EDL
PÖRNER GRUPPE

30 YEARS

FUTURE

THINK
PLAN
SHAPE

30
YEARS

With more than 50 successfully completed modernization projects we have been one of the leading revamp experts and specialists for ambitious, process-related tasks on the domestic market and abroad for three decades now and will continue to be a reliable partner for the process industry in the years to come.

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30 YEARS OF EDL …

… stand for 30 years of continuous growth. These 30 years are an occasion to take stock. What have we achieved? What makes this company stand out?

The Managing Directors of EDL Leipzig: Dr. Michael Haid (left) and Wolfgang Kursch

From its foundation in 1991 as EDELEANU GmbH initially solely rendering detailed planning services, the path to becoming a renowned plant design and engineering company included the building of project management capacities and process competence. Today we have a staff of about 200 covering all disciplines.

We proudly look upon these 30 years. The corporate history is a sign of continuity and constant growth. We are one of Germany's leading, technology-oriented, medium-sized engineering firms. For three decades we have been designing smart concepts and process solutions which are adapted to the customers' needs and put into practice in a professional manner. Our reputation in the refining, petrochemical and chemical sectors of industry is that of a competent, reliable and innovative partner both on the domestic market and abroad. Our employees have left behind impressive examples of their innovative work and create the same time and again.

Success does not come by chance, however. The basis of the positive development has always been our staff. The great expertise, experience, and passion for plant engineering, personal commitment, creativity and diligence made the company what it is today. It would not have been possible without the employees. For this they deserve our special gratitude and recognition.

Our thanks also go out to our customers and business partners who always have had confidence in our engineers' competence and willingness to perform.

Last but not least we would like to thank our shareholder, Pörner Ingenieurgesellschaft mbH in Vienna we have been firmly associated with since 2003. Thanks for the great cooperation over so many years. What we have achieved is our joint success.

Holding its ground for thirty years in a difficult competitive environment and growing against all odds is remarkable for a company from a sector subject to constant change and in view of increasingly shorter project cycles. But it is not surprising at all. The proverbial Saxon inventive talent is never content with adapting achievements of the past to current requirements but has always produced new developments. Traditionally like no other German state Saxony is well known for innovations. And EDL has been holding up this Saxon innovative talent.

"We do not want to and cannot rest on our laurels and have therefore set ourselves ambitious targets."

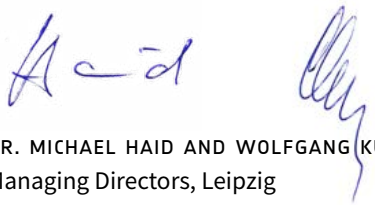
Dr. Michael Haid, CEO of EDL

We do not want to and cannot rest on our laurels, and have therefore set ourselves ambitious targets.

With our extensive experience, great enthusiasm for innovation and our own creativity we develop and market future-oriented technologies to build a safe future for us and coming generations and create sustainable values for our customers.

These are prerequisites for a continual success story in the years to come.

We are looking forward to all future, new and exciting projects and challenges.



DR. MICHAEL HAID AND WOLFGANG KURSCH
Managing Directors, Leipzig

SHAREHOLDERS' ADDRESS

Hard to believe: We are celebrating the 30th anniversary of EDL Anlagenbau Gesellschaft. And for almost 20 years EDL has been a model company in Saxony and a major part of the Pörner Group.

In these three decades Germany's industrial landscape has changed tremendously: Globalization, worldwide climate changes and most recently, the impact by the COVID crisis. In addition to that alternative technologies for green energy supply, novel, sustainably produced and used valuable materials and environmental protection on the highest level gain more and more importance. EDL has been extremely successful in staying abreast of these developments.

Originally a child of the changeover period in the new federal states EDL has been active today throughout Germany for industrial sector customers: From Karlsruhe to Hamburg, from Cologne to Schwedt, from Leipzig to Burghausen EDL has implemented projects with the typical plus of reliability, innovation and efficiency.

EDL characteristics

EDL is excellently positioned for the anniversary and respected as one of the most efficient engineering firms for process plants in Germany with first-class references not only of traditional plant construction but also novel alternative processes. The company enjoys a reputation as a specialist in the revamp of existing plants including extensive process and environmental renewal.

When it comes to the export of engineering services and systems – mostly based on proprietary technologies – EDL has also made a name of itself. At an early stage the focus was placed on the development of own niche technologies (e.g. residue processing by SDA) which could be established successfully on international level. Own test and pilot facilities are used to offer customized solutions for lubricants and waxes as special products for refineries.

In the new millennium the role of EDL as an experienced plant design and engineering company has increasingly focused on the various new “green” ideas, concepts

Andreas Pörner,
Managing Shareholder of the Pörner Group

and processes from lab scale or pilot scale to concrete fully functional large-scale facilities with commercial capacities. To this end EDL has successfully partnered with research institutes and operating companies for the practical application of alternative technologies (e.g. PtX). In the thirty years of existence the team of Michael Haid and Wolfgang Kursch has seen a successful change of generation in recent times resulting in a good mixture of experienced specialists and young talents ready to perform. In 2020 another site was opened up in Cologne being part of the important Rhine-Ruhr area.

