

Use the right IT strategy to turn disruptive change into disruptive opportunity

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The only constant is change

The trends driving business and IT transformation

Organizations around the world are being challenged by change on a scale never seen before. This continuous change is not only driven by the competitive landscape, or by rapid technology innovation. It is also driven by a range of environmental changes and crises. It is the result of living in a [connected world](#) of ever-changing parts and only by mastering this connectivity, and its rate of change, can organizations be successful.

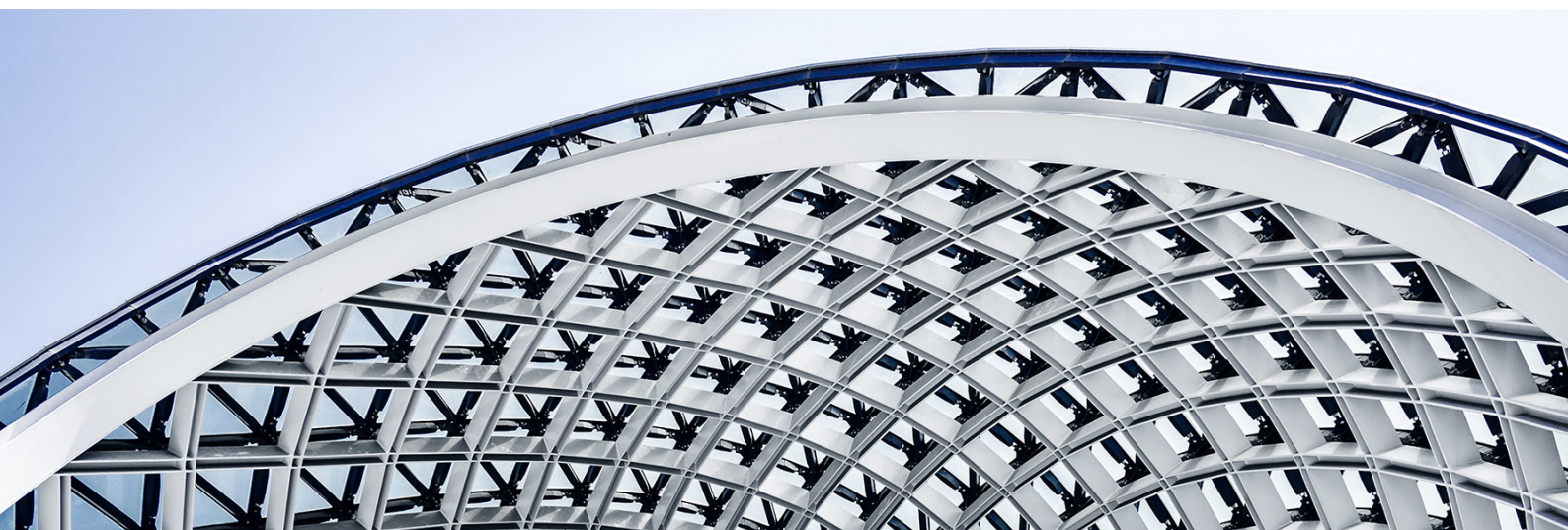
The connection of people, technology and processes creates the connected experiences that are expected. But transforming digitally to create those connections is increasingly complex and more difficult to navigate. Change is fast and constant. A misstep today can have a lasting effect on your ability to compete in the future.

IT strategists and planners, enterprise architects, and IT portfolio managers are having to deliver transformation on multiple fronts: Improved agility is required to be competitive; climate-change is bringing forward new ESG regulations to make [IT sustainable](#); consecutive crises challenge the organization's resilience; and cyber security is a problem that is not going away. And all this in the context of accelerated change in a connected world.

IT leaders need to be on top of this, and this can only be achieved with an interconnected view of the organization's operating model, how it is supported by IT, and how it is being impacted by multiple, parallel transformation efforts. Integrated roadmaps, not only of projects and release trains, but also of the IT assets and business deliverables, are key to ensuring programs are synchronized and without planning conflicts.

