

Engineering Services

Germany 2019

Quadrant Report



A research report
comparing provider
strengths, challenges
and competitive
differentiators

Customized report courtesy of:



August 2018

About this Report

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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 was current as of 30, June 2018. ISG recognizes that many mergers and acquisitions have taken place since that time but those changes are not reflected in this report.

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EXECUTIVE SUMMARY

For quite some time, engineering services have been included in outsourcing and outtasking contracts; companies from technology-driven industries often leverage external suppliers that take over a significant share of the required engineering tasks. Traditionally, the focus was on constructing and designing the required components; specifically, the automotive industry uses such external services to a large extent and some of these companies have complete categories of parts such as gear units mostly developed by external providers. Similar to many other markets, the market for engineering services has been impacted by the digital transformation, which means that in the wake of technologies such as mobile connectivity, cloud data storage, IoT etc. the share of engineering services where software is key will increase significantly. To account for this trend, this study examines providers of engineering services with a focus on the digital transformation. We can distinguish the following main groups of providers:

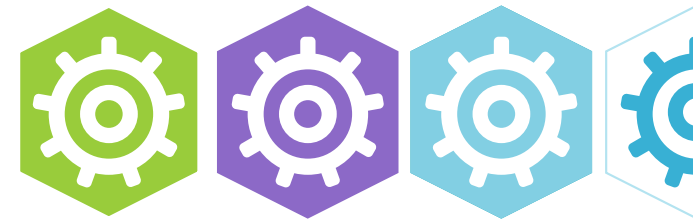
- Companies that have been active as providers of traditional engineering services for quite some time and are advancing their portfolio to address the increasing relevance of digital components.
- Companies that have their roots in the IT services market and are leveraging these competencies to address current technological trends and provide a powerful engineering services offering.

Companies that continue to focus on traditional engineering services are not analyzed. The market for engineering services with a high share of software is relatively young; as we have observed, no classification of these services has been established yet. We have differentiated between industries and also accounted for functional differences. For the purpose of this study, our classification combines functional aspects (product engineering, process/plant engineering, software/digital & platform engineering) with industries (automotive and process industries); a more detailed description can be found under “Scope of This Study”. Also, there are providers where the share of services with a focus on the digital transformation is insufficient or where it was not possible to make a reliable assessment, based on available information. Therefore, these companies were not rated, which has, of course, limited the number of analyzed providers within the individual segments.

Many of the examined providers are globally active companies with headquarters outside Germany and delivery organizations in various regions. Service providers with a focus on Germany, mostly on the automotive sector, are also engaged in global activities, but are mostly servicing locations of customers with headquarters in Germany.

Additional relevant and differentiating aspects include the following:

- The maturity of contracting models, e.g., the share of services rendered on a time & material basis in relation to services based on an agreed outcome.
- The share of projects for specific components in relation to the development of software of general usability which has to be customized by the customers for their specific use cases.



Introduction

Definition

SCOPE OF THE REPORT

For the purpose of this study, the service categories were classified in a way that combines functional aspects with industries. The following industries were selected:

1. Automotive sector
2. Process industry with a focus on chemicals and oil & gas
3. Process industry with a focus on life sciences and consumer packaged goods (CPG)

The process industry was broken down to account for the fact that the life sciences and - to a smaller extent - the CPG industry must comply with regulatory requirements that clearly differ from those of the chemicals and the oil & gas industries. Within the life sciences category, we have also included medical devices, although traditionally, they fall partly under the discrete manufacturing category. However, as a result of the digital transformation, this differentiation is often not as clear as it used to be and therefore, it makes sense to include medical devices within the context of this study. For instance, pharmaceutical companies use medical devices (e.g., injectors) for interacting directly

Simplified illustration

Engineering Services		
Automotive - Product Engineering	Chemicals and Oil & Gas - Manufacturing and Plant/ Process Engineering	Life Sciences & CPG - Manufacturing & Plant/Process Engineering
Automotive - Manufacturing and Plant/Process Engineering		
Automotive - Software/Digital and Platform Engineering	Chemicals and Oil & Gas - Software/Digital and Platform Engineering	Life Sciences & CPG - Software / Digital & Platform Engineering

Source: ISG 2018

Definition (cont.)

with patients to administer medication and these devices fall under the discrete manufacturing category.

The geographical coverage of this study is Germany; considering the global activities of engineering services customers, providers' global presence also played a relevant role for the analysis.

Functionally, the following categories were analyzed:

1. Product Engineering

Product engineering services (PES) are related to the development of physical products or product sub-sections utilizing capabilities that include embedded electronics – semiconductor engineering, hardware engineering, embedded systems software, verification & validation and IoT-related services, as well as overall product and systems level engineering.

2. Manufacturing & Plant / Process Engineering

Manufacturing & plant / process engineering services are related to planning, designing, modifying, optimizing and maintaining plant or manufacturing systems and equipment – with a focus on industrial IoT / Industry 4.0 applications such as connected factories, digital asset management, predictive maintenance, 3D printing, robotics / automation etc.

3. Software / Digital & Platform Engineering

Software / digital / platform engineering services consist of application software development, independent of specific hardware. It also includes IoT software applications such as connectivity, mobility, predictive maintenance, OT data analytics (OT data refers to data pertaining to sensors, machines, location etc.), digital supply chain etc., and engineering platforms related work: such as IoT, PLM, MES etc. ERP platforms are not included in the study.

Provider Classifications

The ISG Provider Lens™ quadrants were created using an evaluation matrix containing four segments, where the providers are positioned accordingly.

Leader

The “leaders” among the vendors/providers have a highly attractive product and service offering and a very strong market and competitive position; they fulfill all requirements for successful market cultivation. They can be regarded as opinion leaders, providing strategic impulses to the market. They also ensure innovative strength and stability.

Product Challenger

The “product challengers” offer a product and service portfolio that provides an above-average coverage of corporate requirements, but are not able to provide the same resources and strengths as the leaders regarding the individual market cultivation categories. Often, this is due to the respective vendor’s size or their weak footprint within the respective target segment.

