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Magic Quadrant pour les outils d'architecture d'entreprise

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Les outils EA aident à imaginer, modéliser et planifier l'avenir de l'entreprise, avec des fonctionnalités permettant de faire évoluer en permanence les modèles commerciaux et opérationnels. Les responsables de l'architecture d'entreprise et de l'innovation technologique doivent sélectionner des outils EA qui soutiennent les objectifs de transformation, de modernisation et d'innovation à long terme.

Définition/Description du marché

Les outils d'architecture d'entreprise (EA) permettent aux organisations d'examiner à la fois le besoin et l'impact du changement. Ils capturent les interrelations et les interdépendances au sein et entre un écosystème de partenaires, de modèles d'exploitation, de capacités, de personnes, de processus, d'informations, d'applications et de technologies.Ils fournissent un référentiel central pour capturer des données et des métadonnées sur les artefacts dont une entreprise se soucie et leurs cycles de vie associés. Les modèles représentent les relations entre ces artefacts et sont eux-mêmes traités comme des actifs qui aident à décrire et à façonner l'avenir de l'entreprise. Les outils EA facilitent les décisions d'investissement pour l'informatique et l'entreprise au sens large. Lorsque les modèles sont combinés avec des données de performance opérationnelle, ils peuvent aider à améliorer les résultats commerciaux et façonner la construction et le développement continu des plateformes numériques.

Les outils EA doivent inclure des fonctionnalités pour (voir Capacités critiques des outils d'architecture d'entreprise pour des descriptions détaillées) :

- **Repository:** Provides a single source of truth for the organization with storage, categorization and versioning of objects, models and artifacts of various sorts, as well as the relationships between them and related business artifacts and views.
- Modeling: Structures 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: Ability to identify, assess, prioritize and track gaps, challenges, opportunities and risks within and across portfolios of business capabilities, investments, processes, projects, applications and technologies.
- **Presentation**: Displays and illustrations of information in the form of dashboards, heat maps, models and scenarios that contribute to the presentation capability of the tool. This helps colleagues understand and assess the impacts associated with decisions and proposed solutions.
- Usability: Ease-of-use features and functions that enable support for various classes of users. Apart from enterprise architects, this includes users from anywhere in the business, analysts, business users, technology architects, strategy analysts and operations researchers.
- **Configuration and management**: Setup and administration features to support the security of the EA tool, along with setting up different classes of users, their access rights and feature alignment. This also involves controlling access to information stored in the repository.
- Extensibility: Ability to extend the metamodel of the EA tool through the definition of new modeling concepts and relationship types, up to new graphical representations and enforcing domain-specific rules.
- **Publication**: Enables 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: Starting point for structuring the repository and the relationships among artifacts, focusing on support for different architectural methods and vertical industry models. This includes support in choosing the EA frameworks to adopt, and to identify overlaps and gaps.
- Integration: Exposing and importing 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, configuration management database (CMDB), PPM, business process management suite (BPMS) and process mining.
- Automation: Features that help EA practitioners to industrialize their activities, delivering value more quickly and reliably, while keeping information up to date and fresh. This focuses on process and policy automation functionality used within the tool (rather than served up externally).
- Innovation management: Mechanisms that support the creation and tracking of innovation and change initiatives. This includes support for ideation, trendspotting, and the engagement of colleagues, PPM links and benefits realization.

EA Tools Enable Insights and Better Business Decisions

Delivering business outcomes requires the collaboration of multiple stakeholders across the organization, each playing a different role at a different time. The models and methods used by the stakeholders will vary depending on their role, and must be integrated and connected to other models to be useful. To support these needs, EA tools have two aspects. The first provides a modeling environment, along with a supporting repository. The second facilitates collaboration between a diverse group of stakeholders across the organization, right from business strategy to IT.

EA tools are also leveraged by a broad array of architectural and IT disciplines — information, solution, security, applications and infrastructure. 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
- Customer segments and stakeholder personas, customer journey maps, and the processes, value streams and activities that the organization depends on to deliver value
- Business scenarios, managing innovation, change and transformation programs/initiatives, including the individual projects and development sprints in IT
- Supporting technologies and applications, the services they offer, and interfaces between them, as well as infrastructure providers and vendors that provide these things

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, the EA tools market remains an attractive expansion opportunity for vendors in adjacent market spaces. We expect to see some 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



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Vendor Strengths and Cautions

Ardoq

Ardoq is a Leader in this Magic Quadrant. Ardoq's product functionality is delivered as a cloudnative SaaS solution. Its main operations and presence are still in EMEA, with continued growth in North America. Ardoq supports clients across multiple industries, with financial services, healthcare and the public sector being the major ones. Its future plans include adding further use cases, such as sustainability and democratization of IT; automated graph analysis for creation of to-be architectures; 3D interactive views; and increasing usability and engagement for non-EA users.

