

## Gartner Introduces the EIM Maturity Model

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Organizations cannot implement enterprise information management (EIM) as a single project. They must implement it as a coordinated program that evolves over time. Gartner's EIM maturity model will enable organizations to identify what stage of maturity they have reached and what actions to take to reach the next level.

### Key Findings

- The maturity model consists of six stages, or levels. Organizations cannot skip stages or the associated activities without introducing weaknesses into their EIM programs, which will cause them to fail later on.
- Organizations encounter risk and inefficiency from poorly managed information, such as failure to comply with legal and regulatory requirements, dissatisfied customers, and lower productivity.
- Most enterprises are in the early stages of EIM maturity, so IT leaders who are championing new ideas in their organizations will benefit most from using this model.

### Recommendations

- Make the maturity model part of the effort to educate senior management, so they understand the phases of the EIM journey.
- To illustrate the risks of not having EIM, look for examples where the organization has already failed because of poorly managed information.
- Create scenarios for the organization that illustrate the benefits to be achieved at each level of the maturity model.

## ANALYSIS

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Many IT leaders tasked with the goal of managing information as a strategic asset want to know the steps required to achieve such an objective. Before beginning an EIM program, practitioners must first assess the capabilities and willingness of their organization to move beyond current information management practices and overcome separate, sometimes conflicting, information silos. Organizations in the early stages of EIM often do not have the ability to undertake the projects required in later stages, such as managing master data or metadata across their enterprise.

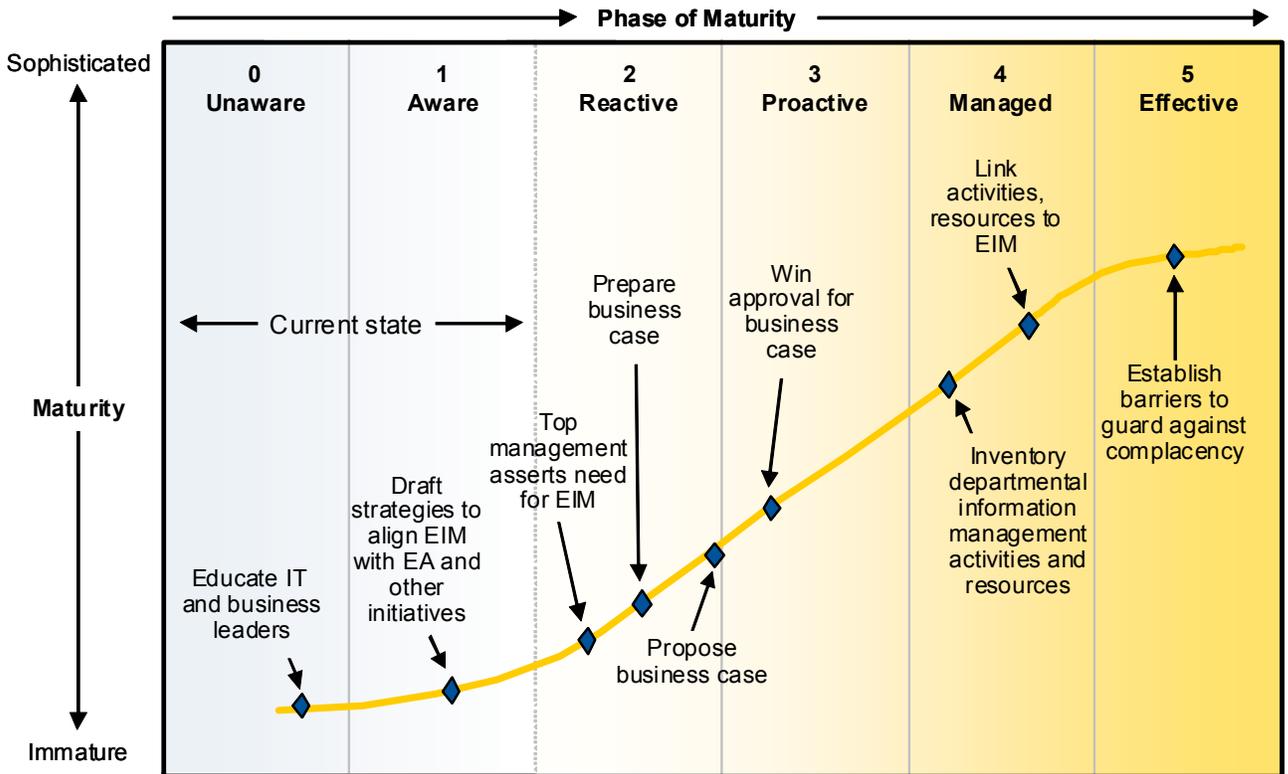
To help IT leaders assess the status of their EIM programs or to plan their EIM journeys, Gartner has created a six-stage maturity model. The descriptions of the six stages will enable IT leaders to identify which level their organizations are at. The maturity model also indicates what actions an organization should take at each stage to move to the next level.

