



ADDINOL[®]

THE ART OF OIL • SINCE 1936

85 YEARS

High-performance lubricants

www.addinol.de



Georg Wildegger
General Manager

ADDINOL success story

Interview with Georg Wildegger

ADDINOL celebrated its 85th anniversary in 2021, what is your formula for success?

We established ourselves early on as a full-range supplier and at the same time created an important foothold by specialising in niche products. In use, our products generate added value for the users – in some applications it is above-average operating intervals, such as with our gas engine oils, in other cases we can significantly increase efficiency with our high-performance lubricants, which leads to significant cost savings in the plants.

We have a competent partner network in 120 countries and on all continents. Our export share has risen to over 60% over the years. Both our national and international sales partners have extensive market knowledge and are highly trained in the application of lubricants. This enables us to offer users expert and comprehensive advice and support on site.

As a medium-sized company, we can react much more flexibly to market requirements and also to special customer needs than our multinational competitors. Our own research and development department and modern laboratory with chemical-physical and technical test facilities give us the necessary flexibility and agility to react quickly and tailor products specifically to market requirements.

Last not least, our high quality standards naturally play an important role. For example, we produce exclusively at one location – our company headquarters in Leuna – in one of the most modern lubricating oil factories in Europe, according to the strictest quality standards. Many competitors, however, produce at several outsourced locations worldwide and with the associated consequences. This is the main reason why we can guarantee the same high quality of our products worldwide.

The last two years were dominated by the Covid19 pandemic, how did this affect ADDINOL?

Globally, there has been a significant decline in the demand for lubricants over the last two years. Supply chains have been disrupted, raw material availability and price explosions have been the dominating issues. Existing travel restrictions have made it even more difficult for everyone to work. However, thanks to the dedicated efforts of our entire team in Leuna and the tireless activity of our distribution partners, we managed to significantly increase our turnover and sales in spite of the difficult conditions.

However, we are following the political developments in Ukraine with growing concern. First and foremost is the personal safety of our Ukrainian employees and business partners and their families. Economic consequences will be clearly felt in a growing export business, also in Eastern Europe, but cannot be fully assessed at this point in time.

»With investments, even in times of crisis, turnover growth of 520 percent since 2000 achieved«

What news do you have from the site in Leuna?

Since our start at the chemical site in Leuna in 2000, we will have invested around 50 million Euros in various expansion stages by the end of 2022. In the last expansion stage, we enlarged our tank storage capacities by about 70% with a considerable investment. Currently, the investment in a new warehouse is nearing completion. This will double our storage capacity for finished products, enabling us to respond even faster to customer requests. On the roof of the new 5,000 m² warehouse a photovoltaics plant will be installed, which will cover one third of our demand for electricity at the site.

What are the plans for the future?

Our primary goal is, of course, to continue to develop high-performance and sustainable solutions in close cooperation with our partners and leading OEMs as well as relevant research facilities and institutes. These shall not only ensure the reliable lubrication of plants and aggregates in the application, but also offer decisive added value at the same time. In the future, our focus will continue to be on special applications in the areas of chain, gear, turbine and engine lubrication as well as high-performance greases.

In 2019, we succeeded for the first time in being included in the World Market Leader Index by the University of

St. Gallen, Switzerland in cooperation with the magazine »WirtschaftsWoche«. In subsequent years, ADDINOL was also awarded as »World Market Leader Champion« in the areas of biogas engine oils as well as specific high-performance and high-temperature chain lubricants. Of course, we would like to keep this position. Our R&D department is currently working at full speed to expand our range of products for gas engines operating with natural and special gases and to tailor them to future requirements. We also believe that our innovative Eco Gear GLS has a good chance of gaining interesting market shares in the railway lubricants segment due to longer oil change intervals after completion of the current field tests.

In order to further expand and intensify our cooperation with leading global OEMs, we have added the position of »Global OEM Liaison Manager« to our team. With Siegmund Huntke, we have gained a colleague who already has close contacts to relevant manufacturers and who will further strengthen our position in this area in close coordination with our sales partners.

Georg Wildegger

On the person

In 1994, Georg Wildegger took over the management of the ADDINOL Lube Oil GmbH, has been a shareholder since 1997 and has been leading the company for 28 years with commitment and visions to become an internationally competitive brand with continuous expansion. Georg Wildegger's understanding of business is based on his previous activities: from 1986 to 1989 at Deutsche Bank and until 1994 at the auditing company KPMG.



