ISG Provider Lens™

Next-Gen ADM Services

A research report comparing provider strengths, challenges and competitive differentiators

Customized report courtesy of: tietoevry

QUADRANT REPORT | OCTOBER 2022 | NORDICS

Table of Contents

Report Author: Paul Goodman

A productive future beckons, but threats proliferate

While it is still a significant disrupter, COVID-19 has largely been subsumed into "business as usual." Organizations are learning to cope with the commercial impact of the disease on ways of working. This has returned the focus on existing threats that had been put somewhat on hold. The threats include:

- The need for a sustainable future
- The challenges of transitioning legacy portfolios to cloud-based systems
- The need to simplify application landscapes

New threats have emerged, driven by not only the geo-political upheaval of the war in Ukraine but also the re-emergence of high inflation and the potential for food and fuel shortages.

Some of these threats are of particular relevance to the Nordics, resulting in Sweden and Finland planning to join NATO. This has the potential to increase the demand for IT development in the regional defense sector, which is already likely to demonstrate growth because many nations are increasing defense spending. Cybersecurity and autonomous systems are seen as two key areas of defense development. Both these domains depend heavily on IT.

The Nordics weathered the COVID-19 storm better than some others in terms of the economic impact. While the region cannot escape the consequences of the issues currently affecting the global economy, the underlying economies of the region are resilient. This makes the Nordics an attractive proposition to ADM

Sustainability is becoming a key client requirement.

providers willing to invest time and energy to develop this market.

There has been considerable activity over the last year in terms of mergers and acquisitions; the development of partnership ecosystems; and the use of methods, frameworks and accelerators. That said, we expect the full benefits of these changes to not be felt for another year or two. Consequently, we have seen some but limited movement in the positions of various providers in the quadrants.

In other industries, we have seen designs tend to converge toward common forms, examples being laptops and, perhaps more notably, family cars and SUVs, which are now almost indistinguishable between brands. It is evident that this phenomenon is now being replicated among the major ADM service providers as they converge on similar patterns. This can especially be seen in their partnership ecosystems, in the development frameworks being used, such as Scaled Agile Framework (SAFe), and in the automation strategies being deployed.

It has been striking this year to see the emphasis placed by the majority of providers on developing their partnership ecosystems for them to then make acquisitions to fill the need for specific technical expertise. It was also noticeable that many of the partnership ecosystems included many of the same entities. Rather than being a differentiator, a strong partnership ecosystem could now be seen as a prerequisite.

Providers face some real constraints in the world-wide labor market.

Recruiting high-quality workers has recently been difficult. Providers are responding by placing a greater emphasis on staff well-being through their academies for personal development and by providing challenging but supported working structures, with many favoring squad-based models and other initiatives.

Despite the fact that the work environment in the Nordics is normally lauded as being one of the best worldwide, the labor market in the Nordics is also becoming more competitive. This is partly because individuals are choosing to improve their work-life balance by moving out of the IT industry and because of the increased demand post the COVID-19 pandemic. Consequently, there are increasing opportunities for providers to leverage nearshore and offshore development capabilities. The Nordics has a strong culture of its own, with subtly different cultures in each country, and providers should recognize and align to this, especially when deploying remote resources.

Part of the Nordic culture is its focus on sustainability. This has been present historically but not especially visible within IT. As sustainability becomes more prominent globally, Nordic clients are including sustainability requirements for IT as part of the remit for providers. Providers that recognize the importance of this and can demonstrate a commitment to sustainability will likely be better positioned in the market.

Ongoing changes in outsourcing and projects

Despite significant advances in some areas, such as testing, automation in development is still challenging, and the focus of providers is very much on shifting system architectures to microservices models, orchestration and composable functions.

The move from project-based to

product-based application management, which then incorporates development and enhancement, is undoubtedly accelerating. However, numerous providers have reported that clients are retaining existing development and management processes for components of their legacy application landscapes. This is particularly true for elements that will not be migrated to the cloud.

Low-code/no-code platforms, as a means to deliver business functionality, are becoming more mainstream, but issues around governance, reliability and total cost of ownership remain. ISG is providing a separate, insightful report into the topic of low-code/no-code development.

For several years, clients have seen security as important. For most clients, it is now deemed to be critical, and recent world events have only served to sharpen the focus on this topic. Having specific roles and processes for managing security is now a prerequisite for the sales process, and clients expect to see security key performance indicators. Conforming to industry standards is considered to be a given, and any provider that is unable to demonstrate this will face significant issues.

Ongoing changes in application managed services

The accelerating move among clients to product-based application management is blurring the line between development, enhancement and application support. A number of providers have reported contracts, with teams put in place to manage these aspects parallelly. This is a natural outcome of product-based strategies and can generate a much more cohesive and business-focused service for clients.

Variations of the DevOps model proliferate, for example SecDevOps, DevSecOps, AIOps and BizDevOps, and this can be confusing for clients. Clients are looking for a unified model that can bring together these various concepts into a pragmatic, meaningful development strategy. Some providers are responding with integrated frameworks within a product-based strategy that aim to provide greater alignment to business outcomes, demonstrated through business-focused KPIs.

Providers continue to automate wherever this is feasible in application managed services (AMS). Machine learning and AI are common themes that continue to be addressed by providers with processes and tools that enable zero defect, self-healing strategies and the automation of operational tasks. The use of bots in the Nordics is accelerating rapidly, with almost all providers promoting their deployment.

Ongoing changes in application quality assurance and continuous testing

The drive toward machine-learning- and AI-based automation of testing is increasing to meet the demand for continuous integration/delivery with reduced time to market. Providers are generally rising to this challenge, and in some cases, are educating clients about the possibilities such strategies offer.

New technologies, including the expanding Internet of Things (IoT) and potentially quantum computing, coupled with an urgent need to test security requirements and systems manipulating big data, continue to drive the significant expansion of the quality engineering/quality assurance realm. Providers have already recognized the potential of this market to fuel revenue growth.

Shift left and shift right as complementary testing strategies continue to be adopted by clients and are becoming standard offerings from providers as they develop automated processes to enable these strategies. Difficulties with implementation appear to be limiting the adoption, especially of shift-left strategies because they require some fundamental changes in the way in which developers work and document requirements and designs. As always, organizational change management is an integral part of implementing these testing strategies.

Automation remains a key element in ongoing quality engineering transformation programs, and the use of machine learning and AI is increasing as part of the service offerings of providers.

Providers face some real constraints in the world-wide labor market.