Strengths

• Accessibility and user experience: The Discover module provides access to everyone in the organization to get self-serve insights, supporting democratization of decision making and integrating distributed ownership. Ardoq continues to keep user experience and interaction at its core through a personalized UI. Its gamified e-learning program supports an accelerated learning curve, in addition to its natural language graph queries and in-app chat for support.

Source: Gartner (December 2022)

- Use-case-based value delivery: Clients start with Ardoq's prepackaged use cases to address common business or IT challenges. Use cases embed guidance with preconfigured features including UI, analytics and visualization to reduce time to value for customers of varying maturities.
- Strong growth and momentum: Ardoq continues to invest in its infrastructure and product, in line with its growing customer base, and continues to be well-funded with its latest Series D funding of \$125 million. Ardoq's new professional services group aims to better support customers with paid services over its existing customer success program. Services include configuration and expansion services such as training, data migration, advice on EA methodologies and third-party application integration.

Cautions

- Flexibility comes at a cost: While access to features and functionalities within Ardoq is easily achieved through license plans, the associated pricing remains complex, although there is a plan to simplify the pricing model in the near future. With numerous modules and functionality add-ons, all with an associated price tag, contracting with Ardoq requires an intimate understanding of what is needed from the tool and how it will be used in order to maximize the value against the potential cost.
- Limited regional focus: Ardoq's main marketing, sales and client focus is European and North American organizations with an existing EA function. Although it has added the UAE as an Amazon Web Services hosting location, in addition to Ireland and the United States, its hosting options are still limited. 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: While Ardoq continues to expand, roughly 78% of its resources, including its product development team, are still Europe-based. With a relatively small team to engage and support its prospects, 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. It has customers in several industries, including banking, government, manufacturing and natural resources. Its operations are spread across EMEA, North and Latin America, and the Asia/Pacific region. Its future plans include improvements to Ask ABACUS, for column recommendations; multithreading and tenanting of the analytics engine; guided navigation and microinteractions for first-time users; and embedding of the World Economic Forum (WEF) 21 core and 34 extended metrics into TOGAF and ArchiMate.

Strengths

• Appeal to customers with varying maturity across regions and industries: While less-mature organizations can leverage Avolution's Rapid Start Program with embedded frameworks and

libraries, mature organizations benefit from support to automate operational analytics with metrics aggregation and rapid scenario planning. Outreach to global clients is reflected in regional events and its support for 13 hosting locations distributed across North and Latin America, EMEA, and the Asia/Pacific region. Its industry accelerator packages provide faster speed to value for industry-specific contexts.

- Support for security architecture: Avolution continues to invest in its product to support cloudand security-architecture-focused documentation with cloud library updates and National Institute of Standards and Technology (NIST) cybersecurity modeling capabilities to facilitate the management and communication of risk and security.
- Al-/machine learning (ML)-enhanced data quality and analytics: Use of no-code algorithms enables business and nontechnical users to quickly build analytics for a variety of architecture questions, and ML to support repository data completeness, consistency and quality, including recommendations to existing values.

Cautions

- Flexibility comes at a cost: 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 clients to assess their product use cases (and add-ons) over time to account for potential increases in product spend for budgeting purposes.
- Steep learning curve: Although Avolution continues to take steps to simplify the experience, if required, the learning curve to set up and configure the metamodel, as well as understand the modeling and visualization features, can be steep.
- **Operational responsiveness:** Reduced capacity in in-house professional services and support space may result in a slower-than-expected response to client requests. This could impact responsiveness and delay tool issue resolution, potentially impacting clients' EA tool projects and decision making.

Bee360

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

Strengths

• **Pragmatic approach to support a variety of roles 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 such as Confluence and Microsoft Teams to improve agile-based transformation activities, supported by Kanban boards and simplified model relationship management to rapidly process changes.
- Embedded training and learning features: Bee360 includes training and enablement features to reduce the learning and adoption time of the product and its features. It allows customers to add context and explanation to their own metamodel and assets, as well as predefined content for standard business and IT processes to apply in modeling and training.

Cautions

- Primary focus on IT management: Bee360's main features and capabilities are focused on maximizing value from IT. It offers only a limited set or 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. Bee360 requires customers to create their own custom artifacts in support of business architecture.
- No embedded industry- or regulatory-specific assets: Bee360 has no embedded industryspecific 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 option to purchase individual modules. While the vendor indicates that this is a strategic choice to reduce obstacles in user adoption and value creation, it creates challenges equally for organizations with existing products for functions like PPM or financial management. These would require integration effort and reduce the value of the product.

Bizzdesign

Bizzdesign is a Leader in this Magic Quadrant. Its 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 future plans include features for sustainability metrics, federated content management and integrated support for learning within the product.