The list of customers reads like a “Who is Who” of the international process industry and the references – as shown in this anniversary publication – are the visible evidence of the performance and expertise of Leipzig's engineers.

Peter Schlossnikel,
Managing Shareholder of the Pörner Group

Three essential factors making up our ongoing success

1. By reliable engineering services close to the customer “from a single source and mould” EDL has earned the trust of leading industrial customers in Germany, Austria and elsewhere.

2. Our teams of innovative, flexible and experienced engineers provided with state-of-the-art digital tools stand for professional project execution and expertise – for extraordinary, customized and highly productive systems.

3. Whether it concerns novel, alternative processes or the upgrading of existing plants and units – EDL's competence in process engineering and automation is pivotal for longstanding success when it comes to innovative plant systems.

We are very happy to have EDL fully integrated as a member of the Pörner Group (over 500 employees) and play a major role when it comes to joint international projects.

Proudly we can look back to the years we shared and successfully pooled our capabilities and were able to continuously extend and develop the Group.

We wish all employees of EDL and the customers, partners and vendors for the next 30 years many, challenging projects, delight in what they are doing and much success in Germany and elsewhere.

ANDREAS PÖRNER AND PETER SCHLOSSNIKEL
Managing Shareholder of the Pörner Group

A JOURNEY THROUGH TIME

Early beginnings: Even if we look at 1991 as the year of EDL's foundation, it all began much earlier, namely with Dr. Lăzar Edeleanu. He was a chemist and founded a company in Berlin in 1910 to market the process of selective extraction of aromatic compounds by liquid sulfur dioxide developed by him. Since the company became more and more known, it was renamed in 1930.

Steadfast through the ages: After several changes of ownership the Edeleanu GmbH Leipzig (EDL) was founded in 1991 as a subsidiary of Edeleanu GmbH Alzenau right in the middle of the changeover period. The first team comprised engineers of Chemieanlagenbaukombinat Leipzig-Grimma (CLG). It used to be the local engineering firm for the chemical industry based in Leipzig with a staff of over 2,500.

1910
Dr. Lăzar Edeleanu founded the Allgemeine Gesellschaft für Chemische Industrie

1930
Company renamed as Edeleanu GmbH

1990
Dissolution of CLG

1991
Date of founding of Edeleanu GmbH Leipzig (EDL)

Successful start into market economy: It was not an easy job since virtually overnight all framework conditions had changed. Market economy, new laws and norms, different ways of working, new tools and many more things had to be implemented and applied to projects with no start-up curve. All challenges were coped with by a highly motivated team who was not afraid of changes. Over the years we succeeded in securing increasingly larger project parts and earn the reputation as a competent and reliable partner for complex plant engineering tasks.

PÖRNER GRUPPE

New era with Pörner: Having the Pörner Group by the side we restructured the company and made it fit for the market to act as independent medium-sized company. It did not take long before we multiplied the number of customers. Over the years we expanded business substantially demonstrated by a large number of reference projects for renowned customers in Germany and elsewhere. Needless to say that despite the success there were also difficult times. But the difficulties were overcome, and we can rightly say now to be well positioned on the competitive market of plant engineering.

Ahead to the future: With the current process competence and by further development of proprietary technologies, extended engineering capacity of all disciplines and the entire knowledge and experience of thirty years we are excellently prepared for the future. We know what change means and have tackled it more than once. One thing is for sure. We will not stand still.

2001
Spin-off of EDELEANU-EDL GmbH Leipzig

2002
Company renamed as EDL Anlagenbau Gesellschaft mbH

2003
Acquisition by Pörner Group Vienna

2020
Opening of Rhine-Ruhr site in Cologne and office in Berlin

2021
30th anniversary of EDL

30 YEARS

Restructuring as a new opportunity: By the end of the 1990ies the RWE-Group we meanwhile belonged to, made structural changes. As a consequence, the parent company based in Alzenau was sold with a spin-off of EDELEANU-EDL GmbH in 2001. Shortly afterwards, in 2002, the company was renamed. The activities at that time focused primarily on building a process engineering and project management department. For all of us it was an exciting time full of uncertainties because we were not sure whether the restart would be successful.

AN OLD HAND REMEMBERS

Mathias Messerschmidt has been working for EDL as an engineer for 30 years. There has hardly been any area in the last three decades that has seen such profound changes than the computer technology.

When I started my career as a young engineer in 1987 with the former Chemieanlagenbaukombinat Leipzig-Grimma, personal computers were rare in plant engineering. Electronic computing was limited to mainframe computers and smaller central computers with alphanumerical terminal work stations. In 1990 IT changed rapidly: Both PC from GDR production and the then West German equipment obtained by devious routes arrived at the offices.

A black window with command line

When the EDELEANU GmbH Leipzig was founded in 1991, there were just twelve PC work stations for 95 employees. But relatively quickly the situation changed to the better. Initial CAD work stations were created, software upgraded and standardized.

One milestone especially kept in my mind is the first digital plotter. With a gurgling noise liquid toner was spread on the special paper, gone the times of failing ink pens, faster and better than the conventional pen plotters. Another innovation of this time was the connection of the PCs with the computer network (Novell NetWare). What is normal today created at that time the possibility of a server-based data filing and central printing technology.

