

# Magic Quadrant for Enterprise Architecture Tools

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EA tools provide an enterprise metamodel and features to continuously evolve business and technology operating models. Enterprise architecture and technology innovation leaders should select EA tools that support long-term business transformation, modernization and innovation goals.

## Market Definition/Description

The EA tool market is expanding rapidly from a limited footprint. This is reflected in the growth of the included vendors in this MQ, whose revenues have grown between 15% and 30% in annual revenue since the last edition of this report was published. Due to its relatively small size and rapid growth, the market is prone to changes year over year as vendors evolve their capabilities to address a growing number of business and IT stakeholders. Further, we see more support for such tools as EA extends its view of IT beyond the direct control of the IT department and into a wider, democratized technology environment across the organization.

EA tools allow organizations to examine both the need for, and the impact of, change. They capture the interrelationships and interdependencies within and between an ecosystem of partners, operating models, capabilities, people, processes, information, and applications and technologies. They provide a central repository to capture data and metadata about the artifacts that an enterprise cares about and their related life cycles. Models represent the relationships between these artifacts and are themselves treated as assets that help describe and shape the future of the enterprise. EA tools help with investment decisions for both IT and the broader enterprise. When models are combined with operational performance data, they can help improve business outcomes and shape the construction and ongoing development of digital platforms.

EA tools must include features for (please see [Critical Capabilities for Enterprise Architecture Tools](#) for detailed descriptions):

- Repository: Provide a single source of truth for the organization with storage, categorization, and versioning of objects and model primitives of various sorts, as well as the relationships between them and related business artifacts and views.

- **Modeling:** Structure relationships across entities, such as business strategies, objectives, goals, constraints, capabilities, personas, customer journeys, activities, processes, value streams, policies, decision models, metrics, applications, technologies, roadmaps, projects and programs.
- **Analysis:** Identify, assess, prioritize and track gaps, challenges, opportunities, and risks within and across portfolios of business capabilities, investments, processes, projects, applications and technologies.
- **Presentation:** Display and illustrate information in the form of dashboards, heat maps, models and scenarios that contribute to the presentation capability of the tool.
- **Usability:** Ease-of-use features and functions that enable support for various classes of users, including enterprise architects, analysts, business users, technology architects, strategy analysts and operations researchers.
- **Configuration and management:** Set up and administer the support and security of the EA tooling platform, along with setting up different classes of users, their access rights and feature alignment.
- **Extensibility:** Extend the metamodel of the EA tool through the definition of new modeling primitives (concepts) and relationship types, up to new graphical representations and enforcing domain-specific rules.
- **Publication:** Enabling wide consumption of the data contained within the EA tool, across the enterprise and beyond. This implies the ability to capture comments and feedback on that content and/or score elements contained in repository views.
- **Frameworks:** Apply EA, industry or other frameworks as a starting point for structuring the repository and the relationships among artifacts.
- **Integration:** Expose and import data to and from other products, enabling the EA tool to be a hub uniting other common tools in the enterprise technology ecosystem. This includes categories such as product management, CMDB, PPM, business process management suite (BPMS) and process mining.
- **Automation:** Industrialize activities to deliver value more quickly and reliably, while keeping information current.
- **Innovation management:** Support the creation and tracking of innovation and change initiatives, including ideation, trendspotting, and the engagement of colleagues, PPM links and benefits realization.

## EA Tools Enable Insights and Better Business Decisions

EA tools operate at many levels and across a wide spectrum to enable insights and support informed decision making. This spectrum includes but is not limited to:

- Business strategies, objectives, capabilities, competitors, ecosystem partners, and products/services, as well as the KPIs, metrics, risks and costs related to them.

- Supporting technologies and applications, the services they offer, and interfaces between them, as well as infrastructure providers and vendors that provide these things.
- Customer segments and stakeholder personas, customer journey maps, and the processes, value streams and activities that the organization depends upon to deliver value.
- Business scenarios, managing innovation, change and transformation programs/initiatives, and including the individual projects and development sprints in IT.

Increasingly, EA tools serve a wide range of stakeholders from the boardroom and the C-suite, across all business strategic and operational roles, and into the IT estate. EA tools are also leveraged by a broad array of architectural and IT disciplines — information, solution, security, applications and infrastructure.

With such a broad array of stakeholders, EA tools must also facilitate their consumption of, and contribution to, the information contained within the repository. As they undertake their work, these users switch between an ever-expanding set of views and visual representations of the datasets contained in the repository. Vendors employ different strategies to handle and represent the data and metadata in the repository, including the use of:

- The classification, color coding and tagging of an object with iconography. Typically used to represent metadata about an object (for example, maturity, complexity or state of an object in a business capability map, business process, ecosystem map or change project).
- Grids to tabulate objects and aggregate metrics. Whether processes, ecosystems, capability maps or even a set of ideas, grids and lists provide a simple way to represent and edit data and metadata in the repository. Most tools also include a grid interface to enable integration with Microsoft Excel as a baseline-level import/export mechanism.
- Many types of graphs to visualize data and metadata. Bubble charts are often used to contrast three different dimensions of metadata about a set of objects (for example, assessing business impact against maturity in the X and Y dimensions, with the size of the bubble capturing complexity). Similarly, a “funnel” might represent the life cycle of innovation ideas as they progress toward projects or are killed off.
- Roadmaps and project plans to represent the path to a future vision and any dependencies. Vendors use both static and interactive Gantt charts, timelines, Kanban boards, processes, value chains and storytelling features to describe how the organization needs to deal with change.
- Filtering to support the needs of different business and IT users. These include synchronizing elements in a portal view or dashboard, where selections made in one pane of the view (portal) are reflected in others. Both 2D and 3D tools are used to traverse the different dimensions of repository contents (objects/assets) and the relationships between them. Filtering is also used to highlight elements related to an objective, plan, change or any asset

of interest. At a graphical level, dendro diagrams and node maps allow users to traverse repository contents.

Due to the strategic importance and growth in the use of models in modern business, we expect to see some major vendors in adjacent market territories make strategic moves by either buying or launching their own EA tools. It is also important to watch which vendors provide dedicated integration capabilities (such as APIs) and support to allow EA tools to integrate with other enterprise solutions. This will strengthen the EA tools' ability to govern business and IT operating model changes and guide strategic decisions.

## Magic Quadrant

Figure 1: Magic Quadrant for Enterprise Architecture Tools

Source: Gartner (November 2021)



Vendor Strengths and Cautions

## Ardoq

Ardoq is a Leader in this Magic Quadrant. Ardoq's product functionality is delivered as a cloud-native SaaS solution. Its main operations and presence are in EMEA and growing in North America. Ardoq supports clients across multiple industries, with financial services and the public sector being the major ones. Its roadmap includes adding further use cases, scenario-based graph analytics, and increasing usability and engagement for non-EA users.

### Strengths

- **Evolving metamodel development and deployment:** The cloud-native repository is highly flexible and adaptable. The metamodel is developed and deployed in an evolutionary manner, delivering just enough structure to meet the use case need at hand. It benefits from cloud-native platform capabilities like a Git-style branching of architectural elements and models to create multiple sequential or concurrent future states, and its in-memory graph database to support complex analytics.
- **User experience optimization:** Ardoq keeps user experience and interaction at its core through a personalized UI, embedded storytelling functionality, a bot to translate natural language questions in graph queries, and in-app chat for support. Its surveying and collaboration features are complemented by a dedicated workflow integration capability for data ingestion from third-party products, including ServiceNow and Jira.
- **Use-case-based value delivery:** Most clients start with Ardoq's prepackaged use cases to address common business or IT challenges. Use cases provide preconfigured features including UI, analytics and visualization to reduce time to value against a defined IT and/or business problem.

### Cautions

- **Flexibility comes at a cost:** While access to features and functionalities within Ardoq is easily achieved through license plans, pricing is not. With numerous modules/functionality add-ons, all with an associated price tag, contracting with Ardoq requires intimate understanding of what is needed from the tool and how it will be used over time so as to maximize the value against the potential cost increase.
- **Limited region focused:** Ardoq's main marketing, sales and client focus is on European and North American organizations with an existing EA function. This is also reflected in the hosting options of its product — either AWS hosting in Ireland or the United States. It relies on partners for growth in other regions. Prospective customers outside Ardoq's main regions should verify its local partner capabilities as well as partner positioning with Ardoq to process local requirements, including regulations.
- **Scaling support to maintain quality:** Ardoq continues to recapitalize to fund expansion, but roughly 75% of its resources are still Europe-based. With a relatively small team to engage and support its prospect, clients and partners, and some large marquee clients, scaling support of the business will be a

challenge. Potential and existing customers should verify Ardoq's approach and capabilities to sustain product performance and evolution.

