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Gartner Summits

To the Point: What's Wrong With Master Data Management? From MDM to Application Data Management

Michael Patrick Moran

It All Started So Well …

From Boardroom …

to Basement

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Key Issues

1. What went wrong with MDM?
2. What is Application Data Management?
3. How can you get started with Application Data Management today?

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It Was Meant to Be Like This, Right?

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But All Is Not Lost

After 15 or so long hard years …
we have figured out:

- How to align data to outcome?
- That not all data is equal.
- That MDM is not about data — really!
- That MDM does not exist alone.
- That MDM should be preceded by classifying data …

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Typical of a Business Application (e.g., ERP) Implementation 7-9 Months After "Go Live"

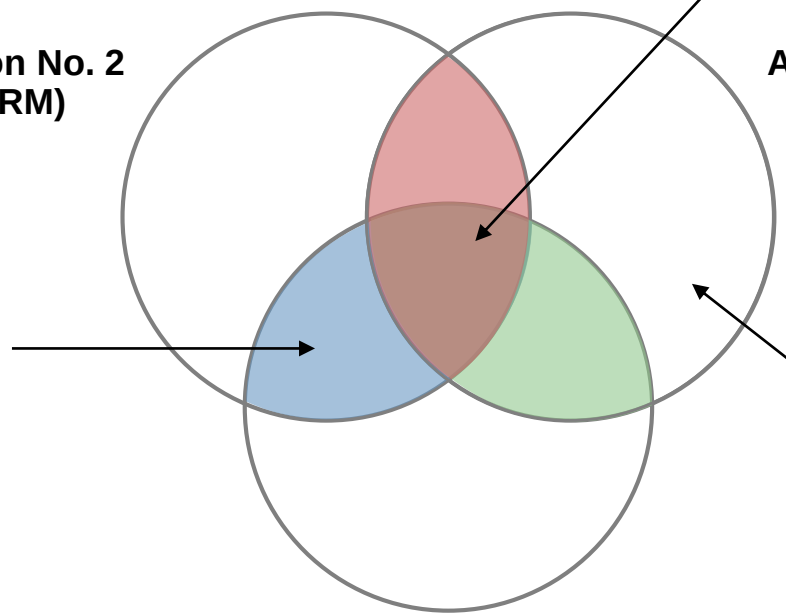
- "We have lost control of our data"
- Death by a thousand data quality cuts
- Much of the work of managing application data takes place in an app blueprint all along; it's just "stuck" or optimized for the app in question
- ERP user-acceptance criteria does not focus on information quality — only accounting transaction integrity
- So "Carry on and pay up (again and again) or stop going mad"

Defining Application Data Management

- ADM is a technology-enabled **business discipline** designed to help users manage and govern the application data required to operate a specific business **application or suite**, such as CRM, ERP or SCM:
  - Such application data **may include** customer master data, product master data (i.e., a copy of master data) and other data used by those applications.
  - Technical capabilities of MDM solutions are common to ADM.
  - ADM could be thought of as "managing app data for use in an app"

What Does Application Data Management Look Like?

- Centralized Governance
- Common Master Data
- **Master Data Mgt.**
- MDM Hub



Application No. 2 (I.e., CRM)

Application No. 2 (I.e., ERP)

Application No. 3 (I.e., E-Commerce)

- Regional Governance
- Application Shared
- **Shared App Data Mgt.**
- Application Data Hub

- Local Governance
- App-Specific/Single-Use
- **Application Data Mgt.**
- Application Data "Master File"

* Example shown is related to master data; but this model can be applied to any kind of data, application or business unit. Result will be a layered canonical data model.