All this happened on the basis of the DOS system – a black window to be controlled via a command line. But here, too, development made rapid progress: By Windows 3.1 there was for the first time something on the screen similar to what we know today as Windows Desktop. The final breakthrough came with Windows NT (for “new technology”) for business applications with real multi-user and multi-tasking capabilities.

3D planning and email address for the first time

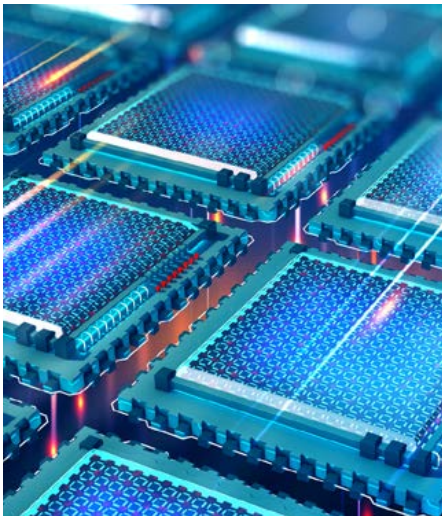
In the mid 1990ies shortly after the company moved to Leipzig-Lindenthal another innovation came up in CAD. Two projects at the PCK (isomerization and MTBE) were the starting point for computer-aided 3D design at EDL. Intergraph PDS (Plant Design System) was to stay with us for another 20 years.

At that time the internet became accessible to the general public. Nevertheless, it was not before 2000 that the first email address of the company became operational, located at the secretary’s office of the engineering division, connected with analogue modem of the then widely used provider AOL.

I well remember colleagues of my age today who doubted the new form of communication. Also the internet was only gradually released for individual PCs.

A technology the potential of which I did not recognize at that time was virtualization. Up until then a server was for me a huge PC with all that goes with it: CPU, RAM, hard disks and motherboard installed in a sheet metal box.

Now, such ‘sheet metal’ was to accommodate multiple virtual servers and the ‘hard disks’ of which were



From MS DOS to virtual reality: Mathias Messerschmidt has witnessed 30 years of computer technology.

outsourced to an external device (SAN) shared by all servers. IT is no longer imaginable without the virtualization technology and probably one of the most revolutionary innovations of our time. Except servers, entire PCs, applications, desktops and networks are virtualized today.

"Only the managing director had a mobile VPN solution"

In the 2000s there was an unrestrained development in all areas of electronic data processing. In particular there were increasing requirements for the hardware, databases became more and more important and networks needed more and more bandwidth. Was a file server initially sufficient, 10 servers for various applications were in operation in 2002 already. Even the software became more versatile and specialized. It was the time when we started extending the process engineering sector, and building it as a competence center – the right decision to differentiate from our competitors still today.

From 2008 EDL increased its activities in Russia and the CIS. We had to adapt to unknown character sets and new terms. More and more external engineers were employed and had to be provided with preinstalled PCs at short notice.

In the years that followed it was primarily the extension of networks. In the early 2000s not more than one construction site at PCK was connected to the company network (via ISDN 64 kbit/s) and no other than the managing director had a mobile VPN solution (via UMTS at that time).

Today company data and special applications have to be accessible almost everywhere, may it be a branch office, a construction site or, as recently, at the home office.

Worldwide in real time with image and sound

The scope and the forms of electronic communication are also subject to constant change. The simple email became a "workhorse" carrying up to 30MB attachments currently, and data quantities formerly filling entire hard disks are exchanged via web portals.

SMS should still be a household name to many but who knows ICQ? It was the beginning of a new form of communication leading to the current variety of messenger services via Skype and Co and in the business environment finally to the ubiquitous web conferences with image and sound and desktop release.

I could talk endlessly on changes and experiences. One thing is for sure. Every time has its own challenges. Currently it is the introduction of a new time recording system, resource planning and a new document management system. Let's face the new task without reservation. It is the only way to manage a project successfully.

Benjamin Lehne at his workplace

THE “NEXT GEN” ON THE RISE

Benjamin Lehne has been working for EDL in Leipzig as a mechanical engineer since 2019. As a representative of the “next gen” – the next generation – we interviewed him asking for the future and his visions.

Mr. Lehne, not long ago you took over the responsible function of a deputy department manager. What are your goals?

It is my goal to make the mechanical department fit for the coming decade. It is a complex task because there are on the one hand existing customers with established processes to be served and, on the other, the necessity to respond to the looming challenges of the market. As a key word let me mention the digitization, industry 4.0, the restructuring of the economy, staff recruitment and the implementation of a high customer benefit with profitability for EDL at the same time.

What will be typical for EDL in future? Where will the primary challenges in your discipline lie?

EDL has gained a reputation as a revamp specialist for existing large-scale plants. It will remain a strong pillar of this company. Fueled by globalization effects and high energy costs in Europe there have been developments for quite some years resulting in a reorientation of the entire chemical industry. In my opinion these effects will impact the activities of this company down through the mechanical engineering department. In future modularized stand-alone facilities on the one hand and medium-sized, partially modularized special-purpose plants should constitute a major part of chemical equipment.