Provider Positioning

Page 1 of 3

	Agile Application Development Outsourcing and Projects	Application Managed Services	Application Quality Assurance and Continuous Testing Specialists
Accenture	Leader	Leader	Leader
Atos	Product Challenger	Product Challenger	Product Challenger
Capgemini	Leader	Leader	Leader
Cognizant	Product Challenger	Not In	Product Challenger
Columbus	Not In	Contender	Not In
DXC Technology	Product Challenger	Leader	Rising Star ★
Eficode	Not In	Contender	Not In
Endava	Not In	Product Challenger	Not In
HCL	Leader	Leader	Leader

Provider Positioning

Page 2 of 3

	Agile Application Development Outsourcing and Projects	Application Managed Services	Application Quality Assurance and Continuous Testing Specialists
IBM	Contender	Contender	Contender
Infosys	Product Challenger	Product Challenger	Product Challenger
KMD	Not In	Contender	Not In
Kyndryl	Product Challenger	Product Challenger	Product Challenger
LTI	Product Challenger	Product Challenger	Product Challenger
Mindtree	Product Challenger	Product Challenger	Product Challenger
N-iX	Rising Star ★	Not In	Contender
QA Mentor	Not In	Not In	Contender
QCENTRIS	Not In	Not In	Contender

Provider Positioning

Page 3 of 3

	Agile Application Development Outsourcing and Projects	Application Managed Services	Application Quality Assurance and Continuous Testing Specialists
ScienceSoft	Not In	Not In	Contender
Stefanini	Contender	Contender	Not In
TCS	Product Challenger	Market Challenger	Product Challenger
Tech Mahindra	Contender	Product Challenger	Product Challenger
Tietoevry	Leader	Leader	Leader
UST	Contender	Contender	Contender
Wipro	Leader	Product Challenger	Product Challenger
Zensar	Not In	Not In	Contender

A study on what ISG perceives as most critical in 2022 for **Next-Gen ADM Services**

- **Agile Application Development Outsourcing and Projects**
- **Application Managed Services**
- **Application Quality Assurance and Continuous Testing Specialists**

Simplified Illustration Source: ISG 2022

Definition

Leveraging software capabilities to solve business problems and gain enterprise agility is an indispensable requirement for modern application outsourcing contracts. Cost cutting and staff rationalization are no longer enough. Service providers are augmenting their traditional application development and management (ADM) offerings with advanced technologies such as AI in operations, microservices-based development and accelerators such as low-code/no-code solutions. Service providers offer tailor-made roadmaps combining digital, operational and technology goals to meet their clients' objectives. ISG calls such contracts next-gen ADM contracts. This study focuses on the recent developments that have taken place across application development, application management and quality assurance markets. Simultaneously, ISG is launching the 2022 ISG Provider Lens™ Low-code/No-code Platforms study to offer clients a broader understanding of that application services market.

Service providers are increasingly adopting agile development practices for their service delivery. They offer feature-led intuitive and interactive digital applications and support frequent updates. Building cloud-native applications has become a de facto service while scoping application modernization projects. Security is becoming integral to application development cycles from the outset and is being included in DevOps and throughout the CI/CD pipeline.

New end-user requirements, based on businesses' focus on enhancing CX, quick access to information, eliminating data silos and faster decision-making, supported by technology, shape the application development market. Enterprises seek to adapt to changing requirements by implementing faster release cycles and frequently deploying enhanced application services. A typical ADM service includes consulting, design, custom development, packaged software integration, operations, quality assurance, security services and testing. More service providers have been implementing AI for AIOps functions across all these traditional services, adding innovative and advanced approaches to their application development workbenches. The ISG Provider Lens™ study offers IT-decision makers:

- Transparency into the strengths and weaknesses of relevant providers
- A differentiated positioning of providers by segments
- Focus on different markets, including the U.S., the U.K., Brazil, Germany and the Nordics

ISG studies serve as an important decision-making basis for positioning key relationships and go-to-market considerations. ISG advisors and enterprise clients use information from these reports to evaluate their current vendor relationships and potential new engagements.

Scope of the Report

In this ISG Provider Lens™ quadrant study, ISG includes the following five quadrants: Agile Application Development Outsourcing, Agile Application Development Projects, Application Managed Services, Application Quality Assurance, and Continuous Testing Specialists.

For the Nordics region, Agile Application Development Outsourcing and Agile Application Development Projects have been combined into a single quadrant. Similarly, Application Quality Assurance and Continuous Testing Specialists have been combined into a single quadrant. Consequently, the Nordics ISG Provider Lens™ presents three quadrants.

Provider Classifications

The provider position reflects the suitability of IT providers for a defined market segment (quadrant). Without further additions, the position always applies to all company sizes classes and industries. In case the IT service requirements from enterprise customers differ and the spectrum of IT providers operating in the local market is sufficiently wide, a further differentiation of the IT providers by performance is made according to the target group for products and services. In doing so, ISG either considers the industry requirements or the number of employees, as well as the corporate structures of customers and positions IT providers according to their focus area. As a result, ISG differentiates them, if necessary, into two client target groups that are defined as follows:

Midmarket: Companies with 100 to 4,999 employees or revenues between US$20 million and US$999 million with central headquarters in the respective country, usually privately owned.

Large Accounts: Multinational companies with more than 5,000 employees or revenue above US$1 billion, with activities worldwide and globally distributed decision-making structures.

The ISG Provider Lens™ quadrants are created using an evaluation matrix containing four segments (Leader, Product Challenger, Market Challenger and Contender), and the providers are positioned accordingly. Each ISG Provider Lens™ quadrant may include service providers that ISG believes have strong potential to move into the Leader quadrant. This type of provider can be classified as a Rising Star.

Number of providers in each quadrant: ISG rates and positions the most relevant providers according to the scope of the report for each quadrant and limits the maximum of providers per quadrant to 25 (exceptions are possible).

Provider Classifications: Quadrant Key

Product Challengers offer a product and service portfolio that reflect excellent service and technology stacks. These providers and vendors deliver an unmatched broad and deep range of capabilities. They show evidence of investing to enhance their market presence and competitive strengths.