## **Avolution**

Avolution is a Leader in this Magic Quadrant. Its ABACUS product is delivered as a fully hosted SaaS solution, on-premises, or as a hybrid cloud offering. With customers spread across several industries and regions, it has operations in EMEA, North and Latin America, and Asia/Pacific. Its roadmap includes enhanced machine learning to improve its smart catalogues, support for non-EA roles modeling architectures, downloadable algorithms for different industries and use-case-specific metrics.

### **Strengths**

- **Intelligent approach to maintaining content quality:** Avolution has a comprehensive metamodel based on graph database technology. It applies AI/ML to match and autocomplete or auto-adjust data with existing data, or suggest values to structurally improve the quality of the repository. This capability increases enterprise-level data reliability.
- **Commitment to customer co-creation:** Avolution proactively engages with customers and partners to co-innovate ABACUS capabilities and processes, regularly releasing new features. Its approach to innovation is further reflected in its AI and patent strategies, its support for academic research, and a variety of initiatives to exploit innovative ideas from employees.
- **Bundling features and capabilities per team size:** Avolution has bundled its core product features into three distinct propositions focused on the needs of individuals, small teams and large teams. With well-established operations in most geographic regions, it allows Avolution to serve the needs of customers of different sizes globally.

### **Cautions**

- **Complex pricing:** Avolution offers ABACUS in a variety of user-and feature-based models, with tiered pricing and discounts. It also offers a-la-carte options, per-user-based pricing and paid add-on modules. This flexibility requires potential clients to assess their product use cases and expected spending growth over time, as pricing rapidly can exceed initial investment expectations.
- **Time-consuming:** Although Avolution continues to take steps to simplify the experience, it can still require a significant learning curve to set up and configure the metamodel as required, as well as understanding the modeling and visualization features.
- **Lacking in-app support:** ABACUS lacks the context-specific, in-app support provided by some of its competitors, which means that users must rely on a separate ticket-based issue resolution mechanism to get support. In turn, this means that organizations must dedicate more resources to resolve issues and generate value.

## **Bee360**

Bee360 (previously Clausmark) is a Niche Player in this Magic Quadrant. Its primary EA product is called Bee360 and is available as on-premises, hosted or private cloud version. Bee360 replaces Bee4IT, which provides tooling to help manage EA, IT finance, and program and portfolio management (PPM) within a single repository. Bee360 has its main operations in EMEA and a service center in Asia/Pacific, supporting clients worldwide, with the majority of clients in the manufacturing, financial and energy sectors. Bee360's roadmap focuses on improving process and product management capabilities and integration with DevOp toolchains.

### Strengths

- Pragmatic approach to support a variety of personas in the IT value chain: Bee360 positions its product to support “holistic IT management,” which implies providing insights to business and IT roles on IT strategy and demand management, project execution, governance and budgeting.
- Dedicated attention to improve collaboration: Bee360 has invested in integration with communication and agile planning tools like Confluence and Microsoft Teams to improve agile-based transformation activities, supported by Kanban boards and simplified model relationship management to rapidly process changes.
- Attention to user adoption: Bee360 includes dedicated training and enablement features to reduce the learning and adoption time of the product and its features. It supports adding context and explanation to the customer's own meta-model and assets, as well as predefined content for standard business and IT processes to apply in modeling as well as training.

### Cautions

- Main focus on IT management: Bee360's main features and capabilities are focused on maximizing value from IT. It offers limited predefined assets for business architecture, where business capabilities and a broader business design play an important part in delivering on business outcomes and defining business operating models. While Bee360 allows the creation of all the necessary artifacts, these are not readily available.
- No embedded industry- or regulatory-specific assets: Bee360 has no embedded industry-specific assets, nor embedded coverage for industry or regulatory frameworks. It relies on individual account manager experience and its partner capabilities to address industry demands.
- Single enterprise license model only: Bee360 is only available as an enterprise license that includes all functionalities and features, without any additional options or add-ons. While this is a strategic company choice, it equally creates challenges for organizations with existing products for functions like PPM or financial management, which would require integration effort and reduce the value of the product.

## **BiZZdesign**

BiZZdesign is a Leader in this Magic Quadrant. The BiZZdesign product HoriZZon is delivered as a fully hosted SaaS solution, on-premises, or as a hybrid configuration. Its main presence is in EMEA and is growing in North America. BiZZdesign targets and predominantly focuses on financial services and government/defense sectors. Its HoriZZon product roadmap includes role-specific decision support, enhanced data maintenance via process automation, and a continued focus on security architecture.

### Strengths

- Cloud deployment benefits: BiZZdesign completed the migration of HoriZZon to a cloud-based, multitenant, distributed platform architecture in 2021. The migration has elevated the availability and resiliency of HoriZZon, enabled a more frequent cadence of updates, and offers further configurability and extensibility.
- Drives innovation through customer experience: BiZZdesign has invested in a new customer experience research team and, as a result, has increased the throughput of ideation, prototyping, testing and validation of new ideas. The strategy has resulted in incorporating the use of ML in model creation and additional solution packs focusing on assessing operational resilience and organizational change capability.
- Industry expert partnerships: BiZZdesign partners with different subject matter experts to create industry-specific assets. This includes creating Business Architecture Body of Knowledge (BIZBOK) industry models and partnering with NATO on the development of an ArchiMate framework for defense, as well as creating financial services regulations driven by operational resilience assets and expanding the Open Group aviation reference architecture.

### Cautions

- Limited geographic presence: While using a partner network to support global growth, the majority of BiZZdesign sales effort and resources reside in and focus on EMEA and North America. Other regions are predominantly represented by third-party partners.
- Complex pricing: BiZZdesign has developed a modular platform with a low-price entry-point, but to get enterprisewide value and needed functionality, HoriZZon software costs can rise quickly. Although providing extra flexibility, the combination of module, credit-based pricing, license-type and consulting can be confusing for customers.
- Limited operational support: With its focus on North America and EMEA, BiZZdesign's support capability is limited outside these regions. While it offers 24/7 SLA-based support for critical incidents, its main SLAs provide local office hour support only. High availability comes at a premium based on a percentage of total spend. Prospective customers should ensure that the SLA they agree to includes support for the hours they need for their business, in every region they require the support.

### BOC Group



BOC Group is a Leader in this Magic Quadrant. Its product, ADOIT, is offered as a fully hosted SaaS solution, on-premises, or as a hybrid cloud proposition. The majority of its clients are in EMEA, with a growing presence in North America and Asia/Pacific. ADOIT customers are spread across multiple industries. ADOIT's product roadmap includes ongoing UX enhancements and support for EA as internal consultancy through EA service delivery and security management techniques such as threat modeling.

### Strengths

- Maturity-based, bundled offering: BOC Group has revamped its offering to provide three distinct options for customers starting, growing and expanding EA practice capability and maturity. There is also a “freemium” offering, ADOIT Community Edition, which led to a complete UI overhaul with focus on intuitiveness and accessibility, alongside in-tool user guidance for key value-adding use cases.
- Simple licensing and pricing: BOC Group is rebranding and repositioning its offering to a user-driven growth strategy. ADOIT now focuses on two user types: contributors and readers. The pricing model is transparent, starting with a low-cost option to help customers transition from the freemium edition to paid plans.
- Innovations to support evolving multilingual market needs: ADOIT includes innovative features such as the model time filter to dynamically observe models at different points in time with AI-based recommendations. Its go-to-market strategy includes multilingual capabilities (currently English, French, German, Polish and Spanish) to provide more dedicated local language support.

### Cautions

- Rebranding capabilities: BOC Group is rebranding ADOIT to a user-focused proposition. It needs to educate and support existing clients, as well as increase its assets and partner capabilities for the new persona-focused proposition.
- Limited geographic footprint: BOC Group has the majority of its operational resources in Austria and Germany, and its customers are predominantly based in Europe. It applies a centralized delivery model with partners for regional support. Organizations with global distributed operations will therefore need to assess the combined support capabilities from BOC Group and its partners.
- Limited cloud capabilities: ADOIT is a traditional client/server architecture. While BOC Group indicates it is a simple architecture that can easily be deployed and scaled through Amazon Web Services (AWS), IaaS services like EKS and S3, it is still a traditional compiled Microsoft Windows application that runs in containers. While planning to add non-European hosting options, ADOIT currently is only provided on Europe-focused AWS availability zones and through a dedicated private cloud provider in Switzerland.

