

# The best connection for special vehicles

## Special Vehicles



**The Quality Connection**

**LEONI**


## The optimum solution for each special vehicle.

The business activity Special Vehicles –  
Your specialist for a market that calls for uncompromising solutions.

LEONI is one of world's leading providers of standardised and customised special cables as well as assembled cable systems.

With our business activity Special Vehicles, we provide our customers with all the expertise of a global enterprise focused on the needs of the special vehicle manufacturing sector – a unique combination from which you cannot but benefit.

**We develop your cabling  
for every lot size.**



In so doing, we offer you the optimum solution for every special vehicle, every crane and practically every conceivable application: from the single strand through to set-up and wiring of master electrics. From standard cables through to highly sophisticated wiring systems in which we also integrate switching gear and control units.

We design and develop your cable and cable systems even for small lot sizes. For construction machinery and fire-fighting vehicles. For agricultural machinery and waste disposal vehicles. For heavy-duty telescopic cranes with load bearing capacity for 700 tons and more. Completely pre-assembled and always perfectly geared to your respective application. Even under the toughest operating conditions.



# Your partner when you want to get something moving.

## Our areas of expertise:

- Agricultural machinery
- Construction machinery
- Crane vehicles
- Emergency service vehicles
- Fire-fighting vehicles
- Aircraft tractors
- Waste disposal vehicles
- Special transport vehicles
- Other specialised commercial vehicles

Where mechanical or hydraulic machinery dominated in the past, the computer-controlled machinery used nowadays is highly complex in both electrical and electronic respect. At the same time, the demands on vehicle manufacturers in terms of performance, manoeuvrability and operating ergonomics are constantly mounting.

As one of the leading providers of systems and solutions to the special vehicle manufacturing industry, LEONI meets these challenges – and at the same time proactively drives this trend forward. Thanks to our high degree of vertical integration, we can thus offer our customers unique knowledge of products and applications.

In addition, our customers benefit from the wide-ranging synergistic advantages of the business activity Special Vehicles within the LEONI Group. Experience from other industrial sectors flows into our ideas for the special vehicle manufacturing sector, just as the latest developments from the automotive and fiber optic technology sectors do. This is a first-class basis on which to create dedicated solutions that are a paradigm for others.

Notwithstanding all this customisation, every LEONI product of course meets all the common norms and standards. In future, too, we intend to excite our customers with ideas and solutions that go well beyond the prevailing standards – be it in engineering, testing, production or the area of logistics.



## You want first-rate solutions. And no second-rate compromises.

Cable solutions and systems that combine reliability  
and economic efficiency.

Ideally, we will support your special vehicle across the entire value chain: from the initial idea to prototype development and series production as well as through to spare parts. To do this we provide you – depending on the requirements – with one or several dedicated project managers who will, together with you, carry your project through to success.

How do you benefit? First, significantly more available time to assign to your core business. Second, the certain knowledge that from LEONI you will always get an absolutely reliable solution; one that makes a convincing case for itself from the outset. Yet, to our engineers, reliability means not only developing the optimum product for you – but also delivering it exactly to the agreed timetable.

We create solutions with added value. More reliability. More flexibility. More profitability.



## Only the right questions will lead to unique solutions.

We translate your requirements into services;  
across the whole lifecycle of your solution.

**Good communication starts with dialogue.**  
**Good engineering does too.**

As a leading provider of systems and cable solutions for special vehicle manufacturing, we take time for your concerns from the outset. We listen carefully, ask scrutinising questions and will then design a customer-specific cable harness that matches your requirement profile exactly.