Automotive lubricants through the ages

More than 150 approvals from leading OEMs

The development of high-performance lubricants for automotive applications has been one of the core competences of ADDINOL since 1936. Until today, high-performance lubricants for the use in motorbikes, passenger cars and commercial vehicles are developed at the company's site in Leuna according to internationally valid standards and specifications and produced in compliance with strictest quality standards. The ongoing development of vehicle technology has an enormous impact on the lubricant technologies used and affects the formulations.

The beginnings

The »Mineralölwerk Lützkendorf« was already well positioned when it came to the lubrication of two-stroke and four-stroke vehicles. The famous Trabant stood symbolically for the entire GDR, but the two-stroke oils needed for the highly demanded car only made up a small part of the Mineralölwerk's production. After all, vehicles from Western countries were also on the roads of the GDR. Citroën, VW and the Lada, built under a Fiat licence, were particularly popular. At the end of the 1970s, 10,000 VW Golfs were imported from Wolfsburg alone. And the mineral oil plant was already producing the engine and transmission oils for the cars from the Western countries according to internationally valid specifications. After the reunification of Germany, the company's best-known engine oil brand ADDINOL – Additives in Oil – became the new company name.

The present

The current focus of development is on reduced exhaust emissions and increased fuel efficiency. The trend is clearly moving towards low-viscosity engine oils. Viscosities of SAE 0W-8 or even 0W-4 will sooner or later become standard, because in principle an engine with a thinner oil runs more easily and consumes less fuel. In formulation, such low-viscosity oils pose a special challenge, because the stability of the lubricating film and low evaporation losses must remain guaranteed.



Grrrrreat all along the line

The right lubricant for every vehicle – then and now. The range of automotive lubricants includes engine and transmission oils as well as function fluids according to internationally valid standards with more than 150 approvals from leading OEMs. ADDINOL – strong performance!

Engine oils

Products from the past

The mineral oil plant's engine oils were known under the trade names Addinol Super and Addinol Extra. The mineral oil-based products with additives to improve ageing resistance, wear protection and viscosity index corresponded to the performance level and vehicle requirements of the time. The mineral oil plant's product range included everything from axle oil to cylinder oil.



Current requirements on engine and transmission oils:

- Fuel efficiency
- Reduction of exhaust emissions
- Reliable protection of all components against friction and wear
- Highest cleanliness of all components
- Reliable cold start behaviour
- Highest ageing resistance for long operating intervals
- Avoidance of damage, e.g. LSPI for engine oils

The engine oils of the **ADDINOL Economic, Superior and Premium series** were specifically formulated with regard to the current requirements for fuel efficiency and exhaust gas reduction and ensure highest driving comfort as well as the durability of all components. Individually tailored to the requirements of the various OEMs, there is a suitable engine oil for every vehicle. For the lubrication of synchronised manual and transmission gearboxes in passenger cars and light commercial vehicles we recommend the **ADDINOL Multi Transmission Fluid series** according to API GL-4+ with approvals of a multitude of European, Asian and American vehicle manufacturers for the economic use in the service-fill sector.

Prepared for the future

With the rapid development towards alternative drive concepts in order to achieve a significant reduction of CO₂ emissions, lubricant manufacturers are facing completely new challenges. Sooner or later, vehicles with classic combustion engines will disappear from the roads. Currently, the leading OEMs are focusing on a development

towards hybrid and electric vehicles. While the tried and tested engine and transmission oils also meet the requirements for use in hybrid vehicles, pure electric vehicles place completely different demands on their lubrication. In future, especially high-performance automatic transmission fluids and lubricating greases will be in demand. The **ADDINOL ATF XN series** is already equipped for the requirements of modern automatic transmissions and offers a wide range of fluids for state-of-the-art transmissions with up to 9 gears.

In close cooperation with leading OEMs, institutes and additive suppliers, R&D is already working on solutions for the mobility of the future. In doing so, it can draw on decades of experience in the careful formulation of automotive lubricants.

