ISG Provider Lens™

2021

Life Sciences Digital Services 2021

imagine your future®

ISG (Information Services Group) (NASDAQ: III) is a leading global technology research and advisory firm. A trusted business partner to more than 700 clients, including 75 of the top 100 enterprises in the world, 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; technology 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 1,300 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 www.isg-one.com.

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Overview

The life sciences industry is under increasing pressure to change. The COVID-19 pandemic and public demand for more effective outcomes are mandating the acceleration of actions needed to better meet care lifecycle requirements and build patient-centric business models. All segments of the industry are being compelled to comply with new regulations and to deal with emerging sources of competition, integrate waves of competitive mergers and acquisitions, and adapt to the needs of an aging population. The efforts required to deal successfully with each of these challenges are expensive. At the same time, consumers are increasingly expecting advanced and convenient digital service delivery. Life science companies are increasingly relying on innovation to stay apace with the rising demand for their services and mounting competitive pressures.

As new business approaches take hold, regulatory hurdles and cost pressures will continue to be higher and more complex. The competitive landscape has never been more dynamic and global. In this context, innovation is imperative. Biopharma, CROs and other life science ancillary suppliers will face increasing pressures to expand and extend current investments. MedTech companies should continue to focus on the efficiency of the supply chain and recognize that innovation is the key to growth and survival.

Successful organizations in the life sciences industry have been meeting these challenges with the following:

1. Driving targeted investments and constant cost control

2. Using advanced technology and digital operating models as a platform for transformation

3. Focusing on improved and innovative patient engagement

4. Optimizing supply chain operations

Digital transformation helps address many of the current and anticipated industry challenges. In the life sciences industry, digital transformation services are already playing a key role across multiple areas to help accelerate clinical development. Digital transformation is also making fundamental changes to the conduct of pharmacovigilance and regulatory affairs activities. Furthermore, recent technology trends such as connectivity, including mobile enablement or advanced analytics, provide innovation opportunities for MedTech companies. As the impact of COVID-19 has shifted the concept of "customer" more directly onto the patient, life science enterprises are increasingly relying on digital transformation to conduct their operations, support regulatory obligations and help ensure business outcomes.

While many organizations may initially pilot digital solutions with internal resources, the need for expertise, scale, innovation, flexibility and cost efficiency often point toward an outsourced solution. This study focuses on what ISG perceives as the most critical digital transformation opportunities in 2021 — accelerated clinical development, patient engagement, manufacturing supply chain services, pharmacovigilance and regulatory functions, and medical devices and MedTech products.

Participating service providers will be evaluated on how they are an extension of a client's technology organization and involved in creating blueprints, architecture frameworks and management processes. They will also be measured on factors such as brand recognition in the markets under study, market reach and the number and quality of clients. Also, they will be evaluated on thresholds of annual revenue, assigned professionals (resources) and R&D investments.

The ISG Provider Lens™ study offers technology decision-makers the following:

- Transparency on the strengths and weaknesses of relevant providers

- A differentiated positioning of providers by segments

- Perspective on different markets, including global, the U.S. and EU

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.

Quadrants Research

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

Life Sciences Digital Services 2021		
Clinical Development Digital Transformation Services	Patient Engagement Digital Transformation Services	Manufacturing Supply Chain Digital Transformation Services
Pharmacovigilance and Regulatory Affairs Digital Transformation Services	MedTech Digital Transformation Services	

Source: ISG 2021

Clinical Development Digital Transformation Services

This quadrant assesses how service providers help biopharma companies hasten the process of developing and bringing products to the market. Clinical trials are expensive and have high failure rates. Life science companies must demonstrate the economic and clinical value (ECV) of potential products and constantly seek innovations and services to improve efficiency. As development moves into clinical trials, companies need to rapidly identify appropriate patients and monitor and manage the participant experience in an evolving landscape. The ability to further support compliance checks, patient safety reporting and complex regulatory intelligence is in high demand. Digital services accelerate many of these processes. Artificial intelligence (AI) further influences all steps in clinical development by helping to access and analyze large data sets, thus driving the value of the data being collected.

AI has been playing a crucial role in addressing the global challenge of COVID-19. It provides an irrefutable case for innovation and automation throughout the development lifecycle. In addition to escalating the development timelines for tests, vaccines and treatments, AI is providing a mechanism to manage and make robust decisions on the huge volume of data being collected. Service providers help companies align with the latest developments.

