

Workshop: Applying the Gartner Enterprise Information Management Maturity Model

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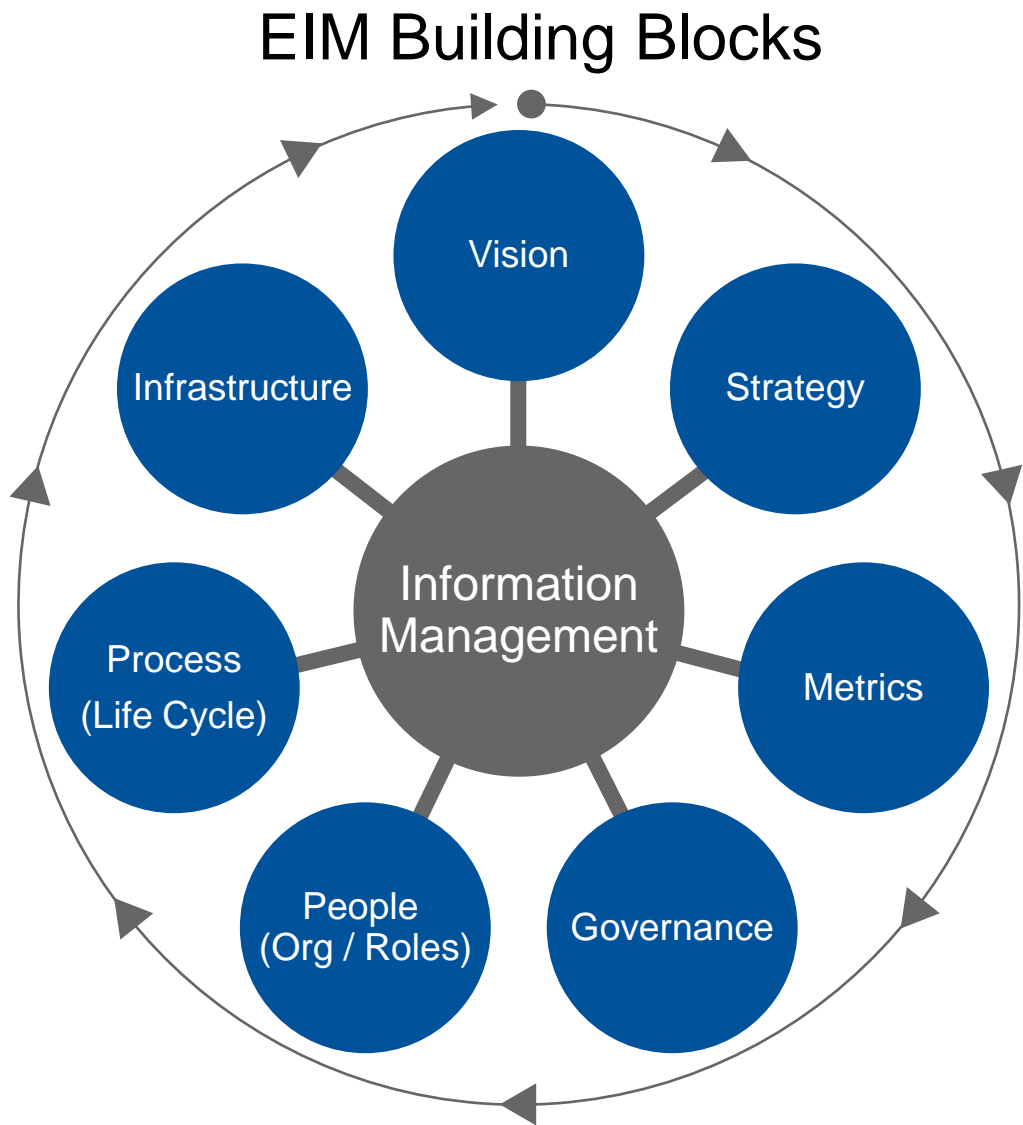
Objectives and Agenda

01	Introductions and overview.	10 minutes
02	Understand indicators of each maturity dimension and score your own organization.	3 minutes each
03	Work in groups to consider ideas for improving maturity for each dimension. Share and discuss.	10 minutes each
04	Tally overall information maturity score and draft action items. Reassess quarterly.	Take-away