Properties of fluids for electric vehicles

- Low viscosity for highest efficiency
- Optimum protection against high loads already from the start
- Highest thermal and oxidative stability
- Reliable protection against corrosion of copper and copper alloys
- Stable lubricant film thickness even at high speeds for better NVH (Noise Vibration Harshness) performance
- Compatibility with new materials
- Optimised fluid resistivity for minimal losses when used in electric and hybrid vehicles

ADDINOL Legends Classics in the range

Always a suitable solution – then and today

Lubrication of classic vehicles requires a sure instinct. Old- and youngtimers make different demands on their lubrication than today's vehicles. On the one hand the cleaning properties of modern oils can lead to problems as they loosen deposits inside the engine and cause clogging in the oil ducts and finally severe engine damage. Also the sealing compatibility plays an important role, because incompatibilities with the materials used at that time can lead to leaks and engine damage.

Therefore, the ADDINOL product range still offers the proven lubricants for older vehicles. Just in time for the 85th anniversary, relaunched and extended with the **ADDINOL Legends series**. No matter whether collector's items from the 1930s, classic vehicles built between 1950 and 1970 or more modern vehicles built from the 1970s

onwards – with three categories and six different viscosity classes the Legends range offers the right engine oil for all. ADDINOL Legends GL 80W, GL 90 and GL 140 provide for the safe lubrication of manual transmissions, Legends GL 250 is a suitable transmission oil for buses, trucks and tractors. ADDINOL Legends ATF ensures optimum friction behaviour and reliable protection against corrosion and wear in semi- and fully automatic transmissions in passenger cars and commercial vehicles built before the 1970s. Air- and water-cooled two-stroke engines with mixed and separate lubrication are reliably lubricated with Legends 2T MZ 405.



 **266%**
higher blending capacity

The installation of eight blending tanks of 100 m³ each in 2019 has significantly increased the blending capacity per batch. This reduces the workload of the batch mixers in production, especially for high-volume products such as gas engine oils. For this purpose, the premixed additive cocktail is added to the base oil in the blending tank and mixed by means of a static blender. After the blending process is completed, the product can be cooled down to the required temperature for filling into tank trucks or containers.

 **100%**
control

Whether IBC, drum, garage drum or small container from 0.5 to 20 litres – every batch is subjected to extensive quality testing. General tests, such as the determination of viscosity, density or pour point, and, depending on the product, special tests, such as water separation capacity, purity class or low-temperature viscosity, are precisely specified in the test plan. Only after passing the test, the entire batch is released and can be packaged.