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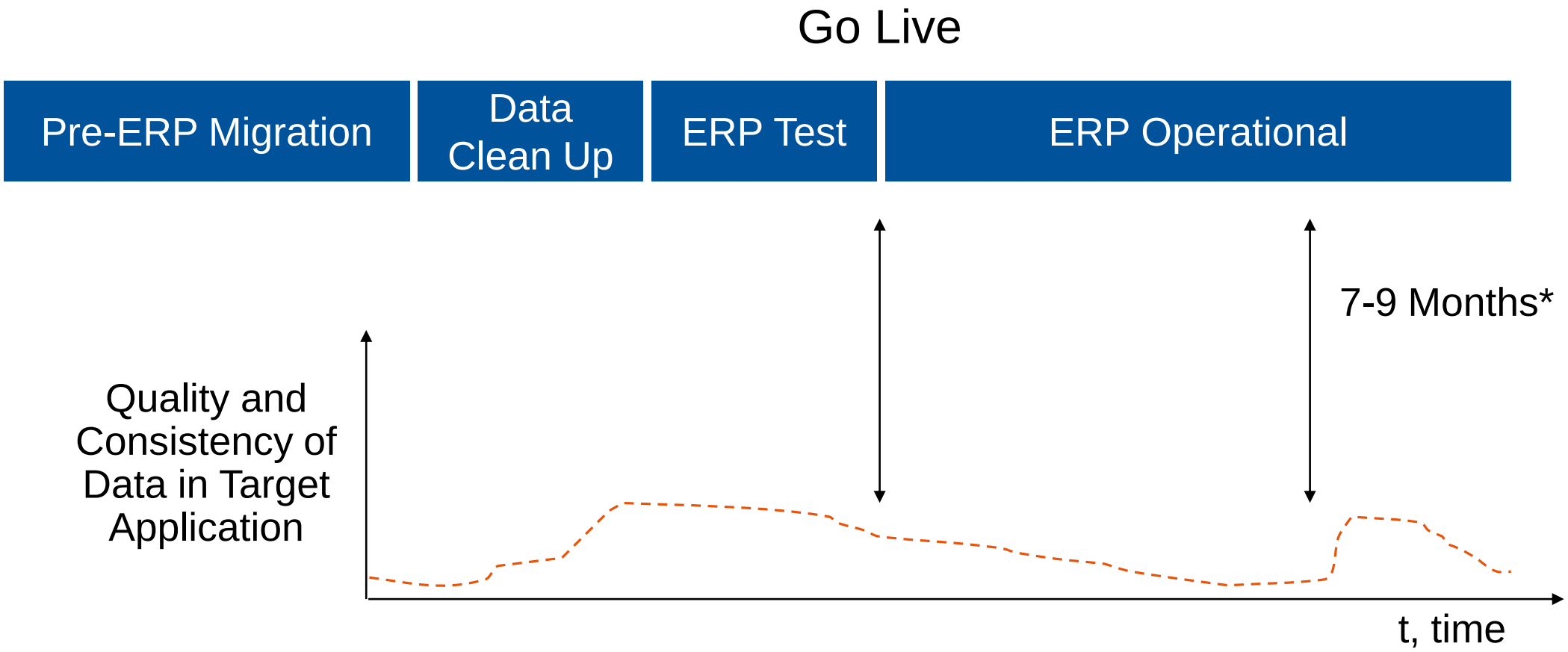
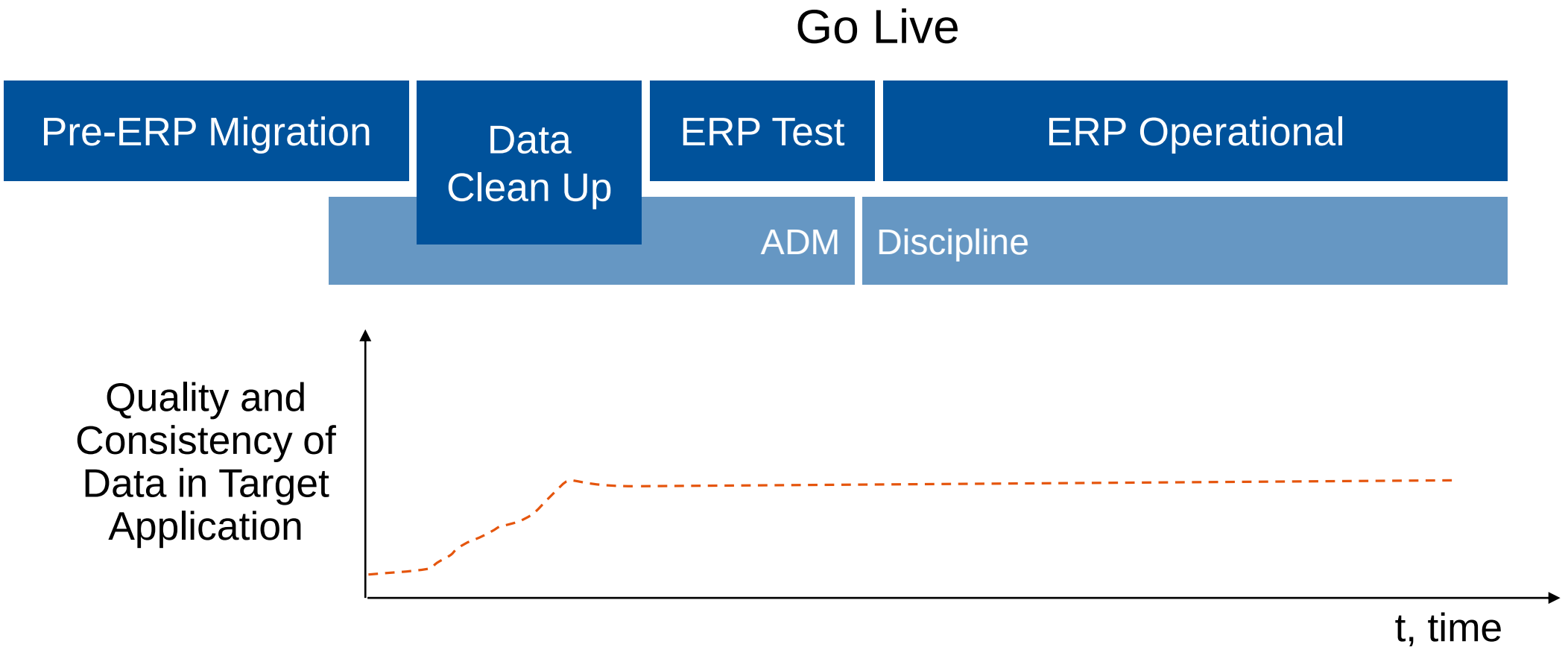
Application Life Before ADM

