

## Uncovering Artificial Intelligence Business Opportunities in Over 20 Industries and Business Domains

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Initiatives: [Artificial Intelligence](#); [CIO Leadership of Innovation, Disruptive Trends and Emerging Practices](#); [Financial Services Technology Modernization and Transformation](#); [Manufacturing Digital Transformation and Innovation](#); [Retail Digital Transformation and Innovation](#)

IT and AI leaders developing AI strategies can use Gartner's use-case prisms to explore, identify and prioritize investments in AI. This research provides over 20 use-case prisms on AI business opportunities in diverse areas, such as automotive, B2B sales, banking, digital commerce, insurance and utilities.

### Additional Perspectives

- [Summary Translation: Uncovering Artificial Intelligence Business Opportunities in Over 20 Industries and Business Domains](#)  
(13 May 2021)

## Analysis

The core of a successful AI strategy includes a solid understanding of the different use cases and where AI can help your business best. But gathering, defining and prioritizing these use cases can be a daunting task due to complexity of the work and the different views each stakeholder may have. What is needed is a simple, easy-to-iterate approach that can cope with these challenges, and this is where Gartner's use-case prisms can help.

Gartner's use-case prisms are:

- **Actionable** in helping AI leaders prioritize use cases to drive more impactful strategies
- **Visually attractive and compelling** for providing immediate insights

- **Simple enough** to be consumed by business and technical audiences alike, and to be revised quickly
- **Rich enough** so that most salient considerations can be captured
- **Flexible** so that clients can take existing Gartner use-case prisms and refine them to their own maturity and market needs

The video link below provides an introduction to Gartner's use-case prisms and shows how the prisms present artificial intelligence use cases, what the evaluation framework looks like and how it can give actionable decision support for project investments.

For more details about these prisms, we offer a set of slides that visually explain the components of a prism and how to interpret them (see [Understanding Use-Case Prisms for Prioritizing Artificial Intelligence Investments](#)).

For those clients seeking to create their own prism or trying to refine an existing prism, a Toolkit has been developed (see [Toolkit: How to Rank and Prioritize Your Use Cases With a Gartner Prism](#)).

The use-case prisms are first organized by industry to capture a number of the most common areas of interest where our clients ask for help. While not exhaustive, this gives you a snapshot of some of the more common industries where the tool has helped. Look for your industry to explore the use cases exploiting AI that Gartner is exploring with clients today. Use the other industry prisms to generate ideas for other use cases that might be used to develop a prism for your organization.

The second section includes use-case prisms by role or function, and therefore, they are cross-industry applicable. Again, these are not exhaustive but will give you an idea what might be worth exploring. Finally, explore the last prism, which is a generic toolkit. Using this toolkit, you can take what you have learned from the examples provided and develop your own use-case prism, exploring different ways AI can drive better business outcomes for your organization. As with the industry variants, we plan to publish more and also provide a generic toolkit so you can develop your own.

Note that the use-case prism is currently also adopted in non-AI situations — for examples, see [Use Case Prism to Learn Go-To Techniques From the Innovation Heavyweights](#) and [Hyperautomation Use-Case Prism for Insurance](#).

Table 1: Quick Overview on the AI Prisms Published in This Set

<b>Industry AI Use-Case Prisms</b> ↓	<b>Functional or Role AI Use-Case Prisms</b> ↓
<a href="#">Automotive AI Use-Case Prism</a> <a href="#">Banking AI Use-Case Prism</a> <a href="#">Chip Manufacturing AI Use-Case Prism</a> <a href="#">Defense and Intelligence AI Use-Case Prism</a> <a href="#">Healthcare Payers AI Use-Case Prism</a> <a href="#">Healthcare Providers AI Use-Case Prism</a> <a href="#">Life Science AI Use-Case Prism</a> <a href="#">Media Industry AI Use-Case Prism</a> <a href="#">P&amp;C and Life Insurance AI Use-Case Prism</a> <a href="#">Retail AI Use-Case Prism</a> <a href="#">Smart Cities AI Use-Case Prism</a> <a href="#">Utility Industry AI Use-Case Prism</a>	<a href="#">AI in IT Operations (AIOps) AI Use-Case Prism</a> <a href="#">B2B Sales AI Use-Case Prism</a> <a href="#">Corporate Legal AI Use-Case Prism</a> <a href="#">Customer Service AI Use-Case Prism</a> <a href="#">Digital Commerce AI Use-Case Prism</a> <a href="#">Human Capital Management AI Use-Case Prism</a> <a href="#">Privacy AI Use-Case Prism</a> <a href="#">Software Development and Testing AI Use-Case Prism</a> <a href="#">Sourcing and Procurement AI Use-Case Prism</a> <a href="#">Supply Chain AI Use-Case Prism</a> <a href="#">Transportation AI Use-Case Prism</a>

Source: Gartner (April 2021)

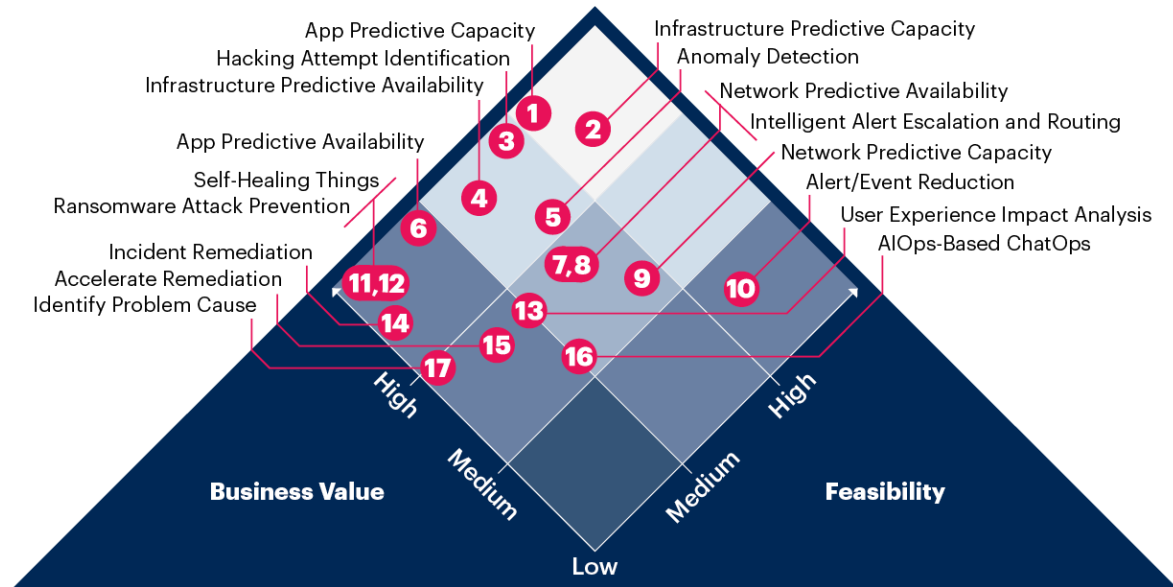
## Research Highlights

### AI Use-Case Prisms (in Alphabetical Order)

**AI in IT Operations (AIOps):** Figure 1 identifies 17 use cases that are directly relevant to infrastructure and operations leaders. I&O leaders can leverage this information to identify the best AIOps use cases — such as app predictive capacity, infrastructure predictive capacity and many more — for their organizations based on each use case’s feasibility and business value.

**Figure 1: Artificial Intelligence Use-Case Prism for AIOps**

## Artificial Intelligence Use Case Prism for AIOps



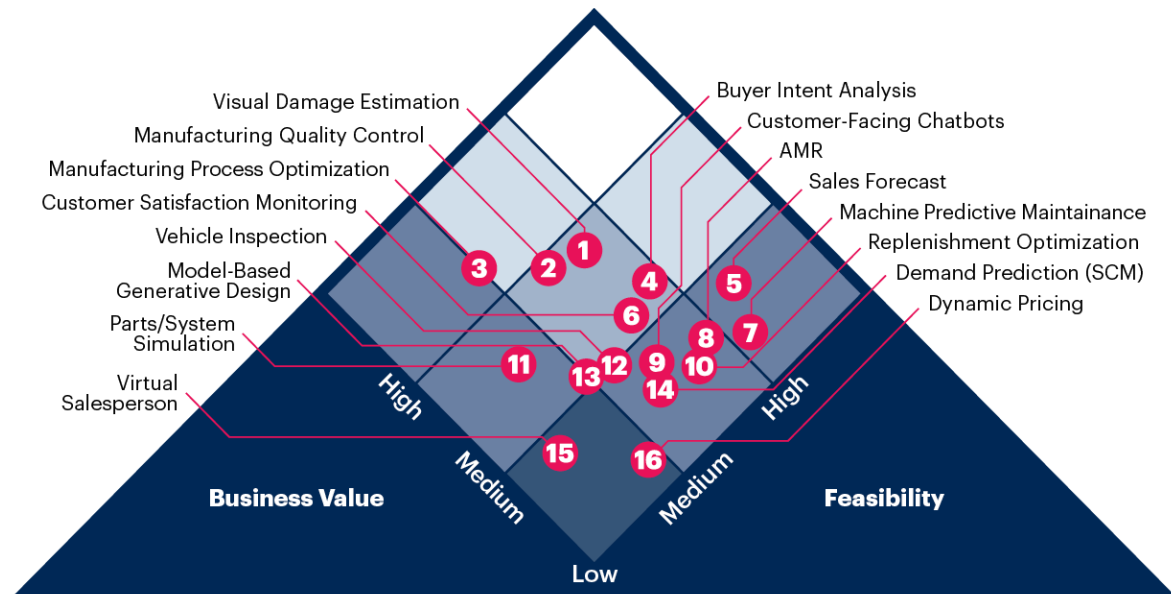
Source: Gartner  
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**Gartner**

See [Infographic: Artificial Intelligence Use-Case Prism for AIOps](#).