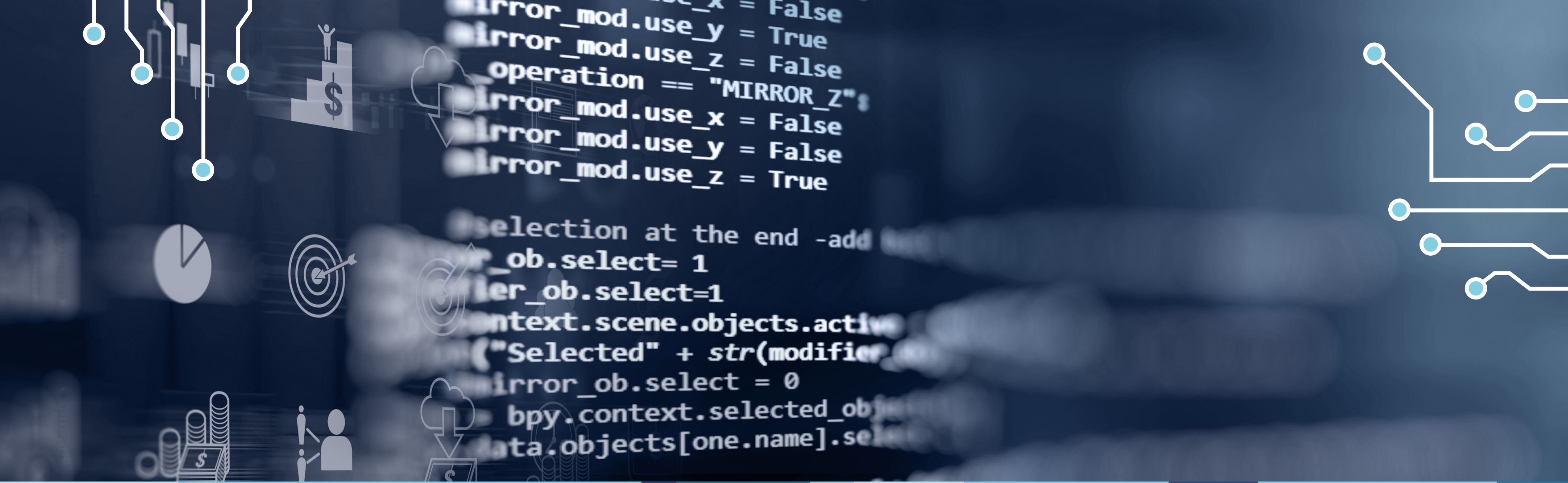
Leaders have a comprehensive product and service offering, a strong market presence and established competitive position. The product portfolios and competitive strategies of Leaders are strongly positioned to win business in the markets covered by the study. The Leaders also represent innovative strength and competitive stability.

Contenders offer services and products meeting the evaluation criteria that qualifies them to be included in the IPL quadrant. These promising service providers or vendors show evidence of rapidly investing in products/services and follow a sensible market approach with a goal of becoming a Product or Market Challenger within 12 to 18 months.

Market Challengers have a strong presence in the market and offer a significant edge over other vendors and providers based on competitive strength. Often, Market Challengers are the established and well-known vendors in the regions or vertical markets covered in the study.

★ **Rising Stars** have promising portfolios or the market experience to become a Leader, including the required roadmap and adequate focus on key market trends and customer requirements. Rising Stars also have excellent management and understanding of the local market in the studied region. These vendors and service providers give evidence of significant progress toward their goals in the last 12 months. ISG expects Rising Stars to reach the Leader quadrant within the next 12 to 24 months if they continue their delivery of above-average market impact and strength of innovation.

Not in means the service provider or vendor was not included in this quadrant. Among the possible reasons for this designation: ISG could not obtain enough information to position the company; the company does not provide the relevant service or solution as defined for each quadrant of a study; or the company did not meet the eligibility criteria for the study quadrant. Omission from the quadrant does not imply that the service provider or vendor does not offer or plan to offer this service or solution.



Agile Application Development Outsourcing and Projects

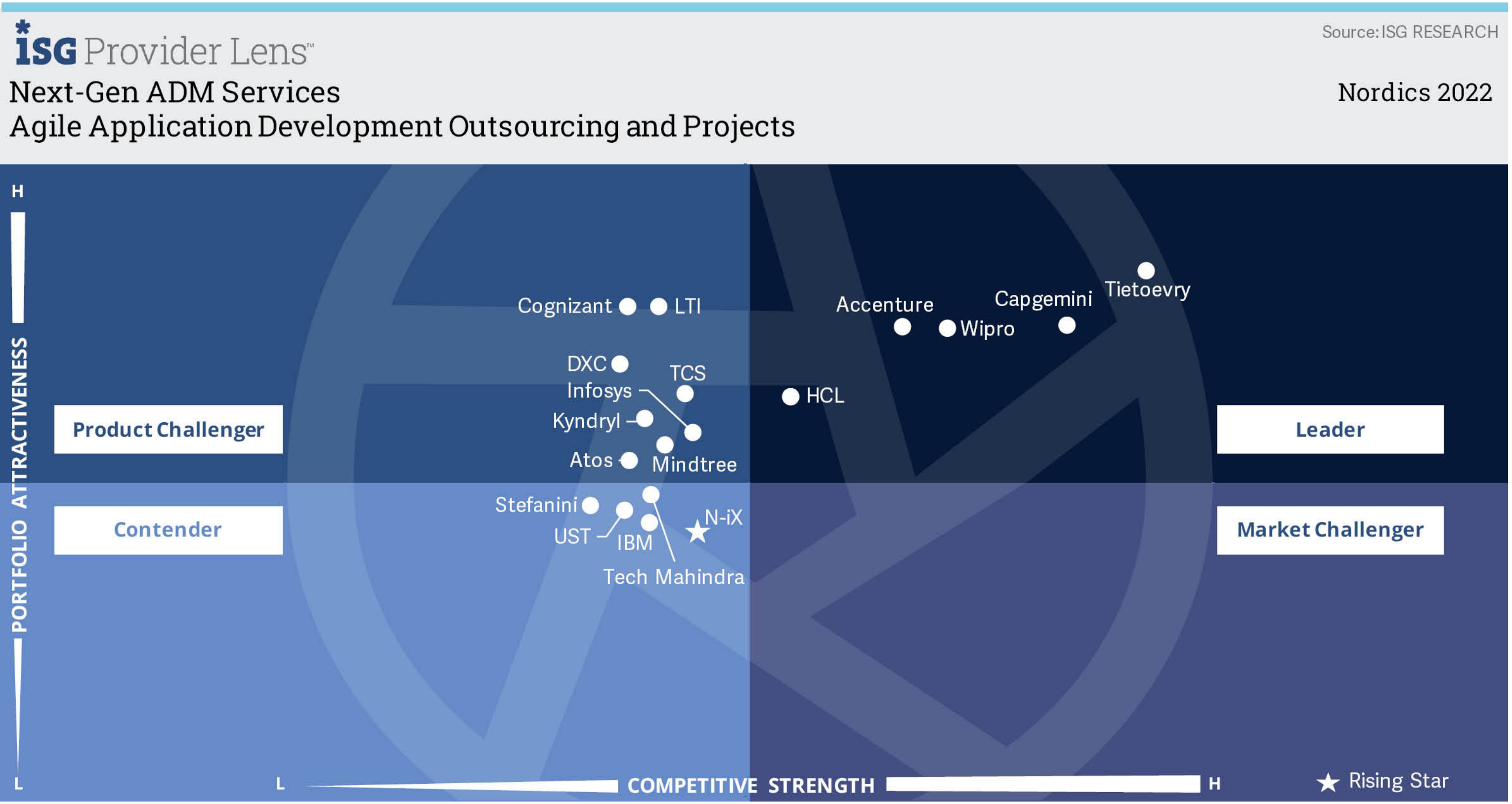
Who Should Read This

This report is relevant to enterprises across industries in the Nordics for evaluating providers that offer application development services and scaled agile services.