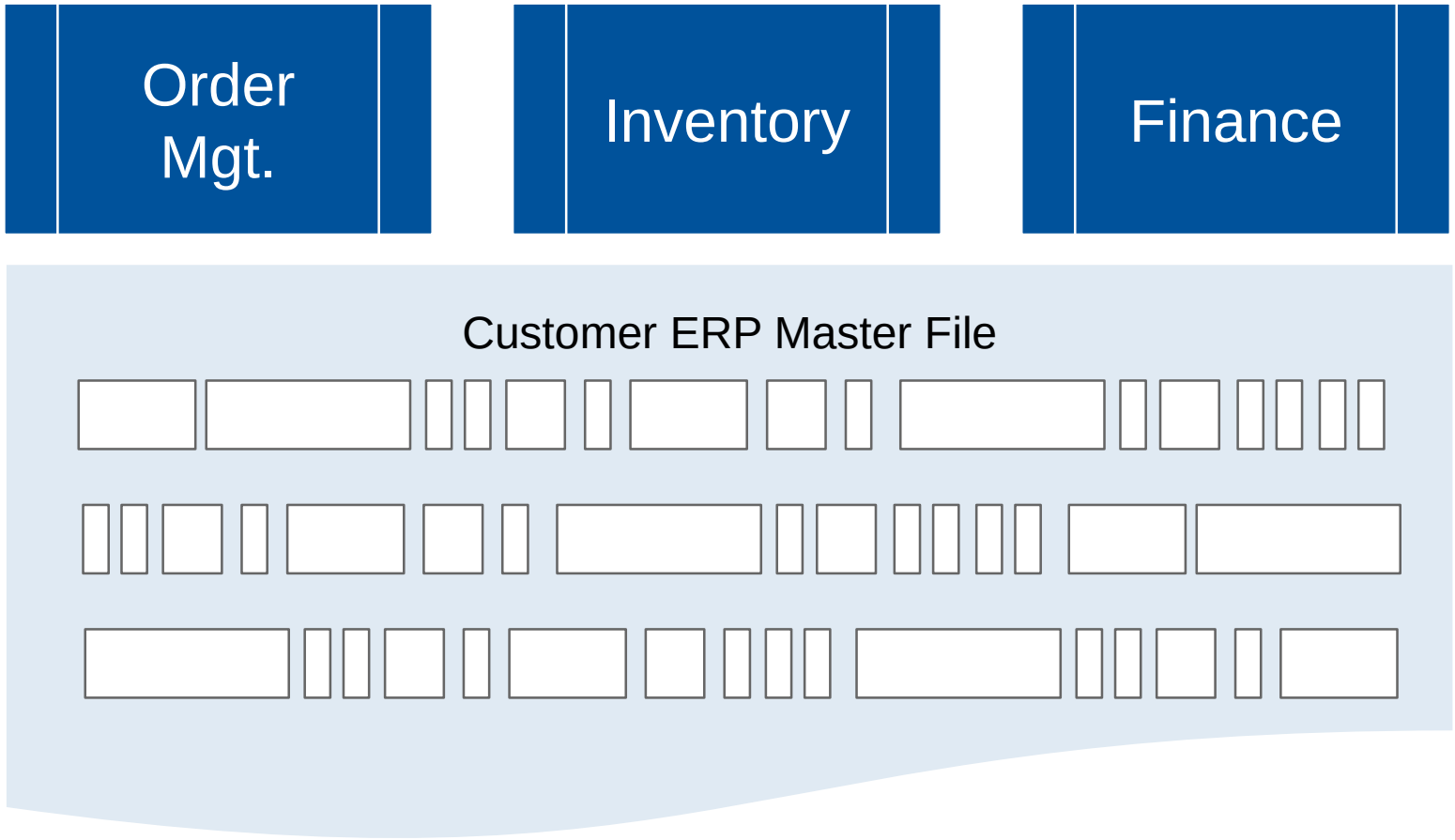


Application Life After ADM



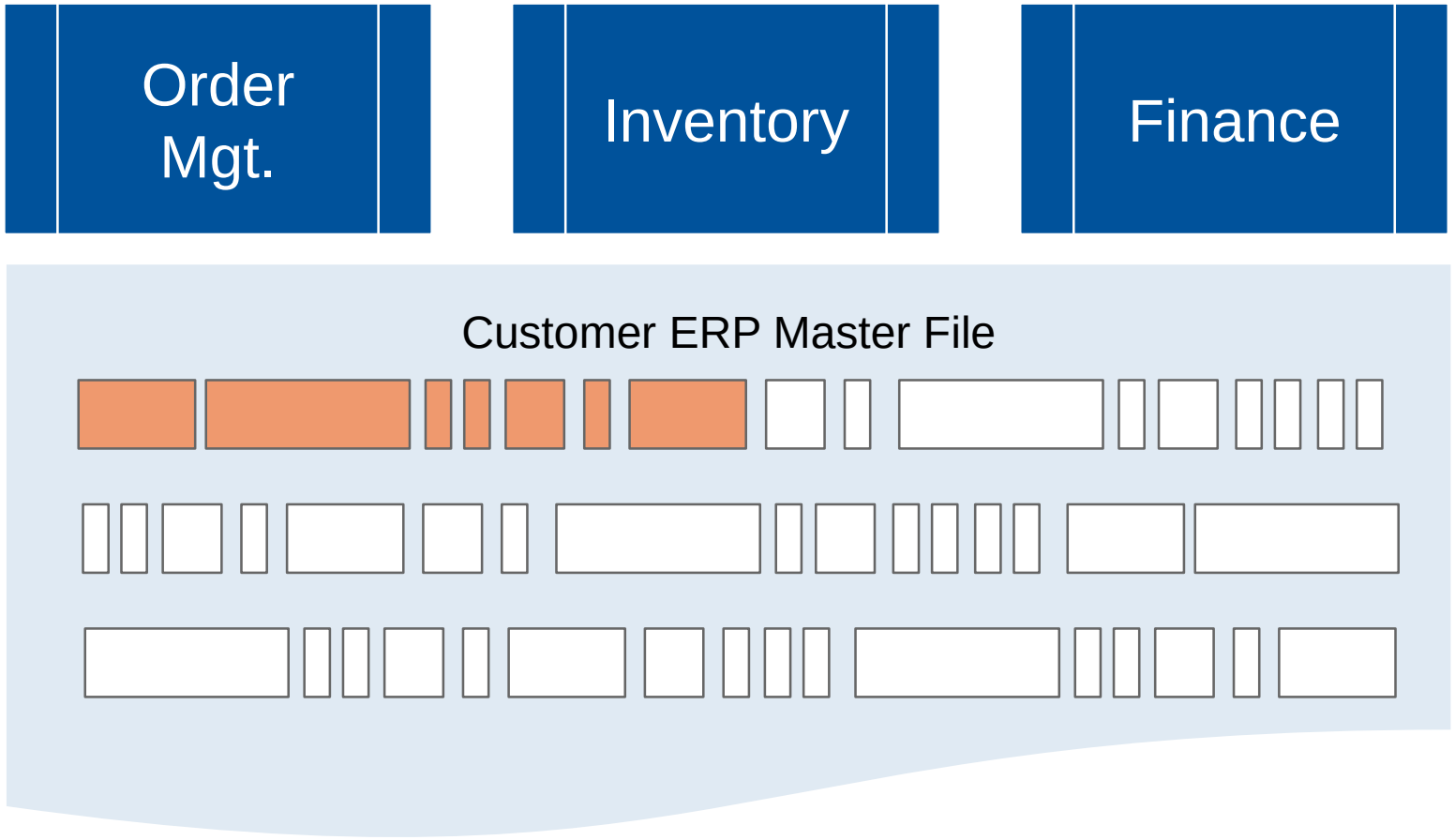
One Possible Implementation of ADM

- Customer Data Attributes in an ERP Suite consisting of Order Mgt., Inventory and Finance applications sharing one data model



MDM Exists in This Example

- Customer **Master** Data
- Governed Elsewhere (MDM)
- Imported Into ERP
- Limited Change Control Inside ERP