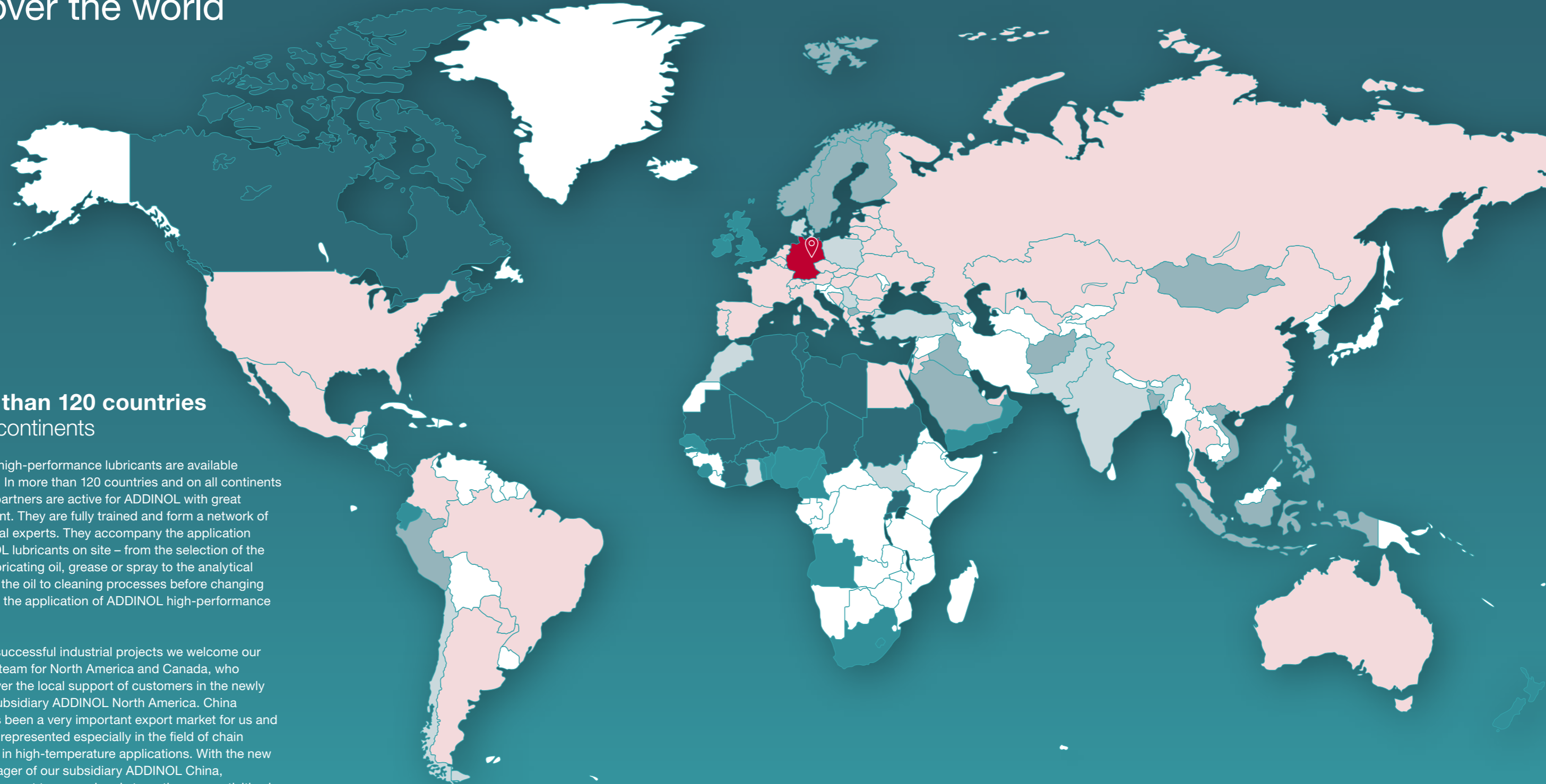


Our partners all over the world

More than 120 countries on all continents

ADDINOL high-performance lubricants are available worldwide. In more than 120 countries and on all continents our sales partners are active for ADDINOL with great commitment. They are fully trained and form a network of international experts. They accompany the application of ADDINOL lubricants on site – from the selection of the optimal lubricating oil, grease or spray to the analytical support of the oil to cleaning processes before changing and during the application of ADDINOL high-performance lubricants.

After first successful industrial projects we welcome our new sales team for North America and Canada, who will take over the local support of customers in the newly founded subsidiary ADDINOL North America. China has always been a very important export market for us and is strongly represented especially in the field of chain lubrication in high-temperature applications. With the new sales manager of our subsidiary ADDINOL China, Alan Lu, we want to expand and strengthen our activities in further industrial sectors. Last but not least, the foundation of ADDINOL Middle East in Dubai as a joint venture with our long-standing partner Alexy George will be completed shortly.



until 2004

2004 – 2008

2008 – 2012

2012 – 2016

2016 – today

Industrial lubricants Specialists beyond the norm

High performance with decisive added value

Even though engine oils dominated the beginning of lubricant production at »Mineralölwerk Lützkendorf«, the product range for industrial applications was quickly expanded. Thus, the range already included products such as compressor, turbine and transformer oils at the beginning of the 1950s. The research department at the factory site was responsible for application-tailored specialisation. The department employed up to 350 people, had a high international reputation and was already at that time regarded as an essential precondition for the securing and further developing of lubricating oil production. To this day, the focus is on the application-specific development of industrial lubricants in the in-house laboratory.



Industrial gear oils

High and varying loads in the toothings as well as a strong tendency to micro-pitting are the ideal application conditions for the industrial gear oils of the **ADDINOL Eco Gear series**. Thanks to the selected base oil combinations and the unique Surftec® additive technology, Eco Gear M and Eco Gear S reach highest load levels in the FZG scuffing load test (FZG test A/8.3/90 \geq 14). Even under more severe conditions which clearly exceed the requirements of DIN 51517-3, such as higher rotation speed and temperature, the ADDINOL industrial gear oils demonstrate an extraordinary load bearing capacity (FZG test A/16.6/120 \geq 12). Thus, the load-bearing tooth flanks are optimally protected against wear, material abrasion, pitting and fatigue even at increased loads.