## Capsifi

Capsifi is a Leader in this Magic Quadrant. Its product, Jalapeno, is primarily available as a SaaS offering. Capsifi operations are largely Asia/Pacific-based, with a growing presence in North America and Europe. Its clients are predominantly in the financial services, insurance, telecom, retail and public sector. Jalapeno's roadmap includes interactive collaboration tools, enhanced digital business model dashboards and consoles, and continued investment in APIs and AI-inferred insights.

### Strengths

- Focus on adapting to continuous change in customers: With continuous change as a guiding design principle, Jalapeno is built around a semantically aligned knowledge graph and an ontology for business change. It supports a wide range of functionality, including role specific consoles with contextual insight to manage business innovation and transformation.
- Differentiating partner model with distinct industry focus: Capsifi integrates partner industry assets into the product platform and creates tailored industry assets and customized product versions for global partners to allow for partner-specific services. This approach improves partner commitment and delivers capabilities to Capsifi and partner clients faster.
- Implementation pathways reduce time to value: Capsifi has created multiple Jalapeno implementation templates to shorten time to value for clients, which it calls "pathways." These templates reflect the most common use cases for business transformation, including setting strategic directions, optimizing operations, defining and building transformation capabilities, capturing and benefiting from the customer insights, and governing all changes.

### Cautions

- Sustainable quality with rapid growth: Capsifi added more than 63% of unique customers over the past year. Considering its small size, roadmap of changes and limited partner support capabilities, it is challenged to maintain product and support quality. Potential and existing customers should verify Capsifi's ability to sustain product investment and enhancement.
- Implementation services at a cost: Capsifi offers dedicated product coaches as first point of contact for onboarding and ongoing support. However, such coaches are not included by default, nor are the professional services associated with the deployment of Jalapeno implementation pathways. Without these services, implementing Jalapeno and realizing its benefits will become more of a trial and error process.
- Regulatory compliance: Capsifi has received SOC-2 compliance at company level and is preparing for ISO27001 certification in 2022. However, it does not intend to cover common regulatory frameworks like GDPR, IST or PCI/DSS. Capsifi indicates framework content can be imported, but that does not imply clarity on actual compliance. Especially with a focus on cloud-based services and digital business operations, Capsifi will need to ramp up its regulatory capabilities.

## Enterprise Architecture Solutions

Enterprise Architecture Solutions (EAS) is a Visionary in this Magic Quadrant. Its product is based on the installable open-source “Essential Project,” with licensed editions delivered via public cloud or as a Docker instance for on-premises or private cloud. With a small user base spread across Europe, North America and Asia/Pacific, it derives the majority of its revenues from customers in government, retail, financial services and entertainment. The Essential roadmap includes support for virtual workspaces, AI/ML-based advice, comparative analysis of digital innovation options and integration with SaaS security management tools.

### Strengths

- Highly disruptive approach to pricing: As a full open-source solution, its pricing model is not per-user-based, rather it uses a fixed low subscription fee independent of the number of users. EAS positions its tool as an enabler of enterprise architects and closely aligns it with its EA consulting services. While for small teams there are lower cost propositions in the market, Essential’s pricing becomes unrivaled with a growing user base per client organization.
- Supporting wider collaboration with non-EA and IT stakeholders: EAS has focused investments on simplifying enterprisewide collaboration. It has expanded its role- and persona-based insights and provides, for free, format commenting and ideation aligned with the enterprise metamodel. This allows for better alignment across the enterprise and enables coordinated change and a rationalized IT portfolio.
- Empowering users through customized client playbooks: EAS uses lessons learned from its EA consulting services to improve its tool application playbook for new clients. Through a rule-based, engine-driven survey, Essential provides clients with a specific playbook on their most effective path to realize value with the tool, given their EA maturity, goals, stakeholder engagement levels, and access to and quality of data.

### Cautions

- More demand than it can service: The disruptive business and pricing model of EAS potentially creates more demand than it can operationally service in a financially viable way. For long-term success, the vendor needs to focus its efforts on partner recruitment and growing the skills and competencies of those partners.
- Relying on its own metamodel: EAS primarily relies on its framework-agnostic metamodel. It does provide some American Productivity & Quality Center (APQC) industry models and its own industry templates, but no standard control or delivery frameworks or templates. To rapidly ramp up Essential benefits, potential clients should first assess if Essential’s self-service options or EAS consulting capabilities support their use case.
- Scaling business operations: EAS must consider scalability of the business, carefully allocating its limited resources and ensuring all investments continue

to drive broader enterprise adoption and encourage more of its open-source users to convert to paid offerings.

### **erwin by Quest**

erwin by Quest is a Niche Player in this Magic Quadrant. The erwin product is called erwin Evolve and is available as a SaaS, on-premises or hosted offering. With its user base predominantly in Europe and North America, erwin derives most of its revenues from banking, finance and pharmaceutical clients. The roadmap for erwin Evolve includes an improved user experience and modeler capabilities. In addition, erwin plans to release a SaaS alternative for erwin Evolve, erwin Evolve 360.

erwin was acquired by Quest Software in January 2021.

#### Strengths

- Market and product expansion potential through acquisition: Through the Quest acquisition, erwin benefits from a larger sales force and access to Quest IP and integration into the Quest portfolio, and erwin Evolve can further grow its data intelligence and governance functionality.
- Focused industry and enterprise approach: erwin targets large enterprises in highly regulated industries with complex data and processes, where data governance and compliance are critical. It has invested heavily in a library of prebuilt erwin Evolve models supporting transformation initiatives, based on industry or domain frameworks like DoDAF, ITIL, eTOM or HIPAA.
- Continued attention to improving the user experience: While erwin indicates major changes through its erwin Evolve 360 platform, this has not stopped it from investing in its current erwin Evolve product. It introduced real-time analytics options, data-driven visualizations, modeler integrations focused on consistent data across client systems, and improved security and authentication features.

#### Cautions

- Major improvements expected: erwin has indicated major changes in the core architecture and capabilities of its new product erwin Evolve 360, which will impact its current erwin Evolve product roadmap. Potential clients should verify erwin's product release and maintenance roadmap for both products to determine which product is most suitable. Existing erwin Evolve clients should assess when, how and whether to migrate to the new product.
- Continued lagging architecture: While erwin continues investment in erwin Evolve capabilities, its current product still lacks the modern graph architecture of competitors. While it offers REST APIs for integration with other applications, erwin Evolve requires its separately licensed sister product erwin Data Transformation for native data manipulation and integration capabilities with a variety of service management tools and enterprise applications.
- Risk management focused: The primary market engagement mechanisms of erwin Evolve focus on the challenges of the IT organization, business process

management, risk and compliance. While erwin Evolve 360 is intended to support the broader business stakeholder community, erwin Evolve has limited capabilities for business alignment, business model reinvention, customer-oriented value propositions and navigating business change.

## LeanIX

LeanIX is a Leader in this Magic Quadrant. LeanIX Enterprise Architecture Suite is a cloud-native SaaS product, offered on Azure. LeanIX has direct operations in North America and EMEA, with strong customer presence in manufacturing, pharmaceutical and finance. LeanIX 's roadmap includes automated SaaS product usage discovery, SAFE-enabled value stream mapping, and security threat management of vendors and IT components.

LeanIX has renamed its Enterprise Architecture Suite product to Enterprise Architecture Management outside the analysis period of this research. While there might not be any changes to features, services or licensing models, these have not been assessed.

### Strengths

- Strong growth and market momentum: LeanIX continued its growth during 2020, adding 150 new logos and investing heavily to scale the organization. LeanIX targets organizations engaged in multiyear programs, such as digital transformation, migrating from on-premises infrastructure to the cloud, or moving from project to product, to embed itself in the success of those programs.
- Rapid time to value and focused customer success program: LeanIX promises fast time to value, and dedicated customer success programs continue, which guide customers through onboarding and regular check-ins, build success roadmaps, and provide integrations and engineering guidance. The rapid time to value is driven by a simplified metamodel combined with an easy-to-use platform and easy access to support.
- Continuous investment in IT portfolio management capabilities: LeanIX has a focused vision, marketing, roadmap and licensing on IT portfolio management. To strengthen its position, LeanIX continues to build and acquire capabilities, including the acquisition of Cleanshelf, a SaaS discovery tool.