Market Challenger

“Market challengers” are also very competitive, but there is still significant portfolio potential and they clearly lag behind the “leaders”. Often, the market challengers are established vendors that are somewhat slow to address new trends, due to their size and company structure, and have therefore still some potential to optimize their portfolio and increase their attractiveness.

Contender

“Contenders” are still lacking mature products and services or sufficient depth and breadth of their offering, while also showing some strengths and improvement potentials in their market cultivation efforts. These vendors are often generalists or niche players.

Provider Classifications (cont.)

Each ISG Provider Lens™ quadrant may include a service provider(s) who ISG believes has a strong potential to move into the leader's quadrant.

Rising Star

Rising Stars are mostly product challengers with high future potential. When receiving the "Rising Star" award, such companies have a promising portfolio, including the required roadmap and an adequate focus on key market trends and customer requirements. Also, the "Rising Star" has an excellent management and understanding of the local market. This award is only given to vendors or service providers that have made extreme progress towards their goals within the last 12 months and are on a good way to reach the leader quadrant within the next 12-24 months, due to their above-average impact and innovative strength.

Not In

This service provider or vendor was not included in this quadrant as ISG could not obtain enough information to position them. This omission does not imply that the service provider or vendor does not provide this service.

Engineering Services-Quadrant Provider Listing 1 of 2

	Automotive - Product Engineering	Automotive - Manufacturing and Plant/Process Engineering	Automotive - Software/Digital and Platform Engineering	Chemicals and Oil & Gas - Manufacturing and Plant/Process Engineering	Chemicals and Oil & Gas - Software/Digital and Platform Engineering	Lifesciences & CPG - Manufacturing and Plant/Process Engineering	Lifesciences & CPG - Software/Digital and Platform Engineering
Akka Technologies	● Contender	● Product Challenger	● Not In	● Product Challenger	● Not In	● Product Challenger	● Not In
Alten	● Product Challenger	● Not In	● Not In	● Not In	● Not In	● Product Challenger	● Not In
Altran	● Leader	● Leader	● Leader	● Leader	● Leader	● Rising Star	● Rising Star
Atos	● Product Challenger	● Product Challenger	● Product Challenger	● Product Challenger	● Product Challenger	● Leader	● Leader
Bertrandt	● Market Challenger	● Not In	● Market Challenger	● Not In	● Not In	● Not In	● Not In
Capgemini	● Rising Star	● Not In	● Product Challenger	● Not In	● Not In	● Market Challenger	● Leader
Cognizant	● Product Challenger	● Not In	● Product Challenger	● Contender	● Not In	● Leader	● Leader
EDAG	● Contender	● Contender	● Not In	● Not In	● Not In	● Not In	● Not In
EPAM	● Not In	● Not In	● Product Challenger	● Contender	● Product Challenger	● Contender	● Contender
HCL	● Leader	● Market Challenger	● Leader	● Not In	● Contender	● Not In	● Product Challenger

Engineering Services-Quadrant Provider Listing 2 of 2

	Automotive - Product Engineering	Automotive - Manufacturing and Plant/Process Engineering	Automotive - Software/Digital and Platform Engineering	Chemicals and Oil & Gas - Manufacturing and Plant/Process Engineering	Chemicals and Oil & Gas - Software/Digital and Platform Engineering	Lifesciences & CPG - Manufacturing and Plant/Process Engineering	Lifesciences & CPG - Software/Digital and Platform Engineering
Infosys	● Leader	● Leader	● Leader	● Leader	● Leader	● Leader	● Leader
Innominds	● Not In	● Not In	● Contender	● Not In	● Contender	● Not In	● Contender
in-tech	● Not In	● Not In	● Contender	● Not In	● Not In	● Not In	● Not In
ITK Engineering	● Not In	● Not In	● Contender	● Not In	● Not In	● Not In	● Not In
KPIT	● Product Challenger	● Contender	● Product Challenger	● Not In	● Product Challenger	● Not In	● Product Challenger
L&T Technology Services	● Leader	● Leader	● Leader	● Leader	● Leader	● Leader	● Product Challenger
QuEST Global	● Product Challenger	● Product Challenger	● Leader	● Leader	● Product Challenger	● Product Challenger	● Contender
TCS	● Leader	● Leader	● Leader	● Leader	● Leader	● Leader	● Leader
Tech Mahindra	● Product Challenger	● Contender	● Product Challenger	● Not In	● Not In	● Not In	● Not In
Wipro	● Leader	● Market Challenger	● Leader	● Not In	● Not In	● Not In	● Not In



Engineering Services Quadrants



AUTOMOTIVE – PRODUCT ENGINEERING

Definition

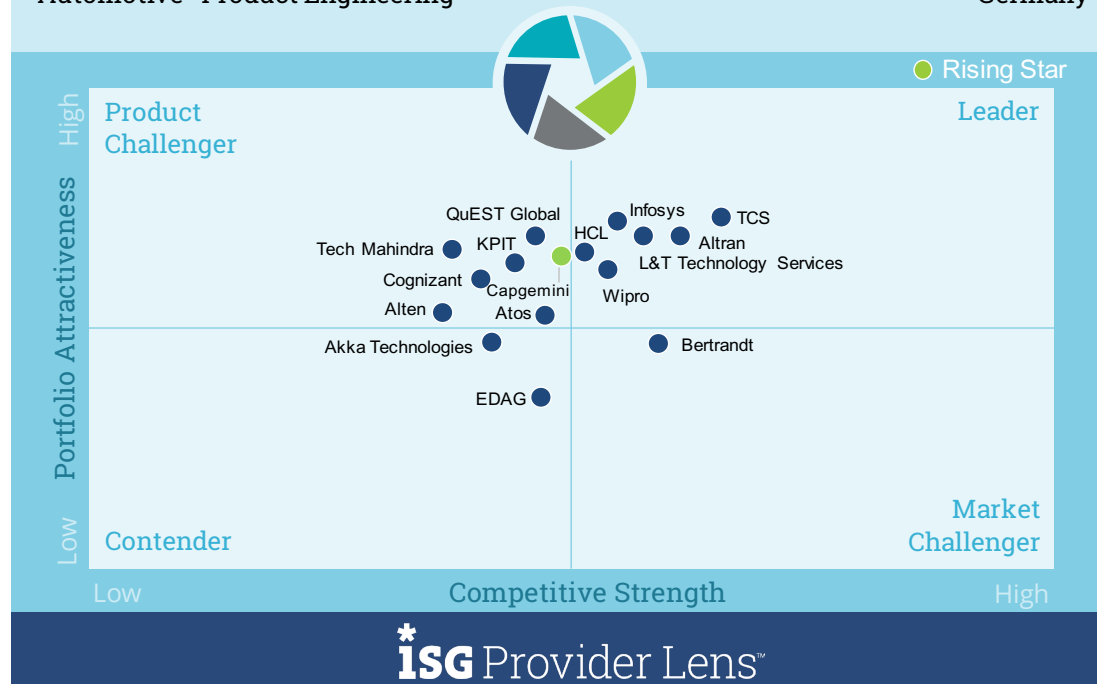
ES in automotive is helping in providing automotive players mechanism and ways to reinvent their role - focusing on core activities and creating efficient ecosystems with strategic partners. The automotive industry is facing a revolution. Innovation-related challenges are reshaping traditional auto industry structures and relationships — in particular, by threatening the existing distribution of profits and the boundaries between OEMs and tier-one or tier-two suppliers, as well as between automotive and tech companies.