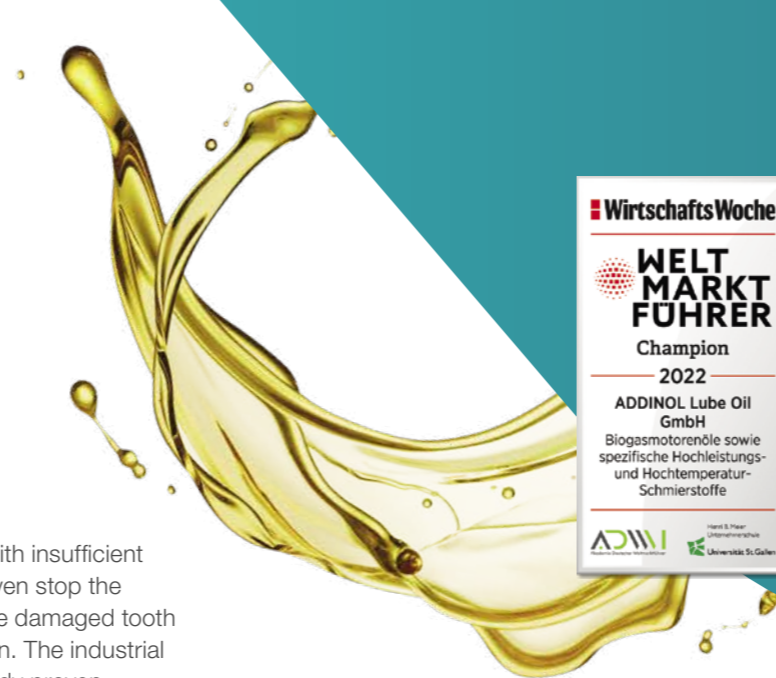
**Gear oil change at value of about
700,000 Euros prevented**

Where conventional gear oils were used with insufficient wear protection, Eco Gear M and S can even stop the progressive course of damage, smooth the damaged tooth flanks and thus ensure continued operation. The industrial gear oils of the Eco Gear series have already proven themselves many times over in highly loaded gearboxes in the cement, paper, steel, plastics or sugar industries, as well as in ships or wind turbines. The latest member of the family, **ADDINOL Eco Gear GLS**, is also characterised by an extraordinarily high load carrying capacity, which is typical for automotive applications according to API GL-5. Together with long operating intervals, which are common to industrial applications, performance parameters of two worlds have been combined to achieve best results especially in high-performance applications such as final drives of locomotives and railcars, low-floor drives as well as slewing and angular gearboxes for the transport of piece goods.



Gas engine oils

ADDINOL gas engine oils are all specialists on a high level. Due to the close cooperation with leading manufacturers, they are optimally adapted to the technical innovations of the engines. The specific operating conditions are taken into account in the development work as well. The **ADDINOL Eco Gas XD series**, for example, is ideally suited for the high combustion temperatures in operation with natural gas due to a low tendency to form deposits and high thermal-oxidative stability. For the operator this tailor-made development pays off in lower operating costs. Higher engine cleanliness and the longevity of the installed components as well as a longer oil service life and reduced oil consumption represent significant added value for the user. The gas engine oils of the Eco Gas XD series are successfully used both in smaller CHPs for energy and heat generation for own demand, such as in industrial plants and hospitals, or in large CHPs for the regional supply of households.



Outstanding all along the line

In the areas of biogas engine oils as well as specific high-performance and high-temperature lubricants, ADDINOL was able to take the top position for the third time in a row. Among the family-run companies in the DACH region (Germany, Austria, Switzerland), ADDINOL was again awarded »World Market Leader Champion« in 2022 by the University of St. Gallen, Switzerland, and the magazine »WirtschaftsWoche«.

10,000 kg of greenhouse gas emissions saved due to longer oil usage time

In the special gas sector, the challenge lies in controlling varying gas qualities. These are mostly characterised by a load with strong acid formers such as chlorine or sulphur compounds. **ADDINOL Gas engine oil MG-40 Extra Plus and Eco Gas 4000 XD** with their high alkaline reserve are specifically tailored to these difficult conditions. Thus, in China, at one of the largest operators of landfill gas plants, acidic components from the combustion process are reliably neutralised despite high silicon values of up to 250 ppm, corrosive wear is prevented and the oil service life is extended with maximum safety for the engine.