- Speed to value: Bizzdesign's product-assisted growth functions support integrated self-serve onboarding, enabling clients to get value from the product, underpinned by an improved user experience and out-of-the-box "coaches" that provide best-practice guidance embedded in the tooling. Its cloud-based, multitenant and distributed platform architecture offers further configurability and extensibility.
- **Customer-centric innovation**: Bizzdesign invests significantly in innovation and R&D, with a dedicated innovation and customer experience team, increasing the throughput of ideation,

prototyping, testing and validation of new ideas. The strategy has resulted in incorporating the use of ML in model creation, automating modeling tasks and recommending relationships, and additional solution packs focused 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 Commercial Aviation Reference Architecture.

Cautions

- Limited geographic presence: Bizzdesign uses a partner network to support global growth, with the majority of sales efforts and resources residing in and focusing on EMEA and North America. While the vendor has opened a new office in Australia with presales and consulting staff, the Asia/Pacific and Latin America regions are predominantly represented by third-party partners.
- Flexibility comes at a cost: 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. While the vendor indicates simplification in the pricing model over the past year and continued flexibility, multiple pricing considerations such as the combination of modules, credit-based pricing, license type and consulting can be confusing.
- Limited operational support: With its focus on North America and EMEA, Bizzdesign's support capability is limited outside these regions. Although it offers 24/7 SLA-based support for critical incidents, its main SLAs provide local office hour support across EMEA, North America and the Asia/Pacific region. While the vendor indicates that this collectively covers most time zones, prospective customers should ensure that the SLA they agree to includes support for the hours they need for their business, in every region in which they require the support. The vendor does support higher availability at a premium based on a percentage of total spend.

BOC Group

BOC Group is a Leader in this Magic Quadrant. Its product, ADOIT, is offered as a SaaS solution, on-premises or as a hybrid cloud proposition. Most of its customers are in EMEA, with a growing presence in North America and the Asia/Pacific region, and they are spread across multiple industries. ADOIT's future plans include user-centric services, combining strategy, design-thinking and EA best practices to guide users through use cases. These will be extended to technology scouting, cloud modeling and customer journey mapping.

Strengths

• User-focused proposition: The introduction of user-centric services enables teams to quickly focus tool usage on targeted use-case outcomes, allowing customers to generate value more efficiently. These user-guided experiences can be managed and adjusted via the EA tool administrator.

- Efficient pricing model: Starting with a "freemium" offering to its cascading Start, Grow and Individual paid tiers, BOC Group allows clients to choose between multitenant, single-tenant and hybrid hosting with increasing capabilities and support add-on features at cost. The pricing model supports transparency and uses gross domestic product (GDP) mechanisms to flex prices regionally.
- Intelligent recommendations and suggestions: ADOIT has introduced ML capabilities into its
 product to support recommendations for application investment strategies and smart
 modeling assistant for ArchiMate diagrams, including automatic dual-view generation between
 diagrams and management dashboards.

Cautions

- Limited geographic footprint: Although BOC Group has invested in its global sales resources, its core operational resources are in EMEA, with customers primarily based in Europe. Organizations with global distributed operations will therefore need to assess the combined support capabilities from BOC Group and its partners for all their regions.
- **Rebranding capabilities**: BOC Group has rebranded ADOIT to a persona-focused offering and is targeting audiences in strategy and innovation management spaces. To maintain its position, it must continue investing in education and support for existing clients, as well as increase assets and partner capabilities for the persona-focused proposition.
- Evolving cloud capabilities: Although ADOIT is also available via SaaS, its core architecture is positioned as traditional client/server architecture. For its SaaS offering, data residency is primarily in EMEA, with non-EMEA data residency options being planned. Moreover, the vendor does not yet have SOC 2 compliance, which organizations increasingly demand for information security.

Capsifi

Capsifi is a Leader in this Magic Quadrant. Its product, Jalapeno, is primarily available as a SaaS offering. Capsifi operations are primarily 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 sectors. Jalapeno's future plans include an overhaul of its UI/UX, an enhanced security model, and continued investment in APIs and AI-inferred insights.

- 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 that supports changes to customers' business and operating models. 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.

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• 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

- Sustaining quality with rapid growth: Although Capsifi added more than 52% of unique customers over the past year, its client base is still limited. Considering its small size and ambitious roadmap of changes, it may be challenged to maintain product and support quality. Potential and existing customers should verify Capsifi's ability to sustain customer support, and product investment and enhancement.
- Implementation and support at a cost: Capsifi offers dedicated product coaches as a first
 point of contact for onboarding and ongoing support. However, they are available on a limited
 basis by default, and additional expense is incurred for 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.
- **Geographically challenged**: While Capsfi indicates an increase in customer-facing employees in the U.S. and the U.K., they are based in Australia and the majority of their operations are located there. Potential customers that are outside of the Asia/Pacific region should verify availability of timely implementation and support services.

