

Technology transformers: How Enterprise Architecture enables *tech & AI driven* business transformation

Digital Architecture Study 2026

Capgemini invent

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1

Management Summary

Artificial intelligence (AI) and agentic is moving from promising pilots to repeatable, enterprise-scale impact drivers, getting increasingly important for the Enterprise Architecture (EA) agenda. The decisive differentiator is not how many use cases exist, but whether organizations **leverage AI & agentic transformation through a clear strategy and unambiguous value ownership to enable sustainable scaling.** That starts with a CxO-led strategic direction, explicit on priorities, risk tolerance as well as success metrics, and continues with rigorous operationalization inside each business domain, where accountable value owners translate enterprise ambition into product backlogs and measurable outcomes. Businesses typically progress through three steps. Starting with the establishment of direction and ownership, progressing towards the enablement of employees and the institutionalization of AI & agentic capabilities and finally industrializing and optimizing at scale, a phase only few business domains have currently completed.

With increasing scaling ambitions, it becomes clear that technology is rarely the primary bottleneck. The constraint shifts toward skills, leadership capacity, incentives, and change readiness, hence the need to **shift the focus of AI & agentic transformation to people and organization, rather than the technology stack alone**. Even when architecture teams are already deeply involved in evaluating and implementing AI topics, they cannot solve skill and sponsorship gaps. This is why AI & agentic transformation demands a target operating model that fits the reality of enterprises. Governance must be strong enough to ensure coherence, compliance, and safety, while extending into product teams to keep decisions fast and execution practical.

Architecture (incl. EA) is a critical enabler of scale and control, if it gets involved in AI & agentic transformation programs before day one and stays close to delivery. Organizations need to explicitly **evolve EA into a decision-oriented and execution-driven function that guides and enables AI & agentic transformation at scale**. Building on an established advisory and governance mandate, EA standardizes decision-making, defines execution guardrails, and provides scalable target architectures, while strengthening portfolio and roadmap ownership to turn guidance into tangible delivery outcomes.

To sustain this at scale, organizations must evolve architecture structures by **establishing a federated role and responsibility model within EA to ensure optimal positioning for AI & agentic transformation**, splitting strategic- (direction, standards, guardrails) from operational EA (domain execution enablement). Capability gaps must be addressed deliberately. Therefore, the **invest in the skills and capabilities required to reposition EA toward advisory and decision enablement**, targeting investment where maturity targets exceed today's contribution.

Scaling requires industrialization and productivity. Therefore, EA must industrialize AI by establishing reusable components and standardized patterns to accelerate scalable deployment and value realization and Integrate AI into enterprise architecture practices and systematically leverage it to augment and automate core activities, freeing capacity for the expanded services required to lead the transformation.

2

Purpose and Content of the Digital Architecture Study 2026

The speed at which AI & agentic, data-driven operating models, and modern delivery paradigms are evolving is accelerating and increasing complexity for technology leaders. Capgemini's TechnoVision highlights that innovation keeps accelerating and that generative AI has become a defining force.[1] This force will transform business models and ways of working across all industries.[2]

It can be broadly observed that organizations are moving from isolated pilots towards broader deployment of AI & agentic, unlocking benefits but also encountering challenges around cost containment, workforce adaptation, and governance. In particular, companies must architect for scalability (including "platformization"), reinforce trust through governance, and design human–AI collaboration models to scale AI responsibly and effectively.[3]

However, scaling AI is frequently constrained by foundational readiness. Research shows that many organizations pilot AI using enterprise data, yet large-scale deployment remains a major challenge, and non-technical foundations (culture, guardrails, governance, legal/regulatory frameworks) lag behind technical foundations.[4]

This capability gap is tightly linked to operating model and governance realities. Without a unified operating model, governance overhead increases, transformation slows down, and scaling beyond small deployments becomes difficult, pointing to the need for coherent ownership, standards, and integrated governance to accelerate change at scale.[5]

To address this, the dedicated Resonance AI Framework emphasizes reinforcing AI readiness and establishing a deliberate model of "human-AI chemistry", supported by clear governance and enablers that turn ambition into enterprise execution.[6]

These developments shape the relevance of our guiding research questions for CIOs and Enterprise Architects to get further insights on:

1. the role and activities EA should take in technology and AI transformations
2. the capabilities and services required to enable short- and long-term transformation
3. the skills and maturity needed to best support the enterprise, and
4. how EA can leverage new technologies to foster transformation across the organization.

[1] TechnoVision 2025, Capgemini, 2025
[2] Exploring the future of enterprise models, Capgemini Invent, 2025
[3] Generative AI in organizations 2025, Capgemini Research Institute, 2025
[4] Data powered enterprises 2024, Capgemini Research Institute, 2024
[5] The operating model of the future – in the context of intelligent automation, Capgemini, 2023
[6] Resonance AI Framework, Capgemini, 2025

3

Enterprise Architecture driven AI & Agentic Transformation

AI & agentic transformation has moved from isolated experimentation to a core driver of enterprise value. The challenge is no longer whether AI can deliver impact, but how organizations can scale it consistently, securely, and with clear business ownership. Organizations encounter difficulties not due to technological limitations, but because scaling is associated with increased fragmentation, less clearly defined responsibilities, and rising complexity. As adoption accelerates, the focus shifts beyond tools and platforms toward organizational readiness. Skills, governance, and the ability to translate strategy into execution increasingly determine success. This requires organizations to rethink how responsibilities are defined, how decisions are made, and how transformation is operationalized across domains. In this context, Enterprise Architecture plays a critical role. It must evolve from a governance function into a driver of alignment and execution, shaping decisions early and ensuring coherence as initiatives scale. At the same time, organizations need to establish structural foundations for reuse and standardization, moving from isolated solutions to repeatable capabilities. AI & agentic transformation therefore represents a broader shift that spans strategy, organization, and architecture, and requires all three to work in alignment to achieve sustainable impact.

3.1. Leverage AI & agentic transformation through a clear strategy and unambiguous value ownership to enable sustainable scaling

AI & agentic transformation scales reliably only when organizations combine a clear enterprise strategy with unambiguous value ownership. Otherwise decentralized adoption accelerates faster than governance, creating fragmentation, shadow initiatives, and avoidable rework.

The strategic direction of AI & agentic transformation is primarily CIO led and needs to be operationalized within the different business domains

Scaling AI & agentic initiatives safely across the enterprise and avoiding shadow AI, data exposure, and increasing technical debt levels, requires targeted and value-based investments. In most organizations the CIO is the primary sponsor and driving force for this (51%), which is consistent with our initial assumption and our experience (Figure 1). CIOs are often best positioned, as they have an optimal view on the data, applications, and value cases of different domains and can accordingly best steer the transformation. Therefore, the CIO brings in the strategic direction while operationalization is conducted accordingly autonomous within the different business domains.

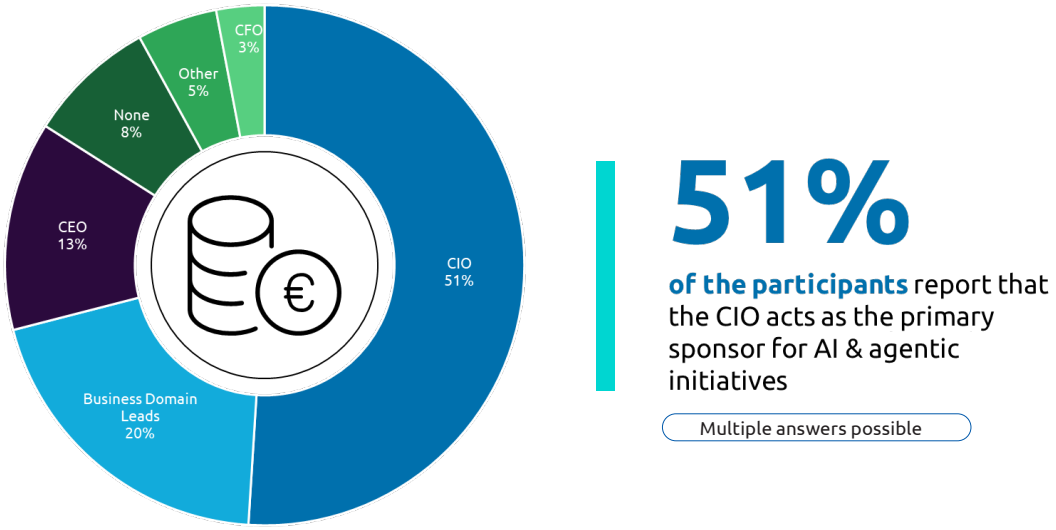


Figure 1: Primary sponsor or driving team for AI & agentic initiatives

Successfully operationalizing this CIO-led direction requires a strong interplay between the CEO, the CIO, and EA. While the CEO provides the enterprise-wide business strategy and perspective, the CIO contributes the technological view and strategic IT guardrails. EA acts as the connecting layer between both worlds, translating strategic intent into scalable architectural specifications and ensuring that AI & agentic capabilities can be rolled out across domains within defined boundaries. This interplay is essential to leverage value creation, prevent fragmented shadow AI solutions, and enable consistent scaling without accumulating integration complexity or technical debt.

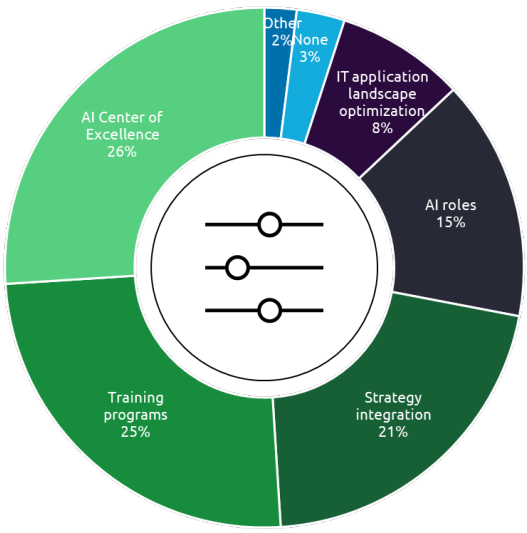
Operationalization of AI & agentic transformation follows three phases that best adapt to and integrate given strategy within a business domain

To successfully operationalize AI & agentic transformation, organizations typically progress through three phases that build on each other: 1) Establishing direction and ownership, 2) Enabling and institutionalizing capabilities, and 3) Scaling and optimizing at enterprise level. The operationalization of AI & agentic transformation can be logically structured to reflect why these phases exist and how the underlying measures contribute to each stage.

In the first phase, direction and ownership are established. As can be seen by our survey results (Figure 2), some organizations are integrating the AI strategy into the business domains (21%) and define dedicated AI roles (15%). This is essential to create clear accountability, decision rights, and governance, ensuring that initiatives are driven by a consistent value agenda rather than isolated experiments, and that foundational guardrails (e.g., risk, compliance, and data usage) are in place from the start.

In the second phase, organizations shift their focus to enabling employees and institutionalizing AI & agentic capabilities across the organization. Typical activities include setting up an (often cross-domain) AI Center of Excellence (26%) and conducting dedicated trainings (25%). These measures are critical to establish shared standards, reusable assets, and practical skills at scale, so that domains can implement AI reliably and repeatedly while reducing dependency on a few experts and avoiding fragmented shadow-AI approaches.

In the third and final phase, one that, in our experience, only few business domains have reached so far, organizations industrialize and optimize AI & agentic at scale. This includes for example, optimizing the IT application landscape to reduce redundancy, strengthen modularity, and improve integration readiness (8%). Doing so supports business domains by accelerating time-to-value, lowering operational risk, and preventing the build-up of integration complexity and technical debt as AI moves from pilots to mission-critical use cases.



26%

of the participants report that their organizations have established AI Centers of Excellence to anchor and institutionalize AI & agentic initiatives

Multiple answers possible

Figure 2: Measures taken to anchor AI & agentic initiatives on the business side

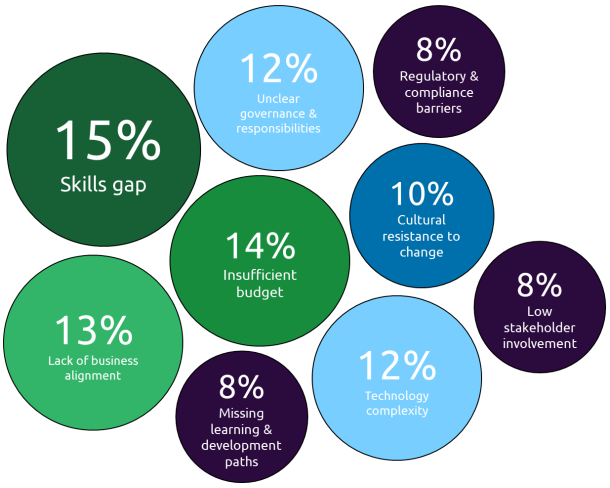
3.2. Shift the focus of AI & agentic transformation to people and organization, rather than the technology stack alone

The decisive barriers to scaling AI & agentic transformation are predominantly people and organization, not the technology itself. Organizations that treat AI primarily as a tooling rollout will struggle to industrialize it. Viable scaling requires a clear operating model, explicit decision rights, and strong enablement.

The biggest challenges of AI & agentic transformation are related to people and organization rather than technology

While technology remains essential, our survey shows that the most frequently cited obstacles concentrate on organizational readiness. Skill gaps (15%) and a lack of budget (14%) are mentioned most often, followed by unclear governance and responsibilities (12%). Cultural resistance to change (10%) further slows transformation efforts.

In contrast only 12 % mention technological complexity as a challenge. The key implication is not that AI or agentic technology "does not work", but that organizations struggle to industrialize it due to gaps in skills, sponsorship, governance clarity, and change capacity.