Hydraulic oils

Hydraulic oils are as diverse as their applications. But no matter whether agricultural equipment or industrial plants such as presses or injection moulding machines, for maximum efficiency and trouble-free operation the hydraulic oil must be geared to the corresponding application requirements. Therefore, the performance of ADDINOL hydraulic fluids clearly exceeds the conventional requirements of DIN 51524.

**7.7 % percent energy saving in
injection moulding machines**

Some hydraulic oils, such as **ADDINOL Ecosynth HVLDPD 10 S and Ecosynth HVLDPD 46 S** are based on synthetic polyalphaolefins and are ideal for applications where the impact of water cannot be excluded. They do not react hydrolytically and achieve the highest technical stability. Especially in the low-temperature range they have a clear advantage over ester-based hydraulic fluids. **ADDINOL HV Eco Fluid** achieves an enormous potential to reduce the energy consumption of stationary hydraulic systems due to its unique additive technology. Superior friction behaviour, high shear stability and very good viscosity-temperature behaviour qualify ADDINOL HV Eco Fluid as the perfect energy saver.

1999 – today

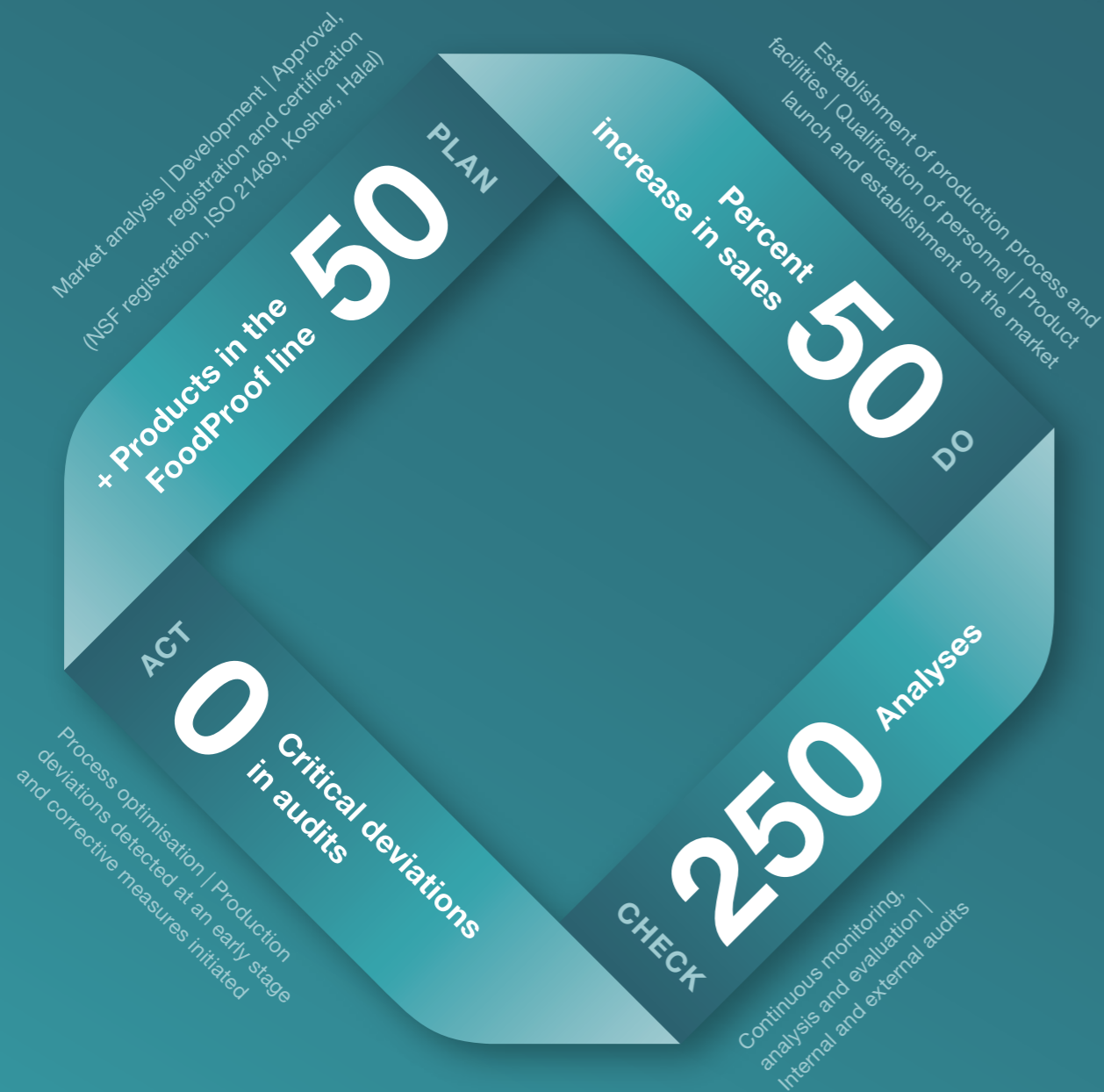
Development of gas engine oils

The targeted development of gas engine oils was started in 1999. In close cooperation with MAN, **ADDINOL Gas Engine oil MG-40 Extra Plus** is developed for biogas applications. The product range is quickly extended by low-ash engine oils. In order to build on the outstanding market success in the field of biogas, the **ADDINOL Eco Gas XD family** is introduced in 2014, specially developed for operation with natural gas and cleaned special gases.



Quality management Keeping track of the process

Quality management process for the ADDINOL FoodProof series based on the PDCA cycle according to Deming



The quality management system of ADDINOL Lube Oil GmbH, certified according to DIN 9001, covers all company areas from development to procurement and production to sales and administration. By means of

comprehensive measures and tools the consistent adherence to strictest quality standards is ensured. In close cooperation between the individual departments, processes are continuously reviewed and optimised.

ADDINOL goes digital

**Website and online shop
with 25,000 visits per week**

In recent years, ADDINOL has also repositioned itself digitally and launched a series of website optimisations. New tools for customers and partners have also been added. In the meantime, ADDINOL has one of the most informative websites among German lubricant suppliers. More than 200 new content pages are the main reason for the success. These comprehensively answer the most important search queries. All texts were written in close cooperation with the ADDINOL experts from Research & Development and Application Technology in order to guarantee a high information content. The consumers have many possibilities to inform themselves online about the wide range of automotive and industrial lubricants:

- Presentation of all product categories with their own landing pages
- Expert tips on lubricants and chemical processes
- Product search in the Oil-Finder and Product-Finder
- News about new products and important dates

Online shop

For the German market, we succeeded in connecting an exclusive ADDINOL online shop. This mainly serves private customers in the automotive sector and delivers the right lubricant for the next oil change directly to their

homes. The shop as well as the main website addinol.de have developed excellently through good synergy. Initially, both websites had 2,000 visits per week, but now we can report more than 25,000 website visits per week. This corresponds to an increase of 1,150%.

International growth

Internationally, many partners have used the relaunch of our website to optimise their own content. Some partners have already started translating the texts into their native languages and editing them for their own markets. The first ADDINOL shops have gone live in the Baltic States and Denmark, for example. We are in close contact with our partners and are happy to provide assistance in establishing a local brand presence. For this purpose, we also offer our tools in as many languages as possible to ensure that they can be used worldwide.

Use our tools

In recent months, we have not only improved the quality of individual webpages. We also developed useful tools that support our customers and partners online.



Product-Finder

The online database for our complete product range has been relaunched and connected to addinol.de. All product details of our lubricants can be viewed – the download of safety data sheets and product data sheets is possible in several languages.



Social media

ADDINOL is also active in various social media channels. On Facebook, LinkedIn and Xing you will regularly find news about the company's development, trade fair dates, new products or successful practical applications of our lubricants.



Oil-Finder

With our Oil-Finder, workshops and customers can search for the right oil for their vehicle. Quickly, easily and conveniently. From the list of results, it is only a few clicks into the online shop to order the suitable oils.



Intranet

We offer our partners many useful tools that support customer advisory services in everyday work. Beginning with marketing material such as product brochures and flyers up to detailed practical applications, the most important documents are available online at any time.