To this end it needs to deal both with the technologies themselves and the efficient provision of well thought-out, interdisciplinary, modularized systems. In my view the biggest challenge of the near future will be to provide and coordinate these systems including the related corporate processes accompanying the day-to-day business.

A major issue of the future also in plant engineering is digitization. What do you think will planning and design look like in ten or fifteen years' time?

Consistent digital documentation, database systems to fill in datasheets and standardized requisitions, automatic data transfers from existing documents for new procurement activities, remote acceptance tests of equipment, online conferences and thus much less business trips and, if necessary, an automated standards adjustment in the project documentation could be implemented in future. The digitization of the working world will probably be a major factor when it comes to doing the planning work with less personnel.

Finally, I expect the IT to support the engineers in finding creative solutions. But the equipment used must not be an end in itself. The challenge remains here, too, to work as accurately as necessary to avoid dissipating too much energy – especially in the starting phase of a project – away from the project work proper towards the design of the framework. Parallel to that I expect the planning and design work following the development of the chemical industry as a whole. Modularized systems for small and medium-sized companies require a different type of management than the construction of a EUR 100 m plant for a corporate group. I would like to mention, however, that we as the younger generation have to make sure that the older generation's expertise and experience should be preserved and made available to future projects.

The generation Y you are being part of has got high demands when it comes to working conditions and further training. What do you think about it?

The picture used medially is often similar to the term of Juvenola created by David Finkelhor. In my generation, too, there is a wide scope of attitudes and wishes. With many other motivated of my generation I would like to show that we cherish traditions and on this foundation are able to build the future for the generations to come. We should take a firm stand against demands for which no adequate performance has been delivered and teach values that fit our company that has become so successful based on the willingness to perform. Meaningful changes, such as gain in flexibility should be tackled, however. I live on the principle: Those accomplishing a lot should have clearly more success, liberties and possibilities than others.

REFERENCES SPEAKING FOR THEMSELVES

We have been working for refineries since the early 1990ies and built an excellent reputation as a revamp expert and specialist for challenging tasks.

The majority of our revamp projects involves extremely complex conversions of plants and plant units within shortest shutdown periods. It requires not only a lot of experience at the site, but also a particularly precise preparation. We manage it by comprehensive know-how and in-depth knowledge. Both national and international regulations and sets of rules and factory standards of our customers are well known to us.

We analyze and check the existing facilities, work out with empathy smart, practice-oriented solutions and supply transparent decision-making tools. We provide all-round support to our customers, give comprehensive advice in all technical issues of the project – solution-oriented and with a sense of proportion.

The list of references is a long one. The projects listed below are representative for over 50 successful refinery revamps and new plants.

Used oil re-refining plant

Conversion of a facility built by EDL in 2007 to re-refine used oil for the production of Group III base oils.

Customer: Puralube GmbH, Elsteraue

Technology: Honeywell UOP-HyLube™ technology

EDL's scope of work: Extended basic engineering, detail engineering, procurement, construction supervision

Commissioning: 2016

Propane deasphalting plant

Conversion of a propane deasphalting plant (PDA plant) built by EDL in 2011 to produce deasphalted oil from vacuum residues by extraction using liquid propane.

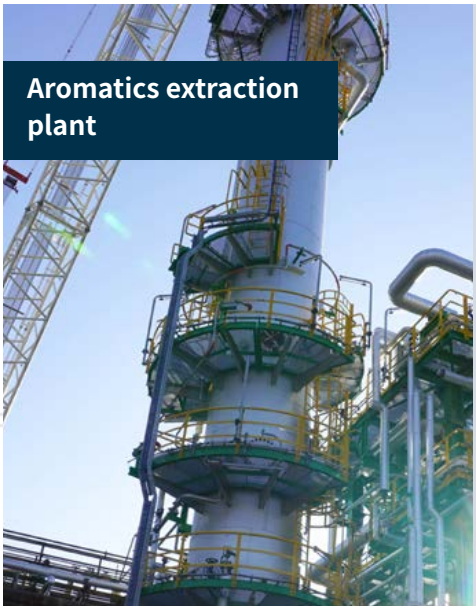
Customer: H&R Ölwerke Schindler GmbH, Hamburg

EDL's scope of work: Basic, detail engineering and permitting, procurement, construction supervision, commissioning support

Special features: Conversion with the aim to use a solvent mixture in place of pure propane.

Commissioning: 2018

Aromatics extraction plant



Conversion of an existing Arosolvan plant: replacement of N-methyl-2-pyrrolidone (NMP) by the less toxic solvent tetraethylene glycol (TTEG)

Customer: PCK Raffinerie GmbH, Schwedt

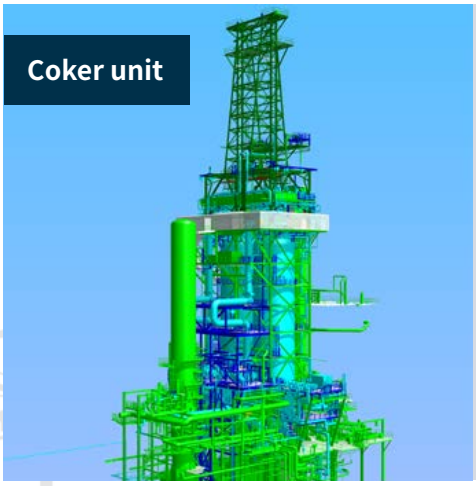
Technology: TTC

EDL's scope of work: Extended basic engineering, detail engineering, procurement, construction supervision