Enterprise Architecture Solutions

Enterprise Architecture Solutions (EAS) is a Visionary in this Magic Quadrant. Its product is based on the installable open-source The 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 the Asia/Pacific region, it derives most of its revenue from customers in government, retail, consulting, financial services, education and entertainment. EAS's future plans include support for AI-/ML-based advice, predefined industry-specific architecture blueprints, and dedicated connector APIs for security/risk compliance and collaboration tools.

Strengths

• Highly disruptive approach to pricing: As a full open-source solution, the vendor's pricing model is not per-user-based, but 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 there are lower-cost propositions in the market for small teams, The Essential Project's pricing becomes unrivaled with a growing user base per client organization.

- Supports 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 allows users to link comments to any element in the enterprise metamodel, as well as to suggest ideas. This allows for better alignment across the enterprise, and enables coordinated change and a rationalized IT portfolio.
- Empowers 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, The Essential Project 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

- Small market presence: With its open-source, self-serve and low-cost business model, EAS has limited resources to actively market itself. For long-term success and increasing market share, it must identify cost-effective ways to market its product and unique selling point.
- Relies 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 The Essential Project benefits, potential clients should first assess whether its 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 that all investments continue to drive broader enterprise adoption and encourage more of its open-source users to convert to paid offerings.

LeanIX

LeanIX is a Leader in this Magic Quadrant. LeanIX Enterprise Architecture Management is a cloud-native SaaS product offered on Azure. LeanIX has direct operations in North America and EMEA, with a strong customer presence in manufacturing, pharmaceutical and finance. LeanIX's future plans include predefined transformation types for modeling target architecture, SAP Signavio Customer Journey Modeler integration and extensions for mapping initiatives to United Nations (UN) Sustainable Development Goals.

- Strong growth and market momentum: LeanIX continues to grow its customer base, adding 242 new logos in 2021. The vendor 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, which guides customers through onboarding and regular check-ins, builds success roadmaps, and provides integration and engineering

guidance. The rapid time to value is driven by a simplified metamodel combined with an easyto-use platform and easy access to support.

• Enhanced user experience, data and workflow: LeanIX has introduced diagrams.net to optimize the user diagramming experience and support standard collaboration tool integrations. It has enhanced SaaS discovery to generate a SaaS reference catalog. No-code automation now supports triggered actions on events to create workflows.

Cautions

- ERP focus limits broader appeal: LeanIX's SAP certification and reliance on SAP Signavio for BPM overlooks the potential diversity of client's ERP ecosystems. Clients wishing to drive BPM transformation in a non-SAP context may require additional tooling investments on top of LeanIX.
- EAM base module lacks breadth: Entry-level LeanIX leans on application portfolio management (APM) capabilities, meaning that clients wishing to benefit from the full EA tool scope will require add-on modules at an additional cost.
- Unclear business architecture capabilities: Although adding new diagram templates to support the business domain, business architecture as a core capability for LeanIX lacks visibility and clarity. This ambiguity may portray it as an "IT-only EA product," which could exclude it from clients' lists of candidate products.

MEGA International

MEGA International is a Leader in this Magic Quadrant. MEGA HOPEX is available as a SaaS offering, via public or private cloud, or on-premises. MEGA International's customers and operations are geographically spread, with most resources in EMEA, and customers in finance, government, defense, energy and utilities, and healthcare. Its future plans include autoalignment of technologies, applications and capabilities; AI/ML decision support; integration with additional collaboration tools; and support for external diagrams through AI recognition.

- Business, IT, data and risk in a single repository: Its "connected EA platform" approach supports collaboration across IT portfolio management, risk management, data governance, business process analysis and solutions architecture. This benefits large organizations, with complexity and regulatory constraints. Less mature enterprises can leverage its fairly straightforward licensing structure, with modules bundled together as value packs, along with content and accelerators for specific industries.
- Strong focus on geographic growth: MEGA International's strategy is to ensure real global delivery and support capabilities. It continues to actively invest in geographic expansion through adding local offices and support capabilities in North America, and driving European and Asia/Pacific region growth through a network of global partners and local alliances. This is also reflected in its well-distributed options for data hosting in the U.S., Canada, France, the U.K., Australia and India.

• Data integration with structural integrity: In addition to its GraphQL endpoints, HOPEX has outof-the-box integrations with vendors in adjacent markets such as ServiceNow, CAST and Beamy. This enables fast, flexible and customized data selection, ingestion and processing from a variety of sources, while maintaining the structural integrity of the enterprise metamodel.