Workshop Guidelines

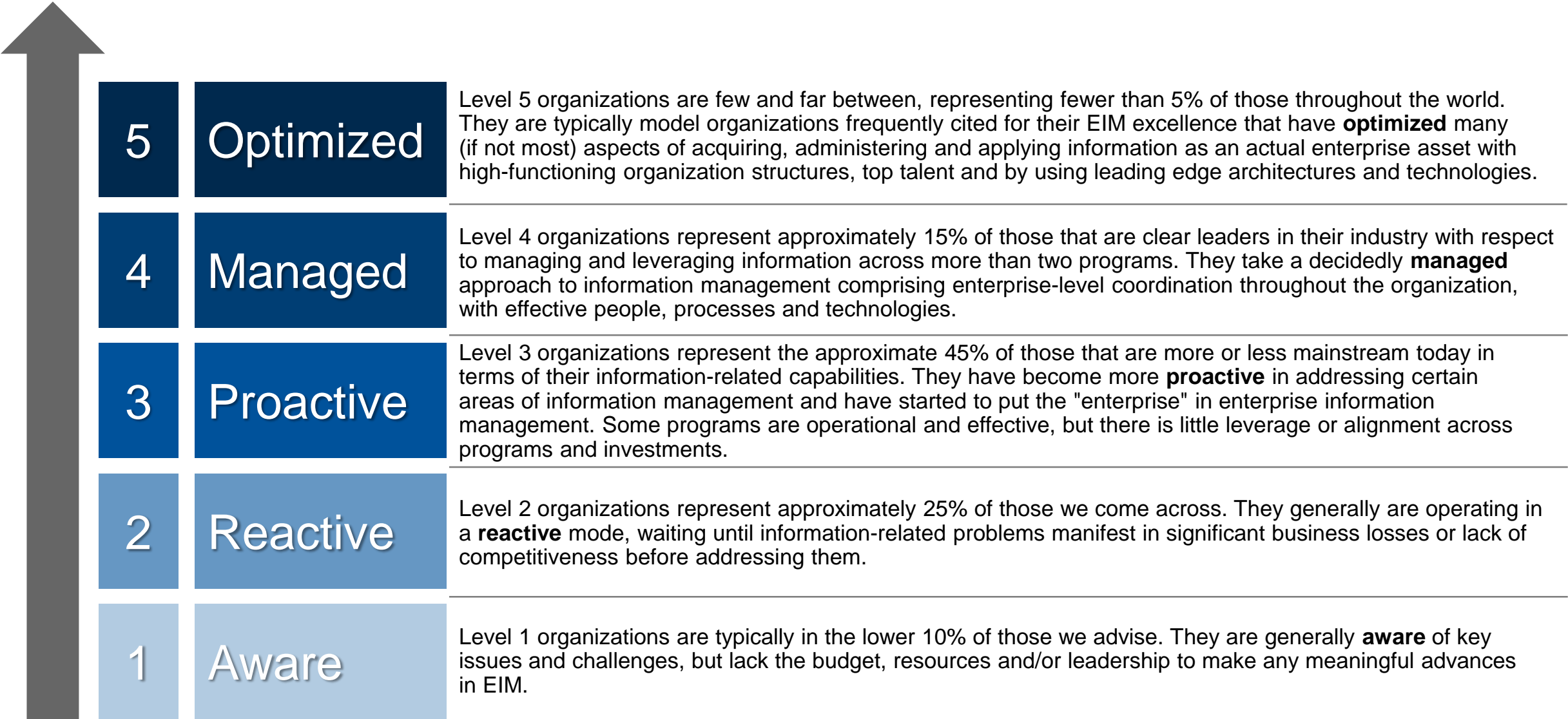
- This is not a Gartner presentation, it's your workshop
- Confidentiality begets candor
- Everyone's ideas matter
- Keep out of the weeds
- Focus on action items
- This is part of an ongoing process that should continue within your organization

Information Maturity Model (IMM)



5	Optimized
4	Managed
3	Proactive
2	Reactive
1	Aware

Maturity Levels Defined



Vision

Levels Indicators

5	Information is a central component of business strategy and architecture. Information is a recognized corporate asset, competitive differentiator, source of transformation and even as a product itself. Necessary, valued and prioritized information is leveraged across all programs and investments.
4	Senior business executives champion and communicate information-related best practices. Information is viewed as an indispensable fuel for enterprise performance and innovation to be shared seamlessly. Customers and partners influence information vision. Information assets are linked and leveraged across several programs.
3	Business management encourages cross-functional information accessibility to improve responsiveness to the business, customers and marketplace. Different content types still are treated and managed separately. Data fiefdoms begin to disband. Exogenous data sources begin to be integrated for enhanced analytics.
2	IT attempts to formalize objectives for information availability to achieve targeted operational needs. Progress is hampered by culture, contradictory incentives, organizational barriers and lack of leadership.
1	Information is a source of power, but managed in silos. People spend time arguing about whose data is correct and who owns it instead of seeking uniform availability. There is general acknowledgment that information management (or lack thereof) is a serious problem.