**Automotive Enterprise:** Figure 2 identifies 16 of the most prominent AI use cases — such as visual damage estimation, manufacturing quality control and so on — that can improve operations from manufacturing to customer interactions in the automotive enterprise.

Figure 2: Artificial Intelligence Use-Case Prism for Automotive Enterprise

**Artificial Intelligence Use Case Prism for the Automotive Industry**

Source: Gartner  
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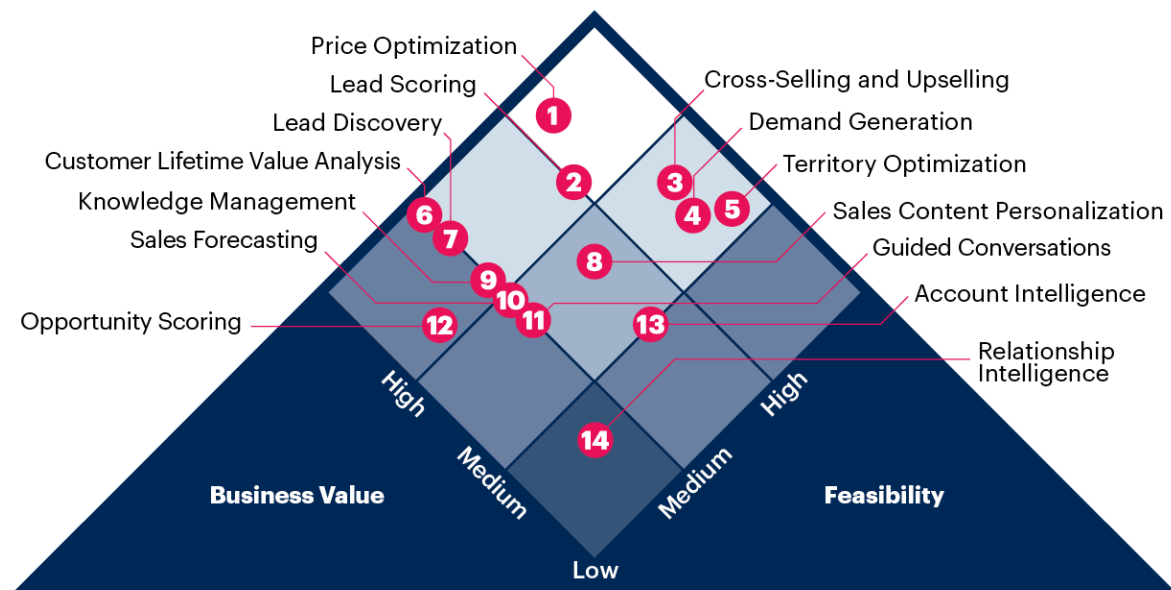
Gartner

See [Infographic: Artificial Intelligence Use-Case Prism for Automotive Enterprises](#).

**B2B Sales:** The B2B sales AI use-case prism is aimed toward sales leaders and data science/AI leaders for supporting and supplementing an AI strategy for sales teams. The presented use cases, such as price optimization and lead scoring, are well-established among customers (see Figure 3).

**Figure 3: Artificial Intelligence Use-Case Prism for B2B Sales**

## Artificial Intelligence Use Case Prism for B2B Sales



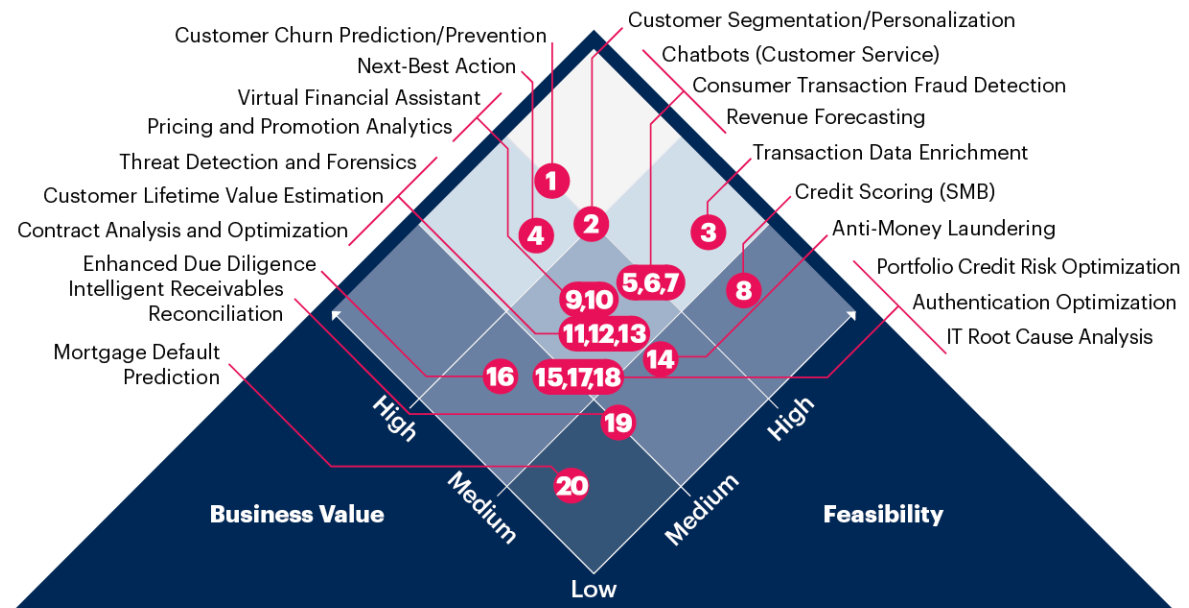
Source: Gartner  
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Gartner

See [Infographic: AI Use-Case Prism for B2B Sales](#).

**Banking:** Figure 4 identifies 20 of the most prominent AI use cases — such as churn prediction, customer segmentation and others — that can improve banking operations and the customer experience, as well as reduce risk exposure. Banking CIOs can use this to help determine the best use case based on maturity and business impact.

Figure 4: Artificial Intelligence Use-Case Prism for Banking

**Artificial Intelligence Use Case Prism for the Banking Industry**

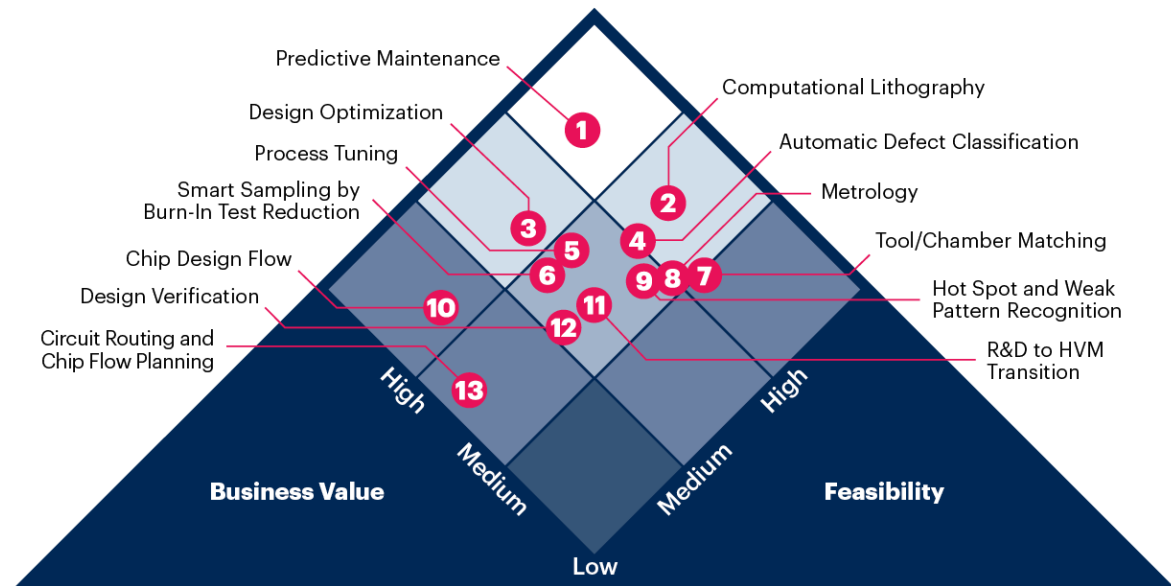
Source: Gartner  
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See [Infographic: Artificial Intelligence Use-Case Prism for the Banking Industry](#).

