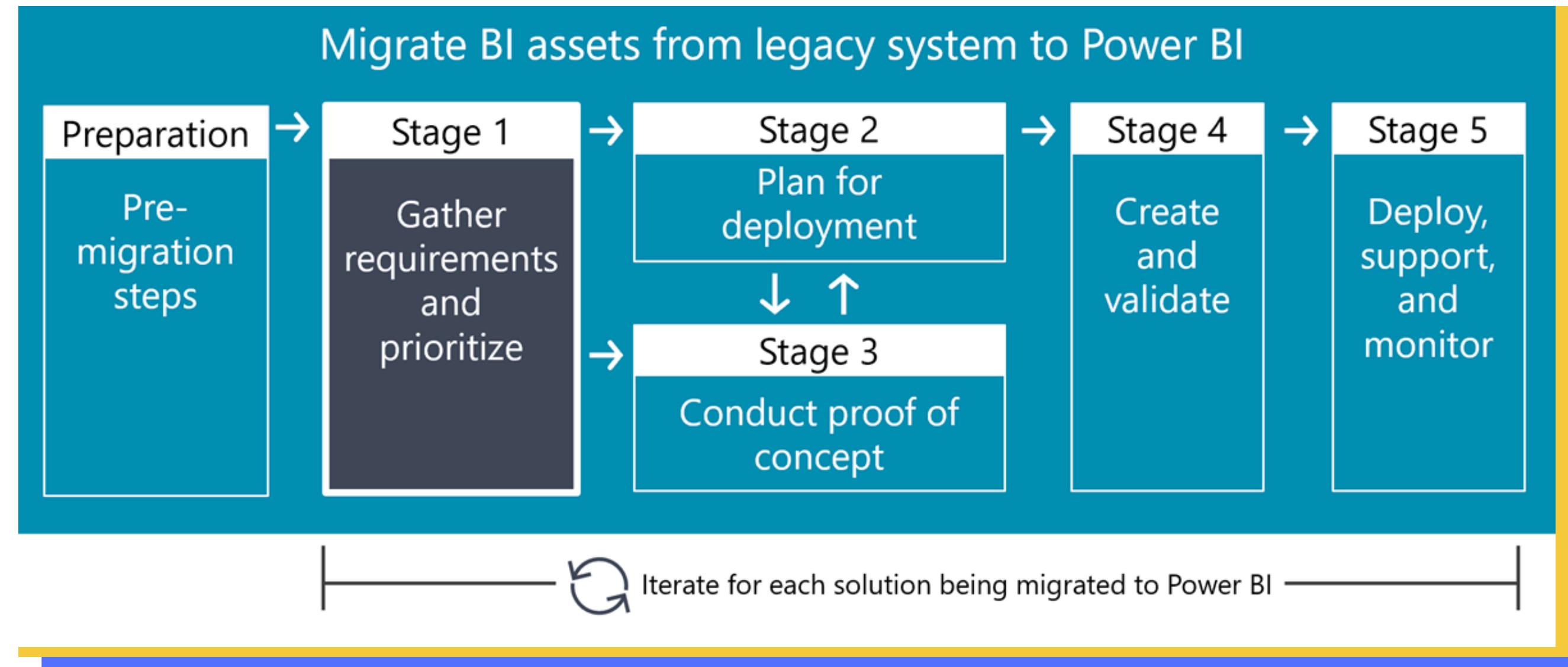
# GATHER REQUIREMENTS



# GATHER REQUIREMENTS TO MIGRATE TO POWER BI



# Gather requirements to migrate to Power BI



# Steps



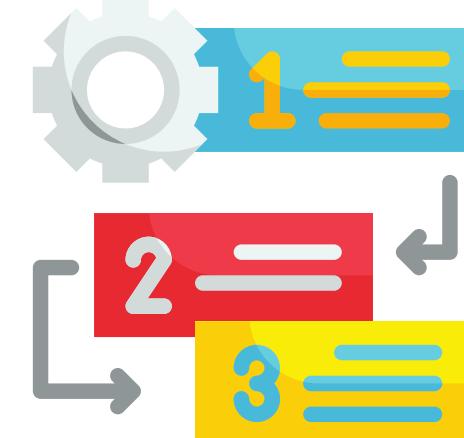
- **Compile requirements**



- **Identify improvement opportunities**



- **Prioritize and assess complexity**



1

- **Compile requirements**



**Compile  
requirements**

**Gather report  
requirements**

**Gather data  
requirements**



# Gather report requirements

- Purpose, audience, and expected action
- How consumers use the report
- Owner and subject matter expert
- Content delivery method
- Interactivity needs
- Data sources
- Security requirements
- Calculations, KPIs, and business rules
- Usability, layout, and cosmetic requirements
- Printing and exporting needs
- Risks or concerns
- Open issues and backlog items



# Gather Data requirements



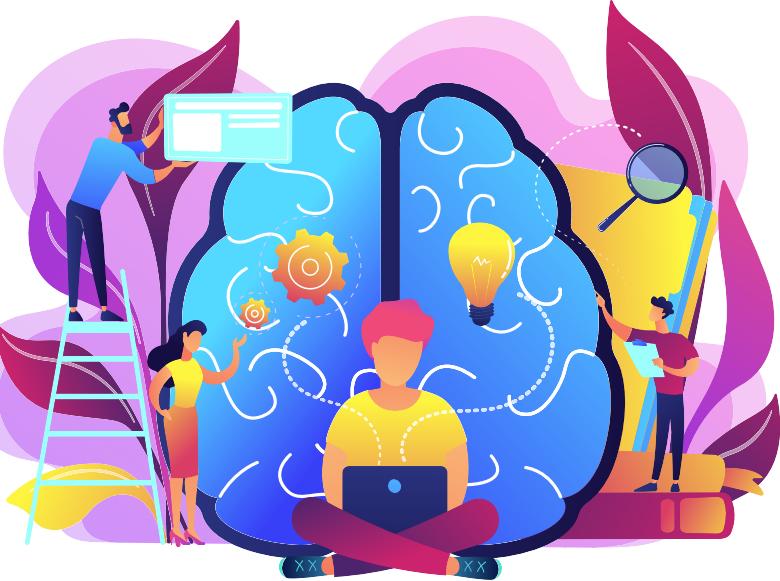
- Existing queries
- Types of data sources
- Data structure and cleansing needs
- Data integration
- Acceptable data latency
- Data volume and scalability
- Measures, KPIs, and business rules
- Master data and data catalog
- Security and data privacy
- Open issues and backlog items

# Identify improvement opportunities

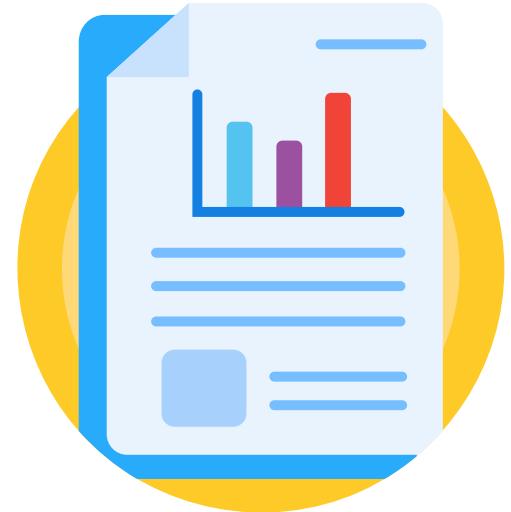
- Consolidation of reports
- Efficiency improvements
- Centralization of data model