Product engineering services (PES) consists of the development of physical products or product sub-sections utilizing capabilities that include embedded electronics - semiconductor engineering, hardware engineering, embedded systems software, verification & validation and IoT-related services, as well as overall product and systems level engineering. Pure play legacy mechanical engineering without digital elements is out of scope.

Engineering Services Automotive - Product Engineering

2019

Germany

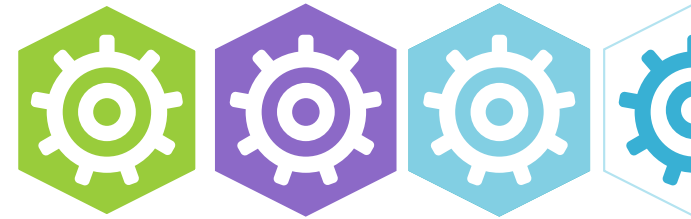


Source: ISG Research 2018

AUTOMOTIVE – PRODUCT ENGINEERING

Observations

- Compared to the other segments, the number of providers that are active in this segment is rather high.
- Providers have a different focus and some of them take over complete responsibility for the development of vehicle components with a dominating share of software.
- Some providers also address relatively new areas such as e-mobility and autonomous driving.
- Providers' presence in Germany varies. There are providers with a regional focus on Germany as well as providers with a global coverage and delivery centers in various regions, including Germany, due to the strong position of the automotive sector in Germany.



L&T TECHNOLOGY SERVICES

Overview

L&T Technology Services is a global IT service provider with a specific focus on engineering and research & development. Services include product development, product life cycle management, engineering analytics, machine-to-machine connectivity and IoT.

The company has presences in all relevant regions and enjoys a strong position in Germany.

Strengths

The L&T Technology Services portfolio for automotive has a clear focus on efficiency-enhancing solutions and innovative approaches.

Within this segment, L&T Technology Services has a focus on provisioning reusable software tools that increase the productivity and can be used in multiple environments. The functionality of these tools includes areas such as design, testing and preparation of production.

L&T Technology Services has a broad customer base, also in Germany, and has long-standing experience in this segment. The offering covers all kinds of vehicle categories, not only normal passenger cars, but also trucks and other commercial vehicles.

Solutions addressing innovative vehicle concepts such as e-mobility and hybrid vehicles constitute key elements of the portfolio.

The share of managed projects, where the provider takes over vehicle development responsibility, is relatively high.

L&T Technology Services has a network of partnerships and is actively engaged in key industry technology forums, which enables the provider to incorporate current developments into their portfolio short-term.

Caution

Considering the digital transformation and respective new players, the provider should engage in partnerships with key IT technology providers such as Apple or Google.



2019 ISG Provider Lens™ Leader

L&T Technology Services is a competent automotive product engineering partner, combining broad industry-specific knowledge with innovative approaches to achieve efficiency gains.

AUTOMOTIVE – MANUFACTURING & PLANT/PROCESS ENGINEERING

Definition

ES in automotive is helping in providing automotive players mechanism and ways to reinvent their role - focusing on core activities and creating efficient ecosystems with strategic partners. The automotive industry is facing a revolution. The automotive industry is facing a revolution. Innovation-related challenges are reshaping traditional auto industry structures and relationships — in particular, by threatening the existing distribution of profits and the boundaries between OEMs and tier-one or tier-two suppliers, as well as between automotive and tech companies.

Manufacturing & plant / process engineering services consists of planning, designing, modifying, optimizing and maintaining plant or manufacturing systems and equipment - with a focus on industrial IoT / Industry 4.0 applications such as connected factories, digital asset management, predictive maintenance, 3D printing, robotics / automation etc.

Engineering Services
Automotive - Manufacturing and Plant/
Process Engineering

2019
Germany

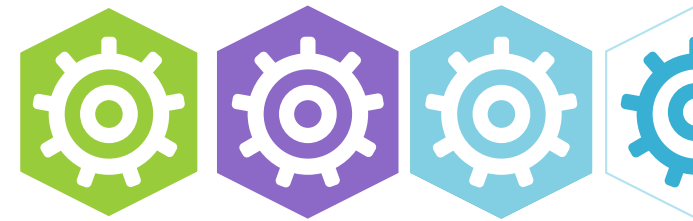


Source: ISG Research 2018

AUTOMOTIVE – MANUFACTURING & PLANT/PROCESS ENGINEERING

Observations

- Compared to the automotive product engineering segment, the number of providers is relatively low; most of these players have their roots in traditional engineering and are able to translate their long-standing design and construction experiences into process-related areas of production.
- Providers that come from the IT services segment are challenged to transfer their IT know-how onto processes where availability and real-time requirements, control and regulation play a key role. Some are quite successful and two of these providers achieved a leadership position in this segment.
- As we have observed, the adoption of advanced analytics is increasing, e.g., for predictive maintenance or similar applications.
- In some cases, the portfolio also includes co-responsibility, e.g., for continuous production process support.