In this quadrant report, ISG highlights the current market positioning of providers that offer application development and scaled agile practices in the region based on the depth and quality of their service offering and market presence. Enterprises in the Nordics are increasingly leveraging digital technologies, and most of them have adopted a digital strategy. They are looking for service providers that can offer consulting and advisory services around agile transformation and have strong implementation experience for large reference clients. While most applications used in business processes are built on legacy architectures, many enterprises face difficulties keeping up with business changes. Hence, they are seeking digital transformation and spectrum analytics, along with customized business solutions. Updating legacy systems is a major task, and there are many paths when migrating to the cloud. Therefore, enterprises want to develop a comprehensive program of application modernization and migration services. In the Nordics, IT outsourcing and digital transformation have accelerated due to the large-scale adoption of digitalization. Enterprises also consider the technology capabilities of service providers such as UI/UX, robotic process automation, mainframe practice, low-code platform, AISecOPs and others, for future growth and automation.

IT and Technology Leaders should read this report to gain understanding of the strengths and weaknesses of service providers in their Agile Application Development Outsourcing and Projects practice. The report will also help them understand how providers integrate the latest technologies/ capabilities into their service offerings.

Line-of-business and Industry Leaders should read this report to understand the relative positioning of partners that can help them effectively procure the application services for their business and ensure returns on investment.



This quadrant assesses providers that support clients in the **development, enhancement and delivery** of business functionality, either bespoke or through package implementation. Typically, these providers have strong **Agile skills**, comprehensive **development environments** and **DevOps** capabilities.

Paul Goodman

Definition

This quadrant assesses service providers that offer ADM expertise with the use of different technologies, spanning the complete application development landscape and most industry verticals, in outsourcing deals that are based on the delivery capacity for a certain time frame (three- to five-year contracts, renewable).

AND

Service providers that offer agile application development in deals that include clear scope definitions for project outcomes, business goals or squad scope with product owners.

Outsourcing offers ADM capacity regardless of the number and size of projects and programming languages to support in the application portfolios or business units. This assessment evaluates how service providers use project management tools, platform-as-a-service (PaaS), software-as-a-service (SaaS), low-code/no-code platforms or other accelerators to elevate a client's application development capacity.

For individual projects, service providers add specific knowledge and skills required by squads or projects and can differentiate themselves by offering business expertise or development accelerators.

Overall, a typical service provider in this quadrant has extensive consulting expertise and high-end technology partnerships, which may be specialized for individual projects, to implement CI/CD pipelines, application testing and DevOps to enable clients to achieve high performance while reducing time to market.

Eligibility Criteria

Suppliers offering full outsourcing services:

1. Should manage more than **20 squads for a single client** or be able to scale up to more than 1,000 developers or add more than 100 a week, working simultaneously, in several projects
2. Should use a comprehensive tool set to **coordinate resource allocation, portfolio management and backlog prioritization** as well as to support agile and waterfall methods
3. Should be **certified to transform and deploy agile teams** with certified practitioners under frameworks such as Scaled Agile Framework (SAFe) and Large-Scale Scrum (LeSS)
4. The **commercial business model centers** on the provision of squads for client-managed application development units
5. The **ability to engage** many squads to support a client is considered

Suppliers offering project focused services:

1. Shows specific **knowledge and skills** required by squads or projects, such as

programming languages, vendor certifications, data analytics etc

2. Providers should **demonstrate delivery capacity** with reference clients and case studies
3. Providers should specialize in at least one of the following methodologies: **Scrum, Kanban, XP, lean development or Crystal**

Observations

The impact of COVID-19 on clients has been reduced, but there are other threats that have appeared or intensified. The geo-political situation in Eastern Europe is heightening the concerns regarding cybersecurity and is exacerbated in parts of the Nordics. Providers also need to address the burgeoning skills shortage, which can become a serious threat.

In application development, providers are rapidly maturing their offerings to help clients transform to microservices architecture and with DevOps and continuous delivery. For parts of the application landscape that will be in cloud-based, organizations are typically moving to a product-centric approach rather than a project-centric approach. However, with legacy applications, this strategy is happening more slowly.

Automation of testing is progressing, but automation is still a challenge as providers look to “shift left,” especially beyond testing. Furthermore low-code/no-code platforms are becoming more mainstream, but challenges around governance, reliability and the total cost of ownership remain.

Despite considerable activity, there has been limited movement within the quadrant, because some activities are longer-term investments that will bear fruit in the next 12 to 24 months.

The two most notable M&A events in the quadrant are Kyndryl’s spin-off from IBM and the potential merger of LTI and Mindtree. However, it is still too early to assess the impact of these on the market and providers.

From the 26 companies assessed for this study, 18 have qualified for this quadrant, with five being Leaders and one a Rising Star.

Accenture provides a defined approach to outsourced application development, with a strong emphasis on business alignment. This provider is very experienced in the deployment and use of Agile methods in varied business domains.

Capgemini has a rich service portfolio with a broad and deep Agile resource pool in the Nordics. It has a comprehensive framework to support clients in the transition to a product-centric approach.

HCL utilizes a proven approach toward agile development supported by strong platforms. It matches its service provision to the maturity of its clients, enabling them to work closely together to manage change and transition.

Tietoevry is a well known provider of ADM services, with a very strong cultural alignment to its Nordic clients based on their shared heritage. It deploys deep expertise in Agile methodologies through skilled resources and is supported by a wide range of partners.

Wipro has considerable global experience in application development outsourcing, which it has successfully tailored to the Nordics market, increasing its presence in the region.

N-iX

N-iX is a small ADM service provider currently focused on delivering software or system solution projects. It has considerable experience in the deployment and use of Agile methods. It is potentially a major regional player in its current area of service provision and has the potential to move into full ADM outsourcing in the future.

Capgemini

Leader

"Capgemini maintains its position as a Leader in this quadrant and continues to grow in the region."