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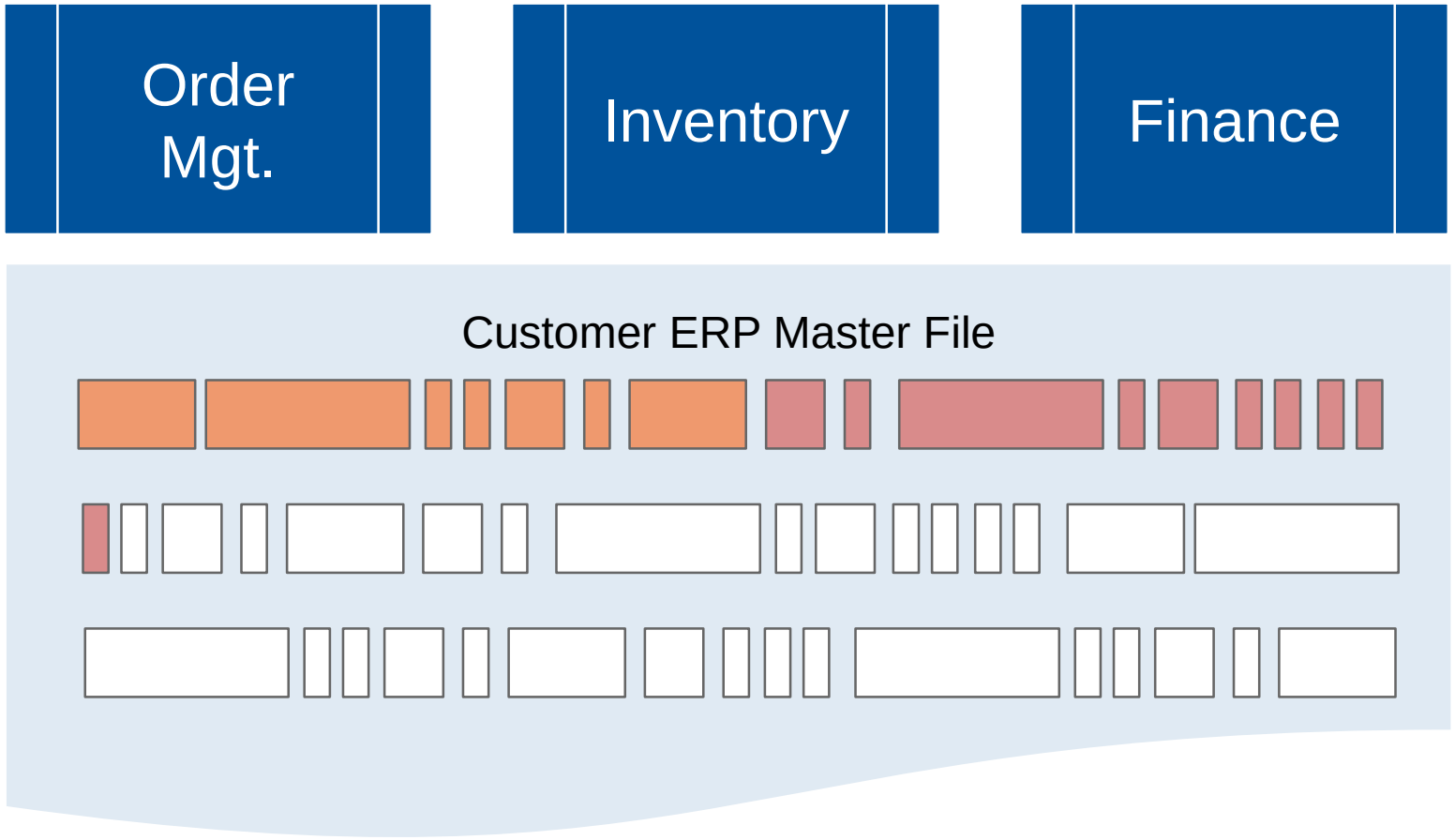
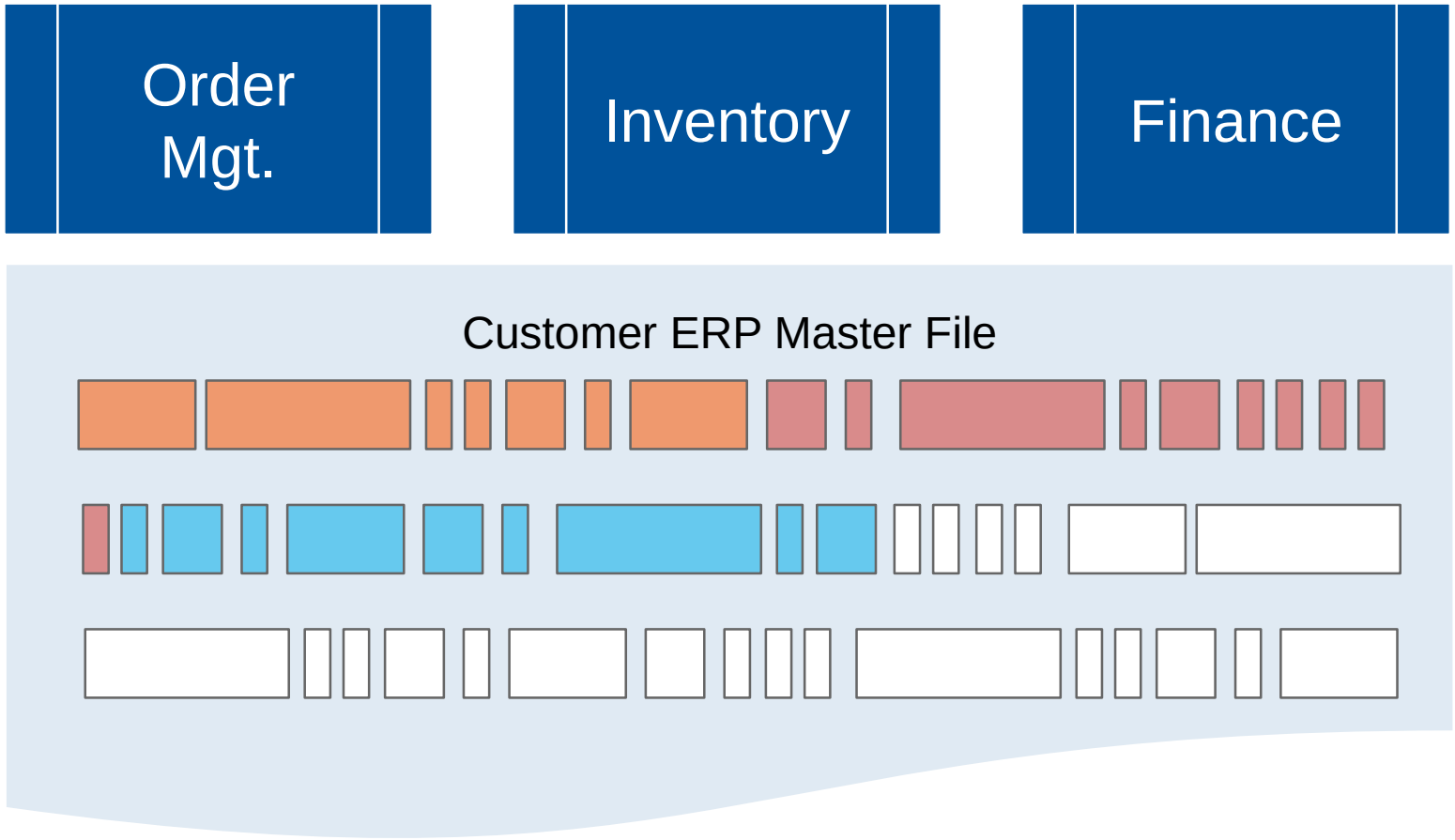
Here Application Data Management Represents the Intersection of Shared Data Between ERP and CRM (Not Shown)