### Cautions

- Main focus on IT: LeanIX has yet to fully embrace the wider opportunities associated with a shared business operating model, strategic business alignment, continuous business model innovation and customer-oriented value propositions. The lack of support for the broader emerging mission of EA could limit LeanIX in the long term.
- Third-party dependency for advanced functionalities: To support the product's focus on application portfolio and technology risk management, LeanIX provides several out-of-the-box integrations with an ecosystem of

products. However, for more advanced PPM capabilities, LeanIX relies on ServiceNow, and for detailed modeling it relies on Signavio and Lucidchart.

- Lack of business architecture capabilities: While LeanIX has enhanced its primary value proposition via the acquisition of Cleanshelf, this does not reflect the “shift left” to strategy away from technology architecture that leading EA practices are taking. So while LeanIX is meeting a portion of the market demand of today, it will need to accelerate its progress in the transformation and business architecture space to continue to meet customer needs. Its business transformation module begins to address this, but it is not a part of the core platform’s functionality and is only available via the purchase of an additional module.

## **MEGA International**

MEGA International is a Leader in this Magic Quadrant. Its HOPEX platform is available on-premises or via public or private cloud. MEGA International’s customers and operations are geographically spread, with most resources in EMEA, and customers in finance, government, energy, manufacturing and healthcare. The HOPEX roadmap includes industry capability maps, rearchitecting to a cloud-native platform, support for total experience and AI/ML to translate whiteboard images to process models.

### Strengths

- Dedicated regulated industry capabilities: MEGA International targets large organizations with organizational complexity and regulatory constraints. These organizations benefit from its dedicated business, IT, data and risk management features. The licensing structure of HOPEX is fairly straightforward, with modules bundled together as value packs, along with content and accelerators for specific industries.
- Data integration with structural integrity: HOPEX supports the ability to stack GraphQL endpoints on top of its REST APIs to enable fast, flexible, and customized data selection, ingestion and processing from a variety of sources, while maintaining the structural integrity of the enterprise metamodel.
- Strong focus on geographic growth: MEGA International’s strategy is to ensure real global delivery and support capabilities. It actively invests in geographic expansion through adding local offices and support capabilities in North America, and driving European and Asia/Pacific growth through a network of global partners and local alliances.

### Cautions

- Reliance on consultancy support: HOPEX features and functionalities are not self-explanatory and can be daunting for new users. Even with an accessible and extensible metamodel, new customers of MEGA International should consider consultancy support to get started. Considering its global expansion, potential clients need to verify vendor and partner capabilities in their respective industry and region.

- Lack of effective self-service support: Considering the long learning curve for new users, self-service support in HOPEX is limited to the MEGA Community user forum and online documentation, implying further professional services. Potential clients need to assess MEGA International's support capabilities for their distinct needs, especially when they fall outside the key industries.
- Relying on proven yet traditional architecture: Although MEGA International is one of the larger EA tool vendors, it does not yet offer a cloud-native HOPEX version. To maintain its leadership position in the market, with needed flexibility and adaptability to compete with newer, nimbler vendors, MEGA International needs to speed up its cloud-native rearchitecting plans.

## **Orbus Software**

Orbus Software is a Challenger in this Magic Quadrant. Its primary EA offering is iServer365, available on Microsoft Azure. iServer365 is the cloud-native alternative to iServer, reflecting the investment in a more business-centric EA approach of the vendor. Orbus operations cover EMEA, North America and Asia/Pacific, with clients mainly in government, finance and healthcare. The roadmap includes business change modeling, goal led UX wizards, additional cloud security features, and extending the range of business suite application integrations. Orbus was acquired by SilverTree Equity in January 2021.

### Strengths

- Combines Microsoft specialism with turnkey solutions: Orbus iServer365 natively integrates Microsoft Teams, SharePoint, Power BI and Power Automate features. Orbus has also created a portfolio of more than 70 templated self-service (or guided) solutions that are use-case-based — from business strategy to IT operations — to reduce time to value.
- Variable product, pricing and marketing approach: Orbus has different sales and delivery strategies to address client-specific situations. These strategies include regional licensing models combined with client maturity-based solutions, differentiated for technology- or business-focused organizations. Orbus further differentiates its strategies for small organizations to large enterprises and business and IT roles.
- Extensive industry standards and framework templates reduce learning curve and adoption: Orbus iServer365 includes industry standards-based diagram and model templates for a wide variety of needs, including government, finance, insurance, healthcare, telecom, as well as generic BIZBOK industry models. In combination with a variety of role-based modeling capabilities, it reduces time to adopt and benefit from the product.

### Cautions

- Microsoft technology specialism: For iServer365, Orbus applies a Microsoft-centric approach for the platform and embedded collaboration, visualization and automation capabilities. To benefit from the embedded Microsoft features, clients need to bring their own Microsoft 365 Business licenses. Organizations that have not or don't plan to adopt Microsoft 365 as a platform should assess iServer365 alternatives.

- Cloud growth requires successful migration of existing iServer clients: Orbus indicates that it has good market traction for iServer365, and that 85% of its iServer clients are considering the migration to iServer365. However, considering the currently still limited client base of iServer365, the vendor must continue to invest in iServer services and support, while expanding the functionality of iServer365 in an increasingly competitive EA tools market.
- Concentrated industry focus: Orbus has created cross-functional teams focused on industry propositions, with financial services, government and healthcare organizations as a particular focus. As the majority of all after sales and support is delivered directly by Orbus, organizations outside these focus industries should assess the experience and support capabilities of Orbus and its partners.

## Planview

Planview is a Challenger in this Magic Quadrant. Planview Enterprise One is offered on-premises, hosted or on public cloud as a SaaS solution. Planview's operations are mainly based in North America and Europe. Its clients span multiple industries, with a larger presence in insurance, financial services and manufacturing. Planview's Enterprise One roadmap includes improved support for objectives and key results (OKRs), interactive roadmapping, and impact assessments.

### Strengths

- Enterprise change management: Planview evolved from being a PPM vendor to integrating EA functionality, and it frames EA within its project and portfolio tooling, providing the enterprise with an integrated view of change. Its approach is to engage a wide variety of stakeholders to remove strategy and execution silos and provide information to, and consume the benefits of, the core EA repository.
- Integrated product portfolio: With the functionality of the acquired Trous product well embedded, Planview Enterprise One ties together business capabilities, architecture planning, portfolio management and agile delivery. Ideation and visualization tools complement the offering.
- End-to-end support: Planview's Customer Success Managers, along with its support and globally spread operation teams, allow it to offer 24/7 technical and functional support to customers. Planview has achieved SOC-2 Type II, ISO27001 and NIST 800-53 certifications. If required, it offers application administration managed services at a separate cost.

### Cautions

- Primary focus on PPM: Given its primary marketing focus and online presence is on PPM, it needs to scale its EA capabilities messaging to be seen as a serious EA tool contender. Having set out the vision where EA acts as a critical cornerstone for an integrated view of change across the enterprise, Planview needs to execute and convert that into broad market acceptance.



- Partner reliance for industry expertise: Planview applies an industry-agnostic approach to market engagement and relies on partners for vertical expertise. This generalist/horizontal go-to-market strategy limits its competitiveness, especially for customers looking for more vertically focused solutions.
- Lack of modularity: Planview intends on keeping its EA and PPM tools fully integrated for the foreseeable future. As competitors in the market are moving to more modular solution options, where customers can choose which functionality to purchase, the lack of flexibility on what to buy can serve as a competitive disadvantage.

## **QualiWare**

QualiWare is a Challenger in this Magic Quadrant. QualiWare X is delivered as either a fully hosted SaaS solution, on-premises or on a private cloud. With operations focused in Europe and North America, the vendor has customers across the government, energy, finance and manufacturing sectors. The roadmap includes a higher degree of automation by integrating with tools such as ERP, CMDB and ITSM, embedding end-user guidance within the tool and increased support for cloud, API and security architecture.

### Strengths

- Focus on ecosystem collaboration: QualiWare was quick to provide collaboration support for key external stakeholders. With support for customer journey mapping and business ecosystems, the product supports enterprise architects taking an outside-in assessment of business operations and processes.
- Extensive partner network: In addition to its presence in Europe and North America, QualiWare has ensured implementation support through 34 partners worldwide, applying its “Powerhouse” principle of sales and delivery support to partners. Its partners extend support in Latin America, Middle East and Asia/Pacific, and more specifically in countries such as Brazil, Canada, Saudi Arabia, South Korea and Australia.
- Support for industry verticals: With its focus on large complex organizations in regulated industries, QualiWare has invested in distinct assets covering relevant government EA frameworks like GWEA and EIRA, support for SCOR and Industry 4.0 for manufacturing, and oil and gas and life sciences asset management capabilities.