**Chip Manufacturing and Design:** Chip manufacturing and design is getting extremely expensive and complex. It applies AI to use cases such as predictive maintenance, computational lithography and more to help decrease time to market, improve yields and reduce costs. Figure 5 identifies 13 of the most prominent AI use cases that can improve chip manufacturing and design operations in the semiconductor industry.

Figure 5: Artificial Intelligence Use-Case Prism for Chip Manufacturing and Design

**Artificial Intelligence Use Case Prism for Chip Manufacturing and Design**

Source: Gartner  
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Gartner.

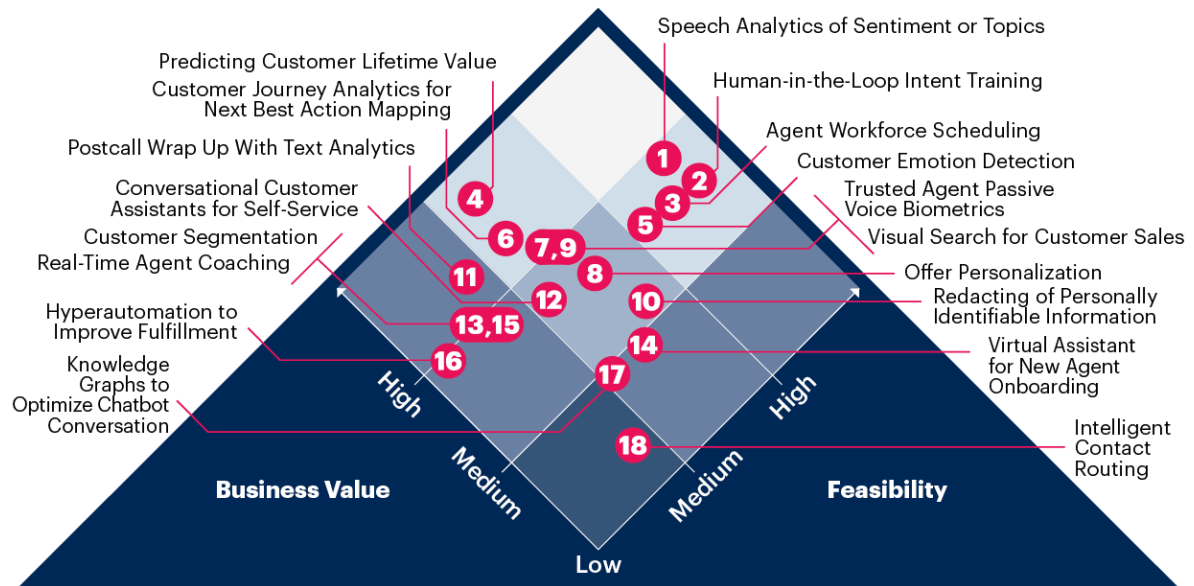
See [Infographic: AI Use-Case Prism for Chip Manufacturing and Design](#).

**Corporate Legal Practice:** The corporate legal practice AI use-case prism, shown in Figure 6, identifies the most prominent AI use cases — such as e-discovery exploratory data analysis (EDA), contract EDA and many more — that can be employed in corporate legal practice. AI-based technology can add significant benefits to solutions that support different legal practice areas, compared with conventional solutions without AI. However, the relevance and readiness of the approaches embodied in emerging solutions vary greatly.



Figure 6: Artificial Intelligence Use-Case Prism for Corporate Legal Practice

### Artificial Intelligence Use-Case Prism for Customer Service



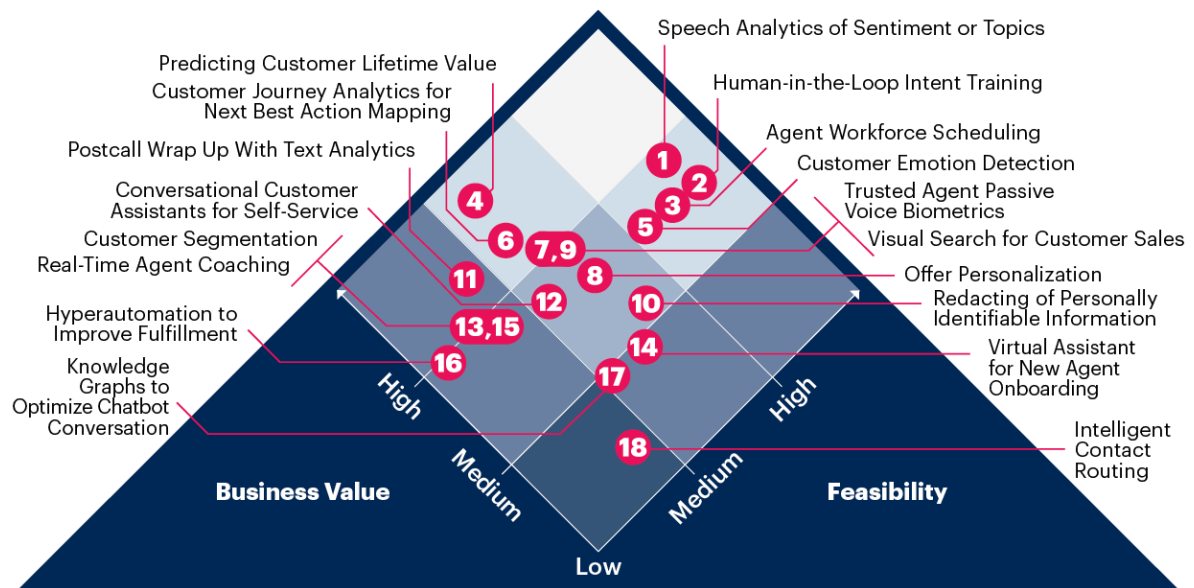
Source: Gartner  
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See [Infographic: Artificial Intelligence Use-Case Prism for Corporate Legal Practice](#).

**Customer Service:** AI can greatly enhance customer service operations in a multitude of ways. This infographic identifies 18 use cases for leveraging AI within customer service operations. The use cases can be used as a starting point to prioritize opportunities.

Figure 7: Artificial Intelligence Use-Case Prism for Customer Service

**Artificial Intelligence Use-Case Prism for Customer Service**

Source: Gartner  
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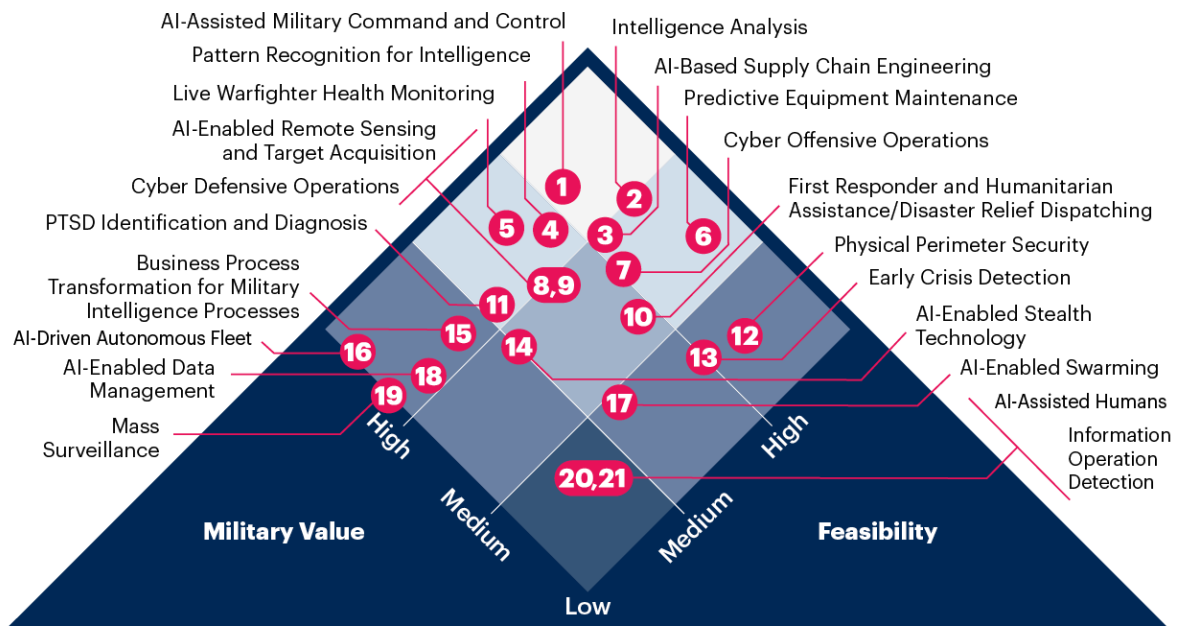
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See [Infographic: Artificial Intelligence Use-Case Prism for Customer Service](#)

**Defense and Intelligence:** The defense and intelligence AI use-case prism (see Figure 8) identifies 21 of the most prominent AI use cases — such as AI-assisted command and control, intelligence analysis, AI-based supply chain engineering and more — in the defense and intelligence space for cutting-edge clients (highly classified use cases are not a part of this research). The use cases span various climates across peace, escalation, battlefield and post-battlefield.