- Customer **ERP and CRM Shared** Data
- Governed Elsewhere (CRM)
- Imported Into ERP
- Limited Change Control Inside ERP



"Pure" ADM "Inside" ERP — For All of ERP Uses

- Customer **ERP-wide** data
- Governed for use across all ERP (ERP)
- Not exported (other than analytics; and metadata to MDM for future planning)
- Change control inside ERP



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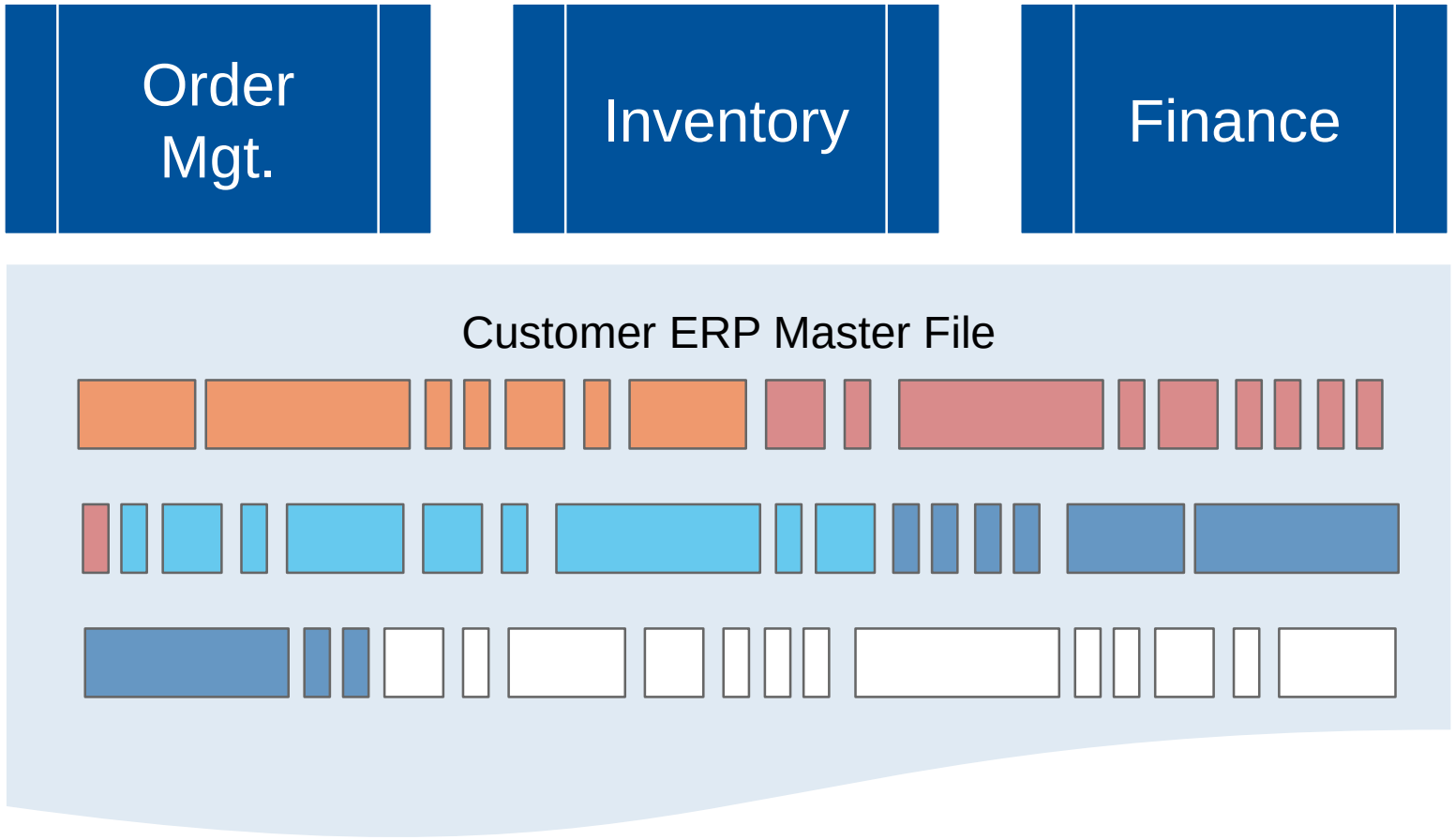
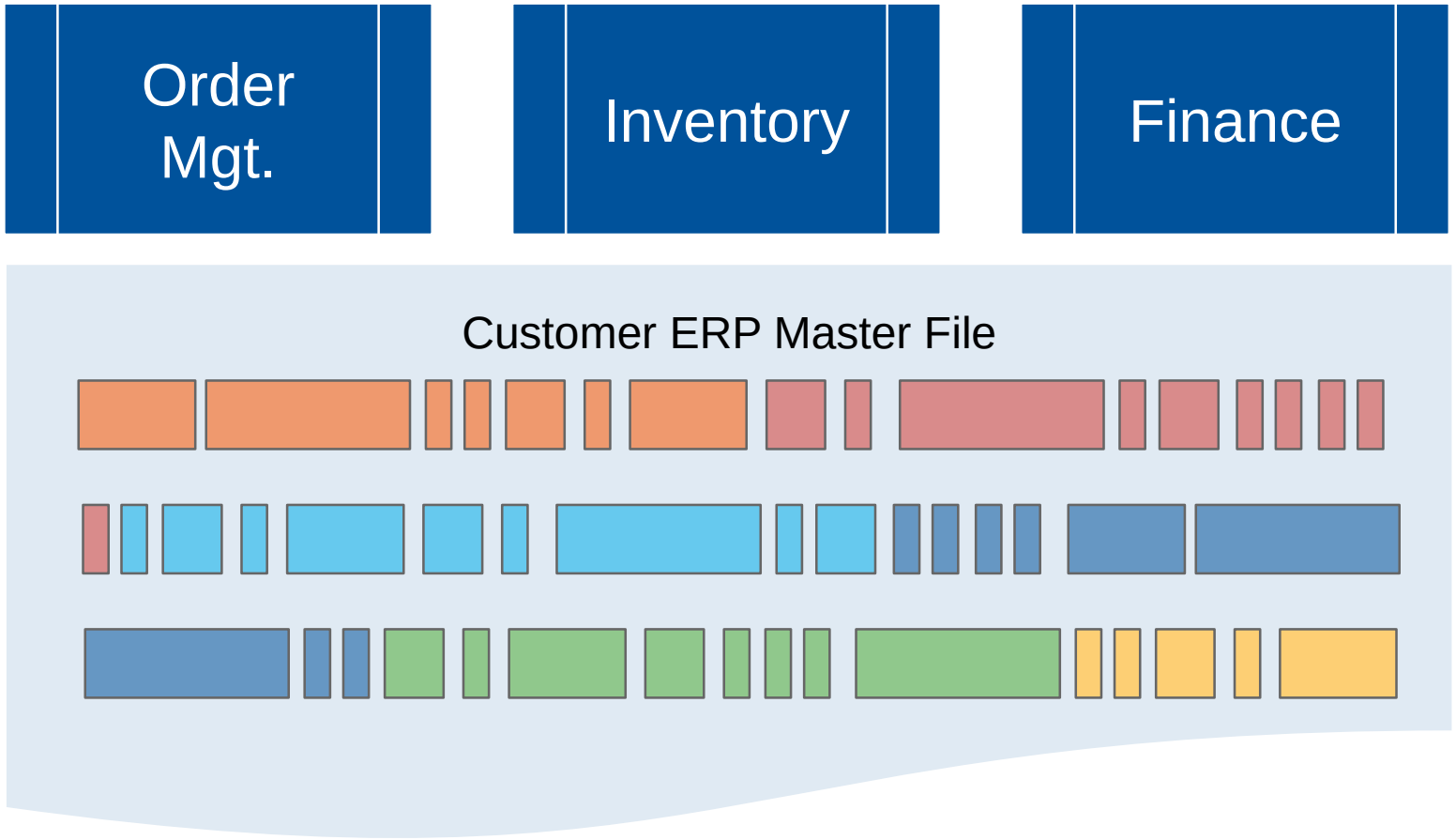
"Pure" ADM "Inside" ERP — For Local Use

