

## Infographic: Use-Case Prism for AI-Assisted Enterprise Architecture Activities

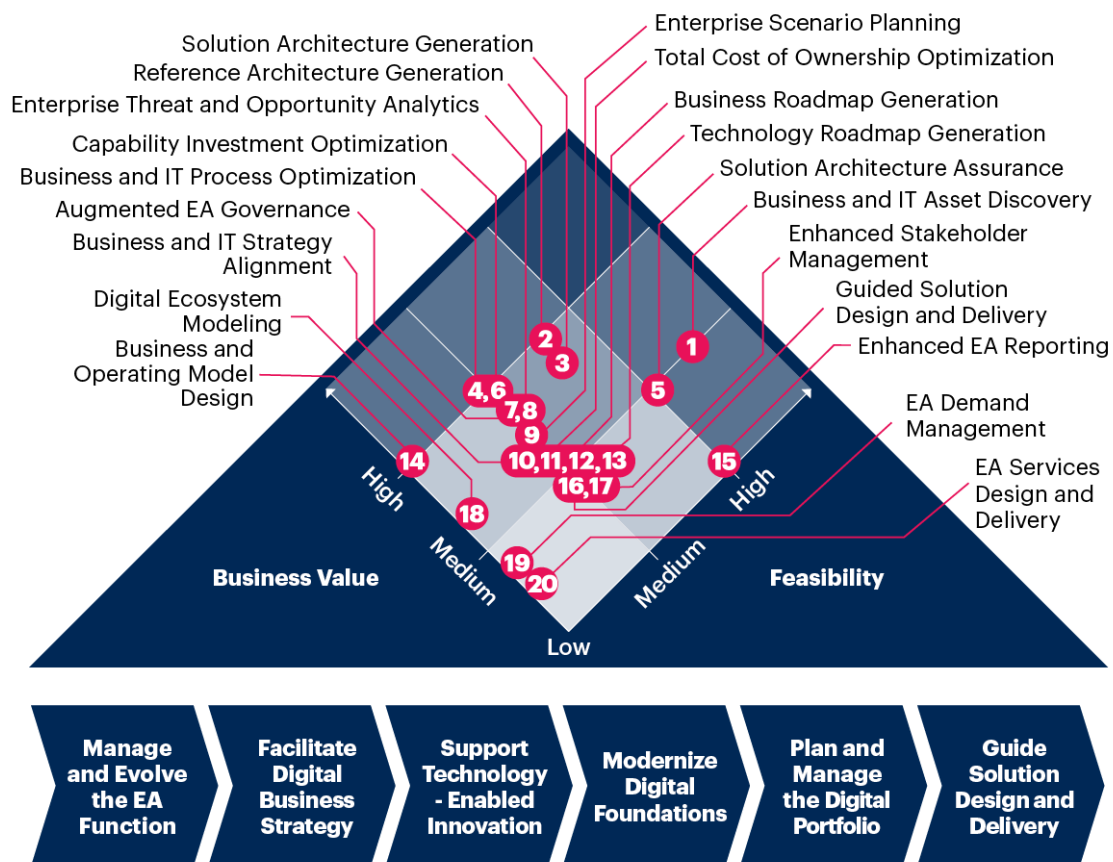
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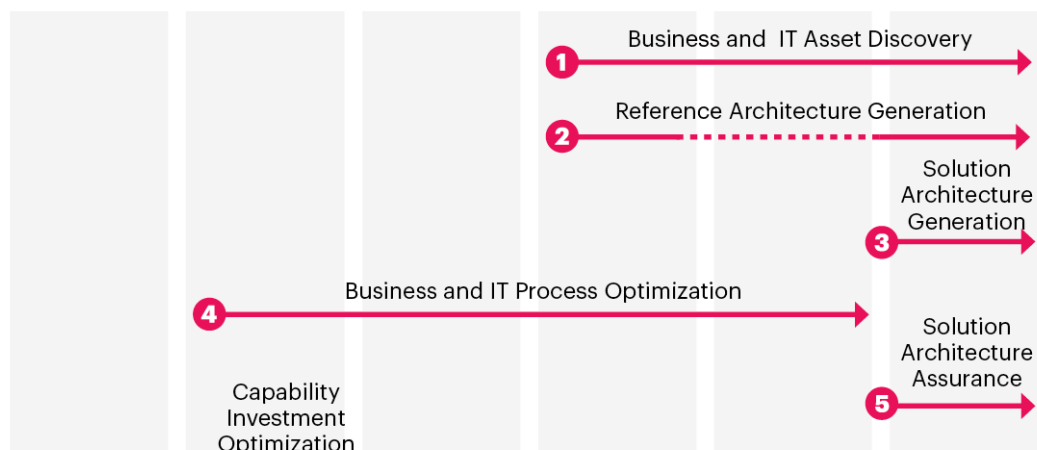
How ChatGPT, generative AI, and AI in general can support enterprise architecture activities is a hot topic for EA practices. This infographic provides 20 of the most prominent AI use cases that can assist EA leaders in their activities to improve productivity, efficiency and business outcomes.