Organizations are aware that something needs to be done and are responding. Indeed, according to the Software AG Situation Report 2022—a survey of 738 IT decision makers—IT budgets are increasing (33% much higher and 45% somewhat higher), and the amount of that budget being spent on digital transformation is increasing. But digital investments need to be done smartly, otherwise multiple goals will not be met. A more sobering result in the survey is that new digital products are seen to be the top cause of technical debt (39%) leading to reduced budget for new digital transformation and impeding improvement to IT agility.

Indeed, getting on top of technical debt is an important factor in achieving the operational excellence required to survive in the digital, connected world. Consolidating the process, application, and technology landscape is essential to simplifying the operating model of the organization thus making it easier to manage and change. It is key to agility and to being able to deliver on multiple programs at the same time. This means that IT leaders need to not only deliver on multiple goals in a changing, connected world. They must—in parallel—ensure that the operating model and IT landscape are at the same time being simplified and optimized across multiple dimensions such as business fit, technical fit, cost, and risk. This is the mandate of IT leaders in a world where the only constant is change.



All business is IT—all IT is business

The role of Enterprise Architecture Management (EAM) and Strategic Portfolio Management (SPM) in fulfilling a company's strategic mission

“ Having an enterprise IT that is nonconforming to management's goals is very expensive.

- Integrated Portfolio Management: Better Visibility, Easier Decisions, Lower Costs”, Aité Research. [Read the full report](#)

This quote from the VP and Chief Enterprise Architect of a large publishing house reflects the responsibility IT has in being in constant alignment with business strategies, goals, and initiatives. She goes on to explain the consequences of inadequate analysis of the required changes to the IT landscape: “Projects get underway, then unanticipated system disruptions, typically outages, happen. Some are customer-facing or revenue-generating and therefore intolerable. So, you spend lots of money on consultants and software seats that you can't retire after all.”

And then her conclusion: “Knowing what the upstream and downstream implications of a change are enables us to plan better and not descope our projects or spend money putting out fires.”

This is the mission of [Enterprise Architecture Management](#) (EAM)—to understand the implications of change to the IT landscape and prevent conflicts in what is today an extremely complex web of applications, technologies, interfaces, integrations, and data flows. This is no easy task when an already heavily laden central IT is obfuscated with more IT purchased by autonomous lines of business. It is up to enterprise architects to make sense out of the complexity—documenting all current and planned IT systems and data flows and, most importantly, the relationships and interdependencies between them. Creating transparency into the as-is and to-be IT landscapes enables the organization to not only identify potential conflicts but also understand how to simplify the IT landscape—ridding it of redundant and unused artifacts. Rationalizing not only saves an immense amount of IT operating costs, it also streamlines the IT, making it more responsive to senior management's strategic goals.

But what are those goals? How do we connect the dots between strategic business goals and the necessary IT change? Enter [Strategic Portfolio Management](#) (SPM). Here, business strategy is captured together with the required business and operating models. As business strategy changes, the changes to these models inform IT of what needs to change in the IT landscape. To simplify the understanding of IT change, SPM appropriates all architecture elements into portfolios according to type of element e.g., application, technology, strategy, business demand and/or a specific characteristic e.g., customer-facing or digital business-related. Each portfolio has a clear functional purpose and business ownership for the purpose of managing and optimizing the individual portfolios to best support business strategy. By building the SPM practice on an enterprise architecture foundation, the interdependencies identified by EAM are used to understand the impact of change in any one portfolio on other portfolios.

IT change is executed through projects. In SPM, the [project portfolio](#) is vetted against business strategies to ensure IT investment is focused on business priorities such as digital transformation, ESG and innovation, or on creating IT efficiencies. Planned projects also go through the due diligence of identifying what architecture changes are needed and what that impact will be—on business and on IT. Early on—already at the business demand stage—plans are analyzed for effort and the impact the changes in IT will bring. Going back to our Chief Enterprise Architect, this eliminates the need to descope a project, as she states. It gives decision-makers more confidence in approving projects enabling the organization to move ahead more aggressively on its business strategy.

The enterprise architect, IT strategist and IT portfolio manager all have a vital role to play in helping the company accomplish its goals and its strategic advancement in the market. This means being constantly in tune with changes to business strategy. EAM and SPM are essential disciplines for bridging IT strategy and execution. They link elements of the business model—market segments, brands, channels, products—with the architecture to gain a clear understanding of the necessary resources and IT support. They help identify which business units and what IT will be needed to support new processes in the operating model.