Paul Goodman

Overview

Capgemini is headquartered in Paris and operates in 50 countries. It has over 324,000 employees across 300+ global offices. In FY21, the company generated €18.1 billion (+14.6 percent YoY) in revenue, with applications and technology as its largest segment. At 62 percent, Application Services (ADM) is the largest service line contributor of revenue to Capgemini Group. With over 260 clients and a resource pool of 5,200 FTEs in the region, Capgemini is a major player in this quadrant.

Strengths

ADMnext framework: Capgemini has developed a unified approach to deploy Agile, DevOps, the cloud, data platforms and security for the IT department. This framework is designed to support the transition of clients to a product-centric approach. It emphasizes security in the context of Capgemini's significant experience of product and systems engineering.

Strong Agile resource pool: Capgemini can deploy resources that are trained and often certified in all the key Agile methodologies and roles.

Established partner network: Like its competitors, Capgemini has established partnerships with almost all major software providers and hyperscalers. With specific key partners, Capgemini has established joint go-to-market initiatives. This gives it the ability to influence those partners based on the identified needs of its clients.

Commitment to sustainability and inclusion: Capgemini has established a corporate office for the ongoing development of its sustainability framework to support its clients with their ESG programs. Coupled with a strategy of gender equality, it will resonate well with many Nordic clients.

Caution

Capgemini is sometimes perceived to only be focused on megadeals despite having examples of mid-sized engagements within the region. Making these explicit references has the potential to open other areas of the market.

Application Managed Services

Who Should Read This

This report is relevant to enterprises across industries in the Nordics for evaluating providers of Application Managed Services.

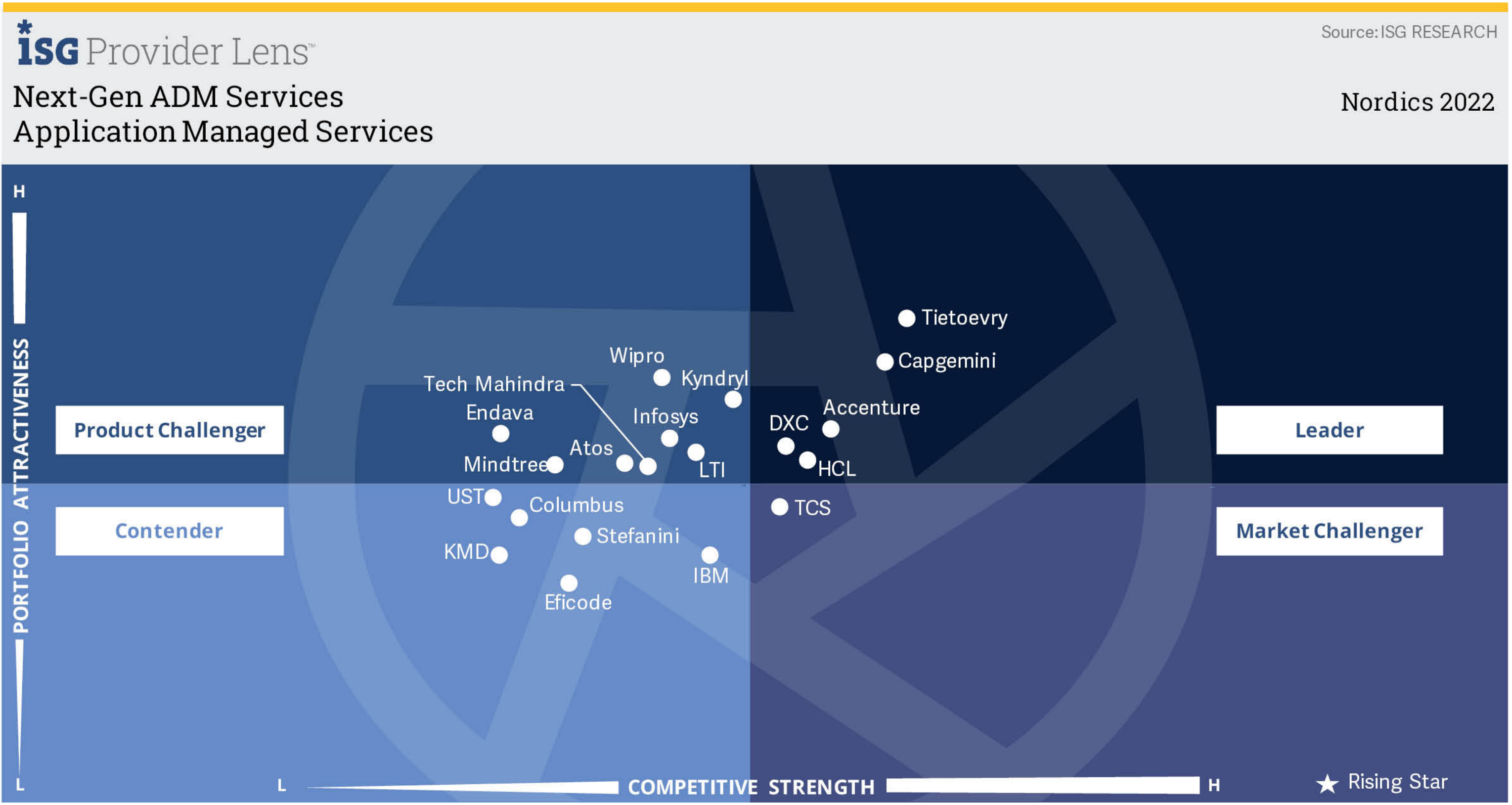
In this quadrant report, ISG highlights the current market positioning of providers of Application Managed Services and how they address the key challenges faced by enterprises in the region.

In the Nordics, enterprises are facing challenges in managing applications. Thus, they look for managed application service providers that offer internal IP around autonomous IT operations and automation as a service. They seek to adopt managed services, aiming at continuous innovation and transformation to ensure desired business outcomes.

Enterprises are considering cloud-enabled services infused with AI/machine learning to accelerate their managed services journey. Many of them are facing issues with routine tasks and incidents related to managed services. Hence, they need to automate the routine tasks and eliminate incidents. Enterprises in the Nordics are prioritizing application/ platform reliability and regional presence of the service providers.

IT and Technology Leaders should read this report to gain a clear understanding of the strengths and weaknesses of providers that offer maintenance services, frameworks, and tools to effectively manage their applications.

Sourcing and Procurement Managers should read this report to gain a clear understanding of the service provider ecosystem for application maintenance services in the Nordics and how various providers compare with each other.



This quadrant assesses providers that manage the **live production application portfolio** on behalf of clients. This includes accepting new releases into production, supporting users of the application, issue and defect management, and **proactive service improvement.**

Paul Goodman

Definition

This quadrant assesses service providers that take the responsibility of managing clients' entire application portfolios (applications in production). It does not include niche application specialists. The service scope comprises application support, enhancements, platform upgrades, application security, bug fixing, troubleshooting and the merging of enhancements and development backlogs under Kanban or similar methodologies. Leading service providers in this quadrant offer application monitoring, release management, version control, defect identification and resolution and database query performance.