# Prioritize and assess complexity



- Identify high priority reports



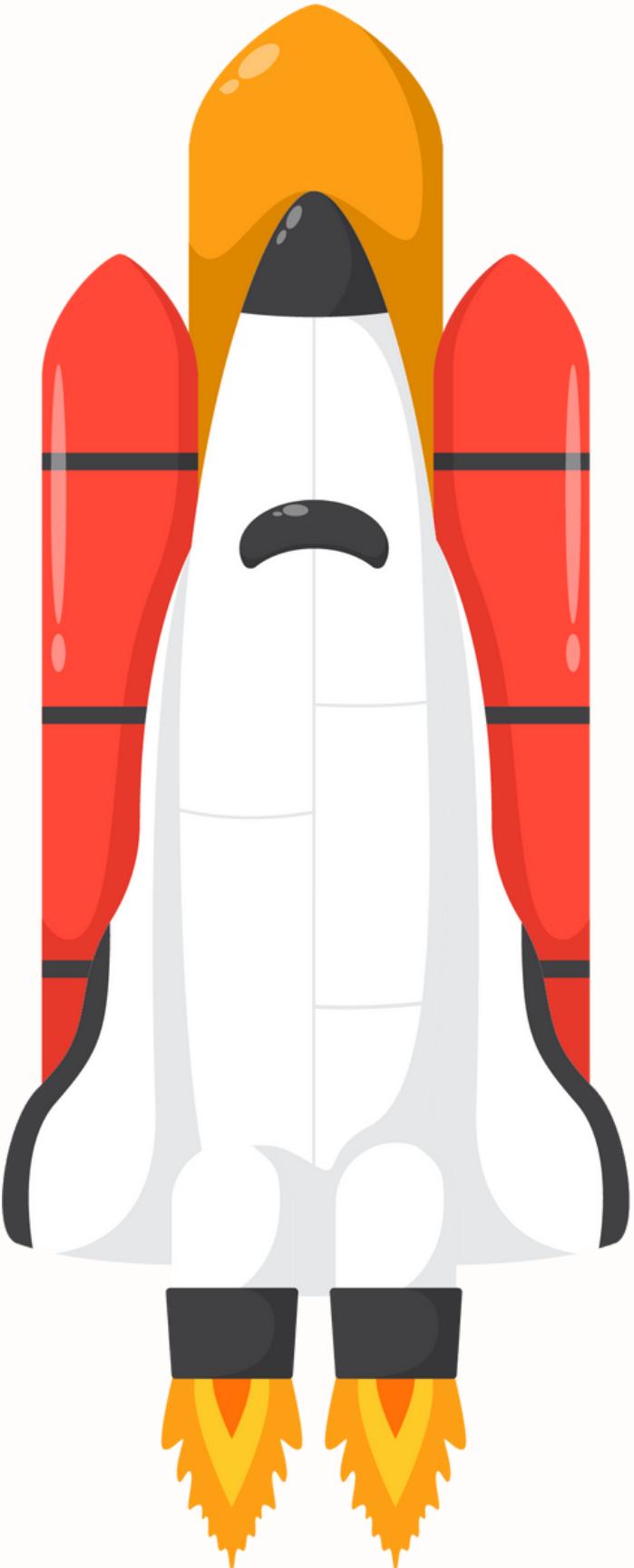
- Identify high priority data



What's Next...

**STAGE 2 -**

**PLAY DEPLOYMENT**

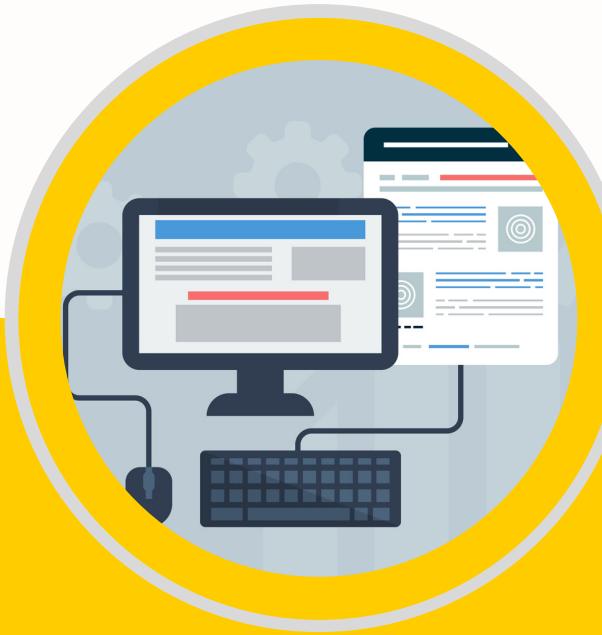


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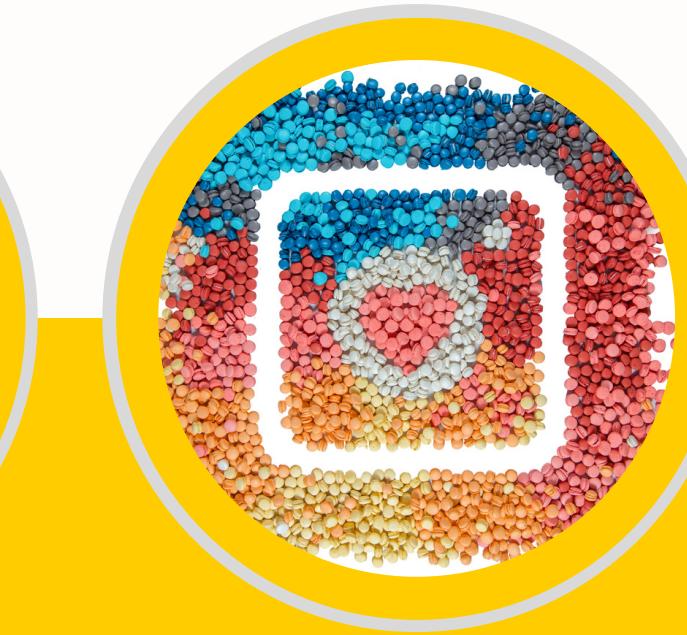
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STAGE 2