Cautions

- Reliance on consultancy support: Although MEGA continues to improve its UI/UX, 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.
- Slow growth: Although consistently profitable, in the last few years MEGA international's growth has been outpaced by newer, nimbler, cloud-native vendors growing aggressively in the market. While this may represent a temporary dip in growth due to their shift to an exclusively subscription-based licensing model, the vendor's SaaS-only approach is imperative in this competitive market.
- Overwhelming user experience: Although the "connected EA platform" approach is attractive for customers, new users may experience a long learning curve. While the MEGA now offers elearning options with implementation, the limited self-service support in HOPEX leads some users to depend on the MEGA Community forum, and online documentation and additional professional services, to take full advantage of what the product has to offer.

Orbus Software

Orbus Software is a Leader in this Magic Quadrant. Its primary EA offering is iServer365, available on Microsoft Azure. iServer365 is the cloud-native alternative to its iServer offering, reflecting the continued attention to a more business-centric EA approach. Orbus operations cover EMEA, North America and the Asia/Pacific region, with clients primarily in finance, government and healthcare. Its future plans include features to accelerate the import of metrics, enhanced change management for federated models, AI-/ML-based insights and an optimized user experience for non-EA users.

- Strong growth and market momentum: iServer365 licensing has grown aggressively in the last 12 months, continuing its growth trend over the past three years. Its association and native integration with Microsoft 365 products puts it more easily on the shortlist for the large Microsoft 365 client base. This is reflected by an increase in its client base of more than double in the last year. That increase is underpinned by increased migrations from iServer to iServer365, a shorter learning curve with its new learning platform Hive and reduced configuration time with additional preconfigured metamodel options, extended through professional services support.
- Variable product, pricing and marketing approach: Orbus Software continues to differentiate its sales and delivery strategies to address client-specific situations with cascading product

tiers, users and add-ons. This includes regional licensing models combined with clientmaturity-based solutions, differentiated for technology- or business-focused organizations. Orbus further differentiates its strategies for small organizations to large enterprises, and for business and IT roles.

• Faster time to value with industry-specific guidance: iServer365 includes extensive support for industry-specific assets, such as compliance frameworks, architecture reference models and frameworks, for a wide variety of needs, including government, finance, insurance, healthcare and telecom, as well as generic APQC 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: While generating traction and supporting growth, Orbus' Microsoft-centric approach brings embedded collaboration, visualization and automation capabilities. The downside is that, to benefit from the embedded Microsoft features, clients need to bring their own Microsoft 365 licenses. Organizations that have not or don't plan to adopt Microsoft 365 as a platform should assess iServer365 alternatives.
- Continuing growth requires migration of existing iServer clients: The vendor indicates good market traction for iServer365, and predicts that 80% of its iServer customers will migrate to iServer365 over the course of the coming year. Despite aggressive growth of iServer365, considering its still-limited client base, the vendor must continue to invest in iServer services and support, while expanding the functionality of iServer365 in an increasingly competitive EA tool market.
- No SOC 2 compliance: Although Orbus is transitioning from selling on-premises perpetual licenses with iServer to cloud-native SaaS with iServer365, it still does not have SOC 2 compliance, which most large-sized organizations now demand for information security. The vendor has indicated that it plans to invest in getting SOC 2 audited over the next year; customers with a high need for data security that are considering iServer365 must confirm the vendor's SOC 2 compliance status.

QualiWare

QualiWare is a Challenger in this Magic Quadrant. QualiWare X is delivered as a SaaS solution, onpremises or on a private cloud. With operations focused in Europe and North America, the vendor has customers across government, energy, finance and manufacturing. Its future plans include horizontal scaling of the application server in real time, support for the UN Global Compact and Sustainable Development Goals, and the application of AI to interpret external data.

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: QualiWare continues to increase its partner network, which is reflected in an increase in sales through partners. In addition to its presence in Europe and North America, the vendor has ensured implementation support through a worldwide network of partners. Partners extend support in Latin America, Middle East and the Asia/Pacific region, 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 such as GWEA and EIRA; support for SCOR and Industry 4.0 for manufacturing; APQC for utilities, aerospace and defense; and Laboratory Asset Management for life sciences.

Cautions

- Slow growth: Over the last few years, the pace of QualiWare's growth has considerably slowed compared to other cloud-native and rearchitected tools in the market. To renew focus on its core product offering, the vendor divested a major part of its consulting business in 2021. QualiWare indicates that it is confident in its selected path and is already seeing an uptick in license and partner sales, but it remains to be seen if this will have a significant impact on its growth.
- Limited geographic presence: While leveraging a partner network to support global growth, the majority of the vendor's resources reside in and focus on EMEA and North America. Organizations outside of these regions considering QualiWare must assess local partner support and related SLAs.
- **Overwhelming user experience**: QualiWare's functionally rich product needs simplification to make it more accessible to new customers. In addition to its customer success program and online learning material, the vendor must continue to update its interface and make the user experience more intuitive.