- Customer **order mgt. specific** data
- Governed for use in order mgt. (ERP)
- Not exported (other than analytics)
- Change control inside ERP and limited to users of order Mgt.

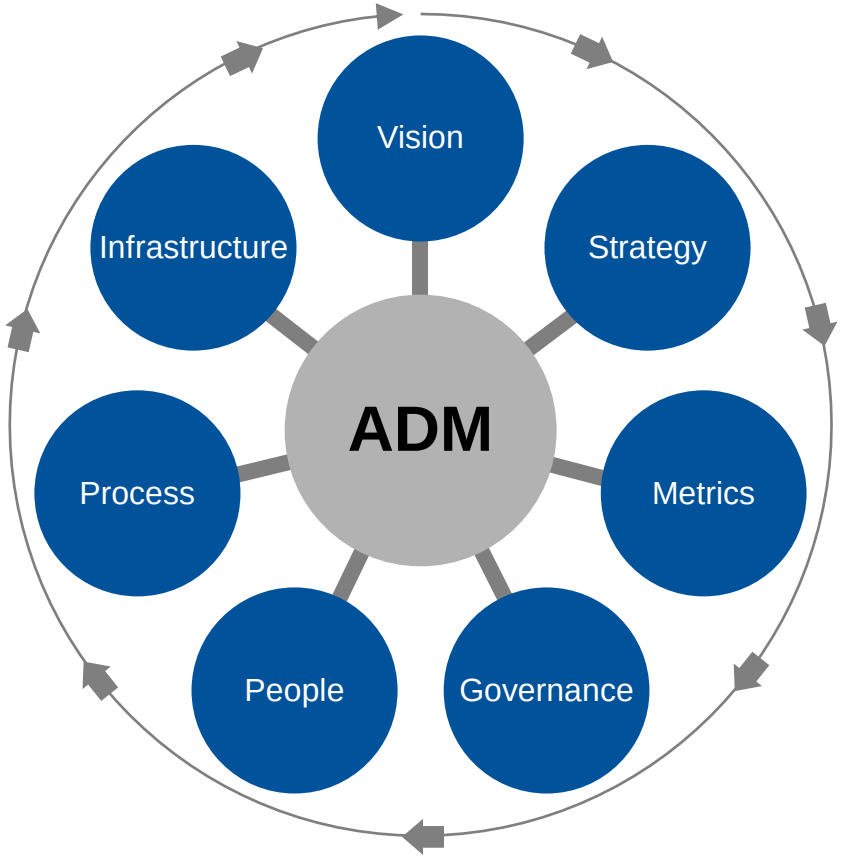


"Pure" ADM "Inside" ERP — For Local (3) Uses

- Customer **order mgt. specific** data
- Customer **inventory specific** data
- Customer **finance specific** data