Service providers also improve the clinical design process with collaboration platforms. These improvements help engage participants in clinical trials with digital tools for enrollment and motivation management. Also, service providers help implement automation for clinical trials, including innovations such as AI in trial design, digital monitoring using predictive analytics and end-to-end automation for regulatory compliance and patient safety monitoring during clinical trials.

Eligibility criteria:

- Ability to offer alternatives to in-person interactions of researchers and participants such as telephone and internet-connected capabilities
- Established or emerging partnerships with clinical development technology and consulting firms
- Capability to support, integrate and modernize legacy systems
- Competencies in developing plans for deploying appropriate technologies and procedures
- Ability to support, scale and update technology tools and platforms

Patient Engagement Digital Transformation Services

This quadrant assesses service providers that focus on life science customer services using supporting processes and platforms. Life science companies are engaging directly with patients to improve their products and patient outcomes. The end goal is to improve patient experience during the development lifecycle all the way through outcomes, in collaboration with providers. With changes emerging from the pandemic, life science companies are leveraging remote monitoring for patient enrollment and engagement, while monitoring is done via connected sensors at home or in care facilities. In addition to enhancing enrollment and participation in clinical trials, improved patient engagement helps ensure compliance with therapies and reduces drop-out rates. Digital medicine is also an emerging area, with broader use of smart pills and wearables. Robotics and drones have the potential for enhancing the collection and value of data and therapeutic delivery. The connected technologies require secure, efficient and compliant data exchange to inform stakeholders in the patient care lifecycle, while adhering to regulations.

Eligibility criteria:

- Ability to build a differentiated patient experience
- Capability to select, implement and manage patient engagement services and platforms
- Adept at providing consumer-friendly interactions with digital services
- Deep knowledge of device technologies and ability to develop suitable device strategies
- Competencies in device security and data privacy measures
- Ability to share data and analyses in an integrated ecosystem for communication, education and marketing

Pharmacovigilance and Regulatory Affairs Digital Transformation Services

This quadrant assesses service providers that focus on life science services that support patient safety monitoring and reporting and/or compliance with global and local regulatory requirements, and reporting via processes and platforms. Life science companies are under increasing scrutiny, by both regulatory agencies and consumer watchdog groups, to ensure patient safety and monitor quality and compliance. The aim is to conduct all activities and deliver a quality-driven outcome while complying with all global and local reporting and regulatory requirements. While there is already a successful history using AI to support some aspects of these activities, the growing confidence in natural language processing (NLP) and machine learning among life science enterprises has opened additional opportunities for innovation and efficiency in these areas. Lessons from the pandemic are also resulting in improved patient outcomes, driven by enhanced services in pharmacovigilance and regulatory affairs. However, the changes due to digital medicine will also require more intensive and sophisticated reporting, and new technologies that help manage the increased collection of data require secure, efficient and compliant handling of that data.

Eligibility criteria:

- Ability to create, manage and monitor a differentiated service offering in one or both of these areas
- Capability to select, implement and manage pharmacovigilance or regulatory affair services and platforms
- Adept at providing consumer-friendly interactions with digital services
- Deep knowledge of relevant technologies and ability to develop suitable strategies
- Competencies in data, platform and system security and data privacy measures
- Ability to share data and analyses in an integrated ecosystem for communication, reporting and education
- Potential to support organizational transformation needed to implement digital transformation

Manufacturing Supply Chain Digital Transformation Services

This quadrant assesses service providers that work with their clients in life sciences to improve the manufacturing supply chain. Disruptions in the manufacturing supply chain because of the COVID-19 pandemic are now well known. There have been shortages in personal protective equipment (PPE) and COVID-19 testing and treatments worldwide. In some regions, there are changes or reductions in in-person inspections by regulatory overseers and in reporting requirements. For an industry dependent on ingredients from across the globe, the disruption of supply chains is a major challenge. The pandemic has led to a series of disruptions because of restrictions in movement. ISG expects a shift to localization of supply chains to reduce risks.

Manufacturers use sensors for monitoring equipment health and predicting maintenance needs to reduce downtime. Many aspects of the manufacturing supply chain rely heavily on collaborative engagement between companies, and technology often provides the most effective mechanism to engage across incompatible systems or processes. Appropriate analytics and AI are required to move inventory quickly to the desired location. Blockchain helps maintain the chain of custody that is important in life sciences.