85 Years lubricants made in Germany

Investing in quality and progress

»Despite political and economic crises, we have continued our investments, both in know-how and technology – for the innovative strength and quality of our products.«

Georg Wildegger General Manager of ADDINOL Lube Oil GmbH

1936 – 1989

350 Employees in research

The increasing discrepancy between demand and demand development in the GDR required an expansion of the lubricating oil production. In 1955/56, the decision was made in favour of Lützkendorf. Due to numerous technical difficulties, the production facilities at Lützkendorf could only be put into operation between 1962 and 1965. These included a new central research building, a semi-technical test facility and a modern engine test bench.



200 Individual products

Despite all the restrictions, the mineral oil plant established itself as the main supplier in the GDR. It supplied all sectors with its products and thus covered about two-thirds of the demand in the GDR. The batch blending plant (container blending in batch operation), which had already been decided on in the 1970s, went into operation in 1989 and increasingly allowed the production of lubricating oils that were specifically designed for their use. Production reached 300,000 tons once in 1989.



26th October 1936 is the date of the foundation of the »Mineralölwerk Lützkendorf« in the middle of the Geiseltal brown coal region. The primary purpose of the mineral oil plant was to produce fuel. The first sections of the plant for petrol and diesel oil production were put into operation in 1939. At the same time, the construction of the lubricating oil plant was started. At the beginning, the product range mainly included engine oils for »stationary or mobile engines«.

80% of the mineral oil plant destroyed

With the takeover of the Soviet military administration, the reconstruction of the lubricating oil production began. The delivery of the first lubricants already started in the middle of 1946. The fuel production facilities were shut down and dismantled. In 1949, the product range of the GDR's now nationally owned company included special industrial oils for turbines, compressors and transformers in addition to the two-stroke engine oils that were needed in ever greater quantities.



1990 – today

The reunification of the two German states in 1990 presented the »Mineralölwerk Lützkendorf« with a difficult situation: the transition from a planned to a market economy. The conversion from a nationally owned enterprise to a corporation was the first step. ADDINOL engine oils, which had been well-known until then, became the company name. Despite real market opportunities, however, numerous attempts at privatisation failed.

100% ADDINOL without own production

Efficient lube oil production was no longer possible with the existing conditions at the Lützkendorf site. Thus, the shareholders of ADDINOL Lube Oil GmbH, which was founded in order to ensure the survival of the company, Dr. H. Koehn, G. Wildegger and P. Streletz, decided to relocate the production to a lubricant plant in Duisburg in 1999. This way, ADDINOL lubricants could continue to be produced according to their own, proven formulations in full autonomy for raw materials, additives and packaging as well as quality assurance without the necessary modern production facilities.

60 Employees for a new start

In 2000, the company moves into its new headquarters at the traditional chemical site in Leuna, only a few kilometres away from the former mineral oil plant in Lützkendorf. In addition to the administration building and the first warehouse, a state-of-the-art laboratory is set up.



Equipped with the latest instruments, research into new formulations can continue. At the same time, the quality of the finished products is regularly tested.

Largest expansion package

The high-performance lubricants from Leuna are becoming more and more established in the market. The company continues to expand. In summer 2007 the production hall, the filling plants for large and small containers, the indoor container warehouse for base oils, additives and finished products as well as a second warehouse are officially opened. Thus, the entire value-added chain of ADDINOL high-performance lubricants is again located at the company site.



50 Million Euros since 2000

ADDINOL succeeds in consolidating its market position as a quality supplier worldwide, especially for industrial applications. In order to be able to keep up with high-volume lubricants such as gas engine oils, the storage capacity was increased by 70 percent in 2011 and 2019 through additional tanks. For the increasing storage and shipping volumes, a fourth warehouse is currently under construction. It will offer space for 2,000 tons of ADDINOL lubricants thanks to efficient warehouse management.

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ADDINOL

Facts & Figures



1

Site for high quality

ADDINOL lubricants are exclusively developed, produced and filled at the company site in Leuna, in one of the most modern lubricant factories in Europe.



85+

Years of experience and competence

in the development and production of lubricants in close cooperation with leading international OEMs and research institutes.



650+

High-performance lubricants

A solution for almost every lubrication challenge. Tailored to the latest technologies and market requirements, they offer decisive added value: longer oil service lives, higher energy efficiency, lower operating costs.



120+

Countries worldwide

ADDINOL has a competent partner network in more than 120 countries and on all continents. Our trained sales partners accompany the use of our lubricants on site.