The Seven Building Blocks of Application Data Management



- **Vision:** Connects to EIM's vision for how data and analytics drive better business outcomes
- **Strategy:** "Plugs-in" to your apps program and/or MDM program expansion
- **Metrics:** Same as for business apps supported outcomes
- **Governance:** Within app or suite
- **People:** Application users and business analytics
- **Process:** ERP "before" workflows and ERP "after" workflows (for example)
- **Infrastructure:** ERP itself with workflow and business rules, or reuse an old MDM hub

See "2017 Strategic Roadmap for Enterprise Information Management" (G00325792)

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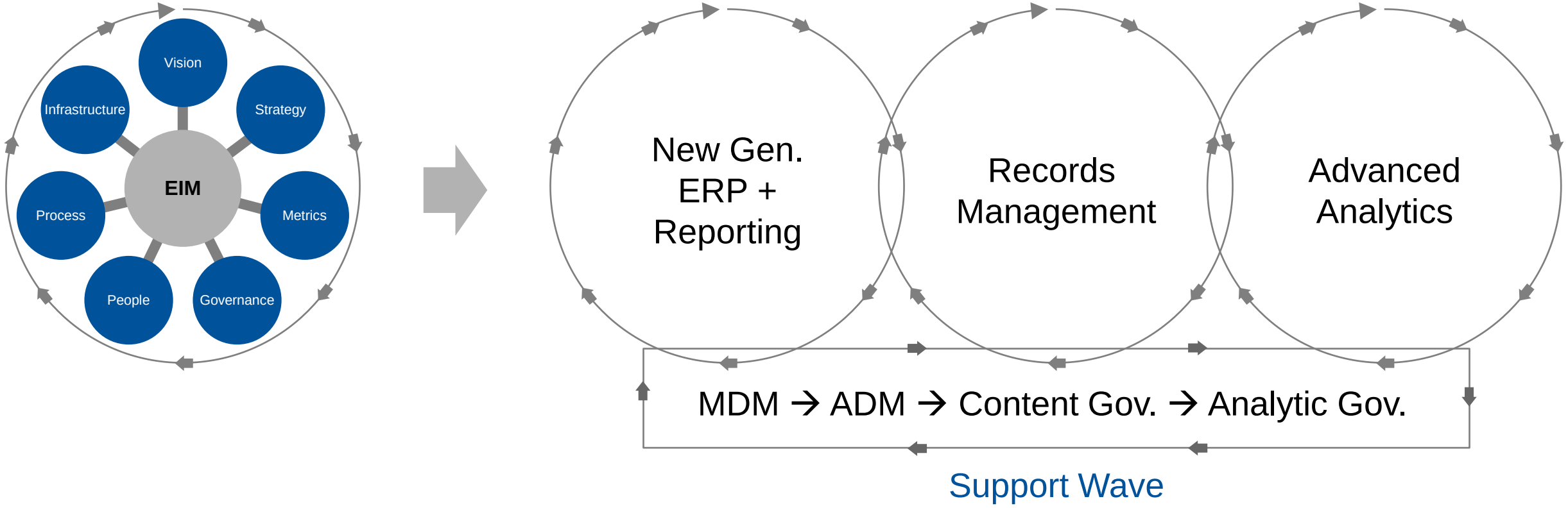
Growing the Data and Analytics Program Scope Over Time



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Action Plan

Monday Morning:

- *Evaluate/quantify* state of information quality in your mission-critical business applications and analytics.

Next 90 Days:

- *Identify* the most contested, shared, riskiest data that has biggest impact on prioritized business outcomes. Classify this separately from local data for use in individual apps.
- *Stand-up* an ADM and/or MDM program — fund and manage them separately.
- Don't forget: MDM is still critical.

Next 12 Months:

- *Evaluate* technology options with a gap analysis and fund changes based on prioritized initiatives.
- *Link* ADM to EIM and overall data hub strategy to application and data and analytics governance.

Recommended Gartner Research

- **Design an Effective Information Governance Strategy**
  Andrew White and Mark A. Beyer (G00338329)
- **Gartner's Three Rings of Information Governance Help You Prioritize Different Types of Data**
  Andrew White and Saul Judah (G00260885)
- **Use a Data Hub Strategy to Meet Your Data and Analytics Governance and Sharing Requirements**
  Andrew White and Ted Friedman (G00295309)
- **The Seven Building Blocks of MDM: A Framework for Success**
  Bill O'Kane and Michael Patrick Moran (G00311161)

For information, please contact your Gartner representative.

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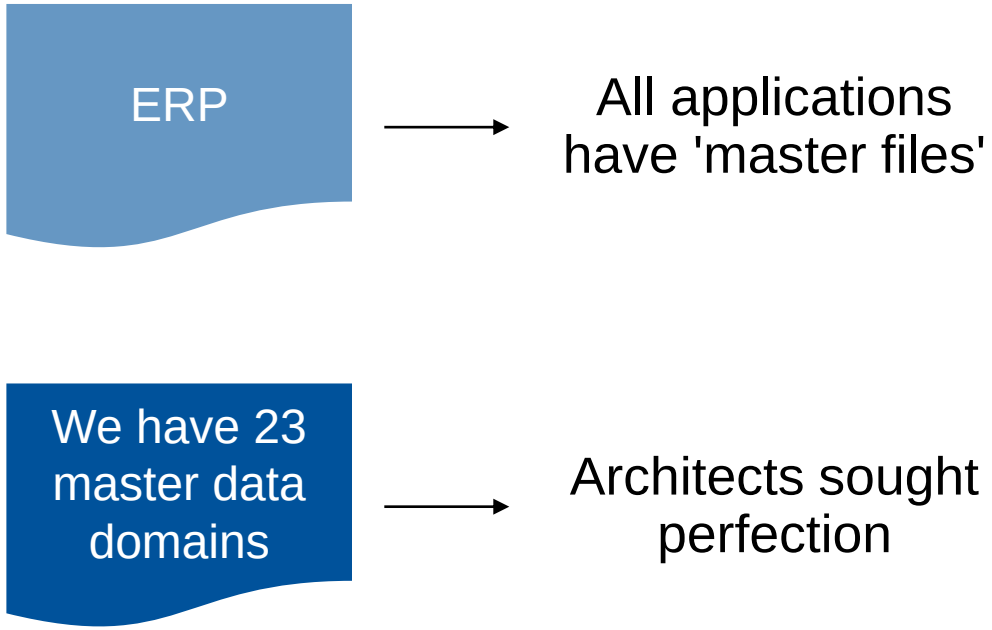
And It Went Down Hill From There!