With consistent, continual practice of these interrelated disciplines, with EAM's single source of truth and central platform for all change agents and stakeholders, and SPM's change impact discoveries and strategy-to-execution chain of activities, a company can boldly pursue opportunities, firmly defend its market position, and build resilience to operational risks and strategic setbacks.

(In recognition of the essential insights and empowered decision-making provided by interrelating the EAM and SPM disciplines, going forward this paper will refer to the EAM/SPM discipline as one.)

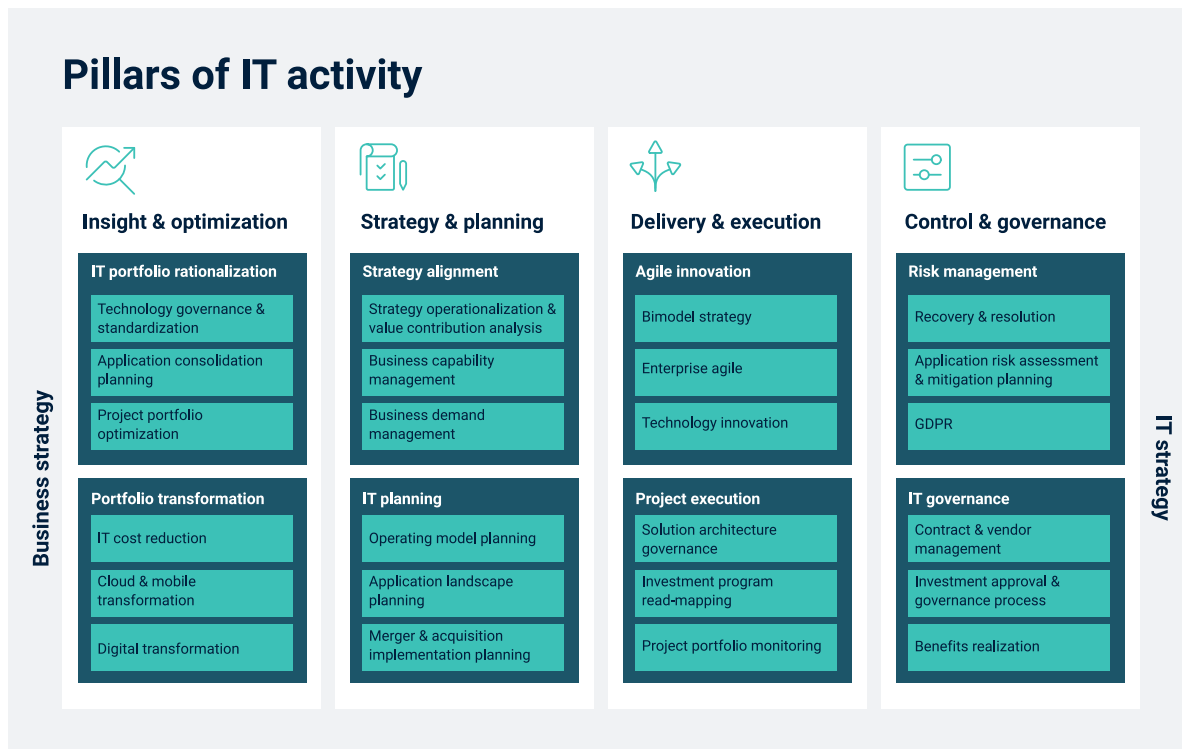
The means to an end

Focusing EAM/SPM on the issues at hand

What's the flavor of the day? New business and technology trends can sweep in at an alarming pace. Some are brief—maybe the beginning of something big (which is why they shouldn't be ignored)—others are perennials and require continual attention. EAM/SPM can help with both. In the case of what may be just a flash in the pan, immediate insights into the potential impact on the IT landscape can help understand needed resources and to decide whether a response is warranted and feasible. In the case of recurring or constant events, EAM/SPM can be used to build a continual, sustainable process to support these activities.

EAM/SPM supports four main pillars of IT activity:

- Insight and Optimization
- [IT Strategy and Planning](#)
- Delivery and Execution
- [Control and Governance](#)



Inside of these pillars of activity, we find use cases that can best be addressed with an EAM/SPM approach. Let's look at some of the most common use cases.