Typical service levels include the time taken to resolve an incident or service request, service availability, the defect rate, user satisfaction or Net Promoter Score (NPS) and user experience. Service transition and client onboarding should include application documentation, service ticket records, knowledge transfer and, optionally, expert transfer and hiring. Ongoing service delivery starts after the transition period ends and often includes quality improvement programs and service knowledge refreshments.

Eligibility Criteria

1. Should demonstrate expertise in **deploying and operating service** platforms for team performance monitoring and defect management, including troubleshooting
2. Should employ **vendor-certified experts** in packaged e-commerce, ERP, CRM or supply chain management applications (at least one of these technology platforms)
3. Must support Microsoft and Oracle technologies, Java programming and relational databases such as **MySQL, Oracle Database, PostgreSQL and SQL Server**. Mainframe and other technologies can add to a provider's rating but are not required for inclusion
4. Should **integrate more than two service platforms**, such as Atlassian Jira, SAP Solution Manager and ServiceNow, and service desk tools and application development platforms such as AWS, Google Anthos, IBM Rational and Microsoft Azure
5. Should include a **service management platform** to handle application tickets and service requests and track service levels

6. Service providers using clients' tools should demonstrate certifications and expertise in integrating and **managing commercial-grade platforms**
7. Should commit to **quality improvement programs** to reduce incidents that can include lean methodologies plus AI and machine learning for analytics (trends and predictions) with incident and service request automation
8. Should offer **fixed service fees or outcome-based contracts**, providing clients with options; staff augmentation is an exception

Observations

In application managed services, the shift to a product-centric approach, especially for parts of the application landscape that will be cloud based, continues to accelerate. However, providers also have to manage the reality that many clients retain their old application management approaches for their legacy landscape.

Variations on the DevOps theme continue to proliferate, such as DevSecOps. This proliferation can confuse clients, and some providers are working to mitigate this effect by developing integrated frameworks, often supported by application management platforms. These frameworks, which are generally more business aligned, deliver measurable and often specific business benefits for clients.

The use of automation, supported by AI and machine learning, continues to grow. Adopting analytics-based predictive application management to remove issues before they impact users is now a common practice, with self-healing for applications being a prevalent theme.

Despite considerable activity, there has been limited movement within the quadrant. Our view is that this is because some activities are longer-term investments that will bear fruit in the next 12 to 24 months.

The two most notable M&A events in the quadrant are Kyndryl's spin-off from IBM and the potential merger of LTI and Mindtree. However, it is too early to assess the impact of these on the market and providers.

From the 26 companies assessed for this study, 20 have qualified for this quadrant, with five being Leaders. No Rising Star has been identified.

Accenture has a comprehensive offering supported by a rich set of AI and machine learning tools. Accenture's Value Led Application Management approach is business aligned and designed to provide measurable benefits.

Capgemini uses its platforms and methodologies, coupled with extensive experience in managing complex application landscapes, as the foundation of its application management offerings.

DXC Technology

DXC Technology has developed an industrialized methodology for application managed services, supported by a rich set of automation technologies and DXC Platform X. DXC Technology has particular expertise in managing complex application landscapes.

HCL provides a comprehensive application management framework augmented with a wide range of automation tools. Its approach is to match its offering to the maturity of its clients to help with the transition to a product-centric strategy where it is appropriate.

tietoevry

Tietoevry is a well known provider of application managed services, with a strong cultural alignment to its Nordic clients based on a shared heritage. It provides a full range of application managed services offerings to multiple clients in the region. Its offerings are enabled by a rich set of frameworks and automation tools.

Capgemini

Leader

"Capgemini maintains its position as a Leader in this quadrant and continues to grow in the region."

Paul Goodman

Overview

Capgemini is headquartered in Paris and operates in 50 countries. It has over 324,000 employees across 300+ global offices. In FY21, the company generated €18.1 billion (+14.6 percent YoY) in revenue, with applications and technology as its largest segment. At 62 percent, Application Services (ADM) is the largest service line contributor of revenue to Capgemini Group. With over 260 clients and a resource pool of 5,200 FTEs in the region, Capgemini is a major player in this quadrant.

Strengths

ADMnext framework: Capgemini has developed a unified approach to deploy Agile, DevOps, the cloud, data platforms and security for the IT department. This framework is designed to support the transition of clients to a product-centric approach for application management.

Business Command Center: Capgemini has developed and deployed its Business Command Center to forge the link between operational KPIs and business performance measures, enabling effective application management improvements for clients.

Established partner network: Like its competitors, Capgemini has established partnerships with almost all major software providers and hyperscalers. With specific key partners, Capgemini has established joint go-to-market initiatives. This gives it the ability to influence those partners based on the identified needs of its clients.

Commitment to sustainability and inclusion: Capgemini has committed to the ongoing development and implementation of a sustainability framework. Coupled with its strategy of gender equality, this will resonate well with many Nordics clients.

Caution

The comprehensive nature of Capgemini Transition Solutions, which includes risk identification, may be seen as complex by some clients. Emphasizing that this helps clients have an improvement journey may be beneficial.

Application Quality Assurance and Continuous Testing Specialists

Who Should Read This

This report is relevant to enterprises across industries in the Nordics for evaluating providers of quality assurance and continuous testing services.

