



# Roadmap to Successful Power BI Development & Implementation

The real game is played outside Power BI

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## Abstract

Microsoft's Power BI is one of the most widely used Visualization tool with a triple digit annual growth rate which is used by 97% of Fortune 500 companies. Despite the high traction of the tool, not all projects built on it are successful. The purpose of this whitepaper is to:

- Decode the mystery behind the business & commercial failure of Power BI models
- Showcase process oriented solutions

Surprisingly, the core reason for the failure of these projects resides outside Power BI. The objective of this whitepaper is to help:

- New stakeholders - How to take baby steps
- Experienced stakeholders – Validate existing strategy

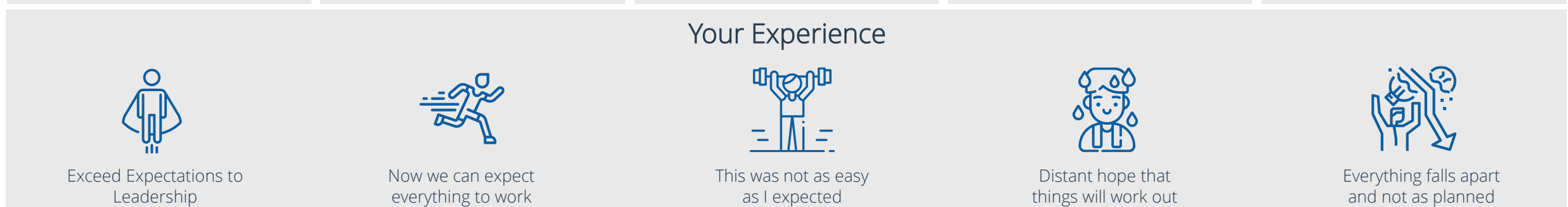
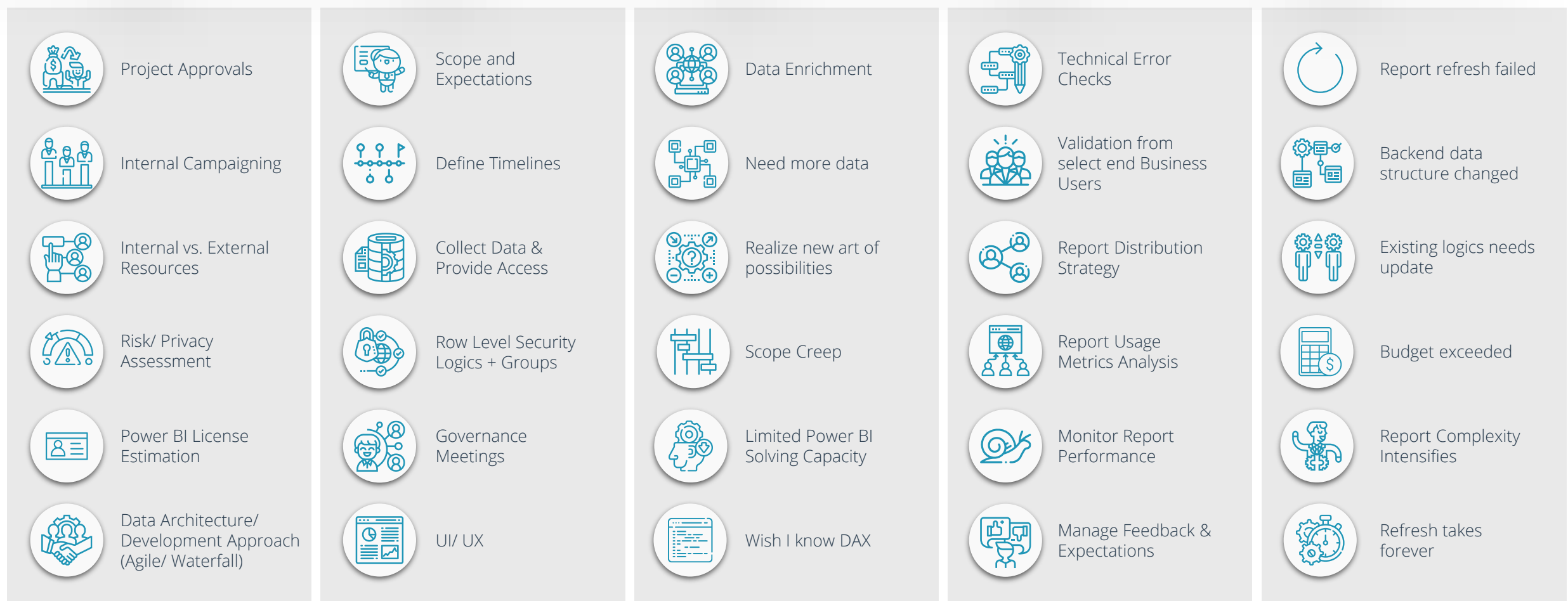
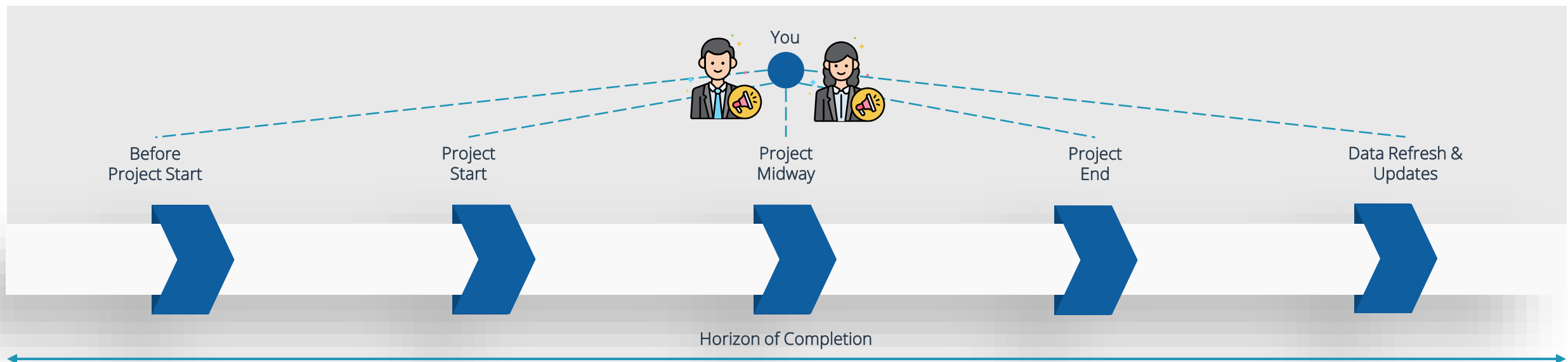
# Typical approach to Power BI Development

You are excited to kick start your Power BI initiative with an intent of automating the reporting and making an impact. But majority of new stakeholders who are trying to come up the curve, have two key misconceptions:

- **I can do it myself** – If I learn Power BI, I can make all the future Power BI reports with ease
- **Horizon of Completion** – Once the report is built, the work is done

Power BI is an ocean of knowledge and it roughly takes 6 months to come up the learning curve (provided daily practice), not to forget the features get updated every month. Doing it yourself is a risky business and often leads to inefficient model building. Best strategy for faster development/ learning is to engage a Power BI specialist and work with them to quickly absorb the pattern of development.