### The EIM Maturity Model

The maturity model in Figure 1 reflects Gartner's definition of EIM as an organizational commitment to:

- Structure, secure and improve the accuracy and integrity of enterprise information.
- Solve semantic inconsistencies across boundaries.
- Support the objectives of enterprise architecture (EA) and the business strategy.

**Figure 1. EIM Maturity Model**



Source: Gartner (December 2008)

The desire to manage information as an asset (popular for many decades) is now getting renewed attention in the executive suite. According to the 2008 Gartner/Forbes Executive Survey, one of the top priorities of senior management during the next five years is managing information as a strategic asset. Gartner has published extensive research on enterprise information management. Here, we provide a maturity model to guide clients along the EIM journey.

Unlike existing information management practices (which tend to focus on specific departments or applications), EIM represents an integrated approach to managing information (both structured and unstructured content) consistently across the enterprise.

EIM is manifested as a program with a defined budget, charter and resource plan. It requires a sustained effort that may take an organization several years to achieve. As such, EIM programs require senior-level commitment, sponsorship, and the support of IT and business unit leaders. Only a few organizations have advanced beyond the early stages of the model (see "Toolkit Case Study: Making EIM Sustainable at Anglo Platinum").

The maturity model begins with Level 0, in which no EIM activities occur. In successive stages, the organization's capabilities improve until Level 5, when EIM has become fully realized. Each stage requires particular actions to move the organization to the next level of maturity. For example, an organization at Level 1 needs to draft an EIM strategy to prepare for the creation of a formal business case at Level 2. Organizations cannot skip stages and activities without introducing fatal weaknesses into their EIM programs.

# The Six Levels of EIM Maturity

## Level 0: Unaware

At Level 0, the organization runs significant risk from undermanaged information, such as compliance failures, poor customer service and low productivity. The hallmarks of Level 0 are:

- Business managers and the IT organization do not know that information is a problem, while users mistrust data.
- The organization makes strategic decisions without adequate information.
- No formal information architecture contains the principles, requirements and models to guide teams on how to share enterprise information.
- Information is fragmented and inconsistent across many different applications. Each department stores and manages data and documents on its own, and chooses technology independently. No one recognizes data quality issues or attempts to reconcile conflicts.
- There is no information governance, security or accountability of key information assets. Information-related responsibilities are assigned project by project. Archiving and purging serve to maintain system performance or to control costs. No one knows how much is spent on information.
- The IT organization and business units don't know why metadata is important. The organization lacks common taxonomies, vocabularies and data models. Document management, workflow and archiving occur via e-mail.