Figure 8: Artificial Intelligence Use-Case Prism for Defense and Intelligence

### Artificial Intelligence Use Case Prism for Defense and Intelligence



Source: Gartner  
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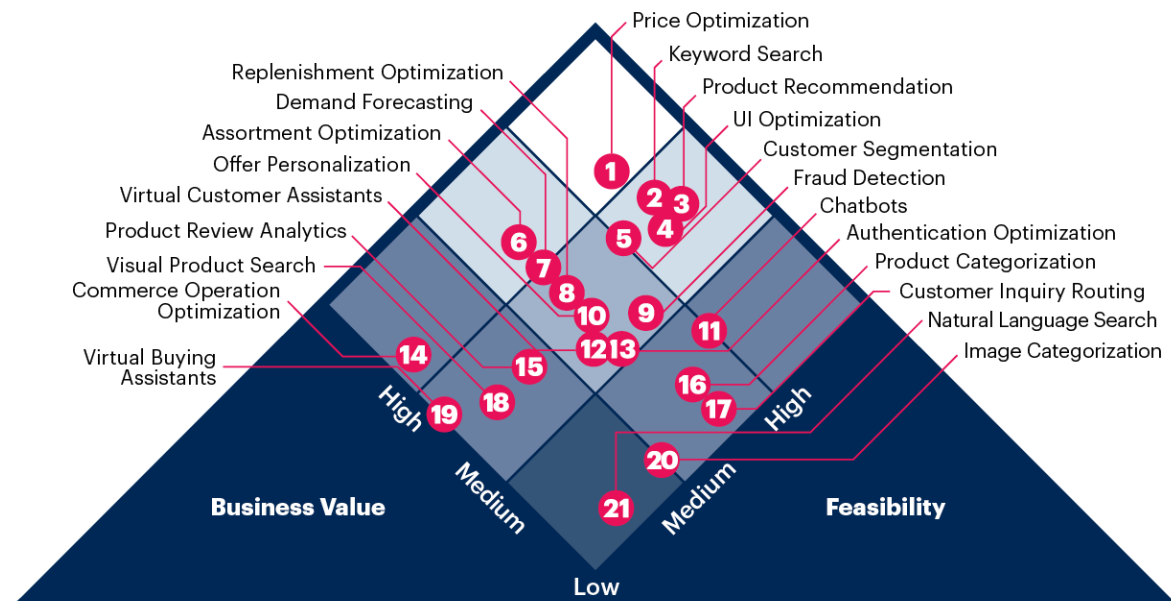
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See [Infographic: AI Use-Case Prism for Defense and Intelligence](#).

**Digital Commerce:** The digital commerce AI use-case prism, shown in Figure 9, identifies 21 prominent digital commerce use cases — such as price optimization, keyword search and more — where AI can be applied and that greatly enhance digital commerce applications. This is primarily driven by the abundance of data and business value derived from improving customer experience across channels.

**Figure 9: Artificial Intelligence Use-Case Prism for Digital Commerce**

## Artificial Intelligence Use Case Prism for Digital Commerce



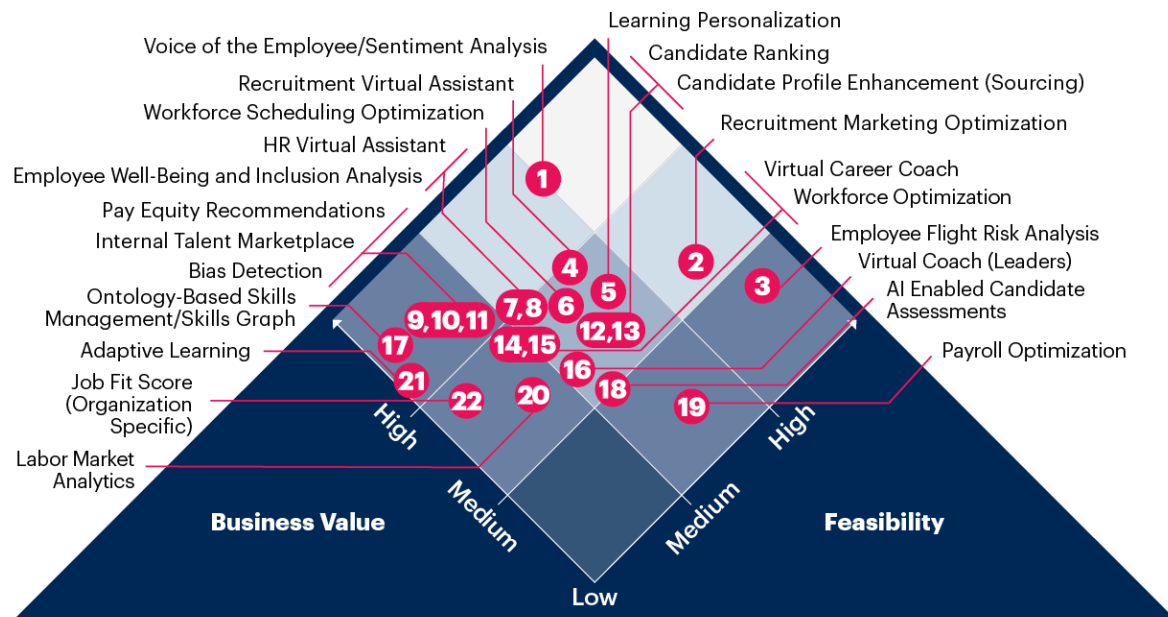
Source: Gartner  
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See [Infographic: Artificial Intelligence Use-Case Prism for Digital Commerce](#).

**HCM:** The human capital management use-case prism identifies use cases — such as voice of employee, recruitment marketing optimization and many more — that can help HCM transformation leaders to prioritize AI investments. Many are related to talent acquisition activities. However, the use cases span administrative HR, HR service management, workforce management and talent management domains (see Figure 10). Primary drivers of complexity holding back some use cases include data access and complexity, ethical usage of personal data, and employer brand risk.

Figure 10: Artificial Intelligence Use-Case Prism for Human Capital Management

**Artificial Intelligence Use Case Prism for Human Capital Management**

Source: Gartner  
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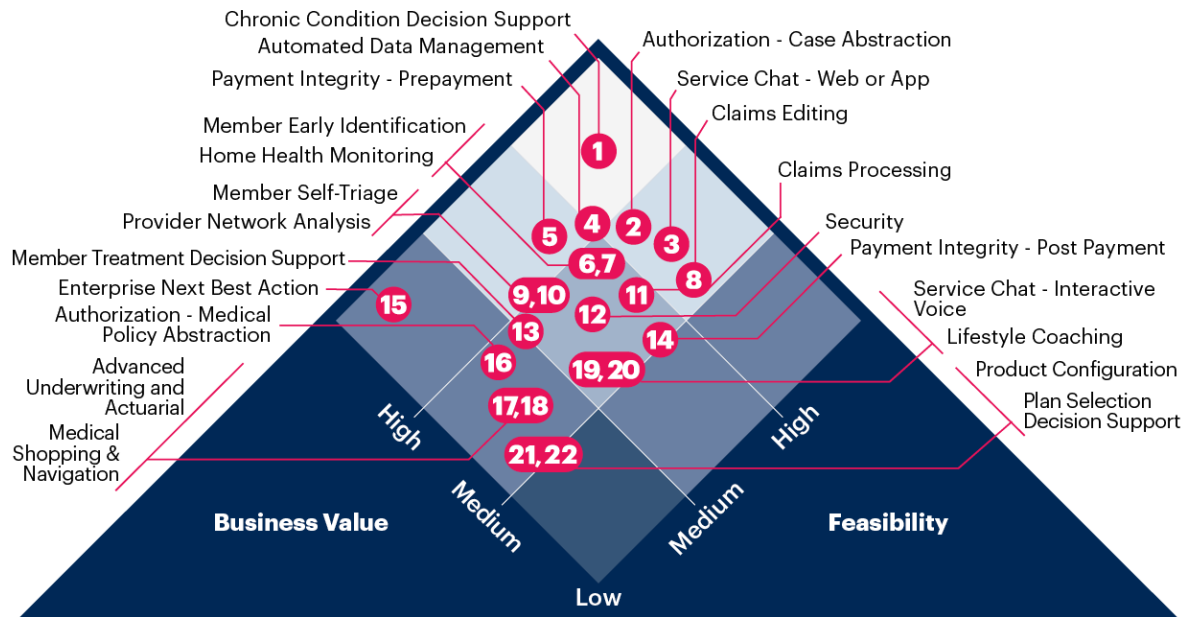
Gartner

See [Infographic: Artificial Intelligence Use-Case Prism for HCM Technology](#).