15%

of the participants report that skill gaps are the biggest challenge when implementing AI & agentic transformation

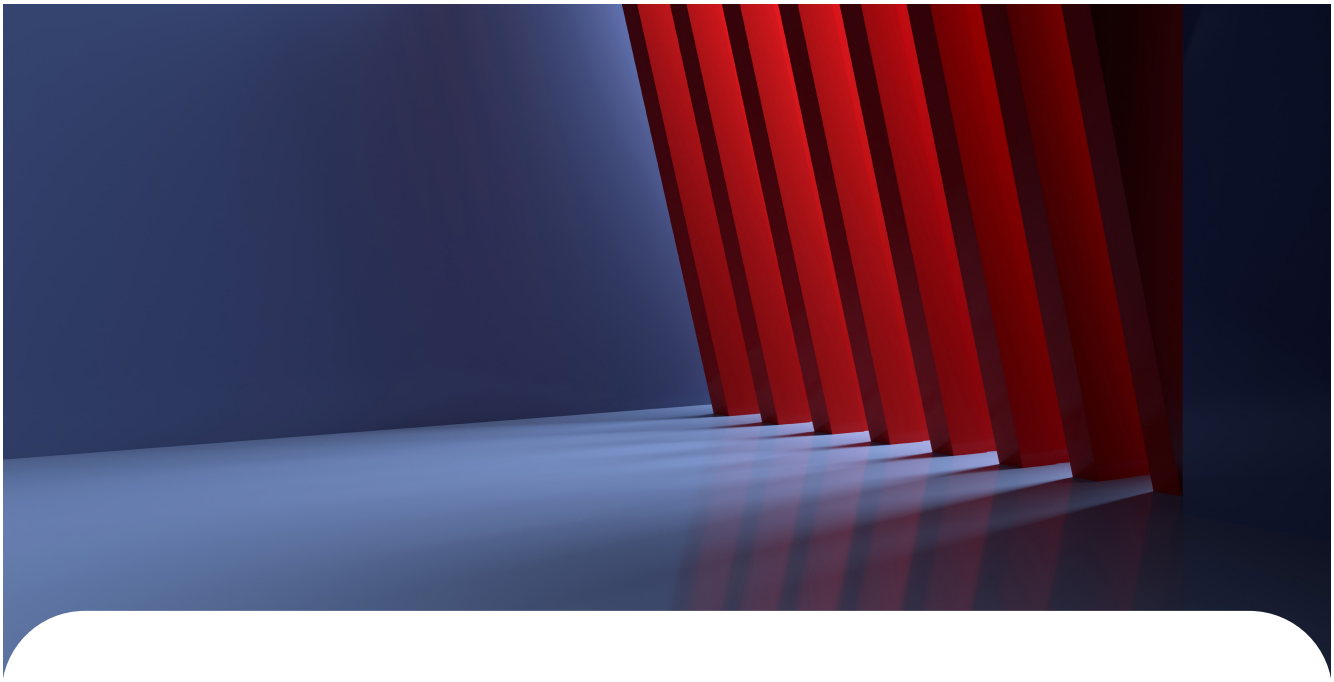
Multiple answers possible

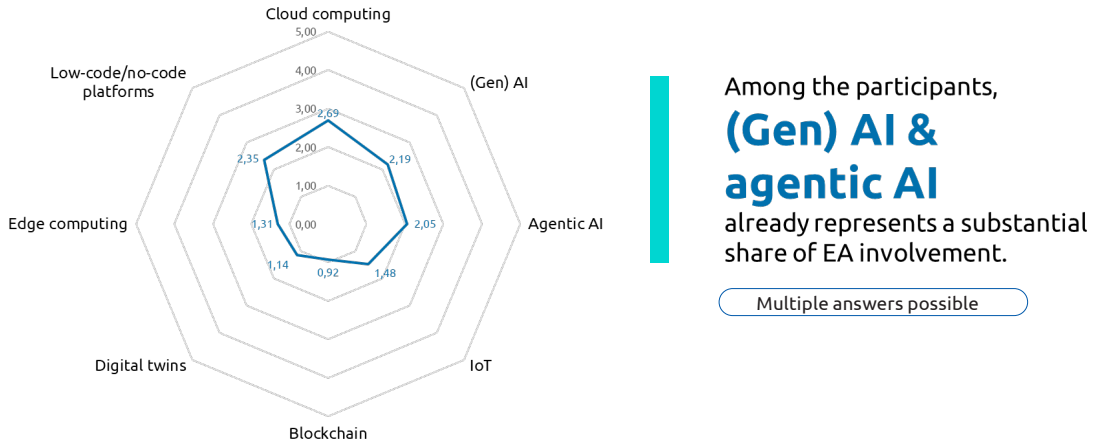
Figure 3: Challenges faced in implementing AI & agentic transformation

EA is already adequately involved in evaluating and implementing AI & agentic topics, however, EA cannot solve skill gaps, sponsorship, and change capacity alone, shifting the primary scaling constraint from technology to non technical enablers

Our survey indicates a comparatively medium to high level of Enterprise Architecture involvement in evaluating or implementing AI (2,19 / 5,00) and agentic AI (2,05 / 5,00), at a level closer to established transformation domains such as cloud computing (2,69 / 5,00) than to more niche technologies (Figure 4). This signals that many organizations already recognize AI & agentic as enterprise-wide architecture concerns that require guardrails, integration into target architectures, and lifecycle accountability.

Nevertheless, this does not make technology topics less important, however, it explains why the dominant scaling constraints move beyond the stack. As AI becomes increasingly accessible and easy to integrate, differentiation shifts to the organization: how quickly teams build skills, get aligned and leverage the value creating opportunities of AI & agentic.





Scale: 0,00 - No involvement; 1,00 - very low involvement to 4,00 - very high involvement; 5,00 - completely EA-driven

Figure 4: EA involvement in evaluating & implementing emerging technologies

AI & agentic transformation requires a new target operating model with federated governance that extends into product teams

To industrialize AI & agentic capabilities, organizations need an operating model that supports faster, more autonomous domains while keeping enterprise coherence. This typically implies a leaner organization design and clearer role separation between centralized direction (principles, standards, compliance, reusable patterns) and decentralized execution (domain and product delivery) not only from an Architecture perspective.

A federated enterprise architecture governance model remains strongly preferred (around half of organizations, Figure 21, Chapter 4 Current State of Enterprise Architecture Management), reflecting the need to balance speed and local ownership with enterprise guardrails. To make this effective, governance must be defined and applied down to product teams, including explicit responsibilities, decision forums, and engagement model that ensure teams can innovate autonomously.

3.3. Evolve EA into a decision-oriented and execution-driven function that guides and enables AI & agentic transformation at scale

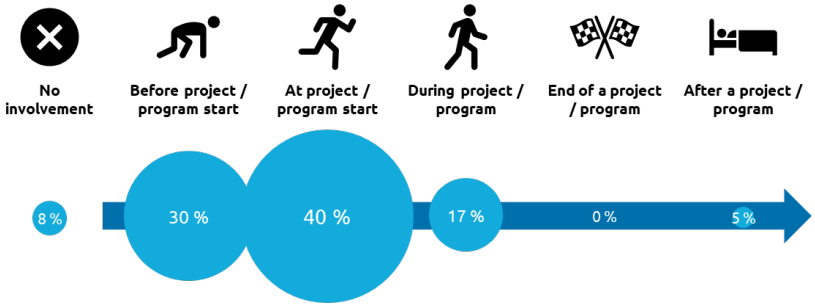
To unlock AI & agentic transformation at scale, EA must evolve from a late-stage governance checkpoint into a true navigator and key enabler, decision-oriented in how it structures choices and execution-driven in how it translates intent into delivery outcomes. When EA is engaged too late, it can only validate what has already been decided, rather than shaping direction. This increases the likelihood of fragmented solutions, unmanaged shadow-AI and avoidable cost, ultimately slowing the industrialization of AI across domains.

In AI & agentic transformations, EA needs to be involved before day one to act as a navigator, otherwise it becomes a reviewer, not a shaper

Across many organizations, EA is still engaged only at kick-off or during delivery of AI & agentic programs (Figure 5), after key choices around platforms, data foundations, security patterns, and the operating model have already been locked in. With only around 30% of EAs involved before an AI & agentic initiative starts, early engagement remains the exception compared to the majority that enters at program start, during delivery, at the end, or not at all. This timing shift reduces EA's strategic influence and pushes its contribution toward reactive firefighting rather than proactive steering.

Late involvement typically forces architects into mitigation mode: retrofitting guardrails, harmonizing patterns, addressing architectural debt, and correcting inconsistent implementations after foundational decisions have already created path dependencies.

By contrast, early EA involvement enables a decision architecture upfront, a structured logic that clarifies what must be standardized, where autonomy is explicitly allowed, and how value, risk, and compliance thresholds are measured consistently across the enterprise. This is the core of the navigator role: not controlling delivery, but making decisions faster and safer by defining decision rights, trade-off criteria, and reference patterns before execution begins. Organizations should therefore deliberately elevate EA into a strategic role for AI & agentic technologies and engage it before delivery planning starts, enabling architects to guide direction rather than auditing outcomes.



57%

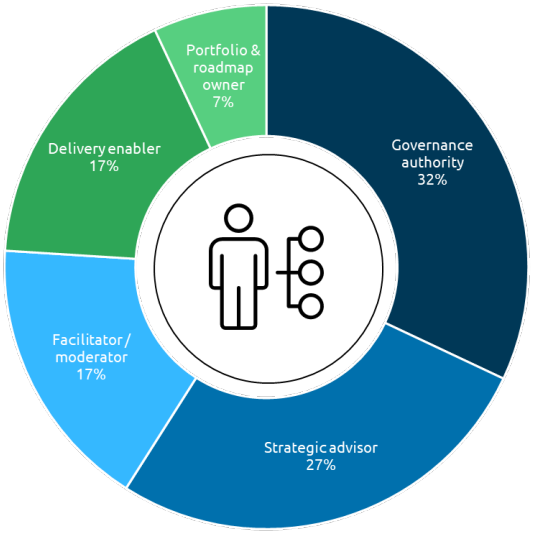
of the participants state that Enterprise Architecture is first involved at the start or during a new project/program in the context of technological transformation, based on AI & agentic

Figure 5: Initial involvement of EA in technological transformation

The data further indicates that earlier EA engagement is associated with stronger perceived value. When EA is involved before or at kick-off, 61% of respondents report being (rather) satisfied with EA's contribution to business readiness, whereas this drops to 14% when EA is first involved only during delivery, after the project, or not at all. Conversely, dissatisfaction increases from 39% (early involvement) to 86% (late/no involvement). This pattern indicates an association between timing and perceived contribution, reinforcing the implication that EA needs to be positioned where decisions are shaped and still reversible, rather than being seen mainly as a late-stage risk mitigator.

EA needs to build on established advisory and governance as the foundation for standardized AI decision making and execution guardrails

EA is not starting from scratch in AI & agentic transformation. In broader technology transformations, stakeholders already associate EA primarily with strategic guidance and architectural governance. In the survey, 59% of participants state that EA currently acts as a governance authority or strategic advisor (Figure 6). This signals an existing baseline of trust: EA is expected to provide direction, define guardrails, and translate strategic intent into target architectures. Organizations should build on this credibility and position EA as an active navigator for AI & agentic adoption, accelerating decisions through clear principles, reference architectures, and consistent decision logic, rather than entering only as a late-stage reviewer.



59%

of the participants state that Enterprise Architecture currently plays a role as a governance authority or as a strategic advisor

Figure 6: Role of EA in current technological transformations

This perception remains consistent when looking specifically at AI & agentic initiatives. Respondents continue to place EA mainly in governance authority (around 30%) and strategic advisor (around 24%) roles (Figure 7), confirming that EA is expected to set the "rules of the road" even in emerging technology domains. This is a strong foundation for a more execution-oriented role. AI & agentic transformations require speed, but it depends equally on coherent choices around platforms, data, security, and operating model. With the right mandate, EA can turn these recurring choices into a structured decision agenda, making explicit what is standardized, what is adaptable, and what is non-negotiable, so delivery teams can move quickly without producing fragmented pilots, redundant solutions, or governance gaps.