### Cautions

- Generic marketing strategy: QualiWare’s messaging focuses on collaboration, compliance, risk and business process management. This misses the opportunity to draw attention to any differentiators that position EA as providing better business alignment and actionable insights, and to create a shared operating model of the organization.
- Slow growth due to limited differentiation: The pace of QualiWare’s growth has considerably slowed compared to other cloud-native and rearchitected tools in the market. This indicates that the value proposition

of the vendor's product is not differentiated enough to consistently win new business against competitors in the market.

- Limited in-app support capabilities: QualiWare's functionally rich product needs simplification to make it more accessible to new customers. With its customer success program and online learning material, QualiWare needs to add in-app customer support capabilities for real-time guidance.

## **Software AG**

Software AG is a Leader in this Magic Quadrant. Software AG's Alfabet Enterprise is available on-premises, as a SaaS offering and as a hybrid solution. Its operations are geographically diversified, and clients span all industries. The roadmap includes continued investments in usability enhancements, data acquisition integrations and AI-enabled analysis, as well as value-stream-driven support for product-centric transformations.

### Strengths

- Integration of scaled agile capabilities from ideation to operation: Software AG has used scaled agile and DevOps principles to expand its collaboration, analysis, visualization and process/workflow capabilities and in support of strategy, operating model, and value-stream-driven design, planning and delivery use cases.
- Lower cost entry SaaS option using the same codebase: Alfabet FastLane is a preconfigured SaaS version of Alfabet Enterprise, built on the same codebase. It offers a reduced set of functionality to support common EA-related roles and use cases, with a range of dashboards and visualizations. The limitations of Alfabet FastLane make it easier for customers to get started and then transition to Alfabet Enterprise as their needs grow.
- Large federated organization support and vertical industry benefits: Software AG offers a wide product portfolio and has a significant global footprint to engage and build partner ecosystems to support its sales and business operations. It has industry-specific teams and has embedded a range of features, industry-specific frameworks and reference models in Alfabet to support large distributed and federated organizations.

### Cautions

- Dual repository challenges: Customers wanting business process management alongside their EA repository are encouraged to configure, maintain and pay for both Alfabet and ARIS for process modeling. While Software AG offers mechanisms for interoperability between the two repositories, this dual product strategy exacerbates the challenge that customers face in keeping their information repositories up to date.
- Complex licensing models: Software AG's product licensing combines a mandatory transformation server with user type licensing and offers additional server packages or alternative usage-based pricing models, all subject to negotiation with nonlinear volume discounts. In addition, most clients require

professional services, which lead to a relatively large cost for the large enterprises that Software AF focuses on.

- Limited FastLane roadmap and support: While Alfabet FastLane offers an entry-level EA product for small to large organizations, Software AG's direct sales and professional services mainly focus on large enterprises and Alfabet Enterprise. It relies on its online channels and partners to sell and support Alfabet FastLane. Software AG should consider a dedicated roadmap and associated Alfabet FastLane services to demonstrate its commitment to the Alfabet FastLane user community.

## **UNICOM Systems**

UNICOM Systems is a Niche Player in this Magic Quadrant. Its System Architect suite is offered on-premises, on private cloud or stand-alone. Primarily sold in North America, UNICOM is strongest in the government sector, especially defense. The System Architect suite roadmap includes expansion of SysML and UML 2.5 capabilities, enhancing the overall experience and usability of the tool.

### Strengths

- Follow the sun support capabilities: UNICOM Systems provides 24/7 support for users across the globe. This support is able to handle complex requests for service with product management and development experts stepping in to resolve beyond that. With a global presence, UNICOM is well-positioned to support customers through installation and with day-to-day needs.
- Simple pricing model: UNICOM Systems has created a straightforward pricing model where customers can choose between node-locked (each workstation must have a license) or floating (licenses can be shared across the local network) licenses. Maintenance is simply 20% of the license costs. UNICOM has unbundled the core product from the web client and other optional features.
- Dedicated industry and geography focus: UNICOM Systems has developed specific capabilities to align with the U.S. federal government and defense market's needs. UNICOM supports FEAF and DoDAF, along with numerous other industry frameworks. It has developed a specialized sales team to engage with government clients, and continuously ensures its product's interoperability with federal security and risk regulations.

### Cautions

- Legacy user interface with long learning cycle: System Architect is still based on a legacy UI that relies on extensive, non-intuitive drop-down and menu selections for navigation. This can slow adoption of the tool and limit the use across stakeholders. This is further impacted by the reliance on its support teams to handle customer onboarding and day-to-day needs, instead of allocating customer success managers as primary support.
- Product technology requires uplift: System Architect has been in this market for more than 30 years, and UNICOM Systems continues to invest in the product. However, without significant reinvention of the foundations to

securely deliver and support a cloud-native SaaS offering, System Architect will get left behind by more nimble and cloud-native competitors.

- Limited growth opportunity: Due to UNICOM Systems' focus on the federal sector and its lack of a SaaS product, the potential growth of the product in both the near-term and the long-term is challenged. This is exhibited via its slow acquisition of new clients and additions of new users, and points to a business model change to accelerate demand.

## ValueBlue

ValueBlue is a Niche Player in this Magic Quadrant. Its BlueDolphin product is offered as a SaaS-based solution on Azure. With operations focused in Europe, its clients are primarily small to midsize organizations in the finance, retail, government, education and healthcare sectors. BlueDolphin's roadmap includes AI-based advice, enhanced data, process and application integration, along with UI changes to facilitate collaboration.

### Strengths

- Improved support for relationships and collaboration: ValueBlue continues to improve with support for canonical data modeling, capability modeling, extensible relationships and more presentation features. It provides improved collaboration support with notifications, messaging and a presentation mode.
- Supports EA agility: Echoing the need for speed to value, ValueBlue provides a collaborative central repository with preconfigured implementation templates and changes being reflected in real time. It has added features aimed at collaboration across business and IT roles, not only IT architecture-related personas.
- Easy startup: BlueDolphin has a relatively short learning curve and a reasonably accessible user interface. The vendor offers an in-platform knowledge base, an interactive onboarding tour and also features in-app chat support with immediate response. Additionally, with a structured customer success program, the vendor aims to improve the customer experience of BlueDolphin.

### Cautions

- Limited geographic presence: ValueBlue is a small company with almost all of its staff in the Netherlands and most of its clients in Europe. While the vendor is working to open offices outside of its home market, that effort is still nascent. As it expands, it must develop a geographic strategy and related local resources to maintain its customer experience and support.
- Appears less targeted to high-maturity customers: ValueBlue's product has support for a broad set of user personas and has created a simplified step-by-step model for clients to follow. This is a benefit for low-maturity clients, but the tool's simple UI and lack of in-depth functionality across all use cases diminishes its appeal to higher-maturity customers when compared to ValueBlue's cloud-native peers.

- Limited industry focus: ValueBlue has prebuilt assets and dedicated sales attention for its focus industries, especially financial services, retail and government. While this is a wise decision for a small company, potential customers in other industries should assess and validate ValueBlue's understanding of and attention to their specific industry requirements.

## Inclusion and Exclusion Criteria

The inclusion criteria represent the specific attributes that analysts believe are necessary for inclusion in this research. To qualify for inclusion in the EA tools Magic Quadrant, vendors must meet all the criteria as set forth across the following three dimensions:

- Performance: To qualify for inclusion in the 2021 Magic Quadrant, during 2020 the vendor had to have one of the following:
  - \$8 million or more per year in EA tool perpetual licensing revenue
  - \$5 million in annual recurring revenue (ARR) in SaaS subscription revenue
  - Achieved 50% year-over-year revenue growth for the past three years (as validated by the vendor's financial officer)

Perpetual license revenue includes software license, maintenance and upgrade revenue for higher tiers of product, but excludes hardware and professional services. A SaaS subscription includes annual contract value but excludes any professional or support services included in such yearly contracts. For multiyear agreements, include only the contract value for the calendar year 2020.