# PLAN DEPLOYMENT

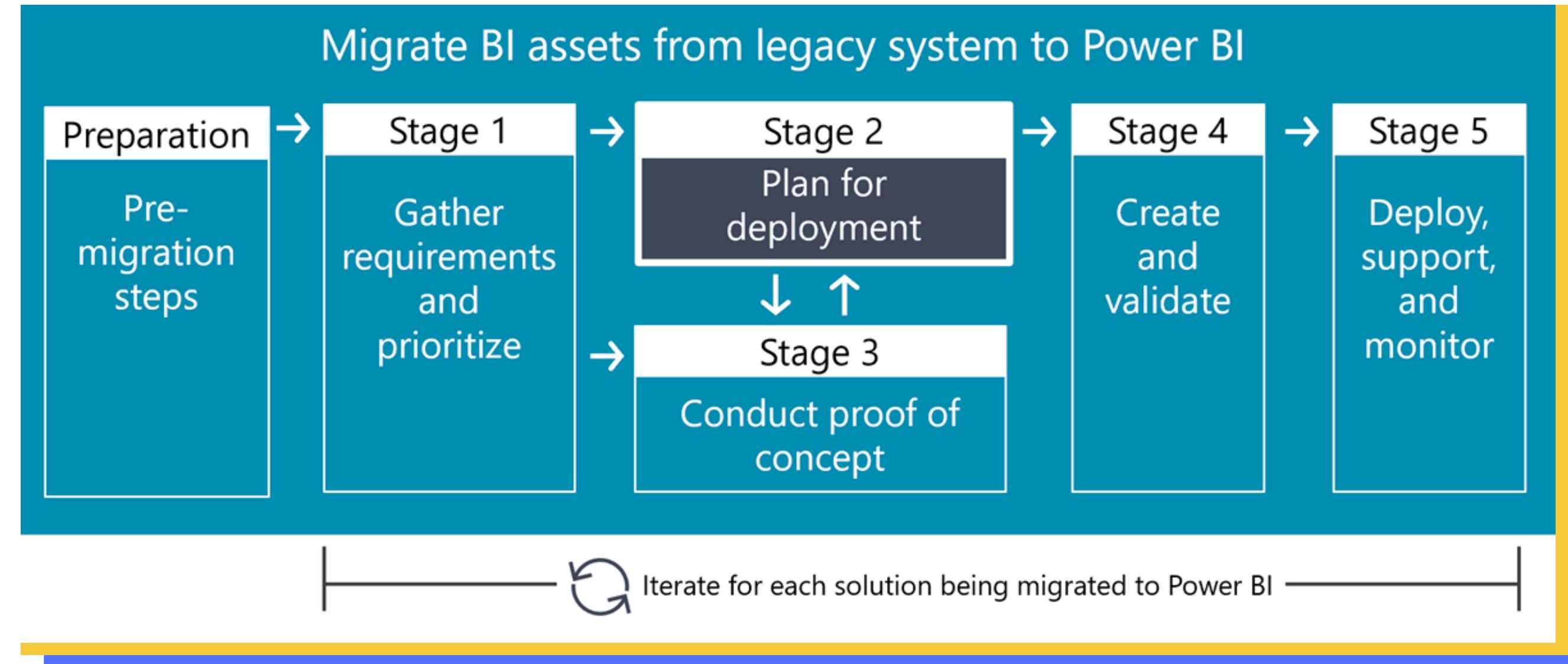


# Plan

# Deployment to migrate to Power BI



# Plan Deployment to migrate to Power BI



# Agenda

**1**

**Choose Power BI product**



**2**

**Decide on workspace management approach**



**3**

**Determine how content will be consumed**



**4**

**Decide if other content may be created**



**5**

**Evaluate needs for Premium capacity**



**6**

**Determine data acquisition method**



**7**

**Decide where original content will be stored**



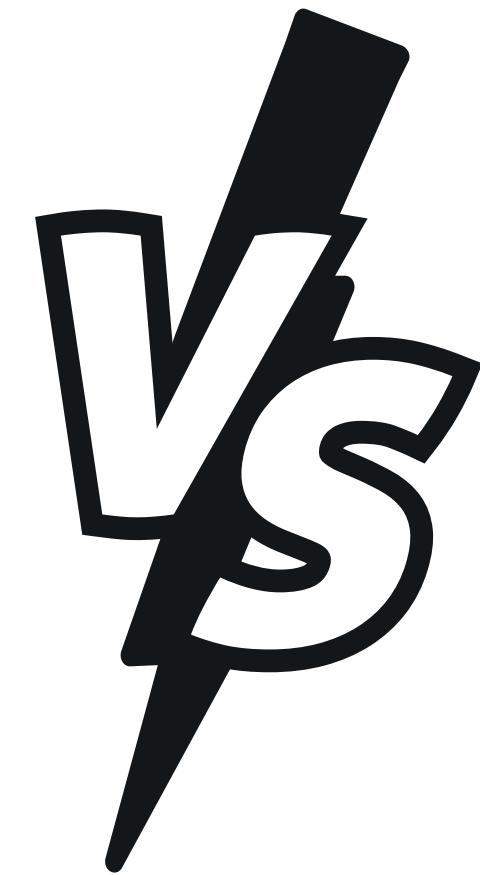
**8**

**Assess the level of effort**



1

# Choose Power BI product



**Power BI Service**

**Power BI Report Server**

# Decide on workspace management approach

- Is a new workspace needed for this new solution?
- Will separate workspaces be needed to accommodate development, test, and production?
- Will separate workspaces be used for data and reports, or will a single workspace be sufficient?
- What are the security requirements for the workspace?



3

# Determine how content will be consumed

- Will a Power BI app (which comprises reports and dashboards from a single workspace) be the best way to deliver content to consumers, or will direct access to a workspace be sufficient for content viewers?
- Will certain reports and dashboards be embedded elsewhere, such as Teams, SharePoint Online, or a secure portal or website?
- Will consumers access content using mobile devices? Requirements to deliver reports to small form factor devices will influence some report design decisions.



4

# Decide if other content may be created

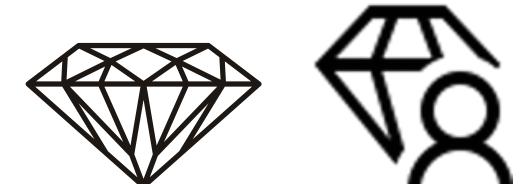
- Will consumers be allowed to create new reports from the published dataset? This capability can be enabled by assigning dataset build permission to a user.
- If consumers want to customize a report, can they save a copy of it and personalize it to meet their needs?



# 5

# Evaluate needs for Premium capacity

- Content can be accessed by consumers who don't have a Power BI Pro or Premium Per User (PPU) license.
- Support for large datasets.
- Support for more frequent data refreshes.
- Support for using the full feature set of dataflows.
- Enterprise features, including deployment pipelines and the XMLA endpoint.
- Support for paginated reports (when the workload is enabled).



# 6

# Determine data acquisition method

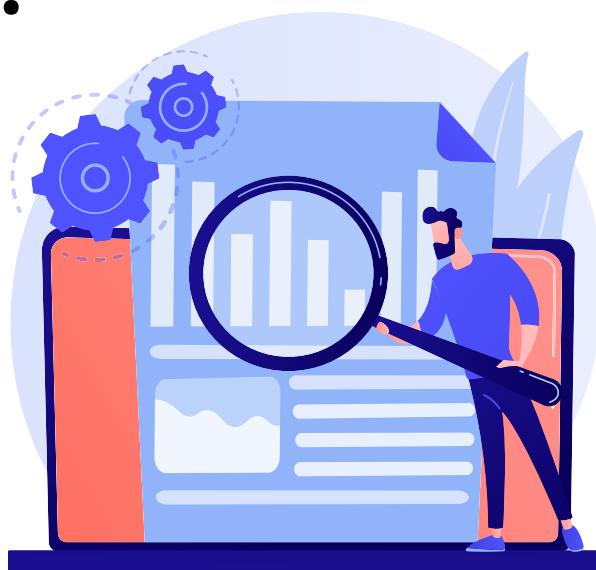
- Can an existing Power BI shared dataset be used, or is the creation of a new Power BI dataset appropriate for this solution?
- Does an existing shared dataset need to be augmented with new data or measures to meet additional needs?
- Which data storage mode will be most appropriate? Options include Import, DirectQuery, Composite, or Live Connection.
- Should aggregations be used to enhance query performance?
- Will creation of a dataflow be useful and can it serve as a source for numerous datasets?
- Will a new gateway data source need to be registered?





# Decide where original content will be stored

- Specify an approved location for storing the original Power BI Desktop (.pbix) files.
- Use a location for original Power BI Desktop files that includes versioning history or source control.
- Specify an approved location for storing non-centralized source data, such as flat files or Excel files.
- Specify an approved location for content exported from the Power BI service.



# 8

# Assess the level of effort



**Labor costs—salaries and wages—are usually among the highest expenses in most organizations. Although it can be difficult to accurately estimate, productivity enhancements have an excellent return on investment (ROI).**

What's Next...

# STAGE 3 - PROOF OF CONCEPT



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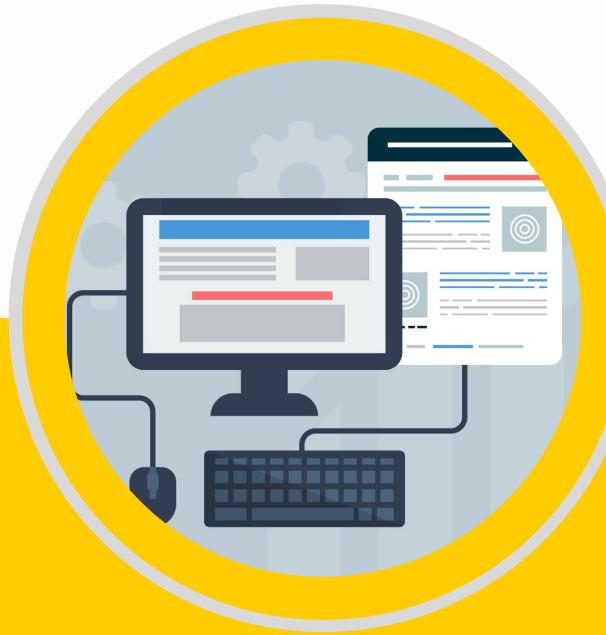


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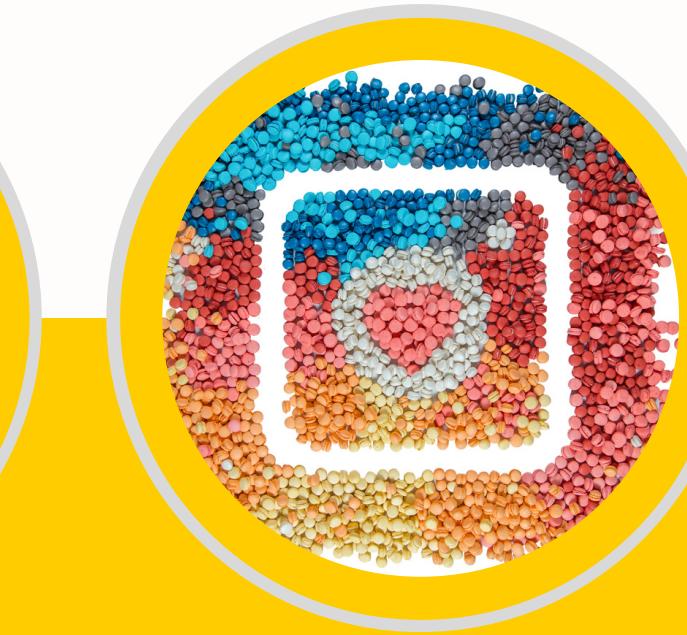
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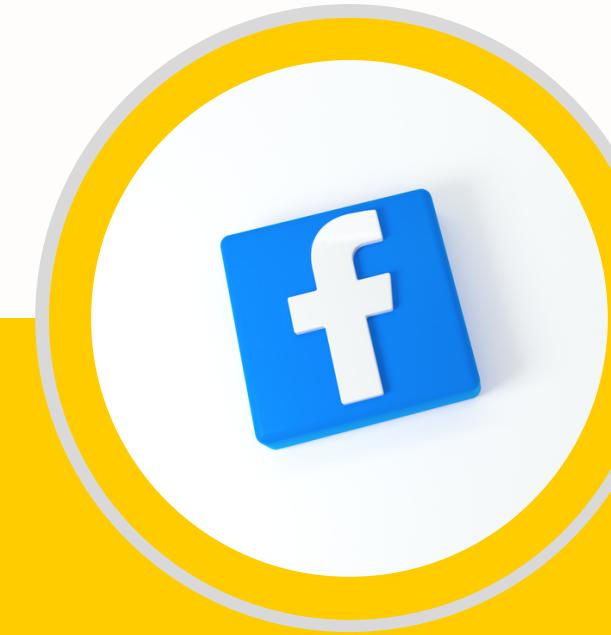
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STAGE 3