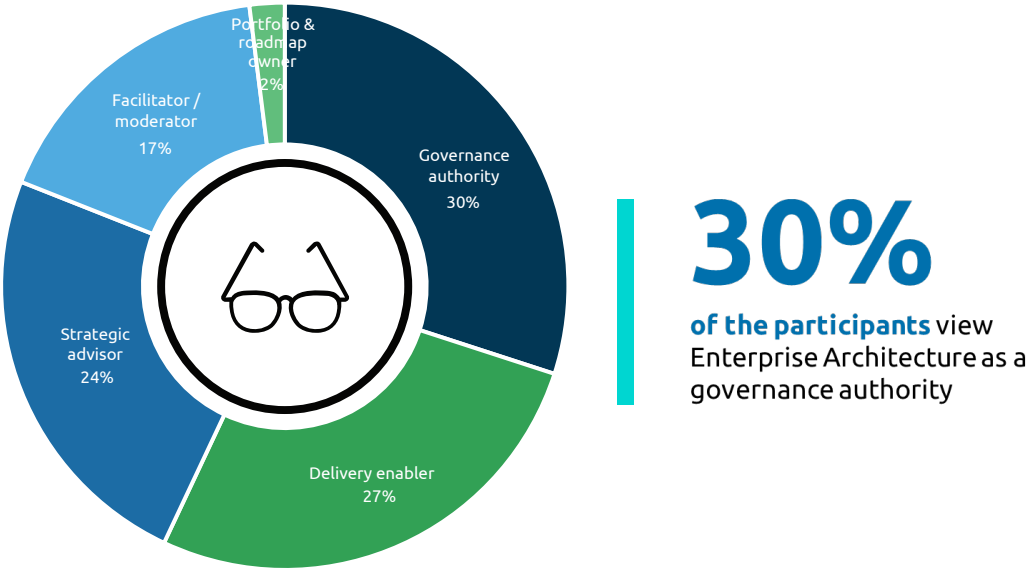


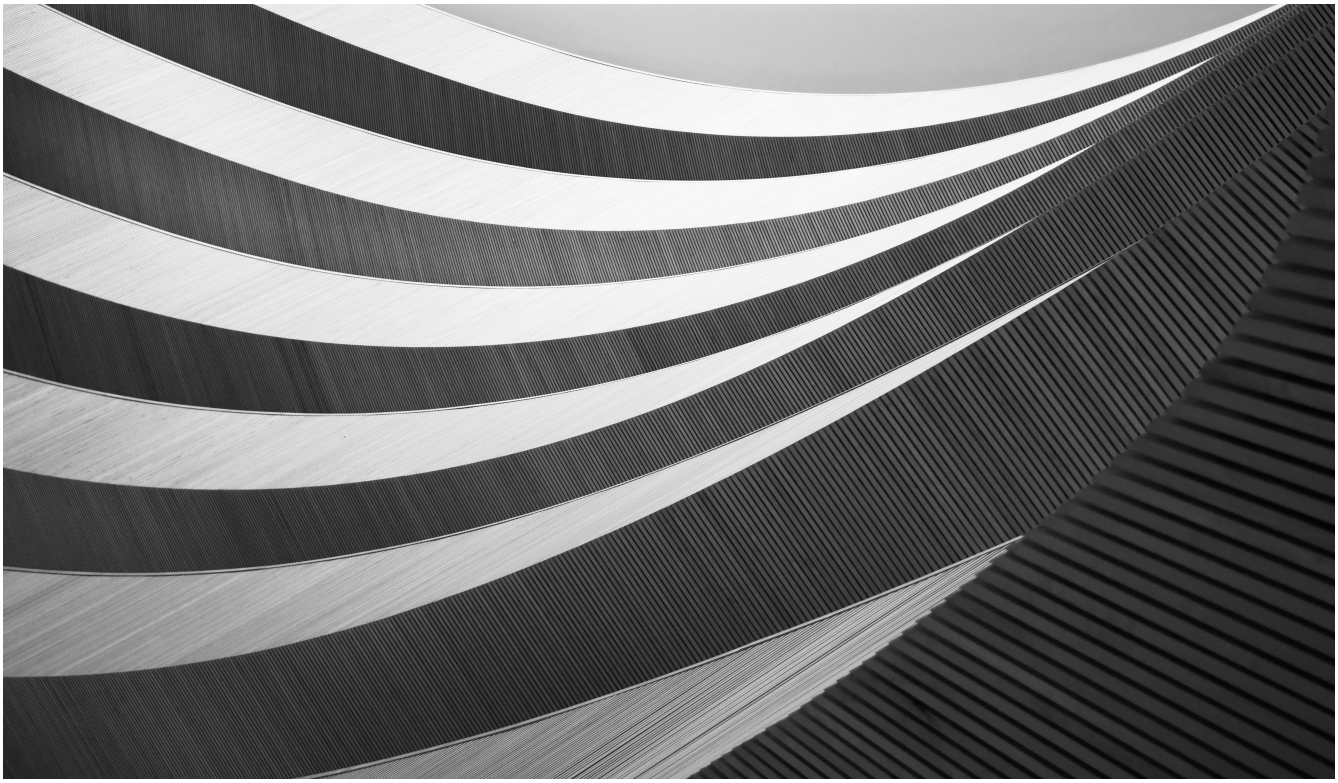
Figure 7: Enterprise Architectures role for AI & agentic transformation initiatives

Beyond role perception, the data also indicates that EA already enables strategic decisions across business and IT. About 55% of respondents confirm that Enterprise Architecture Management facilitates strategic decisions (Figure 25, Chapter 4 Current State of Enterprise Architecture Management), This matters because AI & agentic programs often stall not due to missing technology, but due to unclear decision rights, inconsistent risk thresholds, and disconnected architectural choices across domains. Strengthening EA's navigator role therefore means institutionalizing decision facilitation as a repeatable enterprise capability, converting guardrails into usable decision templates, and embedding EA into the decision cadence of AI initiatives.

EA is expected to complement governance with delivery enablement, yet execution requires stronger portfolio and roadmap ownership

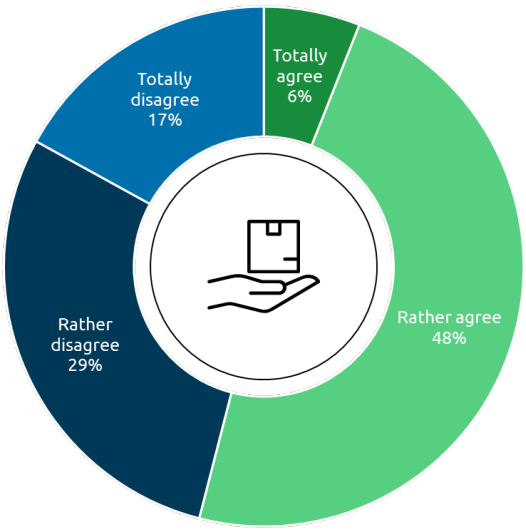
EA's role in AI & agentic transformation is moving closer to delivery, but true enablement requires more than governance. It requires the ability to operationalize target architecture into implementable sequencing and delivery guidance. While more respondents already view EA as a delivery enabler in AI & agentic initiatives (27%) compared to current technology transformations (17%, Figure 6 vs. Figure 7), portfolio and roadmap ownership remains low (2% in AI & agentic and 7% in current transformations). This imbalance risks anchoring EA in "control" rather than being experienced as an execution accelerator.

The reported service mix points in the same direction, with organizations more often describing EA capabilities in governance and standards (28%) than in architecture enablement within projects (15%) (Figure 26, Chapter 4 Current State of Enterprise Architecture Management). To strengthen the delivery-enabler positioning, EA needs to shift emphasis from producing standards and documentation toward advisory-driven decision enablement and, critically, toward execution translation, making the target architecture actionable through roadmaps, sequencing, reusable patterns, and clear delivery guardrails. Without this operationalization step, architectural intent does not consistently convert into execution outcomes, an issue that repeatedly surfaces in large transformations.



Convert EA's proven contribution to AI adoption into strategic leadership by owning the decision agenda, guardrails, and scalable target architectures

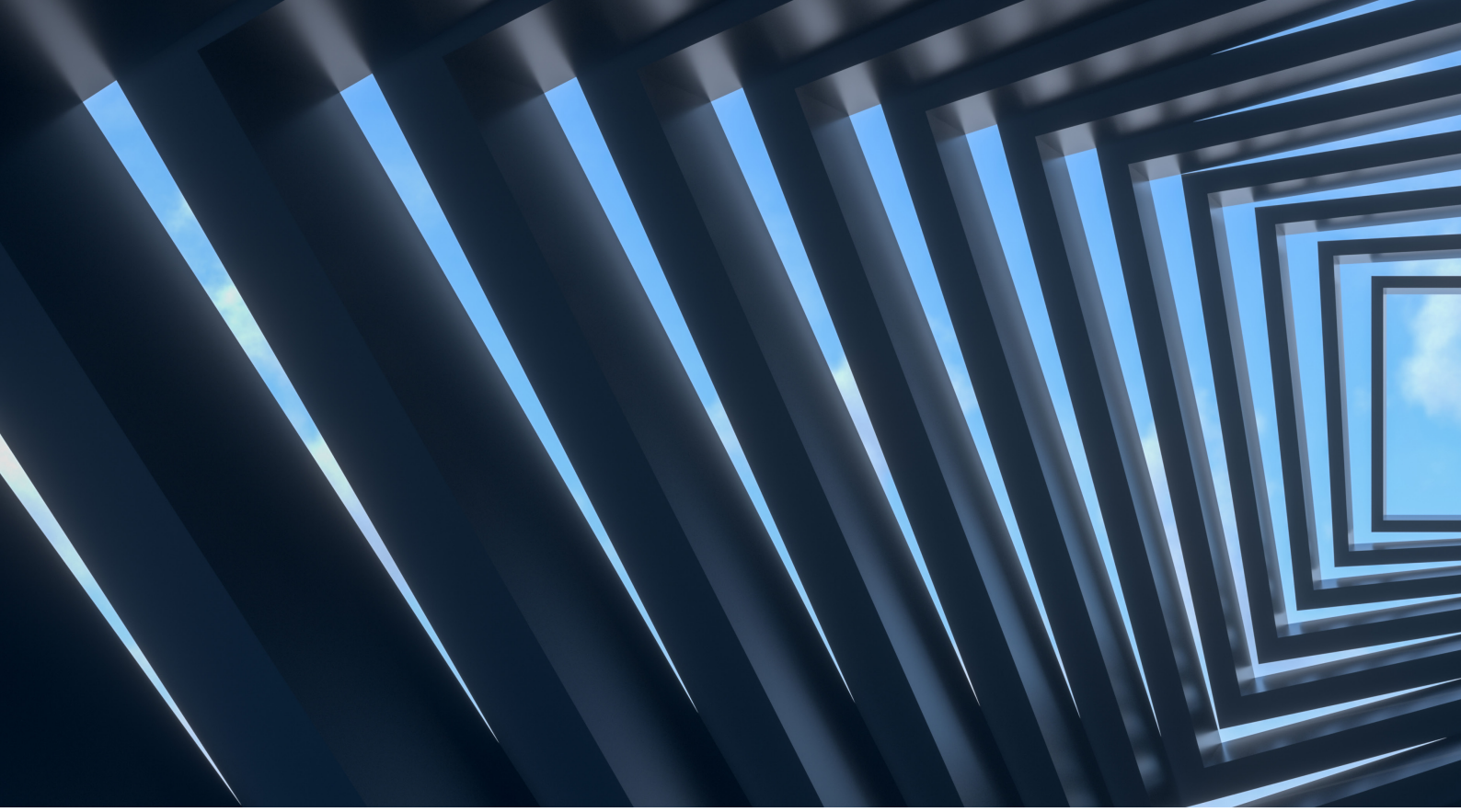
EA already makes a measurable contribution to AI & agentic adoption. In the survey, 54% of participants agree that EAM plays a significant role in adopting AI & agentic technologies (Figure 8). This indicates that EA is not perceived as a peripheral control function, but as a relevant contributor to making AI initiatives work in practice. At the same time, contribution is not the same as strategic leadership. Supporting adoption does not automatically mean EA is shaping the most critical transformation choices or steering the organization toward a coherent and scalable AI operating model.



54%

of the participants agree that Enterprise Architecture Management plays a significant role in adopting AI & agentic

Figure 8: Enterprise Architecture Management contributes significantly to the adoption of AI & agentic



What drives EA's contribution today is primarily its ability to create the foundation layer that AI programs depend on: a shared language, transparency, and repeatable standards across processes and technologies (Figure 9). These prerequisites are essential for scaling AI beyond isolated pilots. They reduce ambiguity, align teams on common patterns, and make dependencies and architectural choices visible, lowering friction when moving from experimentation to industrialization.

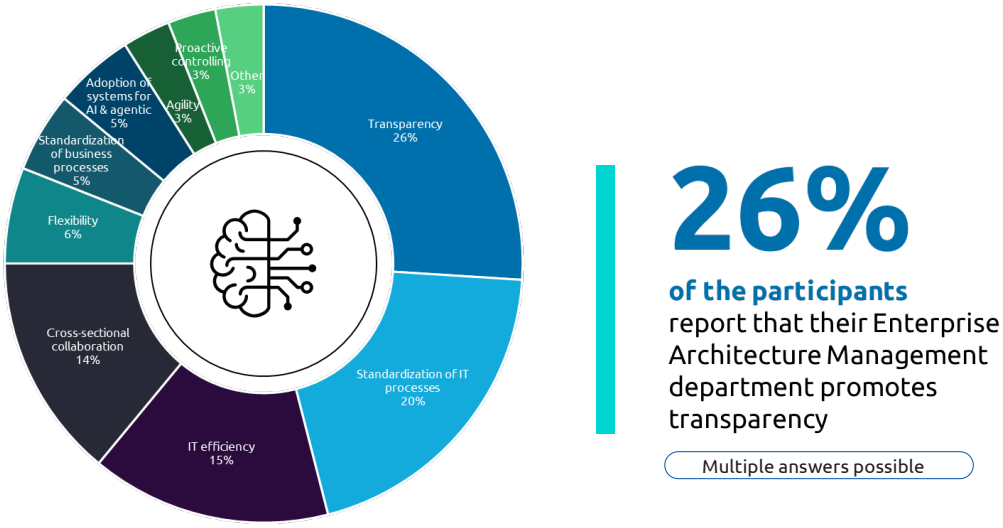


Figure 9: Promoted aspects by Enterprise Architecture Management

However, the data also points to a typical gap: EA's strengths are often realized as enablers of adoption, while strategic leadership requires an explicit mandate to steer direction. To move from "helping AI happen" to actively shaping how AI is used, organizations should build on their existing strengths and strengthen the role of EA. This means increasing EAs involvement in key decisions about AI, defining clear guardrails for safe and efficient delivery, and developing scalable target architectures to avoid fragmentation.

3.4. Establish a federated role and responsibility model within EA to ensure optimal positioning for AI & agentic transformation

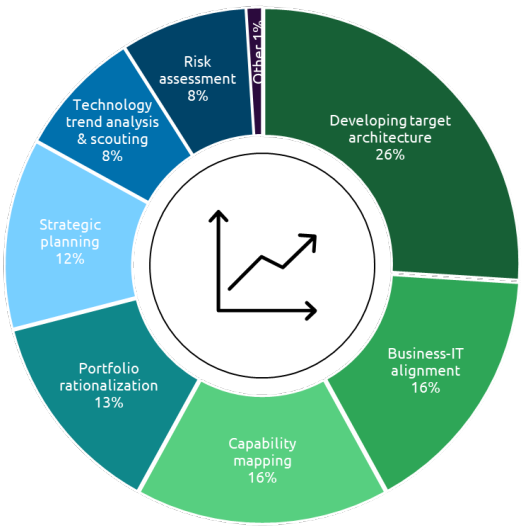
EA must increasingly cover two fundamentally different contribution types to keep pace with the scope and speed of technology transformations. One part of EA needs to set direction, framing the "north star" and the decision logic that guides platforms, standards, and investment priorities. In parallel, a second part of EA needs to enable execution, working close to delivery to ensure coherent implementation, reuse, and risk control across products and domains. Treating these mandates as one undifferentiated EA role typically leads to unclear expectations. EA is either perceived as too remote from delivery (and therefore ignored), or too embedded in delivery (and therefore unable to steer strategically).