Software AG

Software AG is a Leader in this Magic Quadrant. Software AG's Alfabet is available as a SaaS offering, on-premises and as a hybrid solution. Its operations are geographically diversified, and its clients span all industries. Its future plans include an overhauled UI/UX, improvements to the tool's analytical capabilities and support for personalized visualization settings.

- 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 SaaS entry option: The Alfabet FastLane offering is a preconfigured SaaS solution 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 begins with a base transformation server module, with additional modules (e.g., PPM) available at an additional cost. Customers also pay per-user licensing, with multiple classes of users with distinct scopes of access and cost. All pricing is subject to negotiation with nonlinear volume discounts. In addition, most clients require professional services, leading to a relatively large cost for the larger enterprises on which Software AG focuses.
- 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 entry solution's user community.

UMT360

UMT360 is a Niche Player in this Magic Quadrant. Its product, 360 Strategic Portfolio Manager, is delivered as a SaaS offering and comprises two modules: 360 Portfolio Insights and 360 Enterprise Connect. Its main operations are in North America, with some presence in EMEA. UMT360 primarily supports clients in the energy, life sciences, manufacturing and financial services industries. Its future plans include migrating to container-based architecture, a UX refresh, support for out-of-the-box integrations, enhanced modeling and collaboration, and ML-based insights to identify repository gaps.

In December 2021, UMT360 announced the acquisition of FIOS Insight, an EA software and consulting firm, along with its EA tool, Insight-EA.

Strengths

• Integrates EA with strategic portfolio management: With the acquisition of FIOS Insight, UMT360 integrated its Insight-EA module to form what is now known as 360 Enterprise Connect. 360 Enterprise Connect contains all the business and EA features from Insight-EA, including support for deliverables such as business capabilities models and value stream maps. This positions UMT360 with capabilities to integrate both strategic portfolio management and EA use cases.

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- Rapid value realization: UMT360 provides stand-alone solutions, called Accelerators, to support specific use cases such as business capability modeling, application rationalization and resource planning. Clients can start with a specific accelerator offering to quickly realize value and then enable additional capabilities in a phased manner.
- Focus on federated EA: The vendor understands the shift toward a federated, more businesscentric approach to EA and regularly engages with customers, the Open Group and the Business Architecture Guild to inform its product roadmap. It provides business and executive leaders visibility into strategic roadmaps that have direct alignment with roadmaps at the project level and with EA services, to identify any change implications or assess business outcomes.

Cautions

- Uncertain growth in EA tool market: Although UMT360 is an established vendor in the strategic portfolio management tool market, it has a very small presence in the EA tool market and is still in the early stages of establishing itself there. Its overall success in leveraging the FIOS Insight acquisition is still to be determined.
- Limited operations and presence: UMT360's sales and marketing operations are focused primarily in North America, with some presence in EMEA. This is reflected in its options of hosting services, currently offered only in the U.S., Canada and Germany. With no direct employees present outside of North America and EMEA, the vendor depends on partners to market and sell in other regions.
- Suboptimal user experience: Although UMT360 has integrated its legacy product with Insight-EA from FIOS Insight, the UX, which still consists of two significantly different interfaces, does not appear seamless. Moreover, 360 Strategic Portfolio Manager does not yet have any intuitive context-sensitive help or collaboration features, such as publishing of models via Microsoft Teams and Slack-like environments, and allowing real-time collaboration and comments on models.

UNICOM Systems

UNICOM Systems is a Niche Player in this Magic Quadrant. Its UNICOM System Architect suite is offered on-premises, on private cloud or stand-alone. Primarily sold in North America, the product is strongest in the government sector — especially defense. Future plans for UNICOM System Architect include integrations with portfolio management, solution design, requirements and change management, and tooling.

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, the vendor is well-positioned to support customers through installation and with dayto-day needs.

- Simple pricing model: UNICOM Systems has created a straightforward pricing model where customers can choose between node-locked licenses (each workstation must have a license) or floating licenses (licenses can be shared across the local network). Maintenance is simply 20% of the license costs. The vendor 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's and defense market's needs. It supports FEAF and DoDAF, along with numerous other industry frameworks; 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 UI with long learning cycle: UNICOM System Architect is still based on a legacy UI that relies on extensive, nonintuitive 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 a 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 overhaul**: UNICOM System Architect has been in this market for more than 30 years, and the vendor continues to invest in the product. However, without significant reinvention of the foundations to securely deliver and support a cloud-native SaaS offering, UNICOM System Architect will get left behind by nimbler and cloud-native competitors.
- Limited growth opportunity: Due to UNICOM Systems' focus on the federal sector and its lack of a SaaS product, potential growth of the product in both the near term and long term is challenged. This is exhibited via its slow acquisition of new clients and addition of new users, and points to a needed business model change to accelerate demand.