*Action item: Planners and architects should informally educate IT and business leaders on the potential value of EIM and the risks of not having it, especially legal and compliance issues.*

## Level 1: Aware

At Level 1, the organization attains some awareness about information management. The hallmarks of Level 1 are:

- People see the power of information, develop strategies to hoard it and pursue personal projects. Disagreements about whose data is correct are difficult to resolve. People complain that there is too much data and not enough action-oriented content. They want consolidated views but can't get them from the IT department.
- Awareness is growing of poor data quality and of fragmented and inconsistent information in key subject areas. Analytic applications generate reams of inconsistent or redundant reports. No one is responsible for addressing these issues.
- The IT department seeks efficiencies by delivering information across individual business units and normalizes information silos through consolidation, such as with data warehousing. There are roles for structured data (such as database administrators or data modelers), but not for unstructured content and e-mail.
- People recognize the need for common standards, tools and models to use skills more broadly and to reuse project materials.
- Efforts to document the risks associated with uncontrolled information assets (such as by auditing spreadsheets and independent databases with extracted data) have begun.

The organization has informal information management guidelines that are enforced only in isolated cases. Content or records management occurs only when unavoidable.

*Action item: Planners and architects should formally present EIM strategies to senior management. The strategies should show how EIM aligns with other strategic initiatives, such as EA.*

## **Level 2: Reactive**

At Level 2, business and IT leaders react favorably to the demand for consistent, accurate and faster information across key business units. They take corrective measures to address immediate needs. The hallmarks of Level 2 are:

- Business units realize the value of information and share it on cross-functional projects. No one yet sees the need for coordinating information management enterprisewide. The organization lacks change management procedures to deal with the impact on downstream systems and business units when upstream modifications occur.
- The organization formalizes objectives for information sharing to achieve operational efficiency, although cultural and organizational barriers hamper progress.
- The IT organization takes steps toward cross-department data sharing, such as master data management (MDM), yet it does not recognize the need for a common information architecture to tie MDM to related efforts, such as business intelligence (BI).
- Integration remains localized and redundant, with widespread point-to-point interfaces. The organization addresses information quality only when problems become apparent. Data marts are consolidated into a single view for consistent analytics. The IT organization has become aware of metadata but does not manage it strategically. There is no enterprise content management (ECM) strategy.
- Metrics focus on expiration dates for information, files and other electronic forms to address known compliance risks. Other metrics shows disproportionate numbers of spreadsheets circumventing ERP controls. Data redundancy statistics show significant overlaps in master data assets.

*Action item: Top management should assert the need for EIM to address cross-functional issues and compliance. Planners and architects should prepare scenarios and business cases for EIM.*

## **Level 3: Proactive**

At Level 3, the organization perceives information as necessary for improved business performance and, therefore, moves from project-level information management to EIM. Information supports process optimization. The hallmarks of Level 3 are:

- Senior management sees cross-functional information sharing as a way to scale up and promote enterprisewide initiatives. It appoints a high-level sponsor to coordinate a broad EIM agenda and communicate the vision. A startup budget, charter and road map communicate what the EIM program would look like.
- Enterprise information architecture (EIA) acts as a guide for the EIM program, ensuring that information is exchanged across the organization to support the enterprise business strategy. The organization sets standards for information management technologies.
- Governance councils and a formal data-quality program, with assigned data stewards, help manage information as an asset. Key business units participate actively. The

system development life cycle includes a data-centric lane to ensure that information architecture and information management standards are followed as projects are implemented.

- Although maintained locally, data models align to an EIA. Distinct information architectures for analytics, master data and unstructured content are emerging, unified at a logical level. The organization has planned a data service layer to deliver information as a service for emerging development styles, such as service-oriented architecture and software as a service.
- The organization enforces guidelines for archiving data and retention periods. It collects and organizes metadata for reuse.