EA involvement in technology transformations needs to be split into a Strategic EA role and an Operational EA role

EA needs to institutionalize two distinct roles to handle the widening spread of requirements in technology transformations effectively. We see that EA involvement spans two complementary task clusters: strategic, direction setting contribution and operational enablement. This makes a clear split into a Strategic EA role and an Operational EA role a pragmatic necessity rather than an organizational preference.

Strategic EA focuses on target architecture and strategic direction setting, including strategic planning and technology trend analysis & scouting, providing the enterprise with a coherent "north star" for major transformation decisions. In parallel, the Operational EA role works hands on and close to delivery, covering business–IT alignment, capability mapping, portfolio rationalization, and risk assessment to ensure that transformation execution remains consistent in day to day delivery (Figure 10).

In practice, this EA tandem can already be observed frequently, both in smaller EA setups with only a few architects (where the split is covered by two people), and in larger EA organizations where the dual-role concept is often an established operating model.



26%

of the participants report that their organization's Enterprise Architecture function is involved in developing target architectures in large technology transformation projects

Multiple answers possible

Figure 10: EA involvement in technology transformation projects

The Operational EA role carries the largest share of responsibilities in the context of AI & agentic transformation

When looking specifically at the EA task landscape in AI & agentic transformation, the picture shifts further toward operational enablement. Daily architecture work enables scalable execution e.g. by aligning business and IT (19%), managing data architectures (16%) and ensuring consistent integration and interoperability (10%). At the same time, the Strategic EA role remains essential to establish enterprise-wide foundations that cannot be solved locally. In this context, Strategic EA typically focuses on principles and standards adapted for AI (14%), compliance and regulatory alignment (11%), and governance and ethics (6%) (Figure 11).



19%

of the participants report that business-technology alignment is primarily promoted to enable AI & agentic initiatives

Multiple answers possible

Figure 11: Aspects primarily promoted by Enterprise Architecture to enable AI & agentic transformation

For a successful AI & agentic transformation, it is therefore critical to agree on a clear role split and workload allocation between the EA tandem. This clarity ensures an effective way of working, avoids gaps or duplication between strategic steering and operational enablement, and supports a scalable execution across the organization.

3.5. Invest in the skills and capabilities required to reposition EA toward advisory and decision enablement

To unlock the full potential of AI & agentic transformation, EA must evolve beyond its traditional role. What used to focus on governance, standards, and transparency is no longer sufficient in an environment where decisions must be made faster, across more domains, and under higher uncertainty.

As a result, the value of EA shifts from describing target architectures to actively enabling decisions and guiding execution at scale. This requires a stronger focus on advisory capabilities, clear decision frameworks, and services that translate strategy into actionable outcomes.

However, many organizations have not yet aligned their EA capabilities with these new expectations.

Organizations do not feel "EA-ready" for AI & agentic - capabilities must be built intentionally, not assumed

The study reveals a clear readiness gap in how organizations perceive EA's ability to support AI & agentic initiatives. While only 45 % of respondents consider their EA function prepared to support such initiatives (Figure 12), a majority of 55 % does not yet see EA as a fully capable enabler.

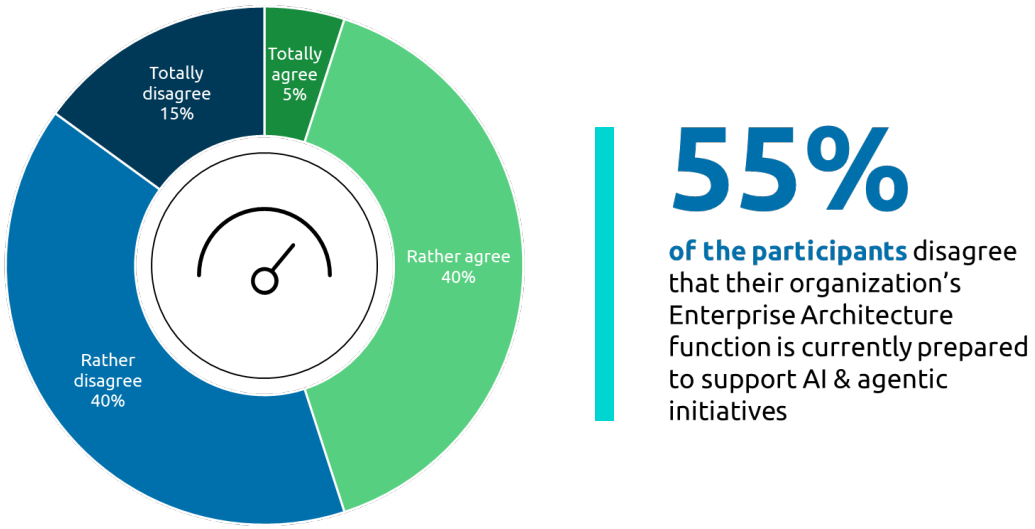


Figure 12: Current maturity of EA function to support AI & agentic initiatives

This is further reinforced by satisfaction levels. 56% of respondents are rather dissatisfied with EA's current contribution to business readiness for AI & agentic (Figure 13).

The implication is clear: traditional EA strengths, such as governance, transparency, and standardization, are still necessary but no longer sufficient on their own.

In AI & agentic transformation, value is not created by defining standards alone, but by ensuring that these standards actively guide decisions and are consistently applied in execution. What is still missing yet is EAs ability to translate these strengths into actionable decision support and execution guidance in highly dynamic AI environments.

In practice, this requires building AI literacy within EA teams, strengthening facilitation and stakeholder alignment capabilities, and most importantly equipping EA to operationalize decision guardrails so they become usable in day-to-day delivery contexts.

Only when architectural principles are translated into practical decision frameworks and embedded into delivery, EA can effectively enable scalable, coherent AI adoption.



56%

of the participants are (rather) dissatisfied with their organization's Enterprise Architecture readiness for AI & agentic initiatives

Figure 13: Satisfaction with current contribution of EA to business readiness for AI & agentic

Target maturity for EA services consistently exceeds today's contribution - prioritization is required to close the gap where it matters most

Across all EA services, the desired target maturity consistently exceeds the current contribution (Figure 14), highlighting a structural gap between expectations and reality.

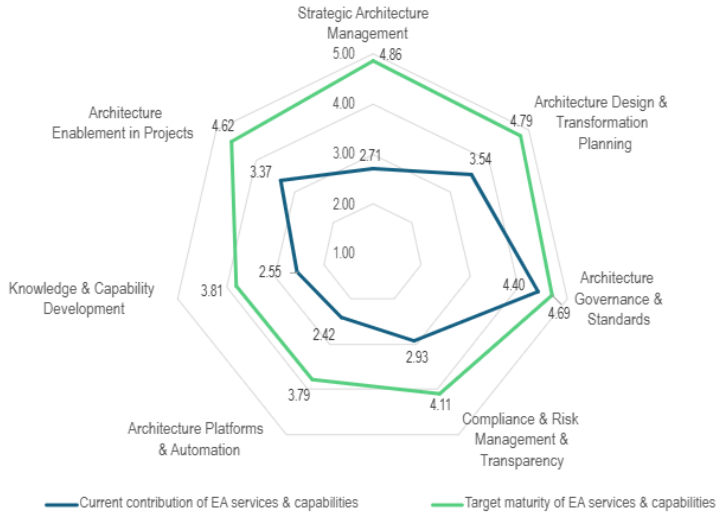
However, this gap is not uniform, and this is where prioritization becomes essential.

The most pronounced gap exists in Strategic Architecture Management (Gap: 2,15). This is the clearest signal that EA, while already contributing, is not yet sufficiently empowered to shape strategic direction and drive decision-making at the level required for AI & agentic transformation.

This capability is at the core of advisory and decision enablement. Defining decision frameworks, linking technology choices to value ownership, and ensuring that transformation efforts follow a coherent enterprise-wide logic rather than fragmented domain initiatives.

Strategic Architecture Management is one of the strongest "upgrade lever" for AI & agentic adoption, because it operationalizes value ownership and decision logic. In this context, value ownership means clear accountability for business outcomes, risk, funding, and lifecycle responsibility of AI capabilities.

By contrast, Architecture Governance & Standards shows the smallest gap (Gap: 0.29), indicating that many organizations already have a relatively mature baseline in this area. While this capability remains essential for safe and compliant scaling, it is no longer the primary differentiator. Instead, governance must evolve from static control mechanisms into enabling guardrails that are embedded in delivery processes and actively accelerate decision-making rather than slowing it down.



Scale: 1,00 - ad hoc; 2,00 - developing; 3,00 - defined; 4,00 - managed; 5,00 - optimized

Among the participants,

Strategic Architecture Management

emerges as the top priority for future maturity development

Multiple answers possible

Figure 14: EA services & capabilities current contribution and maturity ambitions

Overall, the role of architects fundamentally shifts from designing individual solutions to enabling safe execution environments in which AI & agentic can scale reliably.

In practice, this means that the value of EA is no longer defined by the quality of isolated target architectures, but by its ability to shape how decisions are made, aligned, and implemented across domains under real delivery conditions.

As AI & agentic transformation increases uncertainty, risk, and decision frequency, organizations face a growing number of interdependent trade-offs between speed and control, innovation and compliance, or autonomy and standardization. In this context, architects create value not by providing one-time designs, but by establishing the conditions for continuously making better decisions: clear guardrails that can be applied in delivery, transparent trade-offs that can be understood across stakeholders, and a shared language that aligns business, IT, data, and security perspectives.

This makes decision-making repeatable and scalable, two prerequisites that are often missing in early-stage AI adoption.

Importantly, this shift does not replace traditional architecture capabilities, it amplifies their importance. Foundational disciplines such as data architecture, integration design, and standardization become critical enablers, as they define the boundaries within which AI & agentic solutions can safely operate. In practice, weak foundations quickly translate into fragmented implementations, inconsistent data usage, and increasing risk exposure as AI scales.

As a result, EA expands beyond structuring IT portfolios toward designing a safe, observable, and governable execution environment. This environment is characterized by governed data access, interoperable integration, embedded controls, and reusable patterns that teams can apply without rethinking core decisions. The practical implication is that architecture must be experienced by delivery teams as an enabler, not as an additional layer, something that accelerates implementation while ensuring consistency and compliance.

Ultimately, AI & agentic transformation turns execution into the critical bottleneck. Value is only realized when ideas are translated into working solutions across products and domains, consistently and at scale. EA therefore plays a central role in designing the conditions that make this possible, ensuring that strategic intent can be operationalized repeatedly, without losing coherence or control. This is the essence of an enablement-driven EA function, one that does not only define architectures, but makes them work in practice.

3.6. Industrialize AI by establishing reusable components and standardized patterns to accelerate scalable deployment and value realization

The transition from AI experimentation to enterprise-wide value creation hinges on industrialization. While many organizations have successfully launched AI & agentic initiatives, these efforts often remain fragmented and use-case driven. Without a structured approach for reuse and standardization, scaling leads to duplicated functionality, inconsistent architecture, and increasing integration complexity.

To overcome this, organizations must shift from building isolated solutions to establishing a reusable architectural foundation. EA plays a central role in enabling this shift by defining reusable building blocks and standardized patterns that allow AI capabilities to be scaled consistently across domains.



To support AI & agentic transformation, EA establishes modular architectures and reusable patterns

Industrializing AI does not start with new use cases, but with fixing the structural foundations for scaling (Figure 15). With 25% of organizations prioritizing the reduction of redundant applications, the strongest signal is that complexity, not capability, is the primary bottleneck. As long as systems, processes, and data remain fragmented, AI initiatives cannot be reused and will scale only at the cost of duplication and integration effort.

At the same time, the equally strong focus on data governance (19%) and modular, API-based architectures (19%) underlines what actually enables scaling in practice: consistent data and reusable system design. AI & agentic solutions do not fail because of missing models or tools, but because they cannot be deployed consistently across domains.

Without governed data and modular architectures, every new use case becomes a reinvention instead of a reuse, ultimately limiting scalability and slowing down value realization.

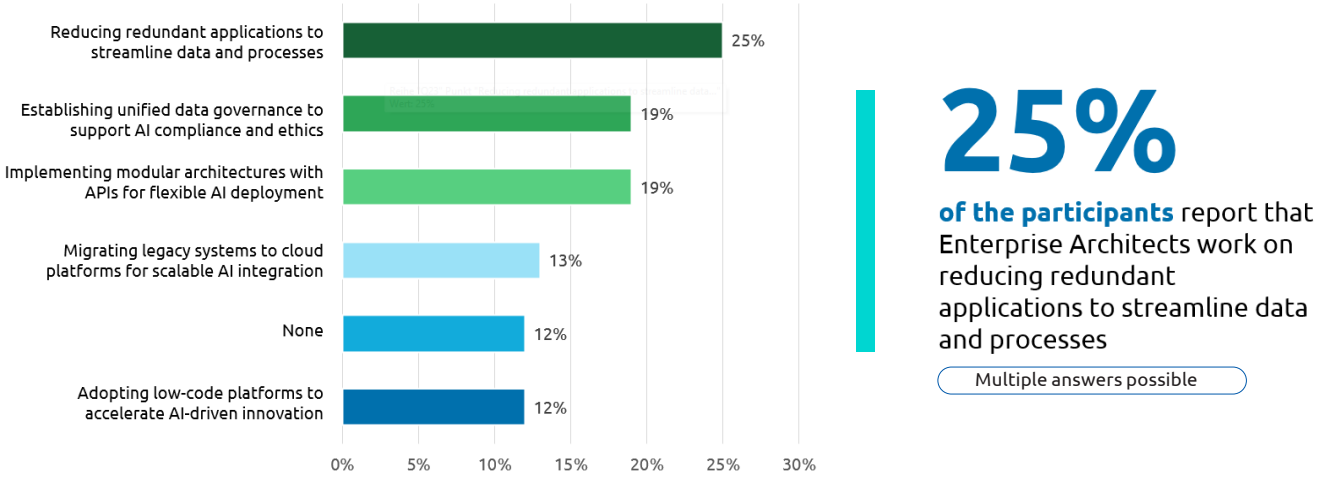


Figure 15: EA's role in organizations contribution to prepare systems & integrate AI & agentic

The implication is that industrialization is not about doing more AI, but it is about making AI repeatable. This requires a shift from building isolated solutions to "designing for reuse", where capabilities and architectural decisions are consistently driven by scalability, interoperability, and standardization.