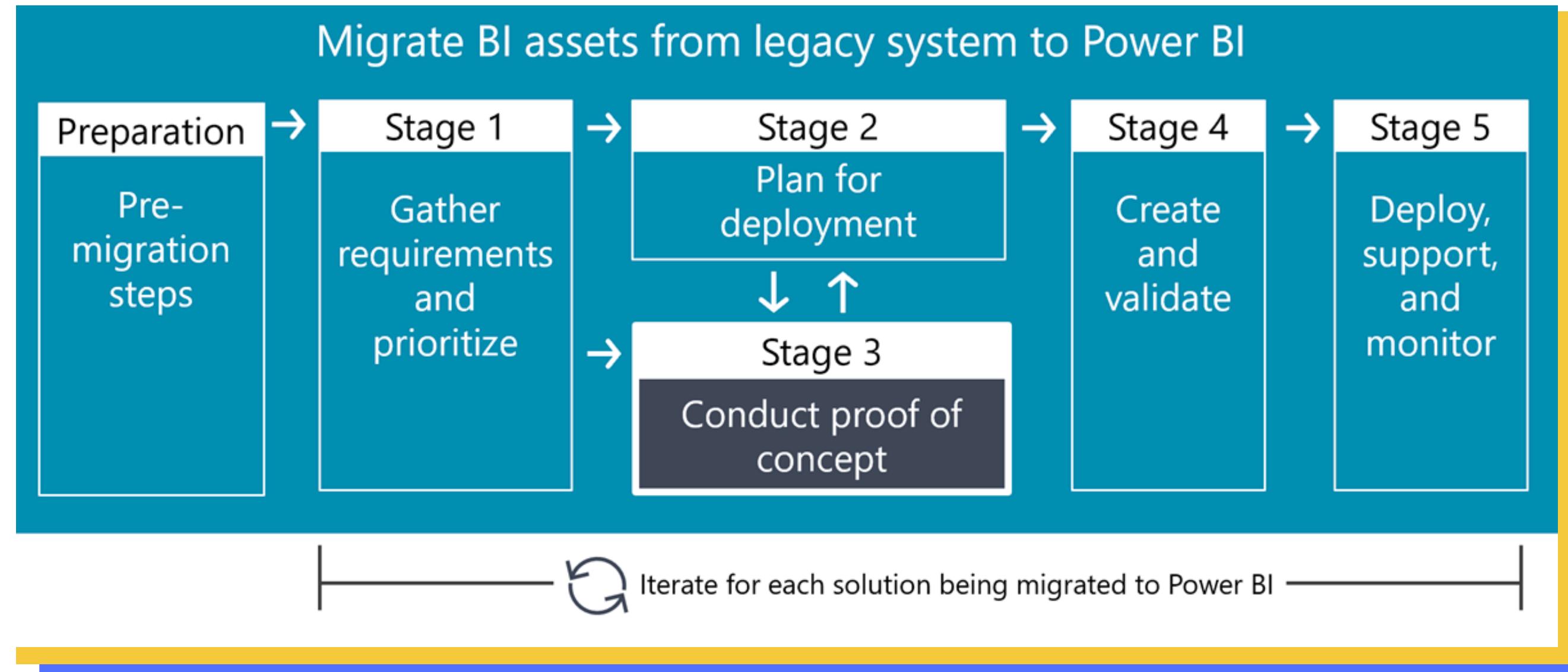
# PROOF OF CONCEPT



# Conduct POC to migrate to Power BI



# Stage 3 - Conduct Proof Of Concept



# Agenda



**Set POC goals and scope**



**Handle differences in Power BI**



1

# Set POC goals and scope



- Verify your assumptions about how a feature works.
- Educate yourself on differences in how Power BI works compared with the legacy BI platform.
- Validate initial understandings of certain requirements with subject matter experts.
- Create a small dataset with real data to understand and detect any issues with the data structure, relationships, data types, or data values.
- Experiment with, and validate, DAX syntax expressions used by model calculations.
- Test data source connectivity using a gateway (if it's to be a gateway source).
- Test data refresh using a gateway (if it's to be a gateway source).
- Verify security configurations, including row-level security when applicable.
- Experiment with layout and cosmetic decisions.
- Verify that all functionality in the Power BI service works as expected

2

# Handle differences in Power BI



# 2

# Handle differences in Power BI

- Consider redesigning the data architecture
- Decide how to handle dashboard conversions
- Focus on the big picture when recreating visuals

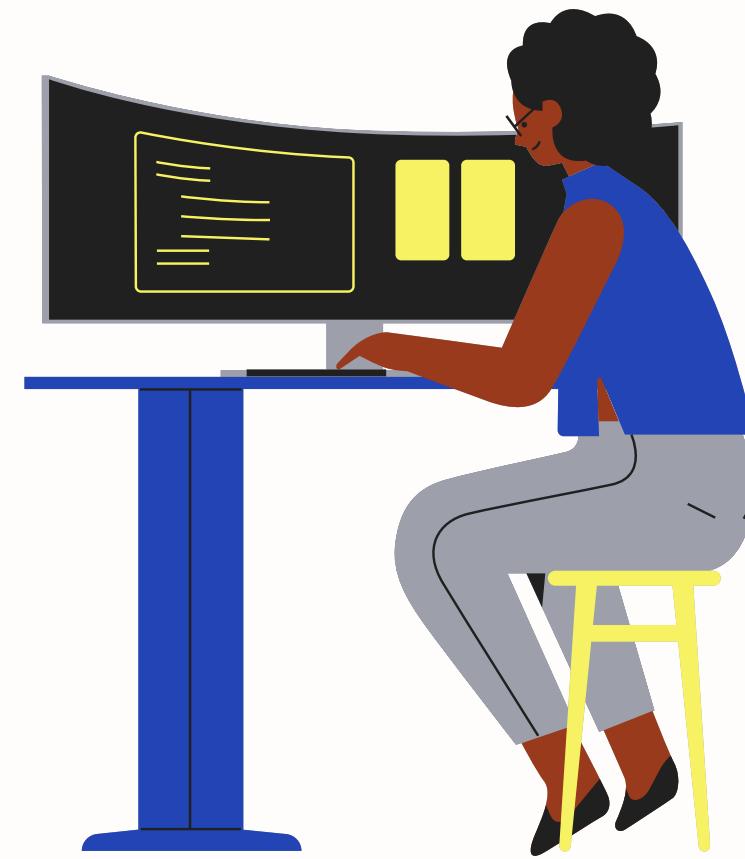


Because dashboards are a Power BI content type, refrain from using the word dashboard in the report or dashboard name.

What's Next...

**STAGE 4 -**

**CREATE CONTENT**



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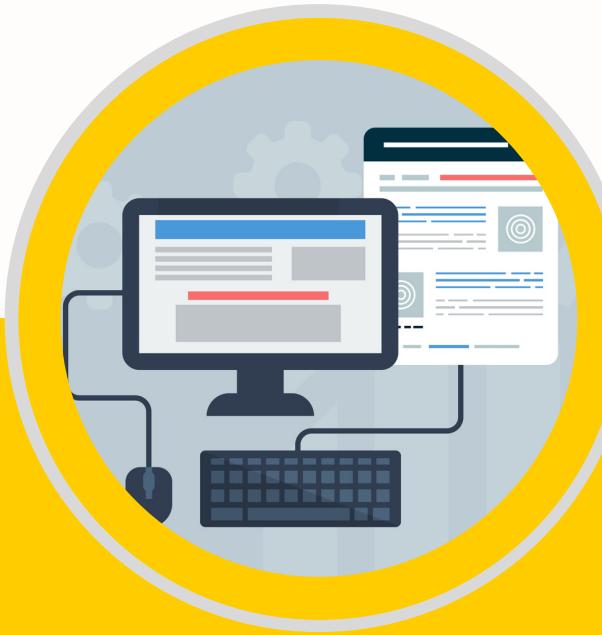


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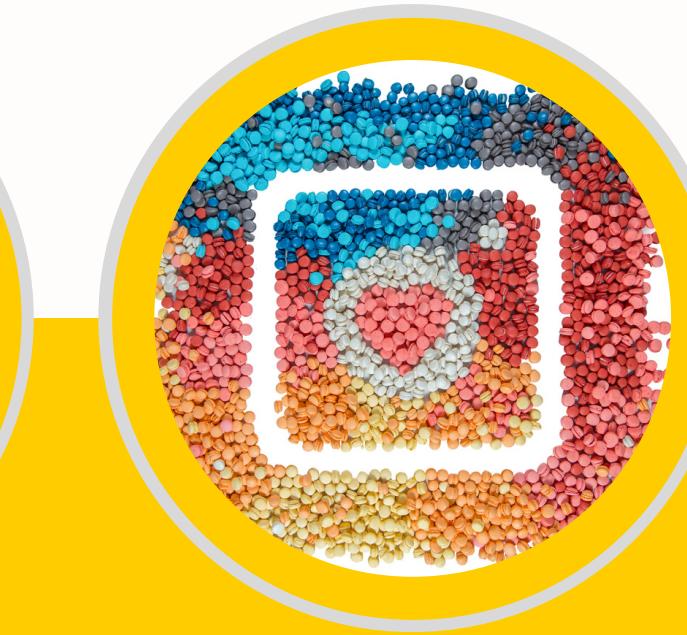
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STAGE 4