L&T TECHNOLOGY SERVICES

Overview

L&T Technology Services is a global IT service provider with a specific focus on engineering and research & development. Services include product development, product life cycle management, engineering analytics, machine-to-machine connectivity and IoT.

The company has presences in all relevant regions and enjoys a strong position in Germany.

Strengths

The L&T Technology Services portfolio for manufacturing & plant/process engineering for the automotive sector features a multitude of services, demonstrating the high competence of this provider in this segment.

On the functional side, all areas of vehicle production are addressed (chassis, drive, electrical equipment, safety, entertainment, telematics etc.); on the process level, the portfolio covers all aspects from advance planning (virtual manufacturing) and concrete process design (digital & lean manufacturing) to validation & verification.

The provider leverages their product engineering competence to also provide suitable solutions for process design and production preparation. Respective human resources are used across multiple functions to achieve a maximum breadth of useful know-how.

The share of managed projects, where the provider takes over responsibility for the development of production-related solutions, is relatively high.

L&T Technology Services is a member of all relevant industry-specific technology forums and associations and also has a broad customer base in this segment.

Caution

The provider should work to better address advanced analytics and big data aspects within their portfolio.

The provider should also take efforts to engage in partnerships with IT technology providers such as Apple and Google.



2019 ISG Provider Lens™ Leader

L&T Technology Services is a competent partner in the manufacturing & plant/process engineering segment and provides very broad coverage of all relevant functionality.

AUTOMOTIVE – SOFTWARE/DIGITAL & PLATFORM ENGINEERING

Definition

ES in automotive is helping in providing automotive players mechanism and ways to reinvent their role - focusing on core activities and creating efficient ecosystems with strategic partners. The automotive industry is facing a revolution. The automotive industry is facing a revolution. Innovation-related challenges are reshaping traditional auto industry structures and relationships — in particular, by threatening the existing distribution of profits and the boundaries between OEMs and tier-one or tier-two suppliers, as well as between automotive and tech companies.

Software / Digital / Platform engineering services consist of application software development, independent of specific hardware. It also includes IoT software applications such as connectivity, mobility, predictive maintenance, OT data analytics (OT data refers to data pertaining to sensors, machines, location etc.), digital supply chain etc., and engineering platforms related work: such as IoT, PLM, MES etc.

ERP platforms are out of scope.

Engineering Services
Automotive - Software/
Digital and Platform Engineering

2019
Germany

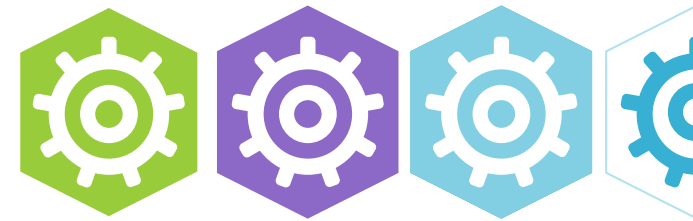


Source: ISG Research 2018

AUTOMOTIVE – SOFTWARE/DIGITAL & PLATFORM ENGINEERING

Observations

- Within this segment, providers with roots in the IT industry enjoy a stronger presence than in other segments.
- A key aspect is providers' skill to transfer respective experiences, often across multiple industries, to the specific requirements of this industry.
- Another key success factor is providers' capability to not supply general software that needs to be adjusted to specific use cases, but rather develop concrete, specific components.
- Providers with roots in the traditional engineering segment are intensively working to enhance their digital transformation competencies, i.e., software-based engineering services offerings, and benefit from their long-standing industry experience.
- Providers also must build up industry-specific networks, including relevant associations and industry forums, to ensure success and keep pace with current trends.



L&T TECHNOLOGY SERVICES

Overview

L&T Technology Services is a global IT service provider with a specific focus on engineering and research & development. Services include product development, product life cycle management, engineering analytics, machine-to-machine connectivity and IoT.

The company has presences in all relevant regions and enjoys a strong position in Germany.

Strengths

The L&T Technology Services portfolio within the software & platform engineering segment for the automotive industry with its many, partly patented solutions demonstrates the provider's long-standing experience and innovative strength.

L&T Technology Services has many patents for all kinds of functional areas within the software & platform engineering context in the automotive industry, demonstrating the provider's innovative strength and resulting strong position in this market.

In this segment, L&T Technology Services provides many solutions for very specific functional areas, e.g., fleet monitoring and industry-specific product life cycle management.

Digital transformation requirements such as machine-to-machine connectivity are already addressed and integrated in the provider's strategy.

The share of managed projects, where the provider takes over responsibility for IT platform development, is relatively high.

L&T Technology Services is a member of all relevant industry-specific technology forums and associations and also has a broad customer base in this segment.

L&T Technology Services has designed and developed their own industry-specific cybersecurity framework.

Caution

The provider should work to better address advanced analytics and big data aspects within their portfolio.



2019 ISG Provider Lens™ Leader

Based on their existing great competence and innovative solutions L&T Technology Services is a powerful partner for the software & platform engineering segment within the automotive industry.