Perception on horizon of completion is often confused by new/ experienced stakeholders. It is very common to realize in the midway of the project that there are insufficient data points. This is the beauty of Power BI, it does not accept mediocrity. Stakeholders must realize that Power BI development is a phased output which roughly takes 3 iterations/ phases to achieve an efficient model.





Golden questions from report audience  
after viewing the Power BI output?



How can I download  
the data to excel?

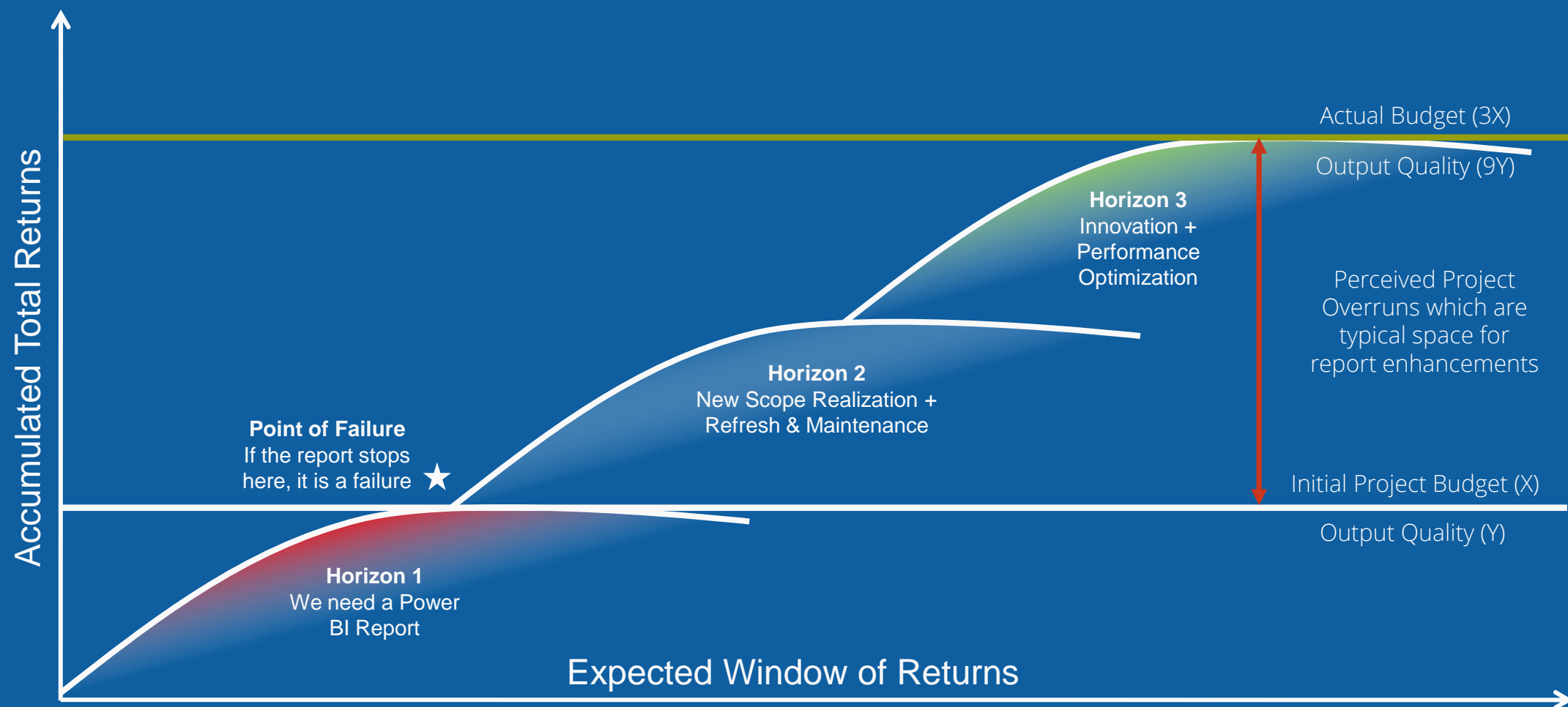


Where is the  
PowerPoint?

These questions sound very frustrating to the development team.  
However, if the audience asks such questions, the report/ dashboard was  
not built correctly for the target audience.

# Decoding the mystery behind business & commercial failure of Power BI reports

Typically when a Power BI project starts (early stages of adoption), the perception is that the report will be over once the initial development is complete. However, the real game begins after initial development. It requires constant refreshes, updates, feedback incorporation, performance improvements and most importantly innovation. Below graph shows a true journey of a Power BI report.



## Most common reason for failure

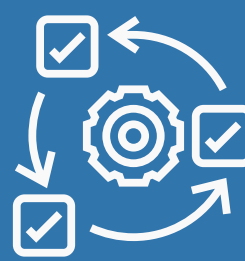
-  Lack of knowledge on end to end requirement
-  Working with Power BI for the first time
-  Limited Budget
-  Low adoption rate amongst end users
-  Reluctance to change and adapt
-  Working with an inefficient Power BI developer

## How can OpenBI help overcome this challenge?

Long term relationship with business is key to understanding client DNA and help evolve product development mindset. Over time this formulates into an agile/ waterfall framework where our clients benefit through standardization in a secured development environment.



