

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, Connecticut, 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.



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# Definition

The Healthcare and Life Sciences industry is, more than ever, under 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, integrate waves of competitive mergers and acquisitions, and adapt to the needs of an aging population. Yet blockbuster mergers have precipitated costly integration efforts. Also, consumers expect advanced and convenient digital service delivery. At the same time, many companies are struggling to stay apace with growing demands for their services as well as mounting competitive pressures.

As new business approaches take hold, regulatory hurdles and cost pressures have never been higher. The competitive landscape has never been more dynamic and global. In this context, innovation is imperative; medical device companies are increasingly focusing on the efficiency of the supply chain and recognizing that innovation is the key to growth and survival.

Successful organizations in the Healthcare and 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
- 3. Focusing on improved and innovative patient engagement.

Digital transformation helps address many of the current and anticipated industry challenges. In the U.S. Healthcare industry, digital transformation services help payer and provider segments evolve to better serve their constituents. As payers shift focus of purchase decisions to business outcomes, finance and other business leaders are driving digital transformation. While some enterprises do it themselves, others use business process-as-a-service (BPaaS) solutions. In Life Sciences, while there are managed and strategic services available for pharmaceuticals and research organizations, this study focuses on what ISG perceives as most critical in 2020 — clinical development, patient engagement and manufacturing supply chain services.

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:

- Transparency on the strengths and weaknesses of relevant providers
- A differentiated positioning of providers by segments
- Perspective on different markets, including global, and U.S. and Germany

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.

# **Quadrant Research**

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

Simplified illustration

| Healthcare and Life Sciences Services 2020              |   |   |  |  |  |  |
|---|---|---|--|--|--|--|
| Healthcare Digital Services                             |   |   |  |  |  |  |
| Payer Digital<br>Transformation Services                | Provider Digital<br>Transformation Services           | Payer BPaaS Services  |  |  |  |  |
| Life Sciences Digital Services                          |   |   |  |  |  |  |
| Clinical Development<br>Digital Transformation Services | Patient Engagement<br>Digital Transformation Services | Manufacturing Supply Chain<br>Digital Transformation Services |  |  |  |  |

Source: ISG 2020

## Payer Digital Transformation Services

This quadrant assesses a service provider's ability to deliver digital transformation services to payers, also known as insurance plan companies in the U.S. and statuary health insurance companies in Germany. Digital transformation services help payers progressively prioritize a digital-first pathway to improve patient care. The services should help these insurance companies reach and serve their members wherever they are, via computers, remote monitors, smartphones and other mobile devices. The services should also address operational processes for payers such as claims processing, member verification and enrollment. Service modernization capabilities should also be clear.

#### **Eligibility Criteria:**

- Platform consulting for the use of the right emerging healthcare technologies, with the ability to plan, develop and implement consumer-grade interfaces of employee systems and member information sources, including mobile apps
- Established or emerging basic/standard relationships with trusted partners, including startup innovators
- Ability to provide services for digitalization of processes while navigating regulation complexities
- Ability to provide consultation services on the development of models using artificial intelligence (AI), machine learning (ML) and analytics
- Experience in large transition projects that include consolidation of merged companies and modernization of systems and applications

### **Provider Digital Transformation Services**

This quadrant assesses service providers that offer digital transformation services to healthcare providers such as hospital systems and independent healthcare providers. They should be responsible for processes and systems for patient relations and care such as intake, physician referral management, ambulatory and chronic care, and post-acute care. The services should also include employee systems such as information portals, scheduling and collaboration.

#### **Eligibility Criteria:**

- Ability to plan, develop and implement consumer-grade interfaces of hospital and office systems as well as
  patient information and monitoring sources, including mobile apps for wellness, medical reference and fitness
- Capability to offer guidance on selecting and deploying telehealth solutions, including measures for cyber security
- Established or emerging basic/standard relationships with trusted partners, including emerging disruptors with new models of care delivery
- Ability to advise on workforce development, including upskilling to support digital and data privacy protection
- Consulting on the development of models using AI and analytics for screening, diagnostics and treatment
- Platform consulting for the use of the right emerging healthcare technologies such as telehealth services, remote patient monitoring (through Internet of Things (IoT) and wearables), blockchain for data sharing, robotics and electronic prescription services
- Experience in large transition projects that include consolidation of merged companies and modernization of systems and applications

## Payer BPaaS Services

This quadrant assesses Healthcare payer BPaaS services for end-to-end outsourcing of business processes across the technology stack to improve business outcomes. The service provider integrates services, processes, applications and infrastructure into a comprehensive service with a clear objective of cost control. Apart from cost savings, BPaaS also supports improved member and provider experience, operational insights, improved quality of care and regulatory compliance.

#### **Eligibility Criteria:**

- Ability to advise, with focus on outcomes, via member engagement and financial value metrics
- Ability to support any application or platform, including legacy systems
- Established protocols and technologies for integrated security
- Ability to implement appropriate intelligent automation for specific business processes
- Experience implementing and expanding health plan analytics
- Ability to support back office, middle office and front office business processes
- Competencies in integrated governance and performance service management
- Established or emerging partnerships with application providers, platform companies and infrastructure firms.