CHEMICALS & OIL & GAS - MANUFACTURING & PLANT / PROCESS ENGINEERING

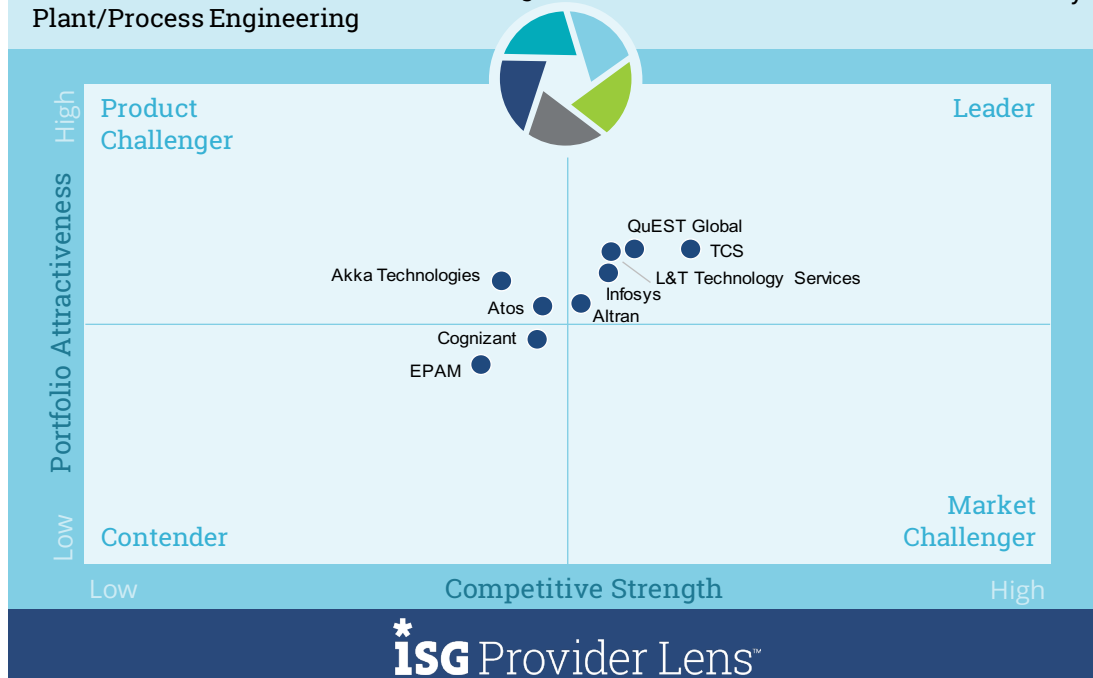
Definition

ES in the process industry is helping the next wave of leaders in this industry to increase their engineering quality and performance while optimizing costs and meeting stringent compliance, safety and security standards. At the same time, implement tailored Industry 4.0, IoT and analytics services and solutions to transform data into new revenue streams and boost performance, while ensuring cybersecurity. ES Providers are partnering with process industry manufacturers to achieve the above. Specifically, in the chemicals and oil & gas business the manufacturing excellence is rather important in order to achieve best cost competitiveness.

Manufacturing and plant / process engineering services consists of planning, designing, modifying, optimizing and maintaining plant or manufacturing systems and equipment - with a focus on industrial IoT / Industry 4.0 applications such as connected factories, digital asset management, predictive maintenance, 3D printing, robotics / automation etc.

Engineering Services
Chemicals and Oil & Gas - Manufacturing and
Plant/Process Engineering

2019
Germany

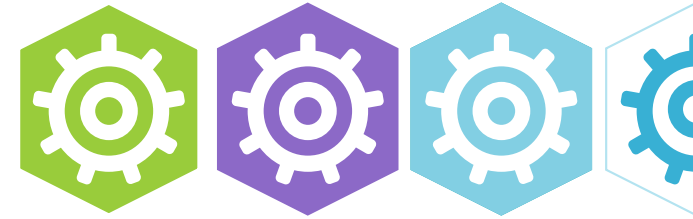


Source: ISG Research 2018

CHEMICALS & OIL & GAS - MANUFACTURING & PLANT / PROCESS ENGINEERING

Observations

- Considering the increasing adoption of digital transformation elements, e.g., mobile connectivity, cloud data platforms etc., these elements will also be increasingly connected with other elements on other business levels, enabling higher-level optimizations, e.g., in the supply chain, and extended production management capabilities.
- Often, plant management solutions, such as manufacturing execution systems (MES) or asset management systems, are still in use in this segment.
- The usage of advanced analytics, as basis for engineering-related tasks, is increasing, specifically, for optimization and operations support purposes, e.g., through predictive maintenance.
- Another use case is facility simulation (“digital twin”).



L&T TECHNOLOGY SERVICES



Overview

L&T Technology Services is a global IT service provider with a specific focus on engineering and research & development. Services include product development, product life cycle management, engineering analytics, machine-to-machine connectivity and IoT.

The company has presences in all relevant regions and enjoys a strong position in Germany.



Strengths

Based on their strong position in the traditional engineering services segment L&T Technology Services is able to also provision the required digital transformation capabilities.

L&T Technology Services provides a very comprehensive and diverse portfolio of manufacturing & plant/process engineering functionality for the chemicals and the oil & gas industries. The offering covers traditional engineering services such as mechanical engineering as well as new digitization-related areas such as digital design & implementation and digital asset management.

The share of managed projects, where the provider takes over responsibility for IT platform development, is relatively high.

L&T Technology Services is a member of all relevant industry-specific technology forums and associations and also has a broad customer base in this segment.

Similar to product life cycle management in the product engineering segment L&T Technology Services offers an integrated plant life cycle management for this segment which covers all relevant functionality within the life cycle of a production facility.

L&T Technology Services has many references and use cases in this segment.

The portfolio also includes solutions based on mobile devices.



Caution

The provider should strengthen and enhance partnerships with IT technology providers to better address digital transformation aspects, also in this segment.



2019 ISG Provider Lens™ Leader

In the manufacturing & plant/process engineering segment for the chemicals and oil & gas sector L&T Technology Services provides a convincing portfolio and great competence.