Product Development  
Mindset

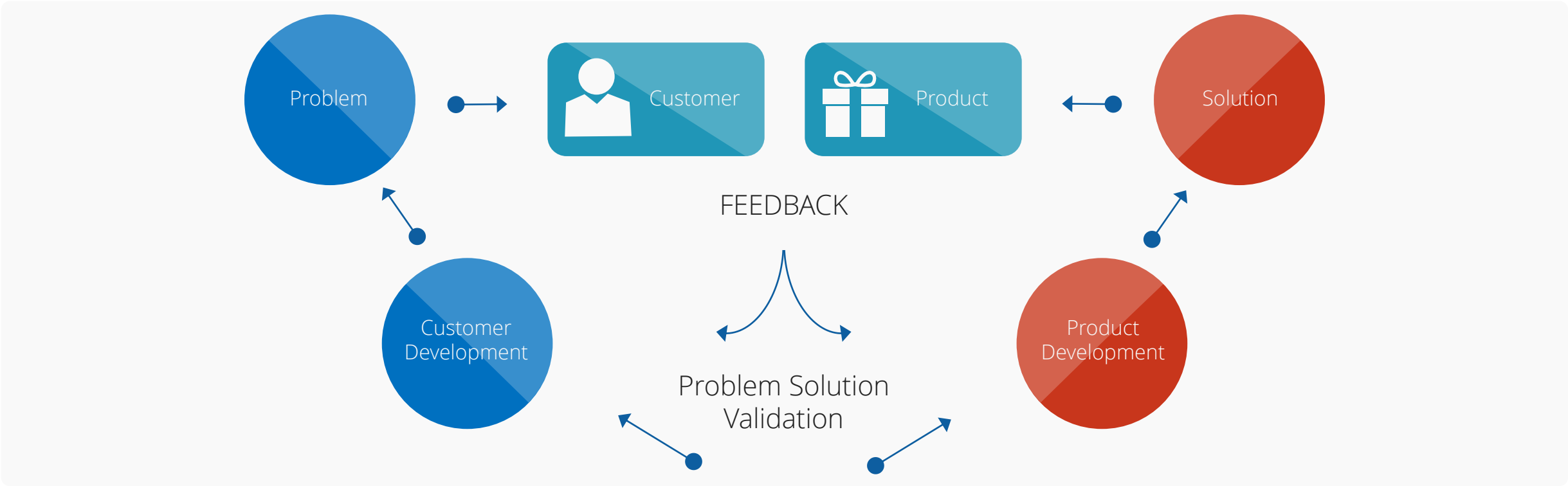


Development  
Framework

# Product Development Mindset Framework

Power BI reports are nothing but automation of your source datapoints to a dashboard with a well defined storyline. Product development mindset requires a shift in gears with acceptance that for things to happen pragmatically, one must absorb the following:

- **Customer Development** - Product development is a customer centric process
- **Product Development** - It takes multiple iterations and feedback incorporation to get the product right



**Power BI Product Development Framework** - It is better to be proactive than being chased to be reactive.

- **Scope** - Before starting a project, ensure user requirements are documented through surveys/ polls/ stories
- **Prioritize** - Most relevant requests must be prioritized and minor requests must be planned in pipeline
- **Develop** - Ensures smooth Power BI development in an agile manner
- **Feedback** - Post report deployment, take constant feedback and incorporate it in the model
- **Publicize** - The results must be publicized in a common forum to discuss what went well and increase report awareness



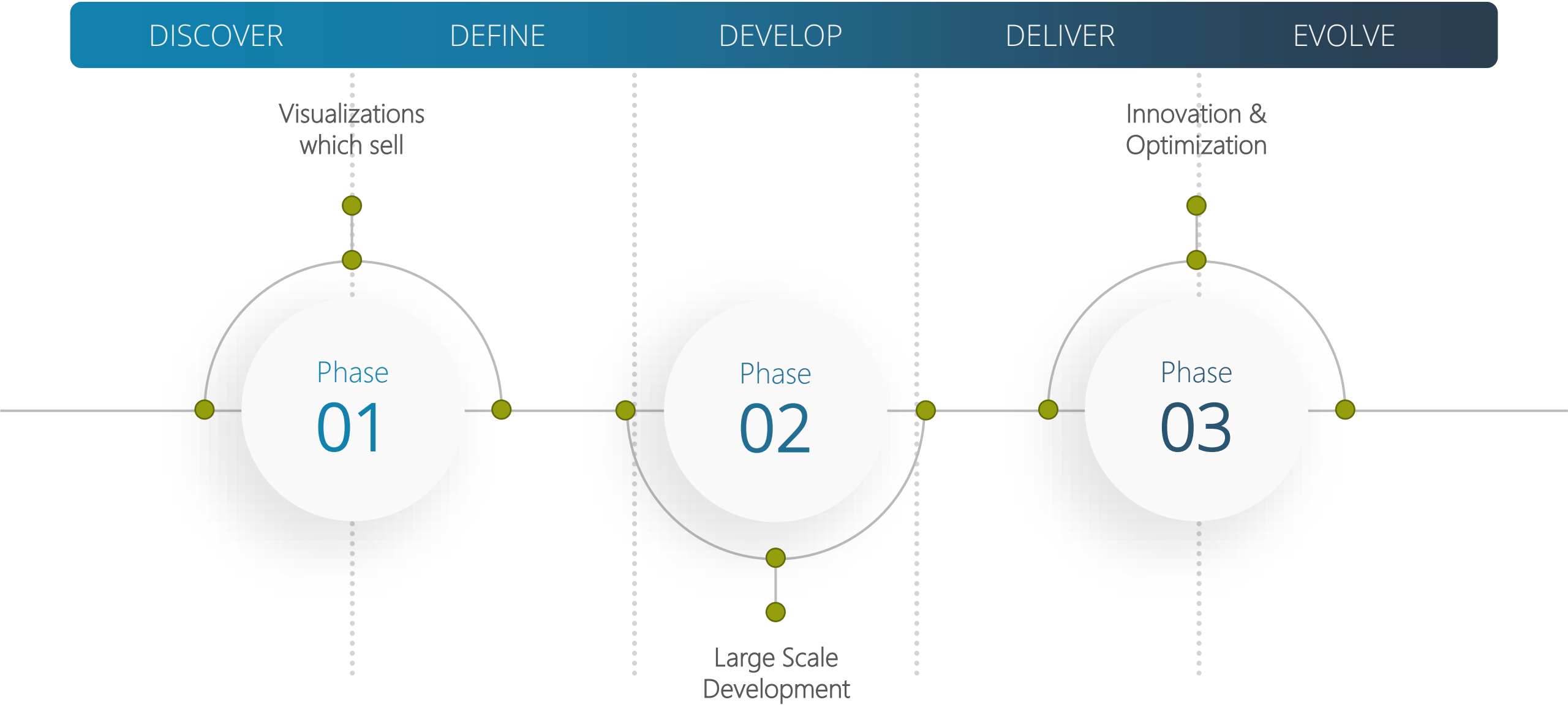


# Product Development Mindset Deployment Strategy

## Development Pipeline

It typically takes three iterations to perfect a Power BI model. Going by this assumption consider the following:

- Phase 1 (Visualizations which sell) – Develop 80% of the target product to get buy in from sponsors, MVP (Minimum Viable Product)
- Phase 2 (Large Scale Development) – Once the MVP is approved and accepted, start deploying your model to absorb wider scope
- Phase 3 (Innovation & Optimization) – Think from product scalability, performance that can drive value to push the product to the next level



## Transparency

Ensure there is transparency in the development pipeline with the end users and keep them excited on the product development journey with new features/ analysis through emails/ newsletters/ forums. This adds stickiness to the tool which gives the actual ROI on development efforts. Of course you cannot accommodate 100% of the requests and make everyone happy, but you can certainly make 80% happy with this approach. The remaining 20% can be achieved in a phased manner of prolonged innovation. You will still find people complaining, but these are the people who failed to fill the scoping survey in the first place.