**Healthcare Payers:** The healthcare payers use-case prism identifies 11 of the most important healthcare AI use cases across clinical care and hospital operations and administration (see Figure 11). Provider CIOs should use this research to target the AI investments that deliver the right value and are most feasible for the organization to undertake.

Figure 11: Artificial Intelligence Use-Case Prism for Healthcare Payers

### Artificial Intelligence Use Case Prism for Healthcare Payers



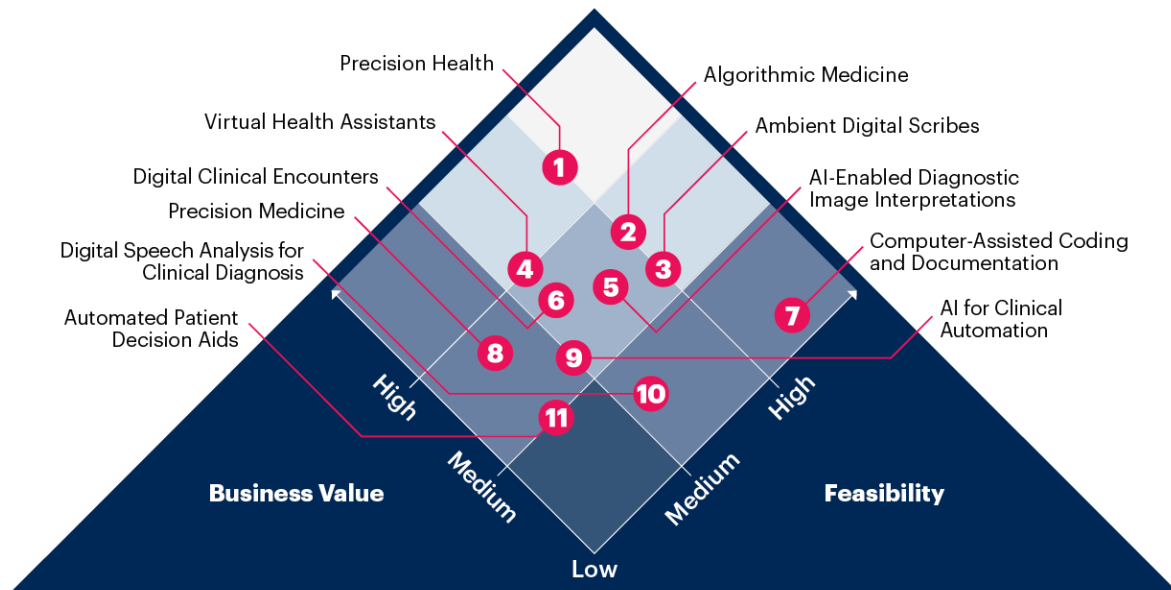
Source: Gartner  
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Gartner

See [Infographic: Artificial Intelligence Use-Case Prism for the U.S. Healthcare Payer Industry](#).

**Healthcare Providers:** The healthcare provider AI use-case prism is focused on use cases — such as precision health, algorithmic medicine and many more — that represent the most current prominent uses of AI by healthcare providers (see Figure 12).

Figure 12: Artificial Intelligence Use-Case Prism for Healthcare Providers

**Artificial Intelligence Use Case Prism for Healthcare Providers Industry**

Source: Gartner  
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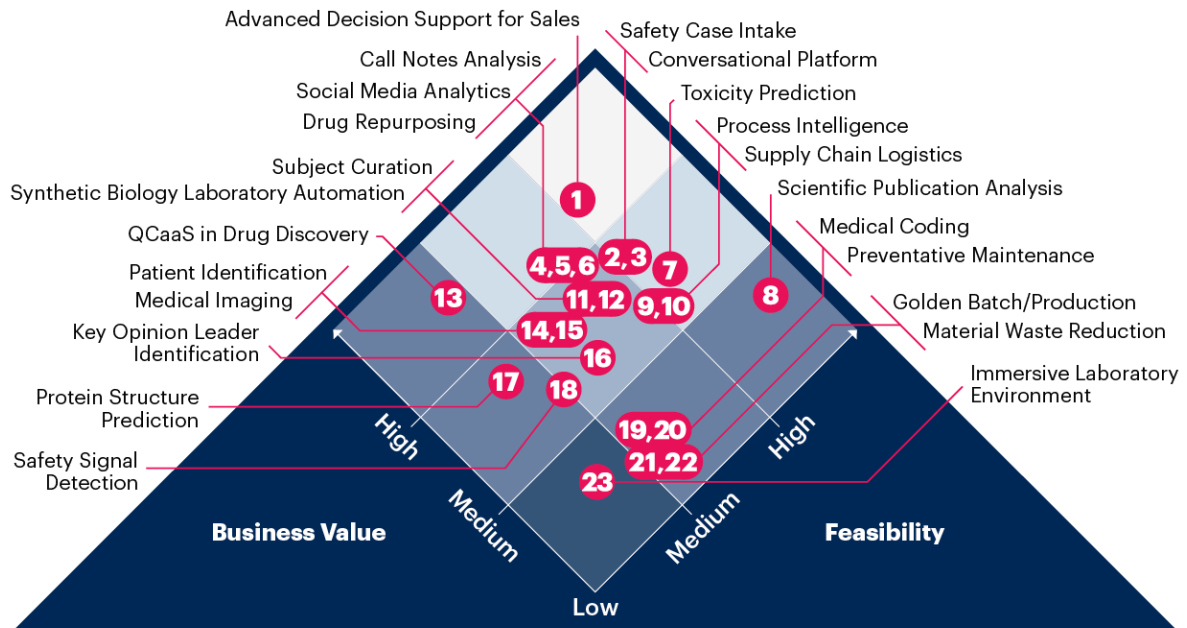
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See [Infographic: Artificial Intelligence Use-Case Prism for the Healthcare Provider Industry](#).

**Life Sciences:** The life science AI use-case prism in Figure 13 identifies the most prominent AI use cases — such as advanced decision support for sales, safety case intake, conversational platforms and many more — across research, development, manufacturing and commercialization functions. Life science CIOs, practice leaders and D&A leaders should consider these use cases to target the AI investments that deliver the right business value and are most feasible for their organizations to undertake.

Figure 13: Artificial Intelligence Use-Case Prism for Life Science Manufacturers

### Artificial Intelligence Use Case Prism for Life Sciences Industry



Source: Gartner  
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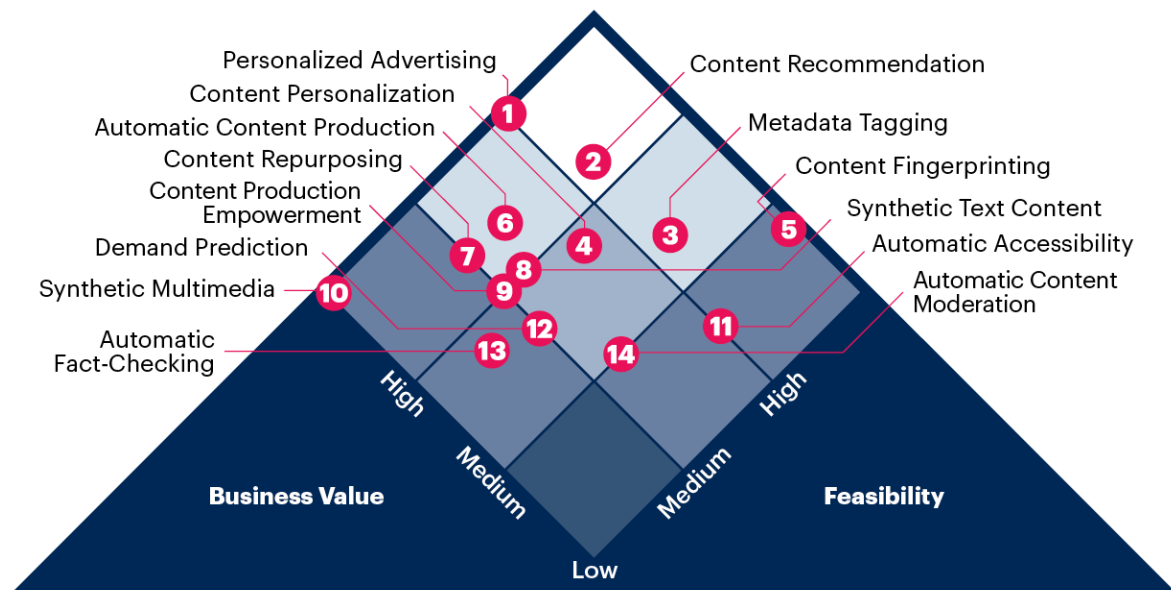
See [Infographic: Artificial Intelligence Use-Case Prism for Life Science Manufacturers](#).

