

Life Sciences Digital Services

A research report comparing provider strengths,
challenges and competitive differentiators



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The life sciences industry is witnessing a significant digital transformation, driven by the urgent need to advance research and navigate regulatory complexities. Advanced technologies such as AI, ML and automation play a prominent role, yet their seamless integration into ongoing processes faces challenges due to issues with low-quality, outdated and incomplete data. The industry grapples with data-centricity challenges in R&D, emphasizing the significance of addressing data quality issues, particularly in master data management and governance. Despite progress, organizations struggle with data gaps, cross-business ownership and inconsistent quality. The imperative for reduced time-to-market prompts increased collaboration, but traditional tools result in data duplication and raise security concerns.

Industry leaders are navigating a landscape where innovation costs have surged exponentially, but there is a need to adopt it, at scale, to enhance the efficiency of new business models that include AI-based solutions. Key pillars supporting efficiency in life sciences innovation include accelerated

mergers, acquisitions and divestitures, reliable supply chain innovation, exploration of non-traditional sources of innovation, a patient-centric approach and creative strategies for monetizing non-traditional revenue sources. In this evolution, digital transformation emerges as the backbone of solutions, with enhanced connectivity, mobile engagement and advanced analytics becoming operational necessities facilitating direct patient interactions.

Leading life sciences companies increasingly view outsourcing as a supplemental resource and strategic support, seeking expertise, bandwidth and technological guidance from external providers.



This study focuses on **digital transformation solutions and services for life sciences.**



Simplified Illustration Source: ISG 2024

Definition

The ISG Provider Lens™ Life Sciences Digital Services study offers the following to business and IT decision-makers:

- Transparency on the strengths and weaknesses of relevant providers
- A differentiated positioning of providers by segments on their competitive strengths and portfolio attractiveness
- Focus on the global market

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



Clinical Development

Definition

This quadrant evaluates the capabilities of service providers supporting life sciences companies through all clinical phases. The challenges of high costs and substantial failure rates in clinical trials necessitate continuous innovation and services to enhance efficiency. Technology is crucial for addressing these challenges, encompassing patient recruitment, data collection, monitoring, analysis and regulatory compliance. Integrating innovations such as AI, big data analytics, mobile health applications and electronic health records plays a pivotal role in the comprehensive and strategic clinical development within digital transformation.

Life sciences companies, navigating the complexities of all clinical phases, confront the daunting expenses and elevated failure rates inherent in clinical trials. They actively seek innovative solutions that can improve efficiency and mitigate risks to overcome these challenges. Digital solutions aid in patient identification, safety monitoring, treatment efficacy and regulatory compliance and establish a robust foundation for maintaining

quality standards, meeting reporting requirements and navigating regulatory intelligence effectively.

Embracing this transformative digital landscape, life sciences companies recognize the vital role of technology in shaping the future of efficient, innovative and successful drug development endeavors. Technology's intersection with clinical development is crucial for advancements within the healthcare industry.

Eligibility Criteria

1. Demonstrate proficiency in aiding the implementation and support of clinical trial and/or **clinical data and analytics technology solutions**
2. Knowledge of **clinical trial** processes and requirements with demonstrated experience providing technology support
3. Expertise in using technology solutions in **clinical development**
4. Ability to offer alternatives to in-person interactions for researchers and participants, such as **mobile and internet-connected capabilities**
5. Established or emerging partnerships with **clinical development** technology and consulting firms
6. Capability to support, integrate and **modernize legacy systems**
7. Competencies in developing plans for **deploying appropriate technologies and procedures**
8. Ability to support, scale and update **technology tools and platforms**



Patient Engagement

Definition

This quadrant evaluates service providers specializing in life science customer services, incorporating supporting processes and platforms. The evolution of patient engagement through digitalization involves the strategic integration of advanced digital technologies and communication channels to enhance patients' involvement, interaction and empowerment throughout their healthcare journey. This evolutionary approach utilizes digital tools such as mobile applications, wearable devices, telehealth platforms and online portals to facilitate seamless communication between patients and healthcare providers. The overarching goal is to empower patients with access to health information, personalized care plans and tools, enabling active participation in decision-making processes. By fostering a collaborative and patient-centric healthcare ecosystem, the digital transformation of patient engagement aspires to improve health outcomes, enhance patient satisfaction and contribute to a more efficient and effective healthcare delivery system.

In the evolving landscape, life sciences companies directly engage with patients to provide patient-centric services related to medications, enhance their products and improve patient outcomes. This strategic shift emphasizes patient engagement, granting them a more significant role in treatment decision-making. Unlike the past, where primary contacts for life sciences companies were primarily physicians, the critical focus now involves collaborating with providers to optimize patient experience throughout the entire development lifecycle, from initial engagement to ultimate outcomes.

