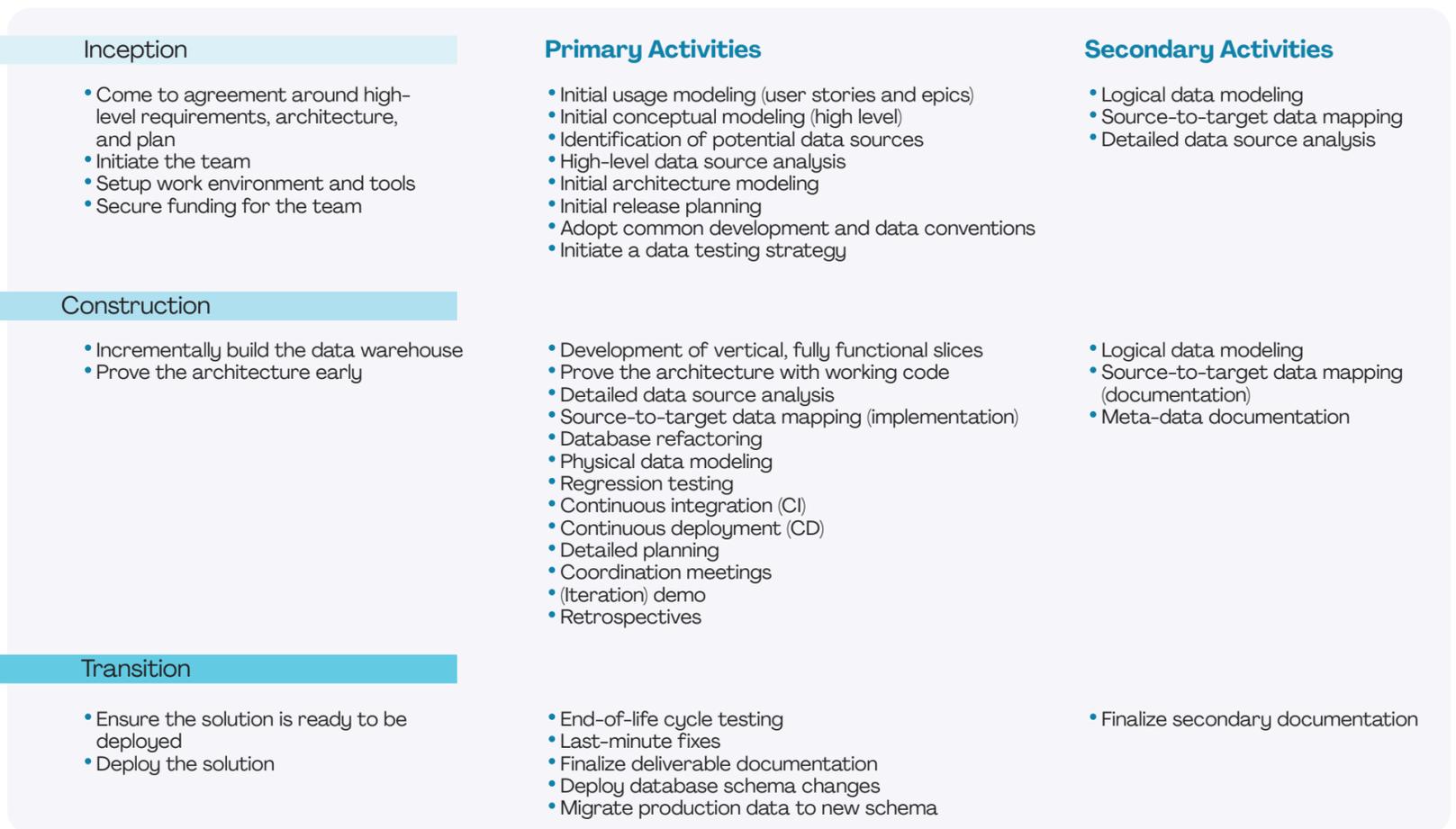# Disciplined Agile Data Warehousing (DW)/ Business Intelligence (BI)
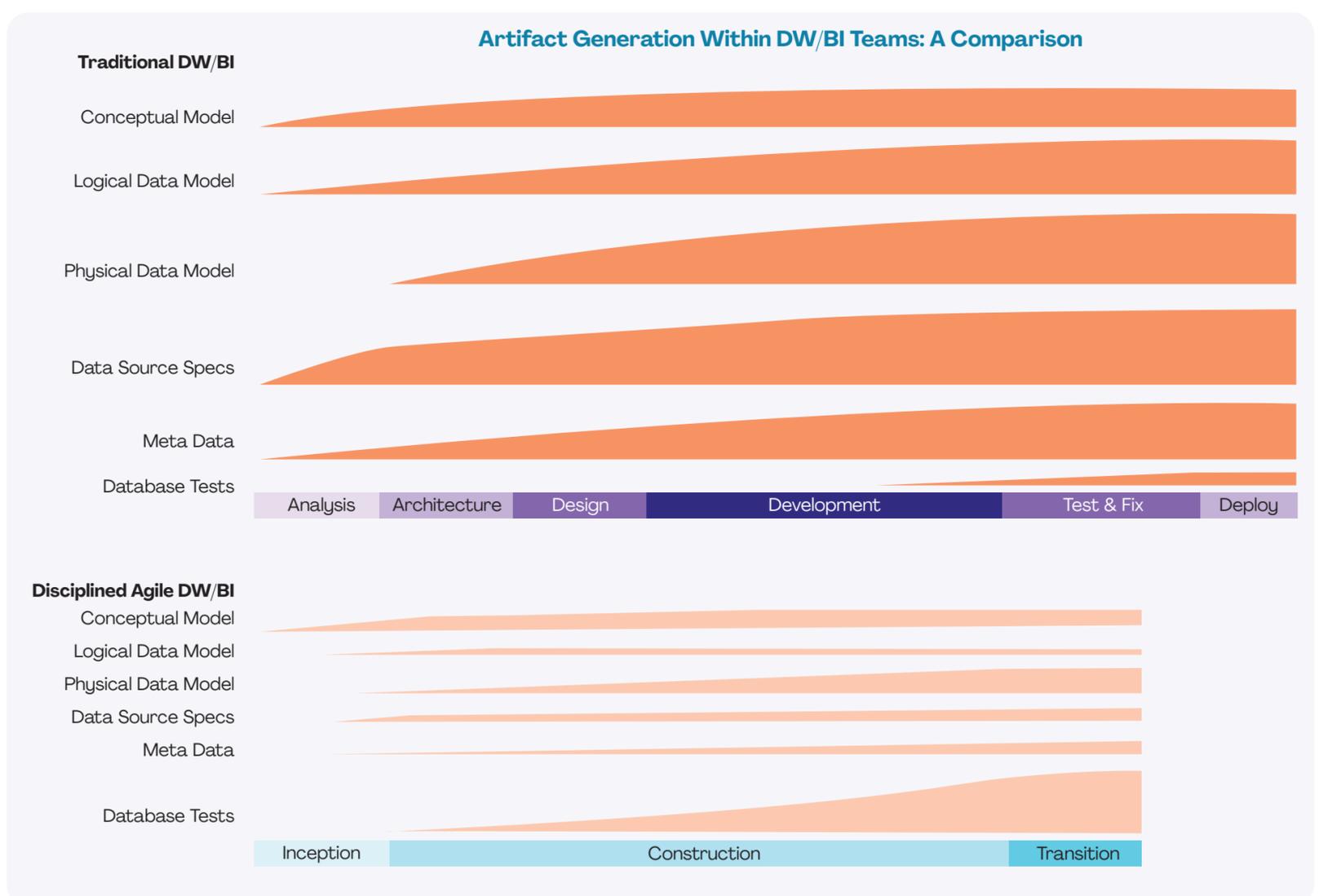
Disciplined Agile DW/BI teams take a highly collaborative, lightweight strategy to development. To do so they will take a three-phase approach:

1. **Inception** – The team performs just enough work to get going in the right direction. Disciplined Agile teams will spend a few days or perhaps a week or so to do so, not several weeks or months.

2. **Construction** – Disciplined agile teams incrementally build the DW/BI solution in thin, fully functional vertical slices that could be potentially shipped into production. These slices are available every week or two.

3. **Transition** – The team ensures their DW/BI solution is consumable and then they ship into production.

The following diagram summarizes the primary and secondary development activities that are potentially performed by the team. Primary activities are ones that add direct value to the development effort. Secondary activities tend to focus on long-term documentation that may add value in the future, but the value proposition tends to be dubious in practice so you want to be very careful in how much effort you invest in them.

	Primary Activities	**Secondary Activities**
Inception	• Initial usage modeling (user stories and epics)	• Logical data modeling
• Come to agreement around high-level requirements, architecture, and plan	• Initial conceptual modeling (high level)	• Source-to-target data mapping
• Initiate the team	• Identification of potential data sources	• Detailed data source analysis
• Setup work environment and tools	• High-level data source analysis	
• Secure funding for the team	• Initial architecture modeling	
	• Initial release planning	
	• Adopt common development and data conventions	
	• Initiate a data testing strategy	
Construction	• Development of vertical, fully functional slices	• Logical data modeling
• Incrementally build the data warehouse	• Prove the architecture with working code	• Source-to-target data mapping (documentation)
• Prove the architecture early	• Detailed data source analysis	• Meta-data documentation
	• Source-to-target data mapping (implementation)	
	• Database refactoring	
	• Physical data modeling	
	• Regression testing	
	• Continuous integration (CI)	
	• Continuous deployment (CD)	
	• Detailed planning	
	• Coordination meetings	
	• (Iteration) demo	
	• Retrospectives	
Transition	• End-of-life cycle testing	• Finalize secondary documentation
• Ensure the solution is ready to be deployed	• Last-minute fixes	
• Deploy the solution	• Finalize deliverable documentation	
	• Deploy database schema changes	
	• Migrate production data to new schema	

Disciplined agile teams create a high-level conceptual model early and explore the details on a just-in-time (JIT) basis. If there is a logical data model (LDM) created, it is lightweight and evolves over time. The physical data model (PDM) evolves throughout the lifecycle as the requirements evolve. The most important artifact created by the team is a regression test suite. This suite both validates and specifies (when a test-first approach is taken), alleviating the need for most traditional data specifications. The team may also choose to capture meta-data over time, but also in a lightweight manner.

Artifact Generation Within DW/BI Teams: A Comparison

For more information about the Disciplined Agile (DA) tool kit we invite you to visit **pmi-org/disciplined-agile**. For information about Agile database techniques please visit **AgileData.org**.