Special features: Minimization of energy and utility consumption

Commissioning: 2020

Coker unit



Replacement of two coke drums in coker unit

Customer: Mineraloel Raffinerie Oberrhein GmbH, Karlsruhe

EDL's scope of work: Detail engineering, field engineering

Special features: Optimization of coking unit; weight per coke drum: 400 mt, height of coke drum: 35 m

Commissioning: 2018

REFERENCES IN THE PETROCHEMICAL AND CHEMICAL SECTOR

Excellent performance, competence and adherence to schedules convince our customers. The great number and variety of projects implemented for the chemical and petrochemical industry customers are an obvious result of confidence shown by our customers for many years.

ISO C_4 plant

Photo credits: OMV Deutschland GmbH

Plant for direct production of isobutene with a purity of 99.9%

Customer: OMV Deutschland GmbH, Burghausen

Technology: Joint development by OMV and BASF

EDL's scope of work: Detail engineering, procurement, construction supervision

Special features: New plant integrated into an existing one. Heat demand of new process covered by 80% of waste heat from the existing facilities, thus saving up to 20,000 mt CO_2 emissions.

Commissioning: 2020

Methyl cellulose plant

Plant extension to increase the production capacity of methyl cellulose at Bitterfeld and increase the blending and loading capacities in Bomlitz

Customer: DOW Deutschland Anlagengesellschaft mbH, Bomlitz, Bitterfeld

EDL's scope of work: Detail engineering, procurement, construction supervision

Commissioning: 2020

Epoxy resin plant

4th plant for the production of epoxy resin from bisphenol and epichlorohydrin

Customer: Leuna-Harze GmbH, Leuna

EDL's scope of work: Basic engineering, detail engineering, procurement, construction supervision

Commissioning: 2017

6 reasons why to opt for us

- Reliability
- Sense of responsibility
- Quality
- Competent advice
- Tailor-made solutions
- Long years' experience

THE PATH TO THE FUTURE

Developing new technologies, improving existing ones and keeping an eye on economic aspects and current trends – that is what we stand for as EDL. Issues such as climate change, scarcity of resources or environmental protection are of great relevance for the company.

To meet the more exacting requirements of our customers and the market, we have continuously expanded our process competence over the last few years. In this process two priorities have taken shape when it comes to process engineering.

On the one hand the focus is on a better and primarily sustainable processing of heavy refinery residues and used oils. We offer efficient proprietary technologies for the production of high-quality products like ecofriendly tender oils (TDAE, TRAE) and deoiled waxes boosting the competitiveness of refineries. On the other hand, we develop and implement holistic technological solutions that can be used to make climate-friendly, synthetic products based on resource-saving processes using renewable energies (Power-to-X).

“On our path to the future we aim for solutions that improve industrial processes, are adjusted to the changed requirements of our customers and make a valuable contribution to climate protection.”

Jan Schwartze, Manager of Process Department

POWER2X
EDL•TECHNOLOGY

POWER-TO-X

Renewable energies to produce climate-friendly fuels and base chemicals

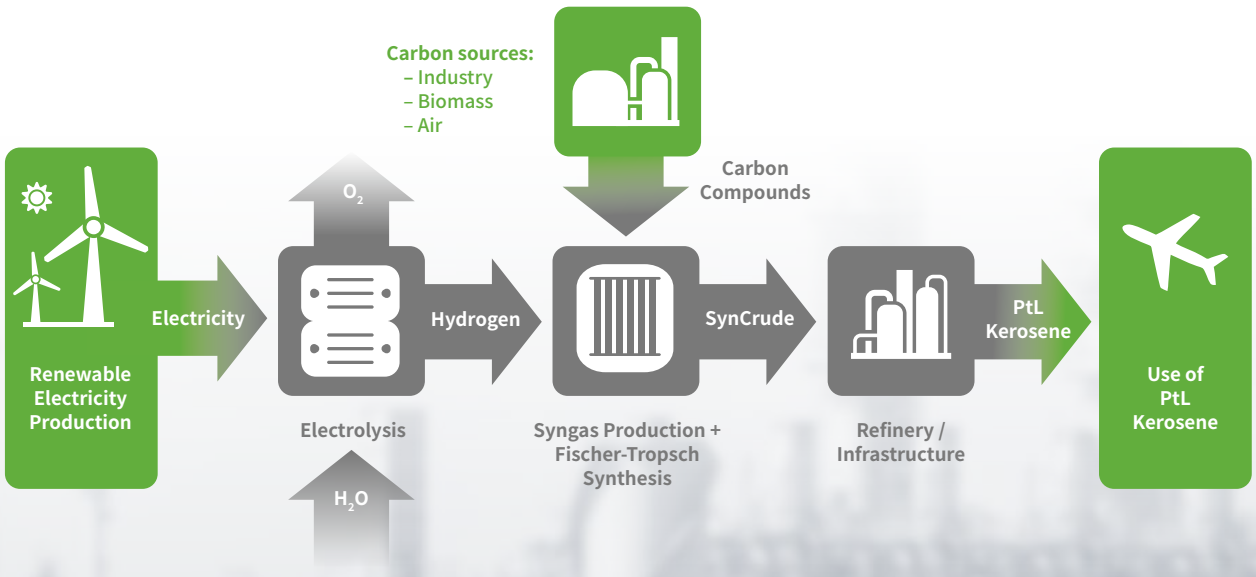
In our capacity as technology provider and system integrator, we develop industrial solutions for the production of power-based sustainable aviation fuels (SAF), also known as e-SAF or PtL kerosene. Quality characteristics such as an industrial operational safety, superior CO_2 efficiency, full scalability and standardized, high-quality SAF products are achieved not least by the unique combination of processes of world's leading technology providers and our proprietary technologies, and distinguish EDL's comprehensive technology solutions.