Application consolidation

There are legitimate reasons for IT growth—increasing digital business solutions, for example. Or the addition of new technologies for better customer experience, more efficient processes, greater insight into data, and to connect the digital with the physical world. And there are reasons that are—well—less legitimate: unchecked organic growth, legacy systems that refuse to die, rogue IT smuggled in through empowered business units or an inefficiently executed M&A. But as IT grows, so does its complexity and the operations budget to keep it running—squeezing out any funding for new investment and turning into a ball and chain that keeps a business from delivering what business needs to win the digital race.

EAM/SPM gives you a central inventory of applications, retirement/consolidation analytics, the ability to plan and monitor projects, and governance for sustained health of the application landscape.

Technology governance and standardization

Decades of shifting IT strategies, changing technology trends and multiple acquisitions exacerbate EA teams' attempts to keep the technology portfolio streamlined and agile. High IT operating costs, a technology free-for-all for project teams, and mounting technical debt are all symptoms of a lack of standards and control.

Using an EAM/SPM approach to technology portfolio governance establishes a continuous process to set and develop technological standards that serve as a framework for building and maintaining a technologically [sustainable IT](#) landscape. It helps to transform a heterogeneous technology landscape into a stable and consistent inventory of technologies to support current and future business needs through high-quality IT solutions.

M&A planning and management

M&As bring together diverse product portfolios, operating models, and critical resources such as IT systems and the talent pool. Companies undergoing an M&A are keen on making alignment happen quickly, efficiently, and painlessly to show value to shareholders. Unfortunately, most M&As keep IT in abeyance until the deal is sealed so that realization of M&A synergies is slow. It is not transparent what parts of IT need to be integrated and there are problems agreeing on and communicating an IT integration strategy.

Using EAM/SPM already in the due diligence phase can uncover potential synergies and unforeseen costs of an M&A. An upload of the purchase target's IT landscape into the acquirer's IT inventory reveals how critical business functions can be optimally supported and reduce redundancies. Both IT organizations could develop a common integration initiative that enables new business processes to smoothly span across the combined IT infrastructure—and start on that initiative before the ink is dry.

Agile enterprise

In today's rapidly changing business environment, agile delivery of services and products are essential for surviving in our customer-centric, digital world. Yet ungoverned, distributed Agile development often leads to proliferation of non-standard assets, a wildfire-like spread of infrastructure, lack of strategic cohesion with the digital business strategy, and breaks in the strategy-to-execution chain of delivery.

EAM/SPM as part of an organization's efforts to scale Agile ensures a clear line-of-sight from strategic direction to the choice of epics and features to be implemented, including the resulting impacts on the enterprise architecture. Using it to support Lean portfolio management aligns budget and resources to IT strategy. Interfacing to Agile development and DevOps environments provides governance and optimizes delivery.

Investment approval and governance

Business success is dependent on recognizing and responding to changes in a fast-moving business environment. Sustainability goals, resilience to shocks, aligning digital business models to market changes, and fending off cyberattacks are just some of the challenges that organizations must cope with. IT leaders are tasked to ensure that IT investments and delivery are aligned to these challenges and that they can be realigned quickly as the business environment changes. Yet all too often the investment process is ad-hoc and lacks transparency, projects fail due to poor design and planning, and the impact of investments on the risk and cost profile of IT are unknown.

Using EAM/SPM, IT can ensure business strategy is achieved by providing a single, transparent inventory for all demands including their linkage to architecture for impact and overlap analysis. It ensures that all investments go through workflows for demand prioritization and approval to ensure IT investment supports current and future business strategy. Improved customer satisfaction, resulting from increased proactive maintenance and reduced response times.



EAM/SPM capabilities critical to business and IT transformation

A comprehensive and interrelated web of activities reflecting the enterprise of today

To deliver on the goals and use cases of EAM/SPM discussed in the previous section certain capabilities need to be in place in the organization. These capabilities will ensure that multiple, parallel business transformation and operating model optimization programs can be planned and executed without roadmap conflicts and with an agile, adaptive approach.