Eligibility Criteria

1. Ability to build a **differentiated patient experience**
2. Capability to select, implement and **manage patient engagement services** and platforms
3. Ability to develop **digital services** that provide consumer-friendly interactions
4. Deep knowledge of technologies, devices and their connectivity, including the ability to **develop suitable device strategies**
5. Strong competencies in device **security and data privacy measures**
6. **Ability to share data and analyses** in an integrated ecosystem for communication, education and marketing



Manufacturing Supply Chain

Definition

This quadrant evaluates service providers that work with their life sciences clients to improve manufacturing supply chain operations. Digital transformation within the manufacturing supply chain in life sciences involves strategically integrating advanced digital technologies and data-driven solutions to optimize and revolutionize processes across the industry's manufacturing, distribution and supply chain management. This transformative initiative aims to enhance efficiency, visibility and agility across the entire supply chain, from raw material procurement to pharmaceuticals and medical device production, quality control and distribution.

Adopting digital technologies such as IoT, AI, blockchain and advanced analytics is central in improving real-time monitoring, traceability and collaboration within the manufacturing supply chain. The goal is to streamline operations, reduce lead times, minimize errors, ensure regulatory compliance and deliver safe, high-quality products to healthcare providers and

patients. This digital transformation fosters a more resilient, adaptive and responsive life sciences supply chain ecosystem.

Effective collaboration in the manufacturing supply chain relies on technology to bridge system gaps. Analytics and AI are crucial for swift inventory relocation. Even with automation and AI, logistics managers still face the challenges of generating accurate production and shipment forecasts due to persisting manual processes. The lack of supply chain visibility impacts forecast accuracy, challenging real-time arrival estimates. Therefore, adaptability in planning is crucial for managing short-term disruptions in business operations.

Eligibility Criteria

1. **Capability to assess existing supply chains** and recommend strategy, process and technology changes to improve efficiencies, lower risk and reduce costs
2. Ability to transform manufacturing through digital methods and the IoT, employing a variety of **automatic identification and data capture (AIDC) technologies**
3. Adept at providing **real-time visibility in logistics**, using sensors connected to systems that promptly provide status information (such as location or temperature) to the right people while also changing routes as required and predicting problems
4. Ability to provide solutions for **complex supply chain structures**, including complex connectivity with **contract manufacturing** and advanced technologies to track and trace
5. Established or **emerging partnerships** with manufacturing supply chain specialists in life sciences and relevant technology providers
6. Expertise in **import/export compliance**



Definition

This quadrant evaluates service providers, within the life sciences domain, specifically focusing on supporting patient safety monitoring, adhering to global and local regulatory requirements and facilitating reporting through diverse processes and platforms. Life sciences companies are encountering heightened scrutiny from regulatory bodies and consumer advocacy groups, emphasizing the need to ensure patient safety and maintain quality and compliance standards across their products and operations. The primary goal is to execute various activities while delivering exceptionally high-quality products and complying with local and global reporting and regulatory norms.

While AI has already proven effective in supporting specific aspects of these activities, recent breakthroughs in NLP and ML within life sciences enterprises are opening avenues for innovation and operational efficiency.

As the industry undergoes a transformative shift toward digital medicine, an imperative for more sophisticated and robust reporting mechanisms emerges. This evolution requires adopting secure, efficient and compliant technologies to effectively manage the escalating volume of data in pharmacovigilance and regulatory affairs processes. The intersection of technological advancements and the dynamic landscape of the life sciences sector offers the potential for meeting current standards and surpassing them through strategic and cutting-edge digital transformations.

Eligibility Criteria

1. Ability to create, manage, monitor and continuously improve upon a **differentiated service offering** in one or both of these areas
2. Demonstrate expertise in global, **regional and local regulations**, patient safety reporting and compliance measures.
3. Showcase clearly delineated **quality and compliance** processes and related employee training programs
4. Capability to select, implement and **manage pharmacovigilance or regulatory** affairs services and platforms
5. Ability to integrate with **internal service offerings** in adjacent areas and with external platforms
6. Proficient in creating **consumer-friendly digital interactions** and developing strategic approaches through deep knowledge of relevant technologies
7. Expertise in **securing data, platforms and systems**, while also facilitating integrated data sharing for communication, reporting and education within ecosystems.



Commercial Operations – Digital Evolution

Definition

This quadrant evaluates service providers that specialize in driving the digital evolution of life science commercial operations, incorporating supporting processes and platforms. Key focus areas include data analytics, customer engagement, supply chain optimization and personalized medicine. Embracing technologies such as AI, IoT and data-driven insights enhances efficiency and innovation in pharmaceuticals, healthcare and biotechnology.