In practice, EA contributes by strengthening the foundation on which AI & agentic solutions run, ensuring that applications, data, and infrastructure are optimized for scalable execution.

This foundation must be intentionally designed. Concepts such as agentic-by-design emphasize that architecture needs to actively support agentic execution, while semantic grounding highlights the importance of a coherent data layer as the basis for reliable outcomes.

On top of this, capability-centric thinking becomes the key scaling mechanism. Instead of automating isolated use cases, EA enables reusable automation by identifying and standardizing recurring governance patterns. This allows organizations to apply consistent execution models across domains rather than reinventing solutions for each scenario.

This translates into a clear set of priorities. EA must simplify the landscape by eliminating redundancies and enforcing modular structures, standardize the foundation through consistent data governance and interoperable integration patterns, and design reusable building blocks that can be applied across domains. Only when these elements come together AI & agentic initiatives move from fragmented experimentation to scalable enterprise capability.

3.7. Integrate AI into Enterprise Architecture practices and systematically leverage it to augment and automate core activities

As AI & agentic transformation accelerates, Enterprise Architecture faces a structural challenge. The expectations toward the EA role are increasing, while its capacity remains limited. To bridge this gap, EA must not only enable AI across the enterprise, but also systematically embed AI & agentic capabilities into its own work. This marks a fundamental shift - from governing AI externally to actively leveraging it internally, increasing speed, consistency, and impact. In practice, this requires making AI part of the standard EA service portfolio, automating repetitive activities, augmenting analysis and decision-making, and embedding AI support into core architecture workflows. Only by doing so EA can free up the necessary capacity to focus on advisory, decision enablement, and transformation steering. This turns AI from an external topic into an internal capability and a key lever for scaling EA's impact.

Although the perceived influence of AI & agentic on the EA function is high, the actual use of AI & agentic within EA work is still low

The study results highlight an imbalance. While 57% of participants confirm that AI & agentic initiatives already have a strong influence on the EA function, the actual usage of these technologies within EA remains behind expectations. 66% report that the current use of AI & agentic to support EA activities is still low, indicating a substantial gap between perceived relevance and practical adoption (Figure 16 & Figure 17).

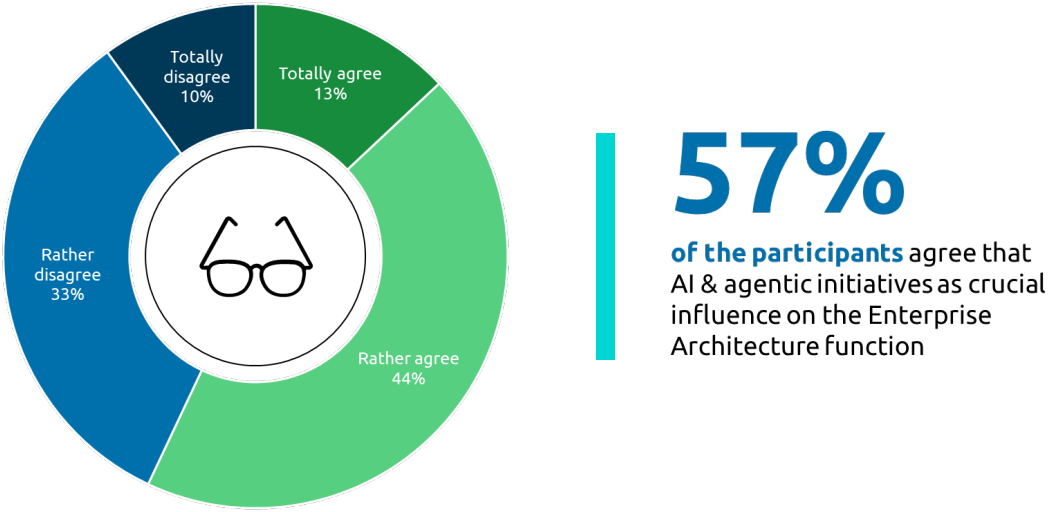
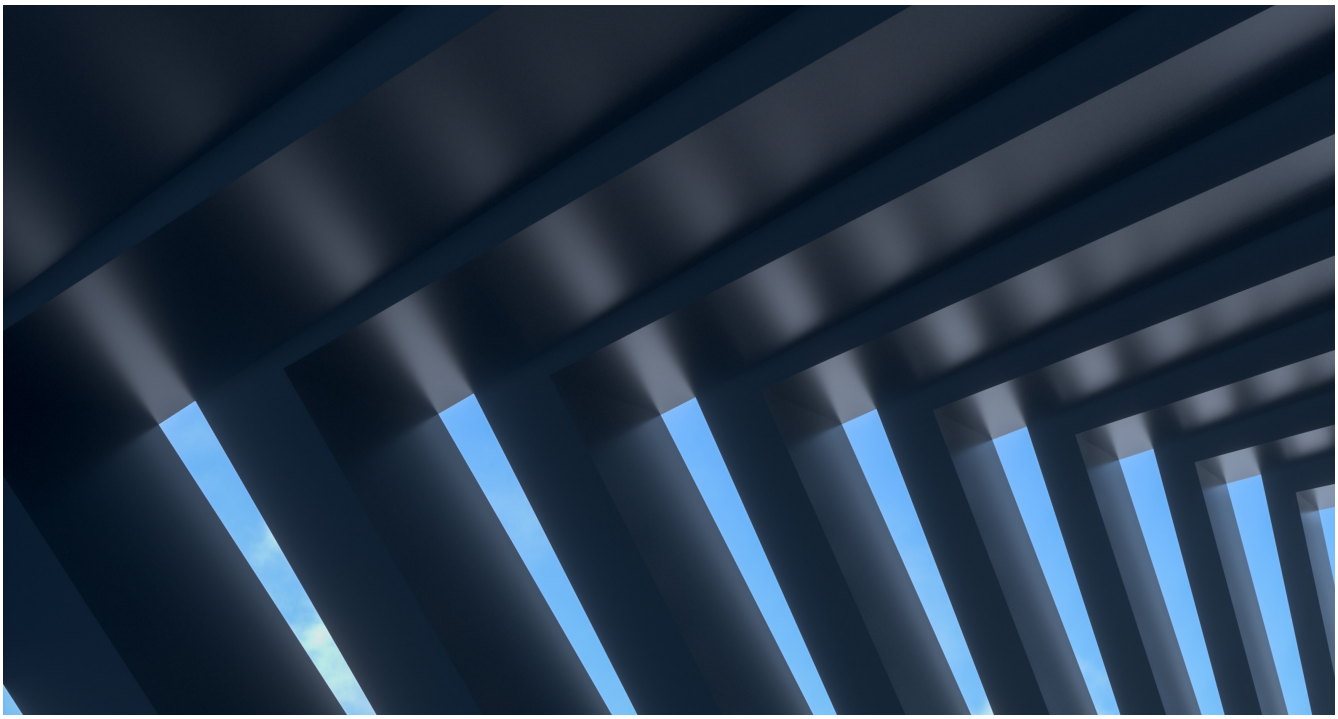
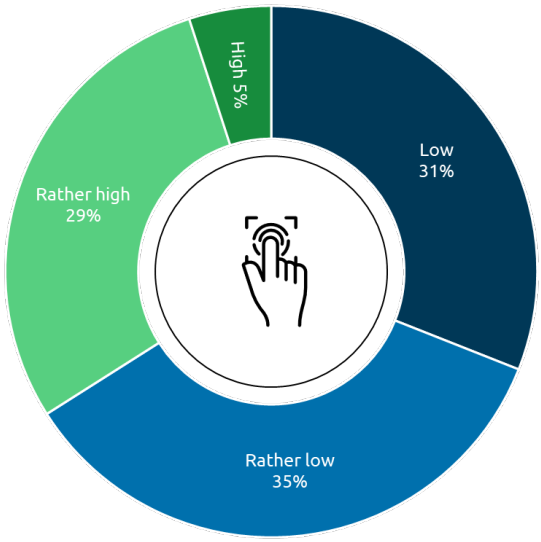


Figure 16: Perceived influence of AI & agentic initiatives on EA function



This gap reflects a structural inefficiency: EA is expected to drive AI transformation, yet its own processes remain partially manual and capacity constrained.

This disconnect becomes particularly critical given the nature of EA work. A significant portion of time is spent on repetitive tasks such as documentation, analysis, and preparation. While analysis underpins decision-making, many of these activities are largely quantitative and repetitive, making them suitable for automation and allowing EA to focus more on work that directly drives decisions and transformation outcomes. Without leveraging AI to address these tasks, EA risks being overloaded, unable to meet increasing demands with its current resources.



66%

of the participants report that the extent of AI & agentic use to support their EA function is (rather) low

Figure 17: Extent of AI & agentic use in supporting EA activities

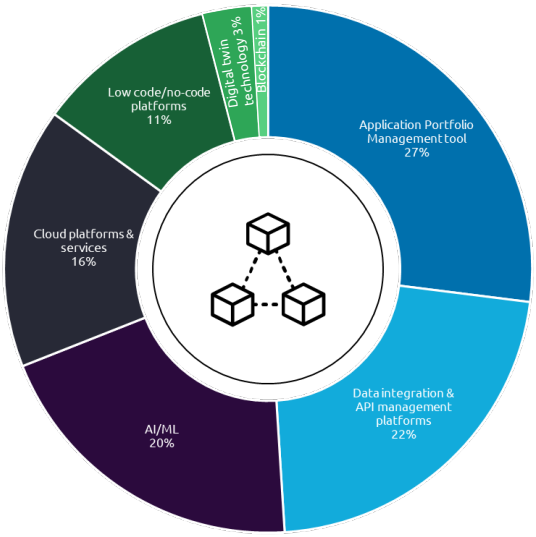
AI & agentic tools can especially relieve small and mid-sized EA teams from routine tasks and free up capacity for the “newly” required services and capabilities

This is where AI & agentic tools become key enablers. Especially for small and mid-sized EA teams, which dominate in practice (Figure 20), these tools provide immediate leverage by automating routine activities and reducing operational overhead.

The data supports this with 27% of participants stating that Application Portfolio Management tools can already be leveraged by EA functions to improve service delivery, complemented by further usage of data integration, API management, and AI and Machine Learning (ML) technologies (Figure 18).

Together, these tools create tangible opportunities to increase efficiency and free up capacity for higher-value activities.

The implication is clear: the value of AI & agentic within EA is not automation for its own sake, but targeted capacity creation. By embedding AI into core EA activities, teams can shift their focus toward advisory, decision enablement, and transformation steering, capabilities that are increasingly expected from EA in an AI-driven environment.



27%

of the participants state that Application Portfolio Management tools can be leveraged by the EA functions to improve service delivery

Multiple answers possible

Figure 18: Technologies for leveraging EA function to improve services

At the same time, embedding AI & agentic into EA work also changes how architecture is applied across the enterprise. Agentic capabilities do not replace EA, they activate it.

As systems move from static workflows to dynamic, context-driven execution, architecture becomes more, not less, relevant. EA must ensure that these systems operate within clearly defined and enforceable boundaries. This requires governance that is no longer review-based, but embedded directly into how solutions are designed and operated.

In practice, this means that EA must define and operationalize guardrails that guide AI & agentic behavior, ensuring that autonomy does not translate into uncontrolled variance, security risks, or compliance issues. Governance becomes a continuous, built-in mechanism that enables speed while maintaining control.

Ultimately, EA takes on a dual role, leveraging AI to scale its own capabilities while simultaneously defining the boundaries for how AI operates across the enterprise. Only by combining both perspectives, EA can keep pace with the increasing speed and complexity of AI & agentic transformation.

EA must systematically embed AI into its service portfolio, automating repetitive activities, augmenting analysis, and freeing up capacity for high-value services.

This is particularly critical for smaller EA teams, where AI acts as a force multiplier.



4

Current State of Enterprise Architecture Management

Enterprise Architecture Management (EAM) is not a static discipline. Its mandate, value contribution, and organizational allocation continue to evolve as enterprises face rising technology sprawl and AI-driven complexity. This chapter consolidates the survey findings on EAM's current state and contrasts them with prior years to show how EA organizations have developed over time, where they deliver measurable impact today, and where structural constraints remain.



EAM as established corporate function

EAM is firmly established in more than 85% of surveyed organizations, providing a critical foundation for AI-driven technology transformations (Figure 19). Yet the key question remains whether EAM is sufficiently empowered to shape these shifts proactively or remains confined to a governance-focused role, an issue that will define its future strategic impact in the age of AI. While EAM is firmly established as a corporate function in the majority of organizations in 2026, its level of institutional maturity remains uneven. Although 85% of respondents confirm the formal establishment of EAM, 70% report that the function has existed for less than five years, and one third only for less than two years. This highlights that many EA organizations are still in an early phase of maturation, which influences their ability to move beyond governance-centric activities toward more proactive, strategic impact.