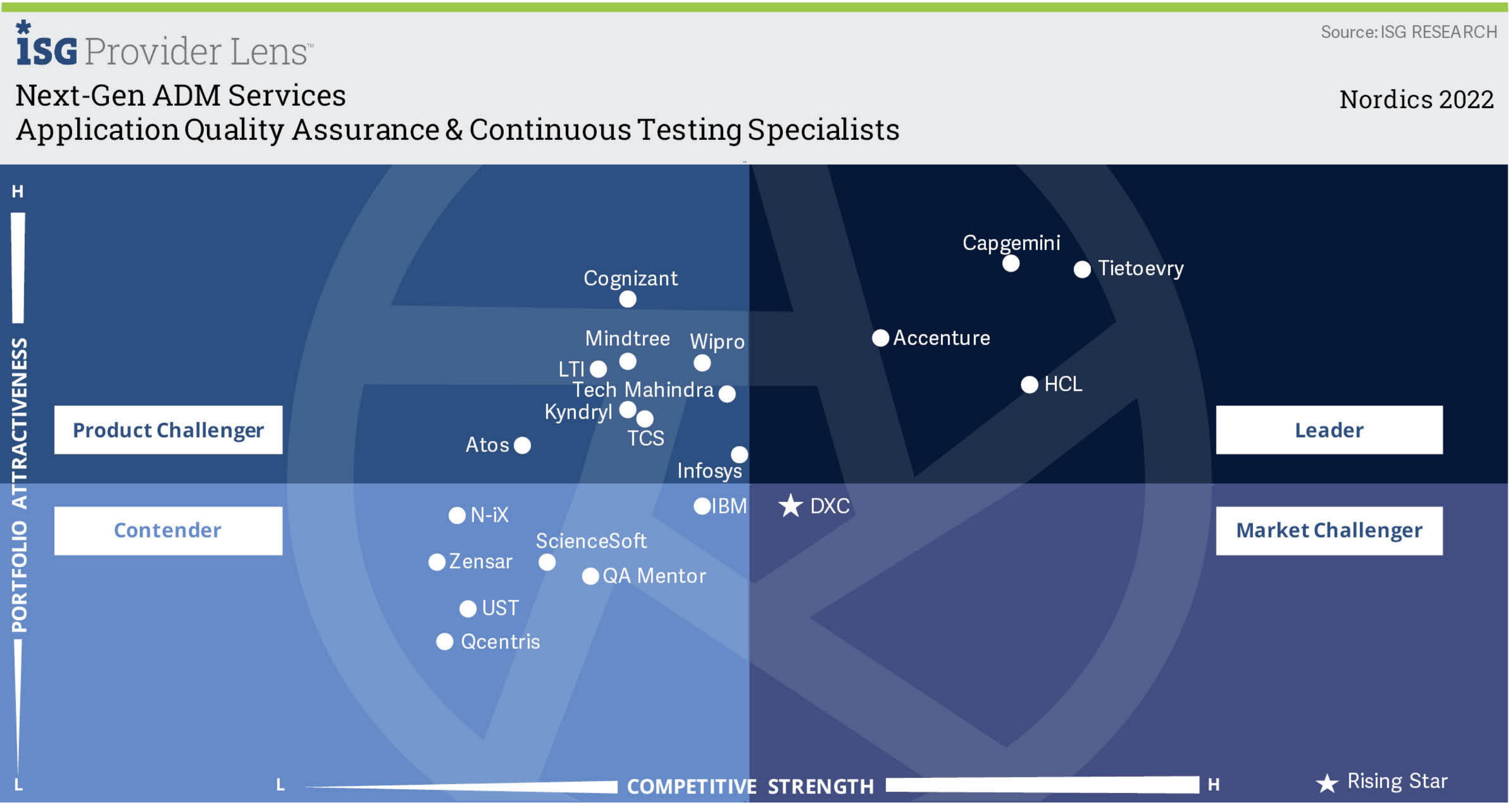
In this quadrant report, ISG highlights the current market positioning of providers that offer quality assurance and continuous testing services in the region and how they address the key challenges faced by enterprises.

The quality assurance and continuous testing services market in the Nordics is primarily driven by the increased adoption of Agile and DevOps methodologies, as well as automated testing processes, across testing phases. Many enterprises are adopting digital delivery models that leverage technology and automation to deliver services. They are also seeking customized business solutions to minimize cost and increase revenue.

Enterprises are seeking end-to-end quality engineering services that deliver value, with zero defects, against critical KPIs for diverse business scenarios. They are primarily focusing on intelligent test automation platforms, test automation frameworks, one touch testing, and quality assurance maturity radar. In this region, enterprises are seeking all testing solutions such as mobility, security, AI, cognitive, API, blockchain, and others under one roof to minimize time, effort, resources, and investments. Enterprises are also planning to make quality assurance a part of automation, non-functional testing, reporting, and DevOps.

IT and Technology Leaders should read this report to gain a clear understanding of the strengths and weaknesses of service providers in their QA and continuous testing practice and how they integrate the latest technologies and capabilities into their service offerings.

Line-of-business and Industry Leaders should read this report to understand the relative positioning of providers that can help them effectively procure the right QA and testing services for their business and ensure returns on investment.



This quadrant assesses providers that offer **lifecycle quality engineering** or **testing services** for application **development and enhancement**, including bug fixes or for **application management**.

Paul Goodman

Definition

This quadrant assesses service providers that offer comprehensive quality assurance programs, including assessments, design, implementation and quality assurance managed services. Service deliverables include setting methods for effort estimation, project planning, documentation, sprint execution timelines, criteria for a product to be deemed complete and testing strategies to identify bugs or defects in a product. Service providers in this quadrant can design processes to attain the desired product or service quality at project and business levels, ideally covering a client's complete application portfolio.

AND

Providers of more focused automated testing services. These providers develop the testing strategy, scope, methods and scripts before automation and test execution. They have the skills to deploy automation and execute testing cycles and produce the necessary evidence to support compliance auditing.

Overall, this quadrant also assesses how a provider leverages production logs to extract insights for improved application quality and performance, and how the provider integrates application performance management tools with AI and machine learning to monitor data.

Eligibility Criteria

Suppliers offering quality assurance services:

1. Should offer a **centralized quality assurance** unit that creates quality standards for clients' projects
2. Should maintain a comprehensive technical **quality assurance framework**
3. Should maintain a consulting team focused on **analyzing business demands** and securing development and delivery
4. Should use **technology to perform analytics** of logs and use AI for continuous improvement in results
5. Should provide differentiation with proprietary tools and leverage vendor partnerships for **quality monitoring**, application performance tools and testing tools

Suppliers offering continuous testing services:

1. Should engage **qualified professionals** for test-driven development (TDD), behavior-driven development (BDD) and other approaches
2. Should handle **large-scale testing** and continuous integration demands of complex systems

3. Portfolio **should include** unit testing, system testing, regression testing, compliance testing, performance and load testing, user acceptance testing and smoke testing
4. Should offer **consulting services** for testing practices
5. Should offer **continuous services**, including testing data and test coverage assessments with automated testing enablement across many continuous integration pipelines

Observations

In the quality assurance and continuous testing area, the demand for continuous integration/continuous delivery is increasing, as more organizations migrate significant parts of their application landscape to the cloud. This often makes clients shift to a product-centric approach rather than a project-centric approach, at least for those parts of the landscape that have or will be migrated to the cloud. To meet these demands, providers use more AI- and machine-learning-based automation.

The quality engineering/quality assurance realm continues to expand in terms of the revenue it can generate for providers. Another factor driving this continued expansion is new emerging technologies. The Internet of Things (IoT) is one example, while the emergence of quantum computing, although not mainstream yet, is potentially another. Quality engineering will continue to be a potential area of significant growth in terms of demand, and providers are recognizing that this market can drive revenue growth.