ValueBlue

ValueBlue is a Niche Player in this Magic Quadrant. Its BlueDolphin product is offered as a SaaSbased solution on Microsoft Azure. With operations focused in Europe, ValueBlue's clients are primarily small to midsize organizations in the finance, retail, government, education and healthcare sectors. BlueDolphin's future plans include ML for suggestions and benchmarking.

- Improved market focus: ValueBlue continues to gain market presence and is investing in identifying trends for client concerns and focus. This helps position the vendor in the marketplace with messages that have a positive impact on its client base.
- 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 ITarchitecture-related personas.

• Easy startup: BlueDolphin has a relatively short learning curve and a reasonably accessible UI. The vendor offers an in-platform knowledge base and interactive onboarding tour, and also features in-app chat support with immediate response. Additionally, with a structured customer success program, it aims to improve the customer experience of BlueDolphin.

Cautions

- Limited geographic presence: ValueBlue is a small company with most of its staff in the Netherlands and most of its clients in Europe. The vendor has made progress in opening offices outside of its home market during the past year. New customers of ValueBlue should confirm the vendor's support in all the regions of their operations.
- Appears less targeted to high-maturity customers: While BlueDolphin has a step-by-step approach that benefits less-mature EA customers, it is not immediately obvious that this approach is optional for higher-maturity EA customers and can be bypassed. The product's simple functionality and elementary UX may reduce its appeal to higher-maturity customers.
- Limited industry focus: ValueBlue has prebuilt assets and dedicated sales attention for its focus industries, especially financial services, retail and government. While they may also have a number of customers in other industries, potential buyers should assess and validate ValueBlue's understanding of, and attention to, their specific industry requirements.

Vendors Added and Dropped

We review and adjust our inclusion criteria for Magic Quadrants as markets change. As a result of these adjustments, the mix of vendors in any Magic Quadrant may change over time. A vendor's appearance in a Magic Quadrant one year and not the next does not necessarily indicate that we have changed our opinion of that vendor. It may be a reflection of a change in the market and, therefore, changed evaluation criteria, or of a change of focus by that vendor.

Added

• UMT360 — With the December 2021 acquisition of FIOS Insight, an EA software and consulting firm, UMT360 met the inclusion criteria for this year's EA tools' Magic Quadrant.

Dropped

- Planview Although Planview was a Challenger in last year's Magic Quadrant, this year it indicated it did not meet the inclusion criteria for the EA Tools Magic Quadrant.
- erwin by Quest erwin by Quest was a Niche Player in last year's Magic Quadrant. It declined to participate in the research for this year's iteration. With limited reviews of the vendor on Gartner Peer Insights during the past 12 months, we did not have enough data to analyze this vendor this year with the required detail. The result is that it was excluded for 2022.

Inclusion and Exclusion Criteria

The inclusion criteria represent the specific attributes that Gartner analysts believe are necessary for inclusion in this research. In this inclusion criteria:

- The vendor product or offering refers to the vendor's primary EA product (not a suite of products) software acquired under a single license, using the same codebase and repository, not requiring any customized integration to access and exchange data. Such products can comprise multiple modules or features unlocked as part of pricing schemes within the license.
- License revenue includes software license and software maintenance, and software upgrade revenue for higher tiers of the vendor's single primary EA product and additional functionalities, modules (not services related), but excludes hardware and professional services.

To qualify for inclusion in this Magic Quadrant, vendors must meet all the criteria set forth across the following three dimensions.

Performance: The vendor had to have either realized in 2021:

- At least \$8 million in licensing revenue over the calendar year for its primary EA product (not a suite of products) *or*
- A 30% year-over-year revenue growth for the last three calendar years (as validated by the vendor's most senior financial officer) for its primary EA product.

Market Momentum: To qualify for inclusion, the vendor had to have demonstrated market momentum in 2021 for the primary EA product through a minimum of:

- At least five new customer wins (net new logos), headquartered in each of a minimum of two of the four major geographic regions (major global regions are defined as EMEA, the Asia/Pacific region, North America, Latin America) with its primary EA product in production
- A total of 10 new customers in two regions in 12 months

EA Tool Market Focus: To qualify for inclusion, the vendor had to have in 2021:

- An installed base of at least 50 customers (unique logos) that used its primary EA product in production *and*
- General availability as of 30 April 2022 for its primary EA product and
- Its primary EA product demonstrably support four out of five use cases and include/embed all capabilities, as described in the Market Definition/Description section.

Evaluation Criteria

Ability to Execute

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

Product or Service: We assessed how and what the vendor's EA product offers to EA practitioners. This includes current product/service capabilities (including differentiating capabilities), and quality and feature sets, as defined in the Market Definition/Description section ——whether offered natively or through OEM agreements/partnerships. We assessed any reliance on third-party products or products requiring separate licensing. We also assessed products based on how well they met the critical capabilities and supported the use cases.