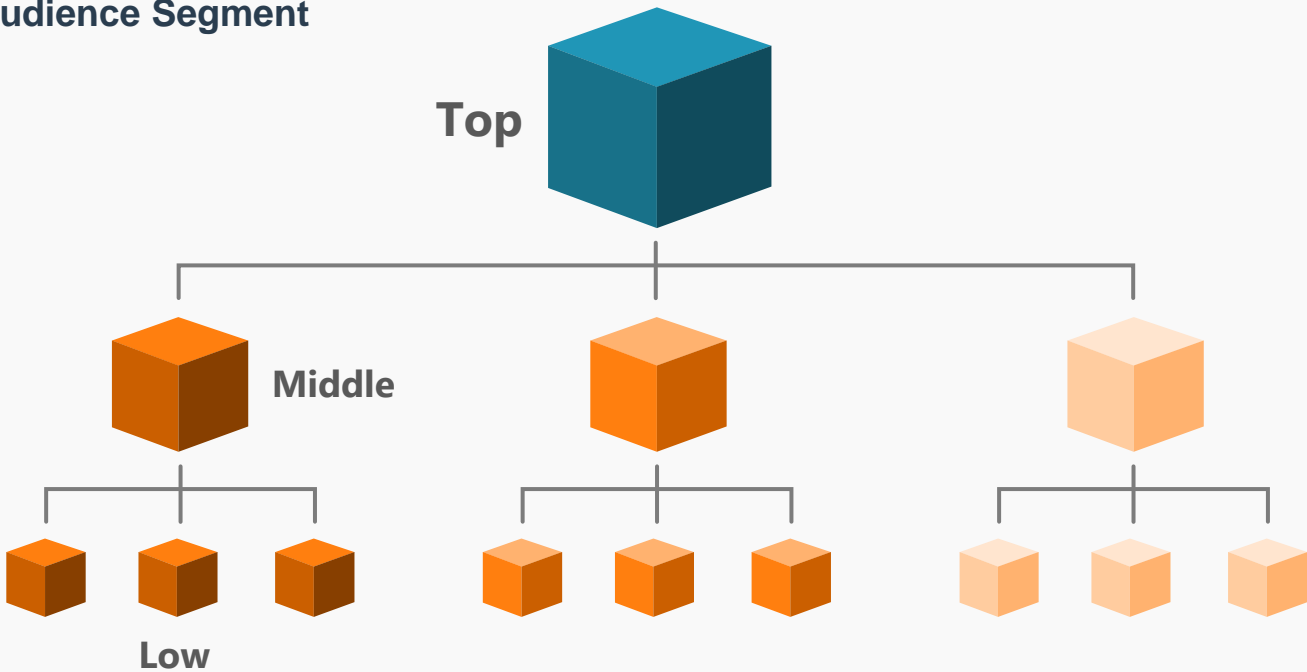
## User Reach

Your target audience can be broadly classified in three segments:

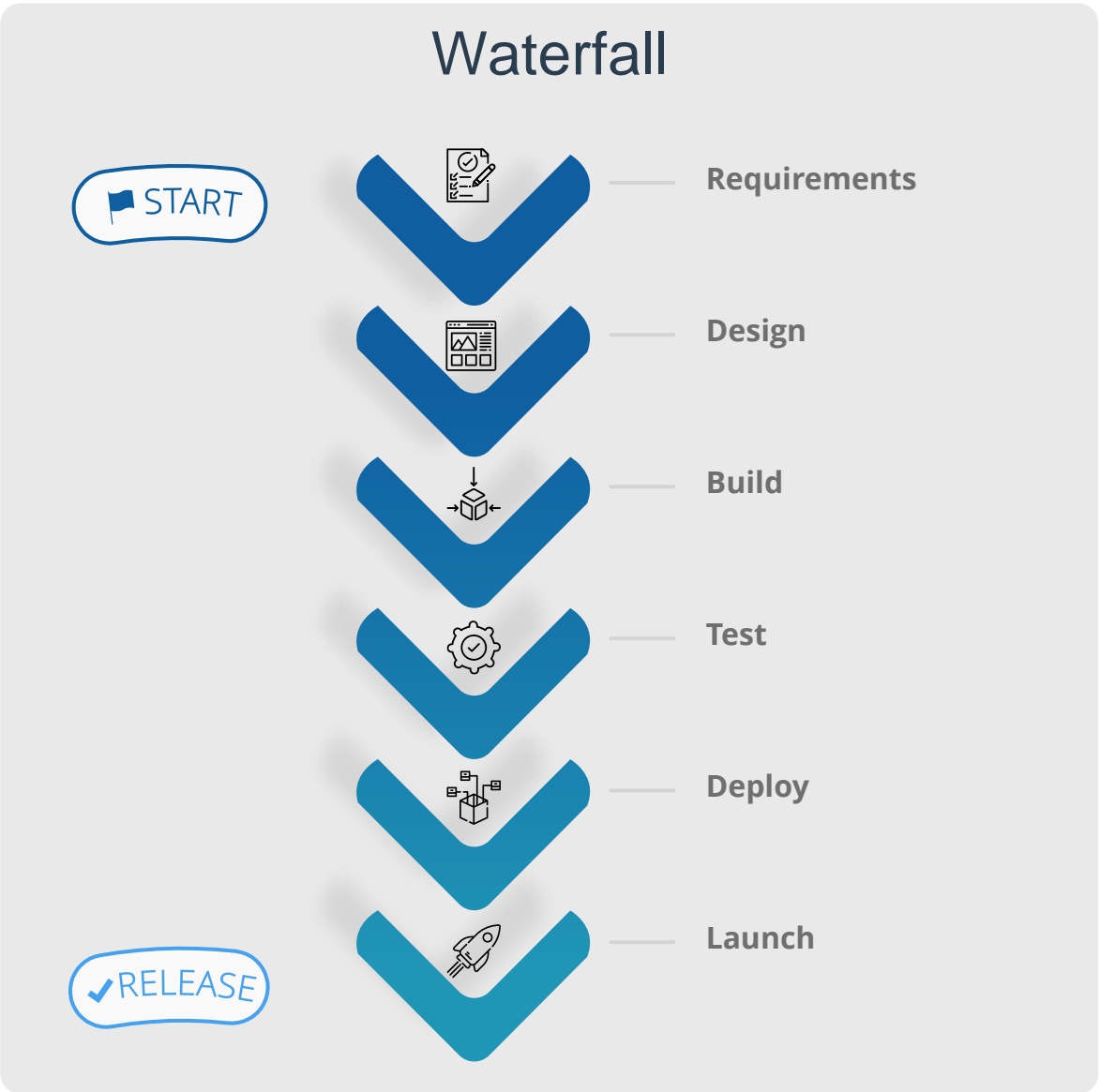
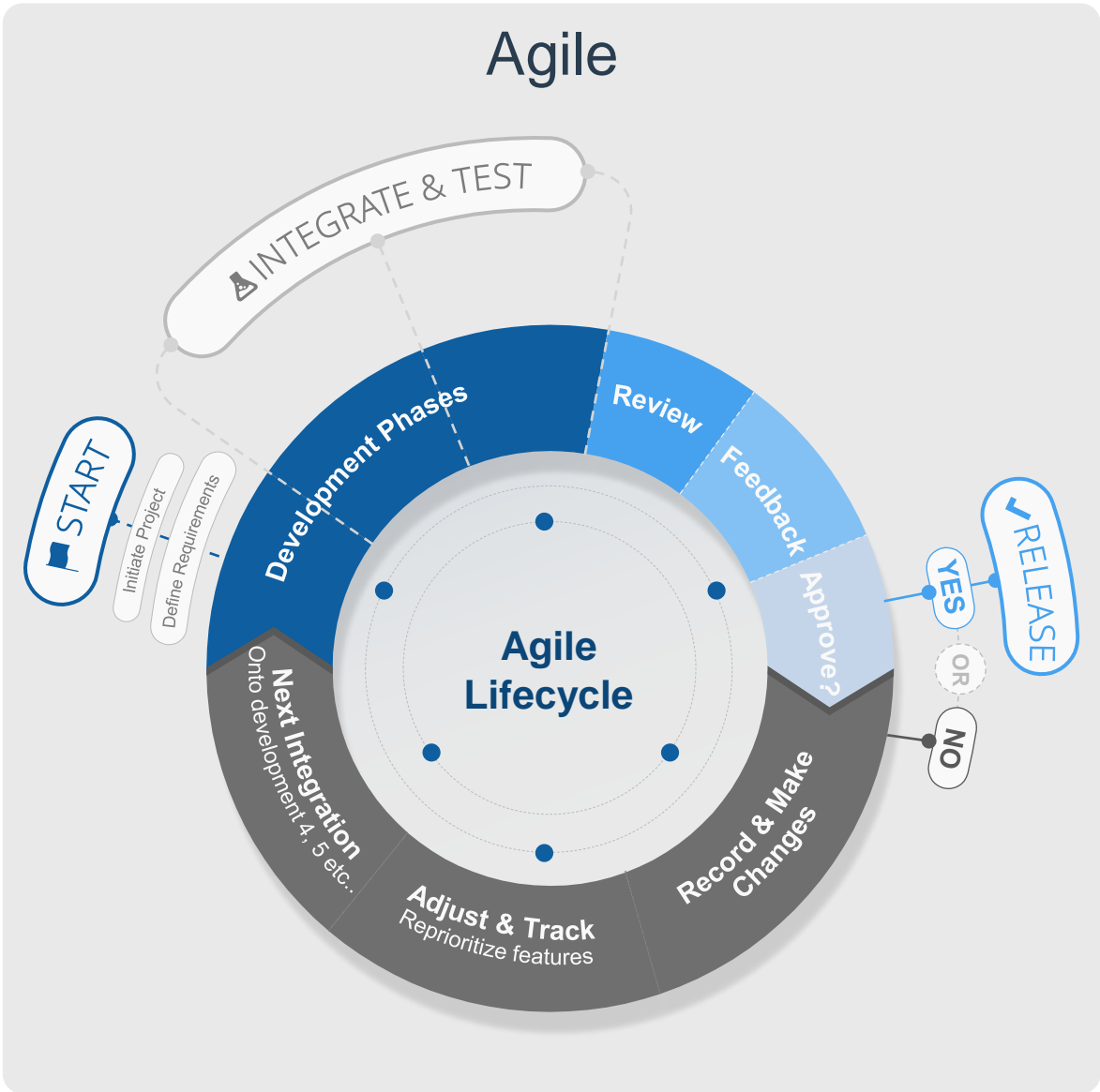
- Top Management
- Middle Management
- Low Management

Always ensure that the product storyline clearly answers core questions of top leadership as well as middle & low management. If the information is confidential/ sensitive, design the model that provides restrictive access.

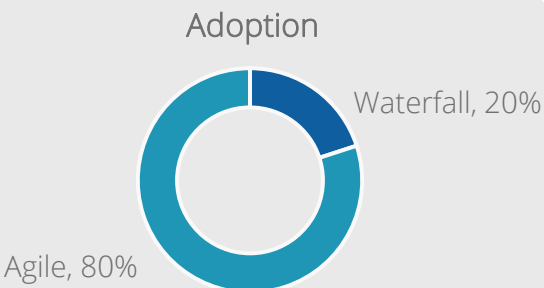
## Audience Segment



**Development Framework (Agile vs. Waterfall)** - Both Agile and Waterfall methodology help build a product journey which have their own pros and cons. However, Agile has an edge over waterfall since it is more fluidic which gives space for experimentation & innovation. In typical scenarios while adopting new BI initiatives there are significant hurdles in terms of data quality & availability. In such scenarios, it is prescribed to follow agile approach of development.



**Agile methodology** helps continuous iterations (sprints) of rapid development and testing with a focus on customer satisfaction. This follows a fluidic scope which allows more communication between customers and developers to prioritize deliverables for each sprint.