CHEMICALS & OIL & GAS - SOFTWARE/ DIGITAL & PLATFORM ENGINEERING

Definition

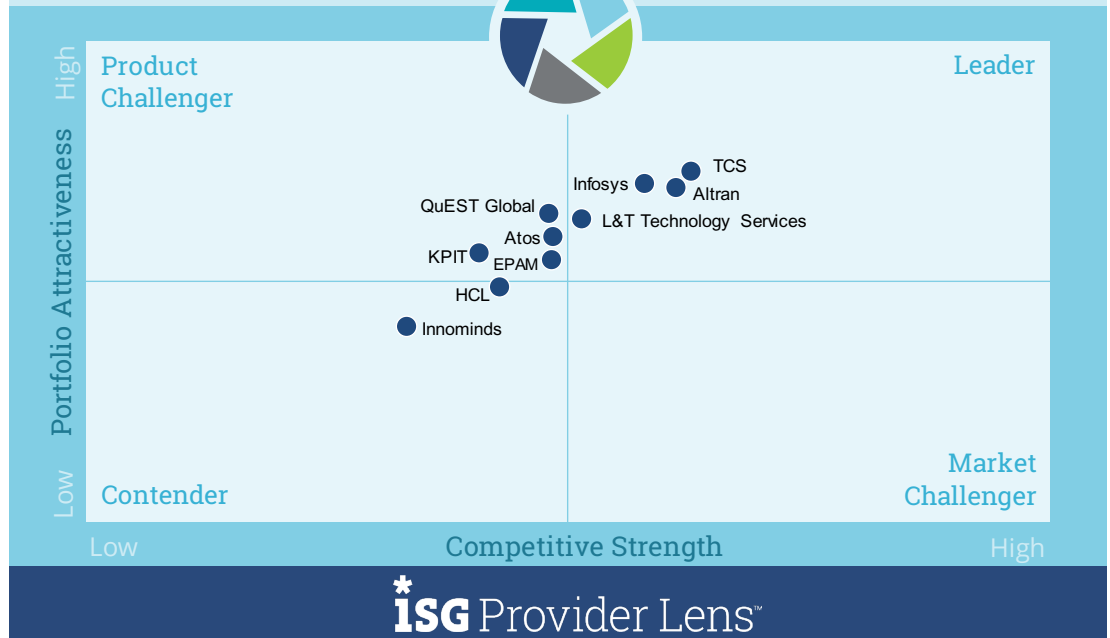
ES in the process industry is helping the next wave of leaders in this industry to increase their engineering quality and performance while optimizing costs and meeting stringent compliance, safety and security standards. At the same time, implement tailored Industry 4.0, IoT and analytics services and solutions to transform data into new revenue streams and boost performance, while ensuring cybersecurity. ES providers are partnering with process industry manufacturers to achieve the above. Specifically, in the chemicals and oil & gas business the manufacturing excellence is rather important in order to achieve best cost competitiveness.

Software / digital / platform engineering services consist of application software development, independent of specific hardware. It also includes IoT software applications such as connectivity, mobility, predictive maintenance, OT data analytics (OT data refers to data pertaining to sensors, machines, location ...), digital supply chain etc., and engineering platforms related work such as IoT, PLM, MES etc.

ERP platforms are out of scope.

Engineering Services
Chemicals and Oil & Gas - Software/
Digital and Platform Engineering

2019
Germany

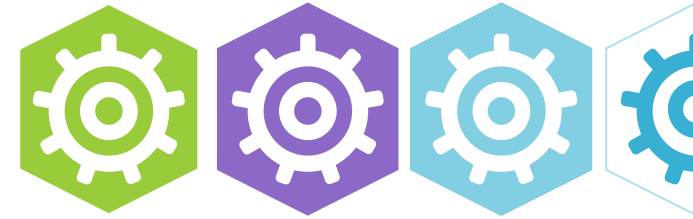


Source: ISG Research 2018

CHEMICALS & OIL & GAS - SOFTWARE/ DIGITAL & PLATFORM ENGINEERING

Observations

- Customers from this industry are often globally active corporations and so, the platforms examined within this segment are often used across multiple regions. Providers' offerings address these conditions, i.e., many of them do not have a specific focus on Germany.
- On the functional side, key areas of coverage include production optimization, simulation of facilities or physical conditions (oilfields), energy and environmental management and advanced analytics for all kinds of applications.
- Most available platforms have a focus on use cases within the oil & gas industry, the degree of adoption in the chemicals industry is lower.



L&T TECHNOLOGY SERVICES

Overview

L&T Technology Services is a global IT service provider with a specific focus on engineering and research & development. Services include product development, product life cycle management, engineering analytics, machine-to-machine connectivity and IoT.

The company has presences in all relevant regions and enjoys a strong position in Germany.

Strengths

Within this segment, L&T Technology Services enjoys a strong position as a provider of services for developing industry-specific software products and analytics solutions.

Examples for the provider's strong software/digital & platform engineering product portfolio for the chemical and oil & gas industry include digital oilfield, energy and environmental management solutions, leveraging synergies with the manufacturing segment where the company also has a strong position.

A key analytics focus is on optimization solutions (e.g., predictive maintenance, safety) and on facility management and supply chain integration solutions.

The share of managed projects, where the provider takes over responsibility for IT platform development, is relatively high.

L&T Technology Services has a broad customer base and many customer references in this segment.

Caution

The provider should further enhance its partner network with IT technology providers to address digital transformation topics.



2019 ISG Provider Lens™ Leader

In the software/digital & platform engineering segment for the chemical and oil & gas industry L&T Technology Services provides a strong portfolio, specifically for the oil & gas sector.