Overall Viability: This included an assessment of the organization's overall financial health and the financial and practical success of the business unit. We also assessed 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 acquisitions and the securing of additional funding. We valued organic growth more highly than other types of growth.

Sales Execution/Pricing: We assessed the vendor's sales execution and clarity in pricing, including presales activities and the structure that supports them. This includes responsiveness in sales engagement, deal size and management, pricing and negotiation, presales support, scalability and the overall effectiveness of the sales channel.

Market Responsiveness and Track Record: We considered the vendor's history of responsiveness to customer requests and changing market needs, including overall track record in the field. We gave 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.

Marketing Execution: We assessed the clarity, quality, creativity and efficacy of the vendor's programs, campaigns and events designed to deliver its message to influence the market, promote the brand and business, increase product awareness, and establish a positive identification with the product/brand and organization in the minds of customers.

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.

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, applicable standards, the underlying infrastructure and other vehicles that enable effective and efficient operations).

Table 1: Ability to Execute Evaluation Criteria

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Evaluation Criteria \downarrow	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 (December 2022)

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 understanding to shape or enhance the market.

Marketing Strategy: We sought clear, differentiated messaging that was consistently communicated internally and externalized through the vendor's website, social media, advertising, customer programs and positioning statements. This included differentiating strategy based on regions, specific countries and buyer personas, and ways to measure and adapt the strategy.

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 partners' services and customer base. It also included target customer personas and sales strategies differentiated for their context, size, level of maturity and geographic locations. **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.

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

Vertical/Industry Strategy: We assessed the vendor's strategy to direct resources (sales, product and development), skills and offerings to meet the specific needs of individual industry segments, including any focus on specific industry verticals and associated standards, and an illustration of revenue performance from its top 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 while considering the disruptive and opportunistic forces of digital on businesses. We also considered the vendor's ideas for innovation and future development of the market.

Geographic Strategy: We looked at 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.

Evaluation Criteria $_{\downarrow}$	Weighting \downarrow
Market Understanding	High
Marketing Strategy	Medium
Sales Strategy	Medium
Offering (Product) Strategy	High
Business Model	Medium
Vertical/Industry Strategy	Medium

Table 2: Completeness of Vision Evaluation Criteria

Evaluation Criteria $_{igstarrow}$	Weighting \downarrow	æ
Innovation	High	
Geographic Strategy	Medium	

Source: Gartner (December 2022)

Quadrant Descriptions

Leaders

Leaders have a deep understanding of the realities of the market, a reliable global delivery record and 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, nine 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, a better cost performance ration, 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 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 lack 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. One vendor rated as a Challenger in the EA tool market this year. This vendor has a proven track record for executing on the mission of EA; however, over the last few years, it has been slow in its growth. Although Challengers are typically of significant size with 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 tool market, there is only one Visionary vendor in this year's Magic Quadrant. 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 Visionaries 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, ecosystem applications, products, and services.
- Support change, transformation and optimization. Enterprise architects plan and track change, including facilitating the development of operating models, new services and products, as well as supporting acquisitions, mergers and divestitures.
- Assess and manage an evolving IT portfolio. EA practitioners must be able to deliver business value, which means designing services, managing IT portfolios and solution architecture, guiding technology projects, cost/revenue optimization and risk mitigation.
- EA management. Meeting demand of stakeholders is imperative for EA practitioners, which means being able to deliver an agile and compelling set of services to these stakeholders, and manage the EA knowledge and resources at their disposal.
- Innovation and sustainability. EA practitioners must be able to help organizations track and leverage emerging trends and technologies through structured, flexible and iterative methods. This includes identifying and tracking improvements in sustainability.

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).
- Overlook the innovation management features offered by EA tools. Most EA practitioners fail to leverage the ideation, trendspotting and innovation management features. These features can be instrumental in effectively evolving the architecture and technology portfolios to respond to disruptions and uncertainty.

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 kind of activity is part of a wider trend, where organizations are becoming more and more "model-driven," delivering, for example:

- 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 Leaders 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 "cloudnative." 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.

Clarify Benefits and Objectives Prior to Purchasing an EA Tool

When properly applied and with commitment to use, the value that 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-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 is 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 the 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.

Market Trajectory

EA tools provide a centralized, consolidated source of truth about the enterprise. They capture the constraints of the IT assets, processes, value streams, change programs and projects. EA tools relate 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 players in these adjacent territories, such as asset management and strategic portfolio management, 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.
еТОМ	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.
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 EA, 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
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.

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.

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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 depter 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.

Stratégie géographique : la stratégie du fournisseur pour orienter les ressources, les compétences et les offres afin de répondre aux besoins spécifiques des zones géographiques en dehors de la zone géographique "d'origine" ou d'origine, soit directement, soit par l'intermédiaire de partenaires, de canaux et de filiales, selon les besoins de cette zone géographique et de ce marché.

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