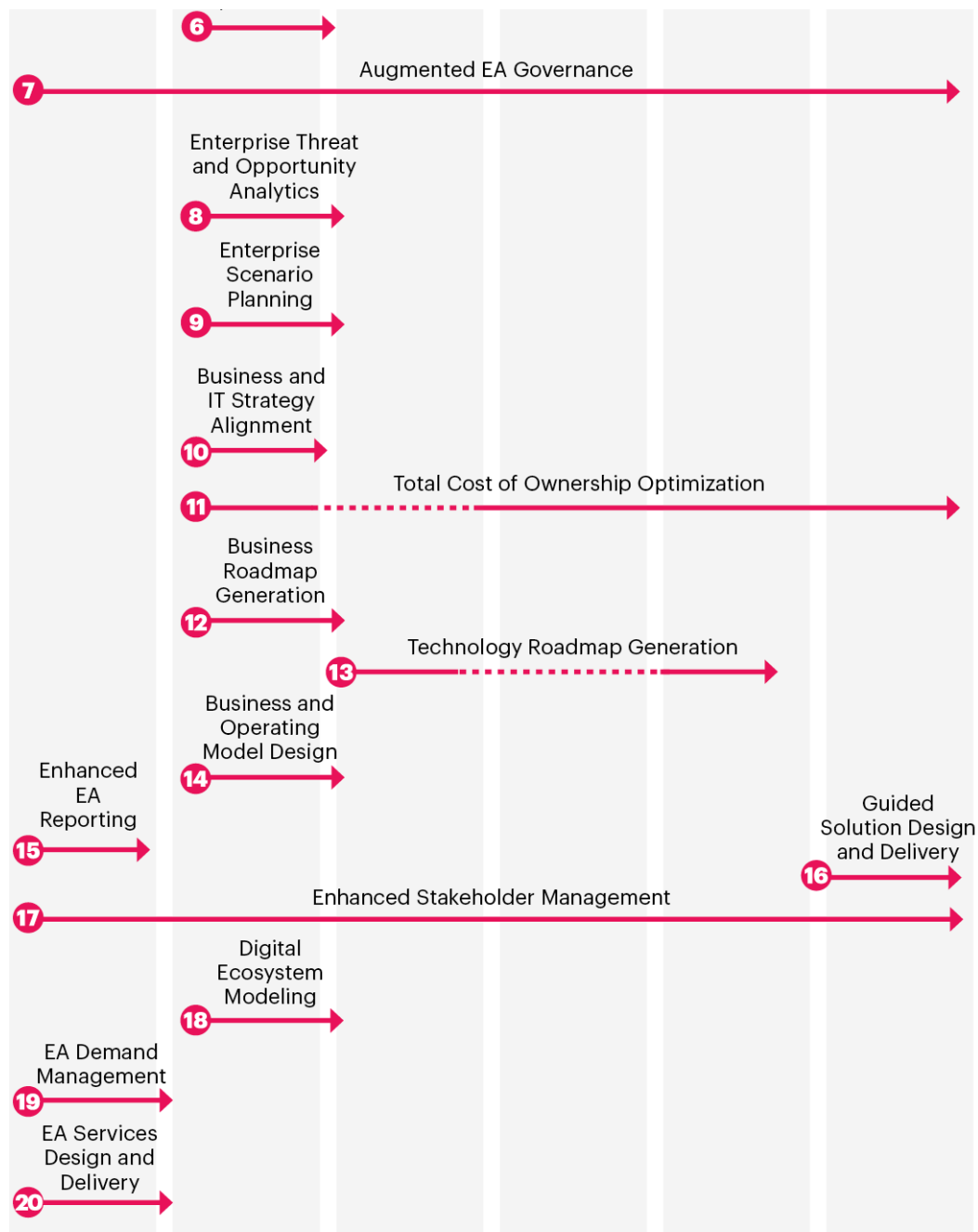
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# Use Case Prism for AI-Assisted Enterprise Architecture Activities



.. Business case is intermittent and doesn't apply to the process spanning the dotted line.





