iSG Provider Lens™

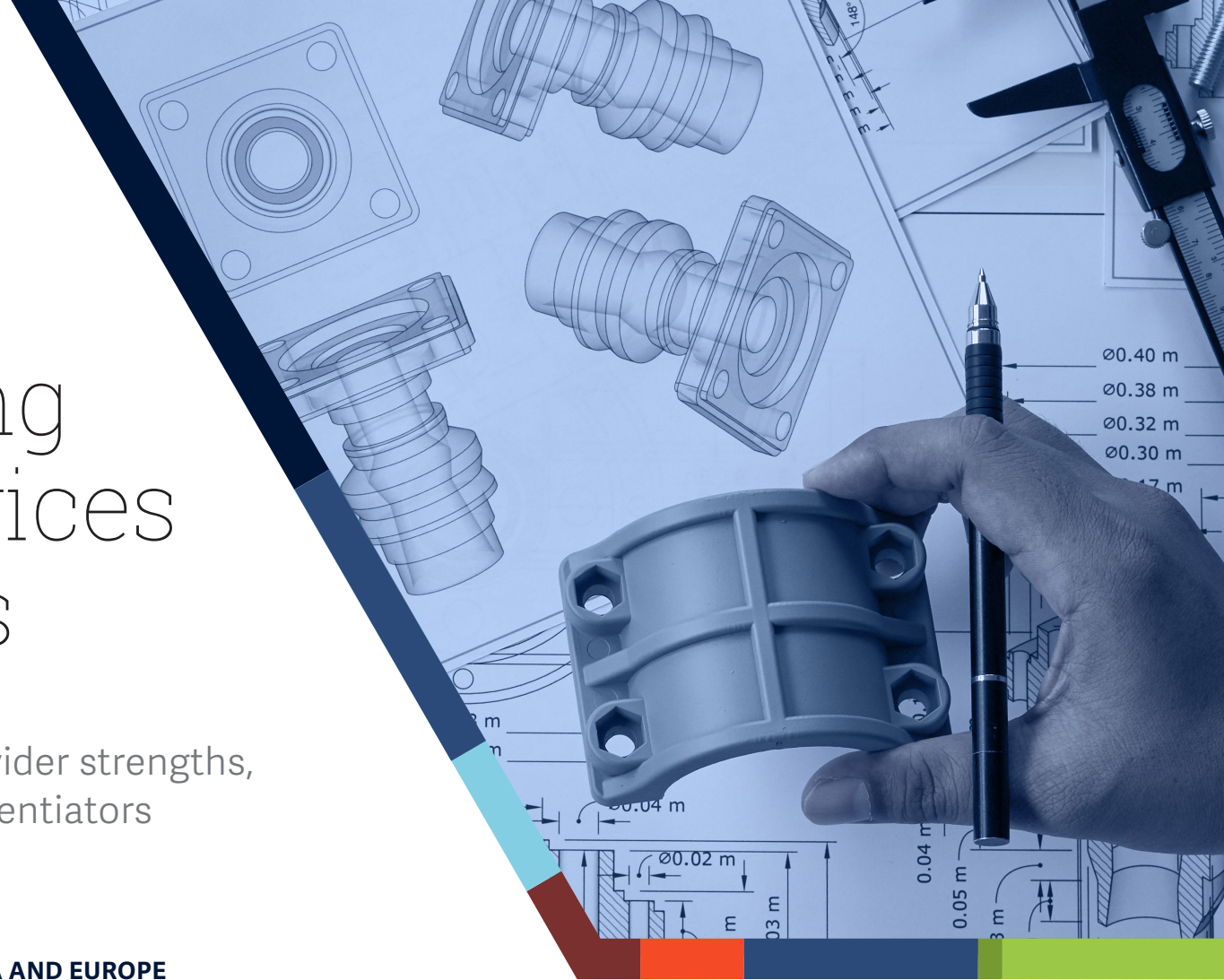# Manufacturing Industry Services and Solutions