Clients continue to look toward shift left and shift right as complementary testing strategies. These are becoming standard offerings from providers, especially as they implement automated support. There are difficulties with adopting shift left and shift right, because changes to working practices and documentation are required. Shift left usually requires changes to the way requirements and designs are documented. To address these issues, providers recognize the need for organizational change management.

From the 26 companies assessed for this study, 21 have qualified for this quadrant, with four being Leaders and one a Rising Star.

accenture

Accenture has a comprehensive quality engineering offering, which operates effectively at scale. It deploys well-designed platforms and frameworks with strong AI and machine learning functionalities.

Capgemini

Capgemini has strong global experience in quality engineering and a rich set of service offerings. It has developed effective platforms backed with AI and machine learning capabilities.

HCL

HCL deploys intelligent automation capabilities to support its quality engineering service set. It has an experienced, Nordics-focused resource pool that it can utilize.

tietoevry

Tietoevry has a strong quality assurance presence with a historic alignment to the Nordics. It provides a full range of quality engineering offerings, which are supported by its AI-enabled quality assurance platform and comprehensive frameworks.

DXC Technology

DXC Technology offers a comprehensive set of testing and quality engineering services, supported by a broad platform and rich framework. It is able to provide strong case studies and references to support its improvement statements.

Leader

"Capgemini maintains its position as a Leader in this quadrant and continues to grow in the region."

Paul Goodman

Capgemini

Overview

Capgemini is headquartered in Paris and operates in 50 countries. It has over 324,000 employees across 300+ global offices. In FY21, it generated €18.1 billion (+14.6 percent YoY) in revenue, with applications and technology as its largest segment. At 62 percent, Application Services (ADM) is the largest service line contributor of revenue to Capgemini Group. With over 260 clients and 3,100 quality-assurance-focused FTEs in the region, Capgemini is a major player in this quadrant.

Strengths

Quality assurance engineering for transformation: Capgemini looks to partner with clients to transition quality assurance from "testing to prove" or defensive testing to become value enhancing. For this, it deploys a three-stage transition model: Transition to Transformation to Evolution. While automation with AI and machine learning is important in this model, one of its key differentiators is that Capgemini equips the quality assurance team to act as gatekeepers. This recognizes a fundamental requirement of the most effective quality assurance engineering models.

The Business Command Center: Capgemini has developed and deployed its Business Command Center, which is a key component of its quality assurance engineering framework. This is typically deployed during the transformation stage to enable business process testing.

Commitment to sustainability and inclusion: Capgemini has established a corporate office for the ongoing development and implementation support of its sustainability framework to support clients with their ESG programs. Coupled with its strategy of gender equality, this will resonate well with many Nordics clients.

Caution

Placing more emphasis on the organizational change management aspects of its transition model would resonate well with Nordic clients.

Appendix

The ISG Provider Lens™ 2022 – Next-Gen ADM Services research study analyzes the relevant software vendors/service providers in the Nordics market, based on a multi-phased research and analysis process, and positions these providers based on the ISG Research methodology.

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The research and analysis presented in this report includes research from the ISG Provider Lens™ program, ongoing ISG Research programs, interviews with ISG advisors, briefings with services providers and analysis of publicly available market information from multiple sources. The data collected for this report represents information that ISG believes to be current as of October 2022, for providers who actively participated as well as for providers who did not. ISG recognizes that many mergers and acquisitions have taken place since that time, but those changes are not reflected in this report.

All revenue references are in U.S. dollars ($US) unless noted.

The study was divided into the following steps:

1. Definition of Next-Gen ADM Services market
2. Use of questionnaire-based surveys of service providers/ vendor across all trend topics
3. Interactive discussions with service providers/vendors on capabilities & use cases
4. Leverage ISG's internal databases & advisor knowledge & experience (wherever applicable)
5. Use of Star of Excellence CX-Data
6. Detailed analysis & evaluation of services & service documentation based on the facts & figures received from providers & other sources.
7. Use of the following key evaluation criteria:
   * Strategy & vision
   * Tech Innovation
   * Brand awareness and presence in the market
   * Sales and partner landscape
   * Breadth and depth of portfolio of services offered
   * CX and Recommendation

Lead Author

Paul Goodman
Lead Author

Mr. Goodman has supported clients in all industries and is a recognized authority in implementing IT process improvement and cost optimization initiatives and in Software Metrics. He has presented at international industry conferences on these subjects.

Mr. Goodman has worked with many of the industry leaders in the field including the Software Engineering Institute, the European Software Process Improvement Foundation and the International Standards Organization. Until April 2019 Mr Goodman was a Vice President with Gartner Consulting and the Deputy Global Lead for the Applications Practice. Additionally, he was the Solution Lead for Application Performance Management Programmes within the Applications Practice of Gartner Consulting. Application Performance Measurement Programmes incorporates the Fast Function Point Analysis methodology. Mr. Goodman was previously the Gartner Consulting capability lead for ITIL and process improvement in Europe and has over 37 years' experience in IT management and consulting.

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Puranjeet Kumar is a senior research analyst at ISG and is responsible for supporting and co-authoring Provider Lens™ studies on Next-Gen ADM Solution & Services, and Salesforce Ecosystem. He supports the lead analysts in the research process and writes the global summary report. Puranjeet also develops content from an enterprise perspective and collaborates with advisors and enterprise clients on ad-hoc research assignments. Prior to this role, he has worked at several syndicated market research firms and has more than seven years of experience in research and consulting, with major areas of focus in collecting, analyzing, and presenting quantitative and qualitative data. His area of expertise lies in various technologies, including application development and maintenance[MB1] [MP2] , and analytics.

IPL Product Owner

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Mr. Aase brings extensive experience in the implementation and research of service integration and management of both IT and business processes. With over 35 years of experience, he is highly skilled at analyzing vendor governance trends and methodologies, identifying inefficiencies in current processes, and advising the industry. Jan Erik has experience on all four sides of the sourcing and vendor governance lifecycle - as a client, an industry analyst, a service provider and an advisor.

Now as a partner and global head of ISG Provider Lens™, he is very well positioned to assess and report on the state of the industry and make recommendations for both enterprises and service provider clients.

About Our Company & Research

ISG Provider Lens™

The ISG Provider Lens™ Quadrant research series is the only service provider evaluation of its kind to combine empirical, data-driven research and market analysis with the real-world experience and observations of ISG's global advisory team. Enterprises will find a wealth of detailed data and market analysis to help guide their selection of appropriate sourcing partners, while ISG advisors use the reports to validate their own market knowledge and make recommendations to ISG's enterprise clients. The research currently covers providers offering their services across multiple geographies globally.

For more information about ISG Provider Lens™ research, please visit this webpage.

ISG Research™

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