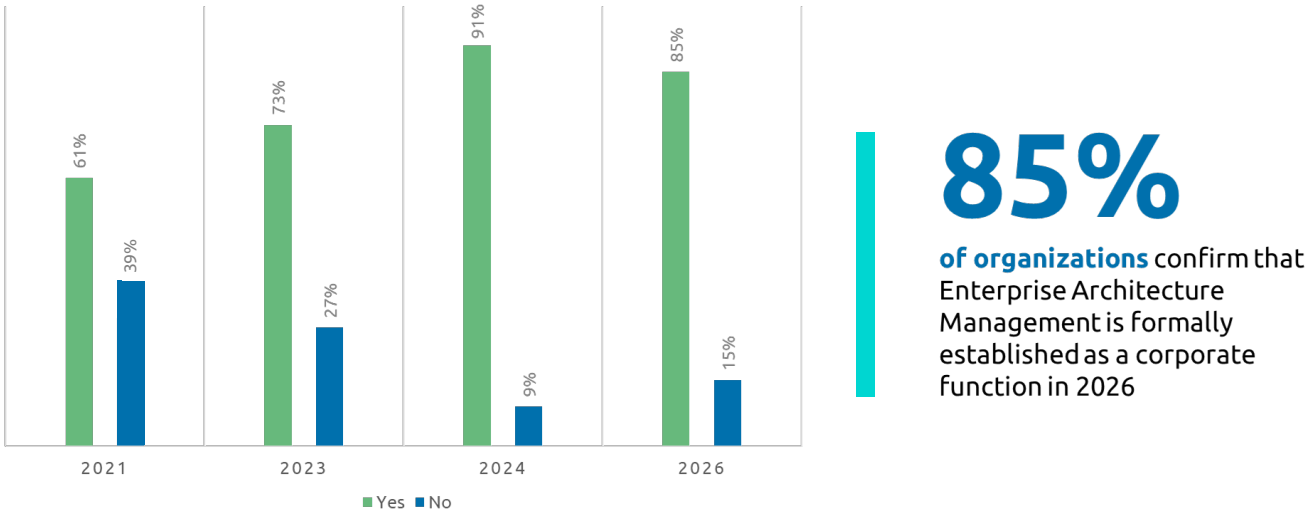
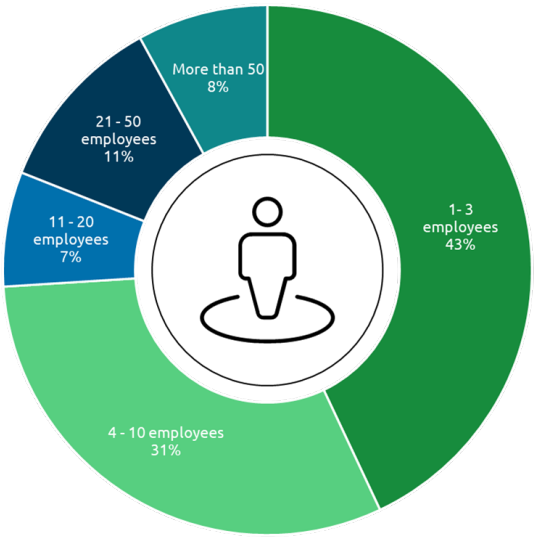


Figure 19: Enterprise Architecture as an established corporate function

Small EAM teams with a coordinating role

Although EAM is often seen as an established function, its relatively young age is reflected in small team sizes, with 74% of organizations operating EAM with ten or fewer employees despite large overall enterprise headcounts (Figure 20). This lean setup reinforces a model where a small central EA core provides direction while architectural work is distributed across domains, allowing EAM to scale its influence through principles and federated decision-making rather than through direct headcount growth. This approach places high importance on clear governance structures, well-defined architectural principles, and strong stakeholder alignment across domains. At the same time, it limits EAM's capacity to directly engage in operational or delivery-focused activities. As a result, the effectiveness of EAM is less a function of team size and more dependent on organizational mandate and acceptance within the enterprise.



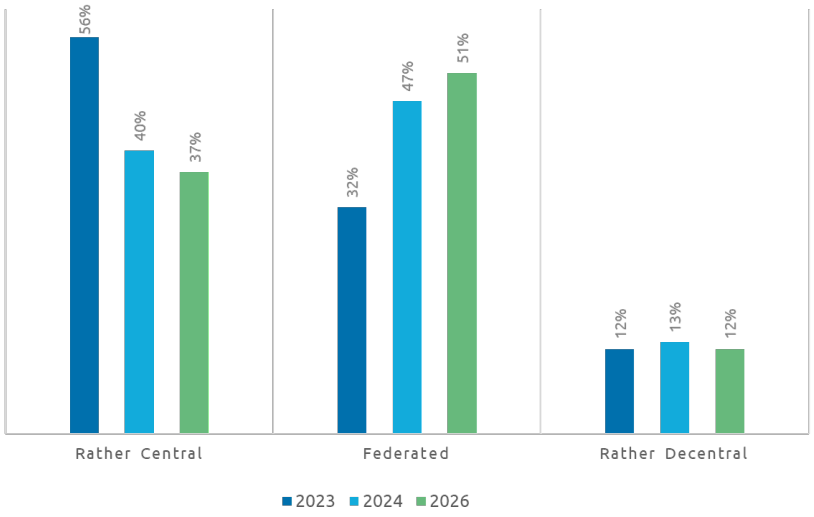
74%

of organizations operate EAM with ten or fewer dedicated employees, highlighting EAM's role as a lean coordination function

Figure 20: Headcount of employees in EAM functions

Federated governance model as the preferred approach

Federated EAM remains the preferred governance model, chosen by 51% of participants, reflecting a strong industry trend toward balancing coherence with domain-level autonomy (Figure 21). This mirrors both study findings and project experience, showing that federated governance avoids the bottlenecks of centralization and the fragmentation of decentralization by enabling faster domain innovation while a lean central EA core maintains guidance and provides overall direction, e.g. through shared architectural principles. That preference towards a federated governance reflects the need to balance enterprise-wide coherence with domain-level agility. By avoiding overly centralized control structures, organizations seek to reduce bottlenecks while still maintaining shared architectural standards. Consequently, the role of the central EAM function shifts toward coordination, arbitration, and principle-setting rather than direct enforcement.



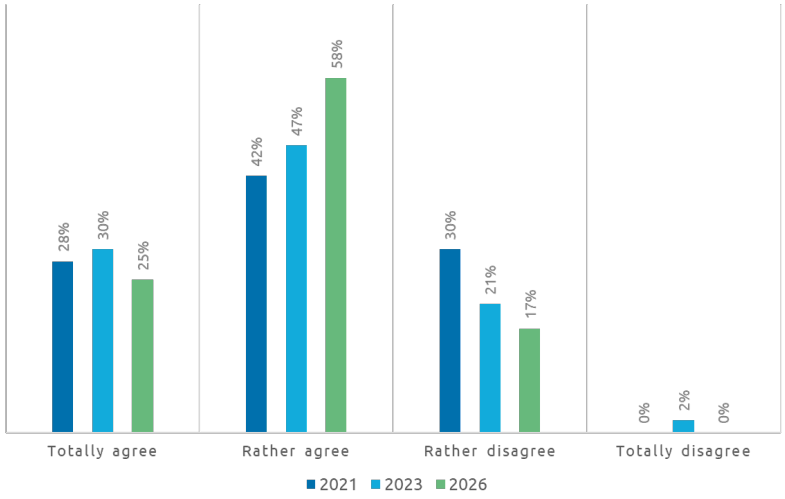
51%

of organizations adopt a federated EAM governance model, balancing central architectural guidance with domain autonomy

Figure 21: Share of current EAM governance models

EAM as a key driver of company-wide architectural principles

The preference of federated governance models is reflected in the strong role EAM plays in defining company wide architecture principles (Figure 22), with 83% of organizations reporting that such principles guide decisions across technology, applications, processes, and organizational design. This principle driven approach has become a key steering mechanism in complex transformations, allowing EAM to balance local autonomy with enterprise coherence and demonstrate clear impact wherever it is sufficiently empowered. This high level of agreement indicates that architectural principles are widely accepted as a key steering instrument. Their effectiveness allows EAM to exert influence across heterogeneous domains without direct operational control. In the current state, principle-driven governance thus emerges as a central mechanism for balancing local decision-making with enterprise-wide consistency.



83%

of organizations rely on EAM-defined architectural principles as a steering mechanism for enterprise-wide decisions

Figure 22: EAM defines company-wide principles

EAMs strong impact on transparency and standardization

Although EAM delivers measurable value across several operational dimensions, its strongest contributions lie in transparency at 26%, IT process standardization 20%, and IT-efficiency 15% (Figure 23). This distribution indicates that EAM's value contribution is currently centered on creating stability, consistency, and transparency across the IT landscape. These effects largely arise from the adoption of systems and business processes, which is often driven by the need for better governance, reduced complexity, improved comparability across organizational units, and increased operational control. As a result, EAM initiatives tend to emphasize harmonization and consolidation rather than strategic differentiation. Areas associated with agility, flexibility, and proactive controlling are therefore less frequently emphasized.

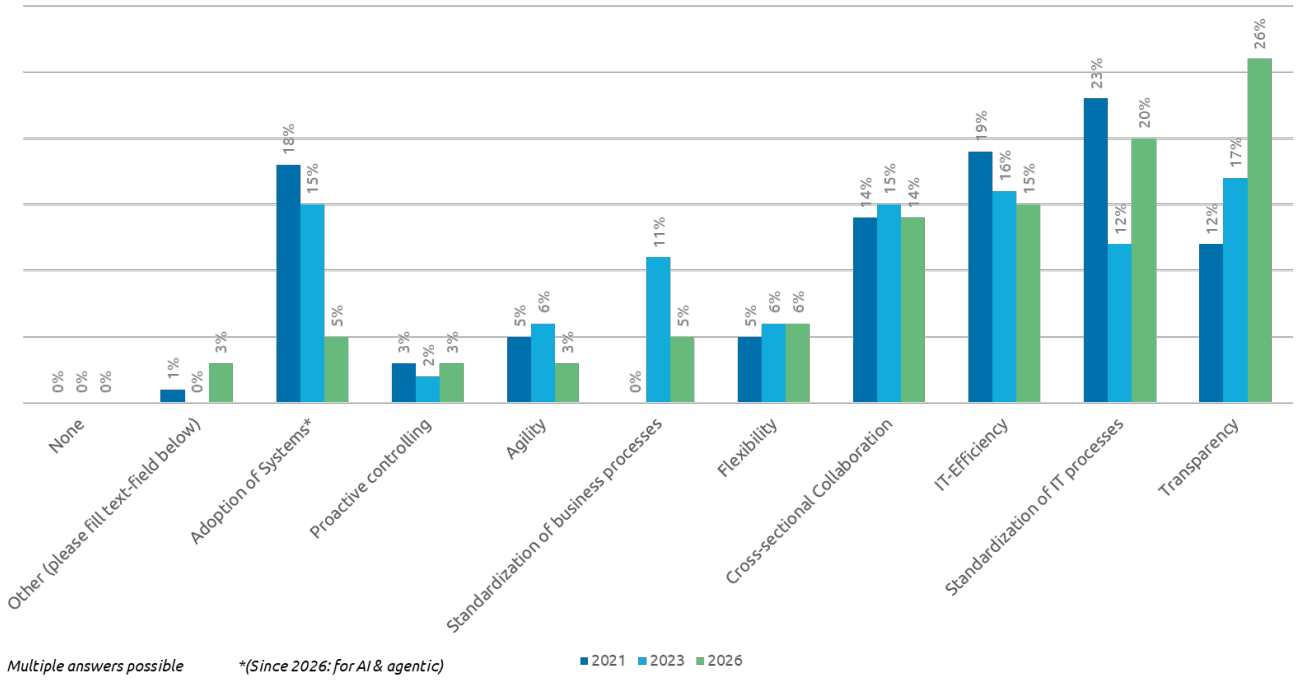
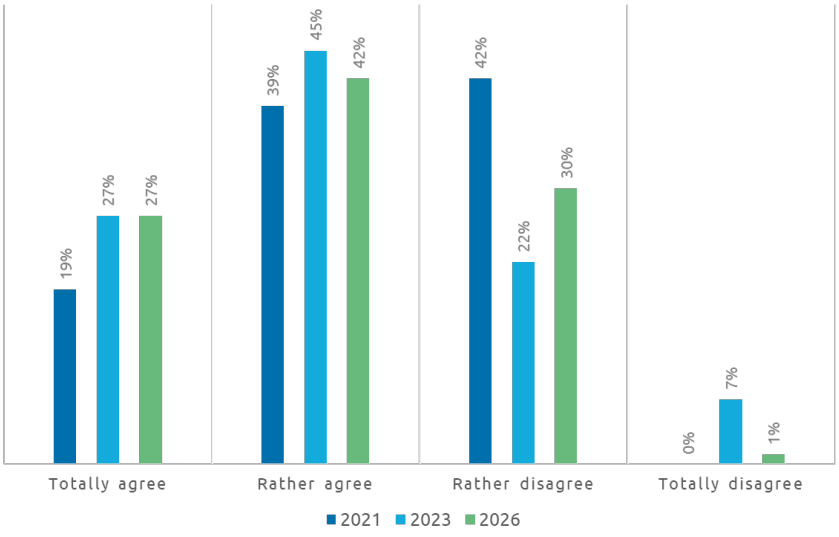


Figure 23: Promoted aspects by Enterprise Architecture Management over the years

EAMs measurable contribution to IT cost efficiency

Although EAM is only marginally involved in early strategic decisions, it delivers a clearly measurable impact on IT cost efficiency (Figure 24), with 69% of organizations reporting significant value from identifying redundancies and optimizing the application and provider landscape. The few dissenting views come mainly from companies with very small EAM teams, indicating that limited capacity and specialization restrict their ability to realize cost savings, while larger and more mature EAM functions are structurally better positioned to drive such benefits. This pattern suggests that cost efficiency is one of the most tangible and widely recognized outcomes of EAM activities. Consolidation effects can be realized even without deep involvement in upstream strategic planning, particularly through transparency and standards. However, the dispersion of responses also indicates that the cost impact of EAM is not uniform and depends strongly on organizational context and EAM maturity.