A research report comparing provider strengths, challenges and competitive differentiators
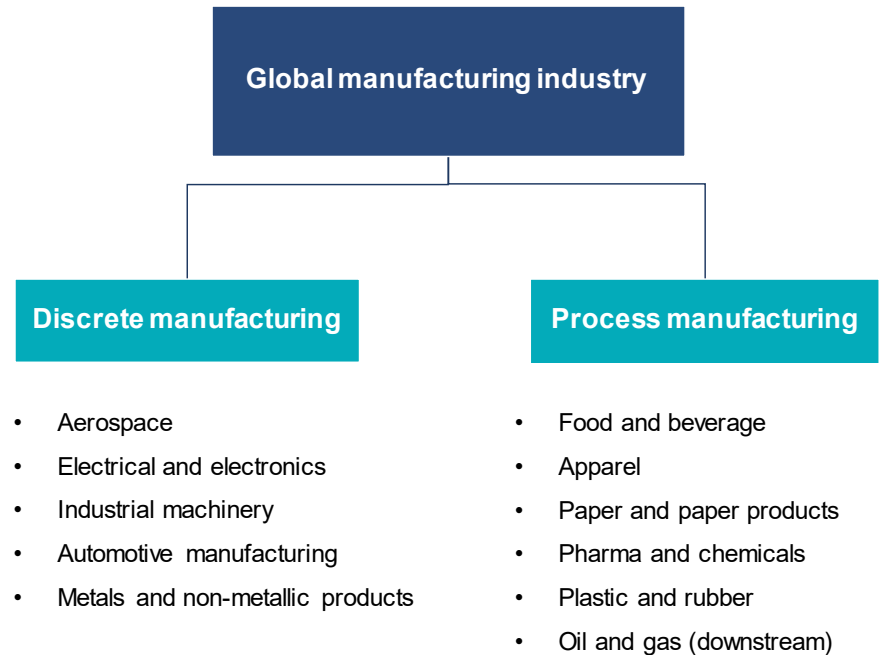
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The manufacturing industry has undergone a dramatic transformation over the years and more so recently. The industry, which includes various other sub-industries, can be broken down primarily into discrete (distinct and countable) and process (follows a formula) As shown on the right.
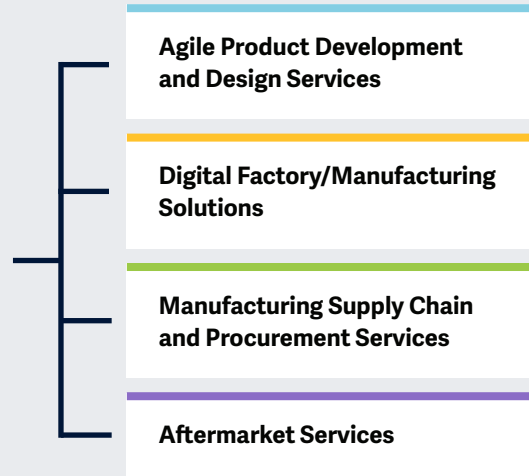
Rising inflation, regional conflicts, supply chain issues and talent management (attracting and retaining employees) are some pressing issues the industry faces. Thus, companies increasingly embrace digital transformation initiatives, particularly in smart manufacturing, supply chain and aftermarket services. A recent ISG study on smart manufacturing reveals that productivity improvements, cost savings and supply chain resilience are the biggest motivators for smart manufacturing initiatives. Modern manufacturing firms also need a well-defined aftermarket sales and service strategy to drive CX and operational efficiency by integrating aftermarket offerings into core business processes.

Several manufacturing companies continue to make technology investments in AI, AR/VR, cloud, digital twin, blockchain and so forth to reshape key operations and business processes. With a surge in supply chain issues in the post-COVID-19 scenario, companies have also begun shifting their manufacturing base closer to home (nearshoring and reshoring) to drive competitive advantages and reduce and mitigate supply chain issues.

For 2023 and beyond, the global manufacturing industry emphasizes sustainability and net zero as key focus areas. Manufacturers are also increasingly challenged by their stakeholders and consumers to adopt more sustainable and environment-friendly manufacturing practices across their value chain.

Global manufacturing industry

Discrete manufacturing

- Aerospace
- Electrical and electronics
- Industrial machinery
- Automotive manufacturing
- Metals and non-metallic products

Process manufacturing

- Food and beverage
- Apparel
- Paper and paper products
- Pharma and chemicals
- Plastic and rubber
- Oil and gas (downstream)

Understand key industry challenges and assess service provider capabilities to address the unmet needs of enterprise clients

Agile Product Development and Design Services

Digital Factory/Manufacturing Solutions

Manufacturing Supply Chain and Procurement Services

Aftermarket Services

Simplified Illustration Source: ISG 2023

Definition

The ISG Provider Lens™ Manufacturing Industry Services and Solutions 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 different markets, including the North America and Europe

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 the information from these reports to evaluate their current vendor relationships and potential engagements.

Agile Product Development and Design Services

Definition

This quadrant focuses on solutions that help manufacturing companies with the manufacturing process, design, right material identification, determination of operating conditions, quality management and compliance/testing. The quadrant elaborates on partnering with OEMs, original design manufacturers (ODMs), semiconductor manufacturers and ISVs to facilitate the design of new products and PoCs. It also includes product lifecycle management (PLM), rapid prototyping, adoption of digital twins and software testing.