### **Example: prototype system.**

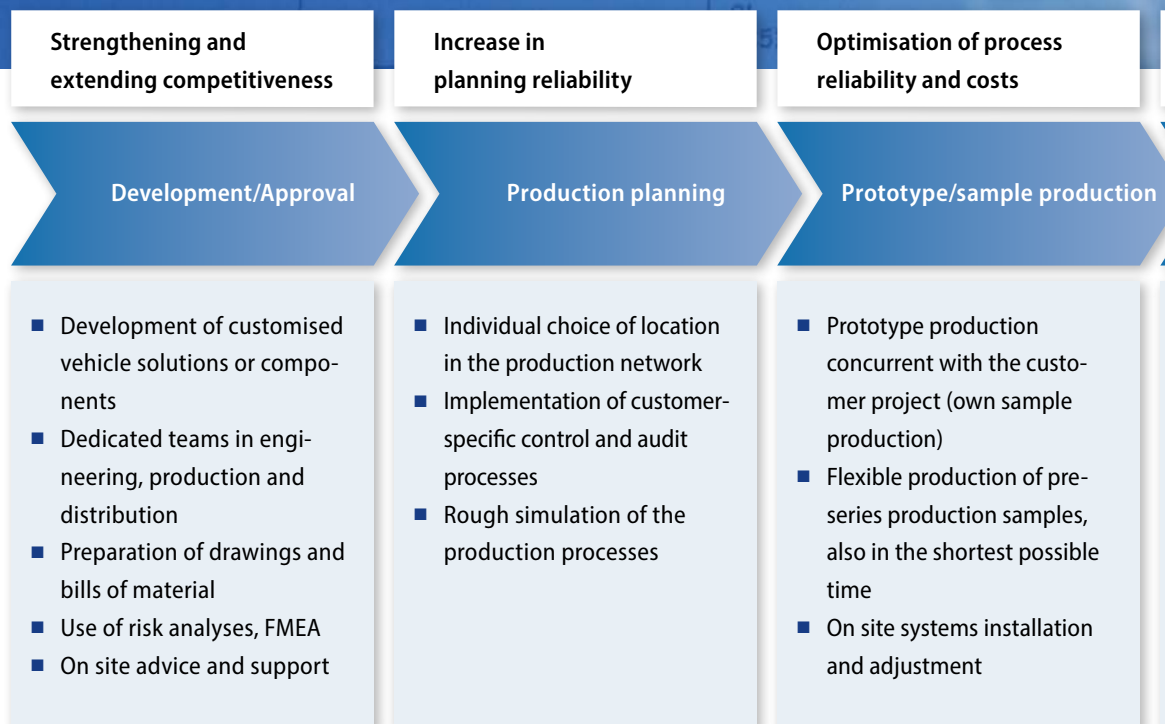
You would like one or several prototypes? And in the shortest possible time? Thanks to our centre of excellence for prototypes and rush orders: no problem.

### **Example: tests.**

You want a pre-production run to be exhaustively tested exactly to your specifications? We carry out basic tests, but also complete function tests and simulations - and we also look after the corresponding testing equipment.