		Business Value					Feasibility	
		Cost Optimization <sup>1</sup>	Business Growth <sup>2</sup>	Operational Efficiency <sup>3</sup>	Business Resilience <sup>4</sup>	Business Agility <sup>5</sup>	Technical Feasibility <sup>6</sup>	Non-Technical Feasibility <sup>7</sup>
1	Business and IT Asset Discovery	Low	None	Low	Low	Low	High	High
2	Reference Architecture Generation	Low	Low	Low	Low	High	Low	Medium
3	Solution Architecture Generation	Medium	Low	Low	Low	High	Low	Medium
4	Business and IT Process Optimization	High	Medium	Low	Low	Low	Medium	Medium

Dimensions 1-7 defined in footnotes.

5	Solution Architecture Assurance							
6	Capability Investment Optimization							
7	Augmented EA Governance							
8	Enterprise Threat and Opportunity Analytics							
9	Enterprise Scenario Planning							
10	Business and IT Strategy Alignment							
11	Total Cost of Ownership Optimization							
12	Business Roadmap Generation							
13	Technology Roadmap Generation							
14	Business and Operating Model Design							
15	Enhanced EA Reporting							
16	Guided Solution Design and Delivery							
17	Enhanced Stakeholder Management							
18	Digital Ecosystem Modeling							
19	EA Demand Management							
20	EA Services Design and Delivery							

<sup>1</sup> Cost Optimization — Includes cost optimization and IT.

<sup>2</sup> Business Growth — Includes market expansions, creation of new products and services, and customer experience enhancements.

<sup>3</sup> Operational Efficiency — Includes process automation and reduced times for activities.

<sup>4</sup> Business Resilience — Includes organizational, operational and IT resilience, cyber security, and regulatory compliance.

<sup>5</sup> Business Agility — Includes the ability to adapt, transform and execute at pace and scale in response to changes in strategy, threats and opportunities.

<sup>6</sup> Technical Feasibility — Includes if available technologies are a good match to use case complexity, are available in the market and mature enough.

<sup>7</sup> Non-Technical Feasibility — Includes stakeholder adoption issues, cultural acceptance, available skills and deployment into available infrastructure and regulations.

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## Overview

Enterprise architecture (EA) leaders should review this list of artificial intelligence (AI) use cases, comparing it with the maturity and requirements of their organization:

- Each use case listed toward the top of the prism has a great combination of business value and feasibility. Organizations ignoring these use cases must have good justifications for doing so (e.g., they have already matured or outsourced those processes).
- Use cases at the bottom of the prism do not score well. Organizations may not want to emphasize these use cases unless they have good reasons (e.g., they have exhausted all other use cases).

**Please note:** These use cases have been selected and positioned based on an assessment by Gartner analysts and customer feedback. Their selection and analysis are also based on multiple strands of Gartner research including:

- [Toolkit: Discover and Prioritize Your Best AI Use Cases With a Gartner Prism](#)
- [Understanding Use Case Prisms for Prioritizing Artificial Intelligence Investments](#)
- [Digital Business Strategy and Plans Primer for 2023](#)
- [Enterprise Architecture Function Primer for 2023](#)
- [Digital Business Change Initiatives Primer for 2023](#)
- [Hype Cycle for Enterprise Architecture, 2023](#)

Use case applicability may vary across organizations and industries. For detailed customization, use Gartner's [Toolkit: How to Rank and Prioritize Your Use Cases With a Gartner Prism](#)).

## Use-Case Glossary

The above infographic highlights the following AI use cases for EA practices:

- **Augmented EA Governance:** Manages, orchestrates and optimizes EA governance interactions and recommendations based on product/project events and status.
- **Business and IT Asset Discovery:** Scans business and IT landscapes to identify, classify and record business and IT assets (e.g., capabilities, processes, applications, devices) and their relationships in systems of record and other tools.