These capabilities are illustrated in the diagram below and establishing them as part of the EAM/SPM discipline is essential to successful business and [IT transformation](#).

EAM/SPM capabilities

Business strategy development	Business model definition	Business strategy validation	Business demand management	Innovation management	
Operating model development	Business capability management	Operating model planning	Organization and ecosystem planning	Value stream mapping	
Agile transformation	Resource management	Target architecture and scenario mgmt	Agile portfolio and feature mgmt	Tracking & issue mgmt	Project portfolio governance
IT portfolio management	Application portfolio governance	Information portfolio governance	Technology portfolio governance	Service portfolio governance	
Enterprise architecture governance	Policies & standards mgmt	Integrated roadmap mgmt	Insights, diagnostics, & reporting	Data gathering & integration	Stakeholder mgmt
Finance management	Cost driver analysis	Contract and vendor mgmt	OpEx optimization	Investment optimization	
Security and risk management	Security architecture	Threat and risk mgmt	Mitigation roadmapping	Compliance management	

Business strategy development pulls together input from various sources to create an iterated and documented business strategy that provides a clear line of sight from the organization's high-level vision to the implementing strategic themes. Additionally, operational and business performance indicators are defined and monitored so that the responsible business managers can track strategy implementation.

The business strategy provides the framework for operating model development—allowing the future operating model to be designed and the required changes to the business capabilities, processes, organization, etc. to be understood and road mapped. Value streams provide structure to the Agile development process as well as insights into operating model issues using business capability mapping.

Agile transformation supports both Agile and traditional approaches to optimizing the investment portfolio. It also supports IT solution design and monitoring of IT investment deliverables, issues, and milestones. It ensures IT delivery is optimized and aligned to business strategy.

IT portfolio management monitors the health of the IT assets and landscape and ensures that the trade-off between rapid progress and technical debt is transparent and best fit for the organization's goals.

Enterprise architecture governance has the tools to ensure the EAM/SPM programs are implemented well, and progress is monitored. Policies, standards, and data gathering provide the basis for informed decision making.

These capabilities need to be supported at all levels with finance management, and security and risk management capabilities to provide indispensable insights for decision making, as well as planning support for future operating models and the associated cost and risk profiles.

The right tooling for the job

Making sense of the complexity of the enterprise

Effective and **sustainable strategy** realization depends on having an effective and sustainable EAM/SPM discipline for the strategy, design, planning, and execution phases to ensure that the portfolio of strategic investments is incrementally and continuously aligned and optimized. Establishing EAM/SPM in the organization requires not only investment in training and change management, it also requires investments in tooling to support these disciplines.

The connected and voluminous nature of EAM/SPM data means that relying on office productivity tools is not an option, as seen in this quote from Forrester Wave™: Strategic Portfolio Management Tools, Q1 2022: "During the pandemic, companies recognized that connectedness and transparency became paramount to survive or, better yet, flourish during challenging situations. Old-school ways of identifying opportunities and prioritizing investments could no longer rely on disconnected spreadsheets and PowerPoint." [Read the full report](#)

Modelling solutions, such as MS Visio or EA modelling tools, are similarly incapable of maintaining the number of interdependent, different types of data ranging from strategies to technology solutions, from investments to performance KPIs. Indeed, the need to gather data from different sources and ensure its quality requires that effective integration and data management be part of the tooling support.

It then may be tempting to try and support strategic alignment and portfolio optimization with BI solutions which do have powerful data management capabilities. But these completely lack any business logic specific to EAM/SPM. All the capabilities described in the previous section would need to be developed and maintained—driving up costs. The resulting individual solution would also not benefit from the experience of the many different stakeholders involved in business transformation.

This is true for software in other markets adjacent to EAM/SPM as well. Beware the claims from providers of operations-related software such as ITSM, CMDB or IT asset management that they cover EAM/SPM. Challenge them on coverage of the scope of capabilities discussed in the previous chapter. Going down the path of what may seem expedient and cost-efficient because the software is already installed could mean higher costs or failed EAM/SPM programs further down the line.