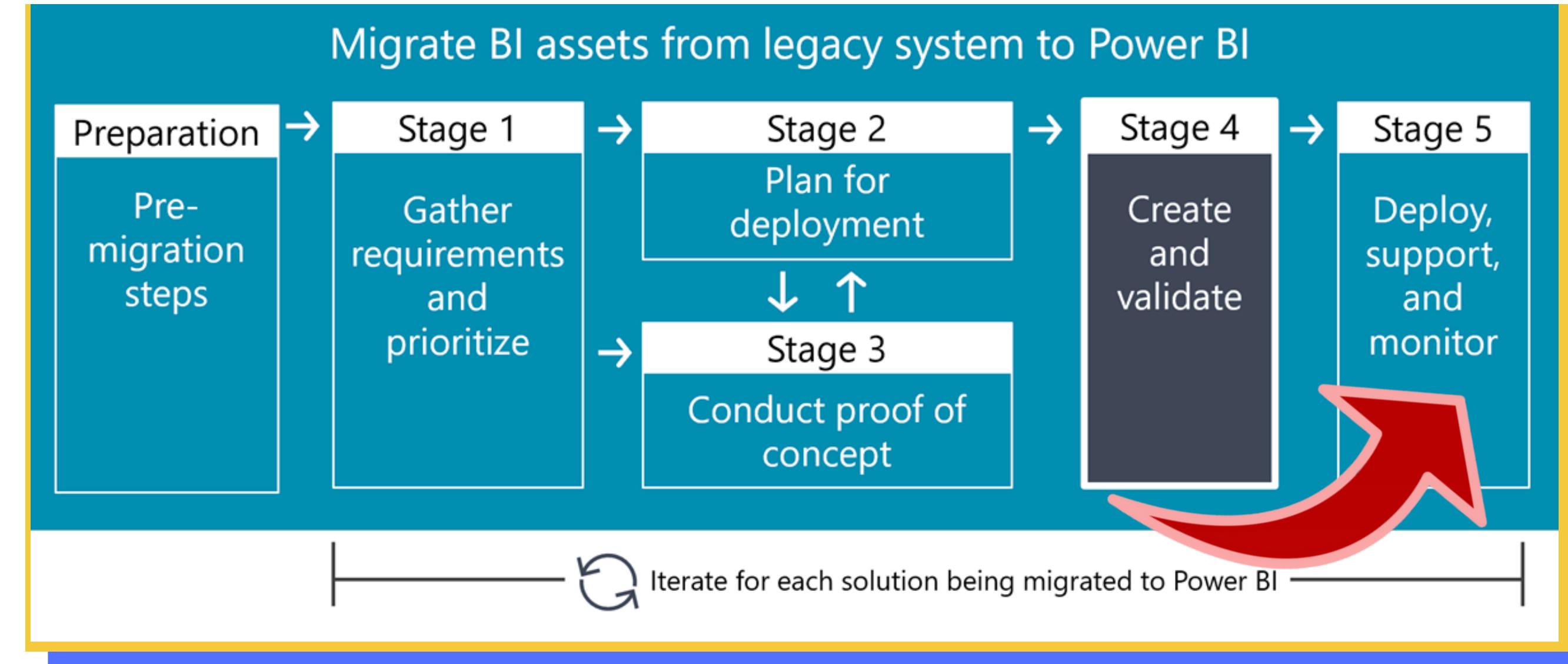
# CREATE CONTENT



# Create Content to migrate to Power BI



# Stage 4 - Create and Validate



The same person who performed the POC may carry on with producing the production-ready Power BI solution. Or, someone different may be involved.

If timelines are not jeopardized, it's great to get people involved who will be responsible for Power BI development in the future.



# Agenda



**Create the production solution**



**Validate the solution**



**Document the solution**



1

## Create the production solution



- Develop new import dataset
- Develop new reports and dashboards
- Develop new reports and dashboards



If you have different development/test/production environments, consider parameterizing data sources. It will make deployment significantly easier.

# 2

## Validate the solution



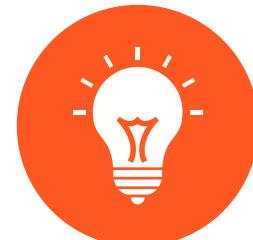
- Data accuracy
- Security
- Functionality
- Performance

# 3

## Document the solution



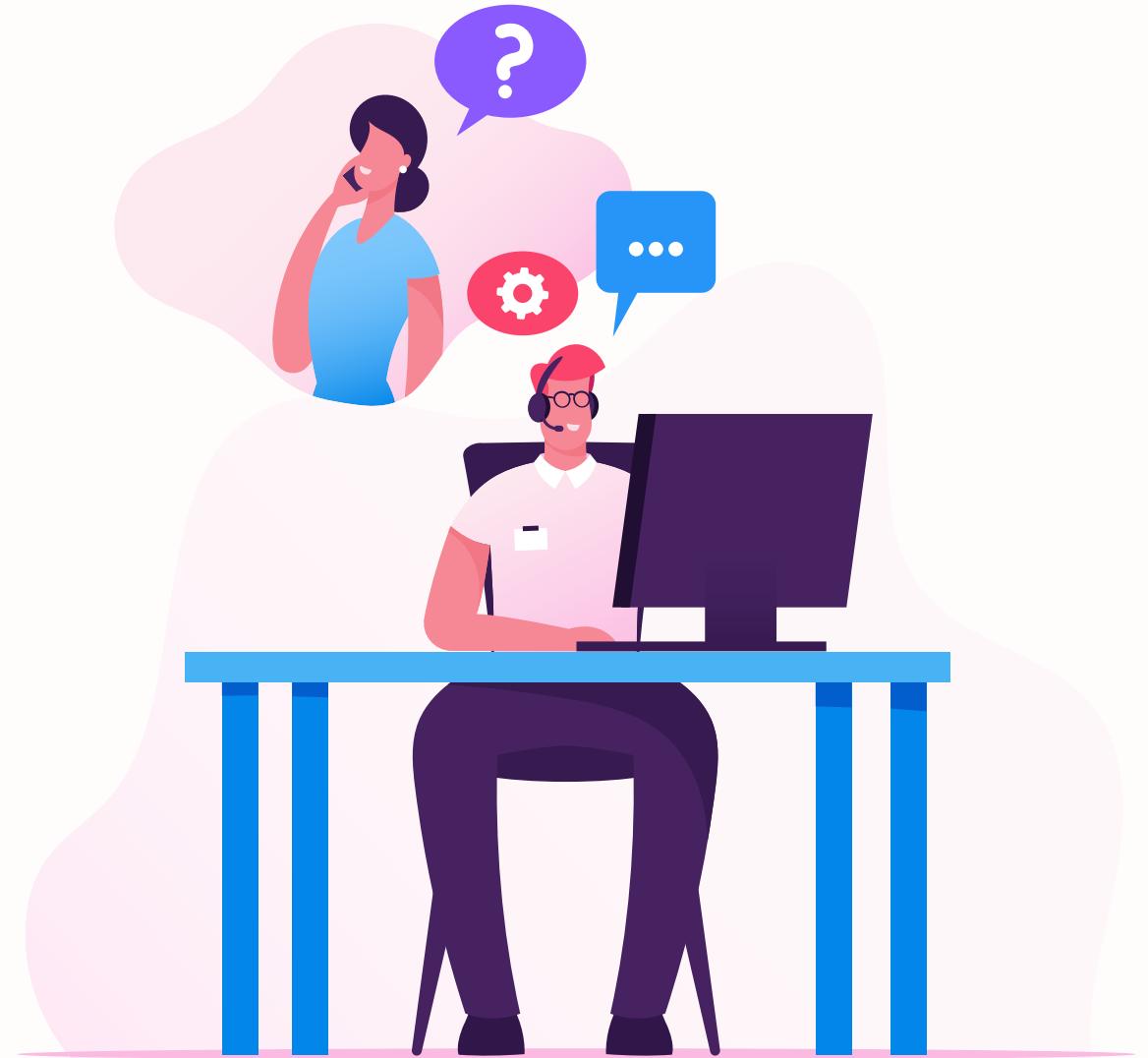
- Create dataset documentation
- Create report documentation



If you create a site to serve as a hub for Power BI-related documentation, consider customizing the Get Help menu with its URL location.