- EA Tool Market Focus: In 2020, your organization must have had an installed base of at least 50 production customers (that is, unique logos) who use your product in production. Said go-to-market products/offerings must be available to all clients as part of a standard release as of 30 April 2021. Product/offering must demonstrably support at least four out of five use cases and include/embed all capabilities as described in the Market Definition section.
- Market Momentum: The organization must have demonstrated market momentum in 2020 through a minimum of at least five new customer wins (net new logos) in each of a minimum of two of the four major geographic regions (major global regions are defined as EMEA, Asia/Pacific, North America and Latin America). That is a total of 10 new customers in two regions in 12 months.

## Evaluation Criteria

### Ability to Execute

We evaluated vendors' ability to execute in the EA tool market by using the following dimensions and criteria.

Product or Service: We assessed the core product and services the vendor offers to the EA tool market. This includes current product/service capabilities, quality, feature sets and skills, and whether offered natively or through OEM agreements/partnerships as defined in the market definition and detailed in the subcriteria. We assessed any reliance on third-party products, especially where products required separate licensing. We also assessed products on how well they met the core and optional capabilities, as defined in the market definition. We used subcriteria and weightings to calculate scores for:

- Core capabilities
- Optional capabilities
- Other differentiators

Overall Viability: This included an assessment of the organization's overall financial health and the financial and practical success of the business unit. This also included an assessment of the likelihood that the organization will continue to offer and invest in the product, as well as advance the product's position within the organizational product portfolio. We looked at all forms of growth, including organic growth as well as acquisition and securing additional funding. We valued organic growth more highly than other types of growth. Subcriteria used in this section included:

- Percentages of new customers acquired compared with previous years.
- Change in annual revenue over the past three years and the profitability of the EA tool business.
- Current size and market share.

Sales Execution/Pricing: We explored the vendor's sales execution and pricing, including its presales activities and the structure that supports them. This included their responsiveness in sales engagement, deal management, pricing and negotiation, presales support, and the overall effectiveness of the sales channel. We also evaluated renewal rates compared to reported losses due to nonrenewals. Subcriteria used include:

- Analysis of revenue including (but not limited to) new EA tool customers, renewal rates, average deal size and list prices.
- Clear and transparent pricing policies, preparedness of the vendor to publicly disclose its pricing structure, and how easy it is for prospects and customers to understand quotations.
- Flexibility in negotiation.

Market Responsiveness and Track Record: We considered the vendor's history of responsiveness to customer requests and changing market needs. We give high marks to vendors that were able to respond quickly and change development and/or company direction to meet the needs of an evolving marketplace. Subcriteria used include:

- Mechanisms for listening to and responding to customer needs.

- Number of product releases/updates per year.

Marketing Execution: We looked for clarity, quality, creativity and efficacy of marketing programs designed to influence the market, increase product awareness, and build a positive perception of the product/brand in the minds of customers. Along with web presence, mind share drivers included a combination of publicity, promotional initiatives, thought leadership, word of mouth, social media, referrals and sales activities. Subcriteria used include:

- EA-specific events run or attended.
- Ease of finding specific/targeted EA-related information on the organization's website.
- Mind share programs aimed at growing the EA market, such as podcasts.

Customer Experience: We sought evidence of how products and services enabled customers to achieve anticipated results. We gave high marks for an excellent track record of successful implementations. We looked for clearly articulated mechanisms for ensuring customer success, how customers receive support and at what cost. We examined organizational responsiveness, availability of user groups and service-level agreements. We also factored in how customers experienced doing business with the vendor and their perceptions of the organization. Subcriteria used include:

- Explanations of how the vendor supports its customers, from onboarding to resolving issues.
- How long the tools take to implement; that is, the time from acquisition to when customers have configured the metamodel.

Operations: We evaluated the vendor's ability to meet its goals and commitments. Factors considered included the quality of the organizational structure (such as skills, experiences, programs, systems, the underlying infrastructure, and other vehicles that enable effective and efficient operations). Subcriteria used include:

- Quality and other standards the vendor has achieved.
- Number of different roles engaged in a typical sale and number of approvals required to confirm a deal.
- Number of employees dedicated to major business functions across: (1) strategy, (2) development, (3) marketing, (4) business development, (5) sales, (6) runtime operations, (6) support and (7) professional services.

**Table 1: Ability to Execute Evaluation Criteria**

Enlarge Table

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| Evaluation Criteria          | Weighting |
|------------------------------|-----------|
| Product or Service           | High      |
| Overall Viability            | Medium    |
| Sales Execution/Pricing      | High      |
| Market Responsiveness/Record | Medium    |
| Marketing Execution          | Low       |
| Customer Experience          | Medium    |
| Operations                   | Medium    |

Source: Gartner (October 2021)

## Completeness of Vision

**Market Understanding:** We evaluated the vendor's understanding of customer needs and how it translates that into products and services. We looked for vendors to demonstrate a clear vision of their market, as well as how they listened for and understood their customers' underlying needs and used that to shape or enhance the market. Subcriteria used included:

- Trends that the vendor expected will affect its EA tool offerings over the next three years.
- Demonstrated understanding of the different use cases for EA tools and the needs of the different personas that use such tools.
- Clarity on how the vendor sees the EA tool market evolving and new use cases emerging.

**Marketing Strategy:** We sought clear, differentiated messaging that was consistently communicated internally and externalized through the website, social media, advertising, customer programs and positioning statements. Subcriteria used include:

- Clear, consistent messages targeted at EA practitioners and their needs.



- Clarity of messages to different types of architecture audience.
- Marketing initiatives in support of the above.

Sales Strategy: We wanted to understand the vendor's sales strategy and how it leveraged direct and indirect sales, marketing, service and communication. We also examined the use and reliance on partners to extend the scope and reach of the vendor, focusing on the levels of expertise and technology required, as well as the partner's services and customer base. Subcriteria used include:

- Profiles or personas of target customers and the different sales strategies that focus on the unique needs of customers of different sizes, levels of maturity and geographic locations.
- Size and positioning of dedicated sales resources for EA tools.
- Number and size of partners delivering consulting services in support of clients setting up an EA program.

Offering (Product) Strategy: We explored the vendor's approach to developing a compelling product and service vision with an emphasis on market differentiation, functionality, methodology, and features as they map to current and future requirements. We used subcriteria and weightings for:

- Core capabilities
- Optional capabilities
- Other differentiators

Business Model: Our assessment explored the design, logic and execution of the vendor's business proposition. This included support for customers in different deployment modes alongside the vendor's business capabilities, its overall value propositions, related profit models and the resources at its disposal. Subcriteria used include:

- Evidence of sustainability and profitability.
- How long-term customer relationships are established.
- The vendor's plans, or current ability, to "unbundle" their product and offer componentized features.

Vertical/Industry Strategy: We assessed the vendor's strategy to meet the unique needs of individual market segments. We considered how the vendor directed its resources (sales, product and development), skills and offerings to focus on support for different vertical markets. Subcriteria used include:

- Demonstration of strategies to target and support different industries, and any partnerships that address specific vertical markets.
- Support for vertical industry standards and frameworks.
- Percentages of revenue expected from the top vertical/industry sectors.

Innovation: We explored the vendor’s innovation vision, considering its resources, expertise and capital for investment. We were looking for a strong product vision that pushes the market forward and ideas for future differentiating business capabilities. Subcriteria used include:

- Demonstrations of how the vendor has been innovative (rather than “following the pack”).
- Examples of how the vendor proposes to deliver future innovation covering both product and business model — especially in response to the needs of digital business and the impact of disruptive, digital technologies.

Geographic Strategy: We looked at the organization’s strategy and ability to direct its resources, skills and offerings to meet the specific needs of regions outside its “home” or native region. Subcriteria used include:

- Owned resources versus those of partners in each of the four major geographic regions (North America, EMEA, South America and Asia/Pacific).
- How prospects are converted to clients and how support is provided globally.
- The percentage of customers in each of the four major geographic regions.

**Table 2: Completeness of Vision Evaluation Criteria**

Enlarge Table

| Evaluation Criteria         | Weighting |
|-----------------------------|-----------|
| Market Understanding        | High      |
| Marketing Strategy          | Medium    |
| Sales Strategy              | Medium    |
| Offering (Product) Strategy | High      |
| Business Model              | Medium    |
| Vertical/Industry Strategy  | Medium    |

| Evaluation Criteria | Weighting |
|---------------------|-----------|
| Innovation          | High      |
| Geographic Strategy | Medium    |

Source: Gartner (October 2021)

## Quadrant Descriptions

### Leaders

Leaders have a deep understanding of the realities of the market, a reliable global delivery record, an ability to influence the market’s direction, along with an ability to attract and keep a growing customer base. In the EA tool market, leadership implies understanding, facilitating and supporting the strategic role enterprise architects play at a much broader level. They are more business-strategy-focused, with a shared operating model at the business level that helps drive the relationship with IT. Leaders must not only demonstrate a market-leading vision, but also the ability to execute on that vision.