It is also important to see EAM/SPM as a top-down solution to ensure that IT strategy is implemented. For this, integration with execution systems is critical to set priorities, make plans and designs available, and to monitor execution achievement. This means that the supporting solution needs to integrate to solutions supporting execution, such as project execution, DevOps, and IT asset management solutions. A flexible, easy to configure integration layer, and standard connectors are essential for this task.

Those daunting first steps

How to begin the EAM/SPM journey

Surely the comprehensive scope of capabilities required for good EAM/SPM can be daunting. Truth be told, there are rare instances of companies who do it all well. What's important is that there is an end game to strive for and best practice expertise and experience—from peers, vendors, consulting firms and analysts—to help you with each leg up.

As previously discussed, EAM/SPM is means to an end—the “end” being the job that needs to be done today. This could be planning the company's cloud migration strategy, protecting the company against cyber threats, determining how the newest technologies can help advance the company's business strategy, or examining the company's IT investment portfolio to improve CapEx. It doesn't matter which. When the enterprise architecture has been captured as the basis for any of these, the foundation for future use cases will already have been laid.

The most common entry point into EAM/SPM is [application rationalization](#). Companies want to cut costs and get rid of the clutter. A logical next step is to understand the technologies supporting the application portfolio to see where it is possible to rationalize and standardize to—again—cut costs and increase agility. Then bring in the business view—business capabilities, strategies, and processes—to ascertain whether critical business capabilities are getting the needed support. Moving into IT execution, the project and product portfolios are next in line—and all with the direct line of sight to their associated architecture and business relations.

When in the market for a tool, consider the organization's EAM/SPM. Starting on a blank page is difficult with no previous experience in enterprise architecture or [portfolio management](#). Some vendors offer entry-level solutions with pre-configured views and prescribed data for the most asked questions in EAM/SPM e.g., “What is our application portfolio?” “What are our cost drivers?” “What is our business/IT alignment?”



Commonly asked questions in EAM/SPM



Governance

Who is responsible for our assets?

What should we be focusing on?

Who owns which applications?



Transparency

What is our application portfolio?

Which process areas require most IT support?

What are our architectural dependencies?

Where do we have functional redundancies?

What is our technical debt?

Who are our vendors?

What is our Business IT alignment?



Rationalization

What are our business capability outsourcing candidates?

What are our cost drivers?

What are our investment/retirement candidates?

What is the status of our rationalization plan?



Roadmapping

What is our landscape?

What is our target architecture?

What is our roadmap?



Risk

Where do we use sensitive data?

What is our security score?

How will IT failure impact our business?



Cloud Migration

What are our cloud focus areas?

What is our cloud migration strategy?

What is the technical obsolescence impact?

What is our cloud footprint?