### **Example: logistics.**

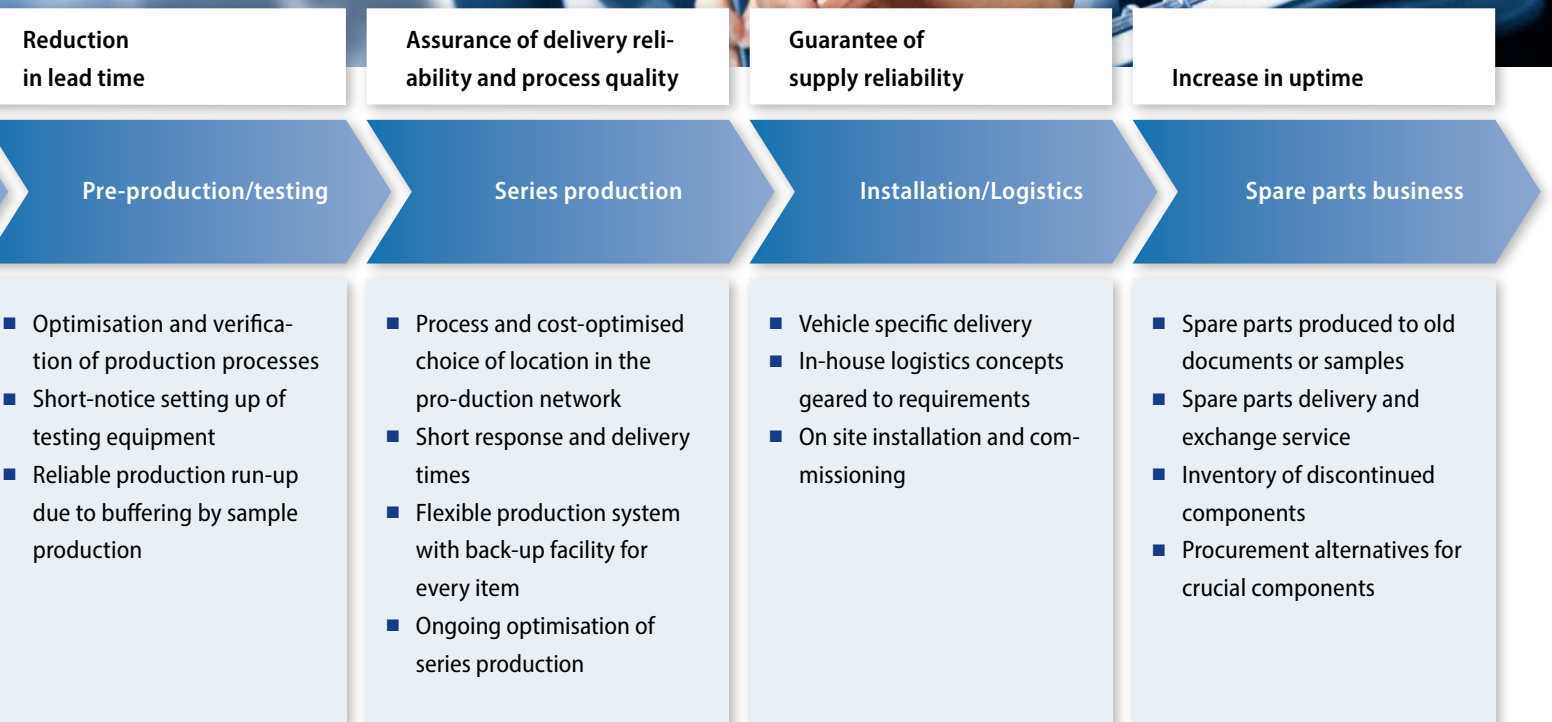
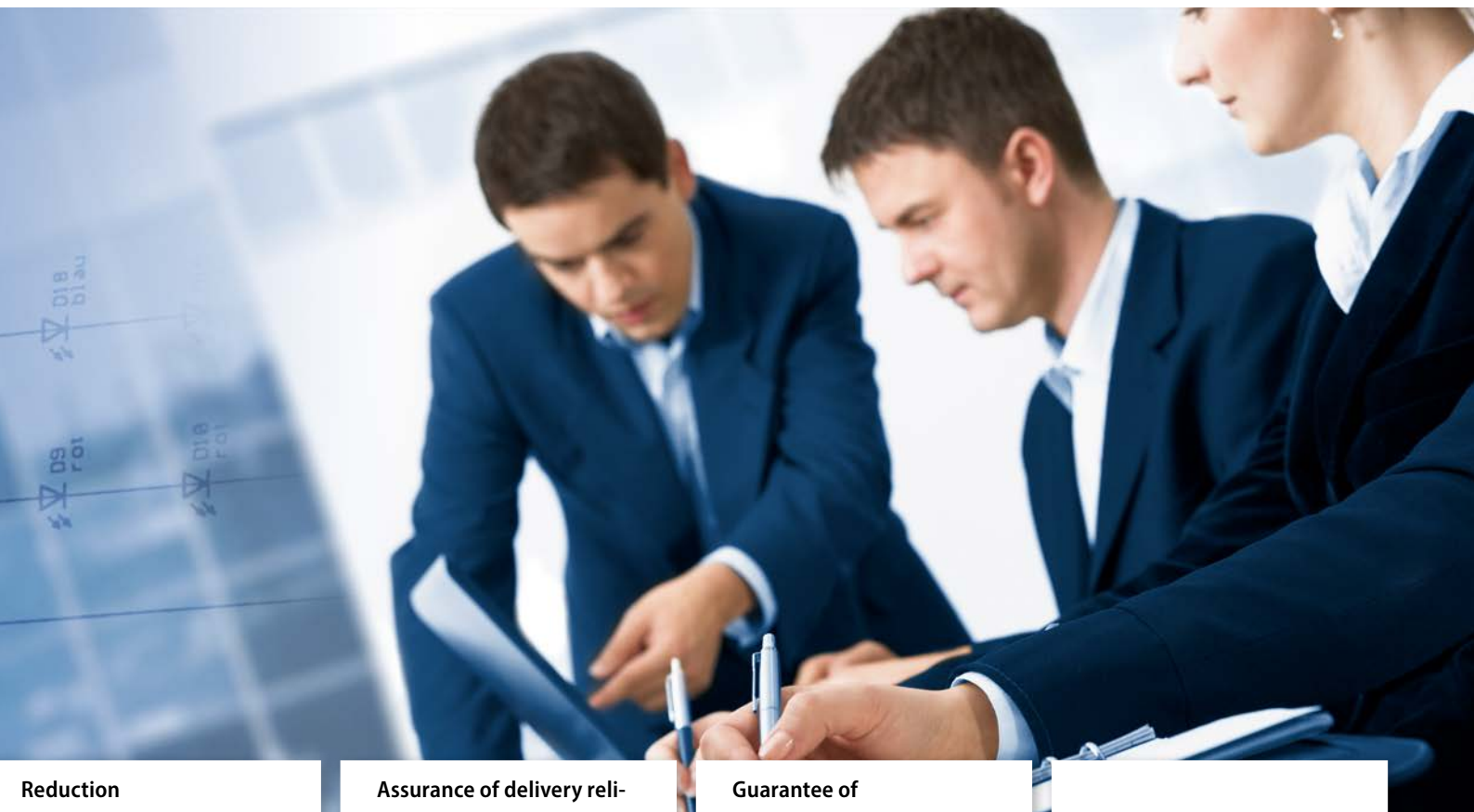
You require a logistics solution that is geared precisely to your week-by-week delivery schedules or desire customised spare parts management on which you can draw worldwide? Simply talk to us. We shall be pleased to present you with an offer that meets your wishes.