**Media:** The media AI use-case prism in Figure 14 identifies the most prominent artificial intelligence use cases — such as personalized advertising, content recommendation and others — that can improve media firm operations.



**Figure 14: Artificial Intelligence Use-Case Prism for Media**

## Artificial Intelligence Use Case Prism for Media Industry



Source: Gartner  
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**Gartner**

See [Infographic: Artificial Intelligence Use-Case Prism for the Media Industry](#).

**P&C and Life Insurance:** Insurance CIOs can use the insurance AI use-case prism to look at the most prominent AI use cases — such as agent recommendation/support, target marketing and so forth — that can improve P&C and life insurance operations (see Figure 15).

**Figure 15: Artificial Intelligence Use-Case Prism for P&C and Life Insurance**

## Artificial Intelligence Use Case Prism for P&C and Life Insurance Industry



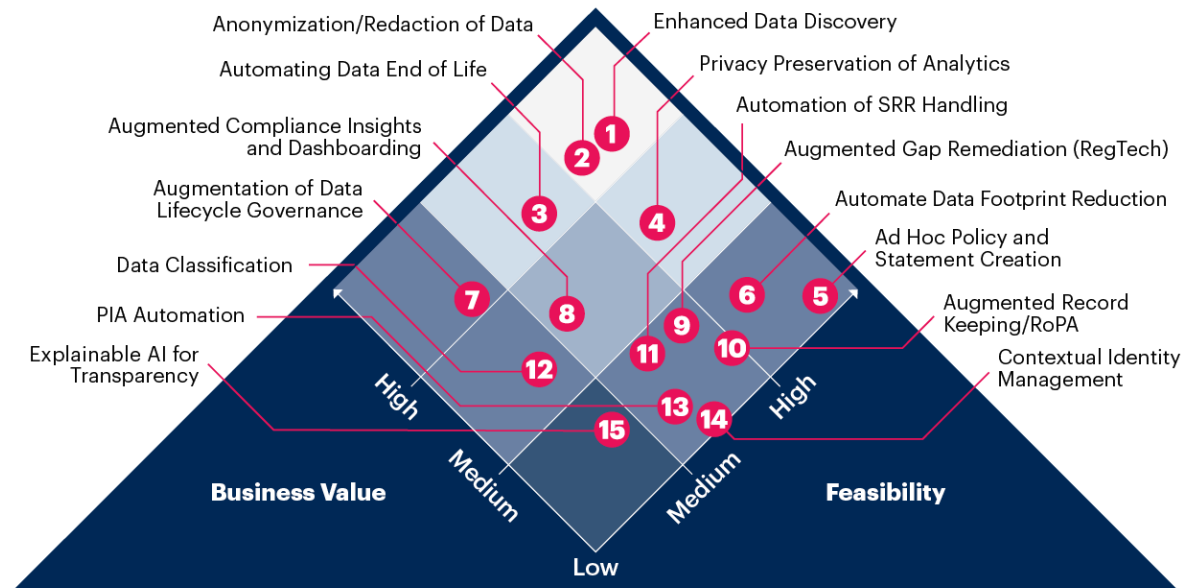
Source: Gartner  
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**Gartner**

See [Infographic: Artificial Intelligence Use-Case Prism for the P&C and Life Insurance Industry](#).

**Privacy:** The privacy use-case prism identifies 16 use cases to leverage artificial intelligence in support of a privacy program (see Figure 16). Security and risk management leaders should use it to prioritize opportunities for AI usage.

Figure 16: Artificial Intelligence Use-Case Prism for Privacy

**Artificial Intelligence Use Case Prism for Privacy**

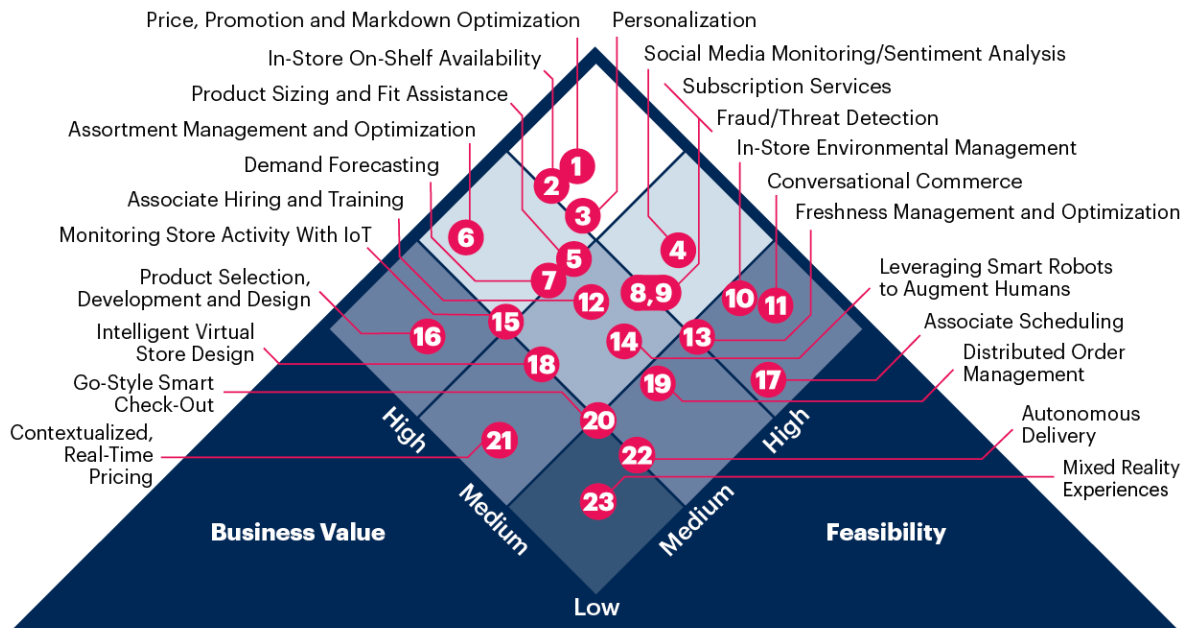
Source: Gartner  
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Gartner

See [Infographic: Artificial Intelligence Use-Case Prism for Privacy](#).

**Retail:** The retail AI use-case prism in Figure 17 evaluates the most promising potential AI use cases — such as price, promotion and markdown optimization, in-store off-shelf availability and many more — based on feasibility and business value to help CIOs target resources on the most beneficial use cases for their organization.

Figure 17: Artificial Intelligence Use-Case Prism for Retail Industry

**Artificial Intelligence Use Case Prism for Retail Industry**

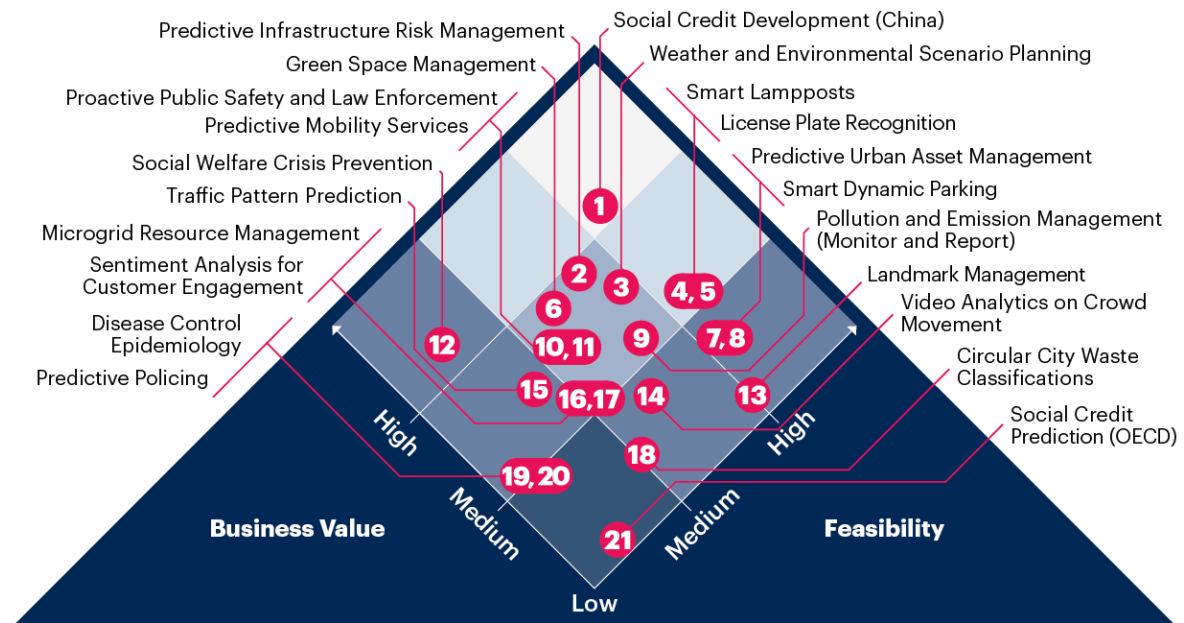
Source: Gartner  
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Gartner

See [Infographic: Artificial Intelligence Use-Case Prism for Retail](#).