MDM became (for most organizations):

- An IT initiative — Business rarely led or drive the program
- It was not even seen as a "program" and treated as a system (a hub) to implement
- Business case was vague — often sought as a stand-alone effort
- Costs too easily outweighed accounted for benefits

We Got Off on the Wrong Foot

Understanding	What is master data?
Ill-defined	What happened to governance?
Alignment	This is about data, not process
Justification	Little alignment to outcome
Complexity	Implementation style, domains, flow …



Dimensions of Data

What Is Master Data?

1. It's consistent and uniform:
   - Lack of need for consistency implies less reuse and dependency
2. It includes identifiers, attributes and observable values:
   - Can include the data itself as well as its metadata
3. It rarely changes:
   - As such it won't likely be a context-specific data as in derived data like price
4. It's reused widely across the organization:
   - How "reused" is "widely"?

See MDM Primer: How to Define Master Data and Related Data in Your Organization

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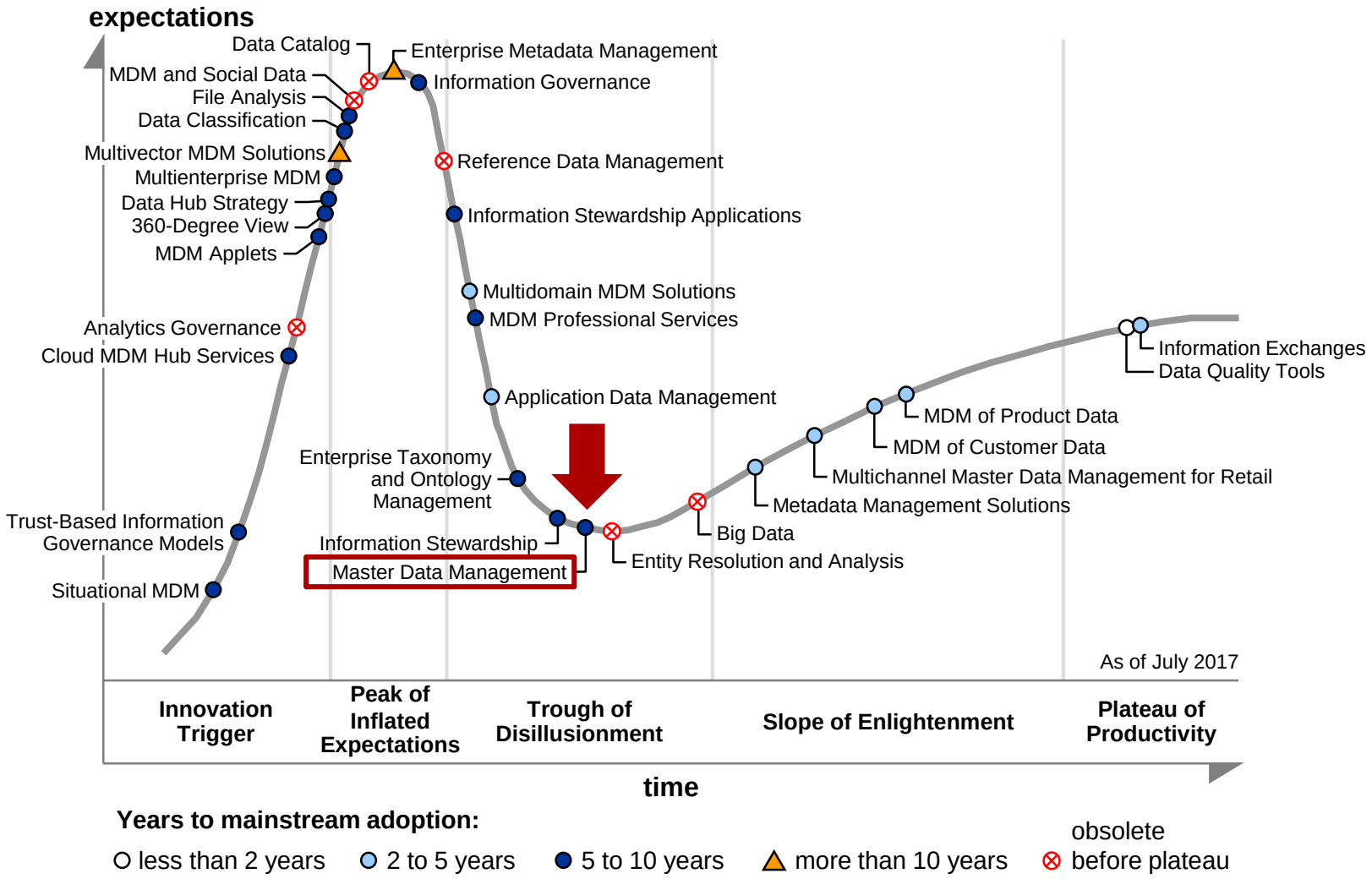
What It Means to Be in the Trough …



- We All Learn What Went Wrong
- We Sharpen Our Knives
- We Iron Out the Kinks
- We Prepare for Victory!
- But It May Yet Take Many Years!

Source: "Hype Cycle for Information Governance and Master Data Management, 2017" 24 July 2017 (G00314065)

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Comparing Application Data to Master Data

	Master Data	Application Data
Colloquial Definition	Core objects used to describe what an organization does	Data used by an application or suite
Reuse	Widely referenced or reused by multiple business processes and/or apps	Used within a specific app or suite only — little to no sharing
Scale	Should be few attributes	Could be many attributes
Governance & Stewardship	Broad based involvement due to dependency	Narrow, within the scope of the app or suite
Impact	Critical	Less critical
Scope	Bounded by Itself	Bounded by the app or suite, and may include a copy of master data
Persistence	See 5 vectors of complexity	Could mirror MDM but tends to favor the targeted app or suite
Volatility	Slow moving	Slow to fast changing

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