Despite the advent of advanced technologies such as automation and AI, making accurate forecasts on shipments is an ongoing challenge for logistics managers. Visibility in the supply chain is hampered by expensive and variable manual processes that reduce the accuracy of the forecast. Often, historical data needed for efficient planning is unavailable or tied up in inaccessible legacy systems. Logistics managers also struggle to provide accurate and real-time estimated times of arrival because of the complexity of the current transportation logistics.

Eligibility criteria:

- Capabilities in assessing existing supply chains and recommending strategy, process and technology changes to improve efficiencies, lower risk and reduce costs

- Ability to transform manufacturing through digital and IoT, using a variety of automatic identification and data capture (AIDC) technologies

- Adept at providing real-time visibility in logistics, using sensors connected to systems that get status information (such as location or temperature) to the right people rapidly, while also changing routes as required and predicting problems

- Ability to provide solutions for complex supply chain structures, including complex connectivity with contract manufacturing and advanced technologies to track and trace

- Established or emerging partnerships with manufacturing supply chain specialists in life sciences and relevant technology providers

- Expertise in import/export compliance

MedTech Digital Transformation Services

This quadrant is focused on service providers that support MedTech companies in their journeys to use digitization for product development, engineering, production and logistics. The most recent technology trends such as improved connectivity, including mobile enablement, the IoT, advanced analytics and machine learning, have led to a massively transformed MedTech industry. For instance, they enable significantly improved integration of medical devices and products into the respective process chains or the processing of large data volumes that are collected – to a large extent remotely – during the product lifecycle.

The COVID-19 pandemic has, as for many other industries, accelerated this transformation process. Many essential operational activities such as maintenance or logistics operations can also be remotely executed to a large extent. Major functional areas that are considered in this quadrant are product lifecycle management, engineering services, logistics and distribution, and maintenance and repair.

Eligibility criteria:

- Ability to provide a comprehensive service offering in several of the functional areas mentioned above

- Capability to conduct IT-focused engineering services and software development for medical devices

- Deep integration knowledge and capabilities to develop enhanced connectivity for mobile devices, including mobile enablement

- Competencies in applying IT security technologies and services along the entire product lifecycle of medical devices

- Broad competency in data management and advanced analytics technologies

- Potential to support organizational transformation needed to implement digital transformation

Quadrants by Region

Quadrants	Global	U.S.	Europe
Clinical Development Digital Transformation Services	✓		
Patient Engagement Digital Transformation Services	✓		
Manufacturing Supply Chain Digital Transformation Services	✓		
Pharmacovigilance and Regulatory Affairs Digital Transformation Services		✓	✓
MedTech Digital Transformation Services		✓	✓

Schedule

The research phase is between **August and November 2021**. During this period survey, evaluation, analysis and validation will take place. The results will be presented to the media in **December 2021**.

Milestones	Beginning	End
Launch	August 10, 2021	
Survey Phase	August 10, 2021	September 7, 2021
Sneak preview	November 2021	
Press release	January 2022	

Please refer to the link to view/download the ISG Provider Lens™ 2021 research agenda:

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.

Partial list of companies being invited for the survey

Are you in the list or do you see your company as relevant provider that is missing in the list? Then feel free to contact us to ensure your active participation in the research phase.

Accenture	Harman	Persistent
Arvato	HCL	PPD
Atos	Hexaware Technologies	Siemens AG
AWS	HTC Global Services	Softtek
Birlasoft	IBM	Stefanini
Capgemini	ICON	Sutherland
Cancom	Infinite	Syneos
CGI	Infogain	TCS
Coforge	Infosys	Tech Mahindra
Cognizant	ITC Infotech	TEKsystems
Computacenter	IQVIA	Thales
Cigniti	LabCorp	T-Systems
Conduent	Lonza	Unisys
Deloitte	LTI	UST Global
Deutsche Telekom	LTTS	V2Soft
DXC	Medpace	Verizon
EXL	Mindtree	VirtusaPolaris
Flexential	Mphasis	Wipro
Fujitsu	NTT Data	Zensar
Genpact	Oracle	
Google	Parexel	

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 firsthand 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: Star@isg-one.com

Contacts for this study

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ISG Provider Lens™ QCRT Program Description

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 & 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 providers inclusion, participate in briefing calls

- Give their perspectives on service provider ratings and review report drafts

The ISG Provider Lens QCRT program helps round out the research process, supporting comprehensive research-focused studies.

Quality & Consistency Review Team for this study

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Do you need any further information?

If you have any questions, please do not hesitate to contact us at ISG.ProviderLens@isg-one.com.