At this point in development of the EA tool market, eight vendors have sustained excellence in both execution and vision long enough to demonstrate effective leadership. Customers should note that a Leader is not always the best choice. A focused, smaller vendor can provide excellent support and commitment to suit individual needs. Other vendors may provide a certain capability — such as a focus on your industry, better cost performance ratio, or a commitment to specific features or functions — that is important to your organization. This more focused type of vendor would not appear as a Leader in the overall EA tool market, but, within a specific market segment, it may well be treated as one.

### Challengers

Challengers excel in their ability to attract a large user following, but this ability is limited to a subset or a segment of the market. For that target audience, Challengers are effectively Leaders, but that specificity presents a barrier to adoption for those outside that subsegment. For instance, in the EA tool market, a Challenger may have a strong, proven presence or following, but lacks sophistication in the evolving use cases for EA tools. Alternatively, a Challenger might understand those use cases well and achieve a strong following in its home market, but still struggle to deliver the same levels of success on a global scale.

Three vendors are rated as Challengers in the EA tool market this year. Both of these vendors have proven track records for executing on the mission of EA but are either struggling to shift their customer-base forward or have not fully focused on the EA market and refined their vision.

Although Challengers typically are of significant size and have significant financial resources, they may lack elements of the vision we expect, innovative ideas and plans, or an overall understanding of market needs. In some cases, Challengers may offer products that dominate a large, but shrinking, segment of the market. Challengers can become Leaders if their vision develops. Large companies may move between the Challengers and Leaders quadrants as their product cycles and market needs shift.

## Visionaries

Visionaries in a market are the innovators driving the market forward by responding to emerging, leading-edge customer demands and by offering new opportunities to excel. Typically, these vendors appeal to leading-edge customers and may even have minimal mainstream presence or name recognition. Their ability to deliver sustained and dependable execution in the mainstream enterprise market is not sufficiently tested. Visionaries enable model-driven enterprises, focusing deeply on the business and its strategy rather than on the traditional fixation of EA on the scope of IT.

Within the EA tools market, there is only one Visionary vendor. This vendor is highly disruptive to the established players with its open-source offering for unlimited users and low-cost support service subscription. Visionaries can eventually grow to become Leaders. Alternatively, they may decide to limit their target markets to focus on their core competencies, core technologies or existing customers and become Niche Players. They could also develop their specialties to advance in execution and become Challengers.

## Niche Players

Niche Players choose to operate in a subsegment of a market, or they have a limited ability to innovate or outperform other vendors in the wider market. This limitation may result from a focus on a particular area of functionality, vertical industry or region, or because they are new entrants. Alternatively, Niche Players may struggle to remain relevant in a market that is moving away from them. Niche Players may have reasonably broad functionality, but limited implementation and support capabilities and relatively limited customer bases.

The EA tool market has four Niche Players. Some of these vendors have transitioned from other markets and need to focus fully on EA in order to progress. A couple remain stagnant in their vision and have limited ability to execute. Others lack the modern architecture of many of the vendors in the Challengers, Leaders or Visionary quadrants.

Assessing Niche Players is more challenging than assessing vendors in other quadrants. This is because some could make progress, while others may not execute well, and/or lack the vision and means to keep pace with broader market demands. Even if a Niche Player seems perfect for your requirements, it is probably developing contrary to the market's overall direction, in which case it can represent a risky choice with limited long-term viability.

## Context

This Magic Quadrant focuses on EA tool vendors' placement in the market, not specifically on the capabilities of their products (for a more detailed evaluation of the products, see [Critical Capabilities for Enterprise Architecture Tools](#)). Only two of the 15 evaluation criteria in this Magic Quadrant relate to product or service functions. The other 13 evaluation criteria focus on the vendors' ability to meet the requirements of this market (for details, see the Inclusion and Exclusion Criteria and Evaluation Criteria sections).

As part of our evaluation process, we used five key use cases that we believe are important to enterprise architects, as well as senior leadership that vendors need to support to maintain relevance in the EA tool market:

- Capture, structure, analyze and present models. EA practitioners need to model future and current-state business capabilities, processes and rules, information, resources, ecosystems, applications, products, and services.
- Support change, transformation and optimization. Enterprise architects plan and track change, including facilitating the development of new services and products, as well as supporting acquisitions, mergers and divestitures.
- Assess and manage an evolving IT portfolio. Delivering business value means designing services, managing IT portfolios and solution architecture, guiding technology projects, cost/revenue optimization and risk mitigation.
- Enterprise architecture management. To meet the demands of stakeholders, EA leaders need to deliver an agile and compelling set of services and manage the knowledge and resources at their disposal.
- Innovation. This includes helping organizations track and leverage emerging trends and digital technologies with support for structured, flexible and iterative methods and tools.

## Market Overview

EA teams considering their EA tool usage can:

- Mistakenly limit their scope to cataloging the life cycles and constraints of the existing IT systems, applications and technologies. Traditional EA teams tend to limit their EA tool usage to focus on the needs of IT colleagues: identifying and deconstructing the IT-related elements and components that constrain the organization.
- Miss the opportunity for EA tools to capture the business architecture and strategy of the organization. When seen in a broader business context, EA tools provide a shared, single source of the truth and the basis for a shared operating model across the wider enterprise (beyond the scope of IT).

While technology systems are important, they represent only a subset of the needs of the wider enterprise. For example, a change project may revolve around the emergence of a new product that involves bringing on new suppliers, with a fundamentally different customer experience. Planning for that launch involves a completely different set of stakeholders than an IT project.

When rooted in the business strategy and goals of the organization, the discipline of EA creates a better-aligned enterprise that uses a cohesive and comprehensive set of models to shape and drive its future. An EA tool helps capture and relate all those different models and elements.

This sort of activity is part of a wider trend, where organizations are becoming more and more “model-driven,” for example delivering:

- Operating models and business models: To help the organization consider its goals, objectives and future structure.
- Service and ecosystem models: To support a composable business architecture, enabling the organization to quickly adapt.
- Design thinking models: Customer journeys and personas create a more customer-focused enterprise.
- Process and decision models: To support operationalization and automation both within a workgroup and across applications.
- Change programs and project plans and sprints: Models of how the organization will coordinate its resources to meet the challenges in hand.

The Leader and Visionary vendors in this Magic Quadrant understand and support that broader vision. They have set out to support organizations working across an enterprisewide change canvas. Delivering against a change scope that wide implies a cloud-based delivery model because participants up and down the value chain need to collaborate.

However, when it comes to EA tools, there is a big difference between “web-enabled” and “cloud-native.” Most of the traditional EA tool vendors have added cloud access to their SQL-based repositories and are transitioning away from their legacy client/server or desktop product architectures. These tools live on in their complex setup and configuration mechanisms. On the other hand, new market entrants have adopted a stronger cloud-native stance, architecting the core of their products around modern graph databases and elastic compute functions. We have explored the implications of these sorts of features in the Critical Capabilities research that accompanies this Magic Quadrant.

## Challenges for EA Tool Deployments

Given the scope of potential EA tool users — from the board room and c-suite, across the entire enterprise and into IT and the EA team — there are three major challenges that the organizations must overcome:

- Initially structuring and continually restructuring the repository. Most EA tools pride themselves on the “extensibility of the metamodel.” What that really means is that an EA tool can represent just about any sort of business concept or create the ability to capture/derive any metric. In other words, once you move past the out-of-the-box structure provided by the vendor, you must work out which problems you want to solve, and then how to represent that in the metamodel. The complexity of addressing this issue should not be overlooked. It involves looking into the future to predict the value desired, how

to get there within this specific tool, and who should contribute to and consume that value. This is a “wicked problem” situation, where the understanding of the challenge only unfolds the more deeply one gets into it. Often, EA tool vendors have built significant professional services and consulting practices to help customers overcome this challenge. These services are charged separately as enablement for add-on modules or setup/configuration services.