Strategic Planning Assumptions (VISION)

By 2018, over half of large organizations globally will compete using advanced analytics and proprietary algorithms, causing the disruption of entire industries.

By 2020, predictive and prescriptive analytics will attract 40% of enterprises' net-new investment in business intelligence and analytics.

By 2020, 10% of organizations will have a highly profitable business unit specifically for productizing and commercializing their information assets.

Vision

When	What	Who	How
Next Monday			
30 Days			
12 Months			

Strategy

Levels

Indicators

5	Information leadership has a say in corporate strategy as information is deemed an actual corporate asset. Information is defined primarily by the value it brings, not by its structure or other characteristics. Business informational needs and risks are met proactively. The information strategy considers the organization's extended ecosystem of partners, suppliers and customers. Information strategy is no longer a separate work task, but is embodied in how the business operates.
4	A well-funded and -led information program addresses most enterprise needs (current and planned). Business units are committed and involved. Most components and resources are in place and functioning. The office of the CDO is empowered to drive EIM vision in support of the business needs.
3	A high-level sponsor (e.g., chief data officer) is named to define an enterprisewide information strategy and coordinate a broad agenda, including funding and roadmap. Information management resources and technologies start to become pooled and shared across projects. Strategy definition is shifting from a static, annual process toward more of a dynamic "living document."
2	Business units recognize the broader value of information and begrudgingly share it on cross-functional projects. An IM organization emerges to establish and control standards and to improve information availability while reducing expenses, but the main focus is on technology.
1	Information is hoarded by departments and individuals as a source of power and influence, or is unknown altogether. Information is seen merely as application-specific. An IM organization may be in formative stages, but sponsorship is nonexistent.



Strategic Planning Assumptions (STRATEGY)

Through 2018, 80% of data lakes will not include effective metadata management capabilities, making them inefficient.

Through 2018, a minority of organizations will have a rigorous approach to demonstrating the trustworthiness of their analytics algorithms.

Through 2019, one-third of Internet of Things solutions will be abandoned before deployment due to information capabilities (security, privacy, integration, metadata) built on traditional design and implementation methodologies.

Strategy

When	What	Who	How
Next Monday			
30 Days			
12 Months			

Metrics

Levels Indicators

5	A portfolio approach to EIM investments and risks is adopted wherein business cases are aligned and interrelated. Information valuations and yield (e.g., ROI) models drive investments in information, IT and business innovation. Information-related metrics correlate to business value metrics.
4	As EIM becomes a budget item of its own, various measures of information value (e.g., quality, top/bottom line) and risk are developed, tracked and communicated. Some information metrics are linked to business initiatives and business cases are linked. Feedback loops reporting information value and investment yield emerge.
3	IM financial justifications for each investment are typically related to expense savings or are embedded in other projects. Qualitative measures emerge for IM that may not necessarily link well to business KPIs. Some data profiling is done for tactical purposes — usually only for specific data quality needs.
2	Simple (often predisposed) cost-benefit models justify independent IM investments or are merely part of IT-business projects themselves. Priorities are based on user surveys, minimizing each IM program expense and infrastructure performance/scale.
1	Any goals and measures for information management and delivery are purely subjective and rarely, if at all, tracked. Information management is not a budget item and priorities are based on influence peddling and failure prevention.



Strategic Planning Assumptions (METRICS)

Through 2020, over 95% of business leaders will continue to make decisions using intuition, instead of probability distributions, and will significantly underestimate risks as a result.

By 2020, only 50% of chief analytics officers will have successfully created a narrative that links financial objectives to business intelligence, and analytics initiatives and investments.

By 2020, CFOs will need to address the valuations derived by smart machine data and "algorithmic business."