Eligibility Criteria

1. **Ability to support product/service combinations,** digital business platform development strategy, and new product/service/business design and development capabilities

2. **Proven experience in ideation, innovation and engineering of digital value offerings** through design thinking capabilities and market feedback/research

3. Ability to provide **offerings and services** in at least one or more of the following areas, but not limited to:

   - PLM
   - Product strategy
   - Product design
   - CX design
   - CRM/product configurator
   - Embedded software development
   - Control systems
   - Data management and analytics
   - Cybersecurity
   - Electronic Design Automation (EDA)
   - Risk and regulatory management
   - Quality management

4. Ability to **support agile, continuous and rapid development,** CI/CD, and continuous testing unit and integration processes

5. Ability to demonstrate **digital technology and capabilities,** covering new products, services and experience design using digital twins, rapid prototyping, autonomous and continuous testing, and quality management through platforms/solutions/testbeds, PLM, and data and model-driven engineering

6. **Expertise in applying next-generation technologies,** including automation, analytics, IoT, AI, cybersecurity, cloud, AR/VR/MR additive manufacturing, 3D printing, and blockchain

7. **Potential to demonstrate strong partnerships** with industry associations, regulatory bodies, technology firms and startups specializing in the manufacturing industry

8. **Capability to offer referenceable case studies** from key manufacturing industries served

Digital Factory/Manufacturing Solutions

Definition

This quadrant focuses on solutions that help manufacturing companies drive their digital transformation journey, including asset management, manufacturing execution systems (MES) and quality management. It also includes solutions facilitating ideas and concepts of Industry 4.0, virtual factories and model plants. These solutions embrace technologies such as 5G, robots, AI, digital twins, cybersecurity, IoT, computer vision and edge to facilitate shop floor or factory operations. Smart manufacturing solutions help companies improve efficiency, manage costs, make better and faster decisions, monitor production performance and predict maintenance.

With a growing focus on sustainability and energy management, manufacturing companies are increasingly looking for solution partners to manage energy efficiency and costs.

Eligibility Criteria

1. Ability to **drive stakeholder engagement and analyze data,** leveraging deep OT and IT expertise

2. Ability to **apply best practices and solutions** from various manufacturing industries

3. Provision of **examples that align supply chain and factory operations** with clients' smart manufacturing initiatives to drive operational agility

4. Ability to provide **offerings and services** in at least one or more of the following areas, but not limited to:

   • Fulfillment execution systems
   • Shop floor incident reporting systems
   • Shop floor analytics
   • Predictive maintenance
   • Connected assets
   • Asset performance management
   • Private 5G networks
   • Remaining useful life estimation

   • Failure impact prediction
   • OT cyber security services

5. **Expertise in applying next-generation technologies,** including automation, analytics, IoT, AI, cybersecurity, cloud, AR/VR/MR, additive manufacturing, 3D printing and blockchain

6. **Potential to demonstrate strong partnerships** with industry associations, regulatory bodies, technology and OT firms, and startups specializing in the manufacturing industry

7. **Capability to offer referenceable case studies** from key manufacturing industries served

Manufacturing Supply Chain and Procurement Services

Definition

This quadrant focuses on solutions that help companies manage procurement, warehousing, inventory, fulfillment and transportation/logistics. Other solutions may include managing supplier relationships, contracting, material and order management. These solutions use technologies such as blockchain to expand the companies' capabilities. Several manufacturing organizations also increasingly invest in automation, AI and intelligent workflows, ecosystems and sustainability to optimize supply chain operations.

Eligibility Criteria

1. Proven expertise in providing leading **ERP and supply chain management (SCM) packages**

2. Ability to **provide IT and business strategy and consulting services** to help companies reduce supply chain complexities either on their own or through partners

3. Ability to **define the roadmap and help in the design, implementation and maintenance of IT systems** and manage back-office processes

4. Ability to provide **offerings and services** in at least one or more of the following areas, but not limited to:

   - Warehouse management
   - Logistics and transportation management systems
   - Purchasing
   - Shipping
   - Traceability
   - Scheduling
   - Order management

   - Control tower
   - Forecasting
   - Demand planning
   - Materials management
   - Third-party risk management
   - Supply chain and procurement optimization
   - Supply chain segmentation
   - Supply chain planning and BPO

5. Sustainability solutions in procurement and supply chain

6. **Expertise in applying next-generation technologies,** including automation, analytics, IoT, AI, cybersecurity, cloud, AR/VR/MR and blockchain

7. **Potential to demonstrate strong partnerships** with industry associations, regulatory bodies, technology firms and startups specializing in the manufacturing industry

8. **Capability to offer referenceable case studies** from key manufacturing industries served

Aftermarket Services

Definition

This quadrant includes solutions and services that help manufacturers offer a wide range of offerings beyond finished goods (standalone or bundled), including spare parts, software, field operations, end-of-life services, and warranty and guarantee services. The solutions also focus on digitalizing various aspects of aftermarket activities by leveraging AI and RPA to help companies maintain the feedback loop for product enhancements.