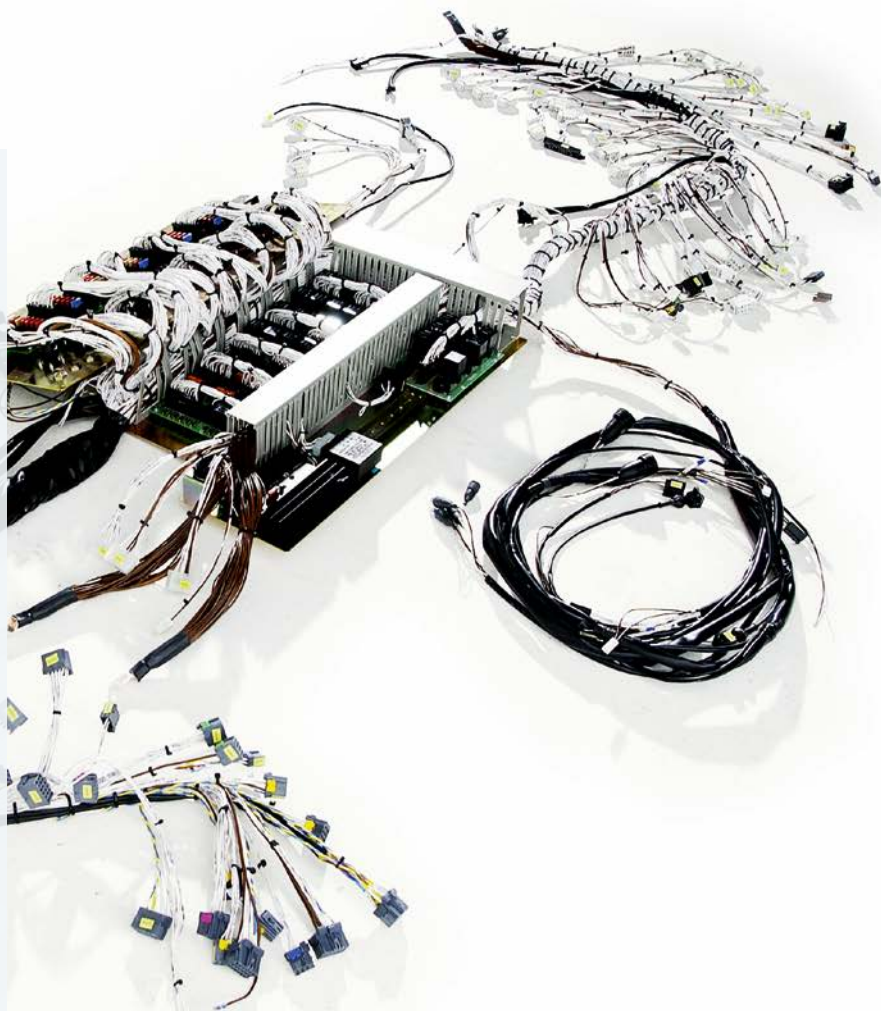
# We take your success personally.