Metrics

When	What	Who	How
Next Monday			
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12 Months			

Governance

Levels Indicators

5	Enterprise information governance is encoded into an automated information asset management system. Business process improvement is now part of information governance. All information assets, including external sources, are inventoried. Information stewards have become <i>information advocates</i> , focused more on fostering information value generation now that data quality has become part of the culture.
4	An enterprise information governance (IG) organization is functioning (e.g., within the context of an office of the CDO) and carries sway on all IT and business projects. Policies evolve into a full set of precepts (e.g., principles, guidelines, policies, standards, procedures) which are well communicated and enforced. Data quality is largely automated. IG priorities are based on business need, not IT demands. Information security and risk are now linked to the same information governance process.
3	Policy adherence procedures for key information assets are developed and monitored by information owners and stewards who have limited authority. Formal data quality, metadata and MDM programs emerge, but they tend to focus on small subsets of business data or business outcomes to be improved. Efforts to align governance and stewardship of different kinds of data, spanning content and structured data, start to emerge.
2	Policies, mostly for information silos, have emerged for information management and use, but are not monitored and are regularly circumvented. Information owners are assumed and upstream data quality is performed as needed.
1	Few official policies exist for the handling or use of most information, other than those required by law and industry regulations. Ad hoc data quality efforts and a lack of data definitions results in low data trust and usage.



Strategic Planning Assumptions (GOVERNANCE)

Through 2019, 10% of organizations will have established operational information stewardship in line-of-business functions.

By 2020, 50% of information governance initiatives will be enacted with policies based on metadata alone.

By 2020, the Internet of Things (IoT) and digital business will drive requirements in 25% of new information governance and master data management (MDM) implementations.

Governance

When	What	Who	How
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People (Organization and Roles)

Levels Indicators

5	The CDO oversees, and has authority and budget for most aspects of the information life cycle. This information services organization supports entire LOB-customer-partner-supplier information ecosystem. Data-related meetings have become business-centric. An information product management function develops and facilitates new revenue streams.
4	EIM and analytics move outside of IT as a chief data officer (CDO) is installed to lead a separate enterprise information services organization. Specialty roles such as big data infrastructure/architecture specialists, data scientists, information strategists, information architects, information product managers and data curators become prevalent. Information-related competency centers emerge for analytics, metadata and master data under the CDO.
3	Formal information and content management organizations materialize within IT and governance councils, and stewardship bodies in the business. One or more data scientists are hired by a business group. Projects are set up and staffed one at a time, but tend to lack a plan for organizational continuity or intraenterprise synergy.
2	Pooled or centralized DBAs, data administrators and data modeling resources emerge who are strictly part of the IT department. IT also houses BI analysts and data integration specialists. Business users are engaged in information-related activities mostly to resolve issues rather than in upfront design and planning.
1	Information-related responsibilities are resourced on an application-by-application and project-by-project basis. Business people typically are resigned to source and manage their own data or must join the IT backlog.



Strategic Planning Assumptions (PEOPLE)

By 2018, 75% of technology-oriented BI competency centers will have evolved into strategy-oriented analytics centers of excellence to focus on information value generation.

By 2018, 15% of enterprises will promote an entrepreneurial culture by interconnecting innovation, hackathon and citizen development efforts.

By 2018, more than 3 million workers globally will be supervised by a "roboboss."

Through 2019, 90% of large organizations will have hired a chief data officer (CDO); of these, only 50% will be hailed a success.

People (Organization and Roles)

When	What	Who	How
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Process (Life Cycle)

Levels	Indicators
5	Information architects are embedded and are key players in the EIM program. Information life cycles and metadata are documented, implemented and aligned — and all differences are culled as a matter of course. New information uses build on previously deployed and documented models spanning the information life cycle. Information life cycles are seen as business processes, not as IT workflows or tasks. Information value and governance are measured, monitored and optimized across critical information life cycle paths. Enterprise procedures are in place for the <i>defensible disposal</i> of information assets based on value, risk and compliance modeling.
4	Enterprise metadata management and master data management are ongoing initiatives that help coordinate and enable business initiatives. Semantically consistent and important information assets are shared across all needed programs and investments. Information architects often are involved in EIM, but are less than central to or sufficiently influential on such efforts. End-of-life procedures for information assets are established only for those subject to industry regulations.
3	Information flows are well documented, but not maintained. Metadata standards, tools and procedures emerge, but valiant attempts at enterprise metadata management are less than successful. Only some information governance policies are encoded as procedures. Information architecture is not yet formalized or embedded in the EIM program. There are still no enterprise policies or procedures for information disposal or archival.
2	Data integration is effective in linking disparate data, but efforts to semantically align and form shared procedures across silos are sporadic. Metadata management is mostly manual (e.g., spreadsheets) and remains focused on individual data assets. Technical efficiency is deemed more important than the business efficacy from shared data. Data is retained well beyond its usefulness and may introduce risks.
1	There is no understanding of information having its own life cycle. Data is kept and maintained in silos and IT does its best to integrate data as requested. Usually, this involves making data extracts. The focus, if there is one, is on local efficiencies and use of individual datasets. Data is deleted early due to lack of infrastructure, resulting in potential regulatory violations.