With rapid technological strides, the manufacturing industry is witnessing the rise of new business models, such as service lifecycle management and subscription services. This would require providers with specific capabilities to help companies change their approach and drive sophistication, facilitating a smooth adoption of various technologies.

Eligibility Criteria

1. Provision of examples of **working with various manufacturing** industries to design aftermarket solutions and offerings

2. Ability to **define key metrics for companies** to help them align with business outcomes

3. Ability to provide **offerings and services** in at least one or more of the following areas, but not limited to:Fulfillment execution systems

   • Controls management
   • Warranty management
   • Analytics and reporting
   • Field management services
   • Inventory optimization
   • Spare parts and sales network optimization
   • Pricing management
   • Contract management
   • CX/UX
   • Service information systems
   • Remote troubleshooting tools
   • PLM services

   • Reverse logistics

5. **Expertise in applying next-generation technologies,** including automation, analytics, IoT, AI, cybersecurity, cloud, AR/VR/MR, 3D printing and blockchain

6. **Potential to demonstrate strong partnerships** with industry associations, regulatory bodies, technology firms and startups specializing in the manufacturing industry

7. **Capability to offer referenceable case studies** from key manufacturing industries served

Quadrants by Region

As a part of this ISG Provider Lens™ quadrant study, we are introducing the following four quadrants on Manufacturing Industry Services and Solutions 2023:

Quadrant	North America	Europe
Agile Product Development and Design Services	✔	✔
Digital Factory/Manufacturing Solutions	✔	✔
Manufacturing Supply Chain and Procurement Services	✔	✔
Aftermarket Services	✔	✔

Schedule

The research phase falls in June and August 2023, when survey, evaluation, analysis and validation will take place. The results will be presented to the media in November 2023.

Milestones	Beginning	End
Survey Launch	June 07, 2023	
Survey Phase	June 08, 2023	July 08, 2023
Sneak Previews	September 2023	
Press Release & Publication	November 2023	

Please refer to the link to view/download the ISG Provider Lens™ 2023 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 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.

Client Feedback Nominations

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

ISG
Star of
Excellence

Contacts For This Study
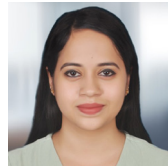
Ilamaran
Magesh

Data Analyst

Varsha
Sengar

Senior Research Analyst – North America & Europe

Swadhin
Pradhan

Lead Analyst – North America & Europe

Greeshma
A C

Project Manager

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

Gaurav Gupta

Partner & Global Head, Digital Engineering

Matteo Gallina

Digital Engineering Solutions Lead, Americas

John Lytle

Director, Manufacturing Industry Lead

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.

Accenture	Cognizant	HARMAN Digital Transformation Solutions (DTS)	Kyndryl
Accolite Digital	Computacenter	HCLTech	LatentView
Akkodis	Cyient	Hexaware	Logicalis
Allied digital	Datamatics	Hitachi Vantara	LTIMindtree
Altair engineering	Deloitte	HPE	LTTS
ALTEN	DXC Technology	Huron Consulting	Lumen
Apexon	eInfochips	IBM	Mastek
Atos/Eviden	EPAM	Infogain	Microland
AXISCADES	Expleo	Infosys	Mindteck
Birlasoft	EY	Insight	Motherson Technology Services
Capgemini	FTP	ITC Infotech	Movate
Cardonet	Fujitsu	Konsberg Digital	Mphasis
CGI	Genpact	KPIT	NEC
Cigniti	Globant	KPMG	NTT DATA
Coforge	Happiest Minds		Orange Business Services

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Perficient	Tech Mahindra
Persistent	Tietoevery
Prolifics	T-Systems
Publicis Sapient	Unisys
PwC	UST
Quest Global	Virtusa
R Systems	VOLANSYS
Sasken	Vysus Group
Shift5	Wipro
Sonata Software	YASH Technologies
Sopra Steria	Zensar
Synoptek	
SYSTEMA	
Tata Technologies	
TCS	

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.

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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.

ISG Provider Lens™