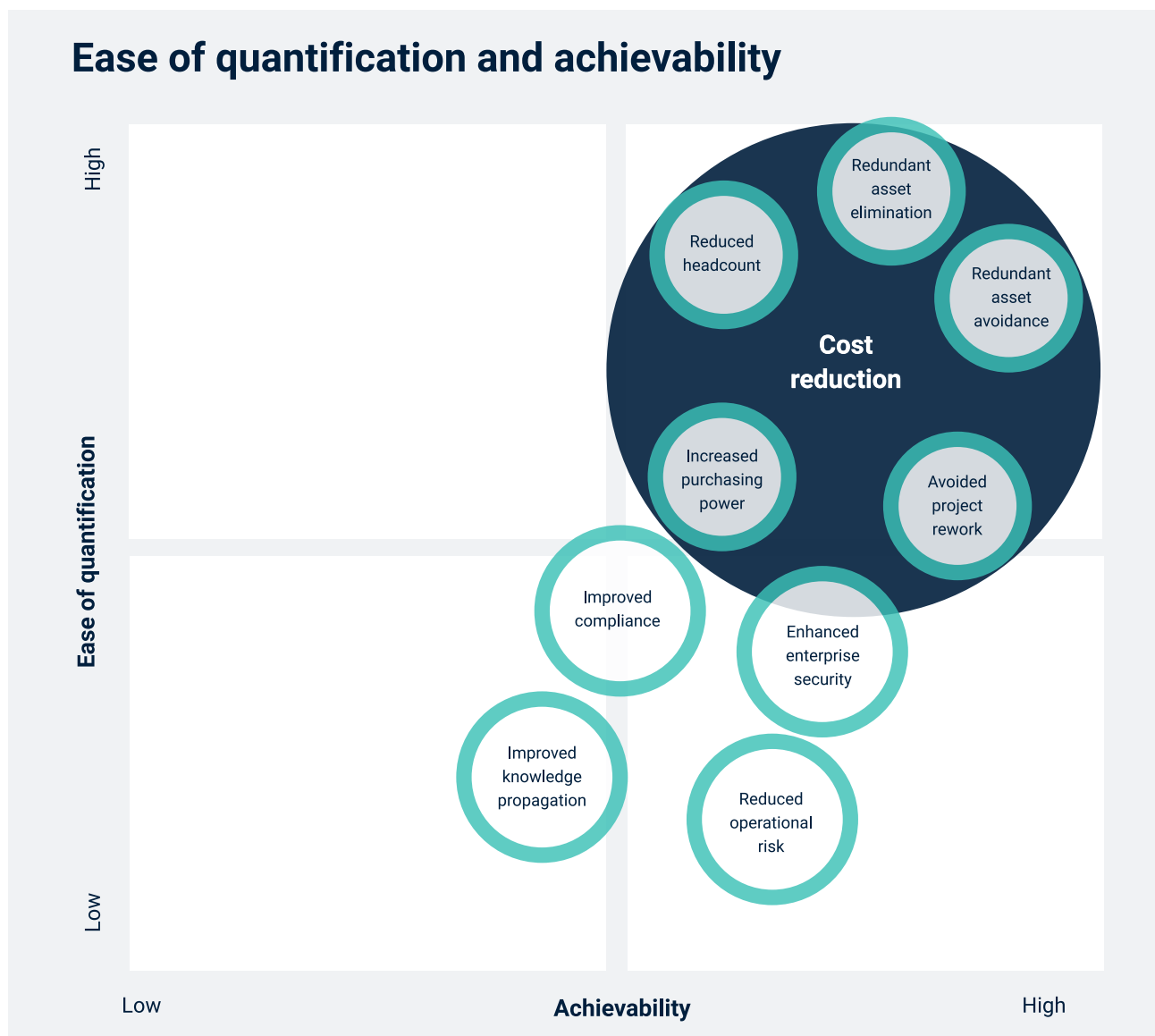
Beginning with a catalog of say 25–30 questions shores up the EAM/SPM organization with enough insights for stakeholders to begin transforming the enterprise to meet business goals. They'll soon be back with more intricate questions in the desire to achieve more—better business alignment, greater cost efficiencies and savvier IT investment. At that point, it's time to ease into a tool that can be configured to meet more individual needs and be adapted to particularities of the company—a tool offering seamless upgrading to enterprise-level EAM/SPM.

The economics of EAM/SPM

Quantifying the value of knowledge

The previous sections have clearly laid out the case for EAM/SPM as a facilitator of business strategy execution—the translation of business strategy into IT change, the lens for every stakeholder onto enterprise transformation, the proponent of simplifying the IT landscape, and the guardian of insights-driven decisions on IT change. With EAM/SPM, companies can advance faster and more aggressively on their market strategies.

Yet, undoubtedly the dollars and cents question of ROI of a tool-supported EAM/SPM program will arise. We know there is a cost to complexity, poor resource allocation, inadequate risk mitigation, absent due diligence, non-alignment to business, and weak [IT governance](#). Let's look at how these costs can be combatted with a tool for EAM/SPM. A study done by [Aité Research](#) on companies using a tool (Alfabet) reported quantifiable benefits in several areas. The graphic below places each area on a chart scaling ease of quantification and achievability.