Our concepts are designed for systems using electrolysis to produce hydrogen and other (intermediate) products and use CO_2 from the air as “green” carbon source, CO_2 from point sources and biogenic feedstock. Our plants mainly focus on PtL fuels, such as kerosene and Diesel as well as PtX chemical base materials, such as naphtha, methanol, and hydrogen. Commercial PtL plants can already be supplied for the production of kerosene, naphtha and hydrogen using renewable electricity as well as biomethane and CO_2 as carbon source.

The PtL kerosene provides major advantages, e.g.

- Full standard conformity according to ASTM D 756 A1 (SAF-FT Fuel Jet A1)
- Drop-in capability of fuel
- Process conformity according to RED II
- CO_2 emission-free production
- Almost no water consumption
- Full compatibility with existing logistics and filling infrastructure

Our PtL fuels are thus an excellent sustainable alternative to fossil fuels.



Solvent deasphalting (SDA)

Technology: Innovative technology to deasphalt heavy refinery residues by solvent extraction using different solvents (C_3 to C_6 and mixtures thereof) as single- or two-stage process.

Feedstock: Residues from crude oil processing, such as vacuum residue or hydrocracker residue (unconverted oil), heavy used oils, bunker oils or FCC residues (heavy recycle oil).

End products: Deasphalted oil (DAO), bright stock and residue (pitch), consisting of resins and asphalt. DAO is further processed in a hydrocracker (HC, RHC) or fluid catalytic cracker (FCC) to fuels or in lube refineries it is used as bright stock for further processing to base oils. The residue is used to produce bitumen.

Benefits: Optimum product qualities at high process efficiency; operational cost savings up to 25% compared to conventional SDA technologies; extremely low investment cost compared to other residue technologies; yield increase up to 10% when optimizing existing SDA units using the SDA PLUS technology.

Solvent extraction

Technology: Innovative extraction technology based on agitated column internals using furfural and NMP as solvents including co-solvents.

Feedstock: Vacuum distillate (lube cuts) and deasphalted oils from SDA plants.

End products: Base oils with reduced aromatics content to produce lube oils as well as process and tender oils resp. for the production of tires, such as high-aromatic extracts (DAE and RAE) and treated high-aromatic extracts (TDAE and TRAE) with reduced content of polycycle aromatics (PCA).

Benefits: High flexibility in the feedstock due to the choice between single- or two-stage extraction for improved product quality, optimized solvent selection; excellent heat integration; up to 50% higher capacity with the product quality being the same when using agitated column internals.

Dewaxing

Technology: Innovative dewaxing technology using solvents (solvent dewaxing) and scraped-surface heat exchangers and vacuum drum filters.

Feedstock: Base oils and deasphalted oil (bright stock) from the SDA plant for lubricant processing.

End products: Dewaxed base oils with defined pour points for industrial use as lubricant and slack wax for wax production.

Benefits: Processing of medium to heavy feedstock; significant reduction of investment and operational costs; energy savings due to better heat integration of the plant.