Digitalization streamlines processes, improves data-driven decision-making and delivers overall enterprise business value. Life sciences companies are implementing AI, with a keen eye on the potential of GenAI, to identify market opportunities and risks. Additionally, there is a shift toward exploring digital channels for direct-to-consumer engagement, online sales and efficient healthcare product distribution.

Within this context, life sciences' commercial operations seamlessly integrate sales and marketing analytics, pricing analysis, order management, CRM and ERP. This comprehensive approach optimizes decision-

making, refines marketing strategies, ensures efficient order processing, fosters strong customer relationships and provides a centralized platform for holistic business management. The ultimate goal is to achieve operational excellence and commercial success in the dynamic and evolving landscape of life sciences.

Eligibility Criteria

1. Ability to build and manage a **differentiated commercial operations environment**
2. Capability to select, implement and manage **commercial operations services and platforms**
3. Ability to **develop digital services** that provide market insights, opportunities and risks
4. Deep knowledge of platforms, including the ability to **develop suitable commercial strategies**
5. Strong competencies in **securing commercial operations**, emphasizing data privacy measures
6. **Ability to share data and analyses** in an integrated ecosystem for communication, education and marketing



Quadrants by Region

As a part of this ISG Provider Lens™ quadrant study, we are introducing the following five quadrants on Life Sciences Digital Services 2024:

Quadrant	Global
Clinical Development	✓
Patient Engagement	✓
Manufacturing Supply Chain	✓
Pharmacovigilance and Regulatory Affairs — Digital Evolution	✓
Commercial Operations — Digital Evolution	✓



The research phase falls between February and April 2024, during which survey, evaluation, analysis and validation will occur. The results will be presented to the media in May 2024.

Milestones	Beginning	End
Survey Launch	Jan 16, 2024	
Survey Phase	Jan 16, 2024	Feb 09, 2024
Sneak Previews	May 2024	June 2024
Press Release & Publication	June 2024	

Research Production Disclaimer:

ISG collects data for the purposes of writing research and creating provider/vendor profiles. The profiles and supporting data are used by ISG advisors to make recommendations and inform their clients of the experience and qualifications of any applicable provider/vendor for outsourcing the work identified by clients. This data is collected as part of the ISG FutureSource™ process and the Candidate Provider Qualification (CPQ) process. ISG may choose to only utilize this collected data pertaining to certain countries or regions for the education and purposes of its advisors and not produce ISG Provider Lens™ reports. These decisions will be made based on the level and completeness of the information received directly from providers/vendors and the availability of experienced analysts for those countries or regions. Submitted information may also be used for individual research projects or for briefing notes that will be written by the lead analysts.

Please refer to the [link](#) to view/download the ISG Provider Lens™ 2024 research agenda

Access to Online Portal

You can view/download the questionnaire from [here](#) using the credentials you have already created or refer to instructions provided in the invitation email to generate a new password. We look forward to your participation!



ISG Star of Excellence™ – Call for nominations

The Star of Excellence™ is an independent recognition of excellent service delivery based on the concept of “Voice of the Customer.”

The Star of Excellence™ is a program, designed by ISG, to collect client feedback about service providers’ success in demonstrating the highest standards of client service excellence and customer centricity.

The global survey is all about services that are associated with IPL studies. In consequence, all ISG Analysts will be continuously provided with information on the customer experience of all relevant service providers. This information comes on top of existing first-hand advisor feedback that IPL leverages in context of its practitioner-led consulting approach.

Providers are invited to [nominate](#) their clients to participate. Once the nomination has been submitted, ISG sends out a mail confirmation to both sides. It is self-evident that ISG anonymizes all customer data and does not share it with third parties.

It is our vision that the Star of Excellence™ will be recognized as the leading industry recognition for client service excellence and serve as the benchmark for measuring client sentiments.

To ensure your selected clients complete the feedback for your nominated engagement please use the Client nomination section on the Star of Excellence™ [website](#).

We have set up an email where you can direct any questions or provide comments. This email will be checked daily, please allow up to 24 hours for a reply.

Here is the email address:
ISG.star@isg-one.com



Contacts For This Study



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ISG Provider Lens Advisors Involvement Program

ISG Provider Lens offers market assessments incorporating practitioner insights, reflecting regional focus and independent research. ISG ensures advisor involvement in each study to cover the appropriate market details aligned to the respective service lines/technology trends, service provider presence and enterprise context.