- **Business and IT Process Optimization:** Harvests business and IT process data (e.g., activities, attributes, dependencies, usage, actors) to generate recommended optimization scenarios.
- **Business and Operating Model Design:** Uses strategy information and industry and market information (e.g., threats, opportunities, risks, regulatory) to recommend a range of business (BCM, value stream, etc.) and operating model designs.
- **Business and IT Strategy Alignment:** Analyzes business and IT strategy alignment to identify gaps, and makes recommendations for adjustment.
- **Business Roadmap Generation:** Generates business architecture roadmaps to support business strategy and digital transformation.
- **Capability Investment Optimization:** Harvests threat and opportunity insights for the enterprise, together with portfolio and digital initiatives data to prioritize and optimize investments against business capabilities.
- **Digital Ecosystem Modeling:** Uses supply chain and commerce partner and supplier data, in combination with partner and supplier product portfolio data, to map against enterprise product portfolio to identify potential joint products and services.
- **EA Demand Management:** Collates data from portfolio and product/project management systems and analyzes this to forecast demand on EA resources.
- **EA Services Design and Delivery:** Uses strategic information and stakeholder demand and market analysis to recommend a portfolio of EA services.
- **Enhanced EA Reporting:** Harvests and analyzes digital transformation initiatives data to automatically produce EA dashboards for a range of stakeholder viewpoints and personas.
- **Enterprise Scenario Planning:** Leverages threat and opportunity insights, combining these with business and IT strategic themes, to generate a range of enterprise scenarios that can be used to inform high-level enterprise designs.
- **Enhanced Stakeholder Management:** Harvests and analyzes data on architecture interactions with distributed stakeholders to identify patterns and gain insights into stakeholder preferences and behaviors.
- **Enterprise Threat and Opportunity Analytics:** Harvests, combines and evaluates internal and external threat and opportunity data to predict impacts to the enterprise across all domains and their investments, and recommend courses of action.

- **Guided Solution Design and Delivery:** Contextualizes architecture guardrails and IT standards around the solution scope and requirements in order to automate solution design and delivery guidance.
- **Reference Architecture Generation:** Generates context-specific reference and minimal viable architectures to support business and IT strategy and digital transformation.
- **Solution Architecture Assurance:** Uses product/solution life cycle events and status reporting, together with EA design and compliance monitoring, to enable touchless assurance and approvals and orchestrate escalations as and when required.
- **Solution Architecture Generation:** Generates context-specific product/solution architecture in support of business objectives and outcomes.
- **Technology Roadmap Generation:** Assesses technology trends against the existing technology assets and generates technology roadmaps to support business strategy and digital transformation.
- **Total Cost of Ownership Optimization:** Harvests cost data (e.g. licenses, T&Cs, transactions, workload, effort, staffing) across business and IT assets to produce baseline as-is TCO data and generate optimization scenarios.

## Evidence

[Digital Business Strategy and Plans Primer for 2023](#) covers EA practices that help organizations drive targeted business outcomes by shaping digital strategies that realize and optimize business capabilities.

[Enterprise Architecture Function Primer for 2023](#) covers how to start or renew the EA function by crafting an EA value proposition, strategy and operating model that supports both growth and resilience.

[Digital Business Change Initiatives Primer for 2023](#) covers EA practices and deliverables that guide the implementation of digital business change through digital platforms and foundations.

[Hype Cycle for Enterprise Architecture, 2023](#) — The selection and positioning of the innovations in the Hype Cycle for EA tell a compelling story, while AI is the overarching theme.

## [4 Top Practices That Help EA/TI Leaders Add Value to Artificial Intelligence Initiatives](#) —

This research provides a strategic lens for appraising and prioritizing AI initiatives that are more likely to be successful and for delivering the expected returns to customers and the business

[Gartner's 5-Phase Approach to Help EA Leaders Master and Apply AI](#) helps EA leaders guide their organizations to design for, invest in and integrate AI capabilities with a five-phase approach to avoid failures in delivering against target business outcomes.

[Uncovering Artificial Intelligence Business Opportunities in Over 20 Industries and Business Domains](#) — This research collection gives an introduction to the prism and points at over 20 published prisms.

[Toolkit: How to Rank and Prioritize Your Use Cases With a Gartner Prism](#) allows clients to create and modify their own prism according to their own strategic goals, maturity and context.

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