**Smart Cities:** The smart cities AI use-case prism in Figure 18 identifies opportunities — such as green space management, weather, environment scenario planning and many more — that stakeholders in smart cities and intelligent urban ecosystems can leverage using AI.

Figure 18: Artificial Intelligence Use-Case Prism for Smart Cities

**Artificial Intelligence Use Case Prism for Smart Cities**

Source: Gartner

Note: Use cases are clustered only for ease of visual representation.

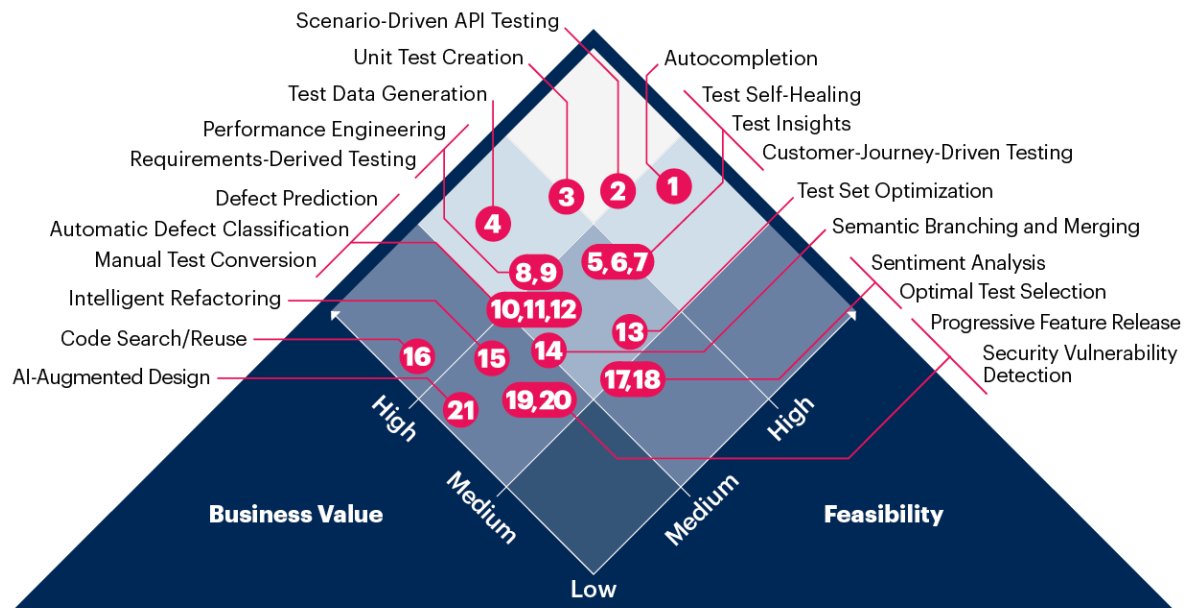
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Gartner

See [Infographic: Artificial Intelligence Use-Case Prism for Smart Cities](#).

**Software Development and Testing:** The software development and testing AI use-case prism identifies the most prominent AI use cases — such as autocompletion, scenario-driven API testing, unit test creation and many more — that can improve software development and testing activities (see Figure 19). The prism presents a fairly complete treatment of what AI can do at this time for the vast field of software design, development and testing.

Figure 19: Artificial Intelligence Use-Case Prism for Software Development and Testing

**Artificial Intelligence Use Case Prism for Software Development and Testing**

Source: Gartner  
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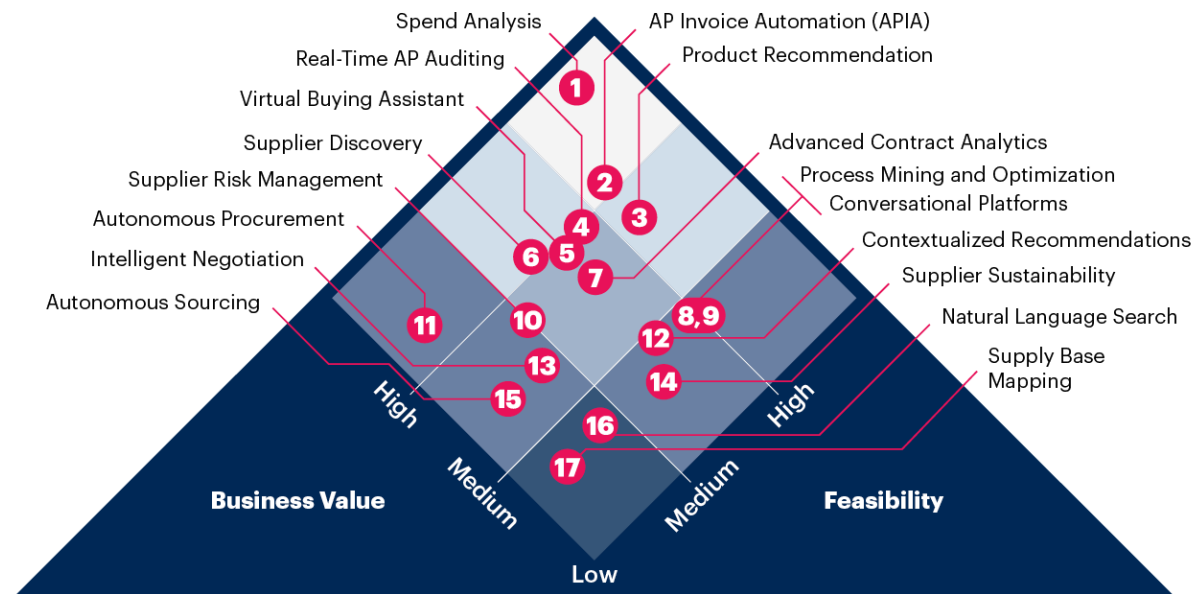
Gartner

See [Infographic: Artificial Intelligence Use-Case Prism for Software Development and Testing](#).

**Sourcing and Procurement:** The sourcing and procurement use-case prism identifies some of the most prominent AI use cases across sourcing and procurement functions (see Figure 20). Software engineering leaders should use this research to target the AI investments that deliver the right business value and are most feasible for their organizations to undertake.

**Figure 20: Artificial Intelligence Use-Case Prism for Sourcing and Procurement**

## Artificial Intelligence Use-Case Prism for Sourcing and Procurement



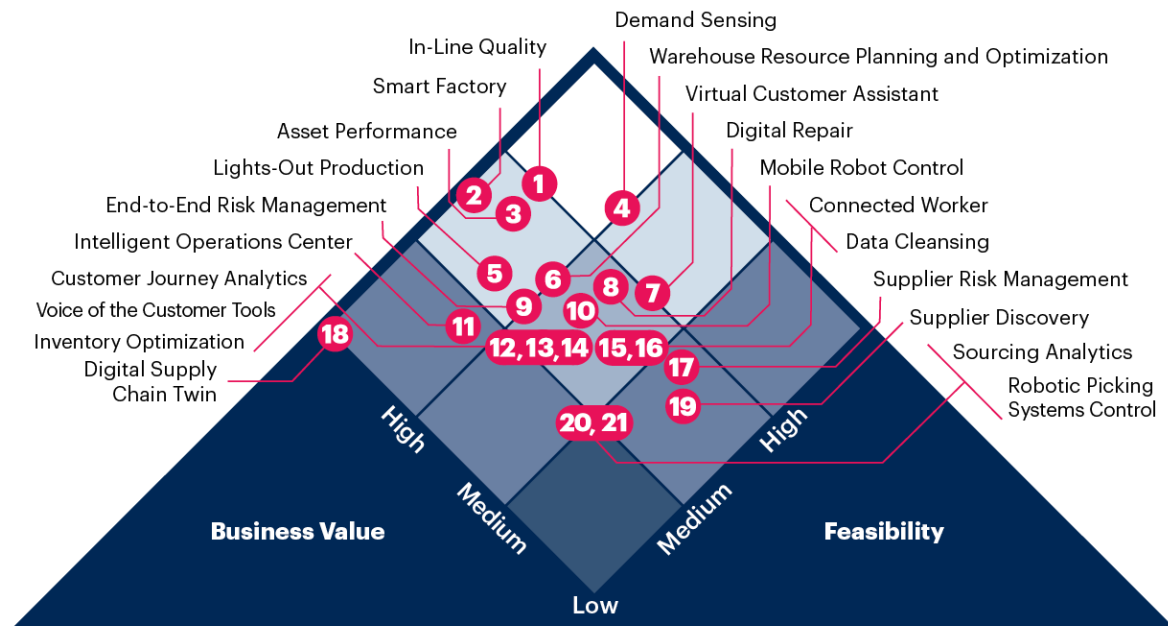
Source: Gartner  
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Gartner.