LIFE SCIENCES & CPG - MANUFACTURING & PLANT/PROCESS ENGINEERING

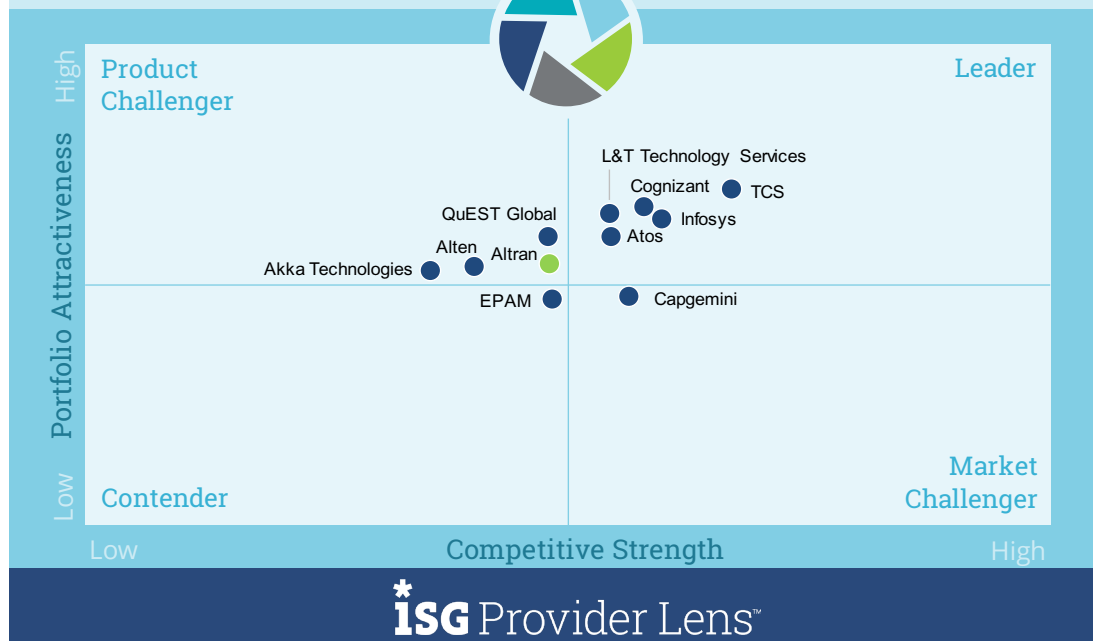
Definition

ES in the process industry is helping the next wave of leaders in this industry to increase their engineering quality and performance while optimizing costs and meeting stringent compliance, safety and security standards. At the same time, implement tailored Industry 4.0, IoT and analytics services and solutions to transform data into new revenue streams and boost performance, while ensuring cybersecurity. ES providers are partnering with process industry manufacturers to achieve the above. Furthermore, in life sciences & CPG the regulatory aspects are important, specifically the GMP (good manufacturing practice) requirements in pharmaceutical production.

Manufacturing and plant / process engineering services consists of planning, designing, modifying, optimizing and maintaining plant or manufacturing systems and equipment - with a focus on industrial IoT / Industry 4.0 applications such as connected factories, digital asset management, predictive maintenance, 3D printing, robotics / automation etc.

Engineering Services Lifesciences & CPG - Manufacturing and Plant/Process Engineering

2019
Germany

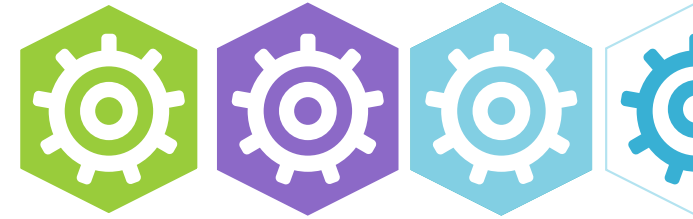


Source: ISG Research 2018

LIFE SCIENCES & CPG - MANUFACTURING & PLANT/PROCESS ENGINEERING

Observations

- Regulatory requirements within this segment, often referred to as GxP requirements (e.g., GMP – good manufacturing practice), are a key differentiator for providers' positioning.
- Similar to the situation in the chemicals industry, the portfolio is sometimes characterized by a high share of plant management solutions, such as manufacturing execution systems. However, connectivity & cloud as key drivers of the digital transformation also have an impact on this industry, and solutions are evolving beyond such use cases, for instance, by connecting the MES with solutions for simulating facilities and plants or suitable mobile devices for the staff within a plant. Automation is another key driver for engineering services to achieve a highly reliable production.



L&T TECHNOLOGY SERVICES



Overview

L&T Technology Services is a global IT service provider with a specific focus on engineering and research & development. Services include product development, product life cycle management, engineering analytics, machine-to-machine connectivity and IoT.

The company has presences in all relevant regions and enjoys a strong position in Germany.



Strengths

Based on their strong position in the traditional engineering services segment L&T Technology Services is able to also provision the required digital transformation capabilities and to cover respective GxP requirements.

L&T Technology Services provides a very comprehensive and diverse portfolio of manufacturing & plant/process engineering functionality for the life sciences industry. The offering covers traditional engineering services such as mechanical engineering as well as new digitization-related areas such as digital design & implementation and digital asset management.

The share of managed projects, where the provider takes over responsibility for IT platform development, is very high, compared to other providers.

L&T Technology Services provides comprehensive coverage of GxP requirements in all relevant services, including complex areas such as automation and plant maintenance.

L&T Technology Services has a broad customer base as well as many references and use cases in this segment.

Similar to product life cycle management in the product engineering segment L&T Technology Services offers an integrated plant life cycle management for this segment which also covers relevant predictive maintenance functionality for production facilities, which is a key component of the extended supply chain, up to the end consumer.

The portfolio also includes solutions based on mobile devices.



Caution

The provider should better address big data aspects within the advanced analytics context.



2019 ISG Provider Lens™ Leader

In GxP-regulated environments L&T Technology Services is a competent manufacturing & plant/process management partner.

LIFE SCIENCES & CPG – SOFTWARE / DIGITAL & PLATFORM ENGINEERING

Definition

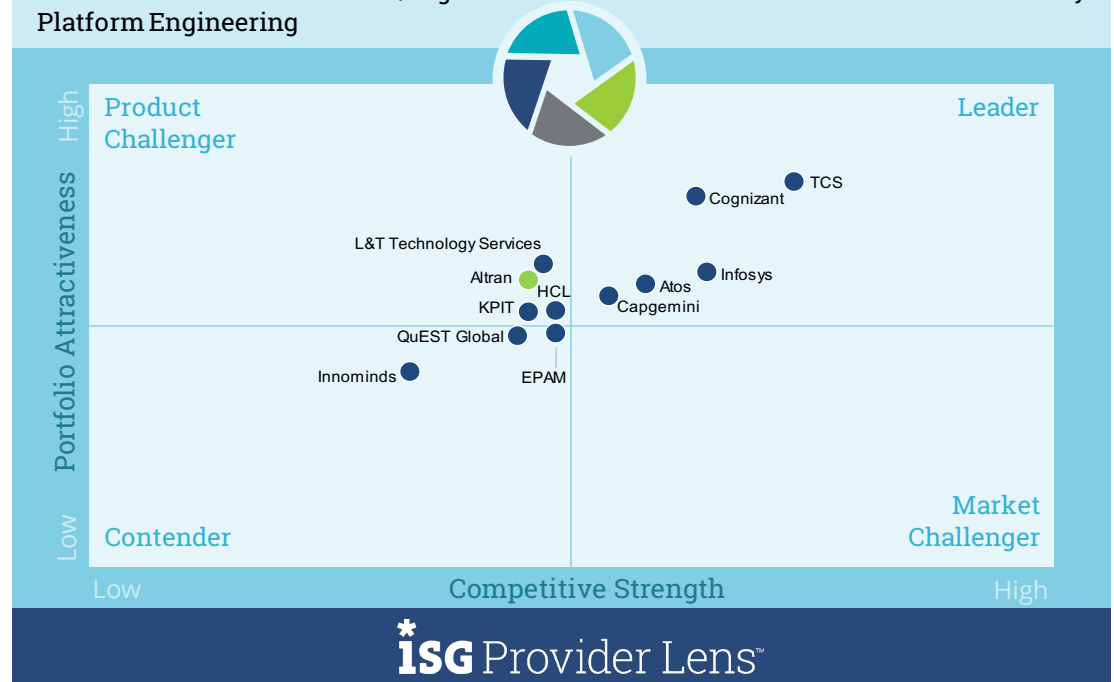
ES in the process industry is helping the next wave of leaders in this industry to increase their engineering quality and performance while optimizing costs and meeting stringent compliance, safety and security standards. At the same time, implement tailored Industry 4.0, IoT and analytics services and solutions to transform data into new revenue streams and boost performance, while ensuring cybersecurity. ES providers are partnering with process industry manufacturers to achieve the above. Furthermore, in life sciences & CPG the regulatory aspects are rather important, specifically the GMP requirements in the pharmaceutical industry.