## Our team will be pleased to advise you any time.



At LEONI, flexibility means that you will take advantage only of those links in our complete value chain that you really require. You decide whether you wish to take advantage of all the services we offer, or just individual modules.

Economic efficiency to you means that, with LEONI solutions, you can reduce your actual total costs. Optimum functionality and durability, easiness to service and maintenance as well as a high rate of machinery uptime make LEONI cables and cable systems a decisive cost advantage in terms of the lifecycle of your machinery. You can also benefit from additional services, which comprehensively assist your processes and reduce the complexity of your procedures.



# The highest quality is what our products have in common.

You can rely on our services just as much as on every one of our products.



Our solutions for special vehicle manufacturing fulfil the widest possible range of functions – be it measuring, controlling or programming, be it power supply or data cables:

all our cables boast high flexibility, tensile strength and a long lifecycle, optimized conductor cross sections and outstanding durability even under tough and extreme operating conditions.

All products represent the familiar top LEONI quality.

## Wiring systems

The wiring system forms the power supply and communication structure of all the electrical and electronic components in a vehicle and thus assumes one of the most important roles in terms of functionality in the vehicle.

The wiring systems that LEONI designs are comprehensive, innovative and above all reliable solutions, and thus also meet the challenge of increasing complexity. Thanks to many years of experience in numerous sub-segments, we know the challenges involved in assembly and in operation under tough ambient conditions. We shall be pleased to pass this experience on to you by developing your tailored system solution.

## Master electrics

We know what your vehicle's heart needs. Together with you, we will create optimisation concepts for system set-up and wiring, and will thus meet the precondition for a cost-optimised product solution. Because special solutions are nothing unusual to us, we will also normally achieve this within a short timeframe. In the process you will benefit from our close collaboration with select metal-working businesses supporting us in producing your tailor-made solution. As a quality supplier, we develop products that guarantee the highest possible degree of safety. Upon request we also carry out complete function tests according to defined testing processes. We offer you maximum flexibility in this respect: you define how extensively you want us to pre-test at our facility.





### Control systems

You can count on us! We are your dependable supplier in the field of control systems. Vehicles with our switch cabinet and control solutions are in operation around the world. As specialists, we have command of the processes required to combine high-quality components into a functioning system. Nor do demanding requirements such as ongoing further development during series production and a large variety of versions present any obstacle.

As we see ourselves as partner for development work and systems integration, our engineers are pleased to work with our customers' project teams. Systems with a high degree of commercial user benefit are the outcome.