# What's Next...

## STAGE 5 - DEPLOY, SUPPORT & MONITOR



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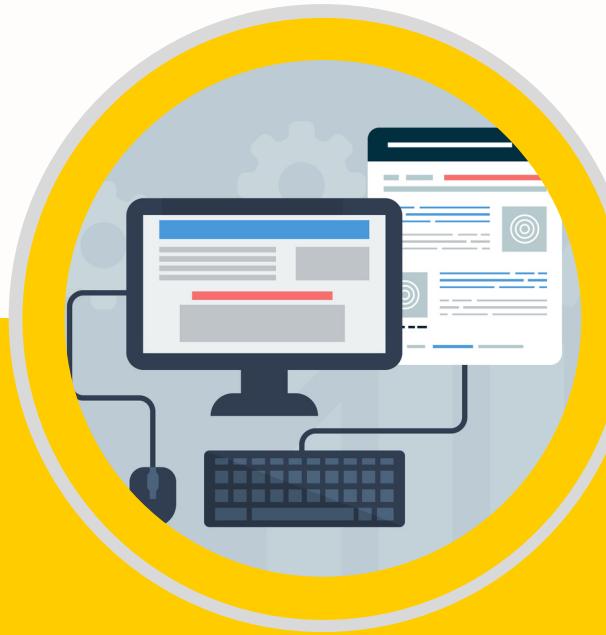


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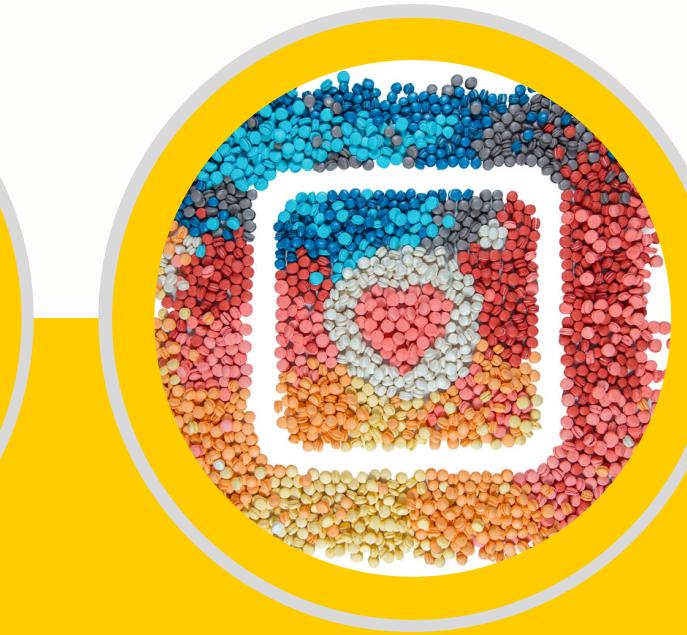
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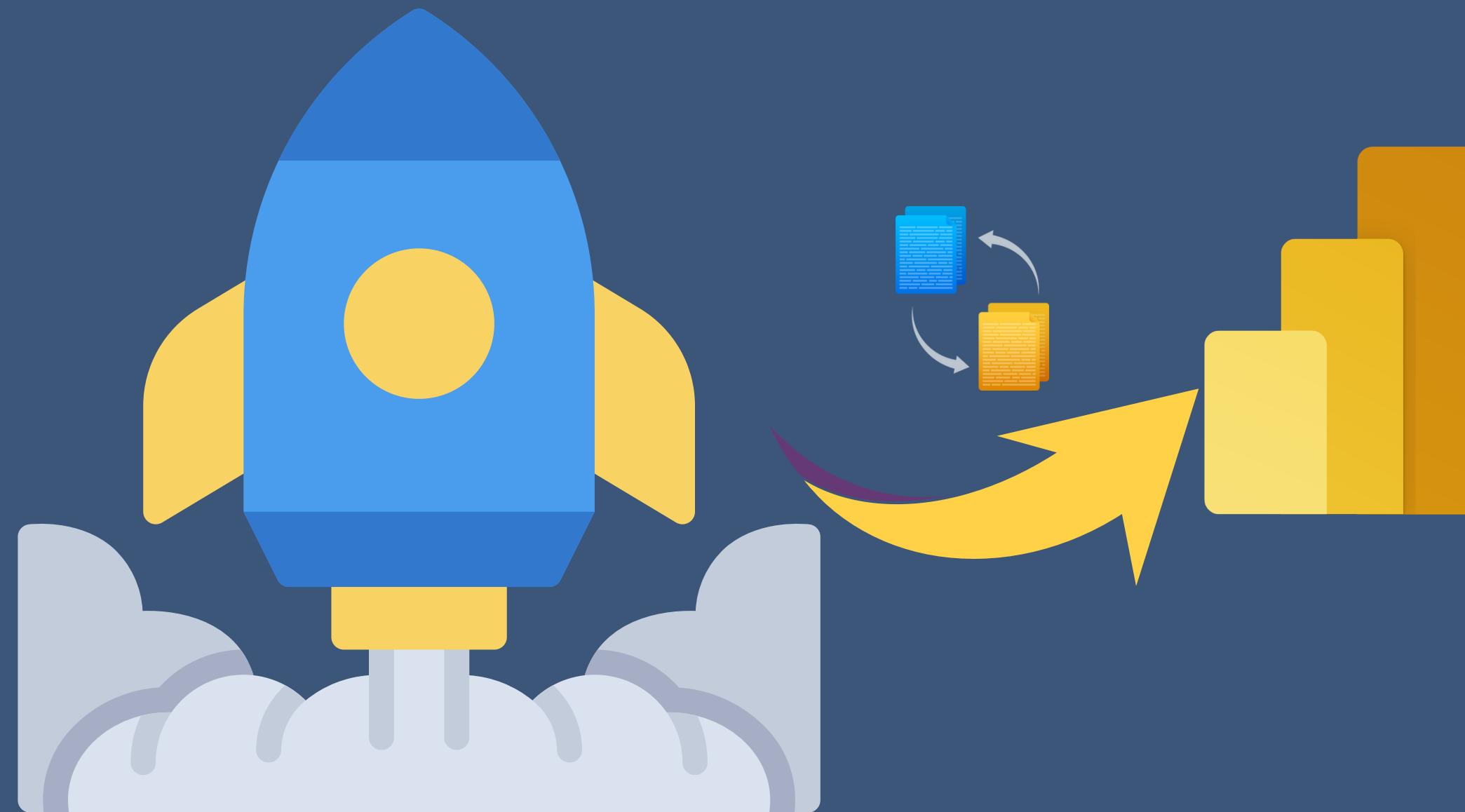
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STAGE 5