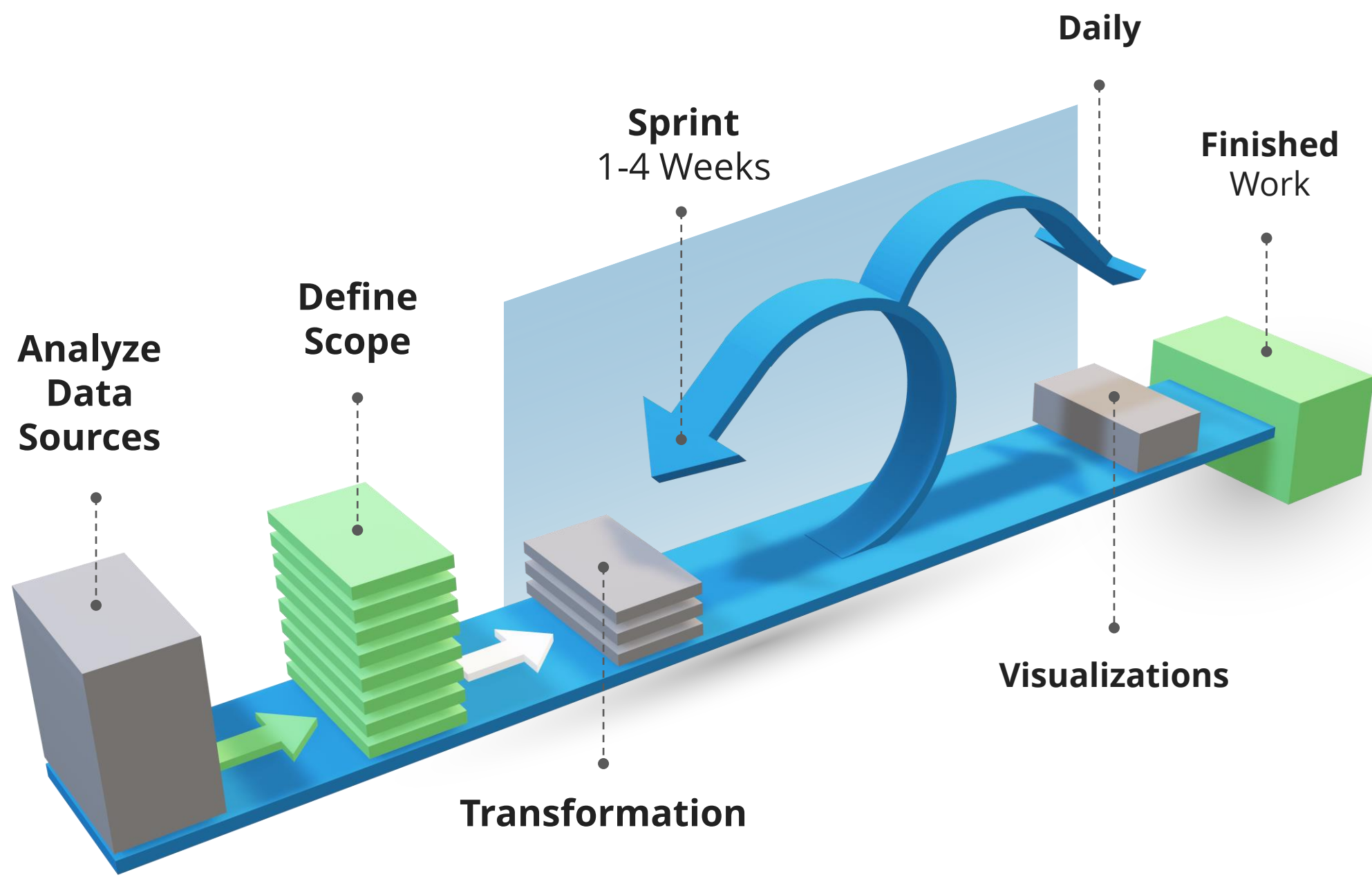
**Waterfall methodology** is a linear sequential life cycle model which moves to the next stage of development & testing only if the previous step is successfully completed. This follows a fixed scope which is typically executed in a planned timeline, budget & resources.

Agile		
Sprints		
Incremental		
Flexible		
Medium to High		
Medium to High		
Uncertain at the beginning		
Customer Satisfaction		
Based on Sprint Planning		
Medium to High		
Time & Material		

Features	
Lifecycle	
Approach	
Design	
Size of Projects	
Complexity	
Scope	
Focus	
Delivery Time	
Effort	
Budget	

















Waterfall	
	Phases
	Sequential
	Rigid
	Low to Medium
	Low to Medium
	Fixed Scope at start
	Deliverable Specific
	Quick
	Low to Medium
	Fixed Price

# Agile Execution Strategy for Sprint 1



## Agile Execution strategy for Sprint 1 – MVP – Visualizations which sell

Below framework highlights the execution strategy for building Sprint 1 of the agile approach, i.e., MVP – Visualizations which sell. Effectively develop 80% of your product using minimum number of data sources with a mindset of maximizing visualization output. This requires effective collaboration of business users with Power BI developer to streamline the scope.

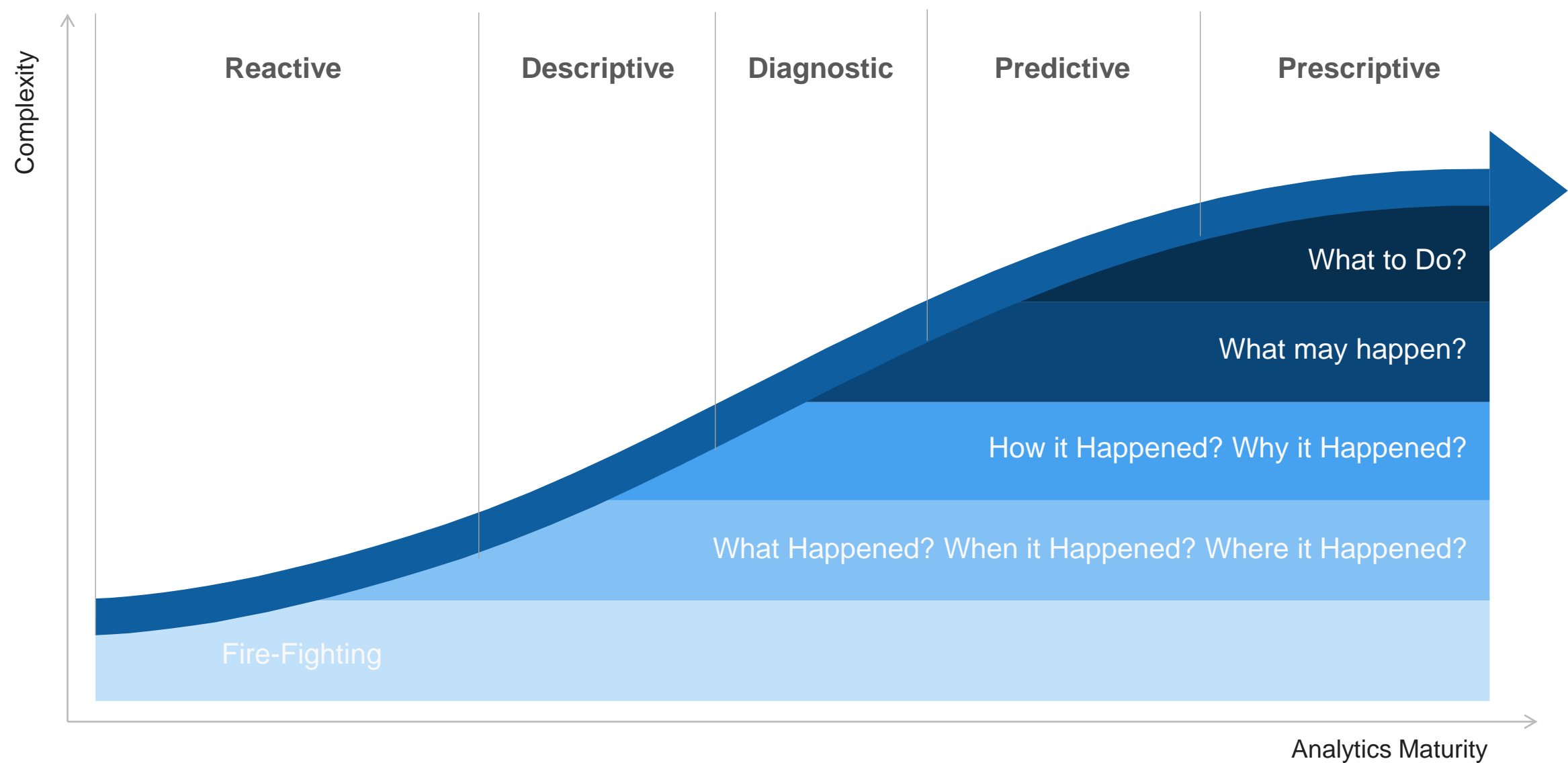
Business User		Roles & Responsibilities		Power BI Developer	
Define Scope		Data Sources		Transform	Visualize
 Define What, When, Where, How, Why?		 Identify Data Sources System, Cloud, Excel, etc.		 Data Prep Clean up and fill gaps	 UI/ UX Vertical, Horizontal, Scroll, Navigations
 Validate Scope with decision makers		 Sample Data Explore direct and offline connectivity		 Modelling Star Schema is most common used model	 Navigation Taxonomy Define pages and sub tabs
 Reference Does existing data answer the scope?		 Evaluate Data Volume, Relationships, Modelling, Schema		 DAX Compute respective DAX based on scope	 Visuals Finalize custom visuals
 Finalize Scope and data requirements		 Data Health Check Quality issues, Clean-up, Gaps		 Optimize Computation Performance	 Designs Standardized Toolkit for Skins & Formatting