- Populating the repository with consistent and usable information. First, the organization must inventory its objectives, programs, products, projects, capabilities, applications and technologies. Then it needs to capture appropriate metadata around each (as defined in the metamodel) and define the right relationships between the individual elements in the repository. Much of the information needed is the responsibility of colleagues and subject matter experts (SMEs) across IT and the wider business. That means setting up appropriate access controls and engaging these SMEs to enter their data (typically using survey mechanisms). It also implies structuring the tool correctly such that SMEs receive the right context that allows them to provide accurate and usable information.
- Maintaining the repository and evolving its use over time. This presents the greatest barrier to organizations realizing long-term value from their EA tool investment. Typically, organizations fail to appreciate the heavy maintenance burden associated with these repositories and the complex models built within them. Organizations need to regularly revisit the processes and models in the repository. The tools themselves usually include some support with out-of-the-box workflows and reminders to ensure regular attestation and update of this information by SMEs. Maintaining content requires formal governance, allocating ownership for all artifacts in the repository and ensuring owners are also measured on maintaining the currency of the artifacts. In reality, most organizations end up with a specialized team to maintain the repository and engage artifact owners to ensure accuracy. With enterprise-level commitment, EA tools become an integral part of the corporate mindset and way-of-working, and that is what EAs should strive for.

On top of these complications, successful adoption and value delivery are framed by the need for careful organizational change management. The EA tool itself is usually only a small component of the wider change in governance and business practices of the enterprise on the journey to business transformation.

## Clarify Benefits and Objectives Prior to Purchase an EA Tool

When properly applied and with commitment to use, the value a well-orchestrated EA tool can deliver to an organization of any size dwarfs the spend necessary to make it happen. However, most companies perceive EA tools as a disconnected document repository to archive IT technology architecture-related content. Some see it as a modeling tool to draw technology architecture graphics and solutions, store principles and policies, and guide technology projects. It's these perceptions that need to be addressed before assessing any EA tool. What do you want to use it for? EA tools are far more than simple repositories. However, to realize the potential

value, organizations need to commit more than a few (enterprise) architects to use a tool versus an enterprise-level strategic information asset that it can be or become.

It is this mindset that also inhibits the return on investment analysis of EA tools. It positions EA tools as a system of record, not a system of differentiation. To make matters worse, EA vendors are not helping with their pricing models. With a few exceptions, EA tool license costs are driven by a combination of modules/features selected and tiered bands of user pricing. Those users are typically categorized across power users, content contributors and content consumers. This common model produces a pricing structure that is flexible but complex, and that often results in increasingly expensive license fees with growth in the user base or functionality. And without measurable and demonstrable proof of benefits generated, it reverts back to a procurement discussion, not a value discussion.

As a consequence, customers tend to limit tool usage to just the core of the EA team, which, in turn, means that the EA team acts as gatekeepers. This almost guarantees that the true value of the EA repository fails to materialize. Rather than broad adoption, the use of the EA tool becomes the provenance of the inhabitants of the “EA ivory tower.” Using EA tools in this way limits the overall value to the enterprise. Gartner recommends opening up the information contained in the repository to a broader set of decision makers (for example, for investment prioritization, creation of a bill of materials for delivery teams, analysis of compliance and predicted impact over time).

While some vendors provide free, or very-low-cost, publishing and integration mechanisms to share the contents of the repository, the difficulty comes in drawing the line between content consumption, contribution and modeling. With dominant vendors attempting to rationalize their pricing models, the major development is the emergence of a viable open-source offering, where any number of users can freely access the repository. Customers only pay for a relatively low-cost support subscription.

## Market Trajectory

EA tools provide a centralized, consolidated source of truth about the enterprise. EA tools capture the constraints of the IT assets, processes, value streams, change programs and projects. It relates these to support business strategy and the enterprise’s ecosystem of relationships up and down the value chain. They provide a critical resource to help organizations mature and improve their business operations as well as the enterprise’s operating model. They are increasingly integrated directly with tools in adjacent categories, such as PPM, CMDB and innovation.

Many of the vendors considered in this research provide tooling to integrate directly with leading providers, such as ServiceNow and Jira. This trend will continue with EA tools providing the ability to accurately describe the connective tissue that ties together all the different elements of the patchwork quilt needed to support the modern enterprise. We also expect to see some of the big players in these adjacent territories flex their muscles, either buying or launching their own EA tools.

## Acronym Key and Glossary Terms



|           |   |
|-----------|---|
| CMDB      | A configuration management database is a repository that is designed to store many of the components of an information system. A key goal of a CMDB is to help an organization understand the relationships between different components and track their configuration.   |
| eTOM      | An enhanced Telecom Operations Map is a framework for enterprise processes in the telecommunications industry.  |
| ISO 27001 | The International Organization for Standardization. This is the standard that sets out the specification for an information security management system.   |
| ITSM      | Information technology service management   |
| Metamodel | A metamodel or surrogate model is a model of a model, and metamodeling is the process of generating such metamodels. Metamodels catalog each type of component in an enterprise architecture, provide detailed definitions, document the relationships between one component and another, define the structure and configuration of the architecture itself and help users understand the structure and behavior of the architecture. |
| ML        | Machine learning  |
| OKRs      | Objectives and key results  |
| SaaS      | Software as a service   |
| SOC 2     | System and Organization Control; SOC 2 is an auditing procedure that ensures your service providers securely manage your data to protect the interests of your organization and the privacy of its clients.   |

|       |   |
|-------|---|
| SysML | The Systems Modeling Language (SysML) is a general-purpose modeling language for engineering systems. |
|-------|---|

## Evaluation Criteria Definitions

### Ability to Execute

**Product/Service:** Core goods and services offered by the vendor for the defined market. This includes current product/service capabilities, quality, feature sets, skills and so on, whether offered natively or through OEM agreements/partnerships as defined in the market definition and detailed in the subcriteria.

**Overall Viability:** Viability includes an assessment of the overall organization's financial health, the financial and practical success of the business unit, and the likelihood that the individual business unit will continue investing in the product, will continue offering the product and will advance the state of the art within the organization's portfolio of products.

**Sales Execution/Pricing:** The vendor's capabilities in all presales activities and the structure that supports them. This includes deal management, pricing and negotiation, presales support, and the overall effectiveness of the sales channel.

**Market Responsiveness/Record:** Ability to respond, change direction, be flexible and achieve competitive success as opportunities develop, competitors act, customer needs evolve and market dynamics change. This criterion also considers the vendor's history of responsiveness.

**Marketing Execution:** The clarity, quality, creativity and efficacy of programs designed to deliver the organization's message to influence the market, promote the brand and business, increase awareness of the products, and establish a positive identification with the product/brand and organization in the minds of buyers. This "mind share" can be driven by a combination of publicity, promotional initiatives, thought leadership, word of mouth and sales activities.

**Customer Experience:** Relationships, products and services/programs that enable clients to be successful with the products evaluated. Specifically, this includes the ways customers receive technical support or account support. This can also include ancillary tools, customer support programs (and the quality thereof), availability of user groups, service-level agreements and so on.

**Operations:** The ability of the organization to meet its goals and commitments. Factors include the quality of the organizational structure, including skills, experiences, programs, systems and other vehicles that enable the organization to operate effectively and efficiently on an ongoing basis.

### Completeness of Vision

**Market Understanding:** Ability of the vendor to understand buyers' wants and needs and to translate those into products and services. Vendors that show the highest

degree of vision listen to and understand buyers' wants and needs, and can shape or enhance those with their added vision.

**Marketing Strategy:** A clear, differentiated set of messages consistently communicated throughout the organization and externalized through the website, advertising, customer programs and positioning statements.

**Sales Strategy:** The strategy for selling products that uses the appropriate network of direct and indirect sales, marketing, service, and communication affiliates that extend the scope and depth of market reach, skills, expertise, technologies, services and the customer base.

**Offering (Product) Strategy:** The vendor's approach to product development and delivery that emphasizes differentiation, functionality, methodology and feature sets as they map to current and future requirements.

**Business Model:** The soundness and logic of the vendor's underlying business proposition.

**Vertical/Industry Strategy:** The vendor's strategy to direct resources, skills and offerings to meet the specific needs of individual market segments, including vertical markets.

**Innovation:** Direct, related, complementary and synergistic layouts of resources, expertise or capital for investment, consolidation, defensive or pre-emptive purposes.

**Geographic Strategy:** The vendor's strategy to direct resources, skills and offerings to meet the specific needs of geographies outside the "home" or native geography, either directly or through partners, channels and subsidiaries as appropriate for that geography and market.

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