Strategic Planning Assumptions (PROCESS)

By 2018, 65% of enterprise apps will include direct access to documents and content from enterprise content management (ECM) systems, up from 20% today.

By 2019, 75% of analytics solutions will incorporate 10 or more exogenous data sources from second-party partners or third-party providers.

By 2019, 80% of new applications using the Internet of Things (IoT) or machine data will analyze data in motion as well as collect this information for analysis of data at rest.

Process (Life Cycle)

When	What	Who	How
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Infrastructure

Levels Indicators

5	The information infrastructure is dynamically elastic — relying heavily on cloud capacity. Big data, advanced analytics, enterprise content and collaborative decision systems execute on purpose-built platforms. Infrastructure capacity and components are shared across BUs and even some ecosystem partners. Information management capabilities, no longer solutions or tools, are the focus of infrastructure investments.
4	A purely centralized information infrastructure has given way to integrated, standardized, extensible, IT-supported LOB environments. Some use of cloud storage and processing enable improved expense management and dynamic capacity. Logical DWs and data-as-a-service architectures are developed. Enterprise MDM, EMM and information governance, and stewardship solutions are deployed broadly. Information management solutions, not tools, are central to infrastructure investments.
3	Information infrastructure and operations capabilities, and expenses are planned and support known business needs. An inventory of tools and technologies is maintained. Separate operational, content and analytic environments (e.g., data warehouse) now exist. Most technology acquisition decisions are made independently with a focus on tools, not solutions. Efforts to integrate data warehouses tend to focus on constructing a single analytic data structure.
2	Information infrastructure limitations and/or enhancement backlogs perceptibly inhibit business performance. Information silos limit business interoperability, both internally and with business partners and customers. IT spend starts to "spill over" as business units invest in their own tools in reaction to information infrastructure weaknesses. There is no enterprise data warehouse, but there are many unmanaged data extracts. Applications are integrated, but semantics are inconsistent.
1	Information management, storage and processing capacities are overloaded and almost entirely application-specific, leading to strategic business compromises and catastrophic mishaps. There is significant redundancy of tools and technologies, along with a prevalence of "shelfware."



Strategic Planning Assumptions (INFRASTRUCTURE)

By 2018, 30% of organizations using public cloud will be subject to lock-in, making migration to another provider difficult.

Through 2018, 70% of Hadoop deployments will fail to meet cost and revenue objectives due to skills and integration challenges.

By 2020, smart machines will be a top-five investment priority for more than 30% of CIOs.

By 2020, more than half of major new business processes and systems will incorporate some element, large or small, of the IoT.

Infrastructure

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Periodic Information Maturity Assessment

Characteristic	Information Management Maturity Score					
	1Q17	2Q17	3Q17	4Q17	1Q18	2Q18
Vision — how IM and information are perceived and valued throughout the organization						
Strategy — how IM is implemented, and information is managed and leveraged to drive business performance						
Metrics — how IM efforts and individual initiatives, and information itself are measured						
Governance — how information availability, understanding, usage, quality are ensured						
People — how human resources are aligned in support of IM and maximizing information's value						
Process — how information is acquired, administered, and applied for business value and minimal risk						
Infrastructure — how technology supports the storage, integration and access of information						
OVERALL (average)						

Recommended Gartner Research

- ▶ [Toolkit: Enterprise Information Management Program Template](#)
Douglas Laney, Nick Heudecker and Others (G00301599)
- ▶ [Toolkit: Enterprise Information Management Maturity Self-Assessment](#)
Douglas Laney and Michael Patrick Moran (G00264402)
- ▶ [Gartner's Enterprise Information Management Maturity Model](#)
Douglas Laney (G00289832)
- ▶ [Information Management Maturity — Critical Challenges, Real Remedies](#)
Douglas Laney and Michael Patrick Moran (G00309242)
- ▶ [Leadership Insights From the 2016 Gartner BI and Analytics Summit: Top Four Issues for CDOs and CAOs](#)
Valerie A. Logan, Jamie Popkin and Douglas Laney (G00304835)

For information, please contact your Gartner representative.