# Solution – Agile/ Waterfall Development Framework

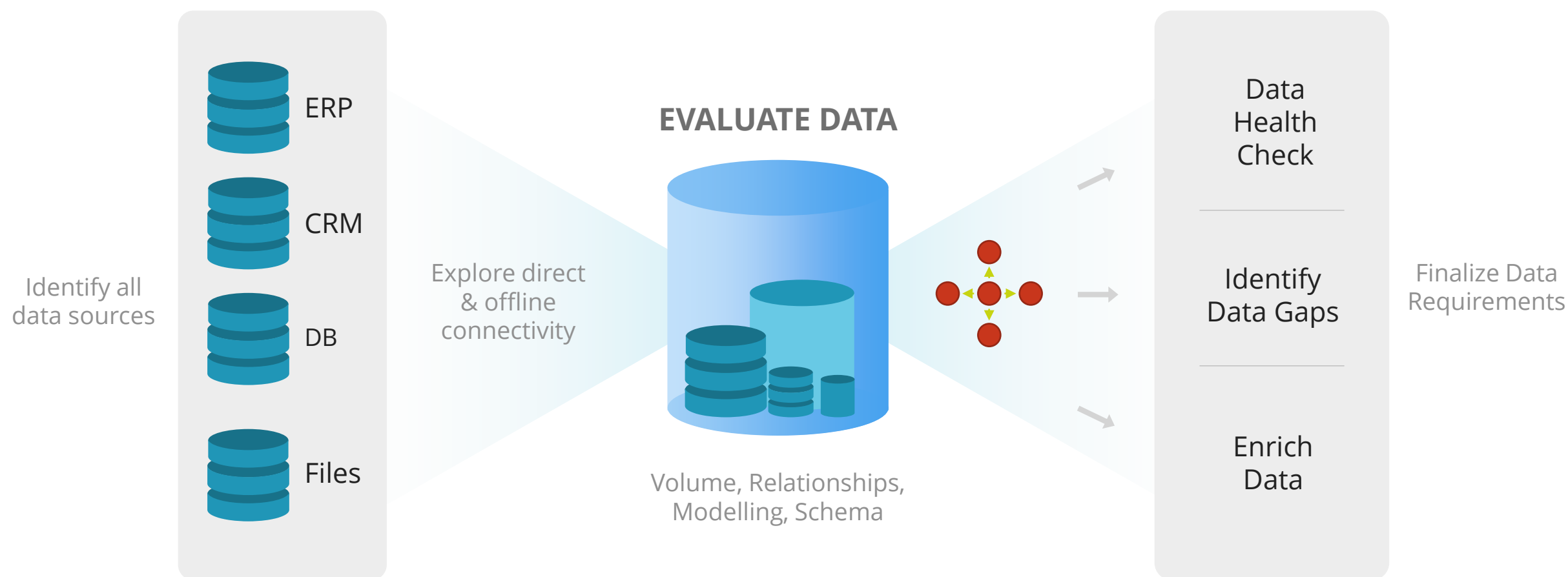
## Define Scope

On an average, it takes three to six months to climb from one stage of analytics maturity to another. Hence, one must critically evaluate existing maturity and define the scope accordingly. If the scope becomes aspirational with an urgency to achieve maximum maturity in least possible time, it often leads to critical failures in model development and implementation.



## Data Sources

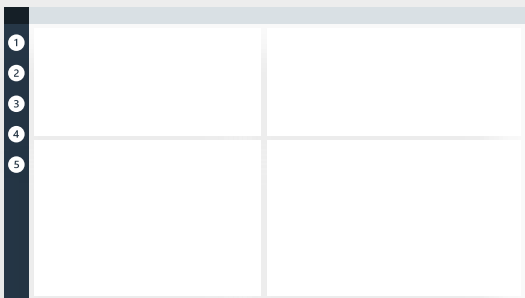
Gather a list of all data sources and explore direct and offline connectivity to Power BI. Do not get stuck in connecting directly to source systems and wait for security clearances, instead work on the sample data to build the model prototype. Evaluate data volume, relationships, schema to gauge the applicable data architecture. Perform thorough data health check analysis and enrich the data with the identified gaps to finalize data requirements.