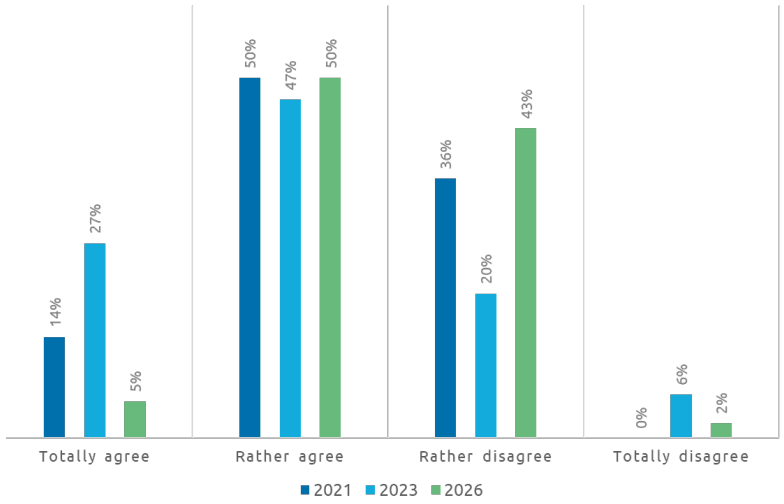
69%

of organizations report that EAM contributes significantly to IT cost efficiency through consolidation and optimization initiatives

Figure 24: Contribution of EAM to cost efficiency in IT-landscape

Limited involvement of EAM in strategic decision-making

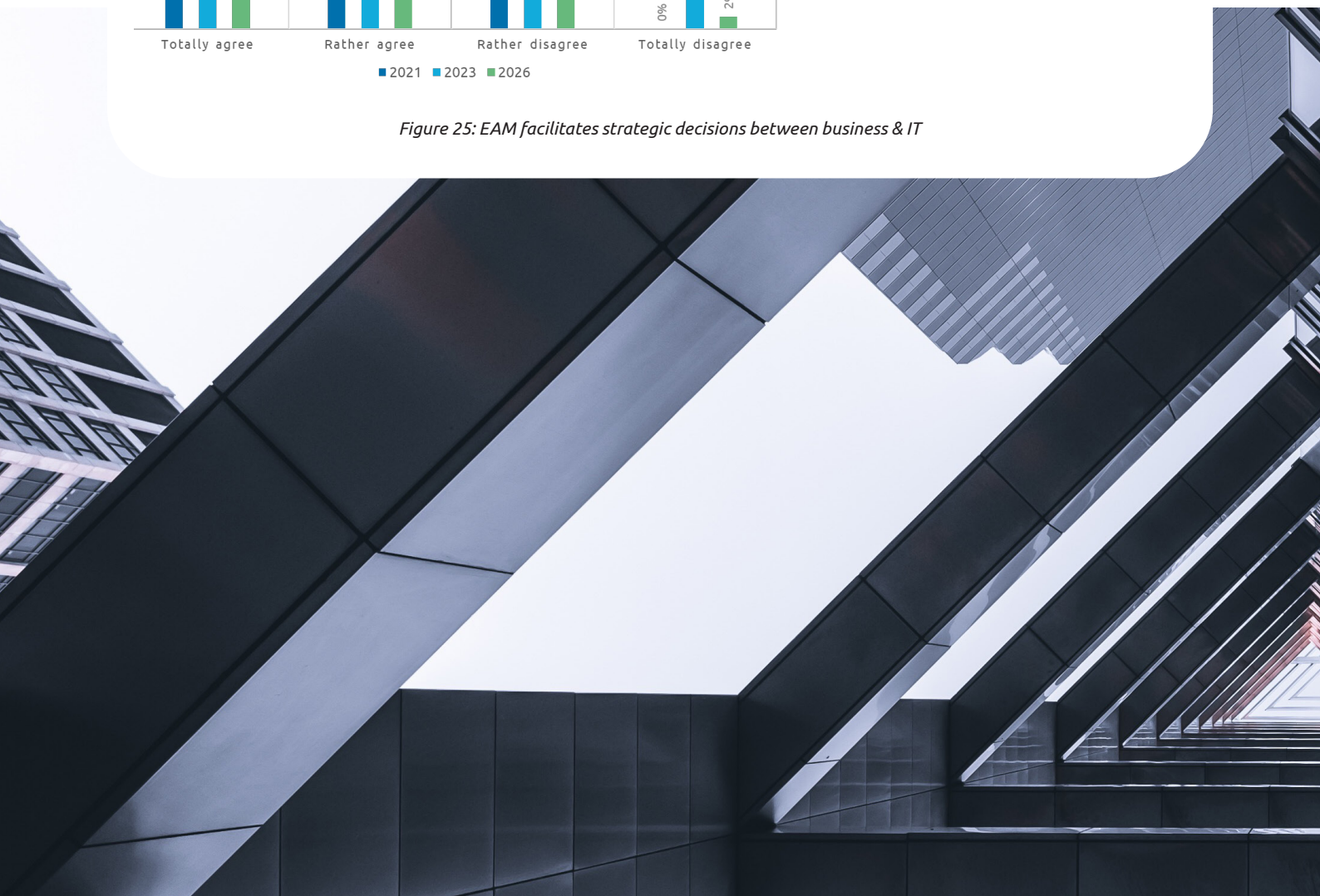
EAM remains significantly underutilized in future shaping activities, with 55% of organizations reporting that it is meaningfully involved in early strategic decision making (Figure 25), which prevents it from influencing direction, coherence, and guardrails at the moments where they matter most. This gap has widened since 2023 and highlights a structural tension, as the growing strategic importance of EA in an AI driven environment contrasts with its limited authority and late-stage involvement in guiding increasingly complex technology landscapes. This persistent underutilization highlights a structural gap between EAM's potential value and its actual involvement in strategic decision-making. While EAM capabilities are increasingly relevant in the context of AI adoption and technological complexity, limited authority and late-stage engagement restrict their ability to shape strategic outcomes. In the current state, EAM therefore contributes more as an advisory function than as a decisive strategic actor.



55%

of organizations state that EAM is meaningfully involved in strategic decisions, including AI adoption and major technology investments

Figure 25: EAM facilitates strategic decisions between business & IT



EAM service portfolio focused on governance and standards

EAM offers a broad set of services to support technology introduction and large scale transformations, but current offerings focus mainly on governance and planning (Figure 26), with Architecture Governance and Standards being the most common service at 28%. Enablement and automation capabilities such as knowledge development and architecture platforms remain comparatively underdeveloped, indicating that EA functions emphasize control and planning more than scalable enablement. This service profile highlights EAM's current emphasis on control, consistency, and planning rather than on hands-on enablement. Capabilities that support scalability and reuse, such as architecture platforms and knowledge management, play a comparatively smaller role. As a result, EAM's contribution today is primarily realized through governance and coordination, with limited operational leverage across delivery and transformation initiatives.

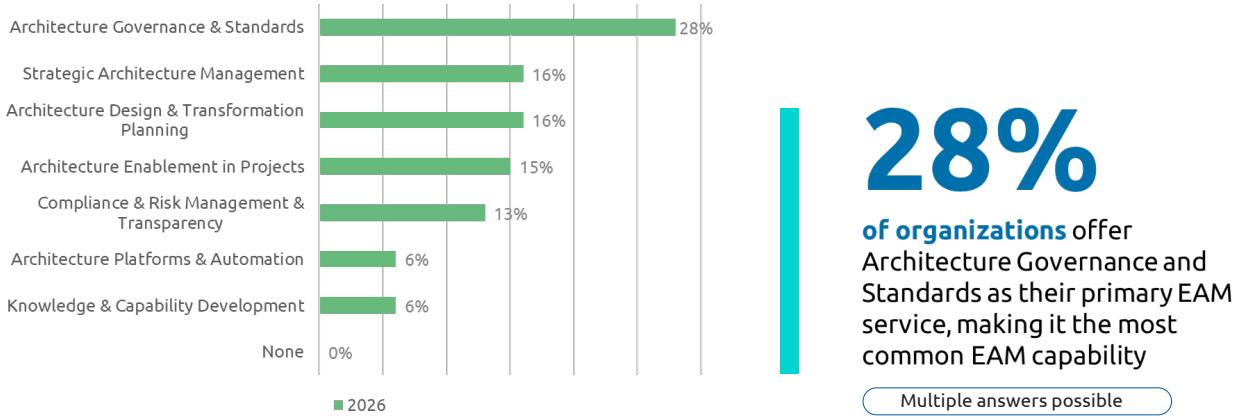


Figure 26: Services and capabilities currently offered in organizations

5

Participants of this Study

All results of this year's Capgemini Invent Global Digital Architecture Study are based on the contributions provided by participating companies and their experts across countries in Europe, North America, South America, and Asia (see Figure 27). In total, 84 business and IT professionals, including Digital Architects, IT managers, and senior executives, took part in the survey. The participants represent a broad range of industries, markets, and company sizes. The following section outlines the characteristics of the anonymized study sample.



Figure 27: Participants global distribution

The study spans various industries, with the largest share coming from Retail & Consumer Products (25%), Manufacturing & Industrial Products (20%), and Banking & Insurance (13%) (see Figure 28).

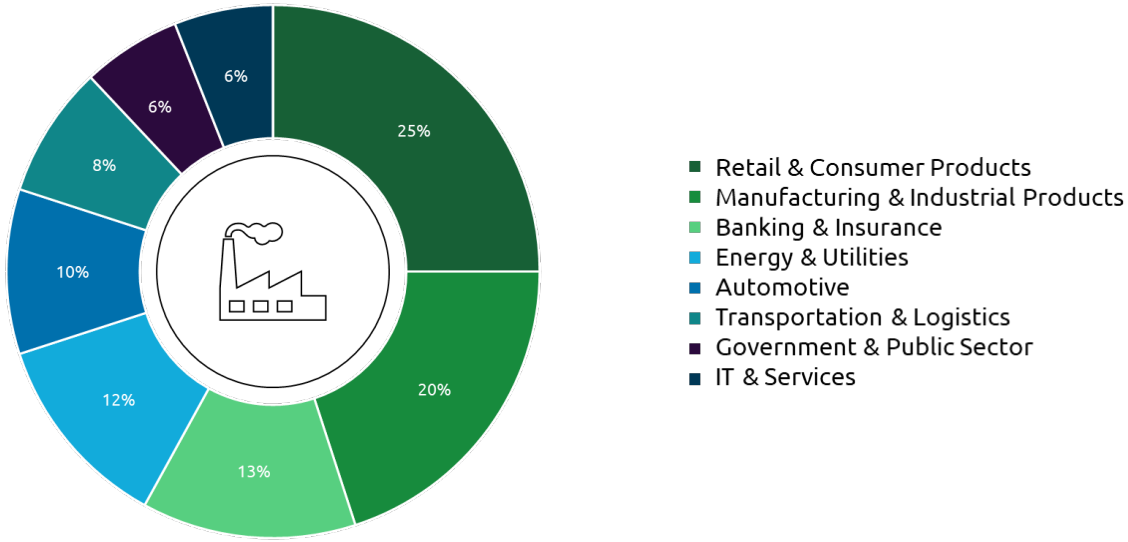


Figure 28: Participants' industry sector

The participating companies are of different sizes and revenue categories. Most of the participants (89%) are employed by organizations with more than 1,000 employees (see Figure 29). A third work for a company with more than 7.5 billion euros in revenue as shown in Figure 30.

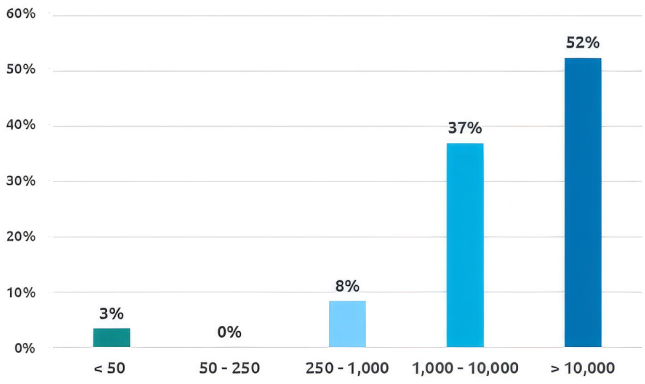


Figure 29: Size of organization

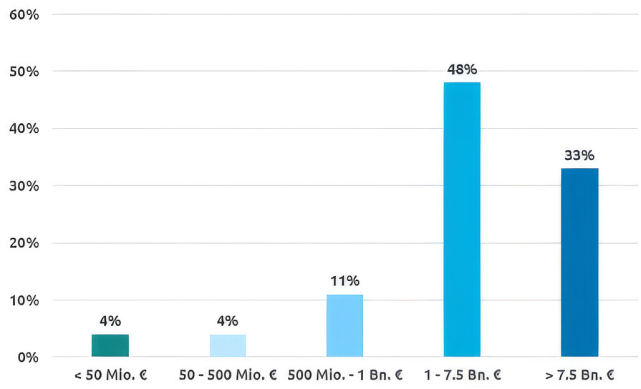


Figure 30: Revenue distributions of organizations



More than half of the participants (59%) are in Enterprise Architecture roles, followed by IT Manager (23%) and IT Architects (12%) (see Figure 31). Overall, three quarters of the participants can be assigned to an architect role and one quarter to an (IT) management position.