*Action item: Formally propose the business case for EIM and prepare a presentation to explain the business case to management and other stakeholders. Use the work of business units to identify EIM opportunities.*

#### **Level 4: Managed**

At Level 4, the organization perceives information as critical for business. The organization has implemented significant portions of EIM, including a consistent information infrastructure. The hallmarks of Level 4 are:

- Senior management recognizes information as a strategic asset. It embraces EIM, then markets and communicates it. It funds an EIM program that addresses key stakeholders, requirements and priorities based on the business strategy.
- The organization defines policies and standards to achieve consistency. Governance councils and steering committees resolve problems pertaining to cross-functional information management issues. Best practices are identified, and the EA team ensures that these are extended across the enterprise.
- A group coordinates all information-management activities across the enterprise. Data stewards assume responsibility for data quality in the business units and IT organization.
- Policies and mandates are documented and understood. The organization has implemented several enterprisewide monitoring systems, including automated data profiling for data quality.
- EIM becomes part of the process for planning, designing and developing applications. The information architecture becomes distinct from the application architecture. Analytic and operational reporting blend to reduce the need for stand-alone analytic applications, BI tools or separate MDM systems. The organization manages metadata and resolves semantic inconsistencies to support reuse and transparency.
- Valuation models for information assets guide IT investments and mergers. Metrics identify productivity gains.

*Action item: Inventory departmental information management activities and resources to link them to the overall EIM strategy. Push EIM as a program, rather than a series of individual projects. Create a balanced scorecard for information management.*

#### **Level 5: Effective**

At Level 5, the organization exploits information across the entire information supply chain, with service-level agreements that are continuously reviewed. The hallmarks of Level 5 are:

- Senior management sees information as a competitive advantage and exploits it to create value and increase efficiency.
- The IT organization strives to make information management transparent to users, with business-level data stewards playing active roles. EIM links to strategic initiatives, such as business process improvement.
- EIM supports drives to improve productivity, manage compliance and reduce risk. The monitoring and enforcement of information governance is automated throughout the enterprise.
- The organization institutes an EIM group, either as a central department or in a matrix organization. The EIM group coordinates all information management efforts, such as MDM, ECM, BI and data services.
- The organization has achieved five EIM goals: (1) integrated master data domains; (2) seamless information flows; (3) metadata management and semantic reconciliation; (4) data integration across the IT portfolio; and (5) unified content.
- Metrics focus on external factors, such as sourcing, risk and profit margin. Reuse metrics show positive gains from information sharing.

*Action item: Implement technical controls and procedures to guard against complacency, because information excellence can easily break down as the business changes.*

## How to Use the Maturity Model

Most enterprises are in the early stages of EIM maturity, so IT leaders who are championing new or differentiating strategies in their organizations will benefit most from using this model. Above all, they need to educate senior management and business leaders about the risks of not managing information enterprisewide, and on the benefits of EIM. They should present their cases within the context of their organization's own experiences.

### Risks

Look for examples of where the organization has already failed because of poorly managed information. For example, does the organization spend too much time and resources to meet financial reporting requirements or comply with regulations? Does customer service remain low in some areas? Do workers complain about manual work to gather information for a business process?

### Benefits

Create scenarios for the organization that illustrate the benefits that it will reap when it reaches each of the levels on the maturity model. To illustrate Level 2, for instance, show how departments that previously hadn't exchanged information were able to reduce costs by eliminating redundant data and avoiding manual rework by using common and consistent sources of enterprise information. For Level 4, show how a business unit improved customer service by being able to draw on data from other units that followed EIM standards and guidelines.

### Bottom Line

IT leaders should make the maturity model part of their efforts to educate senior management. Senior managers must recognize the commitment EIM will require, or they will become disillusioned and withdraw support. Organizations cannot implement EIM as a single project.

Rather, it requires a gradual building of skills, awareness and technology. It must happen in iterative phases over time.

## **RECOMMENDED READING**

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"Q&A: Gartner Clients Ask About Enterprise Information Management"

"Governance Is an Essential Building Block for Enterprise Information Management"

"How to Build an EIM Road Map to Turn Information to Advantage"

"Powering Change With Enterprise Information Architecture"

"Managing Information as an Asset: Enterprise Architects, Beware!"

"Best Practices for Managing Enterprise Information"

"First 100 Days: Enterprise Information Management Initiatives"

"Toolkit Case Study: Making EIM Sustainable at Anglo Platinum"

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