### Clinical Development Digital Transformation Services

This quadrant assesses how service providers help pharmaceutical and medical device companies hasten the process of developing and bringing the products (medicines and devices) to the market. Clinical trials are expensive and time consuming, with high failure rates. Life Sciences companies need to demonstrate the economic and clinical value (ECV) of products. Starting early in the value chain, drug discovery and lab studies require specialized expertise, equipment and processes. As development moves into clinical trials, companies need to find, monitor and manage the participant experience in an evolving landscape. Woven throughout this are compliance checks for complex regulations. Digital services accelerate many of these processes. Al influences all steps in clinical development by helping to access and analyze large data sets, thus driving the value of the data being collected. One exciting development is the first Al-generated drugs starting in human trials.

The pandemic is pushing the need for tests, vaccines and treatments within short time frames. For instance, the U.S. Food and Drug Administration (FDA) issued Emergency Use Authorizations (EUAs) for tests, medical devices and therapeutics to prevent, diagnose and treat COVID-19. The intent is to help make medical products available as quickly as possible, by allowing previously unapproved medical products to reach patients in need when there are no adequate, FDA-approved and available alternatives. 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 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
- Support the FDA Coronavirus Treatment Acceleration Program (CTAP). The program uses every available
  method to make new treatments for patients available as quickly as possible, while, at the same time,
  determining if they are helpful or harmful

## Patient Engagement Digital Transformation Services

This quadrant assesses service providers that focus on Life Sciences customer services using supporting processes and platforms. Life Sciences companies are engaging directly with patients to improve their products as well as patient outcomes. The end goal is to improve patient experience during the development lifecycle all the way through outcomes in collaboration with providers. With the pandemic, patient engagement increasingly means remote rather than in-person. Electronic enrollment while monitoring is via connected sensors in the home or care facility. 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 value chain, 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

### 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. Around the world there have been shortages in personal protective equipment (PPE), and COVID-19 testing and treatments. In some regions, there are changes or reductions in in-person inspections by regulatory overseers, as well as changing reporting requirements. For an industry dependent on ingredients from across the globe, the disruption of supply chains has come as 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.

Technology is helping as manufacturers use sensors for monitoring equipment health and for 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. To move inventory as fast as possible to where it is needed, requires appropriate analytics and Al. Blockchain helps maintain the chain of custody that is important in Life Sciences.

Despite the advent of advanced technologies such as automation and the use of AI, making accurate forecasts on shipments is an ongoing challenge for logistics managers. Visibility in the supply chain is hampered by costly 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 for Track & Trace.
- Established or emerging partnerships with manufacturing supply chain specialists in Life Sciences and relevant technology providers
- Expertise in import/export compliance

# Quadrants by Region

As part of the ISG Provider Lens™ Quadrant Study, we are introducing the following quadrant (market) research on Manufacturing Industry Services 2020 by region:

| Quadrants  |     | Global   | U.S.     | Germany  |
|--|-----|----------|----------|----------|
| Payer Digital Transformation Services                  |     | Overview | √        | <b>√</b> |
| Provider Digital Transformation Services               |     | Overview | √        | <b>√</b> |
| Payer BPaaS Services                                   |     | Overview | <b>√</b> | <b>√</b> |
| Clinical Development Digital Transformation Services   |     | <b>√</b> |          |          |
| Patient Engagement Digital Transformation Services     |     | √        |          |          |
| Manufacturing Supply Chain Digital Transformation Serv | ces | <b>√</b> |          |          |

# Schedule

The research phase falls in the period between **September and October 2020**, during which survey, evaluation, analysis and validation will take place. The results will be presented to the media in **February 2021**.

| Milestones    | Beginning          | End              |
|---------------|--------------------|------------------|
| Launch        | September 24, 2020 |                  |
| Survey Phase  | September 24, 2020 | October 15, 2020 |
| Sneak Preview | January, 2021      |                  |
| Press release | February, 2021     |                  |

Please refer to the link to view/download the ISG Provider Lens™ 2020 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!

#### 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 work identified by the 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 to produce ISG Provider Lens™ reports. These decisions will be made based on the level and completeness of 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 HCL Stefanini Arvato **Hexaware Technologies** Sutherland **HTC Global Services** TCS Atos Birlasoft IBM Tech Mahindra **ICON** Capgemini **TEKsystems** Cancom Infinite **Thales** CGI Infogain T-Systems Coforge (formerly NIIT Technologies) Infosys Unisys **UST Global** Cognizant ITC Infotech Computacenter **IQVIA** V2Soft Covance LTI VirtusaPolaris Cigniti **LTTS** Vituso Conduent Mindtree Wipro Deloitte **Mphasis** Zensar Deutsche Telekom **NTT Data** DXC Parexel **EXL** Persistent Flexential PPD Fujitsu **PRA** Siemens AG Genpact Harman Softtek

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### Do you need any further information?

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