### Cable harnesses / systems

There is, in special vehicle manufacturing, virtually no cable that we cannot assemble for you and virtually no connector that we cannot fit for you; from a basic cable through to complex, ready-to-install cable systems, from prototypes through to customer-specific series production. The variety of items and components is correspondingly large.

The focus in so doing is always on realising the best solution for you. Our state-of-the-art production equipment provides the basis for high-quality products.

Even when something is required very quickly – our centre of excellence for prototypes and rush orders will ensure that your cable solution is available as soon as possible.

### Special cables

A lot of details determine the success of your product solution. A key aspect, however, is the performance and reliability of your product's cables. LEONI cables are matched exactly and in a function-optimised way to your applications. They feature quality attributes such as high flexibility, tensile strength and long useful life, optimised conductor cross sections and flex radii as well as best EMC properties. We invite you to benefit as well from LEONI's value chain and to receive your tailor-made, all-in solution from a single source.

**Made by LEONI is always a  
promise of quality.**

## Satisfied customers are the best reference.

### From a business relationship to partnership.

Some things are priceless. For example experience. As a leading company in the cable industry, we have been dealing with the properties of cables and their materials for more than 85 years. We have been active in the field of special vehicle manufacturing for more than 20 years.

We urge you, too, to convince yourself about our portfolio, which offers you the best solution for every application. Do take advantage of a value chain that will support you perfectly at all levels from the engineering through to a dedicated logistics concept.

The result of our work is a unique list of references. This is ultimately the proof for our market expertise – from which you too can benefit.

#### References:

- Jean Chereau S.A.S
- HSM Hohenloher Spezialmaschinenbau GmbH & Co. KG
- Magirus GmbH
- IVECO Magirus AG
- Liebherr Hydraulikbagger GmbH
- Liebherr Werk Ehingen GmbH
- Geringhoff GmbH
- Frigoblock GmbH
- TEREX DEMAG GmbH & Co. KG
- Albert Ziegler GmbH

Large and small companies  
trust in LEONI.