Deoiling

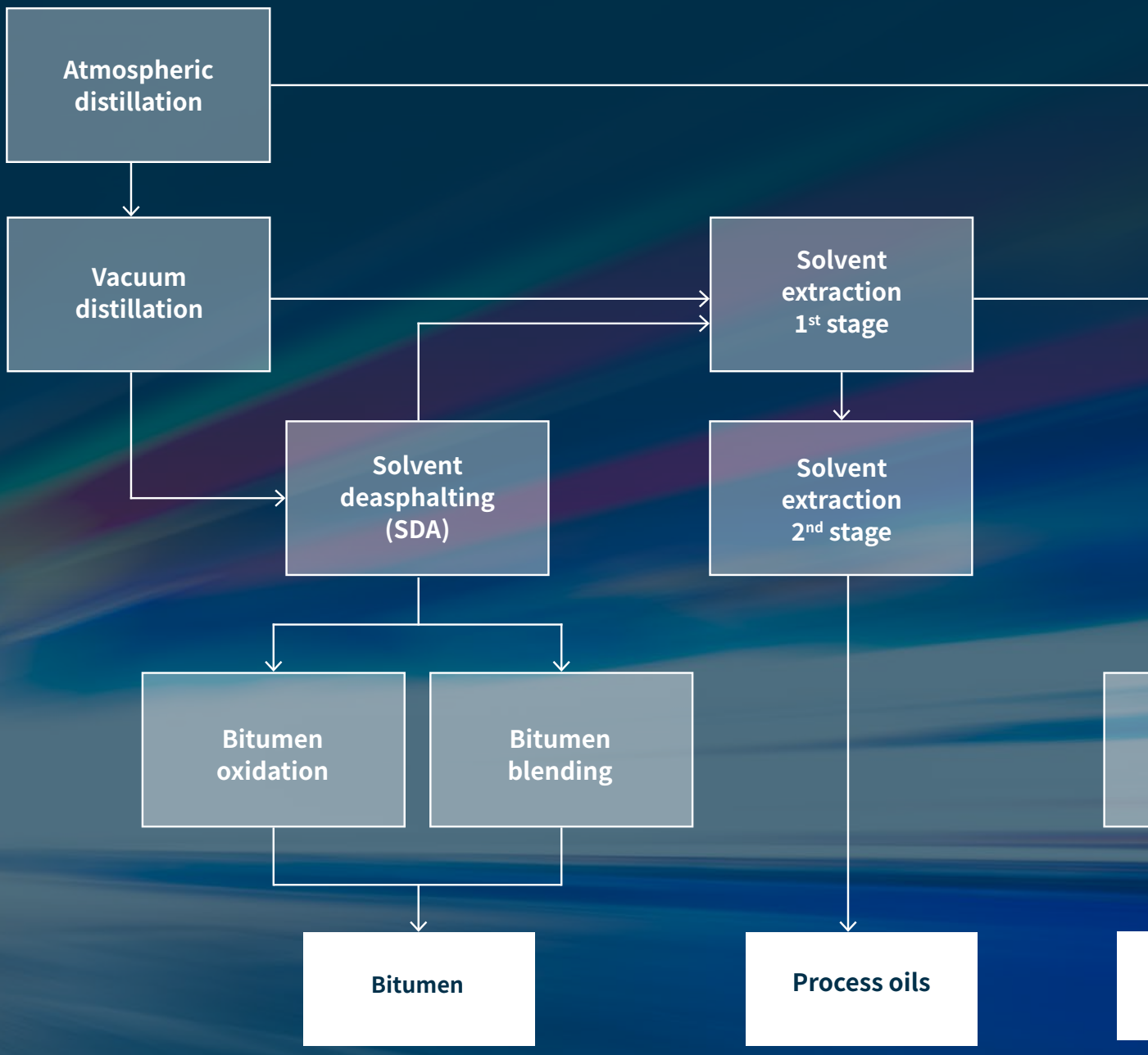
Technology: Innovative technology to deoil macrocrystalline (sweating, SULZER) and microcrystalline waxes (solvent deoiling, EDL) and a combination of both.

Feedstock: Microcrystalline and macrocrystalline slack wax from dewaxing with oil contents of 3 to 10%.

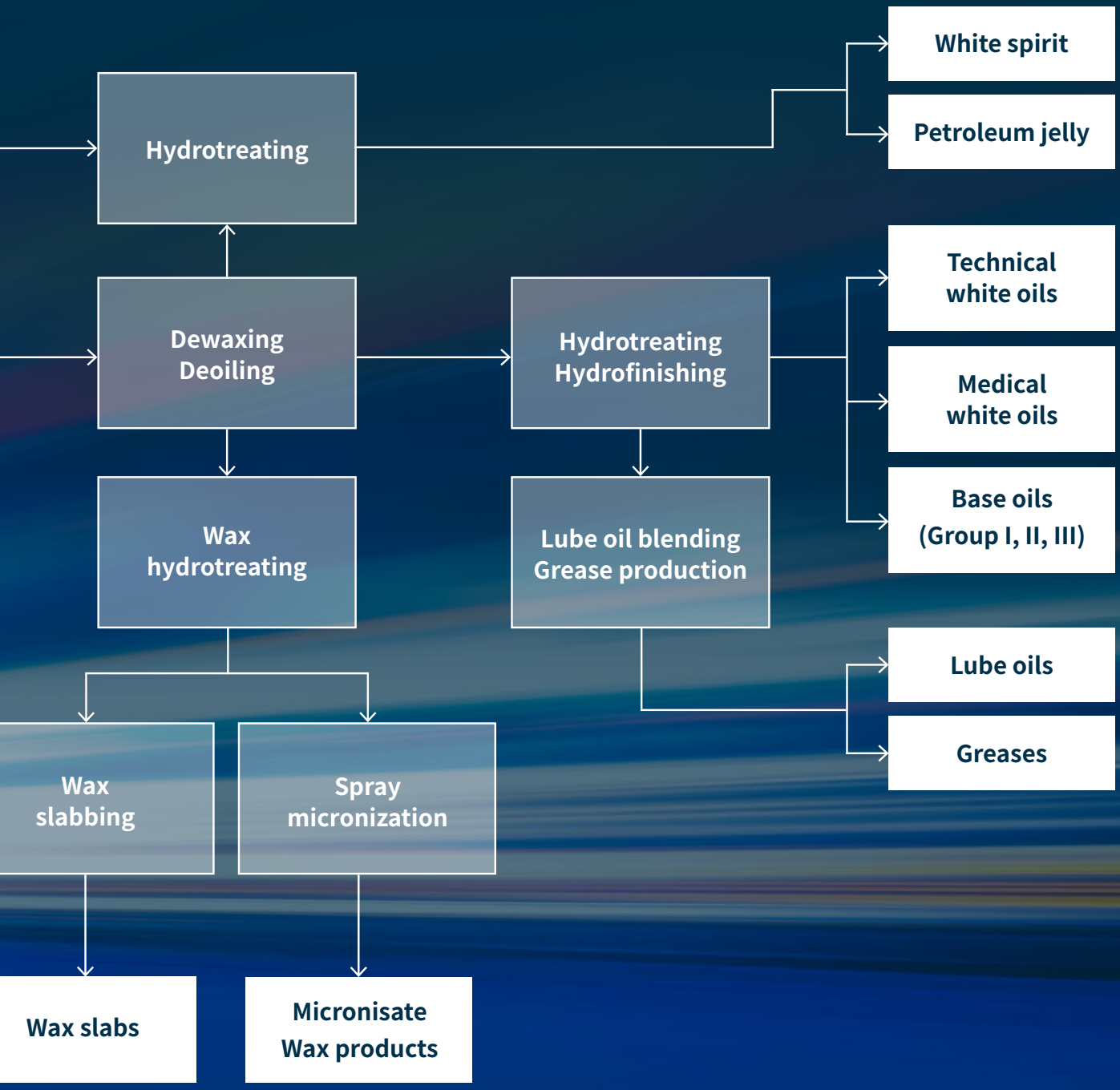
End products: Microcrystalline and macrocrystalline hard waxes with an oil content below 0.5% (1%).