Software / digital / platform engineering services consist of application software development, independent of specific hardware. It also includes IoT software applications such as connectivity, mobility, predictive maintenance, OT data analytics (OT data refers to data pertaining to sensors, machines, location ...), digital supply chain etc., and engineering platforms related work such as IoT, PLM, MES etc.

ERP platforms are out of scope.

Engineering Services
Lifesciences & CPG - Software/Digital and
Platform Engineering

2019
Germany

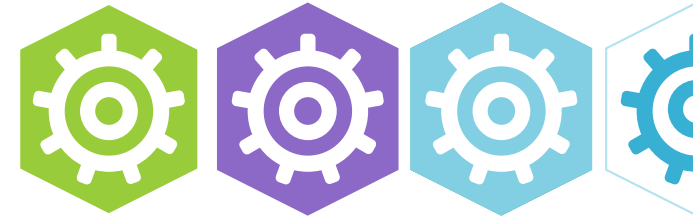


Source: ISG Research 2018

LIFE SCIENCES & CPG – SOFTWARE / DIGITAL & PLATFORM ENGINEERING

Observations

- A key aspect within this segment is the integration of patient-related data which will play an increasingly important role for business models of companies within this industry. Many companies will engage in direct contact with patients, e.g., for the purpose of remote patient monitoring, and within this context, connectivity to other institutions such as attending physicians, hospitals or health insurances will also play a role, as will connectivity to research institutions, for instance, for clinical testing purposes.
- Customers prefer providers that have long-standing experience with IT services in the respective areas and are able to apply the new technologies immediately. Another important criterion are the required industry-specific certifications of these providers.



The slide features a dark blue background with a light blue header. On the left side, there are several circular icons resembling camera apertures, arranged in a diagonal line from the bottom left towards the center. These icons are in various shades of blue and some are white outlines. The word "Methodology" is written in a white serif font on the right side of the slide.

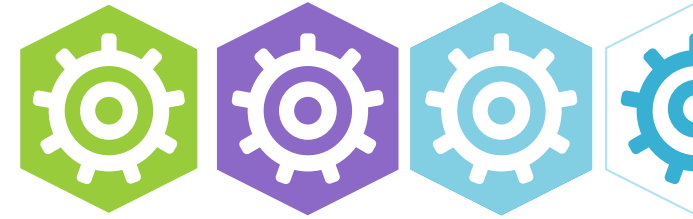
Methodology

METHODOLOGY

The ISG Provider Lens™ 2018 – Engineering Services research study analyses the relevant software vendors and service providers in the German market, based on a multi-phased research and analysis process, and positions these providers based on the ISG Research methodology.

The study was divided into the following steps:

1. Definition of Engineering 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. Detailed analysis & evaluation of services & service documentation based on the facts & figures received from providers & other sources.
6. Use of the following key evaluation criteria:
 - Strategy & vision
 - Innovation
 - Brand awareness and presence in the market
 - Sales and partner landscape
 - Breadth and depth of portfolio of services offered
 - Technology advancements



Authors and Editors



Rainer Suletzki, Author

Senior IT Management Advisor, Germany

Mr. Suletzki relies on a deep understanding of core business processes and in-depth know-how of IT management. He has more than 30 years of experience as Senior IT Manager, Senior Project Manager and – at the beginning of his career – as IT consultant. His main areas of expertise comprise IT application management, IT architecture, data modelling as well as IT sourcing strategy and execution

Rainer acts as independent consultant with a focus upon application management for SAP and specifically for SAP HANA. On behalf of ISG he conducts studies within the framework of ISG Provider Lens and takes on client projects with definition of IT strategy and the resulting sourcing decisions.

Before becoming an independent consultant, Rainer worked more than 30 years for a global German Life Science corporation.

Rainer holds graduate degrees in Economics and Computer Sciences.

Authors and Editors



Heiko Henkes, Editor

Director Advisor, ISG Research Lead

Mr. Henkes is a Director Advisor at ISG; in this role, he is responsible for strategic business management and acts as leader of ISG's team of research advisors. He is also in charge of bringing together IT trend topics within the digital transformation context and acts as keynote speaker on current and future IT trends.

Since 2013, Heiko has advised both ICT providers and users on current digital transformation topics such as Cloud Computing, Artificial Intelligence and the Mobile Enterprise.

In his work with IT Providers, he has a focus on go-to-market strategies and strategic portfolio development as well as on the strategic marketing and sales development. Heiko also analyzes and evaluates business processes, product-specific target markets and IT provider through classical competitive analyses. Within this context, Heiko supports companies to undergo continuous transformation, combining IT competencies with sustainable business strategies and change management.

His primarily focus lies on business development activities, further development and internationalization of the ISG Provider Lens™ (IPL) product-related processes beside his role as IPL Topic Leader to guide and sync all analyst team members.

Before joining ISG (Experton Group), Heiko worked as analyst manager for TechConsult GmbH.

Heiko holds a degree in economics with a major business informatics and marketing of the University of Kassel and is fluent in English.

ISG Provider Lens™ | Quadrant Report

August 2018

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