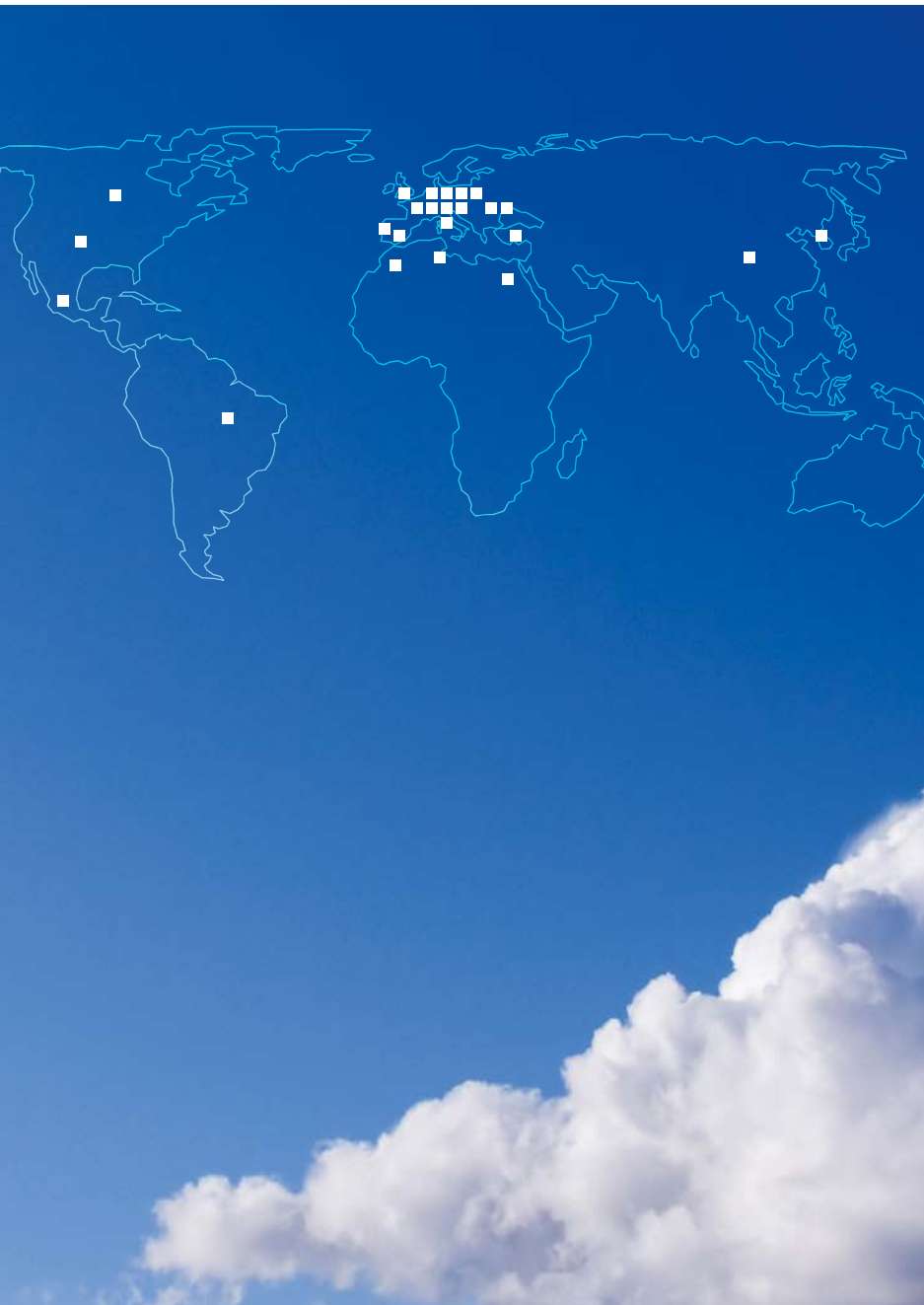






## Close to the customer, close to the vehicle: our global presence.

We are where you need us.



At LEONI, proximity to the customer means not only aspiring to be very close to the wishes and requirements of our partners, to understand and realise them.

To us proximity to the customer also means being exactly where our customers are and need us. You will find LEONI not only at our production facilities in Germany and the Czech Republic; LEONI's world-wide presence also gives our customers access to a wide, international network.

Service on which you can depend:

- Global production and service network
- Assurance of high product availability
- Process monitoring
- Process and product optimisation
- Customised logistics solutions
- On site installation
- Spare parts management

## LEONI – The Quality Connection.

What connects us.



LEONI is a global provider of products, solutions and services for energy and data management in the automotive sector and other industries.

Our portfolio includes wires, optical fibers, cables and cable systems as well as related components, connectors and services.

On these foundations, we are increasingly offering our customers intelligent energy and data management solutions for vehicles and industrial applications.

On 31 December 2019, our market-listed group of companies employed about 95,000 people in 31 countries and generated consolidated sales of EUR 4.8 billion in 2019.

LEONI's business is organised by two divisions (or segments), which are structured differently and operate in differing market environments.

The WIRING SYSTEMS DIVISION (WSD) is one of the world's leading providers of complete wiring systems and customer-specific cable harnesses for the automotive industry.

The division's range of products and services includes the development and production of sophisticated cable harnesses including integrated wiring systems, high-voltage wiring systems for hybrid and electric vehicles, power distribution components and special connectors.

As a systems provider, we cover the entire spectrum from conceptual design through to volume production as well as supplementary services.



**LEONI Kabelsysteme GmbH**

Special Vehicles

Thalfinger Straße 140

89233 Neu-Ulm

Telefon +49 (0)731-93593-0

Telefax +49 (0)731-93593-60

E-Mail [special-vehicles@leoni.com](mailto:special-vehicles@leoni.com)

[www.leoni-special-vehicles.com](http://www.leoni-special-vehicles.com)