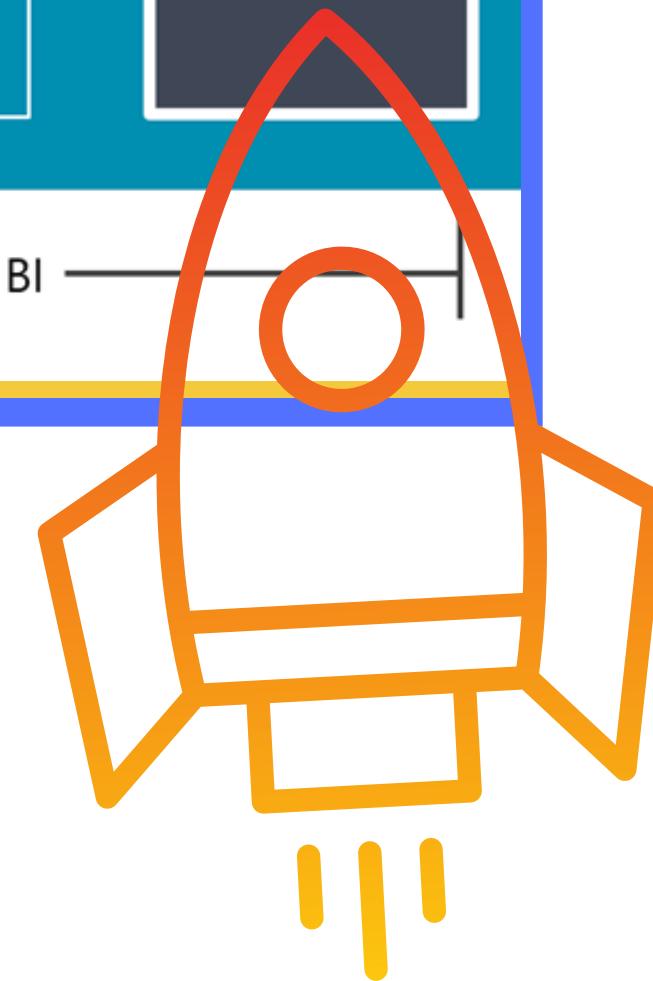
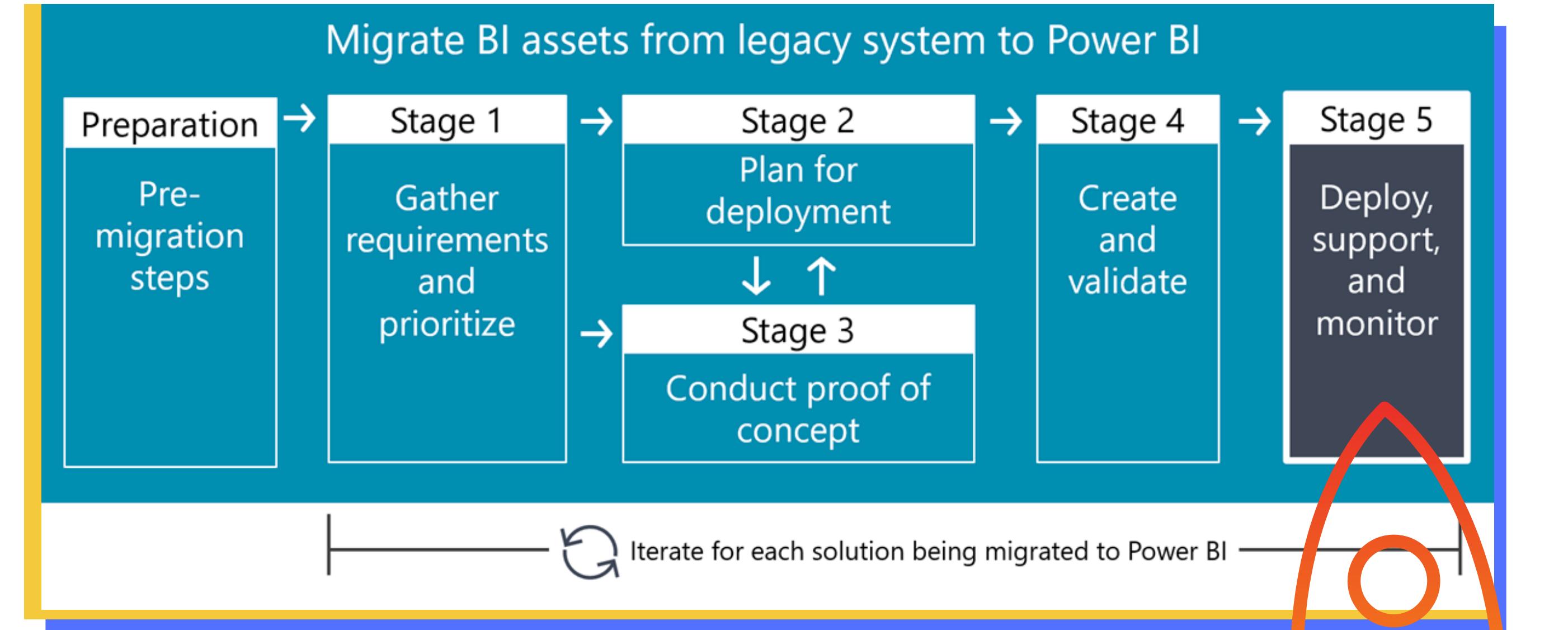
# DEPLOY TO POWER BI

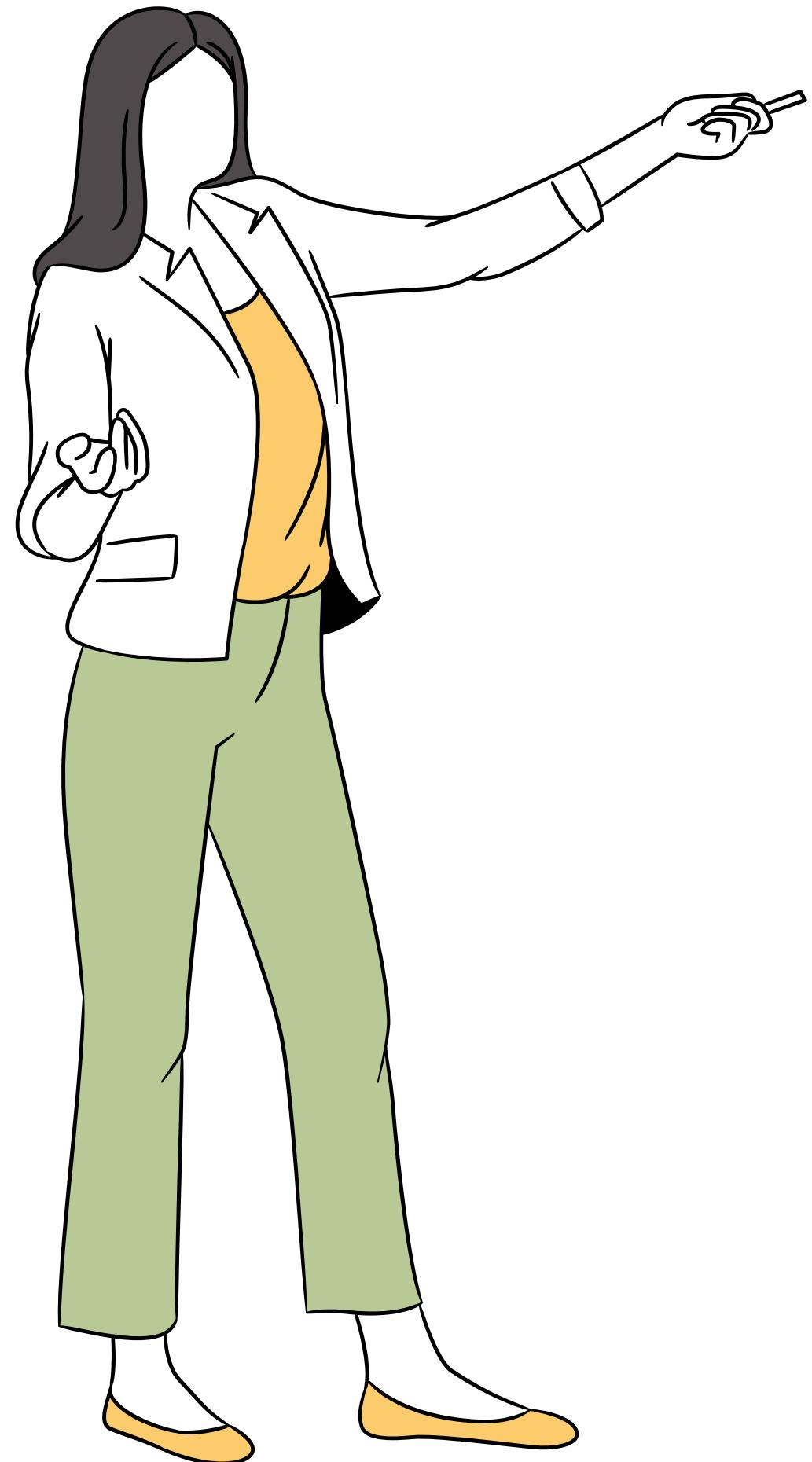


# Deploy to Power BI



# Stage 5 - Deploy, support, and Monitor





The output from this stage is a production solution ready for use by the business. When working with an agile method, it's acceptable to have some planned enhancements that will be delivered in a future iteration.

Support and monitoring are also important at this stage, and on an ongoing basis.

# Steps

1

**Deploy to test environment**

2

**Deploy to the production environment**

3

**Decommission the legacy report**

4

**Monitor the Solution**

5

**Support the Solution**



# 1

## Deploy to test environment

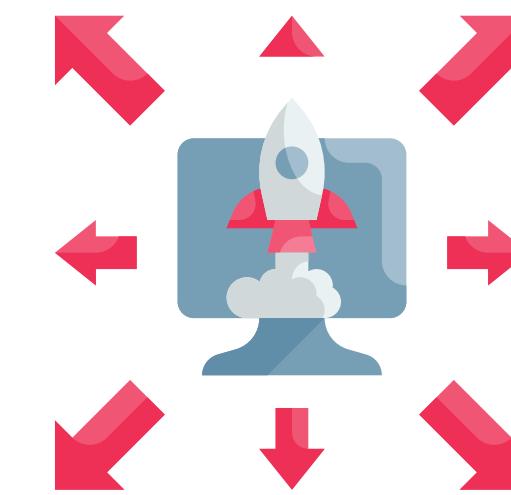


Key activities during a deployment to the test workspace typically includes...