In each region, ISG has expert thought leaders and respected advisors who know the provider portfolios and offerings as well as enterprise requirements and market trends. On average, three advisors participate as part of each study's quality and consistency review team (QCRT). The QCRT ensures each study reflects ISG advisors' experience in the field, which complements the primary and secondary research the analysts conduct. ISG advisors participate in each study as part of the QCRT group and contribute at different levels depending on their availability and expertise.

The QCRT advisors:

- Help define and validate quadrants and questionnaires,
- Advise on service provider inclusion, participate in briefing calls,
- Give their perspectives on service provider ratings and review report drafts.

ISG Advisors to this study



Randy
Tucker

Partner, Health Sciences



Jenn
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Partner, Health Sciences



Michael
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Partner, Health Sciences



Invited Companies

If your company is listed on this page or you feel your company should be listed, please contact ISG to ensure we have the correct contact person(s) to actively participate in this research.

* Rated in previous iteration

4C Pharma Solutions
Accenture*
Access Health
ACL Digital
Ada Health
Allscripts – Veradigm
Apexon*
Arriello
Arvato
Asphalion
Atos*
Beyondsoft
Birlasoft*
BJSS
Blue Prism

CANCOM
Capgemini*
Carelon
Catalyst Clinical Research
Cera care
Cerner
CGI
Cigniti*
Cisco Systems
CitiusTech
Civica
CliniSys Group
Coforge
Cognizant*
Computacenter

Conduent*
CTI
Dedalus
Dell Technologies
Deloitte
Deutsche Telekom
DHC Herterich
DXC Technology
Emids
EMIS Health
EPAM*
Eviden
Excelya
EXL
Firstsource

Flexential
Fortrea
FPT
Fujitsu
Gainwell Technologies
GS Lab | GAVS
GE Healthcare
Genpact*
Getronics
Graphnet Health Ltd.
HARMAN*
HCLTech*
Health Catalyst, Inc. (HCAT)
Healthcode Ltd.
Healthily



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* Rated in previous iteration

HEPAprint	ITC Infotech	New Vision	Sitekit Solutions Ltd.
Hewlett Packard Enterprise (HPE)	Kainos	NTT Data*	Softtek
Hexaware Technologies*	Kyndryl	Optum	SoftwareONE
Hitachi Digital Services	LabCorp	Parexel	Sopra Steria
HTC Global	Lonza	Patients Know Best	Stefanini*
Huma	LTIMindtree*	PatientSource	Sutherland
IBM	LTTS*	Persistent Systems*	Syneos
ICON*	Lumeon	Pharmya	System C Healthcare
Ideagen	Marlabs*	Philips Healthcare	Tata Elxsi
Infinite	Mastek	PPD*	TCS*
Infogain	Mayden	Push Doctor	Tech Mahindra*
Infosys	Medpace	Quantiphi	TEKsystems
Intagras	Microsoft	Rackspace	Tepsivo
Intouch with Health	Mphasis*	Siemens	Thales
IQVIA*	Navitas	Siemens Healthineers	ThermoFisher



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* Rated in previous iteration

Totalmobile

T-Systems

Unisys

UST*

V2Soft

Verizon*

Virtusa*

WellSky

Wipro*

WNS

Worldwide Clinical Trials

WuXi

Yash Technologies

Zensar Technologies*

Atomic Solutions



***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™

ISG Research™ provides subscription research, advisory consulting and executive event services focused on market trends and disruptive technologies driving change in business computing. ISG Research™ delivers guidance that helps businesses accelerate growth and create more value.

ISG offers research specifically about providers to state and local governments (including counties, cities) as well as higher education institutions. Visit: [Public Sector](#).

For more information about ISG Research™ subscriptions, please email contact@isg-one.com, call +1.203.454.3900, or visit research.isg-one.com.

***ISG**

ISG (Information Services Group) (Nasdaq: III) is a leading global technology research and advisory firm. A trusted business partner to more than 900 clients, including more than 75 of the world's top 100 enterprises, ISG is committed to helping corporations, public sector organizations, and service and technology providers achieve operational excellence and faster growth. The firm specializes in digital transformation services, including automation, cloud and data analytics; sourcing advisory; managed governance and risk services; network carrier services; strategy and operations design; change management; market intelligence and technology research and analysis.

Founded in 2006, and based in Stamford, Conn., ISG employs more than 1,600 digital-ready professionals operating in more than 20 countries—a global team known for its innovative thinking, market influence, deep industry and technology expertise, and world-class research and analytical capabilities based on the industry's most comprehensive marketplace data.

For more information, visit isg-one.com.





JANUARY, 2024

REPORT: LIFE SCIENCES DIGITAL SERVICES