Benefits: Ideal for capacity increase of existing facilities by seamless integration, reduction of investment costs when both processes are combined.

TECHNOLOGIES FOR THE FUTURE



For several years, EDL has been developing process know-how using proprietary technologies. The processes are to achieve a better and more sustainable handling of refinery residues and produce high-quality products with a huge demand on the world market. They also contribute a lot when it comes to a responsible use of raw material resources.



BTX aromatics extraction

Technology: Innovative technology for extractive distillation using glycol as solvent in the form of DEG, TEG or TTEG and mixtures with NMP as solvent to get high-purity BTX aromatics.

Feedstock: Fractions with a high content of BTX aromatics from reformer or FCC plant.

End products: High-purity BTX aromatics such as benzene for synthesis, toluene with TDI purity or m-, p- or o-xylenes for chemical synthesis.

Benefits: Throughput increase by 20 to 30%, energy consumption reduced by 10 to 50%, cost-efficient and improved process control; less corrosion; use of existing equipment to the greatest possible extent, optimum overall solution in terms of economy.

Low energy polymer dissolving

Technology: Novel, patented process for the application in lubricant blending; is used to dissolve and mix viscosity index (VI) improvers in base oils.

Feedstock: Polymers (VI improver) molten in base oil.

Benefits: Excellent product qualities; short solubility time with gentle mixing; no risk of turbidity and coking; high solubility rate under pressure at low temperature thus saving energy to a great extent, application tests at site using mobile EDL pilot plant.

CORPORATE CULTURE

The company that was founded in 1991 has become a medium-sized enterprise with a staff of almost 200 and different sites. How can a good corporate climate and cooperation be maintained? It is achieved by our code of conduct with the four pillars below.

Integrity

Competent action, reliability, fairness, honesty, respect and listening

Responsibility

Ensuring risk management, zero tolerance in safety matters, health and environmental protection

Innovation

Openness for changes, customer-oriented and cost-conscious solutions, further development

Cooperativeness

Open communication, sharing knowledge, self-discipline, time management, cooperative working atmosphere

OUR VALUES

Integrity and respect

Integrity and respect coupled with humanity are fundamental maxims at EDL. It is the basis to act on all levels in a fair, open-minded and honest as well as reliable manner. Appreciation has nothing to do with origin and position. Whatever we do respectful interaction with each other both within the company and with customers and business partners are important.

Responsibility

We assume responsibility, bring in our creativity and are ready to fully develop our potential. Performance results from acting on one's own responsibility bringing joy. Our employees enjoy great confidence but the overall success of the company is always the central goal. Utmost priority in our working processes is given to safety.

We assume responsibility for the sustainability of our actions. Sustainability means for us to think about tomorrow today und ensure the basis of existence of future generations. It includes, for instance the considerate approach to all resources and responsible interaction with our fellow human beings on all levels and from all areas.

Innovation

Innovation has always been deeply rooted in the heart and mind of this company. With great passion for plant engineering and permanent and cost-efficient innovation we contribute to the value enhancement of our customers' facilities. We rely on professional expertise and cooperation to pave the way for improvements and innovative changes. Moreover, we are always open to new views and undergo a continuous learning process.

Cooperativeness

Cooperativeness is an important basic value of daily work. We deal with diverse national, European, international and intercultural relationships and thus increase our potential and our impact. We place much emphasis on an open and respectful communication and share knowledge, experience and solutions. Cooperative conduct and connectedness of the employees are of major importance to us.

Various company events help to create a sense of togetherness and identification with the company.

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