See [Infographic: AI Use-Case Prism for Sourcing and Procurement](#).

**Supply Chain:** The supply chain AI use-case prism in Figure 21 identifies top AI use cases — such as in-line quality, smart factory, asset performance and many more — in and across supply chain functions, including plan, source, make, deliver and customer service. It also spans end-to-end supply chain use cases.

Figure 21: Artificial Intelligence Use-Case Prism for Supply Chain

**Artificial Intelligence Use Case Prism for Supply Chain**

Source: Gartner  
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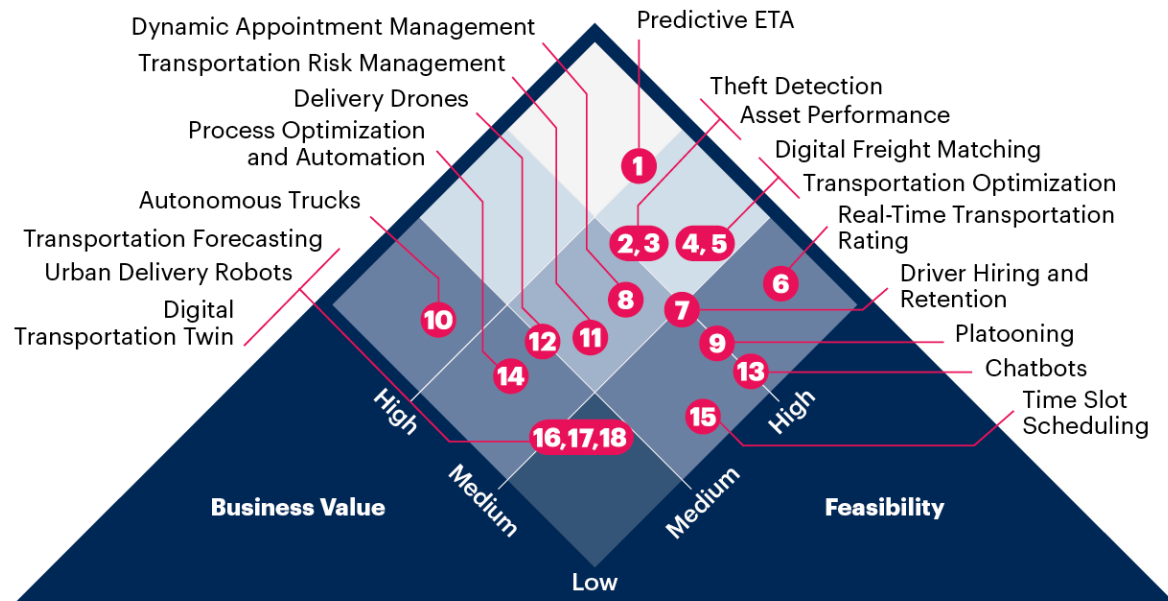
Gartner.

See [Infographic: Artificial Intelligence Use-Case Prism for Supply Chain](#).

**Transportation:** The transportation AI use-case prism in Figure 22 identifies 18 AI use cases — such as predictive ETA, asset performance, digital freight matching and many more — in and across transportation. The use cases span transportation planning, fleet management, transportation execution, real-time visibility and customer experience.



Figure 22: Artificial Intelligence Use-Case Prism for Transportation

**Artificial Intelligence Use Case Prism for Transportation**

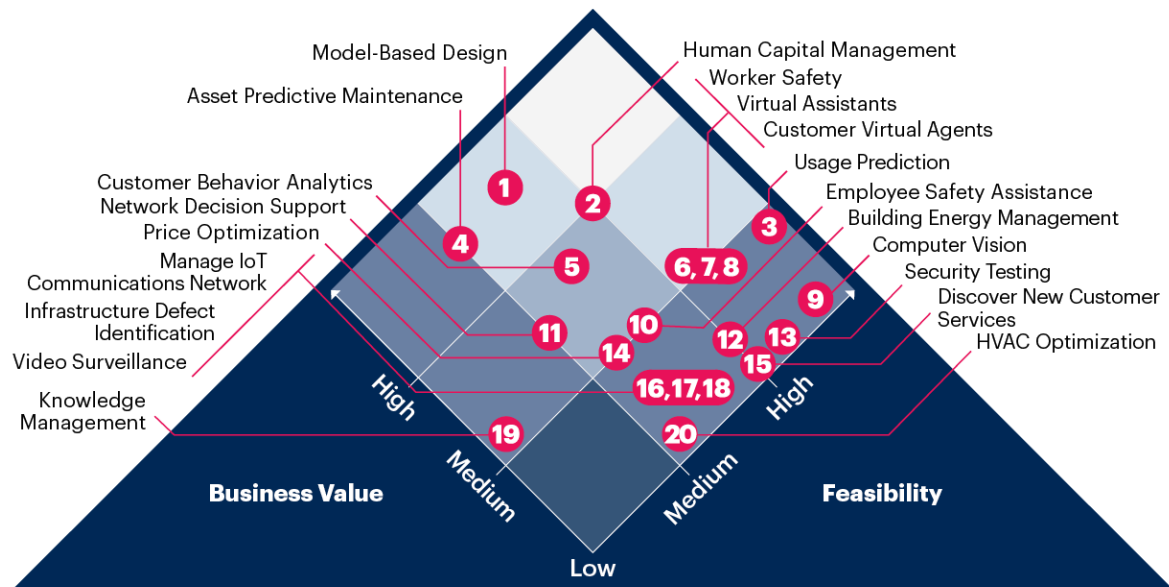
Source: Gartner  
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Gartner

See [Infographic: AI Use-Case Prism for Transportation](#).

**Utility:** The utility industry AI use-case prism in Figure 23 identifies prominent AI use cases — such as model-based design, human capital management and so forth — that can improve utility operations, bolster the customer experience and reduce risk exposure. Utility CIOs and D&A leaders can consider these use cases to help identify high-quality cases for their organization based on maturity and business impact.

Figure 23: Artificial Intelligence Use-Case Prism for Utilities Industry

**Artificial Intelligence Use Case Prism for Utilities Industry**

Source: Gartner  
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See [Infographic: Artificial Intelligence Use-Case Prism for Utilities](#).

**Note 1: Acknowledgments**

The Gartner prism came to live in its current form because of various great analysts who helped us along the way. Special thanks to our manager, Chris Iervolino, who was our main sponsor and was always there with massive help and goodwill. We are also especially grateful to Ilona Hansen for being the first domain analyst at Gartner to use this model, for B2B sales. We are also appreciative of many others who supported us, and their feedback was a great motivation: Magnus Revang, Alan D. Duncan, Rita Sallam, Kimberly Harris-Ferrante, Michael Ramsey, Jonathan Davenport, Jitendra Subramanyam, Frances Karamouzis and Andrew White.

**Recommended by the Authors**

Some documents may not be available as part of your current Gartner subscription.

[Toolkit: How to Rank and Prioritize Your Use Cases With a Gartner Prism](#)

[Tool: Use Cases to Seize AI Investment Opportunities](#)

[Toolkit: Strategic Industry Maps of AI Use Cases](#)

[Achieving the Business Value of Data and Analytics](#)

[The Gartner Digital Business Value Model: A Framework for Measuring Business Performance](#)

[Toolkit: Workshop to Identify the Right AI Use Cases for Your Organization](#)

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Chip Manufacturing AI Use-Case Prism	Corporate Legal AI Use-Case Prism
Defense and Intelligence AI Use-Case Prism	Customer Service AI Use-Case Prism
Healthcare Payers AI Use-Case Prism	Digital Commerce AI Use-Case Prism
Healthcare Providers AI Use-Case Prism	Human Capital Management AI Use-Case Prism
Life Science AI Use-Case Prism	Privacy AI Use-Case Prism
Media Industry AI Use-Case Prism	Software Development and Testing AI Use-Case Prism
P&C and Life Insurance AI Use-Case Prism	Sourcing and Procurement AI Use-Case Prism
Retail AI Use-Case Prism	Supply Chain AI Use-Case Prism
Smart Cities AI Use-Case Prism	Transportation AI Use-Case Prism
Utility Industry AI Use-Case Prism	

Source: Gartner (April 2021)