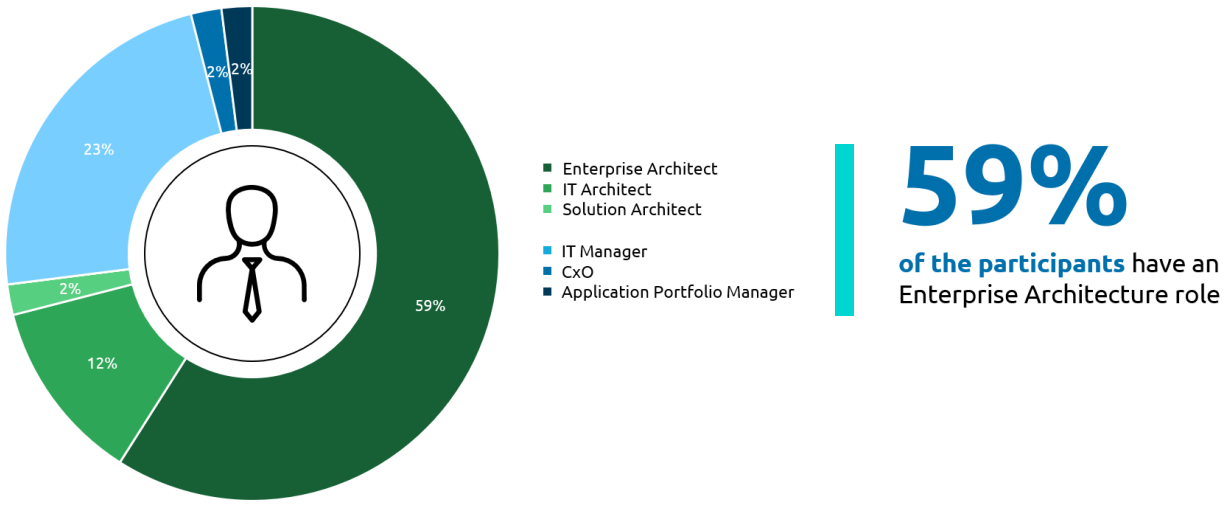
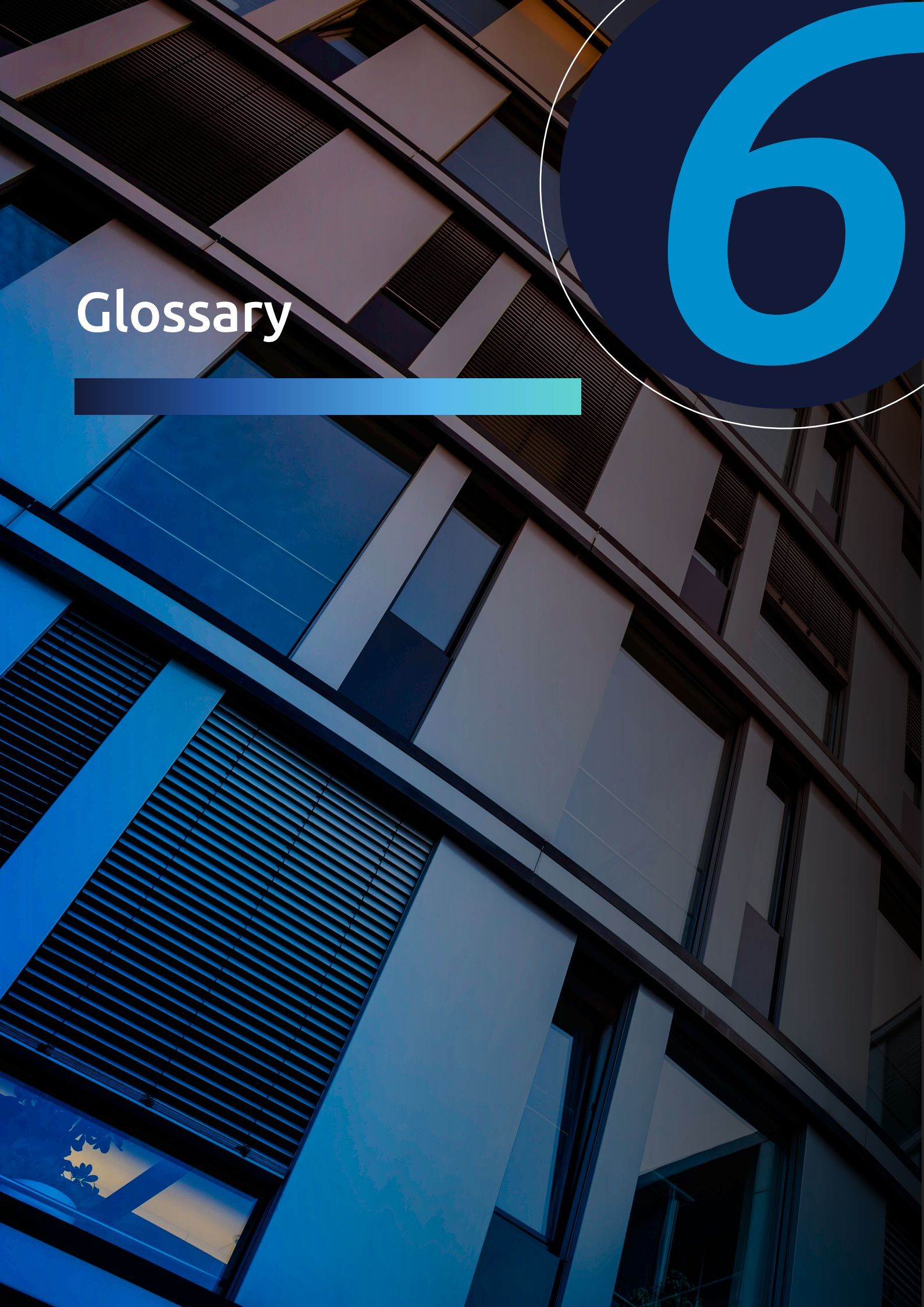


Figure 31: Participants' role



6

Glossary

Corporate function

A corporate function is a centralized and permanent organizational unit that provides specialized services, support, or governance across the entire company.

It is not directly involved in producing goods or services.

These functions are structurally embedded and play an essential role in ensuring efficiency, compliance, and strategic alignment within the organization.

Definition governance model

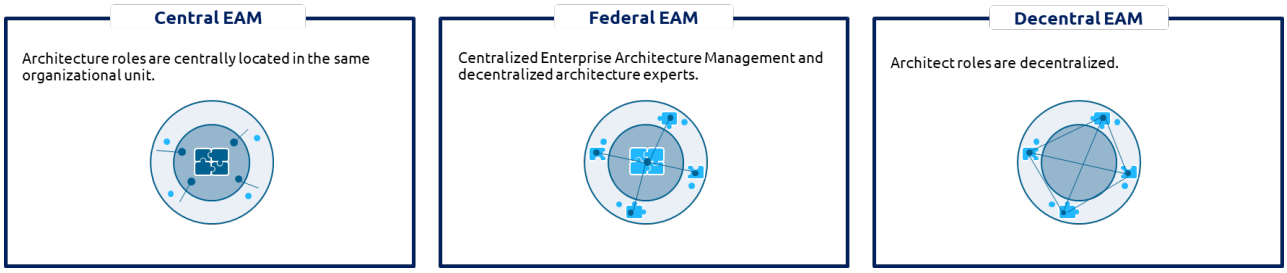


Figure 32: EAM governance models

In a central EAM, architecture roles are centrally allocated within the same organizational unit leading to a strong central coordination, but little organizational proximity to architecture stakeholders in functional areas and IT.

A federal EAM consists of central Enterprise Architects supported by decentral architecture experts, who are organizationally close to stakeholders in their respective architecture domains.

In a decentral EAM, expert architects are close to stakeholders in their architecture domain. They only align with each other in an informal expert network.

Maturity models

Maturity Level 1: Ad hoc

Maturity Level based on Capabilities & Services: Capabilities and services are delivered inconsistently without defined processes or roles. Activities are reactive and rely heavily on individuals.

Maturity Level based on Skills & Competencies: The skill is not systematically developed. Application is sporadic and individual-driven.

Maturity Level 2: Developing

Maturity Level based on Capabilities & Services: Basic structures and processes are emerging. Delivery is partially planned but still project-driven and lacks coordination or governance.

Maturity Level based on Skills & Competencies: Foundational knowledge exists, and initial applications are underway. Usage is inconsistent and not yet embedded.

Maturity Level 3: Defined

Maturity Level based on Capabilities & Services: Capabilities and services are documented, standardized, and regularly applied. Roles and methods are clearly defined.

Maturity Level based on Skills & Competencies: The skill is well understood and regularly applied. Training and development are established.

Maturity Level 4: Managed

Maturity Level based on Capabilities & Services: Delivery is embedded in enterprise processes. Governance, KPIs, and strategic alignment are in place and aligned with business goals.

Maturity Level based on Skills & Competencies: The skill is systematically developed, measured, and strategically aligned with goals.

Maturity Level 5: Optimized

Maturity Level based on Capabilities & Services: Capabilities and services are automated, innovation-driven, and actively contribute to enterprise strategy and transformation.

Maturity Level based on Skills & Competencies: The skill is deeply embedded, continuously improved, and strategically leveraged to create value.

Capabilities

Strategic Architecture Management

- Defines the long-term technology and architecture direction in line with business strategy
- Includes capability-based planning, technology portfolio oversight, and identifying innovation opportunities to ensure the IT landscape evolves purposefully

Architecture Design & Transformation Planning

- Designs future-state business, data, application, and technology architectures and develops actionable roadmaps
- Covers prioritization of initiatives, solution architecture guidance and feasibility assessments

Architecture Governance & Standards

- Ensures consistency, quality, and compliance across the architecture landscape
- Involves maintaining principles, standards, and reference models, running governance boards, managing the metamodel, and preparing the architecture foundation for upcoming projects

Transparency, Compliance & Risk Management

- Provides clear visibility into current and future architectures while ensuring regulatory, security, and data governance requirements are met
- Includes documenting architectures, tracking decisions, managing technical debts and advising on IT security and compliance risks

Architecture Platforms & Automation

- Operates and optimizes the tools that support architecture processes
- Encompasses tool administration, customization, automation setup, and user enablement to streamline EA activities and reporting

Knowledge & Capability Development

- Builds enterprise architecture skills and fosters collaboration across stakeholders
- Includes training, community building, and effective communication of architecture goals and benefits

Architecture Enablement in Projects

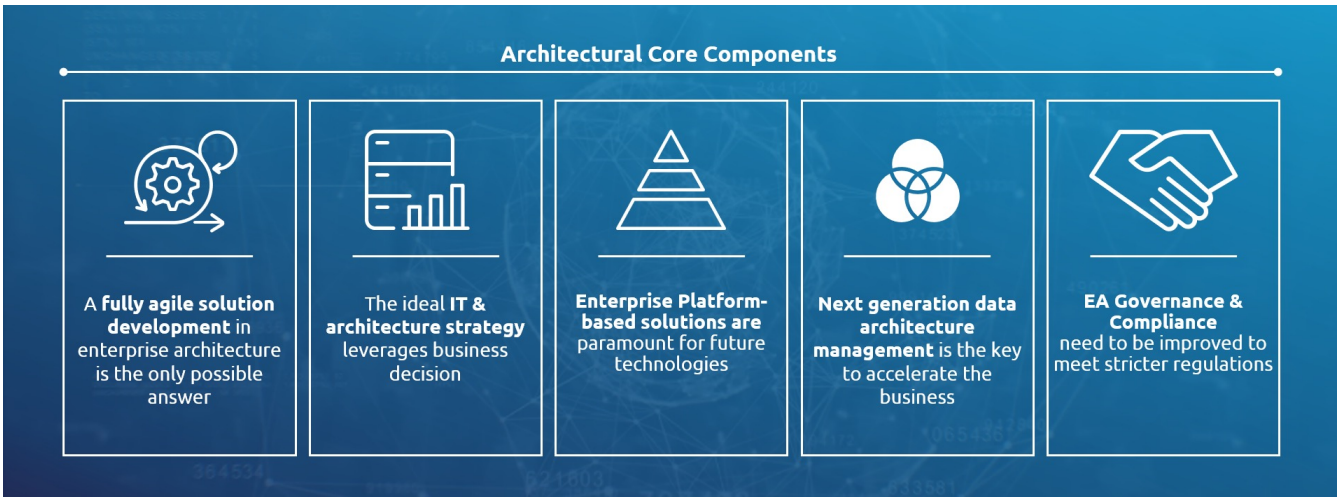
- Embeds architectural expertise into delivery initiatives
- Provides reusable building blocks, facilitates collaboration between business and IT, and supports teams in applying architectural best practices during execution



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Capgemini Invent's Contribution to Enterprise Architecture

Our Digital Architecture Portfolio delivers a range of services to our clients. From establishing agile and innovative EAM departments to providing the right tools and methodologies to design flexible and capability-driven system landscapes in IT and business transformations. Key architecture principles must be defined for each company and should cover areas like agility, customer experience, regulation, and security. Our approach is based on the following five architectural core components that aim to optimize value contribution of established Enterprise Architecture departments.



The goal is to maximize value-adding activities of Enterprise Architecture by acting as a trusted advisor rather than documenting and maintaining legacy systems. Our key offerings, structured in the following three core domains, enable digital architecture transformations on all five core components.



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Our Experts



Alexander Thome
Vice President

+49 151 5447 6736
alexander.thome@capgemini.com
Business Technology
Head of Digital Architecture



Philip Peters
Senior Director

+49 151 1889 7861
philip.peters@capgemini.com
Business Technology
Digital Architecture

Authors of the Study



Hubertus Hegering
Senior Manager
Business Technology
Digital Architecture



Ghezala Akrami
Manager
Business Technology
Digital Architecture



Christian Baudisch
Manager
Business Technology
Digital Architecture



Lisa-Marie Roloff
Senior Consultant
Business Technology
Digital Architecture

About Capgemini Invent

As the digital innovation, design and transformation brand of the Capgemini Group, at Capgemini Invent we enable CxOs to envision and shape what's next for businesses. Located in over 40 studios and more than 70 offices around the world, we are a 13,500 strong team of strategists, data scientists, product and experience designers, brand experts and technologists who develop new digital services, products, experiences and business models for sustainable growth.

Capgemini is the business transformation partner for enterprises in the age of AI. We help organizations imagine and build an intelligent, sustainable future, combining AI, technology and human ingenuity to transform how they operate, innovate and grow. With unique end-to-end capabilities spanning strategy, technology, engineering and intelligent operations, we bring together deep industry expertise and market-leading capabilities in AI, cloud and data to turn ambition into measurable business outcomes at scale. Supported by a robust ecosystem of partners and nearly 60 years of expertise, Capgemini is a responsible and diverse global organization of over 410,000 team members in more than 50 countries. The Group reported 2025 revenues of €22.5 billion.

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