- Connection strings and parameters
- Workspace content
- App
- Data refresh
- Security



## 2 Deploy to the production environment

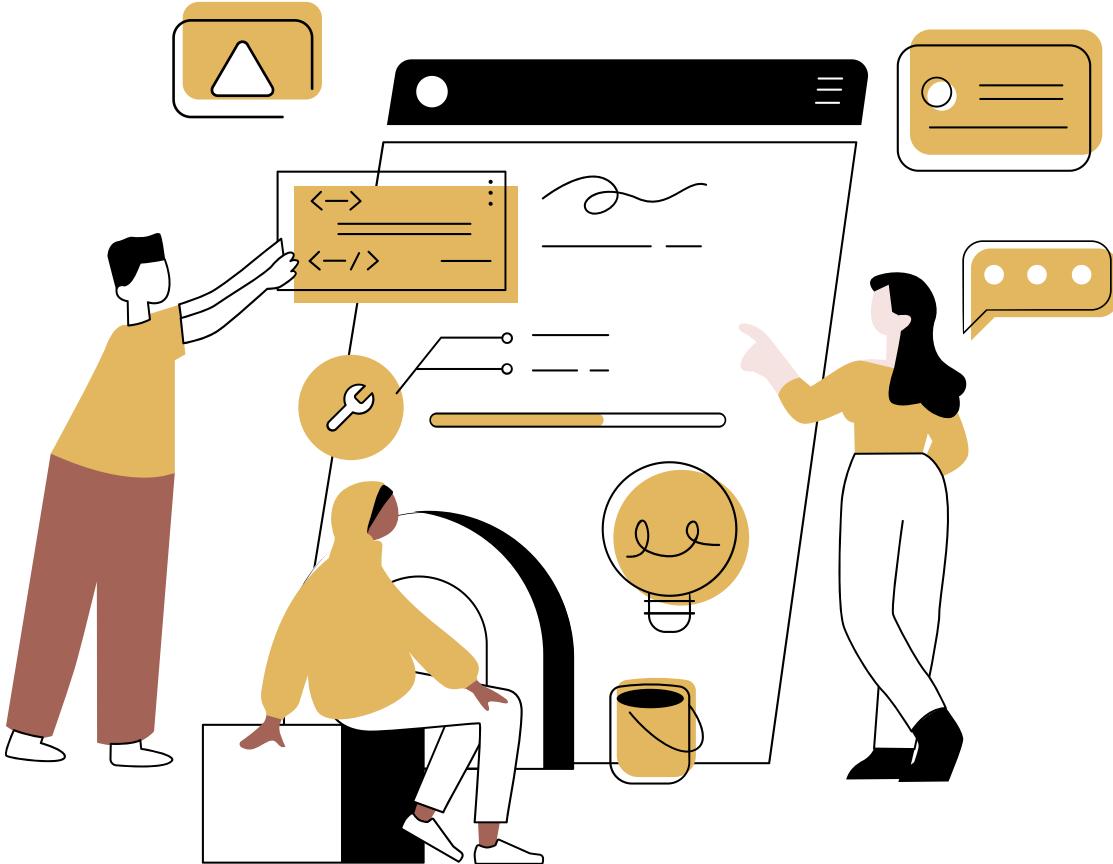


- Conduct a staged deployment
- Handle additional components
  - Gateway maintenance
  - Gateway drivers and connectors
  - Create a new Premium capacity
  - Set up a Power BI dataflow
  - Register a new organizational visual
  - Set featured content
  - Set up sensitivity labels



Use the Power BI Activity Log to understand how consumers are adopting and using the new Power BI solution.

- Deploy to production workspace
- Communicate with users
  - Conduct a retrospective



At this point, you have reached a big milestone. Celebrate your accomplishment at completing the migration.

# 3

## Decommission the legacy report

- The predetermined time for running in parallel—which should have been communicated to the user population—has expired. It's commonly 30-90 days.
- All users of the legacy system have access to the new Power BI solution.
- Significant activity is no longer occurring on the legacy report.
- No issues have occurred with the new Power BI solution that could impact user productivity.



# 4

## Monitor the Solution

- How frequently is the content being viewed?
- Who is viewing the content?
- Is the content typically viewed through an app or a workspace?
- Are most users using a browser or mobile application?
- Are subscriptions being used?
- Are new reports being created that are based on this solution?
- Is the content being updated frequently?
- How is security defined?
- Are problems occurring regularly, such as data refresh failures?
- Are concerning activities happening (for instance, significant export activity or numerous individual report shares) which could mean additional training might be warranted?



*Be sure to have someone regularly review the activity log. Merely capturing it and storing the history does have value for auditing or compliance purposes. However, the real value is when proactive action can be taken.*



# 5

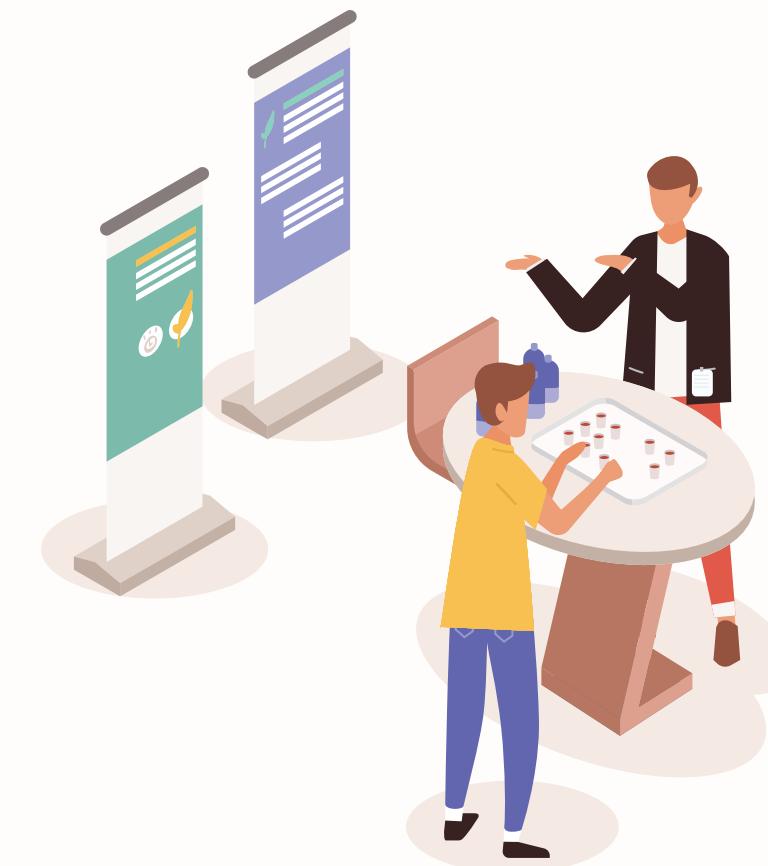
## Support the Solution



# What's Next...

Try yourself...

Find the links to PPTs & References in the Description Section!



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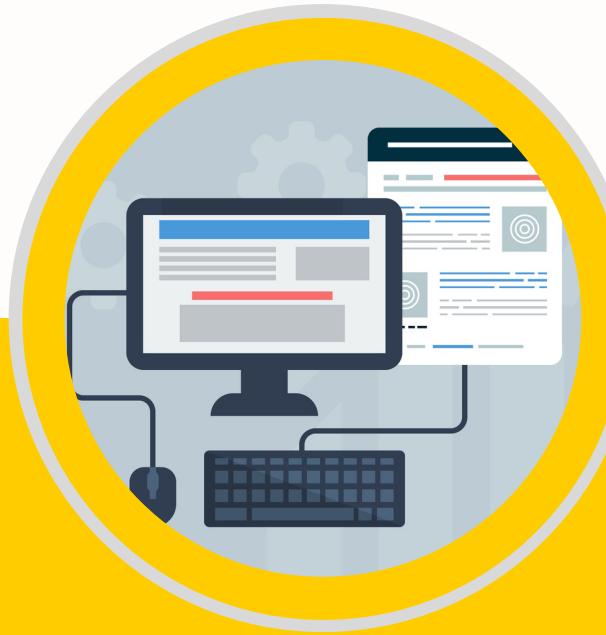


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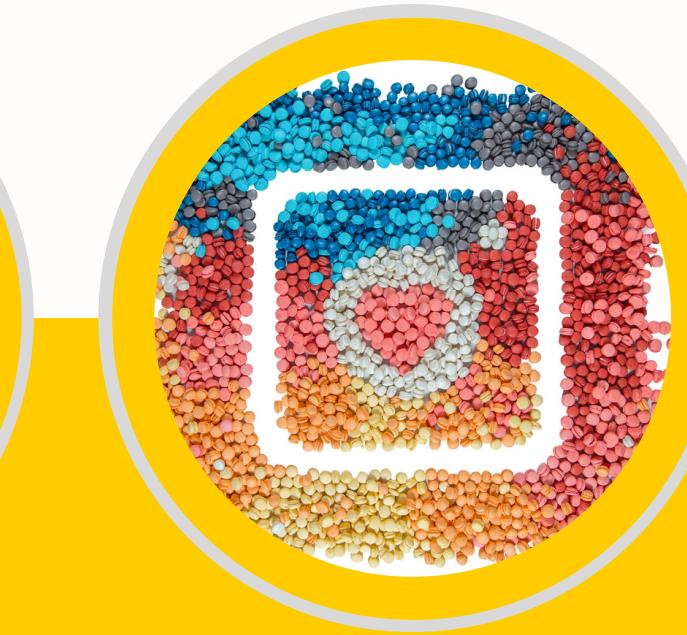
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