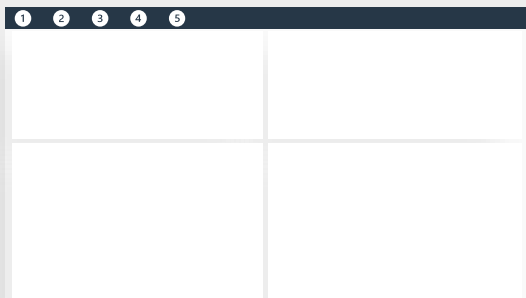
# Solution – Agile/ Waterfall Development Framework



UI/ UX



Vertical Navigation



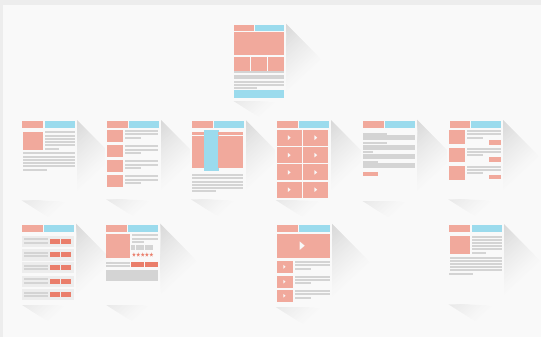
Horizontal Navigation



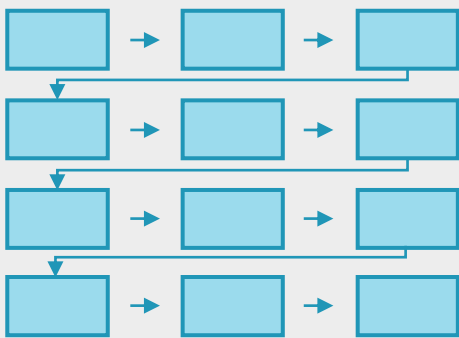
Scroll Navigation



Navigation Taxonomy



Pages Blueprint



Storyline/ Wireframe

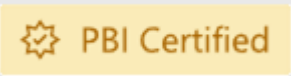
**Sections and Sub Sections**  
A well-structured dashboard comprises of meaningful sections and sub sections which help users identify insights with minimum number of clicks. The taxonomy of navigation must represent a meaningful storyline which helps answer critical questions of the audience.



Visuals



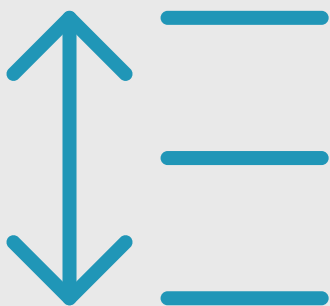
**Z Pattern of Dashboard Reading**  
A typical user would read a dashboard from left to right and then navigate from top to bottom. Ensure the key message such as KPI's are highlighted on the top and likewise the placement order is prioritized



Always opt for Power BI certified visuals since they provide better performance and reliability



Designs



Give good **spacing** between visuals and avoid clutter



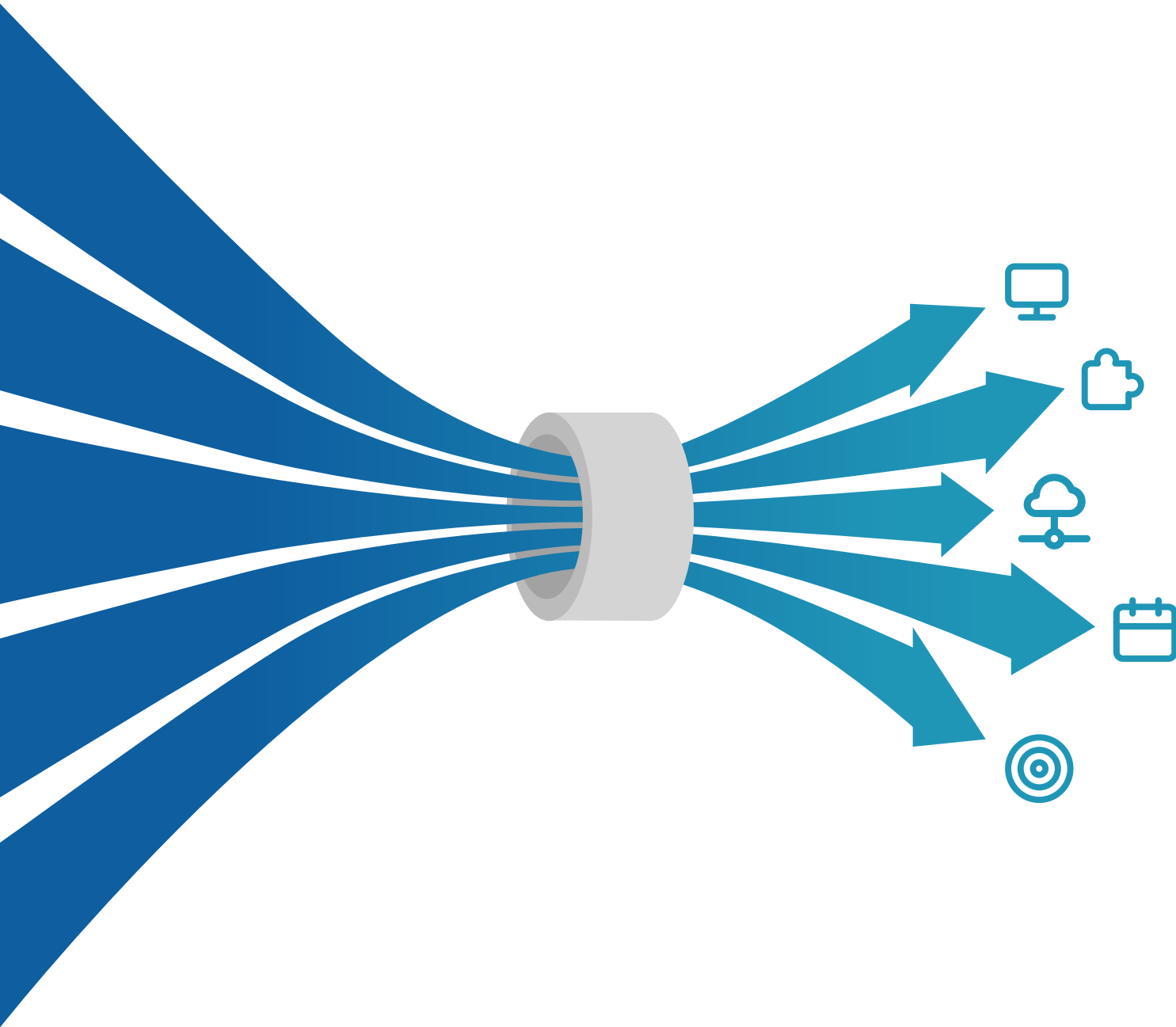
**Formatting** standardization across all sections



Effective usage of corporate **colour theme**

# Conclusion

Building new solutions/ product using Power BI is like teaching kids new tricks. It needs time and patience. But most importantly it needs acceptance, adoption and willingness to embrace the change. For a typical initiative one must give 90 days to the developer and see how it will bring in change.



- 01 Power BI is a gateway to product-oriented mindset
- 02 When done right you will not feel the need to build a PowerPoint
- 03 It is a path which leads you to take data driven decisions
- 04 Changes you from being reactive to proactive
- 05 Ultimately it will make you a superhero in your organization

For more information, contact [contact@openbi.ai](mailto:contact@openbi.ai)



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