Users in the study were able to identify benefits in all areas. Coming from large enterprises, the effects of the benefits were of significant dimension. Here's what they had to say:

- "Right now, we have 10 or more marketing automation applications that fulfill very similar business requirements. We are going to consolidate that down to just 2 or 3. This will happen over a 3-year roadmap, during which costs will temporarily go up as we migrate, train, and integrate. But our costs will get reduced by 50% ultimately. And that's just one application type." (Telecommunications industry)
- "Because we know about every technology asset in the enterprise, we have gone from a handful of small lines of business buying software independently to negotiating with every vendor as a single, and very large enterprise, with detailed knowledge of all expenditures. We have more negotiating power, and this reduces costs by about 10%." (Public transportation company)
- "We avoid costly technology sprawl all the time with Alfabet. It's part of our processes. If you want to adopt a new technology, you must go through a formal request that is examined within Alfabet. If we already have a requested capability, you won't get approval to spend money on something redundant. And these cost avoidances are commonplace, occurring about once every 2 weeks, for avoided expenditures of between \$100k to \$300k. We probably pay for Alfabet on this alone." (Manufacturing industry)
- "If, rather than using Alfabet, we were relying on surveys and Excel spreadsheets and manual research to answer questions for senior management about the assets on our enterprise, I'd need at least 2 additional full-time equivalents on our enterprise architecture team." (Manufacturing industry)
- "If we threw bodies rather than Alfabet at the GDPR challenge, we'd need dozens of new people. It wouldn't even be feasible." (Banking industry)
- "We have a goal of 90% standardization for apps across our enterprise. Alfabet tells us how to get there by spotting all the rogue system usages. The ones that have high seat counts and high usage we go after first and put them onto the standardized platforms." (Auto industry)
- "Management uses Alfabet for continuous course corrections. In it, they can look at all the strategic assets, the ones in which we have invested a lot of money and assess it across parameters such as usage, seats available, and uptime. With this you loosely see if you're getting to management's target state and what the gaps are." (Banking industry)
- "Alfabet plays a strategic role by being the system of record in which every asset is designated as mission critical, business critical, or less critical. This data is used to prioritize where and when to spend IT budget, which you never have enough of." (Utilities industry)
- "We are less likely to have something go down because it was underfunded. Here, every project and investment goes through an objective intake process, enabled in Alfabet, in which mission criticality is formally assessed so that proper funding is available. This way cool, hyped, or favored technologies don't take money from what we rely on." (Utilities industry)

So fulfilling business strategy doesn't mean having to do it at all costs. A tool-supported EAM/SPM approach saves costs and frees up funding for the business strategy.

The future of EAM/SPM

Innovative technologies benefit business-aligned IT transformation

The EAM/SPM discipline drives successful digital transformation. And there are tools to support this discipline providing an integrated, non-siloed approach that delivers on business goals. Yet more is still to come that will reduce the effort to design, plan and execute effective transformation using EAM/SPM.

As the discipline gains traction in the organization, the numbers and types of users involved in the process will increase. This will drive excellence in the usability and collaboration that is capable of engaging business and IT as well as satisfy the needs of different job levels from top management to subject matter experts. State-of-the-art UI design, journey support, bots, and deeper integration to collaboration platforms such as MS Teams will result in smooth and enjoyable cross-discipline teamwork that can deliver on IT strategy realization.

The data involved in EAM/SPM is broad in scope ranging from strategies to technical deployment, from project and product planning to operational and outcome performance indicators. It is also voluminous. Bringing all this data together and ensuring it has the quality to support analysis and decision making is a challenge that will drive excellence in integration and data quality management of EAM/SPM data. The need to integrate to the ecosystem of business and IT management systems will result in requirements for a range of standard connectors, as well as for easy, no-code configuration by customers of their own integrations. New business-rule approaches to defining and enforcing data quality rules will be enhanced with AI-supported identification of new quality rules to improve and accelerate data quality attainment.

AI will also play a key role in the analysis of the data to provide insights into the issues and trends that are at play in the organization, for example clusters and patterns in the health, risk, and costs of the operating model that manual analysis would not necessarily identify. Predictive analysis and machine learning may in the future generate proposals for architectures or investment portfolio plans.

What is also clear is that organizations that adopt SPM, supported by integrated EAM capabilities, will be more successful at achieving their business strategies than those that don't. As Gartner predicts "By 2025, 70% of digital investments will fail to deliver the expected business outcomes due to the absence of a strategic portfolio management (SPM) approach." This underlines how important it is for organizations to review and assess the role played by EAM/SPM and what they need to change to ensure that business strategies come to fruition now and in the future.

Take the next step

Contact our experts today: [www.SoftwareAG.com/contact-alfabet](https://www.softwareag.com/contact-alfabet)

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